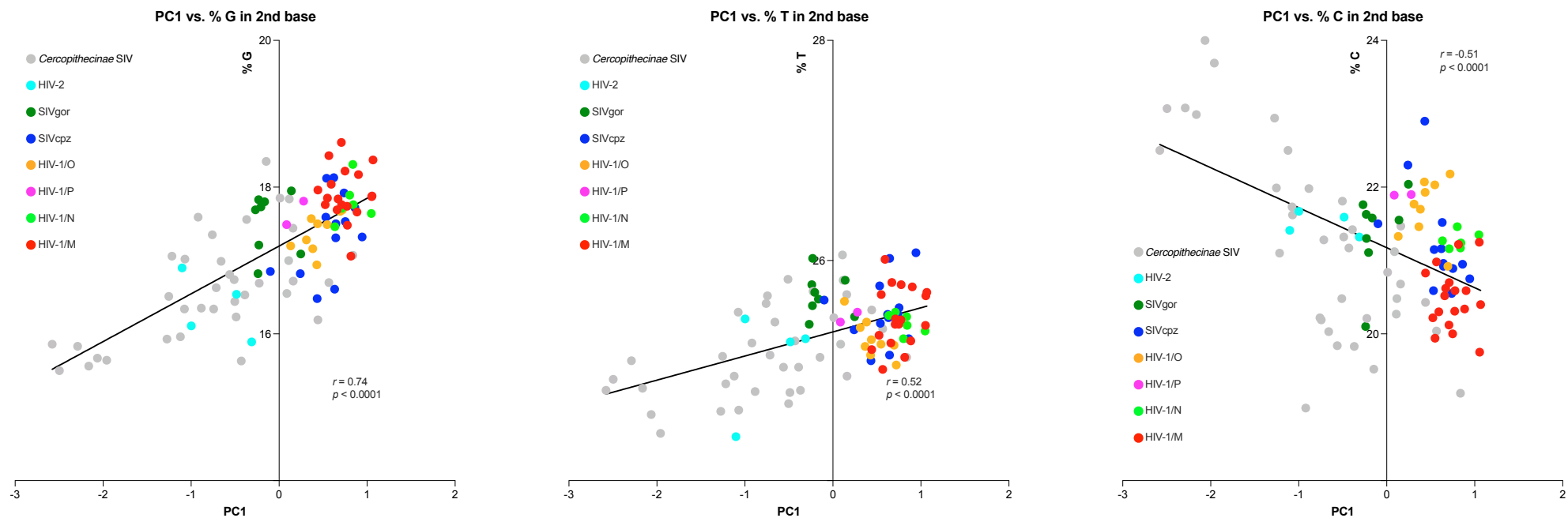


**Supplementary Figure S1.** Correlation between the PC1 score and nucleotide content in the first codon position.



**Supplementary Figure S2.** Correlation between the PC1 score and nucleotide content in the second codon position

**Supplementary Table S1.** List of 96 genome sequences from primate lentiviruses: 37 sequences from SIV infecting Old-World monkeys, 4 from HIV-2, 20 from SIV infecting African apes, and 35 from HIV-1 (9 from group O, 2 from group P, 7 from group N, and 17 from the pandemic group M). From each genome sequence we selected the non-overlapping region that encodes the 8 proteins common to all primate lentiviruses (*gag*, *pol*, *env*, *tat*, *rev*, *vif*, *vpr*, and *nef*) and we excluded the coding region of *env* that corresponds to the Rev Responsive Element (RRE, 246 nt). We report the length of the non-overlapping coding sequence, the number of codons within the non-overlapping coding sequence, and the effective number of codons (ENC) determined as in Wright, *Gene*, **1990**, 87:23-29 (ref. 17).

#	Virus species	Isolate	NCBI acc. #	Length non-overlapping CDS (nt)	Number of codons	Effective number of codons	Host
1	<i>Cercopithecinae</i> SIV	SIVgsn (99CM71)	AF468658	7257	2419	49.5	<i>C. nictitans</i>
2	<i>Cercopithecinae</i> SIV	SIVgsn (99CM166)	AF468659	7182	2394	50.6	<i>C. nictitans</i>
3	<i>Cercopithecinae</i> SIV	SIVmus (01CM1246)	EF070329	7377	2459	50.3	<i>C. cephus</i>
4	<i>Cercopithecinae</i> SIV	SIVmus (01CM1239)	EF070330	7335	2445	49.9	<i>C. cephus</i>
5	<i>Cercopithecinae</i> SIV	SIVmon (99CMCML1)	AY340701	7329	2443	53.3	<i>C. mona</i>
6	<i>Cercopithecinae</i> SIV	SIVasc (RT03)	KJ461716	7461	2487	46.1	<i>C. ascanius</i>
7	<i>Cercopithecinae</i> SIV	SIVasc (RT11)	KJ461714	7554	2518	46.3	<i>C. ascanius</i>
8	<i>Cercopithecinae</i> SIV	SIVasc (RT08)	KJ461715	7464	2488	46.2	<i>C. ascanius</i>
9	<i>Cercopithecinae</i> SIV	SIVsmm (CFU212)	JX860407	7215	2405	44.6	<i>C. atys</i>
10	<i>Cercopithecinae</i> SIV	SIVmne (027)	U79412	7287	2429	45.3	<i>M. nemestrina</i>
11	<i>Cercopithecinae</i> SIV	SIVsmm (E660-FL8)	JQ864086	7218	2406	44.0	<i>M. mulatta</i>
12	<i>Cercopithecinae</i> SIV	SIVsmm (SL92b)	AF334679	7233	2411	46.6	<i>C. atys</i>
13	<i>Cercopithecinae</i> SIV	SIVsmm (FTq)	JX860414	7200	2400	45.0	<i>C. atys</i>
14	<i>Cercopithecinae</i> SIV	SIVrcm (02CM8081)	HM803689	7230	2410	42.1	<i>C. torquatus</i>
15	<i>Cercopithecinae</i> SIV	SIVagi (00CM312)	HM803690	7203	2401	41.9	<i>C. agilis</i>
16	<i>Cercopithecinae</i> SIV	SIVgri (677)	M58410	7014	2338	46.8	<i>C. sabaeus</i>
17	<i>Cercopithecinae</i> SIV	SIVagmMal (ZMB)	LC114462	7218	2406	47.5	<i>C. cynosuros</i>
18	<i>Cercopithecinae</i> SIV	SIVagmVer (VSAC4004)	KR862336	7239	2413	46.5	<i>C. sp.</i>
19	<i>Cercopithecinae</i> SIV	SIVagmVer (VSAM0022)	KR862356	7275	2425	48.7	<i>C. sp.</i>
20	<i>Cercopithecinae</i> SIV	SIVagmVer (VSAG1003)	KR862363	7185	2395	46.7	<i>C. sp.</i>
21	<i>Cercopithecinae</i> SIV	SIVagmVer (155)	M29975	7350	2450	47.4	<i>C. aethiops</i>
22	<i>Cercopithecinae</i> SIV	SIVcol (CGU1)	AF301156	6996	2332	45.3	<i>C. guereza</i>
23	<i>Cercopithecinae</i> SIV	SIVmnd2 (5440)	AY159322	7449	2483	47.6	<i>M. leucophaeus</i>
24	<i>Cercopithecinae</i> SIV	SIVmnd2 (CM98CM14)	AF367411	7014	2338	45.8	<i>M. sphinx</i>
25	<i>Cercopithecinae</i> SIV	SIVmnd2 (M14)	AF328295	7422	2474	45.8	<i>M. sphinx</i>
26	<i>Cercopithecinae</i> SIV	SIVdrl (D4)	KM378564	7386	2462	45.9	<i>M. leucophaeus</i>
27	<i>Cercopithecinae</i> SIV	SIVdrl (D3)	KM378563	7431	2477	45.3	<i>M. leucophaeus</i>
28	<i>Cercopithecinae</i> SIV	SIVmnd1 (GB1)	M27470	7464	2488	40.7	<i>M. sphinx</i>
29	<i>Cercopithecinae</i> SIV	SIVsun (lambda20L14/S2)	AF131870	7113	2371	44.7	<i>C. solatus</i>
30	<i>Cercopithecinae</i> SIV	SIVhoest (7)	AF075269	6960	2320	43.4	<i>C. lhoesti</i>
31	<i>Cercopithecinae</i> SIV	SIVhoest (524)	AF188116	7026	2342	43.5	<i>C. lhoesti</i>
32	<i>Cercopithecinae</i> SIV	SIVhoest (485)	AF188115	7053	2351	42.9	<i>C. lhoesti</i>
33	<i>Cercopithecinae</i> SIV	SIVsyk (KE51)	AY523867	7185	2395	44.7	<i>C. albogularis</i>
34	<i>Cercopithecinae</i> SIV	SIVtal (00CM266)	AY655744	7197	2399	50.3	<i>M. ogouensis</i>
35	<i>Cercopithecinae</i> SIV	SIVdeb (CM40)	AY523865	7326	2442	45.7	<i>C. neglectus</i>
36	<i>Cercopithecinae</i> SIV	SIVdeb (CM5)	AY523866	7269	2423	45.5	<i>C. neglectus</i>
37	<i>Cercopithecinae</i> SIV	SIVdeb (04CMPF3061)	FJ919724	7212	2404	46.1	<i>C. neglectus</i>
38	HIV-2	HIV-2 (Abt96)	AF208027	7281	2427	46.9	<i>H. sapiens</i>
39	HIV-2	HIV-2 (BEN)	M30502	7080	2360	47.1	<i>H. sapiens</i>
40	HIV-2	HIV-2 (ALI)	AF082339	7074	2358	45.2	<i>H. sapiens</i>
41	HIV-2	HIV-2 (EHO)	U27200	7065	2355	45.9	<i>H. sapiens</i>
42	<i>Homininae</i> SIV	SIVgor (BQID2)	KP004991	7530	2510	47.3	<i>Gorilla gorilla</i>
43	<i>Homininae</i> SIV	SIVgor (CP2139.287)	FJ424866	7494	2498	46.1	<i>Gorilla gorilla</i>

44	<i>Homininae</i> SIV	SIVgor (BPID15)	KP004990	7539	2513	46.8	<i>Gorilla gorilla</i>
45	<i>Homininae</i> SIV	SIVgor (BPID1)	KP004989	7614	2538	46.7	<i>Gorilla gorilla</i>
46	<i>Homininae</i> SIV	SIVgor (CP2135con)	FJ424863	7479	2493	46.5	<i>Gorilla gorilla</i>
47	<i>Homininae</i> SIV	SIVgor (CP2139.1con)	FJ424864	7494	2498	46.5	<i>Gorilla gorilla</i>
48	<i>Homininae</i> SIV	SIVgor (CP684con)	FJ424871	7500	2500	46.6	<i>Gorilla gorilla</i>
49	<i>Homininae</i> SIV	SIVcpz (UG38)	JN091690	7527	2509	45.8	<i>P. t. schweinfurthii</i>
50	<i>Homininae</i> SIV	SIVcpz (TAN1)	AF447763	7578	2526	44.2	<i>P. t. schweinfurthii</i>
51	<i>Homininae</i> SIV	SIVcpz (TAN13)	JQ768416	7611	2537	44.8	<i>P. t. schweinfurthii</i>
52	<i>Homininae</i> SIV	SIVcpz (BF1167)	JQ866001	7542	2514	42.6	<i>P. t. schweinfurthii</i>
53	<i>Homininae</i> SIV	SIVcpz (EK505)	DQ373065	7389	2463	43.2	<i>P. t. troglodytes</i>
54	<i>Homininae</i> SIV	SIVcpz (US.85.CPZUS)	AF103818	7356	2452	43.9	<i>P. t. troglodytes</i>
55	<i>Homininae</i> SIV	SIVcpz (DP943)	EF535993	7371	2457	44.3	<i>P. t. troglodytes</i>
56	<i>Homininae</i> SIV	SIVcpz (CAM13)	AY169968	7425	2475	43.2	<i>P. t. troglodytes</i>
57	<i>Homininae</i> SIV	SIVcpz (GAB2)	AF382828	7380	2460	43.9	<i>P. t. troglodytes</i>
58	<i>Homininae</i> SIV	SIVcpz (MB897)	EF535994	7338	2446	44.4	<i>P. t. troglodytes</i>
59	<i>Homininae</i> SIV	SIVcpz (MT145)	DQ373066	7338	2446	43.9	<i>P. t. troglodytes</i>
60	<i>Homininae</i> SIV	SIVcpz (LB7)	DQ373064	7356	2452	44.1	<i>P. t. troglodytes</i>
61	<i>Homininae</i> SIV	SIVcpz (LB715)	KP861923	7566	2522	43.3	<i>P. t. troglodytes</i>
62	HIV-1, group O	HIV-1 (O-99SE-MP1300)	AJ302647	7494	2498	43.6	<i>H. sapiens</i>
63	HIV-1, group O	HIV-1 (O-99SE-MP1299)	AJ302646	7548	2516	44.1	<i>H. sapiens</i>
64	HIV-1, group O	HIV-1 (O-98CMU2901)	AY169812	7479	2493	45.2	<i>H. sapiens</i>
65	HIV-1, group O	HIV-1 (O-9CM105)	AY169816	7449	2483	44.0	<i>H. sapiens</i>
66	HIV-1, group O	HIV-1 (O-LA30ORB125)	KU168282	7521	2507	43.8	<i>H. sapiens</i>
67	HIV-1, group O	HIV-1 (O-97CMABB497)	AY169809	7509	2503	45.5	<i>H. sapiens</i>
68	HIV-1, group O	HIV-1 (O-LA31BCF108)	KU168283	7389	2463	43.8	<i>H. sapiens</i>
69	HIV-1, group O	HIV-1 (O-97CMABB447)	AY169813	7488	2496	43.2	<i>H. sapiens</i>
70	HIV-1, group O	HIV-1 (O-97US08692A)	AY169805	7551	2517	44.6	<i>H. sapiens</i>
71	HIV-1, group P	HIV-1 (P-U14788)	HQ179987	7557	2519	47.6	<i>H. sapiens</i>
72	HIV-1, group P	HIV-1 (P-RBF168)	GU111555	7521	2507	47.0	<i>H. sapiens</i>
73	HIV-1, group N	HIV-1 (N-04CM-1015-04)	DQ017382	7401	2467	43.0	<i>H. sapiens</i>
74	HIV-1, group N	HIV-1 (N-02CM-DJO0131)	AY532635	7434	2478	43.0	<i>H. sapiens</i>
75	HIV-1, group N	HIV-1 (N-YBF30)	AJ006022	7428	2476	43.0	<i>H. sapiens</i>
76	HIV-1, group N	HIV-1 (N-14003718)	MF767262	7425	2475	43.8	<i>H. sapiens</i>
77	HIV-1, group N	HIV-1 (N-S4858)	KY498771	7425	2475	43.1	<i>H. sapiens</i>
78	HIV-1, group N	HIV-1 (N-04CM-1131-03)	DQ017383	7434	2478	43.1	<i>H. sapiens</i>
79	HIV-1, group N	HIV-1 (N-CM YBF106)	AJ271370	7404	2468	43.8	<i>H. sapiens</i>
80	HIV-1, group M	HIV-1 (M-CRF01-AETH04BKM)	DQ314732	7407	2469	43.6	<i>H. sapiens</i>
81	HIV-1, group M	HIV-1 (M-F-CM53657)	AF377956	7374	2458	43.2	<i>H. sapiens</i>
82	HIV-1, group M	HIV-1 (M-C-02ZMJM)	AB254156	7467	2489	42.0	<i>H. sapiens</i>
83	HIV-1, group M	HIV-1 (M-C-011BI)	MF373132	7482	2494	42.8	<i>H. sapiens</i>
84	HIV-1, group M	HIV-1 (M-C-DEMC00IN008)	KP109483	7476	2492	43.5	<i>H. sapiens</i>
85	HIV-1, group M	HIV-1 (M-C-DEMC96BW002)	KY658708	7443	2481	42.2	<i>H. sapiens</i>
86	HIV-1, group M	HIV-1 (M-C-CH131 TF)	KC156114	7422	2474	42.9	<i>H. sapiens</i>
87	HIV-1, group M	HIV-1 (M-H-90CR056)	AF005496	7386	2462	43.0	<i>H. sapiens</i>
88	HIV-1, group M	HIV-1 (M-G-A1786)	FJ389367	7413	2471	42.7	<i>H. sapiens</i>
89	HIV-1, group M	HIV-1 (M-G-515-28)	FJ389365	7344	2448	46.1	<i>H. sapiens</i>
90	HIV-1, group M	HIV-1 (M-A-70641)	MH705151	7563	2521	43.2	<i>H. sapiens</i>
91	HIV-1, group M	HIV-1 (M-A1-DEMA109UG001)	KF716478	7446	2482	43.1	<i>H. sapiens</i>
92	HIV-1, group M	HIV-1 (M-D-92UG001)	AJ320484	7419	2473	42.8	<i>H. sapiens</i>
93	HIV-1, group M	HIV-1 (M-B-R8)	KT200357	7392	2464	43.0	<i>H. sapiens</i>
94	HIV-1, group M	HIV-1 (M-B-1057-01)	AY331292	7425	2475	43.7	<i>H. sapiens</i>
95	HIV-1, group M	HIV-1 (M-B-DEMB10TH002)	KP109514	7356	2452	42.9	<i>H. sapiens</i>
96	HIV-1, group M	HIV-1 (M-B-VH)	AF146728	7425	2475	43.3	<i>H. sapiens</i>

**Supplementary File S1.** Dataset of 23 genome sequences from virus species representative of the family *Retroviridae*: 20 from members of the *Orthoretrovirinae* subfamily (2 from each genus *Alpha-*, *Beta-*, *Gamma-*, *Delta-*, and *Epsilonretrovirus*, and 10 from genus *Lentivirus*) and 3 from members of the *Spumaretrovirinae* subfamily. From each genome sequence we selected the non-overlapping region that encodes the structural proteins Gag, Pol, and Env. Each nucleotide sequence contains the name of the virus species, the NCBI ac. number and the length of the coding region. The order of presentation of the sequences is as follows:

1. Avian leukosis virus (ALV), *Alpharetrovirus*
2. Rous sarcoma virus (RSV), *Alpharetrovirus*
3. Mouse mammary tumor virus (MMTV), *Betaretrovirus*
4. Mason-Pfizer monkey virus (M-PMV), *Betaretrovirus*
5. Human T-lymphotropic virus 1 (HTLV-1), *Deltaretrovirus*
6. Bovine leukemia virus (BLV), *Deltaretrovirus*
7. Walleye dermal sarcoma virus (WDSV), *Epsilonretrovirus*
8. Walleye epidermal hyperplasia virus type 1 (WEHV1), *Epsilonretrovirus*
9. Friend murine leukemia virus (FMLV), *Gammaretrovirus*
10. Feline leukemia virus (FLV), *Gammaretrovirus*
11. Bovine foamy virus (BFV), *Spumaretrovirinae*
12. Feline foamy virus (FFV), *Spumaretrovirinae*
13. Simian foamy virus human-isolate (SFV), *Spumaretrovirinae*
14. Bovine immunodeficiency virus (BIV), *Lentivirus*
15. Feline immunodeficiency virus (FIV), *Lentivirus*
16. Caprine arthritis encephalitis virus (CAEV), *Lentivirus*
17. Equine infectious anemia virus (EIAV), *Lentivirus*
18. Human immunodeficiency virus type 1 (HIV-1), *Lentivirus*
19. Human immunodeficiency virus type 2 (HIV-2), *Lentivirus*
20. Simian immunodeficiency virus (SIV), *Lentivirus*
21. Jembrana disease virus (JDV), *Lentivirus*
22. Puma lentivirus (PLV), *Lentivirus*
23. Visna/maedi virus (VMV), *Lentivirus*

>#1 Avian leukosis virus (ALV) Z46390 6306 nt  
gtgatttcgtccgcgtgtaaaacctattgcggaaaaacctctccttctaagaaggaaatcggggccatgttgtccc  
tcttacaaaaggaagggttgcttatgtctccctcagacttatactcccggggctcctgggatcccatcactgcggc  
gctctcccagcgggcaatgggtacttggaatcgggggagttaaaaacctggggattgggtgttggggcattgaag  
gcggctcgagaggaacaggttacatctgagcaagcaaagttttggttggggctagggggaggagggtctctcccc  
caggtccggagtgtatcgaaaaaccagcaacggagcggcggatcgacacaggggaggaagcgagagagacaactgt  
gcagcaagatgcgaagatggcgccggaggaaacggccacacctaaaaccgttggcacatcctgctatcattgcgga  
acagctattgggtgtaattgcgccacagcctcgcccccctcctcctccttatgtggggagtggtttgtatccttccc  
tggcggggttgggagagcagcagggccaggggggtgacacacctcggggggcggaacagccaagggcggagccagg  
gcacgcgggtctggcccctgggcccgcctgactgactgggcaaggatcaggaggagcttgcgagtacaggtccg  
cccgtggtggccatgcttgtagtattaagacagagggaccgcctggaccctctggagccaaaattgatcacia  
gactggctgatacggtcaggaccaagggttacgatccccgatcactatggcggaggtggaagcgcttatgtcctc  
cccgtgctgcccgatgacgttacgaatctaattgagagttatttttaggacctgccccatatgccttgtggatggac  
gcttgggggtgtccaactacagacggttatagcggcagccactcgcgacccccgacacccagcgaatggtcaagggc  
ggggggaacggactaatttggatcgcttaaagggttttagctgatgggatggtgggcaaccgcgagggtcaggccgc  
attattaagaccgggggaattggttgctattacggcgtcggctctccaggcatttagagaggttgcccggtggcg  
gaacctgctggtccatgggcggaacattacgcagggaccatctgagtcctttgttgattttgccaatcggttataa  
aggcggttgaggggtcagatctccgccttccgcgcgagctccggtgatcattgactgctttaggcagaagtcaca  
gccagatatccagcagcttatacgggcagcacctccacgctgaccaccccaggagagataatcaaatatgtgcta  
gacaggcagaagactgccctcttacggatcaaggcatagccgcggccatgtcgtctgctatccagcccttagtta

tggcagtagtcaatagagagaggggatggacaaactgggtcgggtgggtcgtgcccagagggtctctgctacacttgtgg  
atccccgggacattatcaggcgagtgcccgaaaaaacgaaaatcaggaaacagccgtgagcgatgtcagttgtgt  
gacgggatgggacacaacgctagacagtgtaggaagcgggatggcaaccagggccaacgcccaggaagaggtctct  
cttcggggccgtggcccgccccctgagccgctgccgtctcgttagcgatgacaatggaacatagagatcgccccctt  
ggtaggggtcattctgactaacactgggagtcacccggtcaaacagcgctcgggtgtatatcaccgcgctgttggac  
tccggagcggacatcactattatttcggaggaggactggcctactgattggccgggtgggtggacaccggaacccac  
agatccatggcatagggagggggaattcccatgcgaaaaatctcgtgacatgatagagttaggggttattaaccgaga  
cgggtctttggagcgacccctgctcctcttccccgcagtagctatgggttagagggagtatcctgggaagagattgt  
ctgcagggcctagggctccgcttgacaaaatttatagactgttgcgctacatctggctattccgctcaaatggaagc  
cagaccacacgcctgtgtggattgaccagtggcccccttctgaggggtaaacttgtagcgctaacgcaattagtggga  
aaaagaattacagtttaggacatatagaaccttcacttagttgttggaacacacctgtctttgtgatccggaaggct  
tctgggtcttatcgtttattgcatgacttgcgcgctgttaacgccaagcttggtccttttggggccgtccaacagg  
gggcgccagttctctccgcgctcccggctggctggccccctgatgggtcctagacctcaaggattgcttttttctat  
tcctcttgcggaacaagatcgcggaagcttttgcatttacgctccccctctgtgaataaccaggcccccgctcgaaga  
ttccaatggaaggctcttgcccccaagggatgacctgttctcccactatctgtcagttgatagtgggtcagggtacttg  
agcccttgcgactcaagcacccatctctgcgcatgttgcatcatgagtgatcttttgctagccgcctcaagtca  
tgacaggttggaagcggcaggggaggaggttattagtacactggaaagagccgggttcaccatttcgctgataag  
gtccaaagggagcccggagtacaatatcttggttacaagtttaggcagtagctatgtagcacccgtaggtctggtag  
cagaaccaggatagccaccttgtgggatgttcaaaagctgggtgggatcacttcagtggttcgccccctgcattagg  
aatccccgccacgactgatggggcccccttttatgagcagttgcgggggtcagaccctaacgaggcgaggggaatggaat  
ctagacatgaaaatggcctggagagagattgtacagctcagcaccactgctgccttggaacgatgggacctgccc  
tgcctctggaaggagcggctcgctagatgtgaacagggggcaataggggtcctgggacagggactgtccacacacc  
aaggccatgcttgtgtgttattctccaccaacccaccaaggcgtttactgcttgggttagaagtgtcacccctctg  
attactaagctacgtgcttcggcagtgccgacctttggcaaagaggttgatatacctcctgttgcctgcatgctttc  
gggaggaccttcgctgcccggaggggatcctgctagcccttaagggttgcaggaaaaatcaggagtagtgatac  
gccatctatctttgacattgcgcgctccactgcatgtttctctgaaagtgaggggtaccgaccaccctgtgctagga  
cccactgtctttactgacgcctcctcaagcacccataaggggggtggtagtctggagggagggcccaagggtgggaga  
taaaagaaatagctgatttgggagcaagtgtacaacaactggaggcacgcgctgtggccatggcacttctgctgtg  
gccgacaacgcccacgaatgtagtgactgactccgcgtttgttgcgaaaaatgctactcaagatgggacagggagga  
gtcccgctctacagcggcggtttttattttagaggatgcgttaagccaaaggtcagccatggccgcccgttctccacg  
tgccgagtcattctgaagtgccagggtttttcacggaaggtaatgacgtggcagatagccaagccacctttcaagc  
gtatcccttgagagaggctaaagatcttcataaccgctctccatattggacccccgcgctctataaagcgtgtaat  
atatctatgcagcaggctagggaggttgttcagacctgcccgcattgttaattcagccccctgcgttggaggccgggg  
taaaccctaggggtttgggacccctacagatatggcagacagactttacgcttgagcctagaatggccccccgttc  
ctggcttgcgtgttactgtggataccgcctcatcagcgatagtcgtaactcagcatggccgtgtcacatcggttgct  
gcacaacatcattggggccacggctatcgccgttttggaagaccaaaaggccataaaaaacagataatgggtcctgct  
tcacgtctaaatccacgcgagagtggctcgcgagatgggggatagcacacaccaccgggattccaggtaattccca  
gggtcaagctatggtagagcgggccaaccggctcctgaaggataagatccgtgtgcttgccggagggggacggcttt  
atgaaaagaatccccaccagcaaacagggggaactactagccaaggcaatgtatgccctcaatcactttgagcgtg  
gtgaaaaacacaaaaacaccaatacaaaaaacactggagacctaccgttcttacagaaggacccccgggttaagatacg  
aatagagacaggggagtgggaaaaaggatggaacgtgctagtctggggacgaggttatgccgctgtgaaaaacagg  
gacactgataagggttatttgggtaccttctcggaaggttaaaccggacatcacccaaaaggatgaggtgactaaga  
aagatgaggcgagccctctctttgcaaagaagccgccagcaacaagcaagaaagacccggagaagacacccttgct  
gccatcgagaggttacttcttcttcaaatgatacttgtgtgcgtgggttattatttccgttgtccagggggtggg  
ggagttcatctattgcaacaaccaggaaacgtgtgggtcacctgggcaataagacggggccgaacagatttttgcc  
ttagtctacagtcagcgacctcaccattccgcacctgcttgataggcattccacagtatcctctgaacacctttaa  
gggatatgtcactaatgttactgcttgcgataacaacaccgatttagccagccaaacagcatgcttgataaaggct  
ctaaatacaaccctcccttgggaccccccaagaattggatatttttaggggtccagatgatcaagaacggaacaacac  
gtacgtgtgttacctttgggttcgggtgtgctataaagagaacaatcgcagtagagtcgtgcacaattttgatgggaa  
tgtaaatgggactgggtggggcggaacgagagttgcgtgacttcatagcaaaaatggaaaagtgatgaccttcttata  
aggccctatgtcaaccaatcatggacgatggtaagtcctaataaacgtagagagtttttcaataagtcgtagatatt  
gtggattcaccagtaacgagactcgttactatagaggggacctttctaattgggtgtagttcaaaaaggggagaatg  
gtcagcgggggtacagcaacggggacaaaatgttcagcaacacgacgggttgtgggtggtaattgcacaacggaatgg  
aattattatgcataatgggttaccttcggggaacagccagaggtgttgtggaacaatgggactgctaaggcactcc  
caccaggtattttctgatttgtggggacagggcttggcaaggcatcccgcgtaatgccttgggagggccctgtta  
tctaggaacaattgactatgctctctcctaactttaccacctggataacatatgggccgaacattacgggtcaccac  
cgtagcaggcgctcgctgagtcgtctctcgcctgactgcggtgatgagctacagctatggagtgtagcagcccgga  
tatttgcttcttcttcttctgctcctggatatagcagcagcacaggccctaaaggagatcgagcgattggcatgttggtc  
ggtaagcaagcgaatttaacatcattaatattgaatgcgatgctggaggatacaagcagtatccggcacgcagtg  
ttgcagaatcgagcagccatcgatttcttactcctggcgagggacacgggtgtcaagacgtagaagggtatgtgct

gcttcaatctcagcgatcatagtgagtgccattcataagggcgtccaagccatgaaggaacatacagagaagatacgg  
ggtggaagatgatcccataggggattgggttacgcgcacgtttgggtgatctaggaaggtggctcgcgaaaggtgtt  
aagacgctactgtttgccttgcttgcatagcctgtctattagctatcattccatgtgtaatacagtgctttcagg  
attgtctatcagagaacaatgaatcagtttatggatgaacgcataagatatcatagaattagggagcagctgtag  
>#2 Rous sarcoma virus (RSV) AF052428 6372 nt  
gtgatttcgtccgcgtgtaagacctattgcgggaaaacctctccttctaagaaggaaataggggctatgtttgtccc  
tgttacaaaaggaaggggttgcttatgtctccctcagacttatattccccggggctcctgggatcccattaccgcggc  
gctctcccagcgggcaatgggtacttggaatacgggagagttaaaaacctggggattgggttttgggggcattgaag  
gcggtcgcagaggaacaggttacatctgagcaagcaaagttttgggtgggattagggggaggagggtgggagaaacaactgt  
gcagcgagatgcaaagatggcgccggaggaaacggccacacctaaccggtggcacatcctgctatcattgcgga  
acagctattggctgtaattgcgccacagcctcgccccctcctcctccttacgtggggagtggtttgtatccttccc  
tggcggggggtgggagagcagcagggccaggggggtgacacacctcggggggcggaacagccaagggcgagccagg  
gcacgcgggtctggccctgggcccggccctgactgactgggcaaggatcagggaggagcttgcgagtacaggtccg  
cccgtgggtggccatgcctgtagtgattaagacagagggaccgcttgggaccctctggagccaaaattgatcaciaa  
gactggctgatacgggtcaggaccaagggcttacgatccccgatcactatggcagaagttgaagcgcttatgtcttc  
cccgtgctgcgcgatgacgttacgaatctaatagagagttatttttaggacctgccccatatgccttatggatggac  
gcttggggagtgccaactacagacgggttatagcggcagccactcgcgacccccgacatccagcgaacgggtcaagggc  
ggggggaacggactaacttggtatcgcttaaggggttagctgatgggatgggtgggcaaccacaggggtcaggccgc  
attattgagaccgggggaattgggtgctattacggcgtcggctctccaggcggttagagaggttgcccgattggcg  
gaacctgcaggtccatggcgggacatcacgcagggacctctgagtcctttgttgattttgccaatcggttataa  
aggcggttgaggggtcagatctccgccttccgcacgggtccgggtgatcattgactgcttttaggcagaagtcaca  
gccagatattcagcagcttatacgggcagcaccctctacgctgaccaccccaggagagataatcaaatatgtgcta  
gacaggcagaagattgccccctttacggatcagggcatagctgcgggccatgtcgtctgctattcagcccttagtta  
tggcagtagtcaatagagagagggacggacaaaactgggtcgggtgggtcgtgcccgaaggctctgctacacttggtg  
atccccgggacattatcaggcgcagtgcgccgaaaaaacgaaagtcaggaaacagccgtgagcgatgtcagctgtgt  
gacgggatggggcacaacgctaatacagtgtaggagacgggatagcaaccagggacagcgcccaggaagaggcctct  
cttcggggccatggcctgtctctgagcagcctgctgtttcgttagcgatgacaatggaacataaagatcgccccct  
ggttagggctacctgactaacactgggagtcacccgggtcaaacagcggttcgggtgtatatcaccgcgctgttggac  
tctggagcggacatcactattatttcagaggaggactggcctacggattggccgggtgggtggataccgcgaaccac  
agattcacggcataggaggaggaattcccatgcgaaagtctcgggacatgatagagttgggggttattaaccgaga  
cgggtcgttggagcgcacccctgctccttttccccgcgtagctatgggttagggggaggtatcctaggaagagattgt  
ctgcagggcctagggtccgcttgacaaaatttgtagactgttgcgctacatctggctattccgctcaaatggaagc  
cagaccacacgcctgtgtggattgaccagtgcccccttccctgaaggtaaaacttgtagcgctaacgcaattagtggga  
aaaagaattacagttaggacatatagaacctcacttagctgttggaacacacctgtctttgtgatccggaaggct  
tccgggtcttatcgcttattgcatgacttacgcgctgttaacgccaaagcttggtccttttggggctgtccaacagg  
ggcgccagttctctccgcgctcccgcggtgggtggccctgatgggtctagacctcaaggattgcttcttttctat  
tctcttgcggaacaagatcgcgaggcttttgcatttacgctccctctgtgaataaccaggcccccgctcgaaga  
ttccaatggaaggctcttgcccaagggatgacctgttctccactatctgtcagttggtagtggtcaggtacttg  
agcccttgcgactcaagcacccatctttgcgcatgttgcatatatggatgatcttttgctagccgcctcaagtca  
tgatgggttggaagcggcgggggaagaggttatcaatacattggaaagagccgggttcaccatttcgcctgataag  
atccagagggagcccgagtagacaatatcttgggtacaagttaggcagtagctatgtagcacccgtaggcctggtag  
cagaaccaggatagccaccttggtgggatgttcaaaagctgggtggggctcacttcagtggttcgcccagcggttagg  
aatcccgccacgactgatgggcccccttttatgagcagttacgaggggtcagatcctaacgagggcgagggaatggaat  
ctagacatgaaaatggcctggagagagatcgtagctcagcaccacgggtgccttggaacgatgggacctgccc  
tgctctggaaggagcggctcggttagatgtgaacagggggcaataggggtcctgggacagggactgtccacacacc  
aaggccatgtttgtgggtatttctccaccaaccaccaaggcggttactgcttggttagaagtgtcacccttttg  
attactaagctacgcgcttcggcagtgcgaaacctttggcaaggaggttgatatcctcctggttgctgcatgcttcc  
gggaggaccttccgctcccgagggggatcctgttagcccttaggggggttgaggaaaaatcaggagtagtgacac  
gccatctatttttgacatagcgcgtccactgcatgtttctctgaaagtgagggttaccgaccacctgtaccggga  
ccactgtctttactgacgcctcctcaagcacccataaggggggtggtagtctggagggagggcccaagggtgggaga  
taaaagaaatagctgatttgggagcaagtgtagacaacaactggaagcacgcgctgtggccatggcacttctgctgtg  
gccgacaacgcccactaatgtagtactgactccgcgtttgttgcgaaaatgttactcaagatggggcaggagga  
gtcccgtctacagcggcgccctttattttagaggtgcgttaagccaaaggtcagccatggcgccgttctccacg  
tgcgagctacattctgaagtgcagggtttttcacagaaggaaatgacgtggcagatagtcaggccacctttcaagc  
tatcccttgagagaggtcaagatcttcatactctccatattggaccgccgcgctatccaaagcgtgtaaat  
atatctatgcagcaggttagggaggttggttcagacctgcgcgattgtaattcagccctgcgttgaggccgggg  
taaatacctaggggttgaggacctacagatatggcagacagactttacgcttgagcctagaatggcccccggttc  
ctggctcgctgtcactgtggataccgcctcatcgcgatagtcgtaactcagcatggcggtgtcacatcggttgct  
gcacaacatcattggggccacggctatcgccgttttggaagaccaaaaggccataaaaaacagataacgggtcctgct

tcacgtctaaatccacgcgggagtggtctcgcgagatgggggatagcacacaccacgggattccgggaaattccca  
gggtcaagctatggttagagcgggccaaccggctcctgaaagataagatccgtgtgcttgcggaaggggacggcttt  
atgaaaagaatccccgccagcaaacagggggaactactagccaaagcaatgtatgccctcaatcactttgagcgtg  
gtgaaaacacgaaaacaccgggtacaaaaacactggagacctaccgttcttacagaaggacccccgggttaaatac  
aatagagacaggggagtggtgaaaaaggatggaacgtgctagtctggggacgaggttatgccgctgtgaaaaacagg  
gacactgataagggttatttgggtaccctctcgaaagggttaaaccggacatcacccaaaaggatgaggtgactaaga  
aagatgaggcgagccctctttttgcatatattctcattatttggtgtcctggtcttgtgtgaggttacgggggtaag  
agctgatgttcacttactcgagcagccggggaacctttggattacatgggcccagccgtacaggccaaacggatttc  
tgcctttctacacagtcagccacctcccccttttcaaacatggttgataggtatccccgtccccctatttctgaggggtg  
attttaagggatattgtctctgataattgcaccactttggaacctcaccgggttagtctcgagaggcattcctggcgg  
ccctgagaacagcacaaccctcacctatcagaagggttcatgcttgttgttaaagctgaatgtttctctgttggac  
gagccatcagaactacaactgctaggttcccagtcctctcccctaatataactaatattactcggatccccagtggtg  
ctgggggatgcataggctttaccccatacगतatgtccggctggtgtctacggatgggaccggagagaggttacaca  
catccttctgaccgacccagggaacaatcctttctttgataaggcctcctaactcctcgaaaccgtttacagtagtg  
acagcggacagggcacaatctctttatggggagtgagtactgtggtgcatatggctacaggttctgggaaatgtaca  
attgtctccaaatgagacagaatttggtccatctgtcaggatgtgtggggccgaggcccccccgaaaattggtgcac  
aagcacaggaggtacatgggttaataatcaaaggaatttaatagagacagagccattcagttttactgtgaactgt  
actggcagtaatttgggtaatgtcagcggatgttgcggaagaaccaatcacgattctcccaccagagggcgtgggtcg  
acagcacacaaggtagtttactaaaccaaagcgctaccaccgcgaattttcctcatttgtggagatcgcgcatg  
gcaaggaattcccagtcgtccggtagggggccccctgctatttaggcaagctcaccatgttagcacccaaccataca  
gatattctcaaaattcttgctaattcatcgcggaacaggaataagacgtaaacgaagcgtctcacacctggatgata  
catgctcagatgaagtacagctttggggctctacagcaagaatctttgcgtctatcttagccccgggggtagcagc  
tgcacaagccttaaaagaaatcgagagactagcctgttgggtccgttaaaccaggctaacttgacaacatcactcctc  
gggacttattggatgatgtcacgagtattcgacacgcgggtcctgcagaaccgagcggctattgatattcttgtctcc  
tagctcacggccatggctgtgaggacgttgcgtggaatgtgctgtttcaatttgagtgatcacagtgagtctataca  
gaagaagttccagctaatgaaggaacatgtcaataagatcggcgtggacagcgacccaattggaagttggctgcca  
ggactattcgggggaataggagaatgggcccgttcatttgcgtgaaaggactgcttttggggcttgtagttattttgt  
tgctagtagtgtgcctgccttgccttttgcaaatcgtagcggtaacatcagaaagatgattaataactccatcag  
ctaccacacggaatataagaagctgcaaaaggcctatgggcagcctgaaagcagaatagtataa

>#3 Mouse mammary tumor virus (MMTV) M15122 6897 nt

atgggggtctcgggatcaaaagggcagaaactccttgtttctgtttctacaaagactcctctcagagaggggtcttc  
atgtgaaagagagcagtgcaatagagttttatcagttcctaataaagggtctctccttgggtttcccgaagaaggagg  
attaaattttacaagattggaaggggtgggaagagagatgaagaggtagcagcagaacatgggacggatagatata  
ccaaagcaggccttacccttattggcttcagttgagagagatactgacagagcaatcagacttgggtttgttatctg  
cagaagccaagtccgtgactgaagaggaattagaggaagggtttaaccggactactatcgacaagttcacaggaaaa  
aacttatgggactaggggaacagcatatgcagaaaatagatacagaggtagacaagctgtctgaacataatttatgat  
gaaccatatgaagaaaaggagaaggcagataaaaaatgaggaaaaggacatgttagaaaaataaagaaggtagtac  
aaagaaaagaaaatagttagggtaagagaaaagagaaggattcaaaggccttttttagccacagattggaacgatga  
tgacctgtccctgaggattgggacgatttagaggaacaagcggcacattatcatgatgatgatgagctaattcctt  
ccagtaaaaaggaagggtggttaagaagaaacctcaggcactcagaaggaaaccctgcctccgggtgggttttgcag  
gagcgatggcagaggccagggaaaaaggagatttgacttttacgtttcctgtagtttttatgggagagagtgatga  
agatgacacgcctgtttgggaaccgctgccattgaaaaccttaagggaattgcaatcggcagttaggacatggga  
ccatctgtccttacaccctgcaggtggttagacatggtggctagtcaatggctcaccccgagtgactggcacaaa  
cagccagagctaccttgtctcctggagactatgttttatggagaactgaatatgaagagaaaagtaaaagaatggt  
acaaaaggctgcaggcaagcgaaggggcaaggctctctcttgatatgttactggggactggccaattcctgtccct  
tcttctcagataaaaattgtctaaggatgtcttaaaagatgtcaccacaaatgctgtgttagcatggagggccattc  
cgctcctggagttaaaaagactgtatttagcaggattaaaacagggaatgaagagctttagagactttcatttc  
aaggctcgaggaagctgtttaccgaatgatgccagagggggaagggtcggatatattgatcaaacaattggcgtgg  
gagaatgcaaattcattgtgtcaggatctcatccgcccaatacgtaaaacagggaactatacaggattatattcgtg  
cttgtctggacgcttctcccgcagttgttcagggtatggcatatgcagcagccatgagaggacaaaagtattctac  
ctttgtaaaagcaacatatggtgggggaaaaggaggtcaaggagcagaaggggcagtttgttttctctgtggttaag  
acaggacacatcagaaaagactgtaaggatgaaaagggtcaaaaaggggccctcctgggctctgccccagatgta  
agaaaggctatcactggaagagtgaagtgtaaatctaaatttgacaaagatgggaatccacttctcccttggaac  
taatgtctaattcaaaaaacttgaaggggcagtcctcctagccccgcgtcaaaagggggtagtgtaagggtca  
ggattaaatcctgaagccccacctttcacatacatgatttgcctcgaggcacccctggaagtgaaggttagacc  
tgtatcacagaaggatttgatcctctctctagaaagtggagatcatttggtaccacacttagtgaaaggcacct  
ccctgaagggactactgactaataataggtagaagttctaattataaaaagggacttgaggtttaccaggagtc  
attgactccgatttccaaggagaaatcaaggttatggttaaggccgcaaaaaatgcggctcatcattcacaaaggag  
aaagaatagcacaaactgctgttgctgccatatttaaaattacccaatcctgtaatcaaggaagaacgagggtcaga  
aggcttcggatcaacaagtcattgtgcattgggtgcaggaaataagtgactccagaccatgcttcacatttactta



aatggaagaagattcctcgggtctcttggataccggggcagataaaaacttgcatagcaggcagagactggccagcta  
attggcccattcaccaaactgagagttctcttcaagggttaggcatggcctgtgggggtggcgcgtagtagtcagcc  
actccgttggcaacatgaggataaaatcaggaattatacatccttttgtgatccctacactgcctttcaccttatgg  
ggaagagatattatgaaagatataaaggtcagattgatgacagactcaccagatttcacaggatttatgatagggg  
ccattgagagcaatctctttgcagaccaaatatcttggaaagtacagaccagcctgtatggcttaataatggccct  
taaacaagaaaagttacaggctttacaacagtttagtgacagaacaattacaactggggccacttagaagagagcaat  
agcccttggaaatacgcctgtttttgtcattaaaaagaagtcaggaaaatggagactgttacaagacctacgtgcag  
ttaatgctacaatgcacgatatgggagcattacaaccggccttgccgtcccctgtagcagtcacctaaaggatggga  
aataatcataatagatctacaagattgcttttttaataataaaaactgcatcctgaagattgtaaaagatttgctttt  
agtgtgccctcccctaatttttaagagaccttatcaaagattccaatggaaagttttgccccaggggtatgaaaaata  
gccctactttatgtcaaaaatttggggacaaagctatattgactgtaagggataaataccaagactcatatattgt  
gcattacatggatgacattccttttggcacaccccatcaagatccattgtcgatgaaatacttacttccatgatacag  
gcccttaacaaacatggccttgtatgtatccacagagaagattcaaaaatatgataatctcaaatatttgggaactc  
atatacaggggtgattcagtgcttatcaaaaattacagattaggacagataaattaagaaccttaaatgattttcca  
aaagctattaggaaatatattaattggatacgtcctttcttaaaaattaactacgggagagttaaaacctctctttgaa  
attcttaattggagattctaaccgatctcaacaagaaaacttactcctgaggcatgcaaagctcttcaattaatga  
atgagagactatctaccgctcgggtaaagaggctagatttatcacagccttggctctctatgtatattaaagactga  
atatacccccacagcatgcctctggcaggatggagttgtagaatggatacatttgcctcatatttcaccaaagggtg  
attactccttatgatatcttttgtacacaacttattattaagggccgacaccgctctaagaattatttagtaaaag  
accctgatttatattgttgtgccctacaccaaagttcaatttgatctcctattacaagaaaaggaagattggcctat  
ttctttattaggggttcttgggagagggttcatttccatcttccaaaagacccttgccttacattttaccctacaaact  
gccattatttttccctcacatgacctctaccacaccactagagaaaaggaattgtgatttttacagacgggtcagcaa  
atggcgttccggtaacatatatacaaggaaggagcctataattaaagaaaatacacaaaacacagcccaacaggc  
tgaaattgtggcagtcattacagcctttgaggaagtgaagtcaaccctttaatttgtatactgattctaaatatgtg  
acaggggtgtttcccgaaatcgaaactgcaacttgtcacccagaaacaaaaatttacacagaactgaaacatttac  
aaaggttaatccacaagagacaagaaaaattttacattgggtcatatcagaggacacactggacttcccgggtccttt  
ggcacagggaatgcctatgcagattctttaacaagaattctgaccgctttagagtcagctcaagaaagccacgca  
ctacatcatcaaaaatgccgcggcgcttaggtttcagtttcacatcactcgtgaacaagcgcgagaaaatagtaaaat  
tatgtcccaattgccccgactgggggcacgcgcgcaattaggggtaaaccccaggggccttaagccccgagttct  
atggcaaatggatgttactcatgtttcagaatttggaaaattaaaatatgtacatgtgacagtggtacttattct  
cattttactttcgctaccgcccgaacggggcgaagcaaccaaggatgtgttacaacacttgggtcaaagcctttgcat  
acatgggcatttcccaaaaaataaaaacagataatgccctgcatatgtgtctcgttcaataacaagaatttctggc  
cagatggaaaatatctcaggtcacggggatcccctacaatccccaaaggacaggccattgttgaacgaacgcaccaa  
aatataaaggcacagcttaataaaacttcaaaaaggctggaaaatactatacaccccacatctgttggcacacgctc  
tttttgtgctgaatcatgtaaatatggacaatcaaggccatacagcggccgaaagacattgggggtccaatctcagc  
cgatccaaaacctatgggtcatgtggaaagaccttctcacagggtcctggaaaggacccgatgtcctaataacagcc  
ggacgaggctatgcttgtgtttttccacagacctacaaaactccccaaacctctttgaccttatttcttgccttgt  
tgtctgtcctcgccccccgctgtgacaggggagagttattgggcctacctacctaaccacctatttctccatcc  
cgtgggatggggaagtacagaccccattagagttctgacaaatcaaaccatgtatttgggtgggttcgcctgacttt  
catgggttcagaaatatgtctggtaatgtacattttgaggggaagtctgatacgtcctccatttgcctttccttct  
ccttttctacccccacgggtgcttttcaagtagacaagcaagttatttcttctgatacaccacgggttgataataa  
taaacctgggggaaagggtgataaaaaggcgtatgtgggaacttgggttgactaccttggggaactcagggggcaat  
acaaaactgggtccctataaaaaagaagttgcccccaaatatcctcactgccagatcgctttaaagaaggacgcct  
tctgggagggagacgagtcgtcctccacgggtggttgcccttgcgccttccctgaccaggggggtgagttttctcc  
aaaaggggccccttgggttacttttgggatttctcccttccctcgccctagtgtagatcagtcagatcagattaaaagc  
aaaaagaatctatttggaaattatactccccctgtcaataaagagggttcacatcgatgggtatgaagcaggatgggtag  
aacctacttgggttctgggaaaattctcctaaggatcccaatgatagagatttactgcactagtcccccatacaga  
attgtttcgcttagtcgcagcctcaagacatcttattctcaaaaaggccaggatttcaagaacatgagatgattcct  
acatctgcctgtgttacttacccttatgccatattattaggttacctcagttaatagatatagagaaaagaggat  
ctacttttcatatttctgttcttcttgtagattgactaattgttttagactcttctgcctacgactatgcagcgt  
catagtcagaggccgcatatgtgctgctacctgtagatattgggtgatgaaccatgggttgatgattctgccatt  
caaacctttaggtatgccacagatttaattcgagcctaagcgattcgtcgcagccattatcctgggcataatctgctt  
tgattgctatttacttcttcttctgtgtagtactactgccttagttaaggagatgcaaaactgctacgtttgttaa  
taactttcataggaatgttacattagccttatctgaacaacaggataatagatttaaaaattagaactagactta  
gttttagaagaagtattttagagttgggacaagatgtggccaatttaaagaccagaatgtccactaggtgtcatg  
caaattatgactttactctgcgttacaccttaccctataatgctactgagaactgggaaagaccaggggtcattt  
attgggcatttggaaatgataatgagatttcatataacatacaggagttaaccaacctgattagtgatatgagcaa  
caacatattgatgcagtgaccttagtggttggctcagtccttttgccaatggagtgaaggctttaaatccattag  
attggacacaatatattcatttttataggtgttggagccctgcttttagtcattgtacttatgattttccccattgt

tttccagtgccttgcggaagagccttgaccaagtgcagtcagatcttaacgtgcttcttttaaaaaagaaaaaggg  
ggaaatgccgcgcctgcagcagaaatgggtgaaactcccagagagtgtcctacacttag  
>#4 Mason-Pfizer monkey virus (M-PMV) M12349 6339 nt  
atggggcaagaattaagccagcatgaacggttatgtagaacaattgaagcaggctttaagacacggggagtaaaagg  
ttaaatatgctgatcttttgaaattttttgattttgtgaaggatacttgtccttggtttccgcaagagggaaccat  
agatattaaacgggtggcgtagagtagggcagctgtttccaagactattacaatacttttggcccgagaaagtccca  
gtaactgcattctcttactggaacttaattaaagaattgatagataagaaagaagttaaccacacaagtaatggctg  
ccgtagcccaaactgaagaaattttaaaaagtaattctcaaacagacctcacaagacctctcaaaaccagactt  
ggaccttatttcccttgatagcgacgatgaaggagctaaaagtctcctctctacaagataaagggtttatcaagtact  
aaaaaaccaaaaagattcccagttctgttaacagcacaactagtaaagacctgaagaccccaaccctcagagg  
tagactgggacggcttggaagatgaggcagcgaaatatcataatcccagattggcctcccttcctaaccctgccacc  
tccttacaataaagctactccttccgcacccactgtaatggcggttggttaatccaaaagaggagctcaaagaaaaa  
attgctcaattagaggaacagattaaattagaagagttacaccaggcactaatttccaaattacaaaaactaaaaa  
cagggaaatgaaactgtaactcaccagacacagcaggaggcctttctcgcacgcctcactggccaggggcaacatat  
ccctaaaggaaaatggttgcgccagtcgagaaaaaggaagaacaaatcccaaaagatattttcccagtgactgaaacc  
gttgatgggcaagggtcaagcctggagacaccataatgggttttgattttgccgtcataaaaagaattaaaaacagctg  
cttcccaatatggggctactgcccatacacattagccatagtggaaatctgtagcggacaattgggttaccctac  
agattggaatacgccttgtagggcagtcctctcaggaggagatcacttactgtggaatctgagttttttgaaaat  
tgcagagatacggctaaaagaaaccaacaagccggtaatggctgggattttgacatgttaacagggttcgggtaatt  
attccagcacccgatgcacaaatgcagtatgatccaggattggttgcctcaaatcaagcggctgctacaaaagcctg  
gagaaaacttcccgttaaggagaccaggagcctcccttacaggagtcacaacaggaccgatgagccatttgca  
gatttcgtacacagacttataacaactgctgggagaatctttggaagtgtgaggccggtgtagactatgtaaaac  
aactagcatatgaaaatgctaattccagcttgtcaggcagccattcgccctatagaagaagacagatttaactgg  
ctatatccgtctttgctcggatattgggcccctcttatcagcaaggcctggccatggccgcgccttttagcgggcag  
actgtaaaagattttcttaacaacaaaaataaagagaaaaggagggtgttgctttaaatgcggtaaaaaaggacact  
ttgcaaaaaattgtcatgaacatgcacataacaatgctgaacaaaaagttcccggactctgccctagatgtaaaag  
agggaacattgggccaatgaatgcaaatccaaaactgataatcaaggaaacccaataaccaccccatcagggaac  
gggtggagggggccagccccaggccccgaacaagcttatggggcagtcagctttgttccagccaacaaaaacaacc  
catttcaaagcttaccagagccaccccagggaagtgcaggattggacctctgttccacctcccacacagtattaaca  
aaaaaggttttgaaaatttttaactgcgggccattgacatacttgcaccccaacagtgcgctgaacccatcacgtgg  
aatcagacgaacctgtctgggtgatcagtggccattaaccaatgacaaacttgctgctgccaacagtttagtgc  
aagaacagtttagaggcaggacataattactgaaagtagttctccctggaacactcccatatttgttataaaaaagaa  
atctggtaaatggaggctcttacaagatttacgagccgttaatgccactatggtattaatgggagctttacaacct  
ggattaccctcccgggtggctatcccacaagggtatcttaaaataattattgatctcaaggattgtttcttttcta  
ttcccttctatcctagtgaacaaaaagatttgccctcagcctaccatccacaaattttaagaacctatgcaacg  
ttttcagtggaagggttttaccacaagggtatggccaacagtcctaccttatgtcaaaaatatgtggccacagccata  
cataagggttagacatgcctggaacaaatgtatattatacattacatggatgacatcctaataagctggtaagatg  
gacaacaagttttgcaatgctttgatcaactcaacaagagttgactgcagctgggttacatatagccccagaaaa  
agttcaattacaagatccctacacataatttaggatttgaacttaatggtcctaaaaatcactaatcaaaaagcagtc  
attcgtaaagataaattacagactcttaattgattttcaaaaaacttttaggagacatcaattgggtcagaccatc  
taaaactcactactggagacttaaaacccttattcgacacccttaaaggagactctgaccccaattcccatagatc  
cttatcaaaagaagctcttgccctcacttgaaaaggtagagacagccattgcagaacaattcgttactcacataaat  
tattcactaccattaattttcctcatattcaacacagccctgacacctactggtttggtttggcaagacaatccta  
ttatgtggatccacctgcctgcatcccataaaaagggtgttacttccctactacgacgctatagcagatttaacat  
actagggagagaccatagtaaaaaatattttggaaatgaacccctctacaatcatacaaccatattctaagtctcag  
attgattgggttaatgcaaaacactgaaatgtggccaattgcctgtgcctcctttgttggcatcctagataaccatt  
atccaccaaataaacttatccagttctgtaaactacataaccttggttttccctcaaatcatttagtaaaacaccctt  
aaacaatgccttatttagtttttactgatggctcttccactgggatggccgcataactcttactgataccaccatc  
aaattccaaactaatcttaattcgggtcaactagtagaactacaagctttaaattgcagtccttatcagccttcccta  
atcaacctcttaatatttactgacagtgcttacttagcccactcaataccctacttgaaactgtcgcacaaat  
taaacacatatcagaaacagctaaactgttcctacagtgccagcaactcatatacaatagatccataacctttttat  
attggacatgtcagggccattctggactacctggaccatagctcaaggcaaccaacagagctgacttggcaacta  
aaatcgtgggtagtaacataaacacaaacctcgaaatcagctcaaaatgctcataaccttatcactcaatgcccc  
gactttaagacttatgtttaacatttctagagaacaagctagacaaattgttaagcaattgcttatatgtgtaact  
tatctaccagtcctcattttaggagttaatcctagggttatttcccaacatgatttggcaaatggatgttacac  
actactcagaatttggcaattttaaataatattcctatctatagatacattcagtggttcttactgtgacctct  
acaaacaggagaaactacaaaacatgtcataaccctttactccattgcttctctattattggactccctaaca  
attaaaacggataacgggtcctggatacacctctaaaaattttcaagaattttgctccacacttcaaatataacata  
ttactggaatcccctataaccccccaaggccaaggaatagttgaaagagcccacttatctctttaaaccaccattga  
aaagataaaaaaggggggaatgggtaccctaggaagggtacccccaggaacatcctcaatcatgcactctttattcta

aatTTTTTaaatttagatgatcaaaataaatcagcagctgatcgTTTTTggcataataacccccaaaaaacaatttg  
ccatggtaaaatggaaagatccattagataatacatggcatggccccgatccagtgTTaatttggggagaggttc  
agtctgtgtttactctcaaacctatgatgccgctagatggctaccagaacggttagtaagacaggtgtctaacaat  
aaccaatccagggagtgaaatgaacttcaattatcatttcactctggagcttagtgatactatctcaaatatctcaag  
ttcaagccggttttgagatccgctgaagccctggcagaaatacaacaaaaacatggtaaaccttgtgactgtgc  
tgaggatattgttctccccaccgattaactctcttacaactgttcttctactcactgcttattcagtg  
acaaactccctaaaatggcagtggtgtgtcaactcccactacccttagcaatacacatataggaagttgtcccggtg  
aatgcaacacgatctcatatgattctgtacatgcctcttctgtataaccactatcaacaatgtaacattggtaataa  
aacatatctcactgccactataactggagatagaactcctgccattgggtgacgggaatgtccctacagtactagg  
actagtcacaacctcattacagcaggtgtcccaatggtaaaaaggcccaagtggtctgttggaatagccgacctt  
ctgttcatatatctgatggaggagggcctcaagataaggccccgcgacattatagtaataaaaaagtttgaggaatt  
gcacaggtcgctgttcccagaactttcttaccatcctctggccttgcccgaagcccgtggtaaaagaaaaaattgac  
gcacacactcttgatctccttgccactgtacatagtttactcaatgcttcccacccagtttagccgaagattgct  
ggctgtgcttacagtcaggagatcccgcttctcttgccctgcccctataatgatacactctgctctaaactttgcctg  
ttatctaatcactcctgcccctttaaccccccttttttagtacagccctttaacttcactgattccaattgcctt  
tacgctcattatcaaaacaactcatttgacatagatgtaggcttagcttagctttactaattgctctagctattata  
acgtttctacagcctccaaacctctaattccctatgcgccccaaacagctcggtttttgtatgcggtaacaataa  
ggcatacacttatctacccacaaattggacgggaagtgtgtacttgcactcttttgcccgatatagacatcatt  
ccaggtagtgagcctgtccccattccagctattgatcatttttttaggcaaagccaaaagagcaatccaacttatcc  
cctgttctgtaggggttaggtataactactgcagtatctactggggctgctggtctaggggtttccatcactcaata  
tcaaaaattatctcatcaactaatatcagatgttcaagctatttctagcactatacaagatctccaagatcaggt  
gactctctagcagaagtagtactgcaaaacagaagaggattagatctacttacagcagagcagggaggtatctgct  
tagccttacaggaaaaatgttgtttctacgccaaataaatctggaatcgtcagagacaagattaaaaacctacaaga  
cgacttagaaaagacgccgaagacaactgatcgacaacccattttggaccagttttcatggattcctcccttatgtt  
atgcccctatttaggccctttgctttgcttattgcttgtgttatctttcggtccaattattttcaacaagcttatga  
cctttattaaacaatcaaatgagagcatccaggccaaacctatacaagtccattatcatcgcccttgaacaagaaga  
cagtggtggctcataatttgaccttaacatag

>#5 Human T-lymphotropic virus 1 (HTLV-1) D13784 5325 nt

atgggccc aaatcttttcccgtagcgctagccctattccgcggcgccccgggggctggccgctcatcactggctta  
acttctccaggcggcataatcgcttagaaccgggtccctccagttacgatttccaccagttaaaaaaatttcttaa  
aatagcttttagaaacaccggctctggatctgccccattaactactccctccttagccagcctactcccaaaaggatac  
cccggccgggtgaatgaaattttacacatactcatccaaacccaagccagatcccgctcccgcgccgcgcgcgc  
cgcgctcatcctccaccacgaccccccggttctgaccacaaaatccccctcctatgtttgagcctacagcccc  
ccaagtccttccagtcatgcaccacatggtgcccctcccacccagcccatggcaaataaaagacctaagggcc  
attaagcaagaagtctcccaagcgccccctggaagccccagtttatgcagaccatccggcttgccgtgacagcagt  
ttgacccccactgccaaagacctccaagacctcctgcagtacctttgtcctcctcctcggttccctccatcacca  
gcagctagatagccttatatcagaggccgaaactcgaggtattacaggttataaccccttagccgggtccctccgt  
gtccaagccaacaatccacaacaacaaggattaaggcgagaataaccagcaactctggctcgccgccttcgcccgc  
tgccaggagtgccaaagaccttcttgggcctctatcctccaaggcctggaggagccttaccacgccttcgtaga  
acgctcaacatagctcttgacaatgggctgccagaaggcacgccccaaagacccccattttacgttcccttagcctac  
tctaagtcaaaacaaagaatgccaaaaattactacaggccccgagggcacactaatagccctctaggagatatgttgc  
gggcttgtcaggcctggacccccaaagacaaaaccaaagtgttagttgtccagccttccccccccacattacagca  
agtcttcttaaccaagaccaacatctattctgcagttataccggttagatcccgcgcgtcgggccgtaattaaa  
gccagattgacaccagaccagccacccaaagactatcgaagctctactagatacaggagcagacatgacagtc  
ttccgatagccttgttctcaagtaatactccctcaaaaacacatccgtgttaggggcagggggccaaacccaaga  
tcactttaagctcacctccttctgtgctaatacgccctcctttccggacgacgcctattgttttaacatcttgc  
ctagttgataccaaaaaacaactggggccatcataggtcggtgatgccttacaacaatgccaaaggcgtcctgtacctcc  
ctatagatctctcatcatcttcccccgggccccctgacttgtccagcctgccaactacactagcccacttacaac  
tatagaccttaaagacgcctttttccaaatccccctacctaacaacagttccagccctactttgtcttactgtccca  
cagcagtgtaactacggccccggcactagatacgcttgagagtagtaccccaagggtttaaaaatagtcaccacc  
tggttcgaatgcagctggcccatatcctgcagccattcggaagccttcccccaatgcactattcttcagtacat  
ggatgacattctcctggcaagccccctccatgcggacctgcaactactctcagaggccacaatggcttccctaattc  
tccatgggttgcctgtgtccgaaaaacaaaacccagcaaacccctgggaacaattaagttcctagggcaaaattt  
cacctaataccctcacttatgatgcagtcaccaaggtacctatacgggtcccgctggggcgtacctgaacttcaagc  
cctacttggcgagattcagtggtctccaaaggaactcctaccttaccgccagcccccttcacagctctactgtgcc  
ttacaaaggcactatgatccccgagaccaaataatttaaatccttctcaagttcaatcattagtgcagctgcggc  
aggccctgtcacagaactgcgcagtagactagtccaaaccctgcccctcctaggggtattatgctgacctcac  
tggcaccaccactgtggtgttccagtcgaagcagcagtgggcacttgtctggctacatgccccctacccacact  
agccagtgcccctgggggcagctacttgcctcagctgtgttattactcgacaaatacaccttgcaatcctatggac  
tactctgccaaaccatacatcataacatctccacccaaaccttcaaccaattcattcaaacatctgaccacccag

tgttctatcttactccaccacagtcaccgattcaaaaatttaggtgccagactggagaactttggaacactttt  
cttaaaacaactgccccattggctcctgtgaaagcccttatgccagtggttactctttccctgtgatcataaaca  
ccgcccccttgctgttttcagacggatccacctcccaggcagcctatatctctgggacaagcatatattgtcaca  
aagatcattcccccttccgccaccgcacaagtcggcccaacggggccgaacttctcggacttttgcatggcctctcc  
agcgcccggttcgtggcgctgtctcaacatatttctagactccaagtatctttatcattaccttcggacccttgccc  
taggcaccttccaaggcaggtcctctcagggcccccttcaggccctcctgccccgcttactatcgcgtaaggctcgt  
ctatttgcaccacgttcgcagccataccaatctacctgatcccatctccaggctcaacgctctcacagatgccta  
ctaatacccccgtgctcgtcagctctctcctgcagacctacacagtttcacccattgcggaacagacggccctcacac  
tgcaagggggaaccacaactgaggcctccaatatcctgcgctccttgccacgctgcccgaataaaccacaaca  
tcagatgcctcaaggacacatccgcccgtggcctactccctaaccacatctggcaaggcgacattaccatttcaaa  
tataaaaatacactgtatcgcttcatgtatgggtagacaccttttcaggagccatctcagctacccaaaagagaa  
aagaacaagctcagaagctatttctcttctgctccaggccattgcctatctaggcaagcctagctacataaacac  
agacaatggccctgcctatatttcccaagacttctcaatatgtgtacctcccttgctattcgccataactaccat  
gtcccctacaatccaaccagctccggacttgtagaacgctctaattggcattcttaaaaccctattatataagtact  
ttactgacaaacccgacctacctatggataatgctctatccatagccctatggacaatcaaccacctaaatgtatt  
aaccaactgccacaaaacccgatggcagcttcaccactcccccgactccagccgatcccagagacacattccctc  
agcaataaacaacccattgggtattatttcaagcttcttggtcttaatagccgccagtggaaggaccacaggagg  
ctcttcaagaagctgccggcgctgctctcatcccggtgaagcgctagttctgccagtggtatcccggtggaggctcct  
caagcgagctgcatgcccagaccgctcgggagggccccgcccgatcccaaagaaaaagaccaccaacactttctcgcc  
actttgattttattcttccagttctgccccctcatcctcggtgattacagccccagctgctgtactctcacagttg  
gagtctcctcataccactctaaaccctgcaatcctgcccagccagtttggttcatggaccctcgacctgctggccct  
ttcagcagatcaggccctacagccaccctgcccataatctagtaagttactccagctaccatgccacctattcccta  
tatctattccctcattggatcaaaaagccaaaccgaaatggcggaggtattattcagcctcttattcagaccctt  
gttctttaaataatgcccatacctaggggtgccaatcatggacctgcccctatacaggagccgtctccagccccactg  
gaaatttcagcaagatgtcaattttactcaagaagtttcacacctcaatattaatctccatttttcaaaatgcggt  
tttctcttctcccttctagtgcagctccaggatatgaccccatctgggtccttaataaccgaacccagccaactgc  
ctcccacgccccctcctctactctcccactctaacctagaccatactcctcgagccctctataccatggaaatcaaa  
actcctgactcttgtccagtttaaccctacaaagcactaattataacttgcattgtctgtatcgatcggtgccagccta  
tccacttggcacgtcctatactctcccacgtctctgttccatcccccttcttctacccccctcctttaccatcgt  
tagcgcttccagccccccacctgacgttaaccatttaactggacccactgctttgacccccagattcaagctatagt  
ctcctccccctgtcataactccctcactcctgcccccttttcttctgacactgttcccacgctaggatcccgctcc  
cgccgagcagtagccggtggcggtctggcttgtctccgcccctggccatgggagccggagtggtggcaggattaccg  
gctccatgtccctcgctcaggaagagccctcctacatgaggtggacaaagataatttcccaattaactcaagcaat  
agtcaaaaaccacaaaaatctgctcaaaattgcacagtatgctgccagaacagacgaggccttgatctcctgttc  
tgggagcaaggaggattatgcaaagcattacaagaacagtgctgttttctaaatattactaattcccattgtctcaa  
tactacaagagagaccccccttgaaaatcgagtcctgactggctggggccttaactgggaccttggcctctcaca  
gtgggctcgagaagccttacaactggaatcacccttgtcgcgctactccttcttgttatccttgcaggacctgc  
atcctccgtcagctacgacacctccccctcgcgcgctcagataccccccattactctcttataaaccctgagtcaccc  
tgtaa

>#6 Bovine leukemia virus (BLV) M32690 5022 nt

atgggaaattccccctctataacccccccgctgggtatctccccctcagactgggtcaaccttctgcaaagcgcg  
aaagggtcaatccgcgacctctcctagcgattttaccgattttaaagaattacatccattgggttcataagacca  
gaaaaaaccatggactttcacttctgggtggccccacctcatgtccacccgggagatttcgggcccgggttccccctcgtc  
ttggccaccctaaacgaagtactctcaaacgaaggggcgccccgggtgcatcgccccagaagaacaaccccccc  
cttatgacccccccgcattttggcaatcatactgaagggaatcgcaaccgccatcggtgcttgggacctccgaga  
attacaagatatcaaaaaagaaattgaaaataaggcaccgggttcgcaagtatggatacaaacactacgacttgca  
atcctgcaggccgacctactccggctgacctagaacaactttgccaatatattgcttccccgggtcgaccaaaccg  
cccatatgaccagcctaaccggcagcaatagccgcccgtgaagcggcaacaccctccagggttttaacccccaaaac  
gggtaccctaacccaacaatcagctcagcccaacgcggggatcttagaagtcaatatcaaaacctctgggttcag  
gccggaataatctccctactcgtccttcagctacaaccttgggtccaccatcgccaaggccccgcgaaagctctg  
tagagtttgtcaaccggttacaaatttcattagctgacaaccttcccagcggagtccaaaggaacccattattgac  
tcccttagttatgcaaatgctaacagagagtgctcagcaaattttgaggggcgaggccagtgggcgcggtggggga  
aaaactgcaggcttgcgcacaaattgggcccccaagaatgaaacagcctgcacttctcgtccacccccaggggcca  
agatgcccgggctcggcaaccggcccccaaaaggcctccccaggacctatcgatgcctcaagaaggcca  
ttgggcccgggattgtcctaccaaggccacggccacctccgggaccttggcccatatgtaaagatccttcccat  
tgaaacagagactgtccaaccctcaaatcaaaaactaagtgcattgacctacgagctacaaatgctcttacaagc  
ccattccggcactctctccggaccgcagaccttaccgctatccctacgcacctccacatatcatttgcctaga  
tctcaaagatgccttcttccagattccagtcgaagaccgcttccgcttctacttgtcttttaccctcccatcccc  
gggggactccaacctcatagacgctttgcctggcggtcctacctcaaggcttcattaacagcccagctcttttcg  
aacgagcactacaggaacctcttcgccaagtttccgcccgttttcccagctctcttctgggtgctctataggacga

tatccttttacgcttcgcctacagaagaacagcggtcacaatgttatcaagccctgggtgcccgcctccgggacct  
gggtttcaggtggcatccgaaaagactagccagacgccttcgcccgtcccctttttgggacaaatggccatgagc  
agattgtcacctaccagtccttacctaccttgagatctcatcccaatttctcttccaataattacaggcgggtctt  
aggagacctccaatgggtctctaggggcacacccactaccgcgggcccctgcaacttctctactcttccctaaa  
aggcatcatgacctagggccatcatccagctttccccggaacagctgcaaggcattgcagagcttcgacaagccc  
tgtcccacaacgcaagatctagatataacgagcaagaacccctgctagcctacgtacacctaaccggggcgggtc  
cacctgggtactcttccaaaaggcgctcaatttcccctggcctactttcagaccccccttgactgacaaccaagcc  
tcaccttggggcctccttctcctgctgggatgccaatacctgcagactcaggccttaagctcgtatgccaaagcca  
tacttaaatattatcacatcttccctaaaacctctctagacaattggattcaatcatctgaggacctcaggtcca  
ggagttgctgcaattgtggccccagatttctctcaggggaatacagccccgggccccttggaagacctaatcacc  
agggcagagggttttttgacgccccagttctcccctgatccgattcctgcgccctttgcctcttttagtgacggg  
ctacaggacgaggagcatattgcttgtggaaagaccaccttttagactttcaggccgttccggccccagaatccgc  
tcaaaagggagaactagcaggtctcttggcgggcttagcagccgccccgcctgaacctgtaaatatatgggtagat  
tccaaatacctgtactctttgctcagaaccttagttctgggagcttggcttcaacctgacccccgtacctcctacg  
ccctcctatataaaaagcctcctccgacatccagcaatcggttgggtcatgtccggagccactcttcagcatccca  
ccctattgcttccctgaacaattatgtagatcaactgcttcccttagaaaactccagagcaatggcataagctcacc  
cactgcaactctcgggcccctgtctcgatggccgaacccacgtatctctgcctgggacccccgttccccgcctacgc  
tgtgtgaaacctgccaaaagcttaatccaactggaggaggaaagatgcgaactattcagagaggggtgggccccgaa  
tcatatttggcaggccgatataaccattataaaatacaaacagttcacctacgctctgcatgtgtttgtagatact  
tactctggagctactcatgcctcggcgaagcgtgggtcaccactcaaacgaccattgagggccttcttgaggcca  
tagtgcatctgggtcgccccaaaaagctaaacactgaccaaggtgcaaactacacctccaaaacctttgtcaggtt  
ttgccagcagttcggagtttccctttctcatcatgttccctacaacccccacaagttcgggggttagatgaacggaca  
aatggactgctcaaacttcttctatctaaatatcacctagacgaacccccaccttcccagactcaggccctttctc  
gagccctctggactcacaatcagattaacctcctaccaattctaaagaccagatgggagctacaccattcaccccc  
acttgcctgctatttcagagggcgagaaaacacccaagggctctgataaactctttttgtacttgcctccccgggcaa  
aacaatcgctgggtggctaggaccactcccggccctagtcgaagcctcgggaggcgctctcctggctactgaccccc  
ccgtgtgggttccctggcggttctgctgaaagccttctcactctcactctcctcgtctctgtcggcccatccagac  
ttggagatgctccctgtccctaggaaccaacaatggatgacagcatataaccaagaggcaaaattttccatctcc  
attgaccaaatactagaggctcataatcagtcacctttctgtgccaagtctcccagatacaccttggactctgtaa  
atggctatcctaagatctactggccccccccacaagggcgggcgccggtttggagccagggccatgggtcacatatga  
ttgcgagccccgatgcccttatgtgggggcagatcggttcgactgccccactgggacaatgcctcccagggtgat  
caaggatccttttatgtcaatcatcagattttattcctgcatctcaacaatgtcatggaattttcactctaacct  
gggagatatggggatatgatccccctgatcaccttttctttacataagatccctgatccccctcaacccgactttcc  
ccagttgaacagtgactgggttccctctgtcagatcatgggcccctgcttttaaatcaaacagcacgggccttccca  
gactgtgctatatgttgggaaccttccccctccctgggctcccgaatatattagtatataacaaaaccatctccagct  
ctggacccggcctcgccctcccggacgccccaaatcttctgggtcaactcgctcctgtttaacaccacccaaggatg  
gcaccaccttcccagaggttgttgttcaatgtttctcaaggcaacgccttgttattacctcctatctccctgggt  
aatctctctacggcttccctccgccccctcctacccgggtcagacgtagtcccgtcgcggccctgacctaggcctag  
ccctgtcagtggggctcactggcattaatgtggccgtgtctgcccttagccatcagagactcacctccctgatcca  
cgttctggagcaagatcagcaacgcttgatcacagcaattaatcagacccactataatttgccttaatgtggcctct  
gtgggtgcccagaaccgacggggggttgattggtgtacatccggctgggttttcaaagcctatgtcccacaatta  
atgagccttgctgtttcctgcgcatcctcaaatgactccattatcctccgcggtgatctccagcctctctcgcaaag  
agtctctacagactggcagtgggccttgggaattgggatctggggctcactgcctgggtgcgagaaaccattcattct  
gttctaagcctgttccattagcccttttttgccttctcctggccccctgcctgataaaatgcttgacctctcgcc  
ttttaagactcctccggcaggtccccacttccctgaaatctccttaacccctaaaccgattctgattatcaggc  
cttgctaacatctgcaccagagatctactctcacctctcccccgctcaaaccggattacatcaacctccgacctgc  
cctga

>#7 Walleye dermal sarcoma virus (WDSV) AF033822 8763 nt

atgggtaactcttctctactcctcctccctcggctcttaaaaactctgacttatttaagactatgctaagaacac  
aatattctggctccgtcaaaaccagacgcattaaccaagacataaagaacagtagccactatggccagatcaggg  
tacctgcgccaccaaacattgggaacaagccgtactaatcccattggattcagctctcagaagaaccgctaaagta  
ttgaattttctacgagtaaaaattcaagccccgaaaaggggaaacagcacgacaaatgacgggcacatactattaaaa  
aactaatagtagggaccattgacaaaaataagcaacaaacagaaatattacaaaaaacagacgaatctgacgaaga  
gatggataccacaaacaccattgctattcatgacaagaacaaagagaaagaattgcacaaacaacaggctgac  
ctagcgggcacagcagcaagtcctccttttacagcagagacaacagcgagagcaacgagaaaaggacattaaaaaac  
gcgatgagaaaaagaaaaaattattgcccggatatacaacaaaaaggtggaacaaacagacatcgggtgaagcctctc  
ctctgatgcctcagcacaaaaacctatcagtagtgacaacaacccggacctaaaagttgacggagttctgactcgg  
tcccaacacacaacagtagcttcaaacataaccataaaaaaggttggtacttccgtacaatatcaacatcccatta  
ggaattatcctactggcgaagggaaccttactgcacaagttcgaaatccattcaggccattggagttacaacagct  
taggaaagattgccctgcactgccagaaggcattcccagctagcagaatggttgacacagaccatggcaatctat

aattgcgacgaggcagacggttgaacaattggccagagtaatcttccccacacctggttagacaaatagcaggtgtta  
taaattggccatgcggtgcaaacacagccgctaaaattcagaactatgtcacagcatgtaggcagcattaccccg  
agtatgtgattgggggactatacaagcctttacatacaaacctccccaaactgccacgaatatgttaaacacgct  
gagataatattcaaaaataatagtggacttgagtggcaacatgcgacagtagctttcataaacatggttgtagagg  
gtttacccccctaaagtcacccgtagtctgatgtctggttaaccggattggagtacaaaactataccccaaatcat  
accctcatgagcattacctaacttgcaaagcagacaggatgcaaaaattaaacaaactcccctagtcttacag  
cttgcatgcccagcgcagaccatgaacgggaataaaggatatgtaggctcttaccctacaaacgaacctatattatt  
cgttccagcaacaacagcgcacctgcaccaagggccccacctggaaatgtaccagcaataacctgcttcttttgcaa  
acaaccgggtcattggaaagctgactgcccccaataaaacacgtaattcttagaaacatgggaaatatgggacgaggc  
ggaaggatgggaggccctccgtataggtcacaaccataccccgcatttatacaacctcctcaaaaccaccaaacc  
aatataatggcgcgatggaccggtcacagctacaagcctctgctcaagagtggcttcccggtagatatcctgcata  
ggatccaattgactgtccttatgaaaaatctggtacaaaaacaaccaagatgtaattaccactaaaaatgctgaa  
attatgggttacagtaaaccacacgaaaattcctatggttgtagatacaggcgctgctgactgcaataggagggg  
cggccacagtggttcccgcacctcaaatatacaaacacagaaattatagctgttggtatttccgctgaaccagttcc  
acatgtcttggcaaaaacctacaaaaattcagattgagaacaccaatatagatatctccccttggtacaacctgat  
caaacatttcatattcttaggaagagatacccttttctaaaatgagagccatagtatcttttcgagaaaaatggagaaa  
tgacagttcttttaccaccgacataccacaaacaattgtcatgtgcagactaaaaacactcttaacatagacgagta  
ttactacaatttccagaccagctatgggcctcactaccaacagatatgtgctgaatggttagtgccccctattaca  
ataaaaaatcaaagacaatgcatcattaccatcaattcgccaataccattacctaagataaaaaccgaaggactaa  
ggccattaatttagttcactagaaaatcaaggaatatgtataaaatgccatagcccatgtaatacaccaatctttcc  
tattaagaaagcaggtcgggatgagtatcgaatgatacatgacttacgcgcaataaataatatagttgccccctt  
actgcagttgtggcaagtccctaccactgtattatctaacctcgctccgctcactacattgggtttacggtgatcgacc  
tctcaaatgcattctttttagtaccatacacaaaggacagtcaataacctttttgccttcacctttgagggacatca  
atacacatggactgtcttgcctcagggttcatacatagccctacctgttttctcaggctttgtaccagagtgctc  
cacaaaattaaattcaaaatttccctcgaaatctgcatttacatggatgacgttctcattgcctcaaaagataggg  
acactaatttaaaagacacagctgttatgttgcaacatttggcttcagaaggacataaagtgtctaaaaagaaatt  
acagttgtgtcagcaggaagttgtttatctgggtcaattattgactcccagggggcgtaaaaatactaccagacaga  
aaagtaacggtctcacagtttcaacaacctactacgatccgacagattcggtgctttctagggtctggtgggctact  
gcaggcattggataccggaattttctatacatagtaaatttttggaaaaacaactgaaaaaggacaccgcccagacc  
attccaactggacgaccagcaggttagaggcttttaacaaacttaacatgcgataacaacagcaccagttattagt  
gtccctgatccagctaaaccttttcaactgtatacgtcacattcagaacatgcatccattgctgtgttgactcaga  
aacatgcaggaagaacgcggcctatagcttttttatcgtccaaatttgacgctatagagtcggggcttccctccatg  
tttgaaagcttgtgcttccatacacagaagtcttacgcaggcggactcggtttattttaggcgcgccactgattatc  
tatactacgcatgcaatatgtactcttttacaacgcgatcgatcacagctcgttaccgcttcccgttcagcaaat  
gggaagcggattttattacgacctgaactaaccttgttgctgctcagcagctctctccggcgccacttatatatgca  
gtcttgtgaaaaataatttccgctcatgactgcgttttacttaccacacgatctccaggccccgcacctgattta  
tctgatctcccaataacctgacctgatagactctgttttctgatggctcttatacaaccggcagaggaggagcgg  
cagtagtgatgcacaggccggttactgatgattttataattatccatcagcaacctgggtggtgcttcagcacaaac  
cgccgaattgttagccctagccgcagcatgccacttagctactgataaaactgttaatatatatacagactcccg  
tacgttatggtgtggttcatgactttgggcatctctggatgcacagaggcttggttacgtccgctggaaactccta  
taaaaaatcacaaaggaaatagagtacctgttaaaacaaatcatgaaacccaaacagggttccgtaattaaaataga  
ggccacactaaaggtgtaagtatggagggtgaggggtaacgcgcgtgctgatgaggccgctaaaaatgctgtgttt  
ttagtccagaggggtactcaagaagggggacgccccttgcgagtacggacttggcatggaatacagtgcagcggatg  
agaaattcacgcgcggagctgagttacatgacggtgtatttatgcgaggggatcttattgtccctcccctcgaaat  
gcttcatgccatcctattggccatacatggagtttctcacacgcacaaagggggaataatgtcttatttttcgaaa  
ttttggacacacccaaaagcatctcaaaccatagacttgatactggggcattgtcagatatgtctcaaacacaatc  
ccaaatacaaatcacgactacaaggtcatagaccttaccgaagcagaccggttgcccacctacaaatagactttgt  
ccaaatgtgctggaagaaacccatgtatgccctggttataatagatgtcttttcaaaatggccagaaataacca  
tgtaacaaagaagatgcaaaaactgtatgtgatataattaatgaaagacataatcccaagatgggggttacctgatc  
aaatagactctgaccaaggaacgcacttcacggctaaaataagccaggaactgaccactccataggagtggcttg  
gaaactacactgccctggacacccacgatccagtggcatagtggaaagaacaaatcgaactctaaaatccaaaatc  
ataaaagcacagaacagctgcaattatccaaatggacagaagtgttgccatatgtcctattggaaatgcgtgcaa  
ccccaaagaaacacggactaagtcctcatgagatagttatggggagaccaatgaaaaccacatatctaagtgatat  
gtcaccccttagggccactgacacattggtgacgtatatgaataaacttacacgacaattgtcagcatatcatcaa  
caggttggacagctggccttctacaagcctccccaggcccgagcccgatcctgggtgatgcttagaaacc  
caaagaaatcatctaattgggaaggaccttttctgatctctcctctctacaccaacggcggttaaaggtgaaggacg  
acaaaagcacttccgactgatgggtcccagcctggagaccatagaacataagacagaaatgggttaatacaaccagg  
agcgaagaacaaagtccggttagaccatcaaaaactagacaacaattaatagacgaaacaccagaaatatgtgcaa  
atgcatgggtaataaggttgataaccgaatttcccaccgaattagggaatatgagtcaaaaacaaaaaaccatagc  
aatacaggtgcacaataccacaatgactatggaagaaaccgttttctccctagtatatctcatgtaataaaaaagaat

tatgagatacacaatgtatcaggaatatgtaccaaataccagtttagtaccggaacttcacgtgtagcaccgaa  
aatgcattagtcacacaaaagaaaaaggatcattagtagtactacggtaaaagatacctacgaggtttacctacctt  
cgcatgggtcacaaaaaccacaggaggagataaatacccccagccacaaaatagggtataatacaggaacaggagg  
ctgaaccaatggaacaaagacgaattcgtataaaaacaatgcagaaagaaacgaggaaaaagacagatcacggtag  
ctaacagcaccctttccccacaggtactacagacttcacaaaatttaccctaatcctatatctcccaacagtac  
ggcctgaatgagcttgagcaaaagactacaccaataggaacagagcaaccatttaataatgaaaaatggcagaat  
ttgatatttggaatatagttacgaaaatggatccccaatgtgaagccgagctatttcaacaatttaatatatcag  
acaaaaccgtacaaagtagagtttaaaagttagctagcctccccggacaaaacatatcatgtcaagcgatatacaatac  
tgaacatgggtataaacaatagaaaacaaaaactgtgtaataagccttattaaagaaaatcggaaaattaaggcccat  
gcctacattacgcgcacagggtcatatgagtggtacgctcagcaagtaacttcaaaaggaataatacaagaagtta  
gaaaccttggtactatagtagaatgtgagtgctctatagtaaaaccattaccacaagggggaataattccattaac  
catgcctatgagggtagtaccacaccccttcacctatcctaatacattcagcattaaaatttgatttatctaaattt  
gggttatccccgtgttcattctcccctatggaatggcagacatatattactaaacctttgaaaagggtatgcatg  
gtttcgaggtccatcaacggaagaaacgagacctaggaataggattacatagtagactaaactcatggtggaatgg  
agcaaatcattaggggtgaccgtagaaagtgcgcagacacaaaaatatgatcagaaaatcttaaagggtgttaca  
aaccttgccgtacaacaacgaacggatgtaaaaaaccaacaacattgggaaaggcattggaaactcccatatata  
cgattacgcttcaattagccgacagctcttacagcagcaatattaaagcacgaacaacaacaaaacgtgggaatcac  
ttgtaaagatatagccatcctaacagtgacgcaaatcgctacgtacctacgggatattcagcatgagcacttacct  
gtatggtttatagaacaaataactaatcaaattttgctaccagtaggacaggttaataatgccggagataacagccc  
cccctatattgaacccacttattggatggaaccagtcgctcctggtaataaggacttacgcaccagctcactatcac  
tactgtacagcagcctttatacaaagcagcaaacatgggaaacttccaagattggactcccttccctccttttatt  
ctagcgaataaaaacacacggtttcagtatcgattgtcccataatgcgaaactcctttttgtgccatacgcctccca  
caccagttaaactttcagaatgggaaagaagtacatcgaccatttatcaaacgtcaccccagggtgtggataacgcc  
tgaaggaaaggcctgcctaaatcatcgaaatataacagttcaggacagaaacatgcctgataaacaagccagggtgc  
tttatccctaaacatccttgagtgaggggaaacaaactatagtcaccaaccaatacatacaacagaactttgtgc  
cagatactatagatacagaggataatcaaaccgggtattacaaaaggaaatgatagaagcgatatccaaggcaaa  
aagggactacggagtagtaaaacagggccagatagcattgattcgacatcacgaggctattactaccattccttga  
caagaggcaacatatagcattaaagaacacaggcattaatctcatcgaacaagaggcatggtataataatt  
tattctcttggtatgacggctctgtatggtcacagctacaattgataatagttgttatcacatgtaccataccact  
ttatgggtattaaatacatgtttattttttaaattacgaagagccataagacggggaacgggacaacaatatagtg  
gtagaataccaagcacaaaaccagaggaagaagaacgcataatgactgagcctatcactaaaaaacaacgagcaaaac  
tgctacgacacgcaaaaacaacagacgattgccacgtagcctaagagctacaccagcgggtatctgcttttgaat  
ggttacgtttgatccacaagaagaacccgttgagataaataggatagacccttctcatgagaacaatgaccacgga  
ggccccatgaatatggcaccgattataagtgcggacagttatgcctgcccactccttatattaccataatgctag  
acagagaacttctaaatcagggcatgcgaaaagtaattacgctcttaaacgatccagcaagagaagtattcaaca  
agcatataatttggttaccactaatcatttcactctggcttatggatgtgacgagtcagcaggatgggttaacca  
catgctgaatacatgggaaagccggtaatcgtagacattggcgggcctagtaattacgcctgtgggtttggcttga  
taccactcccacaacaagaaccatttggaaggttatttatggtccccaatagcatgccacatgtcaccgtggccat  
ggccgattatcatgagacaaaagaatgggcaaaaattgtgaaagacataaacaacgaagaacttcttttggtaaaa  
ccacaactctttaagtggaccgaagggttttttgtagcctgtcccctgttataagaggagttgtcactggacac  
agtttgctgcataatcgcatgcctgtacggcagtagcaggccgaaggacctaacgcaatctgcgagcaccttatg  
tattatttcattgtttattttatttaaagtaattttatttcagtttatgttgatcccgatgatctaccaacattta  
ttattattattagttttatattttttattttctttcatttatattttattttttattttttcttgatttttctta  
cgtacgtatatacaaacgtataa

>#8 Walleye epidermal hyperplasia virus type 1 (WEHV1) AF133051 8742 NT

atggggaacacccaaaacaaaaccgctcacggaagatcagtcctaaatacctcaaattagtggaacccgaacactgcg  
agaaaatcccgttggtcaaaaatacataaggaatttcgatcattttgtcctacatggccaaaggacgggacctgtga  
aacaagaaatgggaatgctcgtgcaatcaaagaaagacacaaaattgacaccagaagccattaaattatatgggt  
tttattaaaaacagggtgcaaatcagaaaagcagttactgcaaaacaattggccacacacgctgtcagacaaatgg  
tagtaaaacaaaaggacaccattccttccgctcctcttgaagatgaccagagttcagaagatgaggacaggttaaa  
ttcttacatgatgctaagaagaatatagagcagaaaaagaacaaatagctaggcacacacgaaaaaagcaagacgaa  
caacgaaagcttgacctaatagaaaaagaaaaagctcgggtggttaagccttcacagaaaaactactaaagcagatg  
ttcttcgcccactagtagtaagacaacgaaccggggctacagcagaactcttccctcaaaaacccgtacgacatta  
tcctacaggtaatggagcagacacagtcctccatacacagtgcattttaaagctacggacttgcatgttgagaaaa  
gattgtccctccataccggaagatatagctaaggtggagcattggccttactcaaacctacgagatttatgattgca  
acccttagatctgttacaattagcaagagctatttttccggtagcagtagttgaacgggcaacaaatttagcagg  
atggcctggatctcctgtccgagacaaaatagatacctaattggcgaattacgtgctcattaccgcctatctgt  
gactggggagccattcaaaacttccaatacaaaacaggccagacagcatgaatatgtctcagaggcggaaaaac  
tgttccgtgcaagcagcgggtacaatgggaacacgcctgggtcccattcctaacaatgttggtacaaggcttgcc  
cgcaaaactcgttactctctaagaggttccacttatgactggggtgaaaaacaatcccacaaatgacctccctg

atccaacatcacctgtccctacaggaaaagaaagaaggtaaaaacaagcaacaccctgttgttgttcagttggctg  
tgccaaacctcacagacatgcaaagacctgtccctatgcccttaggaacctgaagatgtgtgtttctattgcaa  
acagccagggcactggaaggacgaatgtcctaataagaaggggagggagaggtagaggttagaggaaatagcttcagg  
ggattcggtttcagaggatttcagagaggaatggggaggggaagaggcatgctgagaggggaacgggtggaggaggaa  
gacattcctttcagtatgatcagatagaaggccaactgccaccaccccaacagtacaatcaacagagatactttca  
acaacatcacgaaccagtttatcaacaatctcacatgcaagcgtcagcacaggagtggtagccctaatacaggggcct  
tcagcatagagtgttggctgccaggggtgtcaggtgtgtacgaacagagaagctgaaatattagtgaagtaata  
acacaattatccctatgcttgtcgatacaggagcttgtttaaccgccataggaggatcagctcctattgtccctaa  
attaaaattaactgacacaactgcctacgcggttaggaatttcttcagatcctgttgaaacataaaaaacggagcaa  
gtaaaggtaaaagtaaaaggatgcttcatgcaatatagagccatgggttaataaagatcaaacctttcatatcctgg  
gaagagacacattaactaaaatgagagctatgatagcctttctgccgtgtggtaggatggaagtggctcttccggc  
tcggtaccatcagaatgtcattacggatgggtgcagaggcgaaatgggtcactccagcaattcccagagtctctgtgg  
gccagctctcctacggatattgggaaaatgaaaatcacaccattcacatagaagtacttctgttccatgcccta  
gtattagacaatatccactaccgaaagaaaaagtcgaaggacttcgaccaatgatacattctttgctggctcaagg  
cgtactaactgaatgtcacagttcctgcaacactcccattcttcccaataaaaaagccaggaaggggaggtatcgc  
atgatccacgatctcagagctatcaatgaaatagtagctccactgactgcagtagttgctagcccaaccacggat  
tagcaaattctatcgccagatatgacttgcttcacgggtgatagatttatcaaacgcatttttctctgttccaataca  
ccttgacagtcaatatctgtttgcattttacctttgaagggaagacagtatacctggactgtattgcctcaagggttt  
atacatagccctactttgttttcacaggctttgttcagcagcctttccaaaataaaaagactctctgacttcggaaa  
tttgtatatacatggatgacgttctaatacgcatctagagacgaagaaacaaactataaagatacagctacgatgct  
acatcatttagctgatgaaggacataaaagtgtcaaagaaaaaactacagctatgcaaaagcgaagttgtttacttg  
ggacagctcatctccaaggcggggcgagacatcctgccagaaagaaagaaacagtcctcgcagtttgccgcgcca  
ccacgggttagacaggttcgggcgtttcttgggttggcaggctactgcagacattggattgcagattactctgaaaa  
cagtaaacatctagaagagttgcttaagaaagaggtcattgaaccttttactctgacaggcgaacaactgcgagca  
tttgagcaactcaaaagcactctgttatctgcgcctgtattggcgatcccagattacagaaaggactttgagttgt  
acacatctcacactgatcatgttgacgtggcagttctagcacaaaaacaagccggacggacaagaccaatcgcttt  
cctatccgcaaaattagatgccattgaacagggaacttccacctgttttaagagcatgcgcattctatacaaaaaac  
ctaacacaggctgactcctttcttttgggtagaccagtaaaaaatatacacacacactcaatatgtacgttgctac  
agagagatagatcacagttagtccagcatctaggtttagcaaattgggaagcggatcttttaagaccagaacttac  
ctttgttacctgtactgtgtttctcctgtcatctcctggcgactgcaacgtccgggtgacccacctcacgattgc  
gtgttattaactcataccatgtcaagaccacgtcggatctttctgatgtaccactagaaaaacccgaactgatct  
tattcacagatggatcttactcaaagggggaaggtgggtgtgtgtgttgcataacgcacctgaaaaggatacatt  
tctgacgggtggcagcatgtacaggggttcacctccgcacagacagcagagtttagcagctattactcttgcctgtcag  
tatgcggaagataaatccgttaacatatatacagactccagatatgcctttggcgtattacatgactttgggcatt  
tatggcaacatcgaggctttgttacctctgcaggcacgccaatcaaaaatcatgagatgatacaaaaacttttggga  
agcagtgcaacttccatccaaaatatcactcatgaaatgtcctgcacatacgaaaggtgtgaccttggaatacgc  
ggaaacgctgctgctgatgaagctgcaaaaaaggcagtttccatgaggcaggagtagtactcaaagaggacgctcttg  
aggaaacctatgccctctctgtccatgtgttacgacctcatagatgaaaaatactgtgaggatcgaccacaggga  
gggtgtattctggcatgaggatttaattattcctccagtagcaatgttacctagtattatgcgtgctatacatggg  
gtttctcatacgcacaaagggggaatgatggcatactttaaaaaattatggtttcatttggcagcacaaagcta  
ttgatgaggtaatagctggatgcgttgtgtgccttaaacataaccccaaaatacagaaaaagaaaagataaacaagg  
tcatagaccattgcccaggaagaccattctccatttgagggttgatttcgtgcatatgagcgataagaaacccatg  
tatgcacttgtcattgttgatgttttgccttaaatggcctgaagtattttcatgtaacaaagaagatgccactacag  
tatgtgacatcttaatactgactgacattctcctcgatggggattaccagatcaaattgattctgaccagggaactca  
tttcacctctaaaataactcagcaactcgctaactcaattggagtagcttggaagttgactgtcctggacacccc  
caatccagtggaatgggtggaaagactaaatagaaccatcaaaacaaaaattgaaaaagtaaaaaacacatctacaaa  
tagatgcatggcataaaagcactgccttatgttttaattggaacttagagcaatccctaagaaaaattacctaagccc  
atacgaatttgtaattgggcagaccgatgaagttagacactctaagtaattgtgtctccactatgggcccagtgataca  
ctagtaacatacatgaataaaactcacacatgctctctcagaatatcatacacagggtggccaaccagtggcctacca  
gtgttctcctccaggccagaaccagggaagcgtgggtgatgataaaatcgtttaccagaagaaaccaaccgtatggga  
aggaccacacctcatcctgtgtgtccaccccaacggctgtaaaggttgaaaggaaaaccagtgaggccgcacgacta  
tatgaggacacaggagaaggttatgtgttattttcataattaaaggtatgtggcttacccaatgtctgaaaggtcag  
gtcactgttccatgatttagaccagatgcgaaagggacgttttgattgttagtccagtggaattgcaaggaggtacctct  
tagaattcacacatgtactgttaaacaggcatcctttctgttatcttcagccagactaccaaaagcttagccgaagaa  
aaggagaagctgccattcaccttcttaacaaacacgcctgccccagggttaaccttaaatgaaacacagataagat  
gttctgttagttgggtaatacaattagccagccaacataaacatatattgggcataagcactcagatggaacagttac  
tataaccattgaaaaagcaatgcatcgggtcttcaatggacggagggaaggtccaggctgtagtgaatgggtgtacag  
tatgaaacaaccacaagagtaggagcctgtgtcttacttcaactaggcacaggtacgtacacttatgatggcatca  
cccgtggtagcttactccttatcctgagtatgggttagatccccacatgaaaaagctgggtactaaagaaagttag  
gagaactagaagggatacctctgtctataactactatcctaggggtacgaagtatggatgttgtctggacttgtgca



gtaaaattagcagaatatcaagccataacccaattatctgctgtaattgttgaggagacatgttttatctattggg  
tccaaaaggagcgcctcaggggcagatcaagattacagggtagcagaagaacaagttgttgccttcgttcagactc  
gtcagacagctgttgctcgtctacaccagaaacttatgagccaacacattacgtaaattgttccatgtgaagaaca  
ttcagagggaaaaataaaacatctgcctccctatttctcccgaaagggagtgggcacatggggcatgttcatactcat  
ggtttccccgaggggggttatgtgcaatctatcagagtagaagattactgttgccttggttacttccacctgtacc  
tactactgagccaccgcccctccacgacaagtataggcaagagcacagcttcgcctttgataaaaaacaaacgcgcg  
gttgtaactttggcacctagtactactagtaccactattgcccgcacaaataacacccatagagaaaactacctcta  
caactgttggcaccacagggactgtcacagtagctgtaccaccactacctccactgtaaaaacctctacagactc  
atctcctgatcccttatgaaacatttgatgggagaacaatgggaaaaactaataatgggcctcactaaaactcaaatt  
aaagctacgtgcattggagagataaaagagaaaaacaatgatcccagaagacttgacacaactagagtttaactaa  
ctggacgaggagataaagttgtagaatgtcaagttgtatacaatcctgcatatggcacaagctacataaatacatc  
ttgtagtatccaactaaacagaactaaatctgtagtatccgtttatgtaccatacatthaaggtaggggagtagtac  
tggcatcaccttataactacttccagggaggtctctctggaataaaatataccctgattgtagaaaattgtacctgtc  
ctaactcttagtccattacttctaggaggaatcgtggcaacctcaaaccacgacctgttctttatgatccatcacc  
tatactggtagataccactctgacctatgacctaaaagcattttaagataccaaactatgtggattctccaataca  
gagtggaaatacttacatctctaggcctattaatacggctataggagtagtattcaaaagacctagaaaaatgaaaagag  
atcttggtttgcatagttcattaaattcttggtggaacttcgaaaaatactctaggccttaggggttagaagctcataa  
caggcaggaatatgatgaaagaatgttgaacatattaactgatatctctacccagcaagcactggatgttaaaaat  
cagttgagcatagggaaaagctttgactgtaccttcatatagagttctcgctaagcctgactagtaaggtaactgaag  
ctattatggctcatgagaaagatcaaaattttcgaaatcattgctataacatggtaatgatggcagtaagttctat  
cacactaaacttaagagatattgagcacgatcacttgccttggtgggttactatctggcatacaaaactaagctgaaa  
ctccccaagggcatgaaactggttcccagtcacaaagcccgcagttgtaacgcctcaaattggctggaattcaa  
caactttaattgtaggctgactcaccagctacaagctgcaactgagctctctgctctcatgagaggacagaatat  
gggaagatttcaggattggacaccatccctgcagtagtaatgttttaatgcaactcatgtcttacctactgaatgt  
ccactagttcaaggagtggttgtgtgtgatgaactacctgccatgataccattgacacagtgaggagagtaatacta  
caaccatttacaaacatacccccacaaatatggttaacgcctgaaggacaggtctgcatcaatgttaagcggatatac  
ctatcaaggattacaatgtaaccttaaacaggtggatgctttggctcctacacatttctgggaagcaggaagatta  
aatatcattcctactcaacttgcacaagtttaactttacgtatgatcttccaaacgaagataagaatcaaactgata  
aattacaagaagcattagataaagcaattatggctgcagaaaaagaatatggaaatctgcatgatgtacaattggc  
attggtaaaagatcatggaataaaaagcaaaactactgtcacaaaaggctcttcaatcagtttctgataccgaagca  
gtattaatcaagctcgatacagaaagatgggttaaatcattcttttcatggatgatggaggatgggttatctaag  
tacaattactgggtggtgctcttaccctttcagttccactcttgtgggtagtaacgctttgcctggcggtgctgcct  
aaagaagaagatagggagacaggggaatcagcaaaatactatgattgtcagaacggacagttatcccatgtctagt  
tacctccggttccgcttaggactccgttaagaagggatatgcgtagtagtccatatactcaattgatttaagt  
cgtcctttatgactgaacgattgggttcagacatttccaagatttacgggccaaatgaaagattgggttaactctggc  
aacattgggttaaaatacacccacatgtaactttagcttatggacaagaggaagtggcagaatggagggagttacat  
ccattcattcttggccacagtggtcccagttacggttacaggaataatcgtgggaaaacttggcagtgcatgggtat  
taaattgtgaatcaacatagtggttcaggacttgatgaagttcctggatctattcctcacatttccattgcaattgc  
tgaaggacatgaacaaaaagaattaggatggcacttatctcaattgcagcatctggatattgggtcctctgtcacct  
ggtgtcttctcttggggaccggacacaatctttatgacctctgcatttgtatgtcagggcatagtagcagaaaatt  
ag

>#9 Friend murine leukemia virus (FMLV) M93134 7107 nt

atgggccagactgctaccaccccccttaagtttgacttttagaccactggaaggatgtcgaacggacagcccacaacc  
agtcggtagaggtcagaaaaaggcgctgggttacattctgctctgcagagtggccaaccttcaacgtcggtggcc  
acgagacggcacttttaaccagacattattacacaggttaagatcaaggtcttctcacctggcccatggacat  
ccggtacaggtcccctacatcgtgacctgggaagctttagcagtagacccccctccttgggtcaaacccttcgtgc  
accctaaacctcccctccttcttcccccttcagccccctctctcccacctgaacccccactctcgaccccgctca  
gtcctcccctctatccggctctcacttctcctttaaacaccaaacctaggcctcaagtccttctctgatagcggagga  
ccactcattgatctactcacggaggaccctccgcttacccgggacccagggccaccttctcctgacgggaaaggcg  
atagcggagaagtggcccctacagaaggggcccctgactcttcccacatggatcccgctgctgggggaagaagaga  
acccccgctggcggatttactacctctcaggcggttccccctctcgctgggagggaatggacagtttcaatactgg  
ccatttctcctctgacctctataactggaaaaataataaccccccttcttctccgaggaccaggttaattgacag  
ctttgatcgagtcggttctccttactcatcagcccacttgggatgactgccaacagctattagggacctgtgcac  
gggagaagaaaaacagcgagtgtccttagagggccgaaaggcggttcgaggggaggacggacggccaaactcgtgc  
ccaatgatattaatgatgtcttttcccttgggaactcccagctgggactacaacacccaggttaggaaccacc  
tagtccatatcgcagttgtctcctagcgggtctccaaaacgcgggcagaagccccaccaatttggccaaggtaaa  
agggataaccagggacctaatagtgtcctcagccttcttagagagactcaaggaggcctatcgcagatacact  
ccttatgacctgaggaccagggcaagaaaccaatgtgtccatgtcattcatctggcagtcgcgccccgatatcg  
ggcgaaggttagagcgggttagaagatttgaagaacaagaccttaggagacttagtgagggaagctgaaaagatctt  
taataaacgagaaacccccggaagaaagagaggaacgtgttaggagagaaacagaggaaaaggaagaacgcgtagg

gcagaggatgagcggagagagaaggagagggaccgcagaagacatagagaaatgagtaagttgctggctactgtcg  
ttagcgggagagacaggatagacagggaggagagcgaaggaggcccaacttgaccacgaccagtgtgcctactg  
caaagaaaagggacattgggctagagattgccccagaagccaaggagggaccccggggaccacgacccaggcctcc  
ctcctgggaggtcagggtcaggagccccccccctgaaccaggataaccctcaaagtcggggggcaaccgcacact  
tcctagtggatactggggcccaacactccgtgctgacccaaaatcctggaccctaaagtgacaagtctgcctgggt  
ccaaggggctactggaggaaagcgatatcgctggaccacggatcgccgagtgacactagccaccggtaaggtcacc  
cactctttcctccatgtaccagactgcccctatcctctgctaggaagagatttgctgactaaattaaaagcccaa  
ttcactttgagggatcaggagctcaggttggtgggaccaatgggacagcccctgcaagtgtgacccctaaacataga  
agatgagtatcggtacatgagacctctaaagggacagatgtgcctctagggccacatgggtctctgattttccc  
caggcctgggcagaaaccgggggcatgggactggcgttcgccaagctcctctgatcatacctctgagggcagcct  
ctaccccgagtgtccataaaacaatacccatgtcacgagaagccagactggggatcaagccccacatacagagact  
gctggatcaggggaattctggtaccctgccagtcctcctggaacacgcccctgctaccctgtaagaaaccggggact  
aatgattataggcctgtccaggatctgagagaagtcaacaagcgggtagaagacatccaccccaccgtgcccaacc  
cttacaacctcctgagcgggctcccaccgtcccaccagtgggtacactgtgcttgattttaaaagatgcttttttctg  
cctgagactccaccccaccagtacgtctctcttcgcttttgagtggagagatccagagatgggaatctcaggacaa  
ttaacctggaccagactcccacaggggtttcaaaaacagtcccaccctgtttgatgaggccctgcacagggacctcg  
cagacttccggatccagcaccacagacctgatcctgctccagtatgtagatgacttactgctggccgcccactctga  
gcttgactgtcaacaaggtacgcgggcccctgttacaaacctcggggacctcggtatctgggcccctcggccaaagaa  
gccccaaatttgccagaaacaggtcaagtatctggggtatcttctaaaagaggggtcagagatgggtgactgaggcca  
gaaaagagactgtgatggggcagcctactccgaagacccctcgacaactaaggaggttcctagggacggcaggctt  
ctgtcgcctctggatccctgggtttgcagaaatggcagcccccttgtaacctctcacaaaaacggggactctgttt  
aagtggggcccagaccagcaaaaggcctaccaagagatcaagcaggctctcttaactgcccctgcccctgggattgc  
cagacttgactaagcccttcgaactttttgttgacgagaagcaggggtacgccaaaggtgtcctaacgcaaaaact  
ggggccttggcgtcgggccgtggcctacctgtccaaaaagctagaccacagtggcagctgggtggcccccttgccct  
cggatggtagcagccatcgccgttctgaccaaagacgctggcaagctcaccatgggacagccactagtcattctgg  
cccccatgcagtagaggcactagttaagcaaccccccgatcgctggctctccaacgcccgaatgaccactacca  
ggctctgcttctggacacggaccgagtcacgttcggaccaatagtgaacctaaaccagctacgctgctccctcta  
cctgaggaggggctgcaacatgactgccttgacatcttggctgaagccacgggactagaccagatcttacggacc  
agcctctcccggacgctgaccacacctggtacacagatgggagcagcttcctgcaagaggggacgcaaggccgg  
agcggcagtaaccaccgagaccgaggtaatctgggccaagcactgccagccgggacatcgggccaaagagctgaa  
ctgatagcgtcacccaagccttaaaaaatggcagaaggtaagaagctaaatgtttacactgatagccgttatgctt  
ttgccactgcccataattcacggagaaatatatagaaggcgcggttgctcacatcagaaggaaaagagatcaaaaa  
taaggaagagatcttggccctactgaaggctctcttctgccccaaaagacttagcataattcattgcccgggacat  
cagaagggaaccgcgcggaggcaaggggcaacaggatggccgaccaagcggcccgcagaagtagccactagagaaa  
ctccagagacttccacacttctgatagaaaactcagccccctatactcgtgaacattttcactatacagtactga  
cataaaagatctgactaaattaggggcccacttatgacaatgcacagaagtgtgggtttatcagggaaagcctgta  
atgctgatcaatttacctttgaactattagattttcttcatcaattgaccacctcagtttctcaaaaacaaagg  
ctcttctagaaaggagctacagtccttattacatgctgaaccgggacgaacgctcaaagacatcactgagacttg  
caaagcctgtgcacaggtcaatgccagcaagtctgccgtcaacaagggactagagttcgagggcaccgacccggc  
accactgggaaattgatttactgaagtaaagcctggcctgtatgggtataaatatcttttagttttcgtagaca  
ctttctctggatgggtagaagcttttcccaaccaagaaagaaactgccaagttgtaaccaagaagctactagaaga  
aatcttcccagattcggcatgccacaggtattgggaaccgacaatgggcctgccttcgtctccaaggtaaagtcag  
acagtagccgatttattgggggttgattggaaactacattgtgcttacagaccccagagttcaggtcaggtagaaa  
gaatgaataggacaatcaaggagactttaactaaattaacgcttgcaactggctctagggactgggtgctcctgct  
tcccctagccctgtatcgagcccgcacacgcgggcccccatgggtctcaccccatatgaaatcttatatggggca  
ccccgcccccttgtaaaacttcctgatcctgacatggcaagggtcactcataaccctctctccaagctcatttac  
aggcactctacctgggtccagcacgaagtctggagaccgttggcggcagcttaccaagaacaactagaccggccggt  
agtacctcaccctttccgagtcgggtgacacagtggtgggtccgcagacaccaaactaaaaatctagaaccccgtgg  
aaaggacctataccgtcctactgactacccccaccgctctcaaagtggacggcatttgacgctggatccacgctg  
cccagctaaaggctgcccagacaccaaattgagccaccatcagaatcgcccttaattctcttctctctcaaagg  
ggcagatccgcagcaccggctctagccctcaccaggtctacaatattacctgggaagtgaaccaatggggatcgg  
gagacagtatgggcaatatcaggcaaccaccctctgtggacttggtggccagacctcaccacagatttggtatgt  
tagctctcagtgggccgccccactgggggctagagtatcgggccccctattcctcgccccggggcccccttggtg  
ctcagggagcagcgggaacagggcaggtgcgcgagagactgcgacgagcccttgacctcctcaccctcgggtgc  
aacactgcctggaacagacttaagctggaccaggttaactcataaactcgagtgggggtatgttctgccccgggt  
cacatcgcccccgaaagcctaagtcctgtgggggtccagactccttctactgtgcctcttgggggtcgagacaac  
cggtagagcatactggaagccctcctcatcttgggactacatcacagtagacaacaatctcaccactaaccaggct  
gctcaggtatgcaaagacaataagtggtgcaatcccttggtatccagtttacaacgcggggaacaggtcacct  
catggacaattggacactattgggggtctacgtctttatgtctctgggcaggacccggggcttactttcgggatccg  
actcaaatatcaaaatctaggacctcgggtcccaataggaccgaaccccgctcctggcagaccaactttcgttcccg

ctacctaataccccctacccaaacctgccaaagtctccctccgcctctaattcgactcctacattgatttccccgtccc  
ccgctcccactcagccccgccagcaggaacgggagacaggttactaaatctagtagcagggagcttaccaggcact  
caaccttaccacccctgataaaactcaagagtgtgtgttatgcctagtgtctgcacccccctattacgagggggtt  
gcggtcctaggtacttattccaaccatacctctgccccagctaactgctccgcgggctcccaacacaagctgaccc  
tgtccgaagtgtactggacagggactctgcataggaacagtcacaaaaactcaccaggccctgtgcaacactaccct  
taagacaggcaaaaggtcttactatctagttgccccgcaggaactatgtgggcatgtaacaccggactcactcca  
tgcctatccgccaccgtgcttaatcgcaccactgactactgcgttctcgtagaattatggcccagggtcacctacc  
atcctcccagttacgtctatagccagtttgaaaaatcctatagacataaaagagaaccagtgctccttaaccttggc  
cttattattaggtgggctaactatgggtggcatcgccgcgggagtagggacaggaactaccgcccctggcgcacc  
cagcagtttcagcagctccatgctgccgtacaagatgatctcaaagaagttgaaaagtcattactaacctagaaa  
agtctcttacttcatgtgtgaggttgactgcagaatcgacgagggcctagacctgttgttccctaaaagaaggagg  
actgtgtgctgccctaaaagaagaatgttgtttctatgctgaccatactggcctagtaagagatagtatggccaaa  
ttaagagagagactcactcagagacaaaaactatttgagtcgagccaaaggatgggtcgaaggattgtttaacagat  
ccccctgggtttaccacgttgatatccaccatcatggggcctctcattatactcctactaattctgctttttggacc  
ctgcattcttaatcgattagttcaattttgttaaagacaggatctcagtagtccaggcttttagtctgactcaacaa  
taccaccagctaaaaccactagaatacagagccacaataa

>#10 Feline leukemia virus (FLV) M18247 7164 nt

atgtctggagcctctagtgggacagccattggggctcatctgtttgggggtctcacctgaatacaggggtgttgatcg  
gagacgagggagccggaccctcaaagttctctttctgaggtttcattttcgggtttggtaccgaagccgcgcggcag  
tcttgtcattttttgtctggttgctgtcttttctgtcccttgcttaacctttttaattgcagaaaaccgtcatgggc  
caaactataactaccccccttaagcctcacccttgatcactgggtctgaagtcggggcacgagcccataatcaaggtg  
tcgaggtccggaaaaagaaatggattaccttatgtgaggccgaatgggtgatgatgaatgtgggctggccccgaga  
aggaactttttctcttgataacattttcccaggttgagaaaaagatcttcgccccgggaccgtatggacaccccgac  
caagttccgtacattaccacatggagatccttagccacagaccccccttcgtgggttcgtccgttcctacccccctc  
ccaaaactcccacacccccctccctcaacctctatcgccgcagccctccgccccctcttacctcttccctctacccccgt  
tctccccaagtcagaccctcccaaaccgcctgtgttacgcctgatccttcttccccctttaattgatctcttaaca  
gaagagccacctccctatccgggggggtcacggggccaccgccatcagggtcctagaacccccaaaccgttccccgattg  
ccagccgggctaagggaacgacgagaaaaaccctgctgaagaatctcaagccctcccccttgagggaaggcccaacaa  
ccggccccagttattggcattctcagcttcagacctgtataactggaagtcgcataaccccccttttctcccaagac  
cccgtggccctaaactaacctaattgagtcatttttagtgacgcataaccaacctgggacgactgccagcagctct  
tgcaggcactcctgacaggcgaagaaaggcaaaaggtccttcttgaggcccgaaagcaggttcaggcgaggacgg  
acggccaacccagctgccaatgtcattgacgaagctttcccccttgacccgtcccaactgggattttcgtacgccg  
gcaggtaggagacactacgcttttatcgccagttgctgttagcgggtctccgcggggctgcaagacgccccacta  
atttggcacaggtaaagcaagttgtacaagggaagaggaaacgccagcctcattcttagaaagattaaaagggc  
ttacagaatgtatactccctatgacctgaggacccagggcaggtgctagtgttatcctgtcctttatctaccag  
tctagccccggacataagaaataagttacaaaggctagaaggcctacaggggttcacactgtctgatttgctaaaag  
aggcagaaaagatatacaacaaaaggagaccccgagggaaaggggaagaaagattatggcagcggcgaggaagaaag  
agataaaaagcgccataaggagatgactaaagttctggccacagtagttgctcagaatagagataaggatagagag  
gaaagtaaaactgggagatcaaagaaaaatacctctggggaaagaccagtgctcctattgcaaggaaaaggacatt  
gggttcgcgattgccccaaacggccccgggaagaaacccgccaactccactctcctcaacttagaagattaggagag  
tcagggccaggacccccccccctgagcccaggataaccttaaaaataggggggcaaccgggtgactttcctggtggac  
acgggagcccagcactcagtattaactcgaccagatggacctctcagtgaccgcacagccctgggtgcaaggagcca  
cggaagcaaaaactaccggtggaccaccgacagggaggggtacaactggcaaccggtaaggtgactcattcttttt  
atatgtacctgaatgtccctaccggttatttaggaagagacctattaactaaacttaaggcccaaatccattttacc  
ggagaaggggctaattgttgttgggcccaggggtttaccctacaagtccttactctacaattagaagaagagtatc  
ggctatttgagccagaaagtacacaaaaacaggagatggacatttggttaaaaaactttccccaggcatgggcaga  
aacaggaggtatgggaatgggtcattgtcaagcccccggttctcattcaacttaaggctactgccactccaatctcc  
atccgacagtatcctatgccccatgaagcctaccagggaattaaacctcatataagaagaatgctagatcaaggca  
tctcaagccctgccagtcctccatggaatacaccttattacctgttaagaagccagggaaccaaggattacagacc  
agtgcaggacttaagagaagtaaaacaaaagagtagaagacatccatcctactgtgccaaatccatataacctcct  
agcacctcccgcgctctcacccttggtacactgtcctagatttaaaagacgcttttttctgctgcgactacact  
ctgagagtcataattactttttgcatttgaatggagagatccagaaataggactgtcagggcagctaacctggacagc  
ccttctcaggggttcaagaacagccccaccctatttgatgaggtctgcactcagactcagctggccgatttcagggt  
aggtaaccgggtctagtctcctacaatatgttagatgacctcttgctggtgcggcaaccaggagctgaatgcctgg  
aagggactaaggcactccttgagactttgggcaataaggggtaccgagcctctgcaaaagaaggcccaaatttgcct  
gcaagaagtcacatacctgggtactctttaaaagatggccaaaggtggcttaccaaagctcgcaaaagccatc  
ctatccatccctgtgcctaaaaaacccacgacaagtaagagagttccttggaaactgcaggttactgccgctgtgga  
ttccccggttttgccgagctcgacgccccgctataccctctcactcgaccaggaactctgttccagtggggaacaga  
gcaacaattggccttcgagaacattagaaaggccctcttgagttccccctgcctgggggttgccagatatcaccaag  
ccctttgaattatttattgatgagaactcaggatttgcaaggggggtgttagtccaaaaactgggaccctggaaaa

gaccagttgcctacctatcaaaaaagctggatacagtggcatctggatggcccccttggtttacgcatggttgcagc  
catcgccatcctagtcaggatgcaggggaagctaaccctaggacagccgctaactatcctgacctcccaccagtt  
gaggcacttgctccgacagcctccaaataaatggctctctaagtctagaatgactcattaccaagctatgctcctcg  
atgcagagcagtgccatttcggggccgacagctctcccttaaccctgctactttgctccccctcccagcgggaaacc  
accacgactgtctccagatttagccgagaccatggcacagaccgacttaactgaccagccgttgccggatgcagac  
ctgacctggtacacggatggttagcagcttcatccgtaacggagagagaaaaagccggagccgcagtaacaaccgaat  
ctgaggtaatctgggctgcttccctcccacccggaacgtcagcccagcgagccgaactgattgccctgaccaggc  
actgaagatggcaaaaggtgaagaagctaactgtctatacggacagccgatatgcctttgctacagctcatgtacac  
gggaaatctacaggcggcggggctgctaacttcagaaggaaaagaaattaaaaataaaaatgaaatcctcgccc  
tattagaggcggttattcttaccctaaaagactgagtatcatccattgcccgggacacccaaaaaggcgatagtcacca  
ggcgaaggaagcaagattagccgatgatacagcaaaagaaagccgccacagagactcaatcatcactaaccatctta  
cccactgaacttatagaggggtcccaaaaggcctccatgggaatatgatgacagtgatttagaccttggtgcagaaac  
tcgaagctcattatgagccaaaaagaggtacctgggagtagccgagggaaaaactataatgcctgaaaaatacgcaaa  
ggagttgattagccatctgcataagttaacacacctcagtgctagaaaaatgaaaactttactagaaagagaagaa  
actgggttttacctccctaacagagacttacacctccggcaagtaacagagagctgccgggcatgtgctcaaatca  
acgcaggaaagataaaagtttggacctgatgtaagggcccgaggccgcggccgggaacacattgggaagtagactt  
cactgaaatcaagccaggaatgtatggatataaaatacctcttgggtgttcatagacaccttctctggctgggcccag  
gcttaccgccgcaaacatgaaacagcaaaagttgttgccaagaaactcttagaagaaattttccccgctacggga  
tcctcaggtattgggttcagataatggacccgcctttatctcccaggtaagtcagtcgtgtggccacctactggg  
gattaattggaagttacattgtgcatatcgacccccaaagttcaggtcaggtagaaagaatgaatagatcaattaag  
gagactttaactaaattaacgctagaaaactggctctaaggattgggtgctcctcctgcccctgggtttataccggg  
tacgtaacacgccaggccccccacgggttaactccttttgaaatcctgtacggggcacccccacctatggctcactt  
cttgatactgatatctctacgttcgctacctccccactatgcaggcacatttacgcgcctcgcagctggtccaa  
gaagagatccagagacctctagcggcgccctaccgagaaaagctcgaaaaccccggttggtgcctcacccttcaaac  
caggagactccgtctgggttcggagacatcaaaccaagaacctcgagccacgggtggaaaggaccacatatcgtcct  
cctgaccacccccacagccttaaaggtagacggagttgctgcctggattcacgcctcccattgtgaaagctgcagga  
ccaaccaccaatcaagacctctcggacagccccagctcagacgatccatcggttctgggtggggatcttattcacia  
tagacataggaatggccaatcctagtcacaccaaataataatgtaacttgggttaataaccaatgtacaaactaa  
caccaagctaattgccacctctatgttaggaaccttaaccgatgtctaccctacctacatgttgacttatgtgac  
ctagtgggagacacctgggaacctatagtcctaagcccaaccaatgtaaaacacggggcacgttacccttctcaa  
aatatggatgtaaaactacagatagaaaaaacagcaacagacatacccccttttacgtctgccccggacatgcccc  
ctcgtcggggccaaagggaacacattgtggaggggcacaagatgggttttgtgccgcatggggatgtgaaaccacc  
ggagaagcttgggtggaagccctcctcctcatgggactatatcacagtaaaaagaggagtagtcaggacaataact  
gtgagggaaaatgcaacccccctgattttgcagttcacccagaaggggaaacaagcctcttgggacggacctaagat  
gtggggattgcgactataccgtacaggatagaccctatcgcccttattcacgggtatccccggcaggtgtcaaccatt  
acgccgcctcaggcaatgggaccaaacctagtcttacctgatcaaaaacccccatccccgacaatctcaaacagggt  
ccaaagtggcgacccagaggcccccaacgaatgaaagcgcccccaagggtctgttgccccaccaccggtgggtcccaa  
acggattgggacccggagataggttaataaattagtacaagggaacatacctagccttaaattgccaccgaccccaac  
aaaactaaagactgttggctctgcctgggttctcgaccacctattacgaagggttgcaatcttaggtaactaca  
gcaaccaaaacaaacctcccccatcctgcctatctattccgcaacacaagctgaccatatctgaagtatcagggca  
aggactgtgcatagggactgttccctaagacccaccaggcttgggtgcaataagacgcaacagggacatacaggggcg  
cactatctagccgcccccaatggcacctattgggcctgtaacactggactcaccctatgcatttccatggcggtgc  
tcaattggacctctgatttttgtgtcttaatcgaattatggcccagagtgacttaccatcaaccgcaatatgtgta  
cacacattttgccaagctgtcaggttcggaagagaaccaatatcactaactgttgccctcatgttgggaggactc  
actgtagggggcatagccgcgggggtcggaacagggactaaagccctccttgaaacagcccagttcagacaactac  
aatggccatgcacacagacatccaggccctagaagagtcaattagtgccttagaaaagtcctgacctccctttc  
tgaagtgtcttacaaaacagacgggggctagatatcttattcctacaagaggggagggtctgtgccgcattaaaa  
gaagaatgttgcttctatgcggatcacaccggactcgtccgagacaatatggctaaattaagagaaagactaaaac  
agcggcaacaactgtttgactcccaacagggatgggttgaggatgggttaacagggtccccctgggtttacaacct  
aatttccctcattatgggcccccttactaatcctactcctaatttctcctcttcggccccatgcaccttaacagatta  
gtacaattcgtaaaagacagaatatctgtggtacaagccttaattttaacccaacagtaccaacagataaagcaat  
acgatccggaccgacctga

>#11 Bovine foamy virus (BFV) U94514 8073 nt

atggctcttaatgacttcgacctatagctctccaggggtatttaccgcaccacagagttttgcaacataatgata  
ttataatatgtagagcaacctctggaccatgggggattggagacagatacaatcttattagatccatttacaaga  
tcctgcaggggcaaccttgctattcctcaatgggaacccattcctaactcgactgcaaatcctcgaccacaacct  
taccagtggtctctgctccgatggcaactctagaaaacatcttgaataactttcatataacctcatggggtatcta  
gatatgggtcccctagaagggggtgattatcagccaggagaacaatatccagggattttgtccagttacacaggc  
tgagattgccctactaaatggacaacatctggaggaaagagataactattcctaagagagataactcatagattgatg  
caaggggtgagaccaccagcgggtcccaacaggacctgctcctccaccacctccagcccagcctccagctccgttgc

ctgctccgcctattggacctcctccacctgctgctcctgcacctgctccagggcctatgccagttcctcaacacct  
tccaatcacacatatagctgctgtaatcgagaaacccccgcaaacatcagagaagtcctctatgggtggcagcg  
gcagtagctgccttacaaggtgtttacccgggtccaggacgctgttatgcgcagtcgaacagtgatgctcttacag  
ttcggcatcccggtctgccttggaaaccttggaaatgtgggtcatggcaagaatgtctggcagcactatggcaacg  
tacttttggagccactgctctccatgcgcttggagacacactaggacaaattgccaattcagatgggatagtgatg  
gccatagaactgggggttattattctccgatgataattgggatctagctctgggtatttgcgaagattcctcccg  
gacaagctgtttgtgtagccgttcaggctaggctagaccacttcccgataatgcgacacgaattgtgatgatttc  
acacatcatacgtgatgtctacgccatcctagggttagatccctgggcagacctatgcaacaaactcttcccaga  
cgcaacaaccaaccacctagacaacagccgcaacggcgtcaacagccaaggcgtaccggaaaccaagaagaagag  
gtcagaggaatcgtggcagacagaacgccagactccacgtcaagagggaaacagattacaaaattcacaacttcc  
tgggccacgggattgcccaataattctaataacctcggttatccctcaggcccaatcctcaacagccacaacga  
tacggacaagaacagaaccgtgggaacaatccgaaccttatcgacagccaaccttggaaacgggaaccaaaca  
ggaatttcagccgggtcccgccccgtcaacgagcaaagtgcgggacgtgggagaagcagccaaggaacaaaca  
cacaggaagttctgcggtccacagtgtagattaacatctgctgctccaccataccccacaaggctactgggac  
tctggggctgaaatcacttgtgtcccagccatataatagaagaacaaccagtgggaaaaaaactgattacta  
ccatacataatgaaaaagaacatgatgtgtattacgtggagatgaagatcgagaagagaaaagtacaatgtgaagt  
aatagctactgccctggactatgtattggtagctcctgtcgatattccctggtataaaccaggaccactggagctg  
actattaaaaatagatgtggaatcccaaaaacacacctgataactgaaagcaccttatctcctcaaggccagatga  
gattaaaaaaactgttggatcaataccaagctctatggcaatgttgggaaaaccagggtcggacatcggcgtattga  
gccacataagatagccactggggccttgaacacctgcacctcaaaaacaatatcatataaatccaagggcaaaagca  
gacatacaaatagtcatagatgatttattacgacagggggtattaagacaacaaaatagtgaatgaacacacctg  
tataccctgtccccaaggctgatggacgctggaggatgggtgttagactacagagaagtgaacaaagtgacccctt  
ggtggccactcaaaattgccactcagccagcataactaaataccctgtatcgggggccttataaatctactcttgac  
ctagccaatggattttgggcacaccccattaaaccagaagattattggatcactgccttcacatggggaggcaaaa  
cctattgttggactgtcctccccagggttccaaactctccagcattgtttacagcagatgtcgtagacatctt  
gaaggacataccaaatgttcagggtatatgtggatgacgtctatgtgagctcagcgactgaacaagaacatcttgac  
atactagaaactatttttaacagactgtccacagctgggtatatagctcctgaaaaagagcaaattagcaaagg  
agacagtggaaattcttggggttttccatttcccaaaatggcagaggactcacagactcatacaagcagaactaat  
ggatctacagcctccgactaccttaagacaattacaaagcatcttgggacttatcaattttgcaaggaatttctta  
cctaattttgctgagctagtggctcctctttatcaactgatacccaaaggccaaggccaatgtatcccatggacaa  
tggaaccatactacacaactgaaaactataatacaggcccttaattcaacggaaaacctggaagaaagaagacctga  
tgtggacctaataatgaagggtcacatttcaaacactgctggatatatacgtttttacaatcatggaggggcaaaag  
cccatcgcatacaataatgtctttttcaccagtagtgaactaaagttcacccctacagaaaagataatggctacca  
tccacaagggttactgaaggccttagatctgagcttggggaaagaaatacatgtatattcggctattgcctcaat  
gactaagttacagaagactccactctccgagcgaaaagcactatctattcgtatggctgaaatggcagacttacttt  
gaggatcctcggataaaagtttcatcatgatgcaactttacctgacctacaaaatttaccagtaccacagcaagaca  
caggaaggaatgacaatacttccctgctgcattatgaggcaattttctacacagatggatcggctataaggctc  
accaagcccaacaagacgcattcggcagggtatggcatcatacaggctaagtttgaaccggactttagaattgta  
cacttgtggtcttttccattaggagaccatactgtcaatatgcggaaatagcagcctttgagtttgccataagaa  
gagcaactggaataaggggaccagttctgatagtacagatagtaattatgttgctaagagttataatgaagaatt  
gccctattgggagctaaacgggttggtaataataagaagaagacattaaaacacatcagcaaatggaaagccatt  
gctgaatgcaagaatttgaaggccgatatccacgtgatacatgagccaggccaccaaccagcagaagcctctccc  
atgctcagggcaatgctctagcagataaacaagctgtttcagggaagctataaggctcttctcaaatgaattgaaacc  
cagcctggatgcagagcttgagcaagtccttagcactgggaggcctaaccctcagggtacccaaataagtatgaa  
tataaattgggttaattggactatgttatgtggacaggagaggagaggaggaaggactcaagataatcccgccctaaagctg  
atagagttaaattgtgccaactcgctcatgatgggcccggatctgcccactgaggacgatcggcactcctattaaa  
attacaacaaaaatattggtggcccagaatgcacattgacgcctctcgaattgtgctaactgcactgtctgtgca  
caaactaattcaactaatcagaaccaaagaccaccttgggttatcccatgataccaagccatttcagggttgggt  
acatggattatattgggacctccctccctccaatggttaccaacatgctctagtaattgttgatgcaggtagtg  
attcacttggatttaccaccacaaaggcccaaacctgccaacgcaaccgtgaaggccctcacacatctcactggcact  
gctgtccctaagggtgctgcactccgaccaggggccagcattcacctcctccatcttgggtgattgggccaagacc  
ggggtatacaattggaacacagtgctccttaccacccccagagtagtgggaaagtggaaaggaaaaacagtgagat  
aaagcgggtcttaacgaaactgttggcaggacggcccacaagtgggtatccattgattccaattgtacaacttgc  
ctgaacaacactcccaacacaagacaaaatatacccccatcagttgatgtatggggctgattgtaattcttccct  
ttgaaaacctggataccttggaccttactcgtgaagaacaactcgcagtcctcaaagaggtccgtgatgggtcttct  
ggacttatacccttctccttcacagaccactgcccgtcctggactcccagtcctggcctgttgggtccaggagagg  
gtagccaggccagcacagctgcgtccgaaatggaggagcccacacctattaagaaggtagtaaacgaacggaccg  
ttataatagaccacctaggccaggacaaagtagttagtattgataaactgaaacctgcggcacaccagaaacttgc  
acaaactccggattcagcagaaatttgcccaagtgcacacccgtgtccgccaacacttctctgtggtatgacct  
gatacaggccacatggacctgccaagggtgtgggtaccagtgctcctgacaaatatcatcaaccgcagtgtagatgg

cctgtgaagatcgttgtgggcatcgttgggaaggagtgcgggaattgtattccacagctagagacgaccaacctctt  
acagatgaaccctaaaatggagagtggttgcctaccggactttgatccaccgggtgatgaagaagtctccctcaga  
ataaggtgcaaatactggatctatctgtgctgtgccacctccacaagaataatggcatggattgtgttcattctca  
cagtactcagcatattgctgatctctgtgttgatagcagtatTTAGGTTACAATGGAAGGGAGCTATTGAGAGCCC  
AGGTCCCATTTTGGTGTGGAACAATAGTAATAGCATTAAATGCTCAGCCTACCACACCTCCACACTATTCCCGACTG  
AGAAGGGCAATACACCTGGCACAAAAGCCTGTCCAGGTGAATTTTACTTCTATACCACAGGGCTTGTTCCTGGAAC  
CTCACCCAAAACCCATAATTTCCAAGGAGAGGGTATTGGGACTTTCACAAGTAGTTATGGTGGACTCTAGCACTCT  
CACCCAGAAGTTGAACCTTGAAGGAGAAGCTAAATCACTCCTCATAAAAACCATAAATGAAGAAGTGAATCTCGTTA  
CAAGATGTAGTCCTTAATTTTGACCTCCCCCTGGGGGATCCTCACACACAAGAAGAATATATAGCTAAGAGATGCT  
ATCAACATTTTGGGCACTGCTACGTGGTACATATTCCAGGGGGAAAAGAATGGCCAACCTCGGGAGATAATACAAGA  
CCAGTGCCCTTTAAATAATTCATGGTTGACTGCTTACATTATGACTATTTGCCAGCCTGGGATTATTATAATCAG  
CCTCCGCCGAGGCAACTGTCATTGAAGGATTTCAAGGAAGTATAATATTAGTAATAATGGTTCTAGATATGAAGCCT  
ATAGGCTGCCCTTGCAAGACAAGATAGGGGCTGTAGCCTTCTGTAGCCCTACCCTATACTCCTCCTGGTGGAATTA  
CACACAAAGTAGCAGAGAAAAGAGAGGAATTATTCCGACGCAAGTTAGAAACCTTCTGAATCCACAGACTGGCTGC  
CTTAACCCCGAGGCACTCCCAGGAACCTGGCACACTCTAGGAAAAGGTGAATGGTTTAGAGATCTAACAACATATG  
ACTTTTGCAAGAAAACAGAGGCCGTCTTTGGATTAAACAAGACTTATTATAGCTGGTCATTGTGGGAAGGAGACTG  
TGGAAGACAAGGAAATGACACTCAGGACTATCCACCAGAATGTGCGGAATTATGAGAAAAAGGATGGAGTACACGTC  
TATGGTTGCAGGTATTGGAGAACCTATTCTCAAACAGCCCATACCCAGACAACCTGAGTTGTTATCTGTCAGAAG  
ACTATTGTCTGTTCCAACCAAAATGGGACAGTGCTGAAATTAGATCTGATTTAGGTTATTTGGCCTATTTAGGAGC  
CTTCCCGAGCCCAATTTGTATTGAGGCAAGGAATTTAACTGATCAGGATTATAAGGTTACATCTATCTATGCTGAG  
TGTGTAAGCAAGGGAAGCAATATGATATTATAGATGTAACACGTCAGCTGACAAGCAAGCTCACCCGAAGAGGGG  
TCTTCTTGGGCGACCTACCTGCAGACCGAGCCTTCTCCTCCTGACTGACTTCTCGCTTCCAGCCAGTTATCAGAA  
TAAACGCAGGACGGAAGACGAAAAGTCTGTTCAAGTAAAAGAACGAGGAGAAGTATAAATAACTGGAGAAGGCTC  
CAGATAACAGGACAATCAATGAATCAAGCCATTACCAGCTTTCTAAGTTGTCAGACTTGAATGATGAAAATCTAG  
CCGCAGGAATACATCTCCTCCAGGATCATATCGTCACCTTAATGGAAGCAACACTTCATGATGTGTCACTTTTAGG  
ACACATGACTAGTATTCAACACTTACATACCCACTTAGCCACTTTTAAGAACCTGCTAATAGGAAATCGAGTGGAC  
TGGTCAGTACTCGAAAAATAATGGATACAAGAAGAAGTGAATATACAGATGAGGTTATGAATGTAATTCGAAGAA  
CTGCAAGAAGCATCACTTATGATGTCCAAAATGTGAAGAATACCAGTGACTCGACTATGTGGGAAATATATATTTA  
CTATGAGCTTATACTACCAGAAAGAATTTGGATCCGTAATTTGGCAAGTGGCCAATCTAGGACATTTGACCCACAAT  
TCCGGATACCTTACCCATGTGACTATACATCATCCGTATGAGATTGTGAATCAAGACTGTGAAGAAGTCACTTTTC  
TGCATTTAGTTGATTGTCAAGCAAGATTATTTAATATGTGAAGAGGTGATGGAAGTGAACCTTGCGGCAACCT  
GACAGGATCTGATTGTCCAGTCTTGGCAGAAAAATACAGGCTCCTTATGTTTATTACATCCTTTGAAAAATGGG  
AGTTATTTACTCATGGCTTCCACACTGATTGTTCACTCCCCCCTATGAACCTGTAGTAGTGACTGTGAATGACT  
CTCTCGAATGCTATGGTAAACCACTTAAAAGACCCTAATTTCTCATACTGAAATCAAGCTGTTTGCCCCACAAT  
ACCACAAGTGAAGTCCGACTTCTCTCATTTAGTTGGGATCATTGCCAACTAAAGAGCTTAAAAATCAAGGTAACA  
AGCACTTGGGAATCTATAAAAGACCAGATACACAGATCAGAACAAGAGCTACTTCGGTTGGATCTCCACGAAGGAG  
ATTACTCAGACTGGATCCTGCAACTTGGAAACGCCCTAGAGGACGTCTGGCCTGTAGCTGCGTCTGCTGTGAGTAC  
AATCGGGACCTTACTGGAGAAAGCTGCAGGAAGTCTCTTCGGGAATGTTTTAGCATACTAGCCTATGCTAAACCG  
GTCATTATTGGGATAATACTTATCATTTTACTTTTGTAGTCAATCAGAAATATTGAGATGGCTAGCGGTGGAACGCC  
GGAGAAAGCAAGAGTAG

>#12 Feline foamy virus (FFV) Y08851 7683 nt

atggctcgagaattaaatcctctccaattacagcaactgtatataaataatggcttacaacctaatccaggacatg  
gagatattattgctgtcagatttacaggaggaccttgggggtccagggtgatagatgggctagagtgacaatacgaat  
acaagataacacaggacaacctttacagggtcctggatagatttggaaacctgggataataaatttgagagaggat  
atcttgatagcagggccatataattttaataagaactgcctttttggacttagagcctgccagaggacctgaaaggc  
atggtccttttgagatggcagattacagcctggagatgggtttatctgaaggatttcaacctatcactgatgaaga  
aatacaagcagaagtaggaactattgggtgctgctagaaatgagataagattattacgagaagctttacagagatta  
caagctggagggtgtgggtagacctataaccaggagcagttttacaaccacaaccagtaataagggccggtaatac  
ttaatcatcttaggtcgggtatttggcaatactccacaaatccacgagatgtcgccctatggcttggaagatctac  
agccgctattgaaggagattttcccatagtggaccaagtcactcgtatgagggtagttaatgccttagtagcatct  
catcccgccctaacgttgactgagaatgaggccgggagctggaatgctgccatatcagctttatggaggaaagctc  
acgggtgctgcagctcagcatgaattggcaggagattaaagcgatattaataaaaaggaaggcatacaaaactgcatt  
caacctaggaatgcaatttacagatggaaactggtccttagtatggggaataatcaggactcttttaccaggacaa  
gccctagtaaccaatgctcagtcacaatttgacctaatgggagatgatatacaacgagcagaaaaattccccaggg  
tcattaacaactctatacactatgctgggtctcaatatatacatatgggcaagatttagacctcgggtccaaacacagcc  
actacaaactcgaccccggaaccgggacgactcaacaagggtcaactaaatcagccgagaccccaaatagagct  
aaccaatcttatagacccctagacaacaacagcaacactctgatgttcccgaaacagagagatcagagaggaccgt  
cgcaacctcctcgtggaagtggaggaggatataattttagaagaaatccgcagcagcctcagcgctacggccaagg  
accaccaggaccaaacccgtaccgacgattcgggagacggcggtaatcctcaacagcagggaccaccaccaaaccca  
gggcctgatcaaggacctcggccaggaggcaatccagaggaggagggaagaggtcaagggtccaagaaatggaggag

gaagcgctgccgcagtacatacagtaaaagcgtctgaaaacgaaactaaaggttactgggactccaagccgatat  
tacctgtgttccaaaggacttgcttcaaggagaagaacctgttaggcagcaaaatgtgactactatacatggaacg  
caggaaggagatgtatattatgtaaatttaaaaatagacggtagaagaattaatacagaagtaatagggacaactt  
tgactatgctattataactcctggagatgtaccttggattttgaagaaacctctagaattgactattaaactaga  
tttagaagagcagcaagggtactttaacaattccattttatctaaaaaagggaagaagaattaaaacaatta  
tttgagaaatatagtgccttatggcaaagttgggagaatcaggtgggtcatagaagaattaggccacataaaatag  
caactggtacagtaaaacccacacctcagaaacagtatcatattaatccaaaggcaaacctgatattcagattgt  
gataaatgatttactaaaacaaggggtactaattcaaaaggaaagtactatgaacactcctgtctaccagtacc  
aagccaaatggctcgctggagaatggtactggactacagagcagtaaaataaagtcacacctttgatagctgtacaaa  
atcaacactcgtatggaattttaggaagtctttttaaggtagatataaaactacaattgatttatccaatgggtt  
ctgggcacaccccatagtcccagaggattattggattactgcattcacttggcaaggaaaacaatattgttggact  
gttttaccacaagggttttttaaacagccctgggttgtttactggagatgttgtagatcttctacagggaattccca  
acgtggaagtctatgtggacgatgtatatattagtcatgattctgaaaaagaacatttgggaatatctggatatttt  
gtttaatagattaaaagaagcaggatatataatatctcttaaaaaatccaatattgccaattctattgtggatttt  
cttgggtttcagattactaatgaaggccggggcctgacagatacttttaaaagaaaaattggaaaaatattactgcc  
ctaccactcttaacaattgcaaagcatactaggtcttttaaaattttgccagaaattttattcctgactttactga  
attaattgctccttttatatgcattgataccaaagtctaccaagaattatgttccttggcaaatagaacattcaacc  
actctggaaactttaattactaaactaaacggggcagaatatttacaaggaagaaaaggagataaaacattgatca  
tgaaagtcaatgctagttatacaacaggatatataaggtattataatgaaggggaaaagaagccaatatcctatgt  
aagtatagtgttcagcaaaaactgaattgaaattcactgaactagagaaattgctgaccactgtgcacaagggtctt  
ttaaaggccttggacttgtcaatggggcaaaacattcatgtttattccccattgtatccatgcaaaaatattcaaa  
aacaccacagactgctaaaaaggcctttggcctctcgatggttgagttggctttcttatttggagatccgagaat  
taggttcttttatgatccacagatgcctgctctaaaagatttgcctgctgtagacaccggaaaagataataaaaaa  
catcctagcaattttcaacatatattttacactgatggttctgctatcacgtcccctactaaggaggggacatttaa  
acgtggaatgggaatagtttattttataaaacaaagatggaaatttacaaaagcaacaggaatgggtccattagttt  
ggggaatcatacagcacaatttgcagaaatagctgcttttgagtttgccttaaaaaatgtttgcctttgggagga  
aacattcttgttgggtactgacagcaattatgttgcaaaagcatataatgaggaacttgatgtttgggcctctaattg  
gctttgtgaataacaggaagaaacctttgaaacatattagtaaatggaaatcggttgcctgaccttaaaagattaag  
gccagatgttgttgtgacccatgagccaggtcaccaaaaacttgactcatctcctcatgcttacgggaataatctg  
gctgatcaactggccacgcaagccagttttaaagtacatatgactaaaaatcccaagctggacattgagcaataa  
aggcaattcaagcatgtcaaaataatgaaagattacctgttgggttatccaaaacaatatacctatgagttgcaaaa  
taataaatgtatggttttaagaaaagacgggttgagggaatctcctccttcccagagaacgggtataaacttattaaa  
gaagcacataacatttagtcatgcaggccgagaagccgtgttattaaaaatacaagaaaattattgggtggcaaaaa  
tgaagaaagatatatcatcttttcttctacatgtaatgtatgtaagatggtaaatcctttgaatttgaaacctat  
tagccctcaagctattgtacaccaaccaaaccttttgataaattttatatggattacattggggccattgccacca  
tcagaaggttatgtgcatgttttagttgtggtagatgctgccactggatttacttgggtgtacccactaaggctc  
aaacctccaaggccacaattaaagttcttaatcatctcactggactagcaattccaaagggtgctgcattctgatca  
aggatcagcatttacttctgaagaatttgcctcagtgggcgaaggaaaggaatatacaattggaattcagtaactcct  
taccacctcaaagtagtgggaaagtggaaaggaaaaacagtgaattaagaaacttttaactaagctcttgggtg  
ggaggcctttaaagtgggtataacctttatatccagtgtgcaacttgcctctaaataacactcatgttgtcagcaccaa  
gtatactcctcatcaactaatgttttggaaattgattgtaatttaccatttgctaataaggataccttggactggaca  
agagaagaagaacttgcctccttgcaggaaattcgtgaatctttacaacaccctgtacaacccccccactgctctg  
gttggtcaccatacgttggccagctgggtccaggagagggtgtacaggccgtcacaaatgaaggcctaagtggaggaa  
gcctacaaaggctcttggaaatattgaaatcctagaactgtgatttatagtggaccatctaggccaacggaaatctgtg  
agtattgacaatttaaaacctacagcacaccagcatttgcattgtgacatacctgaggatattccttttagtaccag  
agaaggtagctttgaaaaatgaggatgcatatagatgtttatactttgtgtgctacttctactagaataatgttttg  
gatactattctttcttctatgtttttcaatagttaccttgagtacaattataagatttcttagatatcaatggaaa  
gaagcaataacacatcctggcccagctcttaagctggcaggtgactaattcacatgtaaccatgggaggaaatactt  
cctcttctccagacggagacgtgatatacaataaccacaaacttcccgtagagggttaacatctcagggatcccaca  
aggctcttttcttcgcacctcaacaaaacctatatttcacaaagaaagaactttaggtctttctcaagtgattctt  
attgactctgatactattactcaaggctcatattaacaacagaaagcatatttagtctcaacaattaatgaagaga  
tggagcaattacaaaagacagattaccttttgacttaccatcaaggacccttaactcaaaaggaatacataga  
aaaaagggtgctttcaaaaatatggacattgttatgttatagctttttaatggaaataaagtttggccttcacaagat  
ttaataacaagatcaatgtccattacctcctcgcttttggaaataacttaagtataggaaccacactatatggaaat  
attatataccattggcattttaaagtatcctccaattggacaagagtagaatcctatggtaatataggaatggcag  
ctttaaagttcctgatgaaatttagacaaaaatgccacacattggaatatatttggctgtgactatatagtaattgg  
tatccacgtgatctaccttcttcggtacaacaatcctttgctcaagcatatatacaaaaggtagcttatgaaaagga  
aaaagcaacctactttacgagatatagcttttccaaaggaattgagccctgtaggctctgggtatgctattcagacc  
tattaacccatatgatattctgtaatatgccaagagcagattattattataaataaaacatatattatactttctacta  
tggaaggagattgtggatattaccaacacaatcttactcttcatcccgcagtgaagaacttcaatagaactagac

aagaccatccatatgcttgcagatTTTTGGAGAAACAAGTATGACTCTGAGTCAGTGCAATGCTATAATAATGATAT  
GTGTTATTATAGACCTTTGTATGATGGAAGTGAAGAATACTGAGGATTGGGGATGGCTGGCATATACTGACTCTTTT  
CCATCCCCCATCTGTATTGAAGAAAAGCGAATCTGGAAGAAAAATTATACTCTGTCTCTGTATTAGCAGAATGTG  
TAAATCAAGCCATGGAATATGGTATAGATGAAGTATTATCCAACTAGATCTGATATTTGGGAATCTGACTCATCA  
ATCAGCAGATGAGGCCTTCATTCCGGTTAATAATTTCACTTGGCCTAGATATGAGAAACAAAATAACAACAAAAA  
ACCTCTTGTGAAAGAAAGAAAGGTAGAAGACAAAGAAGGTCCGTAAGTACGGAAAACCTAAGAAGGATACAAGAGG  
CAGGCTTAGGCCTGGCCAATGCAATTACTACTGTGGCTAAGATCTCTGACCTGAATGATCAAAAATTAGCCAAGGG  
AGTACATTTGCTTAGAGATCATGTTGTCACTCTAATGGAAGCCAATTTGGATGATATTGTGTCCCTAGGAGAGGGA  
ATACAAATAGAACATATACATAATCACTTAACCTCTTTGAAATTGCTTACTTTGGAAAATAGAATTGACTGGAGGT  
TTATAAACGATTGATGGATTCAAGAAGAATTAGGTGTTTCAGATAATATAATGAAAGTAATAAGGAAAACCTGCAAG  
GTGCATTCCTTACAATGTCAACAAAACCTAGGAATCTAAATACTTCCACTGCATGGGAAATATATTTATATTATGAG  
ATCATCATTCCTACCCTATATATACACAGAATTGGAATATAAGAATCTAGGTCACCTTGTAAGGAATGCAGGAT  
ATTTATCTAAGGTGTGGATTCAACAACCATTTGAAGTACTAAACCAGGAATGTGGAACAAATATATATTACATAT  
GGAAGAATGTGTTGACCAAGACTATATAATATGTGAAGAAGTAATGGAACCTCCTCCTTGTGGAAATGGAACCTGGT  
TCAGACTGCCAGTGCTAACCAAAACCACTTACAGATGAATACTTGGAAATTGAACCCCTAAGAATGGGAGTTATT  
TGTTTTTATCAAGTACTACAGACTGTGGCATAACAGCTTACGTGCCTGTGGTTATAACGGTGAATGACACAATCAG  
CTGTTTTGATAAAGAGTTTAAAAGGCCACTTAAACAGGAACATAAAGTAACAAAATATGCACCATCCGTTCCCTCAA  
TTAGAACCTAAGAGTTCCTCGGTTAACAAGCCTGATTGCAAAAATAAAGGAATTCAAATAGAAATTACCAGCAGCT  
GGGAAACTATAAAGAGCAAGTCGAAGGGCCAAGGCAGAGCTTCTACGCTTGGACCTTCACGAAGGAGACTATCC  
AGAGTGGCTGCAGCTCCTTGGAGAAGCAACTAAAGACGTTTGGCCTACAATCTCCAACCTCGTTTTCTGGAATAGGT  
AATTTATAAAGGACACTGCTGGAGGTATTTTTGGAAGTGCCTTTAGTTTTCTGGGATATGTAACCTGTACTTT  
TGGGATTTGTGATAATATTTTGATAATTTTAATTATAAAAATCATAGGATGGCTTCAAAATACCCGGAAGAAGGA  
CCAATAA

>#13 Simian foamy virus human-isolate (SFV) U21247 8133 nt

atggcttcaggaagtaattgttgaagaatatgaacttgatgttgaagctctggttgaattttaagagatagaaata  
taccaagaaatcctttacatggagaagttataggtcttcgccttactgaaggatggtggggacaaattgagagatt  
tcagatggtacgtctaataattacaagatgatgataatgaacctttacagagacctagatatgaggtaatacaacga  
gctgtaaaccctcatacaatgtttatgatatcaggaccattagctgaacttcaattagcctttcaggatttagatt  
tacctgaagggtccattgaggttttggtccattggcaaatggacattatgttcaaggagatccttatagtagttctta  
cagaccagtaacaatggccgaacagcccaaatgactagagatgaactggaagatgttcttaataactcaaagtga  
atagaaattcaaataataatttattggagttgtatgaagttgaaactagagctcttagaagacaattagctgaga  
gatctagtacagggcaaggaggaatatccccaggagctcctcgttctcgaccaccagtaagcagcttctcagggtt  
accaagtttgccctctatacctgggattcatcccagggcaccttcacctccaagggcaacttctactcccggaaat  
attccttgagtttaggagatgatagcccaccttcatctagttttcctggacctctcaacctcgtgtttctttcc  
atccgggaaatccttttggtgaagaagaaggtcatagacctagatcccagcttagagaaaggagaagagaaattct  
tctgctcctgtaccgtcagcacctcctatgattcagtatataccagtaccacctccaccaccgattggcacgggt  
atacctattcagcatatcagatctgtaactggagagcctcctagaaacccaagagaaataccaatttggctaggac  
gaaatgctcctgctatagatggagtgttccctgttacaacaccggatctaagatgcagaataattaatgctatact  
aggaggaaatattgggctatcattaacccctggagactgtttaacatgggactcagcagtagccaccttatttatt  
agaacccatggaacttttccaatgcatcagcttggaaatgtaataaaaggcatagttgatcaagaaggagtggcaa  
cagcatatactttgggaatgatgctttctggacaaaattatcaattagtttctggaataatttagaggatatttggc  
tggaacagctgtagtaactgcattacaacagcgttttagaccaagaaatagataatcaacaagagcagagactttt  
attcaacatctaaatgctgtatatgaaatttttaggccttaatgccagaggacaaagtatacgtgcttcagtgactc  
ctcaaccccgaccatccagaggttagaggtcgaggtcaaaatacttctagacctctcaaggaccagctaatacgcg  
gcggggacgacagcgccctgcttctggtcaaagcaacagaggatctagtactcagaatcaaaatcaagataattta  
aatcaaggaggatataatcttcgaccccgacttaccacacctcaaaggtacggaggaggacgtggacgaagatgga  
acgataataactaacaatcaagagtccagaccatcagatcaaggttctcaaactcctaggccaaatcaagcaggctc  
tggggtgctggtggaatcagtcacaaactcccagaccagctgctggtcgcgaggaggaagggaaccacaaccgaaac  
caacgatcatccggtgctggtgactcacgcgctgtcaataccgtgacacagagtgccacgtcctccacattgttag  
cccactgggattcaggggcaacaataacttgattcctgaaagttttttagaagatgaacaacctattaaaaagac  
tttaataaaaaacaattcatggagaaaaacaacaaaatgtttattatgtaacctttaaaagttaaaggaagaaaagt  
gaagcagaagtgtatgcttctccttatgagtatattttgctgtcgccaacagatgttccttgggttaacacagcaac  
cacttcagtttaacaatttagttcctcttcaagaatatcaagagaaaatcttaagtaagactgctcttcagaaga  
tcaaaaaacaacataaaaaacttggttgcagtagatgacaattgttggaacattgggaaatcaagtcgggcat  
agaaaaattaggccacataatatagcaactggtgattatcctcctcgccctcaaaaacaatatcctattaatccta  
aggcaaaccttagtatcaaaattgtaatatagtagacttattgaaacaaggggtgttaacgcctcaaaatagtacaat  
gaatacaccagtgatcctgttcctaaaccagatggaaggtggagaatggtatttagattatagagaagtaataaaa  
actattccattaacagctgccccaaaaccaacactctgctggtatttttagctactattgttagacaaaaatataaaa  
ctaccttagatttagctaattggatttttgggctcatcctattacaccagaatcttattgggttaacagcatttacctg  
gcaaggtaaacagttattgttgacacgtcttcctcaaggattttttaaatagtccagcattgtttacagctgatgta



gtagatttactaaaagaaatccctaattgtacaagtgtatggtgatgatatatattttaagccatgatgatcctaag  
agcatgttcaacaattagaaaaagtgtttcaaatcttactacaggcaggatagtagtatctttgaaaaaatcaga  
aattgggtcaaaaaactgtagaatttttaggatttaattactaaagaaggtcgtggcctaacagacacttttaaa  
acaaaactgttaaatattactcctccaaaagacttaagcaattacaaagcatattaggattgttaaattttgcta  
gaaattttatacctaattttgctgaactgggtacaaccattatacaatttaatagcctcagcaaaaaggcaaataat  
tgagtgggtctgaagaaaataactaaacaattaaatatggtaatagaagcattaaacactgcctctaatttagaagaa  
aggttaccagaacagagactggtaattaaagtcaatacttctccatcagcaggatagtgatagattataatgaga  
ctggtaaaaagcctattatgtacctaataattatgtgttttccaaagcagaattaaaattttctatgttagaaaaact  
attaactacaatgcacaaagccttaattaaggctatggatttggccatgggacaagaaatattagtttatagtccc  
attgtatctatgactaaaatacaaaaaactccactaccagaaaagaaaagccttaccattagatggataacatgga  
tgacttatttagaagatccaagaatccaatttcattatgataaaaccttaccagaacttaagcatattccagatgt  
atatacatctagtcagtcctctgttaaacatccttctcaatatgaaggagtgttttatactgatggctcggccatc  
aaaagtcctgatcctacaaaaagcaataatgctggcatgggaatagtagcatgccacatacaaacctgaatatcaag  
tttgaatcaatgggtcaataccactaggtaatcatactgctcagatgggtgaaatagctgcagttgaatttgctg  
taaaaaagcctttaaaaatacctgggtcctgtattagttataactgatagtttctatgtagcagaaaagtgtataaaa  
gaattaccatactggaaatctaattgggtttgttaataataagaaaaagcctcttaaacatatctccaaatggaaat  
ctattgctgagtggtttatctatgaaaccagacattactattcaacatgaaaaaggcatcagcctacaaataccagt  
attcatactgaaaggcaatgccctagcagataagccttgccaccaaggaagttagtggttaattgtataacaaa  
aaaccaaactggatgcagagttggatcaattattacagggtcattatataaaaaggatatcccaacaatatatcat  
attttttagaagatggcaaagttaaagtttccagacctgaaggggttaaaattattccccctcagtcagacagaca  
aaaaattgtgcttcaagcccacaatttgggtcacaccggacgtgaagccactcttttaaaaatttgccaacctttat  
tggtggccaaatatgagaaaggatgtggttaacaactaggacgctgtcaacagtgtttaatcacaaatgcttcca  
acaaagcctctgggtcctattctaagaccagataggcctcaaaaaccttttgataaattctttattgactatattgg  
acctttgccaccttcacagggatacctatatgtattagtagttgttgatggaatgacaggattcacttggttatac  
cccactaaggctccttctactagcgaactgttaaatctctcaatgtactcactagtattgcaattccaaagggtga  
ttcactctgatcaagggtgcagcattcacttcttcaacctttgctgaatgggcaaaggaaaagaggtatacatttgga  
attcagtactccttatcacccccaaagtggtagtaagggtggaaggaaaaatagtgatataaaaacgacttttaact  
aaactgctagtaggaagaccacaaaagtgggtatgacctattgcctgttggtacaacttgctttaacaacacctata  
gcctgtattaaaaatactccacatcaactcttatttgggtatagattcaaaactccatttgcaaatcaagatac  
acttgacttgaccagagaagaagaactttctcttttacaggaaattcgtacttctttataccatccatccacctt  
ccagcctcctctcggttcctgggtctcctgttgggttgccaaattgggtccaggagaggggtggctaggcctgcttcttga  
gacctcgttggcataaaacgtctactgtacttaagggtgttgaaatccaaggactgttggtattttggaccatcttgg  
caacaacagaactgtaagtatagataattttaaaccctacttctcatcaggcgcatgaggcacttcaaaaatacaaca  
actgtgactgaacagcagaaggaacaaattatactggacattcaaaatgaagaagtacaaccaactaggagagata  
aatttagatatctgctttatacttgttgtgctactagctcaagagatttggcctggatgttttttagtttgtatatt  
gttaatcattgttttgggttcatgctttgtgactatatccagaatacaatggaataaggatattcaggtattagga  
cctgtaatagactggaatgttactcaaagagctgtttatcaacccttacagactagaaggattgcacgttccctta  
gaatgcagcatcctgttccaaaatatgtggaggtaaatatgactagtattccacaagggtgtatactatgaaccca  
tccggaacccatagtggtgaaggagaggggtcctagggtctttctcaaattctgatgattaattcagaaaacattgct  
aataatgctaatttgacacaagaagtaagaagttgttaactgaaatgggttaatgaagaaatgcaaagtgtgtcag  
atgtaatgattgactttgaaattccttttaggagaccctcgtgatcaagaacaatatatacatagaaaatgctatca  
agaatttgcaaatgttatttagtataaaatataaagaacccaacccgtggcctaaggagggccttatagctgatcaa  
tgccattaccaggttaccatgctggattaacctataatagacagctctatttgggattactatattaaagtggaga  
gtattagacctgcaaattgacaacaaagagtaaatatggacaagctagactaggaagtttttatattcctagcag  
cctgagacaaatcaatgttagtcatgtactattctgtagtgtatcaattatattctaaatgggtataatatagaaaat  
accatagaacaaaacgagcggtttctgcttaataaaactaaataaccttacatctggaacctcagtattgaagaaa  
gagctcttccgaaggattggagttctcaaggtaaaaatgctctgttttagagaaatcaatgtgttagatatctgcag  
taaacctgaatctgtaatactattgaatacttcatactattccttctctttatgggaaggagattgtaattttact  
aaagatatgatttctcagttgggtccagaatgtgatggattttataacaattctaagtggatgcataatgcacat  
atgctttagattctggagaagtaagaagaatgaaaaagaagaactaaatgtagagatggggaaactaagagatg  
tctgtattatcctttatgggacagctcccgaatctacatatgatttgggtatttagcataccaaaaagaattttcct  
tcccctatctgtatagaacaacagaaaattagagatcaagattatgaagtctatttcttatcaagaacgcaaaa  
tagcttctaagcatatggaattgatacacagtttattctctaaagaattttcttaattatcacaggaactcctgt  
aaatgaaatgcctaattgcaagagctttttagtagcctaataagatcccaagtttctcctcctatcccaatgttact  
agggaacattatacttctgttaataataggaaagaagaagtggtgataaactatgctaagtttaaggtctatgg  
ggatgcacttacaggagcagtgcaaaccttatctcaaatatcagataattaatgatgaaaacttacagcaaggat  
atatttattaagggatcatgtaataaccttaatggaagctacattgcatgatatatctgttatggaaggaatgtt  
gctgtacaacatttgcatacacatttgaatcatttgaagacaatgcttctagaaagaagaatagactggacctata  
tgtctagtacttgggtacaacaacaattacagaaaatctgatgatgagatgaaagtaataaagagaattgctagaag  
tttgggtatattatgttaacaaacccatagttctccacagctacagcctgggagattggattatattatgaattg

gttatacctaacaatatttacttgaataattggaatgttgtcaatataggtcacttagttaaatcagctggacaat  
tgactcatgtaactatagctcatccttatgaaataatcaataaggaatgtgtagagactatatactgcatcttga  
ggactgcacaagacaagattatgtcatatgtgatgtggtaagatagtgagccttgtggcaatagctcagacacg  
agtgattgtcctgtctggtggaagctgtaaaagaaccatttgtgcaagtcaatcctctgaaaaacggaagtatc  
tggttttggcaagttccacagactgtcagatcccacatatgttccctagcatcgtgactgttaatgaaacaacgtc  
atgctttggactggactttaaaaggccactgggtgcggaagaaagattgagctttgagccacgactgccaaatcta  
caactaagattaccacatttgggttgaattattgcaaaaatcaaagggataaaaaatagaagtcacatcctctggag  
aaagtataaaagagcagattgaaagagcaaaagctgagctccttcgactggacattcacgagggagatactcctgc  
ctggatacaacagctagctgcagcaacaaaggacgtctggccagcagcagcttctgctctacaaggaattggtaac  
tttttatctgggactgcccaaggaatatttggaaactgccttttagtctcttgggatacttaaagcctatcctaata  
gagtaggggtcattctcttgggtatttcttatatttaagattgtatcatggattcctacgaaaaagaagaatcagta  
g

>#14 Bovine immunodeficiency virus (BIV) M32690 6963 nt

atgaagagaagggaggttagaaaaagaagcttcgtaagggttaggggtgacaccccaacaggataaatattatactatag  
ggaatcttcaatgggcccattagaatgataaatctaattggggatcaaatgtgtgtgtgacgaggagtgctcggcagc  
agaggtagcccttatcataacccaatttttcagcttttagacttagaaaaattctcctatcagagggtaaggaggaggtg  
gccataaaaaataactctgaaggttttctgggtccctgctggcggggtacaaaccagagagtagacagaaacggccctag  
gatattgggagggcctttacatatagagaaaagggaggccagagctgataaggaaggcgaaattaagagtatttacc  
ttccctaacacagaacacacagaataagaagcagacatcgaatcagacaaaacactcaatcattaccagctatcact  
actcaagatgggtactccttaggtttgatcctgacctcatgaagcagcttaagatctgggtcagacgccactgaaagaa  
atgggggttgaccttcatgacgtgaatatattaggggtcattacagcaaaccttagtacaggaagaaattaaactcct  
cttgaatagtacacccaagtggagattagatgtacaacttatagaatcaaaaagtaagagagaaagaaaatgcccac  
agaacgtggaaacagcatcatccagaagccccaaaaacagatgaaatcatcggttaaggggcttagttctgctgaac  
aagccaccctgatctcagtagaatgcagagaaaactttcagacagtgggtgctgcaggcagctatggaggtggcaca  
ggcaaaacatgctaccccagggtcccatcaacattcatcagggaaccaaggagccgtacacagactttataaataga  
ttagtggcagcccttgaaggatggcggtccagaaaccacaaaagaataacttactccaacatctatctattgatc  
atgccaatgaagactgccagtctattctaagaccttgggacccaacaccccaatggagaaaaaattagaagcatg  
tagggtagtgggatctcagaaatcaaagatgcaatttttggtagcagctatgaaagaaatggggatccaatcacca  
attccagcagctcttgctcacacaccagaagcatatgcttccaaacctcagggcccagaggtggtaggagatgtt  
acggatgtgggaagacaggacatttgaagaggaattgtaaacagccttttataaaggtgttcatagggggaagatg  
ggtaaaaggggttagtagacactggagcagatgaggtagtgttaagaacatacattgggataggataaaaaggggat  
ccagggaacaccaattaaacaaattggggtaaatggagtaaatgtggccaaaaggaagaccacgtagagtggagat  
ttaaggataagactgggataattgatgtcttgttctcagatactcctgtaaaccttttgggagatctcttctacg  
tagcatagtgaacttgcttcacctacttgttcacacagaaaaaatcgaaaccttaccgtaaggttaaggggacca  
gggcctaaggtaccccagtggtcccttgacaaaagaaaagtatcagggtcttaaggaaattgtgaaagatcttttag  
cagaaggaaaaatttccgaagctgcttgggataacccatataataacccagtttttgttataaagaaaaagggaaac  
gggaagatggaggatgctaattggatttttagggaattaaataagataaacagttaaaggacaagaattctctacaggc  
ttaccttaccctccaggaattaaggaatgtgaacacttaactgcaatagatataaaagatgcctactttactatcc  
ctttacatgaggacttttagaccttttacagccttctctgtagtccctgtaaatcgagaaggacctatagagaggtt  
ccagtggaaatgttctaccacaaggatgggtatgtagccttgccatttatcagactaccaccacagaagattatagaa  
aacattaaaaaagagtcacccagatgtcatgttgtatcaatatatggatgatttgttgattgggtctaatagggatg  
atcataagcaaatagtgaggaatcagggataagttaggatcatatgggttcaagactccagatgaaaaggtcca  
ggaagagagagtgaatggatcggtttttagctcacaccaagaaatggcggttttcagcccaggcaactaaagata  
aaaaaccactcacagtaaatgaattacagcaatttagtaggtaattgtgttgggtacagccagaagtaaaaatcc  
ctctatacccttaaccgatctactgagggataagaccaatctccaagaaaagatacaactaacaccagaagccat  
caagtgtgtagaagaattcaatctaaaactaaaagatccagaatggaaagatagaataagagaaggagcagaatta  
gtcataaaaaatacagatgggtcctcggggcatagtatttgcctgttgcagatggaaatcccatatggggaggag  
taaaaggactaaattatgatcattcaacaaaaataaaaaagatacttagaactatgaatgagctgaacagaacagt  
ggtaattatgacaggaagagaagctagtttctgcttctgggtcttctgaagattgggaagcggcactccagaag  
gaagaaagtctaacacaaatattcccagtaaaagttttataggcactcctgcagatggacctccatattgtgggccag  
taagagaaaatctaaccactactatactgacggagggaagaaaggggaaaacagctgcagcagtatattgggtgtga  
aggaaggactaagtc aaaggattttccaggaaccaatcaacaggcggaattgaaggccatattgcattggtctcttg  
gatggaccacaaaaatgaatatcataacagatagtagatcgcctattaggggaatgagagaagaaccagaaacgt  
gggccaggaaggaatctgggtggagattgccaagatattgaccttaagcagtagctgggggtcggtgggtggtcc  
tgcacataaagggataggaggaatacagagagcagatgaagggttaagaaagccttagaagacagatggccccgtg  
agccctcctgaggccattctattaaaaccaggagaaaaacaaaatctggagacagggatctacatgcaggggtta  
gaccacaaagcttccctcccaagagcagacttacagtagccatcacaggaacctggtagattcagagctacagct  
acagctacttaacataggaactgagcatataagaatccaaaaagatgaggtcttcatgacctgttccctagaaaat  
atccctcagccactgaagatcatgagagatggcatacctcaccagacattttgggttaggcagttccatctcccta  
agagaatagctaaagagatagtagccagatgccaaagaatgtaaaaggacaaccactagcccagtcagaggaacaaa

ccccagaggtcgattccttatggcagatggacaataactcactggaataaaacaattatttgggtagcagtagagaca  
aattcaggatttagtggaagctcaggtgatccctgaagaaacagcactacaagtagctctctgcattttacagctaa  
tccagagatatacagttcttctacttacatagtgacaacggggcgtgctttactgcacacaggatagaaaaatctatg  
taagtatctggggatcacaaaaactacgggaataccctacaaccacaatcccaggagggtgtgtagaaagagcccac  
agagatctaaaagacagattggcagcttatcagggagattgtgaaaccgtagaagcagcccttagcctcgcattag  
tttctttaataaaaaaagagggggaatagggggccatacaccatatacctagaatcagaacataccaa  
ataccaagaccaactagaacaacaattttcaaaacaaaaaattgaaaagtgggtgttacgtaaggaacagaagaag  
gaatggaaaggaccctacaaagtgtgtgggacggagacggggcagcagtaatagaggaagaggggaaaaacagcct  
tataatccacaccgcatatgctgcttcatccccccccagattcagatatccaagatgggagttcgtgaatggatca  
ggacctagacggcgcggaacgcggggaaaggggaggagatccgaagaactgcttcaggaggagatcaacgaagg  
aggctgacagccagagaagctttacaacatggatcaataacggtgagatccacccttgggtcctggcaggaatgc  
tgtccatgggagtaggaatgctactaggagtataattgtcagttaccagacacactgatttggataactaatgtttca  
attatgcctttatttggggttgggtgaaacatctagagaattagacaaggatagttggcagtggtgcagaagtgt  
ttataatagcaatattgggaactctcactatggcaggaactgctttggccgacgacgatcaaagtactttaatcc  
ccaatatcacaaaaattcctacaaaggacacggaaccgggttgacctatccgtggatattaatcctcttgatttt  
ggctttcatactgggaattctgggtataatacttgtcttgagacgcagcaactcggaggatataattggcagccaga  
gataccatagattggtggctctcagctaatacaggaaatacctccaaagtttgctttcccaataatattaatctt  
cccctctagcaggcataataggatattatgtcatggaaaggcacttagagatcttcaaaaagggtatgtcaaatttg  
tgggagcctgagcagcatgtggggaatgcttttgaagaaattggcaggtggctcgcacgtagggaatggaatgtt  
agtagagtaatggttatcctcttaatacagcttcagttggggaatgtatgtcaatagggtaaatgcctcagggtcac  
atgtagccatggtcaccagccctccagggtaccgcatagtgaatgataccagccaggcaccttggtattgcttctc  
ctcggcaccaatcccaacgtgtagttcctctcagtggggagacaaatatatttgaggagaaaaataaacgagacactg  
gtcaaacaggtgtatgaacaggccgcgaaacattcgagagccacatggattgaacctgatctattggaggaagcag  
tctatgagctagctctgttatcagctaatacagctcgtcaggtgggtgtagaaaatggtacagacgtatgtagctc  
acagaactcgagcacaacaaaggccaccaatgacgcttctaaagttagagaggcaggtgtcagaaaacttgata  
gggaattcctccctccagttttgtgtccagtggtccatatgtcttggtaggtcttaataatagtgatagtaattaa  
gcttcaattcgggagattggatagcaaccaattgtatgcaccaattacactaaataaaaagtgcacaagatctagg  
aaaaattttccgagactaacatttcttgacggacaactgtcccagttgaagaacacactgtgcggacataacaca  
aactgtttgaaatttggaacaagtccttcagtacaaattccctaatactatgccaaagacaaccccatcggcaacg  
acaccttttatagcctaagtcatctccttctcaaaacaggcctctgcccgttgattcttgttaaagggtcccagcta  
tgggtttgtggtagtaaatgacacagatacaccaccatccctccgcatccgaaagcctcgagcagtcggactagca  
atattcctgcttgtgctggctatcatggccatcacatcctccttgggtggcagctacaacgctcgtgaaccagcaca  
cgacggctaagggtgtgtagaggggtgtgcaaaatgtgtcatatattgtcacaaccaggaccaattcaccacct  
gttcaggaatataaacaacagattaaatgtcctacaccatagagtttcatacttggagtatgttagaggaaatcaga  
caaaaacaagtattcttgggtgcaaacctcatggaaggtattgccactttgactttggaccagaggaagtggat  
ggaacaatagttggaatagcaaaacttggatgatctacaagatgagtatgataagatagaagaaaaaatattaa  
aattcgagtggactggctcaatagctccctgagtgacacacaggacaccttggcctggagacctctatttttgac  
catttagtgcaattgtttgattggacttcttggaaagactggataaaaaatcattatagtaatcattgtactttggc  
ttctgataaagattctcctaggtatgttaagaagctgcgccaagggtcagccagaattaccaacatctcccgcgga  
ggaggaggacggggacacagagccagaaagctccccggcgagaggagacccggcttctggaagtctctacgagaat  
tggttgaacaaaataggagaaagcaagaacgacgcctatcgggtctggacagaagaatacaacagcttgaggatct  
tggtcgccacatgtcgctgggatctcctgacccctcaactccttcagcttccgttcttctgttaacctcctgct  
caaactcctttgggacatcttccgccacgctcctattttaactttaaagggtggactgtggggcaggggtgggacc  
tcaggacaacagcagccccggacttcccatatgtgaattggactggatccagggaacaaaaataaccagaagggg  
gattagactctggggcttggatgaaggcctgagaggttctcagtag

>#15 Feline immunodeficiency virus (FIV) FIU56928 7128 nt

atggggaatgagcagggtaaagaagtgaaggctgcagtcagagatgtaaagaagtagctgtaggtccggggagtaagag  
caaaaaatatggagaaggaaatatcagatgggcatagaatggcaatgtaactacaggacgagaccctggtaaatg  
cagaaaacatagcacaggtaagaaatttagtatgtgatttaattgaaataagagataagtatggcagcaataaggaaata  
gaggccgccataaaaaactttaaaagttaggagtagtggaattctgtttatgaaggcttctaatacagactcagcag  
aaatttatgggaataatgggattaaattcaagacctcagaaaaaggaccaggaggagaggaagaagcaatgccatcag  
cttttcaagccaaagagcagaaagggtaggattaaagagatccacaagatattgcaaaaagaatatcctatacaagttgtt  
aatggacagggtcaatatgttccattgaatccaagaatggttagcaatctttatggaaaaagctagagatggattaggaac  
agaagaagttctgttatggttcacagcattttcagcagacttaacacctacagatatggcaacaatattaatgtctgctc  
ctggttgtgctgcagataaagaaataattgatacaaaattaaaagaattaactacagaatatgaagaacacacccctca  
gatgtccaagaccattaccttattttacagcaaggagataatgggattggatttgacacaagatcagcaagcacaacc  
tcaatttcatgcaggaagagtacaagcaagagcttggtatatagaagcattgcaatatttcaaaaaattaaatcaagaa  
gtcctagagcagtgcaaatgaacaagggtccaaaaggagactatgcaagctttatagatagattatatgtcacaatagat  
caagaacaaaatagtccagaagtaaaaatatatttgaacaatcattaagtttagcaaatgctaatacccgagtgcacaaa  
agccatgtctcattttaaaccagagagcactctagaagaaaagttgagagcatgtcaggaggtgggatcaacatcctata

aatgaatatgttagcacaaagctttacaacagcaaagtcaagtatgtcaagtacagcaaggaagaggaaagccacaagga  
aacaatagaagacctggccagtccttgaaatgtttcaattgtggaaaaccaggacatttagcaaggaattgttagagcacc  
tagaaaaatgtaatagagatatagaattaatacatagaccaagaatTTTTgatctatgtaaatgggattcctataagatttt  
taatggatacaggagcagatataactataatgaatgcagaagattttaatatattaaattcaatcccagatggaatacaa  
acaatgataggagtaggtggaggaaaaagaggtagaaaatttagacgagtacatttagaaaataagagatcctaatacatag  
agctcaatgtttatttggaaatatgtgtatcttagatgacaatagtttaacagaaacctctgctagggagagataatatgg  
ttagatttggagcaaagttggtaatggcaaataatttcaaataaaaattcctatagtaaaagtgaaaatgaaagatcctagc  
aaaggacaaaaattaagcaatggcctctatcaaaagaaaagatagaagcattaacagaaaatagtttatagattggaaaa  
agaagggaagtaaaaagggcagatccaaataatccttggaaataccctatttttctgtataaaaaaagaaatcaggggaagt  
ggagaatgttaatagattttagaactctgaatgaattaacagaaaaagggtgcagaagttcagttgggactccctcatcca  
gcaggattacaagaaaggaacaagtaacagttattagatattgcagatgcataattttactataccattagaccagacta  
tgcaccatatactgcctttactctgcccataaataaattcaggtccaggagaaagatttgtatgggtgtagtttacctc  
aaggatgggtattaagtcccttaatttatcagagtacattaaacaatattttaaaaccatttagagaacagcatccagaa  
atagattttataccaatatatggatgatataatataggtatcagatttaggaaagaaggagcataaacaattgttagagga  
attaagaaaattattattatgggtggggatttggagacgccagaagacaaattacaggagcaaccacctataaatggatgg  
gatatgaattatctctcggaatggactatacaacaaaagaattaataataccagaagaaccaactcttaatgagttta  
cagaagtttagtaggaataataaattgggtcatctcaataattcctggattaagaattaaggctttaactaatatgatgaa  
aggaaatcaagctttagattcaaaaagaagggtggacagaagaggctaagaaagaggcagaagaggcaaaattggcaatag  
aacaacacacacaattaggtatattatgatcctcaacaacaattacatgcaaaattgagtatagtggggtccacattgtata  
gggtaccaagtttatcaaaaagggtctccagataaaaatattatgggtgtggaagaatgaatagacaaaagaaaaagcaga  
aaatacttgcgacatagccttaagagctatatataagatcaggggaagaatcaatagtaagggttaggaaaagaacctattt  
atgaaataccatgttctagagaagcatgggaatcaaatttgattaatactccttattttaaaagcttggccaccacaagta  
gagtatattcatgcagcaataatgatacagaggtcctttaagtatgataaaaagaagaaccaattagaggtgcagaaacatg  
gtatattgatggaggaaggaagaagggaacaatcagcaaaggcggcatattggactgataaaaggaaaaatgggaagtaatgc  
aaatagaaggagtaatcaaagagcagaggtaatggccctattaatggcattacgatcagggggagaagaaatgaatatt  
gtaacagatttcaatatatcctaaatattttgagacaaaaaccagatttgatggaggggattatggcaagaaatattgga  
agaaatagaaaagaaggtagcaatttttatagattgggtaccaggtcataaaggcattcctgggaatacagaagtagata  
acctatgtcaacaataatgatgataataatcaggaaatggaatattagataaaaagagaagaggacgcaggtatgtattgctt  
gcagaacaagacatacatatttaatgccaggagaagtaagaatagtcctacaggagtaagattaatgctgccaaaaggaca  
ttggggaatggtagtaggaaaatcttcaattgcaaagcaaggattggatgttcttggaggagtaatagatgaaggatata  
gaggggaatagggtgaattatgataaatttacagaaaagatctattactttaaaagaaaaagcaaaaggtagcacaaatta  
ataatcataccttgaacatgaagaattgaacaagggggaatagaattaaattcagaaaaggagagaaaaagggtatgg  
atcaacaggtgcatttgcatttggatgaataacattgaagaggcagaaatcaaccatgaaaaatttcattcagatccag  
aatttttaaggactgaatttgggtctcccaacaagttgcagaagaaataaaaagaaaaatgtcctctatgtatagtcaa  
ggggaacaagtaatgggaaaattaaaagtaggaccaggaatatggcaaattgattgtactcatttagaaggaaagattat  
actggtcgcagtaaacacagaatcaggatacatttgggcaagaataattcctcaagagacagcagatatgacagtaaaat  
atctattacaattaatctcggagcatcatgtgactgaattacaatcagataatggaccaaatTTTtaataatgcaaaagta  
gaaggcatgacaggatttttgggaataaaaacataaatatggaattccaggaaacctcaatcacaagccttggtagaaaa  
taccaatagaatgttaaaagaatggataaagaaatttagaggggaagtaactactttggatgcagcattggcacttgcac  
tttatgctcttaactttaacaaagggttagaatagggagaatatccccatatgagttactttatacagcaagaatcagac  
agaataagagattacttttctaaaataccagcaataatataaaaaattccttggatttattataaggatagaagagataa  
agaatggaagggtccaacacaggtagaatattgggggacaaggagcagttttaataaaacatccagagcatgggtatatgc  
tcatccctaggagacacataaggagagttccagaacctgtactcttcagaagtgtggcagaaggaggaagagtagat  
gtagttagaaagcagatgaagaactaggagacaaaggagtagaagggtcagtaatatgcatttgggatgaatccagattg  
gatcggctcttatgaggagagatgtttattggatatttgataattccttcagtatgtaacagaagaaggaccattcaggccag  
gacacaaccttttagagctcccggaataacggaggaagaagacaagagttatgtgttatgttacaagacaagctaaaa  
gagataaaaagggaccataacagaaggacctcacaaaatacctccaggttaagtataggagattaagatatattgcagtattc  
agacatgcaggtaacgcagagtcctggtttatttagtctttgatattagtcactatcttaggaataagtttaggaaaagaag  
tatatgatatagaaggagatagacaggcagaatatataaatttgaaaaagggttaaaggacgaacttacaataactgtaga  
tgtagattacttcttataggtgcaggattcttctatacttgtcttataatagggttgggatgtctcattagagaaacatc  
aggagtgatattggcattggatcctccttgggtgattccggtaacaaagatggatgaaataaattttcaatgtcatggaa  
attatgaggagtgtccagtgtagagtcggttagcaacctggaagacagattttcaatggaattatagtagacctttta  
gaaacataggttagagcaatatgtagatcagatacaagcaaaagcgcttcaagatttacttggatcctgtcaaaagct  
atcaaaaaataaattaggggttcttcaatggagatgcttctacgatagaggtatgaagcaactattaggattacaaaaa  
taaggatttgtccaataggaggatatatgttaggttaggaaaatagatgaaaataactatactttaagcatgtgcacagag  
gaaatagatatataaataatgactctaagtcaggaaaaatagagcattatccatttaattgatattgtttggat  
gggaaacagggtattttaatatgacaacagcaaatataactcaacaacaagtaaatataagtataaaatgtgatattatag  
tgcctacagtagttaaagtaagaaagaatttgcaggatataaataatgatttcttgggaccatggggaggattaaagtat  
aggcttattcttattaggtataaagattgggcaaatgttacagatccccggttagattttaattgtactggactacctgg  
aatagcacttaatggaacagaagcaaatataacttgtgtctcaaaatgctacaattacctacggagatatattgtacacaac  
cagaattgtatgtaccatgttatagtccaaattattcaatgcctgtgatgggtcaatgtaattgtcatcaagaatatcat  
cctaagtatacctatagaaatagtagcaatgatgcaagtaatgaggtgtagaataatgaaagaggtagaattaagatt  
tggggatgaatttatctcattaaactttacattgttaagagatccttttttgggtcatttgaggggggctataaatttta

cttgtaatttgacaggacaatTTTTGGGCTTATAAATTTAATAATGCTACTTGGGGATATGAAGGTAATGGATCAGCATGG  
aatgaatctcttaattggtagtgccttataggaactataccaaagaaatgtatgtatggggggcatactctgtctataaa  
ttataatcatatTTTTgttaaaagattataaacttgTTAAAAAACCGTTATATACTCCATTAAAAATACTTACCACCAAGAA  
agaaaagaggattaggttaactctagctcttgttactgctacaactgcagggTTAATAGGAACAACAACGGGGACATCT  
gcactggcagtgctattaaaattaaaagaagtgtatgttacaacaatcacaaataaatgaagcaacattgggaatgttaaa  
aatcttacaagaagactaaaacaggcagaaagagtgtattttaacgtttacatcagagagtagtctaggtatagaagatatt  
tagaaattcaatatcagTTAAGAGGAATGTGCCATTTAAAGACATCTGTGAGATACCGGGGAATGGTAATTTTACAAAT  
tataatgattcttgggcaataggttagatgggcagaacaagcagaagaagactggcagcaatttggacaattgtttaaca  
atgcaacagaacaaatgaaaatttgaaaaatgatttagagaagttgagtatagattcctgggtatcatggaatccattag  
ggaatgtgttccaaatgttaatcacactgataattataattggaatgggggtaattattgaaaggatgtatattaaactgt  
tgtaaaatcttaattggctagtattgggtatataaaagagttagcagaagaatgggtgatattaccagatagtgaattagatag  
tgaatcagaaatagaattaaatgtgactgagaaagaaaagaagcccatggtaattctggaaaggaggagtctgatgagg  
aattctga

>#16 Caprine arthritis encephalitis virus (CAEV) M33677 7236 nt

atgggtgagtctagatagagacatggcgaggcaagtctccggggggaaaagagattatcctgagctcgaaaaatgta  
tcaagcatgcatgcaagataaaagttcgactcagagggggagcacttgacagaaggaaattgtttatgggtgccttaa  
aacattagattacatgtttgaggaccataaagaggaaaccttgacaaaagtaaaatttaggacaatatggcagaag  
gtgaagaatctaactcctgaggagagtaacaaaaaagactttatgtctttgcaggccacatttagcggggtctaattgt  
gttgccaaatggggatgagacctgagacattgcaagatgcaatggctacagtaatcatgaaagatgggttactgga  
acaagaggaaaaagaaggaagacaaaagagaaaaggaagagagtgtcttccaatagtagtgcaagcagcaggagg  
agaagctggaaagcagtagattctgtaatgttccagcaactgcaaacagtagcaatgcagcatggcctcgtgtctg  
aggactttgaaaggcagttggcatattatgtactacctggacaagtaaaagacatactagaagtattggccatgat  
gcctggaaatagagctcaaaaggagttaattcaagggaattaaatgaagaagcagaagggtggagaaggaataat  
ccaccacctccagcaggaggaggattaacagtggatcaaattatggggtaggacaacaaatcaagcagcagcac  
aagctaacatggatcaggcaaggcaaatatgcctgcaatgggttaataaatgcattaagagcagtaagacatatggc  
gcacaggccagggaatccaatgctagtaaaagcaaaaaacgaatgagccatatgaagattttgcagcaagactgcta  
gaagcaatagatgcagagccagttacacagcctataaaagattatctaagctaacactatcttatacaaatgcat  
cagcagattgtcagaagcaaatggatagaacactaggacaaagagtacaacaagctagtgtagaagaaaaaatgca  
agcatgtagagatgtgggatcagaagggttcaaaatgcaattgttagcacaaagcattaaggccaggaaaaggaaaa  
gggaatggacagccacaaagggtgttacaactgtggaaaaccgggacatcaagcaaggcaatgtagacaaggaatct  
cagcaccacctatgggttcaggtccgcataggttcccagcagaggaactgttattttgataccggggcgaccgaac  
tatagttagatggcatgagggctcgggaaaccagccggaaggataaaaactgcaaggaataggaggaatagtagaa  
ggagaaaaatggaataatgtagaattagaatataaaggagaaaacaagaaagggaacaatagtagtgttaccacaaa  
gtccagtagaagtattaggacgagataacatggcccgttttggaaataaagataataatggcaaatttagaggaaaa  
aagaatcccaattacaaaagtaaaattgaaagaggggatgtacgggtccacatgtcccacaatggccattaacagaa  
gagaaatataaagggtctaacagaaatcatagataaattagtggaagaaggaaaactaggaaaggcacccccacatt  
ggacatgtaatactccaatcttttgataaaaaaagaaatcagggaagtggagaatgttaatagatttcagagaatt  
gaacaaacagacagaagatttaacagaagcgcagttaggactcccgcatccgggaggactacaaaagaaaaaacat  
gttacaatatgtggacataggagatgcatattttactatacccctatatgaaccatatcgagagtacacatgtttta  
ctctattaagtcctaataatctaggaccatgtaaaagatactattggaaagtgtgccacaagggttggaattgag  
tccatctgtatatcaatttactatgcaggagatcttagaggattggatacagcagcatccagaaattcaatttggc  
atatatatggatgatatttacataggaagtgtattagaattaaaaagcatagagaaatagtgaagatttagcca  
attatattgcccataatggattcactctgccagaagagaagagacaaaagggatatccagcaaaatggctaggatt  
tgaactacaccgcagacctggaaatttcagaagcatatactgaattaacaaagggaacaataacattaaat  
aaattacagaaatttagtaggagaatttagtatggagacaatccataattgggaaaagcattcctaacattctgaaat  
taatggaaggagatagagaattacaaagtgaagaaaaattgaagaagtacatgtgaaagaatgggaagcatgtag  
gaaaaaattagaagaaatggaaggaaattattataataaagacaaagatgtctatggacaattggcttggggagac  
aaagctatagaatatatagtgtatcaggagaaagggaaccattatgggtaaatgtgggttcacaatataaagaacc  
taagcatcccgcacaggttatttaaagcagcgcaaaaattaacccaagaagtcatcattaggacaggaaaaatacc  
atggatattgttgccagggaagaagaagattggagactagaattgcaattagggaacatcacatggatgccaaaa  
ttttggctctgttatcgaggacatacaagatggagaaaaagaaatataatagaagaagtagtagaagggtcctacat  
attatacagatggagggaaaaaagaataaagtaggaagtctagggttcatagtatcaacaggggaaaaatttagaaa  
gcatgaagaggggcacaaccagcaactagaattaagagccatagaggaagctctaaaacaagggtcctcaacaatg  
aatttagtaacagatagtagatatgcatttgaatttttattaagaaattgggatgaagaagtaataaagaatccaa  
ttcaagcaagaattatggaaattgccacaaagaaagataggataggagtgcattgggtgccaggacataaagggt  
tccccaaaatgaagaaatagacaaatatatttcggaaatatcttgcaaaagaaggagaaggaattctcccaaaa  
agagaagaggatgcagggtatgatttaatatgccagaagaggttaccatagagccaggacaagtgaatgcatcc  
ccatagagctaagattaaatttaagaaatcacaaatgggctatgattgctacaaaagcagcatggctgccaaagg  
agtgttcacacaaggaggaatcatagactcaggatatcagggacaaatacaggtaataatgtataatagcaataaa  
atagcagtagtcatacccacaggagaaaaatttgcacaattaatattaatggataaaaagcatggaaaattggaac

cctgggggggaaagcagaaaaacagaaaggggagaaaaaggatttgggtctacaggaatgtattggatagaaaatat  
tcctctggcagaggaagaccacacaaaatggcatcaagatgcccgatcattgcatctagaatttgaaattccaaga  
acagcagcagaagacatagtaaatcaatgtgaaatatgcaaagaagcgaggacacctgcagtaattagaggcggaa  
acaaaaggggggtaaatcattggcaagtggattataccattatgaaaatatcatactattagtagatgggtagaaac  
aaattcaggactaatatatgacagaaaaagtaaaaggagaatcagggcaagaattcagaataaaagtgatgcattgg  
tatgcattatttgggtccagagtcattgcagtcagacaatggacctgcatttgcagcagagcccacacagctgttaa  
tgcaatacctaggagtaaaacacacaacaggccataccttgggaatccacagtcctcaggctatagtagaaagggcaca  
tcaactattgaaaagcactttaaagaagttccagccacaatttgtcgctgtagaatcagccatagcagcagcccta  
gtcgccataaatataaaaagaaaggggtgggctggggacaaagccctatggatatttttatataataaagaacaga  
aagaataaataataaataataaaaaattctcaaaaaattcaattctgttattacagaataaggaaaaggagaca  
tcaggagagtggaaggaaccaaccagggtactgtggaaggggaaggagccaatttgggttaaaggatatagaaagt  
gaaaagtattagtaataccttacaaagatgcaaaattcatcccgccaccaaaaaagaaaaggaataaatggatg  
ctggggccagatacatgcgcttaactgggaagggaaaactgggttgaagtaacctggacggagagaaggaaaggaa  
aagagaaggtttcactgcgggacagcaaggtaagtatcaaccccaggtaagtaagcaaatagggaacagaaatact  
aacccatgctttgcctataaagggatattcctatggaggatatcactaacaatgtggatattgctagggataaata  
tgtgtgtcagtcgagaggattacataacactaatatcagatccctatgggttctcaccataaaaaatgtgtctgg  
ggtaccagtgacttgtgtaacaaaagaatttcgcaaaatggggatgtcaaccactaggagcgtagccctgatccagaa  
atagaatacagaaatgtgagtcaggaagtagtgaaagaagtatatcaagagaattggccatggaatacatatcatt  
ggcctctctggcaaatggagaatgttaggtactggttaaaagaaaatatgcaagaaaatcaacagagaaaaataa  
tacaaaagaggggtatagaggaattattagcaggaactataaggggaagattctgtgtaccatacccatattgccttg  
ttaaatgcacaaagtgggtgctggtatacagcgccataaacaacagagtcaggaaaagcaggaaaaataaaaaataa  
attgcacagaagcaagagcagtcctctgtacagaggacatgccattagcctcaatacaaaagagcatattgggatga  
gaaagacagagagagcatggcctttatgaatatcaaagcatgtgatagcaacctaaaggtgtcagaaaaagacctgga  
gggtgtatggaaggataccctatcccagtaggagcagaaataatccctgaaagtatgaaatacctaaggggagcaa  
agagtcagtatgggggaataaaaagataagaatggagaattaaaattaccattaacattaagagtggtgggtaaaatt  
agcaaatgtgtcagaatgggtaaatgggacacccccggattggcaagacagaattaacggatccaaaggaataaat  
gggacgctctggggagagcttaacagtatgcatcacctaggatttgccttagccagaacggcaaatggtgtaact  
acaccggggaaataaaaattagggcaagaacattccaatatcattacaagccaaactggaactgtaccgggaattg  
gacgcaatatccggtgtggcaagtgattagaaacctggatatggtggaacatatgacaggagaatgtgtgcagaga  
ccacaaaggcacaataataacagtaggaaatggaaccataacaggggaattgcagtacaacaaactgggatggatgta  
attgctcacgatcaggaaactacctatataacagctctgagggaggattgttattaattctgtgcagacaaaacag  
cacctaacaaggatcctgggaacaaatacaaaattggacaactatgtggggaatatacaaaaaattgttcaggatgc  
gagaatgcaacattagacaacacaggagaaggaaccttaggaggtgtagctaataagaactgtagcttgccctcata  
aaaatgagagcaacaagtggacttgtgccccaaagacaaagagatggaaaaacagattcgctatacatagcaggagg  
aaaaaagttttggacacgaattaaggcccaattcagctgtgaaagtaacataggacaattagatggaatgttgc  
cagcaataactattgcaaaaatatcaagtaattaaggtaagagcttatacatatgggggtgatagaaatgccagaaa  
actatgcaaaaaacaagaatcataaacaggaaaaaaaagagaactcagccacaagaggaagaagagaggcggttgctt  
ggtcattatgctagtattatcatggcaatagtagctgccgcaggggcttctctgggagtcgcaaacgcgattcagcag  
tcttacactaaggcagctgtccagacccttgctaattgcaactgctgcacagcaggatgtgttagaggcaacctatg  
ccatggtacagcatgtggctaaaggcgtagcaatcttggaaagctcgagtggctcgagtggaaagctatcacagatag  
aataatgctataccaagaattggattgttggcactatcatcaatactgtataacctctacaaaaacagaagtagca  
aaatatatcaattggacgaggtttaaggataattgcacatggcagcagtgaggagagaggattacaggggtatgata  
caaacttaacaatactgttaaaggaatcagcagcaatgacacaactagcagaagagcaagcaaggaggataccaga  
agtatgggaaagttaaaagacgtctttgattggtcaggatggttctcatggctaaagtatatctcctattatagta  
gtaggattatttaggatgcattctgataagagctgtgatattgtgtatgtcaacctcttgtgcagatatacagaactc  
taagtaccccgacataccaacgggtcacagtcacatggaacaagagcagacgctcgaggagaaaaatcaggattt  
tggcgatggcttagagggaatcagacaacagcgaaacaagcgaaagagtgacagtacagaaagcttggagccgtgcc  
tgggagctttggcagaactcaccttggaaaggagccatggaaaaggggcctgctgaggctgctcgctccttccgctga  
cgatgggaatctggataaatggatggcttggagaacaccacaaaaataaaaaaagaaaggggtgactgtgagacatg  
ggctaaagaggactaa

>#17 Equine infectious anemia virus (EIAV) M16575 7014 nt

atgggagaccctttgacatggagcaaggcgctcaagaagtttagagaaggtgacggtacaagggtctcagaaat  
taactactggtaactgtaattgggcgctaagtctagtagacttatttcatgataccaactttgtaaaagaaaa  
ggactggcagctgagggatgtcattccattgctggaagatgtaactcagacgctgtcaggacaagaagagag  
gcctttgaaagaacatggtgggcaatttctgctgtaaagatgggcctccagattaataatgtagtagatggaa  
aggcatcattccagctcctaagagcgaaatatgaaaagaagactgctaataaaaaagcagtcctgagccctctga  
agaatatccaatcatgatagatggggctggaaacagaaattttagacctctaacacctagaggatatactact  
tgggtgaataccatacagacaaatggtctattaaatgaagctagtcaaaacttatttgggatattatcagtag  
actgtacttctgaagaaatgaatgcatttttggatgtggtacctggccaggcaggacaaaagcagatattact

tgatgcaattgataaaaatagcagatgattgggataatagacatccattaccgaatgctccactggtggcacca  
ccacaagggcctattcccatgacagcaagggtttattagagggttaggagtacctagagaaagacagatggagc  
ctgctttttgatcagtttaggcagacatatagacaatggataatagaagccatgtcagaaggcatcaaagtgat  
gattggaaaacctaagctcaaaatattaggcaaggagctaaggaaccttaccagaattttgtagacagacta  
ttatcccaaataaaaagtgagggacatccacaagagatttcaaaattcttgactgatacactgactattcaga  
acgcaaattgaggaatgtagaaatgctatgagacatttaagaccagaggatacattagaagagaaaaatgtatgc  
ttgcagagacatttggaaactacaaaacaaaagatgatgttatttggcaaaagcacttcagactggtcttgccggc  
ccatttaaagggtggagccttgaaaggaggggccactaaaggcagcacaaacatgttataactgtgggaagccag  
gacattttatctagtcaatgtagagcacctaaagtctgttttaaatgtaaacagcctggacatttctcaaagta  
taatctagagaaaaaggcctactacaatagtatttaattaatgatactcccttaaatgtactgttagacacagga  
gcagatacttcagtgttgactactgcacattataatagggttaaaatatagagggagaaaaatatcaagggacgg  
gaataataggagtgggaggaaatgtggaaacattttctacgcctgtgactataaagaaaaagggtagacacat  
taagacaagaatgctagtggcagatatccagtgactattttgggacgagatatcttcaggacttaggtgca  
aaattgggttttggcacagctctccaaggaaataaaaatttagaaaaatagagttaaaagagggcacaatggggc  
caaaaattcctcaatggccactcactaaggagaaactagaaggggctaagagatagtccaaagactattgtc  
agagggaaaaatatcagaagctagtgcacaataatccttataattcaccatatttgaataaaaaagaggctc  
ggcaaatggagggttattacaagatctgagagaattaaacaaaacagtacaagtaggaacggaaatatccagag  
gattgcctcaccgggaggatttaattaaatgtaaacacatgactgtattagatatggagatgcataatttcac  
tatacccttagatccagagtttagaccatatacagctttcactattccctccattaatcatcaagaaccagat  
aaaagatatgtgtggaattgtttaccacaaggattcgtgttgagccatatatatatcagaaaaacattacagg  
aaattttacaaccttttagggaaagatatcctgaagtacaattgtatcaatatatggatgatttgttcgtggg  
aagtaatggttctaaaaaacaacacaaaagagttaatcatagaattaagggcaatcttactggaagagggtttt  
gagacaccagatgataaattacaagaagtgccaccttatagctggctagggttatcaactttgtcctgaaaatt  
ggaaagtacaaaaaatgcaattagacatggtaaagaatccaacccttaatgatgtgcaaaaattaatggggaa  
tataacatggatgagctcaggggtcccagggttgacagtaaaacacatagcagctactactaagggatgttta  
gagttgaatcaaaaagtaatttggacggaagaggcacaaaaagagttagaagaaaaataatgagaagattaaaa  
atgctcaagggttacaatatattataatccagaagaagaatgttatgtgaggttgaaattacaaaaattatga  
ggcaacttatgttataaaacaatcacaaggaatcctatgggcaggtaaaaagattatgaaggctaataaggga  
tggtcaacagtaaaaaatttaattgttactgttgcaacatgtggcaacagaaagtattactagagtaggaaaat  
gtccaacgtttaaagggtaccattttaccaaaagagcaagtaatgtgggaaatgcaaaaaggatggtattattcttg  
gctcccagaaatagtatatacacatcaagtagttcatgatgattggagaatgaaattggtagaagaacctaca  
tcaggaataacaatatacactgatgggggaaaaacaaaatggagaaggaatagcagcttatgtgaccagtaatg  
ggagaactaaacagaaaaagggttaggacctgtcactcatcaagttgctgaaagaatggcaatacaaatggcatt  
agaggataccagagataaaacaagtaaatatagtaactgatagttattattgttgaaaaatattacagaagga  
ttaggtttagaaggaccacaaagtccttgggtggcctataatacaaaaatatcagagaaaaagagatagtttatt  
ttgcttgggtacctgggtcacaaagggatattgtggtaatcaattggcagatgaagccgcaaaaaataaagaaga  
aatcatgctagcataccaaggcacacaaaattaaagagaaaaagagatgaagatgcagggtttgacttatgtgtt  
ccttatgacatcatgatacctgtatctgacacaaaaatcataccacagatgtaaaaattcaagttcctccta  
atagctttggatgggtcactgggaaatcatcaatggcaaaacagggttattaattaatggaggaataattga  
tgaaggatatacaggagaaatacaagtgatattgtactaatattggaaaaagtaattattaattaatagaggga  
caaaaatttgcacaattaattatactacagcatcactcaaattccagacagccttgggatgaaaaataaaatat  
ctcagagaggggataaaggatttgggaagtacaggagtattctgggtagaaaaatattcaggaagcacaagatga  
acatgagaattggcatacatcaccaaagatattggcaagaattataagataaccattgactgtagcaaaacag  
ataactcaagaatgtcctcattgcactaagcaaggatcaggacctgcagggttgtgtcatgagatctcctaatac  
attggcaggcagattgcacacatttggacaataagataatattgactttttagagatcaaattcaggatacat  
acatgctacattattatcaaaagaaaaatgcattatgtacttcattggctattttagaatgggcaagattgttt  
tcaccaaagtccttacacacagataacggcactaattttgtggcagaaccagttgtaaatgttgaagttcc  
taaagatagcacataccacaggaataccatatcatccagaaagtcagggtattgtagaaggggcaaataggac  
cttgaaagagaagattcaaagtcataagagacaacactcaaacactggaggcagctttacaacttgctctcatt  
acttgtaacaaaaggaggaggaaagtattgggaggacagacaccatgggaagtatttatcactaatcaagcacaag  
taatacatgagaaacttttactacagcaagcacaatcctccaaaaaattttgtttttacaaaatccctgggtga  
acatgattggaaggggacctactaggggtgctgtggaaggggtgatgggtgcagtagtagttaatgatgaaggaaag  
ggaataattgctgtaccattaaccaggactaagttactaataaagccaaattgaatgggtcagcatcgcatctc  
atgggggggatcccagggggaatctcaaccctattacccaacagtcagaaaaatctaagtgtgaggagaacac  
aatgtttcaaccttattgttataataatgacagtaagaacagcatggcagaatcgaaggaagcaagagaccaa  
gaaatgaacctgaaagaagaatctaaagaagaaaaagaagaatgactgggtggaaaataggatgtttctgt  
tatgcttagcaggaactactggaggaatactttgggtggtatgaaggactcccacagcaacattatatagggtt

ggtggcgatagggggaagattaaacggatctggccaatcaaattgctatagaatgctgggggttccttcccgggg  
tgtagaccatttcaaaattacttcagttatgagaccaatagaagcatgcatatggataataatactgctacat  
tattagaagcttatcatagagagataacattcatttataagtcttcttgacagatagtgatcattgtcaaga  
gtatcaatgtaaaaaagttaatcttaattcctctgactcctctaactctgtacgtgttgaggatgtaacgaac  
acagcgggaatattgggggatttaaatggctagaatgtaatcaaacagaaaattttaagactatattagtagctg  
aaaatgaaatggtaaatatcaatgatactgatacctggatacctaaggggtgtaatgagacgtgggcaagagt  
gaaacgttgtcctatagatattttatatatgggatacatccaatcaggctgtgtgtacagccaccatttttctg  
gtacaggagaaaagggttggctgatacttctagaattggcaattgtgggccaacaatatttcttggggttttag  
aagataataagggagtagtacggggggattatacagccttgcaatgtgcgtcgcctaataataaataagaaagga  
ttatacagggatctatcaagtacctatatattttatacatgtactttcactaacataacttcctgcaataatgag  
ccaataatcagtggttatcatgtatgaaacaaaccagggtacaatatattattgtgtaataataataatagtaata  
attataattgtgtagtacaaagttttggagttataggacaggcacacttagaactgcctagacctaacaaaag  
aataaggaaccaagctttaaccaatataactgctctataaataacaaaacagaattagaacatggaagtta  
gtaaagacttctggcgtaactcctttacctatttcttctgaagctaactggactaattagacataagagag  
attttgggtataagtgcataatagtggcagctattgtagccgctactgctattgtctgtagcgtactatgtctta  
tgttgctctaactgagggttaacaaaataatggaagtacaaaatcatacttttgaggtagaaaatagtactcta  
aatgggtatggatttaatagaacgacaaaataaagatattatatgctatgattcctcaaacacatgcagatgttc  
aactgttaaggaaagacaacaggtagaggagacatttaatttaattggatgtatagaagaacacatgtatt  
ttgtcatactgggtcatccctggaatatgtcatggggacatttaaatgagtcaacacaaatgggatgactgggta  
agcaaatggaagatttaaatcaagagataactaactacacttcatggagccaggaacaatttggcacaatcca  
tgataacattcaatacaccagatagtatagctcaatttggaaaagaccttggagtcatttggaaattggat  
tcctggatttgggagcttccattataaaaatatatagtgatgtttttgcttattttatttgttactaacctcttcg  
cctaagatcctcagggccctctggaaagtgaccagtggtgcaggggtcctccggcagtcgttacctgaagaaaa  
aattccatcacaaacatgcatcgcgagaagacacctgggaccaggcccaacacacatacacctagcaggcgt  
gaccgggtggatcagggggacaaataactacaagcagaagtactccaggaacgactggaatggagaatcagaggag  
tacaacaggcggccaaagagctgggtgaagtcaatcgaggcatttggagagagctatatttccgagaagacca  
aaggggagatttctcagcctggggcggtatcaacgagcacaagaacggctctggggggaacaatcctcacca  
agggtccttagacctggagattcgaagcgaaggaggaaacatttatgactgttgcattaaagcccaagaagga  
actctcgctatcccttgctgtggatttcccttatggctattttggggactagtaattatagtaggacgcatag  
caggctatggattacgtggactcgctgttataataaggatttgtattagaggcttaaatttgatatttgaaat  
aatcagaaaaatgcttgattatattggaagagctttaaatcctggcacatctcatgtatcaatgcctcagtat  
gtttag

>#18 Human immunodeficiency virus type 1 (HIV-1) AF069670 5652 nt

gcgagagcgtcagttattaagtgggggaaaatttagatgcatgggagaaaaattcgggttaaggccaggggggaaaa  
agaaatatagaatgaaacatctagtatgggcaagcaggagctggaaagatttgcacttaaccctagcctttt  
agaaacaacagaaggatgtcaacaaataatggaacagttacaatcagctctcaagacaggaacagaagaactt  
agatcattattttaatacagtagcagtcctctattgctacatcaacggatagagataaaagacaccaaggaag  
ctctagataaaaatagaggaaatacaaaaagaagagcaagcaaaaaggcacaacaagcagcagctgacacaggaaa  
cagcagcaagggtcagccaaaattaccctatagtgcaaaatgcacaagggcaaatggtacaccagtccttgtca  
cctaggactttgaatgcatgggtaaaagtaatagaagaaaaggccttccagccagaagtaatacccggtgttct  
cagcattatcagaaggagccactccacaagatttaaatatgatgctgaacatagtgggggggacatcaggcagc  
tatgcaaatgttaaaaagataccatcaatgagggaagctgcagaatgggacagggttacatccagcacatgcaggg  
cctgttgcaccaggccagatgagagaaccaaggggaagcgatatagcaggaactactagtaccctcaagaac  
aataggatggatgacaggcaaccacctattccagtgggagacatctataaaaagatggataatcctgggatt  
aataaaaatagtaagaatgtatagccctgttagcattttggatataaaaacaaggggccaaaagaacccttcaga  
gactatgtagataggttctttaaaactctcagagctgagcaagctacacaggatgtaaaaaattggatgacag  
aacattactggtccaaaatgcaaatccagattgttaagtccattttaagagcattaggagcagggggtacatt  
agaagaaatgatgtcagcatgtcagggagtaggagggccagccataaagcaagggttttggctgaggccatg  
agtcaagcacacaacatacaactgtaatgatgcagagagccaattttagggggacagaaaaggattaagtgtt  
tcaactgtggcaagaaggacacctagccagaaattgcaggggccctaggaaggggctgttggaatgtgg  
gaaagaggggacaccaaataaggactgcactgaaagacaggctataggggggtcagctaagagaagctctatta  
gatacaggagcagatgatacagtggttagaagacataaatttgccaggaaaatggaaacaaaaaatgatagggg  
gaattggaggggtcatcaaggtaaaacagtatgatcagatacttatagaaatttgtggaaaaaaggctatagg  
tacagtattagtaggacctacacctgtcaacataattggaagaaatatgttgactcagattgggtgtactcta  
aatttcccaatttagtcctattgagactgtaccagtaaaattaaagccaggaatggatggcccaaagggttaaac  
aatggccattgacagaagaaaaataaaaagcatttaacagaaatttgtacagaaatggaaaagggaaggaataat  
ttcaaaaattgggcctgagaatccatataataactccaatatttgcctataaagaaaaaagacagcactaatgg



aggaaattagtagatttcagagagctcaataaaaagaactcaagacttttgggaagttcaattaggaataccgc  
atccagcaggcttaaaaaagaaaaaatcagtaacagtgctagatgtgggggacgcataatttttcagttccctt  
agatgaaagcttttagaaagtatactgcattcaccatacctagtaacaacaatgagacaccaggagtcaggtat  
cagtacaatgtgcttccacagggatggaaaggatcacccggcaatattccagagtagcatgacaaaaatcttag  
agcccttcagattaaagaatccagaaataattatctatcaatacatggatgacttgtatgtgggggtctgattt  
agaaatagggcagcatagaacaaaaatagaagagtttaagagctcatctattgagctggggatttactacacca  
gacaaaaagcatcagaaagaacctccatttctttggatgggatatgaacttcctcctgacaaatggacagtcc  
agcctatagagctgccagaaaaggaaagctggactgtcaatgatatacagaaattagtgggaaaactaaattg  
ggcaagtcaaatttatgcaggaattaaagtaagcaattgtgcagactcctcaggggagccaaagcactaaca  
gatatagtaacactgactgaggaagcagaattagaattggcagagaacaggggaaattctaaaggacctgtgc  
atgggggtatattatgacccatcaaaagacttaatagcagaaatacagaaacaagggctagaccaatggacata  
tcagatttatcaggagccatttaaaaaatctaaaaacaggaaaatatgcaagaaagaggtctgctcacactaat  
gatgtaagacaatttagcagaagtgggtgcaaaaagtgggtcatggaaagcatagtaatatggggaaagactccta  
aatttaaactacccatacaaaaagaaacatgggaaacatgggtgatggactattggcagggtacctggattcc  
tgaatgggaatttgtcaatacccctcctctagtaaaattatgggtaccagtttagagaaagaccccatagcagga  
gcagagaccttctatgtagatggggcagccaatagggaactaagctaggaaaagcagggtatgtcactgaca  
gaggaaggcaaaaggttgtttctctaactgagacaacaaatcaaaagactgaactacatgcaatccatctagc  
cttgcaggattcagggtcagaagtaaacatagtaacagactcacaatatgcattaggaatcattcaagcaca  
ccagacagtagtgaatcagagatagttaatcaataatagagaagctaataaggaaaggacaaaagctacctgt  
catgggtaccagcacacaaggggattggaggaaatgaacaagtagataaatttagtcagctctggaatcaggaa  
ggtgttattttttagatgggatagataaagctcaagaagagcatgaaagatatcacagcaactggagagcaatg  
gctagtgtattttaatctgccacctgtaatagcaaaggaaatagtagccagctgtgataaatgccagctaaaag  
gggaagccatgcatggacaagtagactgcagtcagggtatggcaactagattgcacacatctagaaggaaa  
agtaattctggttagcagtcctatgtggccagtggtctatatagaagcagaagttattccagcagaaacaggacag  
gagacagcatactttctactaaaatttagcaggaagatggccagtaaaaatagtacacacagataatggcagca  
atttcaccagcgctgcatttaaagcagcctgttgggtgggcaagtatccaacaggaatttggaattccctaca  
tccccaaagtcaaggagtagtggaatctatgaataaggaattaaagaaaatcatagggcaggtaagagagcaa  
gctgaacatcttaagacagcagtaacaatggcagtatcattcacaaattttaaaagaaaaggggggattgggg  
ggtacagtgtaggggaaagaataatagacataatagcaacagacatacaactaaagaattacaaaaacaaat  
tacaaaaattcaaaaatttcgggtttattacagggacagcagagatcccatttggaaaggaccagcaaaacta  
ctctggaaaggtgaagggggcagtggttaatacaggacaacaatgatataaaggtagtaccaagaagaaaagcaa  
agatccttagggatactgcagacaacttgtgggttactgtctactatgggggtacctgtgtggaaagatgcaga  
gaccaccttattttgtgcatcagatgctcaagcatataagacagaaatgcataatgtatggggtacacatgcc  
tgtgtacccacagaccccaaccacagaactgcatttgaaaaatgtgacagaagagtttaacatgtggaaaa  
atagcatggttagagcagatgcatacagatataatcagtcctatgggacgaaagcctaagccatgtgttaaagtt  
aaccctctctgcgttactttaattgtaccaatgccacggaaccagaatgtcaacatcacgaatgtagga  
atgagaaaactgctctttcaatatgaccacagagctaagggtataagaaacagaaaggatattcacttttttata  
agcttgatatagtacaaattaatgataatggtaataacagtaataacagtagtgagtatagggttaataaattg  
taatacctcagccattacacaggccttgtccaaaggatccttttgagccaattcccatacactattgtgcccc  
gctgggttttgcatcctaaagtgtagggataaggagttcaatggaacagggccatgcaacaatgtaagcacag  
tacagtgcacacatggaatcaagccagtagtatcaactcaactgctgttaaatggcagctctagcagaagaaaa  
gataatgattagatctgaaaatatctcagacaatgccaaaaccataatagtacaacttaccgagcctgtaaca  
attaattgtaccagacctagcaacaatacaagaacaagtatacgtataggaccaggacaagcattctatgcaa  
caggtgacataacaggggatataagacaagcacattgtaatgtcagtagatcaagctggaataaaaactctaca  
agacatagttacacaattaagagtatactggaatagaacaataatctttaatagctcctcaggaggggattta  
gaaattacaacacatagttttaattgtggaggagaattcaaacagctccaggcaagagtccctggctgtggaaa  
gatacctaaggatcaacagctcctaggaatttggggctgctctggaaaactcatctgcaccactaatgtgcc  
ctggaactctagttggagtaataaatctcagaatgaaatatgggaagacatgacctggctacaatgggacaga  
gaaattagcaattacacagaaataatatataaactaattgaagaatcgacagaaccagcaggaaaagaatgaac  
aagacttactggcattggacaaatgggcaaatctgtggaattgggttgagataacaaaatggctgtggtatat  
aaaaatattttataatgatagtaggaggttaataggattaagaatagtttttctgtgtttttctgtttataaat  
agagtttaggcagggtactcaccttctgtctttcaggctattagtttgggttgatccccagcaatagcagtag  
ctggctggacagataggggtatagaattaatacaaaagaattggtagagctattctcaacatacctagaagaat  
tagacaggggctttgaagaggctttgctataa

>#19 Human immunodeficiency virus type 2 (HIV-2) M30502 6297 nt

atgggcgcgagaaactccgtcttgagagggaaaaaagcagacgaattagaaaaagttagggttacggcccgcg  
gaaagaaaaagtagcaggttaaaacatatgtgtgtgggcagcgaatgaattggataaattcgggattggcagagag

cctgttgaggagtcaaaagaagggttgccaaaagattctcagagttttagatccattagtagtaccacaggggtcagaa  
aatttaaaaagccttttttaataccgtctgctgcatttgggtgcttgacgcagagaagagaagtgaaagatactg  
aggaagcaaaagaactagcacagagacatctagtggcagaaactggaactgcagagaaaatgccaaatacaag  
tagaccaacagcaccacctagtgggaaaagaggaaactaccccgtagcaacaagcgggtggcaactatgtccat  
gtgccactgagccccgaactctaaatgcatgggtaaaattagtggaggaaaagaagttcgggggcagaagtag  
tgccaggatttcaggcactctcagaaggctgcacgccctatgatattaatcaaagtcttaattgtgtgggcca  
tcaccaagcagctatgcaaataatcagagagattattaatgaagaagcagcagactgggattcgcagcaccca  
ataccaggcccttaccagcaggacagctcagagacccaagagggtctgacatagcaggaacaacaagcacag  
tagatgaacagatccagtggatgtataggccacaaaatcccgtagcggtagggaacatctacagaagatggat  
ccaaatagggctgcaaaagtgtgtcagaaaagtacaaccaactaacatcttagacataaaaacaggggaccaaaa  
gaaccgttccaaagctatgtagacaggttctacaaaagcttgagggcagaacaaacagaccagcagtaaaaa  
attggatgacccaaacgctgctaatacagaatgccaaaccagactgcaagtttagtactaaaaggactggggat  
gaatcccaccctagaagagatgctaaccgcctgccagggggtaggcggaccaggccagaaaagccaggctaata  
gctgaagccctaaaagaggctatgggaccaagccctatcccatttgcagcagcccaacaaagaaaggcaatta  
ggatttggaaactgtggaaaggagggacactcggcaagacagtgcgcagcacctagaagacagggctgtggaa  
gtgtggcaagccaggacacatcatggcaactgcccggaagacaggcaggttttttaggggtgggcccacgg  
ggaaagaagcctcgcaacttcccgtgaccaagcccctcaggggtgataccaacagcacctccggcagatc  
cagcagcggaaactgttggagagatatatgcagcaaggagaaaagcagagggagcagagggagagaccatacaa  
agaggtgacggaggacttgcacctcgagcagagagagacacctcacagagaggagacagaggacttgcctg  
cacctcaattctctctttgaaaaagaccagtagatgacaggagataccccaatcaacatctttggcagaaata  
ttctgacagccttaggcattgtcattaaatttaccagttgccaagatagagccaataaaaagtaacattgaagcc  
agggaaagatggaccaaggctgaaacaatggcccctaacaaaagagaaaatagaagcactaaaagagatctgt  
gaaaaaatggaaaaagagggccagctagaagaggcacctccaactaatccttataataccccacatttgcaa  
ttaagaaaaaggacaagaacaaatggaggatgctgatagattttagagaactaaataaggtgactcaagattt  
cacagaaattcagctaggaattccacacccggcaggactagccaaaaagaaaaggatctctatattagatgta  
ggggatgcctatttttccataccactacatgaagatttttaggcagtatactgcatttaccctaccagcagtaa  
acaatatggaaccaggaaaaagatatataataaagtcttgccacaaggatggaagggatcaccagcaatttt  
tcaatacacaaatgaggcaagtcttagaacctttcagaaaagcaaaccagatgtcattctcatccagtacatg  
gatgatattcttaatagctagtgcagggacaggttttagagcatgacaaaagtggctcctgcagctaaaagaacttc  
taaattggcctaggggttttctactccagatgagaagttccaaaaagaccctccatttcaatggatgggctgtga  
actatggccaactaaatggaagctgcagaaactacaactgccccagaaagacatatggacagtcaatgacatc  
caaaagctagtgggagctcttaaattgggcggcacaaatctattcaggaataaaaaacaaacacttatgtagac  
taattagaggaaaaatgacactcacagaagaagtgcagtggacagaactagcagaagcagagctagaagaaaa  
caaaattatcttgagccagggaacaagaaggatattattaccaagaagaaaaagaattagaggcaacaatccaa  
aaaagccaaggacatcaatggacatacaaaatacaccagggaagagaaaaatcctaaaagtaggaaagtatgcaa  
agataaaaaatacccataccaatgggggtcagattactagcacaggtagttcagaaaaataggaaaagaggcact  
agtcatttggggacgggataccaaaatttcacctgccagtggagagagagacctgggagcagtggtgggataac  
tactggcaagtgcacatggatcccagagtggtgactttgtatctaccccaccactggtcaggttaacatttaacc  
tagtaggagatcctataccaggcgagagaccttctacacagatggatcatgcaatagacagtcaaaagaggg  
aaaagcaggatattgtaacagatagaggaaaagacaaagttaaagtattagaacaaactaccaatcagcaggca  
gaattagaagtccttcggatggcactggcagactcaggcccaaagggttaatatcatagtagattcacagtatg  
taatggggatagtagcaggccagccaacagagtcagaaaatagaatagtgaaccagatcatagaagaatgat  
aagaaggaagcagtcctatgttgcatgggtcccagccataaaaggcataggaggaaaccagggaagtagaccat  
ttagtaagtcaaggcatcagacaagtattattcctggaaaagatagagcccgtcaagagggaacatgaaaaat  
atcatagcattataaaaagaactaaccataaaatttggaataccccttctagtagcaagacagatagtaaactc  
atgtgcccacatgccaacagaaaggagaagccatacatgggcaagtaaatgcagaaataggcggttggcaaatg  
gactacacacacttagaaggaaaaatcattatagtagcagtagcatgttgcaagtggattcatagaagcagaag  
tcatcccacagggaatcaggaaggcagacagcactcttctattaaaactggccagtaggtggccaataacgca  
cttgacacagacaatggccccaacttcacttcacaggaagtgaagatgggtggcatggtgggttaggtatagaa  
caatcctttggagtaccttacaaccacaaagccaggaggtagtagaagcaatgaatcaccacctaagaatc  
agataagtagaattagagaacaggcaaatacaatagaaacaatagtactgatggcagttcattgcatgaattt  
taaaagaaggggaggaatatggggatattgaccccagcagaaaagactaatcaacatgattaccacagaacaagaa  
atacaattcctccaaagaaaaaattcaaatttttaaaattttccaggtctattacagagaaggcagagatcagc  
tgtggaaggacctgggtgaactactgtggaaggggagaaggagcagtcagtagcaaggtaggggacagacataaa  
agtagtaccaagaagggaaggccaagattatcaggggacatggagcctggtaggaatcagctgtttgtgtcatt  
ttactaacaagtgccttgcttagtatattgtagccagtatgtgactgttttctatggcatacccgctggaaaa  
atgcatctattcccttattttgtgcaactaaaaatagagacacttgggggaccatacagtgcttgccagacaa

tgatgattatcaggaaataatTTTTAAATgtgacagaggcttttgatgcatggaataatacagtgacagaacaa  
gcagtagaagatgtctggcatctatTTTgagacatcaataaaaccatgtgtcaagctaacacctctatgtgtgg  
caatgaattgtagcaggggttcaaggaataaccacgaccccgaaatcccaggacctcgagttccacaacctcgag  
accacccacatccgcagcctccataataaatgaaacttctaactgcatagaaaacaacacatgcgagaggatta  
gggtatgaggagatgatgcaatgtgagttcaatatgaaggggttagaacaagataagaaaaggagggtataagg  
acacatggatTTTtagaagatgtggtttgtgacaacacaacagctggcacatgttacatgagacattgcaacac  
atcaatcatcaaagagtcattgtgataagcactattgggatgctatgaggttttagatactgtgcaccaccgggc  
tttgccttattaagatgtaatgataccaactattcaggcTTTgaacctaaagtgcactaaagtagtagctgctt  
catgcacaaggatgatggaaacgcaaacttctacttggTTTggctttaatggcactagagcagaaaatagaac  
atatatctattggcatggcagagataataggactatcattagcttaacaagattataatctcacaatgcgt  
tgtaagagaccaggaaataagacagttttaccaataacacttatgtcaggattagtgtttcactctcagccaa  
tcaacacaaggcctaggcaggcatggtgccggtttggaggcagatggagggaagccatgcaggagggtgaagca  
aaccttgtacaacatcccagatacaaaggaatcaatgatacagggaaaattaactttacgaaaccgggagca  
ggctcagaccgggaagtggcattttatgtggactaactgcagaggagaatttctctactgtaacatgacttggt  
tcttcaattgggtagaagacaagaaccaaacacggcgcaactattgccatataaagcagataattaataacctg  
gcataaagtagggaaaaatgtatatttgctccttaggggaaggggagttggcctgtgaatcaacagtaaccagc  
ataattgctaacattgacatagataaaaaatcggactcataccaacattaccttttagtgcagaagtggcagaac  
tgtaccgattagaactgggagactacaaattaatagaataaacaccaattggcttcgcacctacagatcagag  
aaggtactcctcaactccagtgaggaacaaaagagggtgtgttcgtgctagggttcttgggttttctcgcgaca  
gcaggttctgcaatgggcgcgcggtccctgacgctgtcagcccagtcctcgactttactggccgggtagatgc  
agcaacagcaacagctgttggacgtagtcaagagacaacaagaaatgttgcgactgaccgtctggggaacgaa  
aacctccaggcaagagtcactgctatcgagaagtacctaagcatcaggcacagctaaattcatggggatgt  
gcgttttagacaggctctgccacactactgtaccgtgggtaaatgactctttatcgctgactggaaaaatatga  
catggcaggagtgggagaaaacaagtccgctacctagaggcaaatatcagtcaaagtttagaagaagcccaa  
tcaacaagaaaagaatatgtatgaattacaaaattaatagctgggatattcttggcaactggtttgactta  
acctcctgggtcaagtataattcaatatggagtgcataatagtagtggaataatagctttaagaatagcaatct  
atgtagtgcattgttaagtagatttagaaagggtctataggcctgttttctcttcccccccccggttatctcca  
acaggcggcccaactgcaa

>#20 Simian immunodeficiency virus (SIV) JQ864086 6300 nt

atgggcgcgagaaactccgtcttgtcaggggaagaaagcagatgaattagaaaaaattagggttacggcccaacg  
gaaagaaaaagtatatgttgaagcatgtagtatgggcagcaaatgaattggacagattcggattagcagaaag  
cctgttggataacaaagaaggttgtcaaaaaattctttcggtttttagctccattagttccgacaggttcagaa  
aatttaaagagcctttataataactgtctgcgtcatttgggtgcattcacgcagaagagaaagtgaacatactg  
aggaagcaaaacaaatagtgcagagacatctagtgggtgaaacaggaacagcagacagaatgccagtaacaag  
cagaccaacagcaccacctagtggcagaggaggaaattaccagtgacagcaagtaggtggcaattatgtccac  
ctacccttaagtccaagaacattaaatgcttgggtaaaattggtagaagagaaaaaatttggggcagaggtag  
tgccaggatttcaagcgtatcagaaggctgcactccctatgatataatcaaattgctaaattgtgtaggaga  
acatcaggcagccatgcaaattattagagagattataaatgaagaagctgccgattgggatttacaacacca  
ccgccaggtccaccaccagcagggcaacttagagagccaagaggatcagacattgcaggaaactactagtacag  
tagatgaacaaatccaatggatgtacaggcaacaaaacctataccagtaggcaacatttatagaagggtggat  
ccaattagggctgcagaaatgtgtaagaatgtataacccaacaaacatttttagatgtgaaacaaggaccaaaa  
gagccatttcaaagctacgtagatagattctataaaagtctaagagcagagcaaacagatccggcagtaaaga  
attggatgacccaaacactgctgattcaaaatgctaaccagattgtaaatgggtgctcaagggctcgggtat  
gaatcccactttagaagaaatgctgacagcctgtcagggaaataggaggggccaggacaaaaagctagattaatg  
gcagaagcattgaaagaggcactgagaccagaccaactcccatttgcagcagtcacaacagaaaggacaaagga  
ggacaatcaagtgttggaaattgtggaaaggaggggacactctgcaagacaatgcaggggcccctagaagacaggg  
ctgctgggggtgcggaaaaacgggtcatgttatggccaaatgccctgaaagacaggcgcactgcctacattgaa  
gaacagcccgtagaagtattattagatacaggggtgatgattcaattgtagcagggatagaattagggtccaa  
attatacccctaaagtagtaggaggaataggaggcttcattaataccaagaatataaagatgtaaaaataaaa  
agtcttaggcaagggtgattaagggaacaattatgacgggagataccccaattaatatttttggcagaaatttg  
ctaacagctatgggcattgtctttaatctccccatagctaagggtggagcctataaaaagtaacactaaaaccag  
ggaaagaaggaccaaaaattaagacagtggccgctatcaaaagaaaagataattgcattaagagaaatctgtga  
aaaaatggaaaaagatggccagttagagggaagcccctccaaccaatccgtataacacccccacttttgctata  
aagaagaaagacaaaaataaatggaggatgctaataagatttttagagaattaaataagggtcactcaagacttta  
cagaagtacagttaggaataccacacctgacaggactagcaaagagaaggaggatcacagtattggatgtagg  
tgatgcataatttctccatacctctagatgaagaattcaggcagctacactgcctttactttaccatcagtaaat  
aatgcagaaccaggaaaaagatacatctataagggtattacctcaagggtggaaggggtcaccagctatttttc

agtatactatgagaaatgtattagaacctttcaaaaaagcaaatccagatgtgaccctgatccaatacatgga  
tgacgtcttaatagctagttagatagaacagatttagagcatgacagggtagttttacagttaaaggaacttctg  
aacggcataggatttctctaccccagaagagaagttccagaaagatccccattccagtggtatgggatatgaat  
tgtggccaaccaaattggaaactgcagaaaatagagttgccacaaagagagatttggacagtaaatgacataca  
aaaattagtaggagtgctaaattgggagcagcaaaatttatccaggaataaagactaaacatctttgcagacta  
atcagaggaaaaatgactttaacagaagaggttcagtggtgactgagatggcagaggcagaatatgaagaaaaca  
agataattctcagtcaagaacaagaaggatgttactaccaagagggaaccaaataagaggcaacagtaataaa  
gagtcaggataatcaatggtcatataaaattcaccaagaagacaaagtactgaaagtaggcaaatgtgcaaag  
gttaaaaaatacacatacaaatggagtcagattactagcacacgtagtgcagaaaaataggaaaagaagcactag  
taatttggggagaggtgccaaaattccatttggcagtagaaagagaaaatttgggaacaatggtggacagatta  
ttggcaagtaacctggataccagattgggactttgtgtcaacacctcccttagtcagattagtcttcaacct  
gtaaaagagcctatacagggggcagaaacattctatgtagatggatcctgtaataggcagtcagagaaggaa  
aagcaggctatgtggcggtataggggcagagacaaagcaaaacttttagaacagactaccaaccaacaagcaga  
gttggaaagccttctatctagccttagcagattcgggaccaaagcaaatattatagtagattccaatatgtt  
atgggcataatagcaggtcaaccactgaatcagaaagtaggttagtaaacagataatagaggagatgatta  
aaaaagaagcaatttatgtagcatgggtgcctgcacataaaggaataggaggaaatcaagaagtagatcacct  
ggttagccagggaattagacaagtcctattcttagaaaaaatagaaccagcacagaagagcatgaaaagtac  
catagtaatgtaaaagaattggtattcaaatltgggttacctaggctagtagcaaaacagatagtagacacat  
gtgataaatgccaccagaaaggagaagccatacatgggcaagtaaatgcagaactagggacttggcaaatgga  
ctgtacgcacctagaaggcaaaataattatagttgcagtacatgtggctagtggattcatagaggcagaagta  
atcccgcaggaaacaggaagacaaacagcactgtttctgttaaagttagctggcagatggcctatcacacatc  
tgcatactgataatggtgccaaatttcacatcacagaagtaaaaaatggttgccctggtgggcagggttgaaca  
gaccttgggggtgccttataatccacagagccaaggagtagtggaagcaatgaacctcatttaaaaaccag  
atagatagaattagagaacaagcaaaactcaatagagactatagtactaatggcagttcattgtatgaatttta  
aaagaaggggaggaataggggatatgactccagcagaaagatttagtcaatatgatcaccacagaacaagaaat  
acaattccaacaatcaaaaaattcaaaatttaaaaaatttctcggtctattacagagaaggcagagaccagctg  
tggaaggacccggtgagctattgtggaagggggaaggagcagtcacctaaggtagggacagagatcaagg  
tagtaccaaggaggaaagctaaaattatcaaaagacatgggatgtcttgggaatcagctgcttatcgcgctctt  
gctagtaagtgttttagagattttattgtgttcaatatgtaacagtatcttatggtgtaccagcatggaagaat  
gcgacaattcccctcttctgtacaaccaggaataggggacacttgggggaacaacacaatgcttgccagataatg  
atgattactcagaattggcaatcagtatcacagaggcttttgatgcttgggaataatacagtcacagaacaagc  
aatagaggatgtgtggaacctctttgaaacatccattaagccctgtgtaaaactcaccccactatgtatagca  
atgagatgtaataaaaactgagacagataggtgggggttgacaaggaacgcagggaacaacaacaacaaca  
caacaacaacagcagcaacaccaagtggtggcagaaaatgttataaatgaaagtaatccttgcataaaaaataa  
tagttgtgcaggcttggaaacaggagcccatgataggttgtaaatttaacatgacagggttaaaaaagggaacaa  
aggatagaatataatgaaacatggtattcaagagatttaatctgtgagcagtcagcgaatgaaagtgagagta  
aatgtttacatgcatcattgttaacaccagtggttattcaggaatcctgtgacaagcattattgggatgctattag  
atttagatatgtgtgcaccgccagggttatgctttgcttaggtgtaattgattcaaattattcaggccttgcctc  
aactgttctaaggtagtggtttcttcatgcacaagaatgatggaaacgcaaaccttacttgggttggcttca  
atggtactagggcagaaaaatagaacatacatttattggcatggcaaaagtaatagaaccataattagcttaaa  
taagtattataatctaacaatgagatgtagaagaccaggaaataagacagttttaccagtcaccattatgtca  
gggttggctcttccattcgcaaccataaatgagagaccaaacaggcctggtgctggtttggagggaagctgga  
aagaggccatccaggaagtgaaggaaaccttgggtcaaacatcccagggtatacgggaactaatgatactaagaa  
aattaatctaacagctccagcaggaggagatccagaagtcacttttatgtggacaaattgttagaggagaattc  
ttatactgcaaaatgaattggtttcttaattgggttagaggacagagaccaaaagagtagcagatggagacaac  
aaaatacgagagagcgacagaagaaaaattatgtgccatgtcatattagacaaataatcaacacgtggcaca  
agtaggcaaaaatgtatatttgcctcctaggggaaggagacctgacatgtaattccactgtaactagtctcata  
gcagagatagattggaccaatagcaatgagaccaatatcccatgagtgcagagggtggcagaactgtatcgat  
tgagattgggagattacaaattagtagagattactccaattggcttggccccccacaagtgtgaagaaggtaac  
cacaactggtgcctcaagaaataagagaggggtctttgtgctaggggtcttgggttttctcgcgacagcaggt  
tctgcaatgggcgcgcgctgctgacgctgtcggctcagtcgccgactttgttggctgggatagtgacagcaac  
agcaacagctgttggatgtggtcaagagacaacaagaattgttgcgactgaccgtctgggggaactaagaacct  
ccagactagagtcactgctatcgagaagtacctgaaggatcaggcgagctaaattcatggggatgtgctttt  
aggcaagtctgtcacactactgtaccatggccaaatgaaacattggtgcctaattggagcaatatgacttggc  
aagagtgggaaagacaggttgacttcctagaggcaaatataactcaattattagaagaagcacaattcagca  
agaaaagaatatgtatgaattgcaaaaactaaatagctgggatatcttggcaattgggtttgaccttacttct  
tggaataagatatatacaatatggtgtactaatagttttaggagtagtaggggttaagaatagtaatatatgtag

tgcagatgtagctaggttaagacaggggttataggccagtgttctcttccccctcccgttatgttgatcatcag  
aattggaatagcctacctacaa

>#21 Jembrana disease virus (JDV) NC\_001654 5748 nt

atgaagttgagcaagccttgagaagggcccttaaaaaggtaaggggtgacgccccagagagatgatacttatacaa  
taggaaacgtcctgtgggccatcaggatgtgtagattgatggggctggattgctgcatagatgaggctacagc  
agcggaggtggcaattttgataggacgtttccagtcggttgatttacaagactccccctttaaagggaaaggat  
gagaaagccatattgaccactctgaaagttttgtggagcctgctggcgggccaccaccagaaaaattcagata  
tggcagaaaaagtattgggaagcatggacaatcagagaaaaggagtgccaaaaggaggaggaaggagaaattac  
cagcatctaccacaacttagaaagaacttccccgctgtatccacatctgacgggtctcctagatatgaccct  
gatttaacaaaaacagctaaagattttgggcagatgacgacgaaaaacatgggggtgaccaccacgccgttaata  
ttttaggggtgatcacagcaaacttaacacaaagtgaatttaggctattactacaaagcaccaccacaatggag  
attggatattcagctcatagaatcaaaattaaatgccaggggagcacgccccatagggtctggaaagagtccac  
ccggaggccccaagacagatgagataattggaaaggggctaaccgcagcagagcaagccaccttaaccacc  
aagaatgcagagacacttataggcagtggttttagaggcggcgtagaggtagcacaaggaaaacatgaccg  
gccggacctattaatatccaccagggggccgaaagagccatatcctgagtttgtaaataagtttagttacagca  
ttggagggtatggcagcaccgcgaaactaccaaacagtatctattagaccacctgtcgggtggatcatgcaaatg  
aggactgccgcagtggttctaccttttagggccctcagccccgatggagaggaagttagaggcatgcagggc  
ggtaggttcaagtaaacagaagatgcaattcttggcagaggcatttgcagctataaacgtaaaaggggtgatgga  
gaagtacaaaggtgttatggatgtgggaagcctggccatataagaagggttgcaagaaccagaaatgtttca  
aatgtggaaaaccggggccacttacaaaggaactgcaaatcaaaaaggcaacctttcataaaaaattttcttagg  
agggaggtgggttagggctttgatagatacaggggcagatgaggtagtgtgaaagacattcattgggtaga  
atcaaggggtgtgccgctgcctcagtagtgacgggttgagtaaacaggcagaaatatagcaaggaggaaaagta  
atgtagagtggagattcaaaaacagatatggcatagtggacgtcctgttctccaacactccagtaaatttgct  
aggccgatcagtactgcaaagtatagtgcacaaaatttactctagctgcacacaccaaacagattcaaccactt  
ccggtcaagctacatgggcccaggtccacgggtgcctcagtgggccctcacattagaaaaatataaagccctta  
aggaaattgttgaggaactactaaaagatggaaaaatctctagaacccttgggataatcctttcaatacccc  
tgtttttgtaataaaaaaagaaagggggaagtaagtgagaaatgctaattggatttcagggccttaataaagt  
acaaacaaaggacaagaattccaaatcgggctgccataccccccagggaattcagcaatgtgaacatataacag  
ctatagacataaaagatgcctactttaccatcccttttagatgagaatttttagacaatacactgctttctcggt  
ggtcccggtgaatagagaaggccctctagaagatatcattggaatgtgttacctcaagggtgggtgtgtagc  
cctgccatataatcaaacaccactcaggagataattgcagagataaaagatagatttcttgacattgtgctct  
atcaatatatggatgaccttttaattggatcagacagaccagaccataaaaggggtggtagtgaaattaggga  
agaattaggggcttatgggttttaaaactccagaagaaaaatccaggaagaacagggtgcaatgggtggggat  
gaacttaccgccgaaaagggtggcggttccagcctaggcagataaaaaataaaaaagggtgtaacagtgaatgagc  
tacaacagatgataggaaactgtgtatgggtgcagccggagggtaaaaatccctttgagtcccctctcagattt  
actaaaagggaactgacctaaaagataagataaaattgactgaagaggctatccaatgcctagagacagta  
aataagagattaaaagaccctgaatggaaggaaaggataaagggaaggaaactgagctggtagttaaaattcaat  
tgatccctgagggcggttgtttatgatctactacaggatggaaaccccatatgggggtggagtgaagggtggga  
ttataatcacgctaataagataaaagaaaatgttaagtataatgaaaaaattgtcccggatagtcattgatg  
accggaagggaagtctccttctgatacccgagattcagaagactgggaatctgccttacagaggatcaata  
cactaacagagatacctgaagtaaaattctacaaacatgcctgtaggtggacctctgtctgcggtcctgta  
agaaagatatcctacttattatactgatggaggcaagaaaggggtctaaggcagcagcagcctactggaggag  
ggaaaaataaggaggggaagttttccagggtacaaatcaacaggcagaacttaaggccgtcttgatggctctac  
aagatggccctgcaaaaatgaatattattacagacagtagatatgcttttgaggggatgcgagaggaaccga  
gacttgggggaagagaaggactttggaaggaaatcggaagaagagctaagaaggaaagagtatgtaggagtcagt  
tgggttcccggacataaggggatcgagggaacacagaagtagaccaagagggtacaaaagcactccaggggcc  
ccataacagtgagtctcccacaagaaatactattagaagcagggggagacaaaacttgtgaagacagggatctt  
ctgggaagggtgaggccatgtaagctcaggcccgaaagggcctgaagcttaagggaagcttaatagatgaa  
gaattacagctggaaattacaaatactcaaacagcagggtgggaataagacaaggggcaacaattggcacat  
gtttcattgaagctattccacaagccatagaagaacatgaaaaatggcatactacagcggagatattgggtcg  
agagttccaactaccagagagtagctagagaaattgtacacaggtgtcaagcatgtaaaagaacagtaagt  
tgccccaggagggggaacaaacccaagagaaagattcctatggcaaatggataatacccatctagaagggaaaa  
ttatatgggtagctgtggaacaaattcagggttgattgaggcgcggttattccagaagaaagcgcacaatc  
aatagtgttttgcattttaattgctcgatatacaggtacaccgtataccacatacatagtgaacacgggccctgt  
ttcatagcacaagagtagaagccttatgtaagtatctaagattactaaaacaactgggtataccttacaacc  
ctcaagcacaagctatagtagaaagaacacacagagacatcaaagataaaatagcagcatttaggggaagattg  
tgagacagtagaggcggctttgagcctgaccctagtggccctaaataaaaaaaggaggggggaataggggggtcat

accccatatgaaatatacctagaatcagaatataacaaataccaagaacaacagaatcactataacaatttta  
aaacggaaaaatgggcctatgttagggacaaaaggaaagagatccacccttgataattcttttctgttttgc  
aggggctataggggtgattggaggggtggggcttacggggggaattgaatgtttgcatgctaattgttttagta  
gtgttagtaccatatactggggaataggggaagctgcaagaaacattgatagcttagattggaagtggatac  
ggaaggtattcatagtaataatTTTTGTacttTgtggggTtGctagggggctGctcagctcagagacagcatgt  
ggctatgctgctgagcccccggaataaggctgccaaagtacggTtgatatcccatggTtttgcattagcaat  
gctcccataccgactgtgtacactggacagtgcagaagccagatcaaaaacaccaacagattgaaaacgtga  
tgggaattacaggaagtgctagataatgctacTTTTTgaagtaccagacctatttgacagagtgtacctaga  
attggcccgcttagatgcaaacagtactggggTccctgtaaatatccccctaccggaataagccaggTtaag  
ggagactgctcaacgggagacattcaagggatgaatgaaacactgagcactagaggaactctaggggagagaa  
ctttcctgagcataaggccaggaggatggtTcaccaacactactgtatggTtctgtgtccattggccatttgg  
atttatccaaagaaaggaaaatctgtcagaagggtgctcaggtaagaaattgcctcgaccaataaatgtg  
accgagccaagagtagctaattattcctactgccccttggaatacaagggaagaactatataaacaaggggT  
tgaagtgtgtaggaggaagggttagacttgagttagtaaccggagcaacatacagacctcctagcttTgtggaac  
attctgccagaactttcgtaatTgtgatatggTgtcaagggacatcttaataggataccacccttcccagcag  
aaacagcatatttatataaaccatacattctgggagcaggcaatacacaaatggatattggTgcaggTcccaa  
actacgggtTtTgtgccagtcccagatacagaaagaccttggaaggaggcaaacctaggggaaagagagccgt  
ggggatggTcatattccttctcgtgttagctatcatggcgatgacagcatctgtcaccgcagctgtctacgctc  
gtgaagcaacacgccacggcacaagtagtggggagactgagcacgaatctaacttatatcactaagatacaga  
atcaatacctgcacctgtttcaaaatctgaacacacgagTtaataatctacatcatagggttacttaccttga  
gtttttTggcagaagtccatgaggTacaaactgggctagggtgtgtgccgagaggaagatattgccattttgac  
tggcgcccagaggaggtaggattaaacatgacgctctggaattctaccacctggcaacaatggatgtcctact  
acgatcagatagaagaaaacatatggaatttgaaatacaattggTctgaggccttagagaaaggaaagagtaa  
tactgacggTttTggagccggatgtcttccgatacttggcagacctatcctccagTtttacatggggtagttgg  
gtggataagcttTgtatggctagcttatatactttTggcttattttTgcatttaag

>#22 Puma lentivirus (PLV) MN531112 6951 nt

atggggaatgagtcagggaagaggagagagtaattgcaaaaaggTgcaccaatgtTgtgacaggcagTgggg  
ggaagagTcccaaatattccataggcaatataagatgggctatgagattTgccttggtagctacaggacgaga  
ccctcaggTtagtcccatctgtTggaagacctgagagaacttattgcagacttagcagaaaaagaagataaa  
tttgggggaagtaaagagcttactTgtgcaataaagactttaaaagtTtagtaatagcaggatgtctaaata  
tgaatgtgctaatacagactcagctatacatctatttaaaatattgggactggaagccagaccatcaaagaa  
agaaggaattgaaaaggaagaaccagctcaagtggctcctatagtagcaggacccatgggagctacatataca  
gcatttaatccaagaacagtagccattTggatggaaaaagctagagagggtatacatagtgaagaagctattt  
TgtggTttacagcattctccacagacttaacacctaccgacatggcacaattgcttatgtcagctccaggatg  
Tgtgtcagataaagaactaatagatcaaaagctgaaggaaactgactaaagaatatgagaggacacatccttca  
gatggTcccaggcctctgccatatacctactgcagcagaaataatgggaatcggaatccctcaagaacaacagg  
ctatggctcactttgagcctgctagaaggcaatgtagagagTggTatttaatagccttaaatgaattaaagaaa  
aattagagcaggagcaccaagagcagTctctgtTaaacaaggacctaaagagctatattcagaattTgtagat  
agactatttaagcaaatagaagcagaatctgtcctcaggatgtcaaacaatatTTaaaggattcattaagta  
taagtaatgcaatccagagTgtaaaagagcaatgagTcaccttagaccagaagacaaattggaagacaagat  
tagggctTgccaagatatagggtcaacaacatacaagatgaatatgctTgcacaagcgTtacaacaagTtagg  
gtacagcaagTgcaagTaaaacctcgaggTgtcTcaggaccacaaagaaagaaagggcctctcaaatgtTtta  
actgtggaaaaattTggacatatggcaaaaatgtgtaaagctcctaagagatgcaataaatgtTggaaaactagg  
tcatattgcaattTgggaaatgaacacacgaccccgTgtTgaggcctggataaatggaaaaaagattaatTTT  
ttattagattcaggggctgatatctcagtaataaatTTaaaagattggaatcaaggTcaggctattaaagaag  
ggcctcaacatatgacaggggtTgggggagTgcaaaatgggatgaggTatttctaattgtcatatagaaattca  
tacagaaaaatgaaggaaaaatgtTgtaattgTtatatgtgtgtccttccacaaaataatttagtagataattta  
ttaggtagagataatttacaaaaactaggTataagaatggtaattggcaatgatttctgataaaaataccaatcg  
ttaaagcaaggatgaaagatccaaataatggaccaagagTcaaacaatggccattatcaaaagaaaaaataga  
ggctctgacagaaatagtagaaagattagaaaaggaaaggaaagtagggagagctgatcccaataatccttgg  
aatactcccgtattttgtataaaaaagagatcaggaaagTggagaatgttaattgatttttagggaaacttaatg  
caaaaactgagaaaggagcagaggtgcagTtggggTtaccctcatccatctggattacagaaaaagaaagaatgt  
aacagTcctggatataggagatgcctattttacaatcccctTggatccagattatcaaccatatacagcattt  
actTtgccatctaaaaacaatcaaagcccaggaagaagatatattTggaaatctcttccctcaggggtggcttt  
taagTcctTtgatctatcaaagtactTtagataaatattttacaacctTtttagacaaaaatatggaaaagaat  
tgatatatatcaatatatggatgatatttacattggTtcagataaagaagTgaagacacataggaaaatagTt  
caagaattaagggaattactTTtatggTggggattTgaaacaccagaagataaactacaagaggcaccacctt

ataaatggatgggatatgaactccatcccaatgggtggaaaattcaaacagcaaagttggaaatacctaaaa  
ccccacttttaaatgaactgcaaaagtttagtaggaaaaattaattgggcgactcaaataataggagggttgcct  
attaaaaatttgactgaaatgatgaaaggcaatcccgactttaaattcaaaaagagaatggacttctgaagcta  
gacaagaggcagaacaggcaaaagaagctatagaaaatctgcctaattggaaactattatgacaaaaataaaga  
attatatgctatTTTTgagtattagtgggtccattacaaataagttatatgggtctatcagttagaggggattaaa  
aaacttccTTTTatgggtatggggagaatgaatagagtttaagagaaaaatagaaaatacttgtgatattgctatga  
gagctataaataagattaaagaagagactgtaattaggttggggagagagccactctatcaaattccttgctc  
aaaagagaattgggaaaagttatattcagactagtaggtatctaaaaaatgtccctcctcaagtggaaatttatt  
aatagtagtctgatgatagaaagacatttagcatgtttaatggaggaccccatacaagatgaagaagcagaaa  
catgggtatattgatggaggaaggaaaaagggacaaaaggcaagagcaggatgggtggaaaaataaccaggaatg  
gcaataatggaaatagaaggatctaatacagtagcagaagcacaagctttaaatatggcattaaagtcaggg  
ccagaaaagatgaatattataacagatagccaatatatatataatattggtaagagcaaggccagaacccaatg  
actccctgtggaaagaaattgtagaagaacttcaaagaaaagagaaaaatctttattgattgggttccctggaca  
cagaggcatcccaggaaataaggaaatagatgaattagtagcaatgtaacatgattattgaaggagcaggaata  
cttcaaaaaagagaagaagatgcagggttatgatcttatagcatcagaaaagatgtattttcttccctcagaaa  
caagaaaagttcctatagattgtaaaatggaattgcctcctgggacagtcgggtctagtactaggaaaatcatc  
tataggatgtaaaggattagatgtattaggaggagtaatagattcaggatacagaggagagatatcagtaatt  
atgatgaattcttcaaaaaaggggcaatggatagaacaaggccaaaaaatagctcaattacttattatgccag  
tacagcatgaaatattggaacaaggaaaagtacaaatgaactcagaaagaggagaacaaggatttggtagtac  
aggagcatttgcattgcagtcctggatggattatatagaacaggcagaaaatagagcatgaaaagtttcataca  
gatgaaaagacattgcaagagaagtttggattacctaaggtagtagctaataatgaaattttgcagaaatgtacaa  
tctgcagaatgacaggaataggaagtggaaacagaggagggaaattaaagatgggacctggagtatggcaggt  
agactgtactcatcttgaaggacaaataatattagtagccattaatgtggaatcaggattactatggacaaaa  
ttattaaaacaagagacagctaaagaaacagtattagctgtattagaattagtagacacataacgttgtgg  
aaatacaaacagataatggacccaattttgcaaattcaaggatggaagggttaacagcatttttaggaatata  
tcataaatatggaattccattgaatccacaaagtcaagcattagtagaaaatgttaatagcactttaaaaagt  
tgataaaagaagtttagaccagaggtagaaactttacaggcagcagtagcattagctacatttgccttaaata  
aaaaaagaaagggtaatatagggggatgtctccctatgaactatatatatggcaggaaaacaacttaataca  
acaatactactccaatatcatattttaaaaaatttggcacgaacaatggatatattataaggacattaaagat  
aagggtgtggaaggggcccagtagaagttctctattggggcggaaggctcagttttgataaaagatcctgaaagag  
gacttttcttagtccctaataaggaggattcgaagagtagcctccccctcaagaattagaggtaagtatggagaa  
ccagcaggccagttggataggaccttatgaaggagaagccctgctagattggcaggtccttgcagccttagga  
gaggatcagagaatcccacggaaccccttccgggaagctggaatgactcaagaacagagagaggaattag  
ctaaattcctccaacccatgctccaaggtattaagcaacaaatgttgggaaggaggtgagttgaatcccacatca  
aagaggtaagtggttatgcaaaaaaggatagatcaatattgggactctttgggttaaattgagtacagggcgt  
cgggtcaaaaaacaaaataggcccacaagtaatagatatagaagcagggtcaaatagttaaacaatccaaagctc  
cattgactcaatgtatcataagttttatttttaataggattaggagcattagtagtatatgtaggattatTTTTtagc  
tataacttcatcaataagtaagggtcaatgctgtaaaaattgctatttaaccctccttgggtgggtgccagtcaaa  
aataaagaggaaataaaattttcaatgtataggtaatcatagtgaatgtatactatcagaggaatggggaagat  
ggctgccccTTTTaactggacttttccagactcatttaaattgagacacaaacgatggcagattatgaagcaga  
gataagaggacaacaatatatgaattttgttaaaagaatgtagaagaggccattcgattctgcttggagtgtg  
gcttgggtggacatgtttttatgatagagcactaagacaatttaattggatatgataaagtaaggctgtgtccac  
ttgggggatatatgttttataataatcagaccagaagattacaattatgcacagatgaattacatattggaat  
tttgaatatgaccattagtcctataccttactggaacagaaacaaatgagacagaccagataccccattaaat  
ggatatctgtttgtagcgaacagacatttctatcttatgaacaatgctaccaacattacagaagaagggtta  
acattaacattacatgcaaggtgattgttccaacctcacatataacctataaaaaaggaatttataggatataa  
aatgaattcttgggaccttggggagggtcaaggatataggtctataatgatcagacatcaatcctttgccaat  
atgactaatccacctttggacttagattgctcagggatacctggaacaccatttaattggcacagaggcaatt  
actcttgtgcaacaataccacaccatatggagaaatttgtactcagccaactctgtatttttccatgctttaa  
tcctaattatacaatacccatatttgggtgcaatgtgctttacatcaagaatatagaacaaatgatagtcatcgt  
aatcaatcagatgatatgcaagttataagatgtagaatagcaagagagattgatattcaagaaatagatcaaa  
ttacaagggttaaattctgacattagttaaagatccatttctaattctattttacaaggggctaataattttacatg  
tacattacaaggacaattttgggtattttaaaatgaataatgcttcatggaattggaacaccccaaatgctaca  
tggttaacgccttggaaaaattttactcaagaaaattatgtttggggggcatattcctcagcaatatggaatt  
ggtttcattttaaacattactatttggtaaaacaaccagtgatactatattaaaagatgatcctcatagaag  
aaaaagaggaataggattaacagtggttaataaggacctcgggtggcagggtgataggagcaaccactggc  
accacggccttagtagtatctcagaacctgagaggggattatgctccaacaacagagataaatgagcaaacct

tcaggatgctgaagctactgcagagggcgtgtggaacagtcagaacggatgatcctgatgcttcaccaacgggt  
gtctaaaatagaaaactttttacaattaatacaaaaatctaagaggaatgtgtcccttcaaagatatatgtgac  
attccaatgcaatggaacttttacaattataatgaaagcgatacaataggaaagtgggcagaacaaagtga  
aagatagaattgaatttgaacaaattttaataatgcgtcaaaagcaaagagaacatgaaatatgacttaca  
gaatatggatttgcagaactggctgagttggatgaattatagtacattagtaaaaaacagtaatatgtgata  
atagggataataggaataatgctggcaccagtggtagtgcagataattaaaaatgtattgtatatgttccagg  
gatacaaacctgttatggccaatctgatagaaataaaagaagaaacagggaacgaagaaagagaagaaga  
tggagagcaattatga

>#23 Visna/maedi virus (VMV) M60609 7530 nt

cccttcagtgaaggagaaagtgttgcttgggcacagaggagggttcgcgaccccttagaaagacggaggggc  
gcgggcgctcctccttggggccgaggggacacaagagcaacactggtaagggaagccgcctgggtgaggctagctag  
agacatggcgaagcaaggctcaaaggagaaaaaggataccccgagctcaagggaagtaattaaagcaacttgt  
aaaataagggtagggcccggaaggagaccttgacggaagggaattgtctatgggcattaaaaactatagact  
ttatatgtgaggtttaaaaaacagagccgtggacgattacaaaaatgtatacagtatgggatagattaaaagg  
gctaactccggaggaaacaagcaaaagagaattcgcctccttgcaagctacgttggcttgcataatgtgtagt  
caaattgggcatgaagcccgagacagtgacggcagcaaaagggaataataagtatgaaagaaggactacaagaaa  
ataaggaggccaagggggagaaggtagagcaactctaccccaacttagagaaacatagggaagtttaccctat  
tgtgaatttgcagcaggaggggagaagttggaaggcggtagagtcagtagtcttccagcaactgcaaacagt  
gcaatgcagcatggacttgtgtccgaggatttttgagaggcaattggcatattatgctactacctggactagta  
aagatatattagaagtattggctatgatgcctgggaatagagcacagaaggaattaatacaaggaaaattaaa  
tgaagaagcagaaaggtgggtaagacaaaatccacccgggcccgaatgtcctcacgggtggatcaaataatggga  
gtgggacaaaccaatcagcaagcatctcaagccaatatggatcaggcaagacagatatgccggcagtgggtaa  
taacagcgtaagatcagtgaggcatatgtcacatagaccaggaaaccctatgttagtgaaagcagaagaatac  
tgagagttatgaagacttcatagctcgcctactagaggctattgatgcggaaccagtgacggaccctataaaa  
acatatttaaaagtaacattgtcatatacaaatgctagcacagactgtcaaaagcagatggataggacattag  
ggacgaggggttcaacaagcaacggtagaagaaaagatgcaagcatgtcgagatgtgggatccgaaggatttaa  
gatgcaattatttagcacaagctttgagaccgcaagggaaggcaggacacaaaggggtaaatcaaaagtgttat  
aattgtggaaaaccaggacatctcgcaagacagtggtgaagcaccacccaaaatagaaataaaaagtaggaacaa  
gggtggaaaaaattatttagtagatacgggggcagataaaaactatagtaacatcccatgatatgtcagggatacc  
aaagggaaggataatattacagggcatagggggaataatagaaggagaaaaatgggaacaagtacacttgcaa  
tataaagataaaaataatcagaggtaccatagtggtgttagctacgagtcgggtagaagtattaggaagagata  
atatgagcgaattgggaataggattaattatggcaaatttagaagaaaagaaaattccattacagaagtaag  
attaaaagagggtatgtaagggaaccccatagcgcaatggcctttgacgcaagaaaaattagagggtataaaa  
gaaatagtagacagattagagaaggaagggaagtaggaagagcgccccacactggacttgtaatacccta  
tattttgtattaagaagaaatcaggaaaatggaggatgttaatatagatttttagagagttaaataagcaaacaga  
agatttagcagaagcacagttagggttaccgcatccaggaggattacagagaaagaaacatgtaacaatatta  
gatataggagatgcataattttacaataccattatatgagccatatagacaatatatgctttaccatgttaa  
gtccaaataatttaggaccatgtgtgaagatattattggaaagtgttaccacaaggatggaaattaagtccttc  
agtgtatcaattttacaatgcaaaaaatattaagaggatggatagaagaacaccctatgatacaatttggaaata  
tacatggatgatattctatataggagtgatttaggattagaagagcacaggggtatcgtgaacgaactagcat  
catatatagcgcaatatggattttatgctgcctgaagataagaggcaagaaggatacccggtctaaatggcttgg  
atttgaattacatccggagaaatggaaatttcaaaaacatacgtcccagagattacagaaggaccataacc  
ttgaataaaactacagaaattagtaggagatttagtttgagacaatccctaataaggaaaaagcatcccaata  
tcttaaaattaatggaaggagatagggtttacaaagtgaagatacatagagagtatacatgtaagagaatg  
ggaagcctgtagacaaaagctgaaggaaatggaaggaaattattatgatgaagagaaggatatctatgggcaa  
ctagattggggaaataaagcaatagaatacatagtatttcaagaaaaaggaaaacctttatgggtaaatgtag  
tacatagtattaagaatttgagtcaagcccaacaaattatcaaagcagcacaaaaactgacacaagaagtaat  
aataagaacagggaagataccctggattttgttgccgggaagggaagaagattggatattagagttacaaatg  
ggaaacataaattggatgccatcattttggtcatgttataaaggctcggtagggtggaaaaagagggaatgtaa  
tagcggaagtagtctcaggaccaacatattataccgatggaggaaagaaaaatgggcgggggaagcctggggta  
tattgcctccacagggtgaaaagttagaataatatgaagaagggacaaatcagcagttagaattgagggccata  
gaagaggcatgtaaacagggaaccagaaaaaatgaatatagtaacagatagcagggtatgcataatgaatttatgt  
tgcggaactgggacgaagaagtaataagaaaccctatacaagcgagaatcatggaattaatgcataataaaga  
aaaaataggggtacattgggtgcctggacacaaggggattcctcaaaatgaagaaatagataggtatatctca  
gaaatatttttagcaaaagagggaagagggtatttcaaaaaaagggcagaagatgctggatatgacttaatat  
gtccacaggagataaagcattccggcgggacaagtgaagggaatagcaattgacttgaaaataaatttgaaaaa  
ggaccaatgggccatgatagggaacaaaagcagttttgcaataaggaggtattttgtacaaggaggtatcata



gattcgggatatcaaggaacaatacaagtagtaatatataatagtaataataaagaagtagtaataccacagg  
gaagaaaatttgcacagttgatcctcatgcctctaatacatgaagagttggagccatggggagaaaacaagaaa  
aacagaaagaggggaacagggatttggatcaacagggatgtattggatagaaaatattcccctagcagaagaa  
gagcataaacaatggcatcaagatgctgtgtccttgcatttagaatttgggattcccaggacagctgcagaag  
atatagttcaacaatgtgatgtgtgtcaagaaaataaaatgcctagtagcattaagaggcagtaataaaagggg  
catagaccattggcaagtagactatacccactatgaagacaagataatattgggtctgggtagaaacaaattca  
ggactaatctatgcagaaaagggtaaaaggagaaaacaggacaagaatttaggggtgcaaactatgaaatggtag  
cgatgtttgccccgaaatcattgcagctctgataacggaccagcattttagtagcagaatctactcagctctta  
gaaatatttgggcatagaaacatactacagggatcccctggaaccacacaatctcaagcattagtagagagaaca  
catcagacgttaaagaatacattagaaaaacttatacctatgtttaacgcgtttgaatcagccctcgaggga  
ccctcattactctaaatataaaaaagaaaggggtgggctagggacaagccctatggatataatttatatttaataa  
ggaacaacaagaatacagcaacaaagtaaatacaaaacaagaaaaaattcgattttgttattacagaacaaga  
aaaagagggcatccaggagagtggaaggaaccaacacaggtactttggggcggggacgggtgcgattgtagtga  
aagacagaggcacagatagatatctgggtgatagctaacaagatgttaagttcataccgccaccaaagaaat  
acaaaaagaataaaactgtgataagtctgtctaggatgaccagcaaaagtaagccaagcagaacaacgtgg  
agaggcatggagccccactccgagaaacatggaatcaagtattacaggagctagtaaaaagacaacaacagg  
aggaagaagaacaacagggactggtagcaggttaagaaaaaatcatgggtaagtattgacctcctggggacaga  
aggaaaagatattaagaaggtaaacatatgggaacatgtgaaaagtggtttgcacaggtgatatggggggta  
ttgtgggtgctgcaaattgtgttggggatgtctcatgtgggaaatgagaaaaggaaccagtgtaagcag  
aagaagtgatagcattggtagtgatcctggaggatttcagaggggtgcaacacgtagaaacagtgcccgtgac  
ctgtgtgacaaaaaatttcaatgaggatgtcaaccgagggggcctatccagatcctgaaactagagtagt  
agaaatatacttagggaaatcttagaggaagtataaacaagactggccctggaatacttatcattggcctt  
tatggcaaatggaaaatatgaggcaatggatgaaagaaaatgaaaaggagtataaggaaagaacaacaaaac  
gaaggaagatatagatgatctggtagcaggaagaataaggggaagattttgtgtgccatatccctatgcttta  
ctacgatgtgaggaatgggtgttggtaccctgaatctattaatcaggaacaggacatgctgaaaaataaaaa  
taaactgcacaaaagcaaaagcagtttcttgtacagaaaaaatgcccttagcagcagtcagcggttatattg  
ggaaaaagaggatgaagaaagcatgaagtttttgaaatataaaagcctgtaatatatcattgaggtgtcaagat  
gaaggaaagagtccgggaggatgtgtacaaggataccccattccaaagggagcagaaataataccagaagcta  
tgaaatacctcaggggaaagaaagtcgatatggagggatcaaggataaaaatggggaattaaaattacctct  
ctctgtaagggtgtgggtaaggatggctaactctgtcaggatgggtgaatggaacgcctccttactggagtgc  
aggggttaattgggagtacagggataaatggaacaaggtggtagtgagtaggaacactacatcacttaggggtata  
acatttagcagtaaccagagagaggggatatgtgactttacaggagaactttggataggggggtgacaaattccc  
atattattataagccctcatggaattgttcacaaaattggacaggtcaccagtagtggaagtatttagatac  
ttggatatgacagaacatatgacaagcagatgtatacaaagacctgaaagacataatataacagtaggaaatg  
gaacaataacgggggaattgtagtgtacaacaaattgggatggatgtaactgtacaaggtcaggaaatcatttgta  
taacagcacaaagcggaggactgttagtaatcatatgcaggcaaaatagcaccataacaggaataatgggaacg  
aacactaattggacaacaatgtggaacatctacaaaattgtcaaaatgtaacaacagtagcctagacagaa  
caggtaatgggaccttgggaacagtgaaacgaccttaagtgtagcttaccacacagaaatgagagtaacaagtg  
gacatgtgcggcgagaaggaaggggagccgaagagactcattgtatatagctggaagagacttctggggcaga  
gtaaaagcaaaatacagttgtgagagtaatttaggggtctagatagtagatgatgcacagcaaatgttactgc  
aacgataccaagtaataagagtaagagcttacacatatgggtgtgtagaaatgccacaatcgtatatggaggc  
acaaggggaaaacaggaggtcaagaaggaacctccaaaggaagaaaagagggataggcttggttattgtgctg  
gccatcatggcaataatcgctgctgcaggagctgggtctcggtgtcgcaaacgcctgtgcagcaatcctatacca  
ggacggctgtccagtctcttgctaacgcaactgctgccagcaggaagtgttagaagcatcgtatgccatgggt  
acagcatatagccaaaggaataagaatcctagaggcaagagtggttaggggtggaagccctggtagatcgaatg  
atggtataccatgaattggattgctggcattatcaacactactgtgtaacctcaacaagaagtgaagtagcca  
attatgtaaaactggacaagattttaaagataactgtacctggcaacagtggggaagaagaatagaacaacacga  
gggaaacttgagtctattactcagagaagcagcattacaagtacacatagctcaaagagatgctaggagaatc  
ccagatgcttggaaagcaatacaagaagcatttaactggctcctcttgggttctcgtgggtcaaatatataccct  
ggattatcatgggaattgtaggattaatatgttttagaataactaatgtgtgtgatatcaatgtgtttgcaggc  
ttacaagcaagtaaaagcagatcagatatacacaggtaacagtggtgatagaagcaccgggtggaattggaggaa  
aaacaaaaaagaaacggggatggtacaaatggctgcgcaagcttagagcgcgagagaagaacatcccatcgca  
gttttatccagatatggagagcaacatgggtgggcatggaaaacctcaccttgagacacagctggaggacaat  
gccctatataaccttgctacctcatgttggtgatatggcagtggtatggaagagaatggatggaatggagagaat  
cagcacaaaaagaaaaaagaaaggggtggactgtcaggacagagaacaaatgcctaccttgaaaatgactatg  
tagagttatag

**Supplementary File S2.** Dataset of 96 nucleotide sequences from primate lentiviruses: 37 sequences from SIV infecting *Cercopithecinae* (#1 - #37), 4 from HIV-2 (#38 - #41), 20 from SIV infecting African apes (#42 - #61), and 35 from HIV-1 (9 from group O, #62 - #70, 2 from group P, #71 and #72, 7 from group N, #73 - #79, and 17 from the pandemic group M, #80 - #96). From each genome sequence we selected the non-overlapping region that encodes the 8 proteins common to all primate lentiviruses (*gag*, *pol*, *env*, *tat*, *rev*, *vif*, *vpr*, and *nef*) and we excluded the coding region of *env* that corresponds to the Rev Responsive Element (RRE, 246 nt). Each nucleotide sequence contains the NCBI acc. number and the length of the coding region.

```
>#1 AF468658 7257 nt
atgggagcgcgaggcactcggcgatgctgacgggtactaagttggataggtatgagaaagtgagtctcagaccgaga
ggaaagaagaagtacgcgatcaagcacttagtatgggcctccaaggagcttgagagatacgcgctatcaggcagt
cttcttgaatctaagaaggggtgtcaacaggtattggaagtcacctccccattagaaccaaattgggtccgaatct
ctcaaaagcctctatggaatcggtgtcagtgctctattgtatccatgcagacatatgggtagaagatacagagcag
gctaagaagcaagttcagataaggtgtcatctagtaggaacaaaagagaaagaaacacagaacaaagacccccca
ggggccgcagggggacaggcggttagttagtcagaactaccccatagttagaaatgctcagggacagtttcaacac
caggccctcaacagcagagtccttaagacttgggtaagcatagtggaagaaaagaagtttgcctccagagacagtc
gctctgtttcaggctctaacagaaggctgtataccttatgatatgaaccaaattgctcaacgctgttgagactat
caaggagcagtagcagattattaaagatgtcatcaatgaacaggcagcagagtggtatctcttacatccgcagccc
gcggcaccccaaccagtagcagggcttagagaccctagcggagcagacatagcaggagtaacatcaactcctaatt
gagcagatagagtggattacaaggcagaacaatccagttaatgtggcagatatatatagaaaatggatcatcttg
ggcttgacgcgatgtgtaaaaatgtataacccctgtcaatattttgggcatcaaacagggccctaaggaaccattt
aaggaatatgtagacagattctttaaatgcttaagggtgaacaggcagatcaggcagtaaagaattggatgaca
caattgctgctggttcaaaatgctaataccagaatgcaagctgatcttgaaggccatgccaggagccagcttgga
gaaatgcttacagcatgccaaagggtagggggaccaaactcataaatctagactcttggcagaggccatggcaaca
gcactcaaaggcagctcatacaatatggtgcaaagaggccccccaggaaggcaaggaaaaacccccaaaatgttac
aattgtggaaagtttggacatatcgcaagagactgtcccaaaccgaaggaaagaaagtgttttaaatgtggcaag
gcaggacacttagctaggcaatgcaaaaacaggaacaccagccaaggagcttgaagtctccatggggggacaagtg
gtgtccatgttattagacacaggggacgataccattgtccaagaatcagcaattgaattagacacaccatgg
acaccaaaaacggtaggggggatagggggtttaatacaagtaaaaggaacatagacatgtagaagtgatctttaat
gaaaaaagaatcaaagccactgtactttagggccacaccagtgaatatattgggaagaaattgtttaagcaag
ttaggagtaaccttaaacatggtgcagcagaaactagagcccgtagaagtgcacctaaaatcaggaaaaagaagga
ccaaagattaaacaatggcccttgtctaaggaaaagatagaggcccttaacccaataacacaagaaatgctcaag
ttagggcaatttgaaaagatagggccagaaaatccatacaactcgccagtccttgccataaaaaaagaaagacaaa
tcacaatggagaatgttaatagatttcaggaaattgaatgaggctacgcaagacttggctgaggtccagttgggg
attccgcacccagcaggactagaacaaaaagagcacgtaactataatagatatgaaagacgcttattacagtgtg
ccattgtatgaagaattcagaaagtacactgcatttttcagtaccatcagtaaaccaatcagaccccagctgagagg
tatcagttcaaagttttacctcagggttggaaggcgtctccaaccatttttcaggccactgtagcttccttggtta
tatcagattagagaccaggagccagatgtggttaataatacagtacatggatgacttggtgataggatcagatagg
aaattggcagagcataggcaagtagtgacaaaaataagaaatttgttgacgtcctataacatccagacccccgag
gccaaacaccaacaagattatccagtcagatggctcgggtatgagttgcaccctaagggtatggaggctccaacca
gtggagctcccagatcaagacatctggacagtaaatgacatccaaaaatttggtagggaagctcaattgggtatcg
caaatacatcctggcataaggacaaaacagttatgcagatgtattagaggagccaaagggttaacagaacaggtg
gagctcactgaggaagcacaatatagagtttagcagaaaacagagagattctaaaacaatcctcagagggcgagctac
tacgacgcagaaaagccacttgtggtagaaattacctccctaggagaacagcaatggggatacatgttcagtcag
gacagcaagatgctaagatcaggcaaatgtgcaaaaaccagaactgcacatataaactcttatcagcaattggca
```

gatgctatgaccaaagtaggtagggaaagtcaggttacttggggaaaagtacctgacaaattcaggatcccagta  
gtcaaggagcaatgggatacgtggtggtgaactattggcgaggcaacatggattcccaccatagaagcagtacac  
acaccacatttgttgagacagtggtacaccctagtctcggaaccctagaaaatgcagtcacctattatgtagac  
ggggcagcaaataggacctctaaattagggaaagctggctatgtgaccaatacaggaaaatatagagccatagaa  
ctagaaggaaactacaaatcaacaagcagaactccaggcagttcttttggcattaaaagaaggaccaccaagaatg  
aacttgggtcacagattcccaatacgtaatggggatcttacaagccaaccagaagtatccacctctcccttagtg  
gaacaaatcatacaagaactggttagggaaagaggccgtctacttgagttgggttccagcacacaaagggatagga  
ggaaacacagaggttagacaaattagtcagcagagggatccgccaagtactcttcatggagaacatagagcccgca  
gtagaggacatgaaaaatatcatagtaattggaagtatttaagggatcaatacaaaatcccggcactattggct  
aaagaaatagtaacaagtgtccaaatgtcagatacatggggaaccaaacaatgggcaagtaaatgcagaatta  
ggcatatggcaaattggactgcacacatctggaaggcaaagttatcttagtggcagtcacgtagccagtgggat  
gtttgggctaggataataccccaagaaacaggcagacaaactgcattaaagctattagaattagcagcaacatgg  
ccagtaactcacctacatacagataatggcccaatttcatctctaaggaactggaggcagcttggttggtgggca  
aacatacaacacagtcaggggtgccatacaaccgcgaagtcagggttagtagaaaacatgaacaaacaactc  
aaggaaacaatccaaaagattagagatgaggtcacatacttagaaacagcagtagcacaagcatgtctacattcat  
aattttaaaagaaaggagggaataggggatatgtgccctacagagaggttagtgaacatgatccacacagaatta  
gaaacacaacacttaaacacacaaaagttccaaatttcaaaaatttcgggtttattacagggaaggagctaattcct  
cattggcaaggaccagcagtagtacttctctggaagggtgaaggagcagtagtggtccaaacccaagcaggtgagatc  
atcacagtccttagaaggaaagcaaagatcatcaagccagcaactaaacatcatatatgggtcaggaaaaactcca  
tttgtgtatatccaccactatcaactacaacatcaaagggtttacacaaaacaaaattcgattagcattagatact  
aggcaggttaggagaggaagtagaagccacatatattgagataaccatcctatgggacacaactagtcatggacca  
gccagtctatcccgatccacctactaccaacaggcagtcacaatagagtggttttacaacagaagtaagctagga  
gcaagggaacagacataacatggtacagtactaatttgaccccgacgtagcaatgcaaatcatacacacaagg  
tactttccatgttttccagaacgaagacgtacggagggcaataaggggtgaacagctcttaggatattgtgaccac  
ccggaagctcacccacaggttaggaacacctcacacgcttgaaaggctagccttctttgcgtacgttagatacgt  
acggagctccctgccgatccggattggacagtggtcaggcagcaatagcatgtgcaatagattatgtcaggaga  
gtgcagacattactcttttagacacttttagagatgggtgtttccacagatacaatagaattgtcagaaggtacca  
gtaatcaggcccttaaggggtaccgccccaccagatagtaactctgttccctgaccggcgagagtgcttttgcct  
aagtggcaacagccaggagccgcgccaacaccccgctgtctctgcttattgcaaaagggtgtgcttttcattgt  
cagttgtgttttctaaggaagggtactaggtctttccctttccgggaactggacgacagtggttctatgggtaccg  
gtatggagagatgcaaaaccaccattgttctgtgcctcagatgcagacataactagtaatgaaccaggaaacatt  
tggatctctacggcatgcttgccctcagacccctcacgctctgaggtgccactaaacataacagaggaattta  
atctataaaaatttatatggttagatgaggtgagagatgacatggtatctctatttaacaggccctaaagaccatgt  
gtcaaactgactccgatgtgtgtacgaatgaaatgtaagctcccaatacagagcacaacaacaacaccgtccaca  
acaacagccacaacatcacccctcatccccaacgccaacacatggggaaattggggaggtaatggaaacaggacag  
ccaatatataactgttcctttaaccagactacagaatttagggacaaaagagacagatgtatagcctcttttgg  
aaagatgatattatgagggcacaggatggtaatgacactgactattatattataaattgcaacacatcatatgtc  
acgcaaaagtgtgtcaagacctccttccaaccggttcccatacactactgtgctccgcccggctttgctatgcta  
aatgcaatgatgccaatttcacaggagtggtgcaagtgttccaatgtatcagcagtaacatgcacgcatggcatt  
caaccttttagtagcaacatggcttcatctaaatgggacttatcagccagggaacaataaccagagtaatgatgaat  
ggcaaaaagaatgaatctatagtcataggctttggggaagattatcagcttactcttacatgtatcagacctgga  
aataaaaccctaaaaaatttacagataggagcaggaatgacattctactcccaaattatagtaggggggagatact  
aggaaggcctattgcaaaactcaaccatacaaaagtgggatatagcaataaggcaagccatgaaggccatgaagaac  
cattgggaaaagatcaacaatgataccaccctcaataagactcaaataaggtggacctccgaacctaaaggagat  
ctagaggtccaaactcattgggtccaatgtcaggggagaatttttctattgtaatttgtcagtagtctttcaattc  
aacaacaatattacggcagtggtgacacaaacattaacaatgtcacaagcaatacaaaaggacaatggatggct  
tgcagaattaggcaatttgtcacacaatggggatattgtgtctaggtcgatctacttacctccacggcaaggtcat  
ataaattgtacatctaacatcactggcctcctaatagacggagcgatgtatggacattccatcaatatgaccca  
tcggccgatgtagccgatgcatggaagtatgagttatccagggtacaaggtggtggagatagatccactttcgctg  
gccccaacctcggtcaaaggagaccacatccaggggtgcatgtgaaaaagaggcaagcttggggctgtgcgaat  
cagccaatctgtcacaccatagtaccttggaatgactcatgggctaagaactcgacgccagattgggagcacatg  
acctggcaggagtgagtaagttaattgaaaatgacacatataccatacagcaattattagaaaatgcaaaccat  
caacaatcaaagaacatgaatgacttattaaagttatccaaatgggactccctttggagttgggttgatatttcc  
aattggctctggtacattaaagattttcataatggtagttgcagcttttagtagctttgagaataataatgtttgtt  
cttaatatgcttagaagggttgaatcacccctccaggcaaaattgcatcgattatgaaccatcatgccagtgaga

ccacaggtgccgcttagagacccccacctacaaacttatgggtggatctctcgactttttgaaagaaaagggagga  
ctggaggccatgttttattgtgaagatagacaccaaagctagagagctattgctattatgagtggggcattgtg  
cctggatggctccagtggactccaggaccaggaatccgctacccaactatgccaggcttctgctgggtgcttacgg  
ccagtggccatgactgaggactctgagcccggggatgatcaatatctgttgaaacatcccgcctatcagggacag  
caagaggaccacataggagatcttggtcttctccttctgctctaggctagccttgaaatcaggctggcagatg  
aaccagctgcagcaggaggagcggaagaagcgcctaaccgcaaaccgcttcctatag

>#2 AF468659 7182 nt

atgggagcgaggcactcggcgatgctgacaggtactaagttggataggtatgagaaagtgcgtctcagaccaaag  
ggaaagaaaaagtacatgatcaagcacttagtatgggcctccaaagagcttgagagatatgcgctgtccgacgct  
cttcttgaaaatcaagaggggtgtcgacggatattagaaattgtcttccccctagaaccaacaggggtcagaagct  
ctcaaactctctctttggaatcggtgctcagtgctctattgtatccatgcagacatacaggtggaggatacagagcag  
gctaagcagcaagtcaggataagatgtcatctagaggagaccaagggtaaagaaaagcagaataaagaccccccg  
ggggccgcagggggacaggcggtagttagtcaaaactaccctgtgattaggaatgcccaaggacagtatcaacat  
caggccctcaatagtagaattcttaagacttgggtaagcatagtgaggagaaaaagtttgcctccagagacagtt  
gccttgtttcaggctttatcagaaggctgtataccctatgatatgaaccaaagtctcaatgctataggagattat  
caaggggacgtacagattattaaagatgtcatcaatgaacaggcagcagagtgggaccttttacatccggtacca  
gcagcacctcaaccgggtggcagggcttagagaccctagcggagcagacatagcaggagttacttcaactcccaat  
gagcagatagagtggtacacaaggcagaaccaacctgtcaatgtgtcagatatatatagaaagtggatcattttg  
ggcctgcagcgatgtgtaaaaatgtataaccctgtcaatattttggacatcaaacaaggccctaaagagcccttt  
aaggaatatgtagacagattctttaagtgccttaagggccgaacaagcagatcaggccgtgaaaaattggatgaca  
caatcgctgctggttcaaaatgctaaccagaatgcaagctgatcttgaaagccatgccaggagccaacttggaa  
gaaatgcttacagcatgccaaggggtagggggaccaactcacaatctaggctcttagcagaagccatggcaaca  
gccctcaaaggcactagttcatacaacatggtgcagaaaggccccctggaaggcaaggaaaaacccccaaatgt  
tataattgtggacaattcggacacctagcaagagattgtcctaaacccaaagaaagaaagtgcctttaaatgtggc  
agagcagggcacttttagcaaaccatgtagaacaggggacaccaatcaaggagcttgaagtctccatagggggacaa  
gtggtgtccatgttatttagacacaggggcgagcagaccatcgccaaagactcagcaattgaattagataacca  
tggaacacaaaaatggtagggggaatagggggttaatacaagtaaggagcataaacatgtagaagtaaatcttt  
aatgagaaaaaatcaaagctactgtactggttgaccacaccagtaaatatattaggaagaaattgcttaagt  
aagttaggggtaactttaacatggtgcagcagaagatagaaccatagaagtgcacctaaaggcaggaaaaagag  
ggaccaaaagatcaaacagtggtccctgtctagggaaaagatagaggccttaacccaaataacacaagagatgctt  
agattaggtcaattggaaaaaataggaccagaaaatccatacaactcaccagtctttgccataaaaaagaaggac  
aaatcacatggagaatgctaatagatatttagaaaattaaatgaggctacgcaagacttggtgaggtccagttg  
ggaattccgcaccagcaggaattccgcacctgcaggactagagcaaaaggagcatgtaactataatagatatg  
aaagatgcttattatagtataccattgtatgaggatttcaggaagtacaccgctttttcagtaccttcagtaaat  
aatcaggccccagctgaaaggatcagttcaaagtcttacccgaggggttgaaagcgctcgccaaccatctttcaa  
aacattgtagcttcttgctacgacagattagagatcaggagccagatgtggtattaatacagtacatggatgat  
ttactgataggatcagataggaaactgggagaacacaggcaagtagtgcaaaaaataagaaatttactaacatcc  
tataacatccaaacccccgaggccaaacaccaaccagattatccgggtcaagtggctcggttatgagttgcatcct  
aagggatggaggctccagccggtggaactcccagaccaggatacctggacagtgaatgacatccagaaattggta  
gggaaattaaattgggtatcacaatacacctggtataaggacaaaaacagttgtgcaaatgtattaggggagct  
aaagggtcaacagaccaggtagagctcactgaggaggcagagatagaattagcagaaaaatagggagatcttaaaa  
caatcttcagaggggtggctattatgacgcagaaaagccgctcggtggtaattacctccctaggagaacagcaa  
tgggggtacatgttcagccaagaaggcaagatgttaaaatcagccaaattcgcaaagaccagaaatgcacacata  
aactcctatcagcaatttgcatgctttgaccaaagtaggtagggagagtcaggttacctggggaaaggtaacca  
gacaaatttaggatcccagtagtcaaggaacaatgggatgcatggtggatgaattattggcaggcaacatggata  
cccaccatagaagcaatacacacaccacactactgagacaatggtacaccctagtctcggaacccctagaagat  
gcagttacttattatgtagatggagcagcaaataggacctccaaactaggaaaagctgggttatgtgaccaataca  
ggaaaacatagggccatagaattagaagaaactacaaatcagcaagcagaactccatgcagttcttttggcatta  
aaagaaggggccacaaaaaatgaatctggtcacagattcccagtatgtaattgggatcttgcaaagtcagccagag  
gtatccacctctgcgctagtggacaacatcatacaagaactgctaaaaaagggaagccatctacttaagttgggtt  
ccggcacacaagggaataggaggaaacacagaggtggacaaatttagtcagcaagggaatccgccaagtgcttttc  
ctggaaaacatagagcctgcagtagaagaccatgaaaagtatcatagtaattggaagtacctaagagatcaatac  
aaaatccccgcactattgggttaaagaaatagtgaacaaatgttccaagtgctcaggtacatggggaacaaaaacat  
gggcaggtaaaatgcagaattaggcatgtggcagatggactgcacgcatttgggaaggaaagggtcatcttagtggcg  
gtccacgtagcaagtggttatgtctgggctaggataataccccaggaaacaggcagacaaactgcattgaagctc

ttagaattagcagcaacatggcctgtaacccacctacatacagataatggccccaatttcgtctccaaggaattg  
gaagcagcctgctggtgggcagacatacaacacaccacaggggtgccatacaaccgcgaaagtcaaggggtagta  
gaaaacatgaacaaacaactcaaggaaacaatcacgaaaatcagagaagaggtcacatacttagaaacagcagta  
gcacaggcatgctacattcataattttaaagaaagggaggaataggggatatgtgccctacagaaagaatagta  
aatatgattcacacagaattagaaacacaacacttaaacacacaaaattccaaatttcaaaaatttcgggtttat  
tacaggcaaggagctaaccctctttggcaaggaccagcagtagtactcctctggaaaggtgaaggagcagtagtagtc  
caaactcaagcaggtgagattattacagtccttagaaggaaagcaaagatcatcaagccaaggaaggtagactgg  
ttgcttagagctactaaacaccacatatgtgtcaggcaaaaacaccatttgtatatgtccatcactaccaattgcaa  
caccaaagatttacacaaaaacaagattcgattagcaatggatactaggaaggtaggggaagaagtagaagcaaca  
tatatagagataactatcctatgggacacaaccagtcattggaccagctagcttatcccggtccacctattacca  
caagcagtcataatagaatgggtatatacaacagaagcaaactaggagcaagagagggagacataatttggtacagc  
actaatctgaccccaggagtagcaatgcaaattatacatggaaaatactttccatgctttcagaacgaagacata  
cggagggcaataaggggtgagcagatcctaggaaattgtgaacaccgcgaagctcacctgcaggtaggaacacct  
cagacgcttgagcagtttagccttctttgcatatgtcaaacatgtgacggagctccctgccgatccagattggaca  
gtggatcaggcagcaatagcatgtgcaatagattacatcaggggtgcaaacacttctcttttagacactttaagac  
ccggaagagtgtctcttgcccaactggcagcagccaggagcggcgcccgccaccccgctgctctgcttgctactgc  
aagaagtgtgcccttactgtcagttgtgctttctaaggaagggactaggtctttccctccataggtccagtaat  
tggaagcagcagtgtagtactatgggggtaccggtatggagggacgcaactccaccattgttttgccgctcagatccagat  
atagctagtaatgaaccaggaacatttggattttctacagcatgtttgccctcggacccctcaccggcagaggtg  
ccgttaaacaataacagagaaattcaacatctataaaaaattacatggtagatgaggtgagatgacatggatatca  
ctatttaatcaggccctgaaacatgtgtcaaattgactccaatgtgtgtgggatgtattgtaacctcacaac  
acatccacaagcgaaccaacaacaactccaaggccaccaaatgtctccacaaccacgcagtggggaagtggggg  
ggggaaaaatggaacaggacaacccttatataactgttcctttaatcagaccacagaatttagagaccaaaagaaa  
cagatgtatagcctcttctggagagaagacattatggaagagacccatggtaaccagagtggtatattatagga  
aattgtaatacctcatatatcactcaaaaatgtgtcaagtcctccttccaaccggttcccatacactactgtgct  
ccacccggctatgctatgctaaaaatgcaatgatgttaatttcacaggagtaggcacatgctacaatgtgtcagca  
gtaacctgcacacatggcattcaacccttagtagcaacatgggtccatttaaatgggacctatcagccaggaaat  
aataccagaataatgatgaatgggtatgaagaatgaatctatagttataggctttggagaagattatcatcttaat  
cttacatgtatcagacctggaataaaaaccataagaaatttgcaaataaggagcgggaatgacattttattcccaa  
gtgatagtaggaggaataactaggaaagcctattgccgacttgatcctgataggtggaatagggcaataagagaa  
gctatgaaagcaatgaatgaacattgggaaaaataaaactgggagaaatgatactcaaataagatggacctcagag  
cctaaaggagatctagaggttcaaactcattgggttccaatgtcaaggagaatttttctattgcaatttgtcaata  
ctctttcaacttaataataacaccattaacagcagcaatattgggaacatcacaagcaatacaaaaggacaatgg  
ctggcttgcaaaattaggcaatttgtcacccaatggggatattgtgtctaaatcaatctacttacctccacggcag  
ggatcatataaattgcacatccaacattacaggtctgttgatagatggcgctatgtatgaaagctctatcaacatg  
accccgctcgccgatgtggctgatgcgtggaactatgaattgtccaggtacaaagtgggtggagatagatccgctc  
tcgatggcccaactccggctaaaaggaagaacaccccgctgtggagaaaagacaagcatggggctgtgccaac  
aggccaatctgtcacaccatagtagcttggaaacacctcatgggctaattggctcgcttccagactgggagaacatg  
acctggcaaaagtggagtagttagttgagaatgacacatatataacagcagttggttagagcaagcaaaccag  
caacaagcatcaaacctgaatgagctgatgaagttgtccaaatgggactccctttggagttgggttgatatttcc  
gattggcagaggtacattaagatctttgtaatagtagttgcagccttaatagctttaagaatagtaattgtttatc  
cttaatatgcttagaagggagccaaaacccaagagaggaagcctcgaggagtagtaaccatcatgccagtaaga  
ccacgggtaccacttagagacccccacctacaaagtcattggtggatctctctcactttttgaaagaaaaggagga  
ctggagggcatgttttactgtgaggacaggcaccagaagttggaacaatatgcctatctggagtggggctgggtg  
cctggatggctctcattcactccaggccaggaaaccgctatcctacgataccaggattctgcatctgtctgcgg  
ccagtagccacaactgaggactctgagcctggggatgatgaatatctgctgacccacctgcctatcagggacgg  
agtgaagaccagcataaggagttcttggtcttctccttctgctccaagctggccataaagtcaggcatacagcta  
gaccagctgcagcaggaggagcggaagatgcgcctaaccgcgaaaccgcttccatag

>#3 EF070329 7377 nt

atgggggagcagcactcgccgatgctgaaaggtactaagttgaataaatatgagaaggtcagattaaggcctaaa  
ggaaagaagaagtacctaataaagcatatagtagtgggcttccagagagcttgagcgggttcgggtctctcagatacg  
ctcctagagagcaaggacggatgccaacgcacccctagaagtaatctgcccttgggaagaaactgggagcgaggcg  
ctcaaatcactctttggaatcggtcagtagtctggtgtatccatgcagacgtaacagtgaaagacacagaggag  
gctaaaaagcaaattaggataaggtgccacctagcggagaaaaaagaagactcaaaaggagactcaggagcaaaa  
gccaccaccagtgggcagaattaccacagtcataagaacagcacagggacagtagtcagcatcagtcctcttagccct

aggctattaaaaacctgggtatcaacagtagaggagaaaaaatttgccccagaagtagtggccctgttccaggcc  
ctatcagaaggatgcatcccctatgatgtaaatcagatgctcaacgccataggagaccaccagggggcaatacaa  
ctaataaaagatgtgggtcaatgagcaggcagcagacagagacgttttacatccccaaccaacacagccacaacca  
aatgcaggggctaaggtacccatcaggggctgatgtggcgaggagtgtcatcaacgccagcagaacaaatagaatgg  
atgactagacagcaagaccagtaaatgtaggggaatatatatagaaaaatggatcatcttgggcctacagagatgt  
gtcaaaatgtacaatccagtaaacatcttggatattaaacaaggccctaagaaccattcaaagattatgtggat  
cggttctttaaatgcttaagagctgaacaggctgaccaagcagtcaaaaattggatgacacagtccttgctagtgtg  
caaaatgccaaacccgagtgcaaaactcgtcttgaaagccatgccagggggccacattaaaagagatgttacaggcc  
tgccaggggattgagggacccatgcacaagtcaaggctgatggcagaagccatgactaatgctttgaggcaaaac  
accattaacaccatcaacatggtacaaagacagagtcccaggggagtaatgggaaaaaagaggggaaaacagcaca  
cgttgctacaactgtggacaatttgacatttggaagagattgccccagcctaagtctaccagatgttttaag  
tgtggttaaggaaggacacttgccagacagtgccgaaccgacacagggcaaaagcgctgtgattaatgggcagcca  
gtgtccatgctcctggacaccggagcgatgacaccatcatccaagactcagatataaaaaattagtggggaattg  
actcccaaagtagtgggaggtttaggggggctgatcaatgtaaaacaatataagggggtgatagtaaaattcaat  
gagaaaagaatagtagccacagtccttggtgagtcctaccccatcaatatcttagggagaaattgcttatcaaaa  
ttggaaataacactaaacatggtaatggcaggacagcaattgaaaccactaaagtttagccttaaagaaagaaaa  
aaagggccaatggtaaaacaatggccactctctaaggagaagatagaggcactaaaagaaattactcagaaaatg  
ataaaattaggtcaactggaggaagcagggcctaataacccatataattcaccagtatctgcctaagaagaaa  
gacaagacaaaatggcgaatgttaatagatttcagaaaagcttaatgaggtgacacaagaatttgcagaagtccag  
acagggatcccacatccctcaggggttagcccaaaaggcacatgtcactatagtagatatgcaggatgccttttat  
agtgtcccattagacaaaagaattccgaccctacacggccttctcggtccctgcagtgaacaacatgggaccagct  
aaaagattccaatttaaggtgttgccacaggggtggaagggatcaccaccatttttcaagccacaacagccaag  
cttctagagcaagtttaggaaggacaatcaggacgccttaatagtccaatacatggatgacctgcttataggggtca  
gacagagaaataggagaacatagaaggctagtgaaaaagatcagagatctcctctcaagtaaggggatacagacc  
ccagaagacaaaaccagccagactaccggtagaatggctagggtagcagttacatccgaaaggatggagaatc  
aaaccagtgagctgccagaccaggacacctggacagtgaatgaaattcagaagctggttaggggaagttaaactgg  
gcagcccaagtctattcagggatcaaaaactaaacatttatgcagatgtatcaggggaataaaggggctaacagag  
ctagtggagctcagttagcaagcccaattagaactagcagaaaatagggaaatcctgaagcaagaggccgggtggg  
gcctattatgaccagaaaaaaccctagtcttagagatagtgtccttaggggaacaacaatgggggtacaccttt  
accaagacagaaacatgctaagaacaggaaagtttgccaagatcagaacagcccatagtaaacccctaccaacag  
ctggcagaagccctatctagagctagtaaggaggccctagtctgttgggggaagacccagacaaatgcaggata  
ccggtagtcaaggaacagtgggacaattggtgggcagactcatggcaaaacttgattcccgacatagaagca  
gtacacaccccataccttctgagacagtgtttaccttggtcccagagcccatagaaacagcaccacactactat  
gtggatggagcagcaaataggaactctaaactaggaagagctggatatgtaaccgataggggacaggagagagct  
ataaatttgaaaaacacaaccaaccagcaagcagagctccaagccattctcttggtctaatggatgggccacca  
gaaatgaacctagtaacagattctcaatatgcattgggaataatcacagcagcaccagagggtatcagagtcacct  
ctggtggagcagataatacagcaaatgctgagcaaaaatgccatctttatatcccgagtaccagcccacaagggc  
ataggagggatgaggaagttagaccacctagttagcaggggaatccgccagggtactatttatggaaaatatagac  
ccggcagttgaagaccatgagaagtaccattctaatggagtatctcagggataaatacaacataccaccatc  
ttagccaaggaaatagtaacaaatgctcagcatgtcaaacacatggggaaccaaaccatgggcaagtcaatgca  
gacttgggggtatggcaaatggattgcacacatctggaaggcaaggctcatcttggtggcagtagcatgtagccagt  
agtttcatatggggccaggataatttcccaagaaactggaaggctaacagccctagagctgtcaaaacttggcagcc  
acatggccaattagttagatacaccagacaatggtaccaactttactagcaaggaattccaagctgttgcatgg  
tgggctaacatacagcacaccacaggtgtcccctacaatccacagagtcaaggagtagtagaaaatgcaaacaaa  
cagttaaaggaaccattcacaaagtaagggaagaagtaacatattagaaacagcagtagcacaaagcagtcctc  
attctaataataaaaagaaagggagggataggggatatgaccctacagaaaggttagttaatatgctatacaca  
gaactagaaatacaacaactacaaaatcacaatacaaaaattttcaaaaatttcgggtttattacagaagaggagca  
aaccttatttggtgagaccagctcgacttctttggaaggagaaggagctctagtgtcaaaacaaaggaaggt  
gagatcgtaacagtcceaagaagaaaagcaaaaataatcaaggattgcactaaacattatatcttctcagggaaa  
gtccatttacatatgtccaccactatcaattgcagcatcagagattcaccagaacaaaataaaaaatacctttg  
agcataaacagaatagaaggaggcccaacagagactacatacatagagataacctatgttagatgtcacaac  
gtagggccagccagtttatcaagggtccacctattggcagcaatcctatatcctgaagtggagatacatcagggca  
gccccacaaaatagagagatagacatggtgcattacgagaccttcctagaccagaagtgaccatgcagattata  
cacacacactacttctctgtttccaacagagagacatccaaagggcaatcagaggagaacagctcctaagaaag  
tgtgagcacatcaagacacactacccgaaggtaggaactcctctatctctagaaaagctagcattctttgcatac

atcaaacatacagtcacagagctcccagcagatccacaatgggtctgtagatcaggcagccataacatgtgccatt  
gattacattaaatcagtcacaaaccctcttggttcagacactatagggacggatgttaccatagctatgctcaaaca  
atcaggagatacccaccgttgcgcccattgagagggacgcagccccagactctaattccatgccaaatgctgac  
cccacaccatctttgagaccctccagatatagaatggatgaaatggacccttcagttgaaggcctgctccggac  
cagcgtcccggagcggcacccccacaccttgccaccaactgttactgcaaatggtgcgcgtttactgtatattg  
tgcttcagaaaaaagcattaggtatctcactaatattgagaaaaacatgccaaagcaatgggtcacggtgtttat  
agggtaccggtatcaaagaatgccacaccacctctcttctgtgcatcaaatgctaatatagcaaacagagagcca  
gggaacgtgttgataacgacagcatgcctaccacggaccccgccacaggaggtacaactaaacatctcaa  
gagcactttaatatataagaactatatggtagatcagatgactgatgtgaagtccatctttactcaggcc  
cttaagccgtgtgtgaaactaacacctatgtgtgtaaaaaatgaagtgtgaccttctcaatattagtatgtctagt  
accaccgcagcaagcggcacaacaagcgggcataacaaccgtcacccttggggcagatgggcagacaataatgag  
acacaattgaccatgtacaattgttccttcaatcagaccaccgagttcagagatgtaaaaaacagatgtactct  
ctcttctttgtaaaagacctcatgaaaggggagaatgagacataattacattacaaactgcaacacttcttatatc  
acacagcagtggtgagaagagcagcttccaaccgggtcccaatacaatactgtgcccctgcaggatatagtctctta  
aaatgcaatgatgctaatttcacaggacaaggcatttgaataatgaaccgctaggcactgcactcatgacata  
ttaccgctaattgctacttgggtacaattgaatgggtacctaccaggcaatgacacagctgtaatgatgaat  
gggtgataaaaatgaatctattgccataaaaatttgagaaaaactttagggtaaatctaactgtattaggccagga  
aataagacaattagaaatctacagataggagcaggcatgaccttctattctcagctgatagtggatggagacacc  
cgcagggcatattgcaagatcaataaaaactcaatgggatcctgctttgagacaggctatgatagctatgagagac  
cattggcacaatagactccaaaaagctaataagacaataaacaacacgaaataaaaaataaggtggacctcagag  
ccaaaggagataggaggttcagacacactgggtttaattgccaaaggggaattcttctactgcaacttgtcagta  
ttattccaatttgagaataacaccagagaaattaatgactcaaataacatacagtaaaaaaccaaataatcgccat  
gaccaatggatgggtctgcagaataaggcagtttgaaccaggtggggttacgtatcaaagtccatataacctgccc  
cctcgaaaagggtcatgttcaatgtacatcccatgtaacagggttattaatagatggggccatgtacggcaataca  
ataaacatgacccccctcagccaatgtctggacgcgtgcgtctagactgagagatacagtggttagagatagaccct  
ctttccgtggcaccgacagaagtgcgcaggagacctgtgccccacgtcaaggctaggaatctgtgggggtgcgcc  
aataggcaaatctgccatacctcggtgccatggaatgattcttgggcaaaccacaccaaccaggatgggacaac  
atgacctggcaacagtgaggcagattagtggacaatgacacagcagtcacccatgggtctattggaaatgggtcaa  
caacaacaggaagaaaaccaacacaagttgcagaagcttttagaatgggattcccttgggaatgggttgacatt  
tccaaatgggtctggatgtcaagataatttgcagtggttagtagcaggcttaatagctttaagaatagttatgttt  
atattaggaatgcttagaaggatttcccttaggggaagccttagggcgcttcacgcacacgcacaaaaacaagggc  
cgcaggcaaatcatagaagaacatgagtgtcctgcccagtagcggccgaaagtcccgatctgtgatgtcaactac  
aaactcatgatagacctctctcactatttgaaaaaaaagagaggactagaaggaatgtttgtgtgcatagacaga  
ctgcaaaaacttagagacttatgcctatgtaaaatcaaaaatagtcccaagatcactaatatacacggatggcca  
ggcaccctgtaccacggcaaccagggttccctgtgggtgcttgagaccggtagccatgacagaggagtcggagcca  
ggagatgaccagtacctcctgacacacccggcctatgtgggtcgggatgaagaccaccacaaagagttcctgggtc  
ttctccttttgccttaggtggccctaaagtcaggcccgagcttaatacaatacaaaaaagagcggaagaga  
cgcttaaccgcaaacgcacacctctag

>#4 EF070330 7335 nt

atgggagcagggcactcggcgatgctgacaggtaccaagttggataggtacgaaaaggtgagactaagacaaaa  
ggaaagaagaggtacctaataagcacatagtatgggcttccaaggagcttgaaaggttggactctcgactcc  
cttttgagacaaaagagggtatgtcaaaagatcttagaagttctcataccattagaaccaacagggtccgaatct  
ctcaaatcactctttggaatcacgtcagtgctctgggtgtatccatgcagaggtggaggtggaagacacagagcag  
gctaggaagcaaatcaggataaggtgtcatctggcggacaagcaaggggaagaaaagacagcacagaatcaaact  
agtgtcaattaccccatcataaggaacccacagggaacatttcaacaccagtcctttaatgctagaatcttaag  
acatgggtgtcaatagtggaaagaaaagaaatttgcagcagaagtagtggaatgtttcaagcactagcagaagga  
acaataccctatgacatgaatcagttgtctaatgccataggggatcatcagggggctatacagatcataaaagat  
gtcataaatgagcaagcagcagaatgggatctgtacaccacacagcctcagcagccgcagccaatgcaggcctg  
cggagcccatcaggatcagacatagcaggggtaacatccacccccaatgaacaaatagaatggataactaggcaa  
aacgatcctataaatgtggcagacatctataagaaatggataatcatggggttacagaggtgtgtcaaaatgtat  
aacctgttagtatattggatatcaagcagggaacaaaagagccatttaaggattatgtggacaggttctacaaa  
tgcttaaggcgaggaatcagatcaagcagtttaagaattggatgacctccactttgttagtgagaatgctaac  
ccagagtgtaaagtcacctgaaaagcatgccaggagccaccttagaagaaatgttgaggcatgccaaggggta  
ggagggccagcacataagtccaggctaatggcagaggctatggcctcgcccttagacaaaacagtcagctgaac  
atgggtgaaggagccagaggggaaaggcagccaggaggtcccaggggaaaccctaggtgttacaactgtgggcag

tttggacacatggcaagaagctgccccagccaaaaactaggaatgcttcaaatgtggaagggagggacacttg  
gcaaaacagtgccaggtctgaaggtgccaaatcggtatagaaggacaagtggtgcacatgctgctcgacacaggg  
gcagatgacaccatagtcaggattccaacattcagatagataaaccatggaatcccaaatgggtggggggaatc  
gggggaaacatatcagtcagagaatatagaggggtacaagtatctttcaatgagaaaacaattaaggcaacagtg  
ttggtgggacctaccccataacataatggggagaaaattgtttaagtaaatttggaatcaccttgaacatgata  
caggaaaaaatagaaccataaaagtggccttaaaggaaggggcaaaaggaccaatgggtcaaacagtgggcactg  
actcaagaaaagattaaggccttagaaggcatagttcagcaaatgttaaaattagatcagatagaagagataggg  
ccagacaatccttacaactctccatgttttgcaatcaggaagaaagataaatctaaatggagaatgttaatagat  
ttagacagctaaatgaggccaccaagagttcacagaggtacagctagggatcccacatccagcaggattagcg  
gaacatgagcatgtcacaatagtagatatcaaggacgccttttacagcgtcccattagatccagcattcagaaaa  
tacacagccttctcgtgccccaggtaaataaccaggggaccagcaagaaggtatcagttcaaagtgtgcccacag  
gggtggaaaggtccccaccatcttccaatacacggcagcaaaattattacaggaaatcagggaagcaaatcca  
gatatcacctcatccagtacatggatgatctcttaataggatccaacagagagatatcgggacataggagagta  
gtagcacagattaggaacatgctcttgaaactggggatataaaacccccggaagataagtaccagaaagactacca  
gtccagtggttagggataggttacaccccagaggggtggaaaatacagccagtaaacactcccacagcaagaaaac  
tggacagtaaatgatatacagaagttggtaggcaaatggaattgggcagcgcaagcctaccaggaggttaaaacc  
aaacagctatgcaaatgtataaggggagttaaatccctgacagaagaagttcaactaacagaggaagctcaatta  
gaattggcagaaaaccaggaaattcttaagcaggcagtcaggggggcatactttgatccagaacaacccctgggtg  
gctgaaattgtctcgttaggagactcacaatgggggtataacttcctccaaaataaggggaatattaaaatctgga  
aaatttgccaaagtcagatcagtcacataccaacagttatcagcagttatctgatgccatagccagaataggaagg  
gaatcattagtcatttgggggaagcccccgaaaaggtcaggattccagtgatcaaggagcagtgggatcaatgg  
tggacagaacattggcaggtatcatggatacctgacatagaggcagtcataaccacccacctgctgcgacagtggt  
ttcacattggtgccagagccattgtcagaagctcccacatattatgtagatgggagcagcacataaagtatctaag  
ttagggaaaggcaggatatgttactaacacaggaaaaagaaaaggtgggttagcttagaaaaatactaccaatcaaaag  
gcagaactagaagctgtcttggttggccttgaaagaaggccctcccagcatgaatatagtcacagattcccaatat  
gtgctggggatagtggtcttcaacccccagaatccacctcgcccttggtagaagaaataattcaacaattactg  
accaaggaggcggtatacctatcggtgggtgccagcccataaaaggtataggaggaaatgaggatgtggacaaactg  
gtaagccatggaattaggcaggtgctattcatggagcaaatagagcctgcaaaagaggaccatgaaaagtaccat  
agcaattggaagtatctcagggtataagtacaacatcccagctttactggctaaggaaatagtaaacccttgtccc  
aatgtcagacacatggggagccaaaaacaggacaggtcaatgcagaattgggagtggtggcaaatggattgtact  
cacttagaaggaaaaatcatcttagtagccgtccacgtggccagtggtatacacgtggggcaaaaataattaccagg  
gaaacaggaaggcaaacagccctaggcctgttagaattagcagctcttggcctgtaacacaaaatacacacagat  
aatggagccaacttcattagtgagaattcggagctgcatgttggtgggctagcatagatcacaccacaggggta  
ccatacaacccctcaaagtcagggtagtagaaaacaaaaacaaacagttaaaagaaactatacagaaaatcaga  
gaagaagtcacctatthagaaacagcagtagcacaggcagtcctcatcatgaatttttaaaaagaaggagggaata  
ggggacctagcagctgctgagagaataattaatatgttacatacagaactagaactacaacacttacaatcaciaa  
aatccaaatttcaaaattttcgggtttattataggacaggtctgacccatcttggaaagggacctgctgccttg  
ttgtggaaggggtgaaggagcagtagtcgtcaaaacagaacaaggacaggtaatcactgtacctagaagaaaggca  
aaaataatcaagccagctacaaaacatcatatcttttcaggaaaaacaccatttgtgtatgtacaccactaccag  
gtacaacaccaaagattttcccaaaaacaagatcaagctagcattgacacaaaacaccttagaatcaggagagaca  
gaagtcaccttcatagagataacagtcctatgggatgtgactaatgtaggaccagcaagcctatccaaaagtacc  
tattggaagcagtcatacatcctggaatgggtatacatgaggaaaggtccaagagatagagaacgggactatgtt  
tggtatcacacatacctcacacctgagatagccatgaagatcatacacaccaccacttctcttgtttctatagc  
caggatatccccagggtcatcagaggacaaccacccttaggggattgtgaacaccaggagcacatacaaaggta  
ggacccccctcccactctacaggtattagcactattaacattaaagaaagtaacggagctaccagccgatccta  
tggacagtggtcagggtgcaatagcatgtgccatagattacattaggagaacacaaacactccttttcaggcat  
tatcgagaggggatgttatcataggtacttaacacaatcaggagataccccaacataagacccttgagagggaca  
caagctcctccttctaattcaatgcctaattgctgatcctactcctcctttgagaccctctagatataggatggat  
gaggatccttcagtagaaaaccttcccccggaacagcgccccggcgagcgccgaccacgccttgacagctcctgc  
tattgtaaacgggtgtgcttttctcattgcatgttgtgcttccaaaagaaagcttttaggtatctccataatatggggc  
aatcagtggggtcacagtggtctatgggtaccgggtatggaaagatgcaactccaccactcttctgtgcatcagat  
gctaacatagcaaacaggggaaccagggaatgtgtggatcaccacagcatgtcttcccacagatcccgacccccag  
gaagtacaattaaatatctctgggggaatattttaattgtctataaaaattacatgggtgaccagatgggtgatgat  
gtaaggtccatattcaaccaggccctaaaaccctgtgtcaaattgaccctatgtgtgtcaaaatgaaatgcagt  
agaataaatgtaacaaggccatcaacaacaacaacagcatcaacaccaacaaaaacaacaccagtgaccccttg



gggaaatgggacgccaatggtacagagcaaagcatgttcaattgttcattcaatcagactacagaattcagagac  
aaaaagaagcagatgtactccttattttacactgatgatctgatgcgtgaggataatgatacttattacatatta  
aactgtaacacctcatacataactcagcaatgtgaaaagagcagcttccaaccggttccgatacaataactgtgca  
cctgcaggggtattctctattgaaatgtaatgatgctaattttacaggacaaggaaaatgtaacaatgtgacagct  
acgcattgcacgcatggcatattacccttggttgctacctgggttacagcttaatggcacatatattagaaggaaat  
aatacagcagtaatgatgaatggggacaaaaatgaatctataggaataaagtttggggaaaacttttagagttaac  
ttaacctgcttaaggccaggcaataagactataaggaacctccagataggggcaggcatgactttctattcacag  
cttatagtaggaggggacacacgaagagcatactgcaagataaacaacacagtgaggatgtagcattaaggcaa  
gctatgttagcaatgagaaagcattggcatggccgcttgagaaaacaaggagaaaatattacagaagaaaagata  
aaaatcaggtggacctcccagcccaaaggggataatgaggtccaaacacattgggtttaattgtgcaggggaattc  
tttactgcaatctatcagtgtgtttcaatttaacaacaatatcacacaaattaacgagagcaatatacataat  
gtgacaaccaaataccaccaagatcaatggatggctctgtaggattagacagtttgtcacgcaatggggctatgtg  
tcaaaatccatctacttgccctccacgacggggacatgtgcagtgtacttctaattgtgactgggctccttattgat  
ggagctatgtataaagacacagtcaacatgactccatccgcgaatgtgatggacgcctggcgaatggaactaaaa  
aattacaaggtagtggaatatagaccgctttccatgggtcccacagaggtgcagaggaggcctgttccccatgta  
aaagcaagaaacctttggggatgtgcaacaggcagatctgtcacactagggtgccatggaatacatcatggggc  
aatcataccttaccaggctgggaaaacatgacctggcagcagtgaggcaagttggtggataatgatactaatacc  
atacagggcctcctagaagcagcacaaaagcaacaggaagaaaaccaacacaaattgcaaaaattattagaatgg  
gactctttatgggaatgggttgacatctccaagtggcttttggtatattaagatcttttgtatggtagtagcaggt  
ttagtgctttttagaatatattcatgtttgtgctaggcatacttaggggaacaagcccgcgctgcagtgaactctta  
gcgcgcctccttagcatacattcaaggaagcaatgagcggccactcatcgaagaacatgagcgttcatgccagtg  
cggccgcgagtgcccctacgggatcccacatacaagatgatgattgacctctctcattattttaaaagaaaagggga  
ggactggaaggatgttttattgtgaggaagacacccaaaattggagacttatacctatgtggactggggaatt  
gtaccaggatggctacagtttacagagggcccggggacccgggtacccaacactgccaggggttcctgtggtgccta  
aggggaagtcgccataactgaggactctgaggagggggatgaggaatatctcctcacccatgcagcctaccaaggc  
aaggaggaggacccccataagcagttcttggctcttctcattctgctctcgctcgccatgaagtcaggcaggcaa  
ttagatcaaatacagcaagaagaacggaagaggcgcttaaccgcaaaccgcatcctatag

>#5 AY340701 7329 nt

atggggggcgaggcactcggcgatgcttagtggtactaaattagacaagtatgagaaggtgcggcttagaccgcgc  
ggtaagaagaagtacctgattaagcatatagtatgggctgccaaggagcttgatagattcgggtctctcggactcg  
ctcctgggagacacaggacggctgtaagaagatttttgaagttattcttctctacagccgacaggatccgagtct  
atcaaatctctcttttggtatcgcttcggtattgtattgcatacatgccggtatagaaattgaggacacagaacag  
gctaagcagcaagtaaaaaatcaggtgtcacttagcaggggaacaggggagaaacagaaaagctgcagccgcggccgct  
ccaccaacaggcggcgtagccagtggaactaccctgtcgtgagaacacaggggggaggttccaacatcaggca  
gtgggagcctcggtcctcaagacatgggtacaggtcattgaggagaagaaatttgccccagaagtgggtggccctc  
ttccaggctctatcagaaggcatgattccctatgacatcaatcagctactaaacgccataggtgatcatcagggg  
gcaactccaaattattaaggatgtcatcaatgaggaagcggccaattgggacttagtgacccacagccgccacaa  
ccgcaacccaatgcagggctgggagacccaacgggggcgcatatagcaggagtctcgtccacaccccaacagcag  
atagagtggataaccagggttaacaaccccgttcagggtctcagacatctacagaaaatgggtcatcttgggcctg  
cagcgatgcgtcaaaatgtacaacctgtcaacattttggatatcaaacaggggacctaaagaaccttcaaagat  
tatgtagacagattctacaaatgcctcagagcagaacaaacagatcaggcagtcaaaaattggatgacgcagacg  
ctgctggtccaaaatgccaaaccagattgcaaactcatcctaaaggccatgccaggtgctagcttggaggacatg  
ctacaggcatgtcaggagtgaggaggtccaatgcacaaatctaggattctggcagaagctatggcaggggcaata  
gccaaatgcccatgaatatggtacaggccagaggaccaccccaagggaagggacaaccccaatgcttcaattgt  
ggaaaatttgggcacatggcgaaaaattgcaaagccccccaaaggaggaaatgttacaattgtggccaaccggga  
cacctcgccaaagactgcccgcagcccccaacaaaacaaagggtgtctgtgctgatagggggacaaaagggtg  
tccatgctattggatacagggtgccgacgacacaattatacaagatcagcacgtaaatttagggggagaattggaca  
cctaaagtagtaggggggaatagggggaatgatagaagttaacaatacaaaagcaatacaagtgatattgaagac  
agagaggtttgggcaacagttattgattggaccaactcctataaatatttttagggagaaatgtcttagctaagatg  
ggggaaccctcaacatggctgctgggggagacctccaacccccatcttttagagggtcactttaaaagcaggaaaa  
gagggaccaaagtgaacagtggccattatccagagaaaagatagaggctcttacacaaattactcaagagatg  
cttaaattaggacaatttgaaccaaccgagcccaataacccatataactcacctgttttgccataaagaaaaag  
gacaagagcaaatggagaatgctcatagatttcagagaacttaacaaggcaactcaggacttctttgagggtgcag  
ttgggaatcccacaccagcgggacttgagaagatggaccatgtgacaatagtagacatgaaggacgccttctac  
agcattcccttgtgggaaccggttcagaaaaatacaggcgcttctcaataccctctttaaacaatgctgaacctgct

aaaaggatatcagttcaaggctctcccgagggttggaagggtccccaactgtgtttcaacatacagcggcagag  
ctaccacaggagatcaggaaaaataccagaggtaactttaatacagtacatggatgacctactgataggatca  
aatcactctctgccagaacacaggaaaaatagtaggggtcataagagcgaccctactaaggaaagggttcaaaca  
ccccagagaaatttcaggatgactaccgggtgcaatgggttaggggtatgagctacacccatcccattggaaaatt  
gcaaaaatagagctaccagaccaggaacaatggactgtcaatgagatccaaaagttgataggaaagcttaattgg  
gcagcacaatctattcaggaataaaaacaaaaacctgtgcaaaagtatcagagggggcacggagcctgacagat  
acagtggctctctcagatttagctcaagctgagctagcggaaaataggagattctcaaggaggaatccaccggg  
ggatattacgacccaacgagccattaaagggtggagttaacctcactagcagaaaaccaatggggctacagattc  
ttccaagaaaaatcagattgaagacaggaaaatttgcaaaaattagaagtaccactccaatacctatcagcag  
ttagcagatgctgtagccaaattgggaaaagaggccatagtcacatggggacgacttcccatttttcgcctacca  
gtgggtgaaagagcaatgggacgcatgggtgggcagataattggcaaatcaattgggtaccagacatagaggcgggtg  
tattccccacacctgctcagacagtggtatactctgggtacaagacccccatagaagggggtccaacatactacgtg  
gatggggccgccaataggacatcaaaggaagggaagcaggttatgtaaccaactttggggcaagaaaggccgtc  
acattagaacagaccaccaacaaaaaggcagagctagaggccgtgttactagccctcagagatggaccacctcag  
atgaacataattacagattctcagtatgtactgggcattctagcctcctgcccggagatctcagaaagtcacata  
gtggaggccatcatacaggaactcttaaaaaaggaccaggtattcttgtcatgggtaccagctcacaaggaata  
ggaggaaatgaagaagtagatcgccctagtgggcccagggaattaggcaagtcctgtttatggaaaatttggaacc  
gcaagggaagatcatgaaaagtatcatagtaattggaaatacttaagagatacctaccacattcctactctgttg  
gcaaaagaaatagtcaaccatttgtcacaatgtcaaaacatggagaacccaaatcaggacaggttaaaccgcagaa  
gtaggagtatggcagatggactgcacccatctagagggaagcataattttggtagcagtacatgtagccagtggt  
tatgtatgggccaaagatcctaccaagggaacaggaaaaatgtacagggatagccctgttggagctggccgctatg  
tggccggtcactcagatacatacagataatgggccaaatttcaccagccaagaattcgaagcagctgcatgggtg  
gcaaatattcatcacaccacaggggtaccctacaacccacaaagccaaggggttgtagagaatatgaatagacaa  
ctaaaagagaccattaagaaaatcagggatgaggttgaatacctcccaacagcattagcacaagcactgttcac  
ttaaattttaaaagaaaggagggaataggggatattggccctgtagacagatttataaacatgatcacacagaa  
ttagaactacaaacctcaacaaccaaattacaaaattttcaaaatttcgggtttatttcaggacaggtgcccgc  
cctcagtggaaaggaccagcgcgccctactctggaaagggtgaagggtgccgtagtcataaaaactgaggaggggcgt  
atcctgacagtccctaggagaaaggcaagataatcaaaccttgcaactaaatggcacatactcacaggaaagtgc  
ccctttgtctatgtacatcactaccagctgcacaatcagagattctcacagaacaaaattaaactccccttagac  
ctaggaatcactcaagaaggagagtcattgggcaacatatttgagataacaattttattgggacttaacaaacgtg  
ggacctagtgcactctcaccaacagtggtacaacaaacaggccctacacaatagaatgggtttattggatgcaaaag  
gtggaacgggtcccttttagatcccgtgtggaatccaaacccaagagatagagaggtcagaacatgggtatgctacc  
catctgacgccggacctggcgaatcagatagtacatacacattattttgcatgcttccaacagttggacgtgccc  
agagcaatcagaggagagaagctcttgggacagtggtcaacatctagcaacacactaccggaaggtagggaccccg  
ttgaccttagagaaattagccttcccttgccctagtgcgacggccctggaatgcagaccaggtatgggcagcatgt  
gccattgattatactagatgggtccaaacctcctttataggcactacagggaaggctgttaccatagatatgca  
gagcaataagaagataccctgttcttaggccaatgagagggactgctcccgcccaaccagttctgttccacag  
gccgatccagacaatcccagaagaccttccagatatagaatggatgaacctgttgaccagacttacccaaagaa  
caacacccccagcaacccccacgcacacctgtactaactgcttttgtagagtttgttgtcttctactgtcagatt  
tgcttctcacaaaaggcctcggtatttcatggaccacgctctactacgggtgttccagtatggaaaccggcaact  
cctcctctcttttgtgcctctgatccaaattacgggtctaaagaggcagggaacaattgggtggcgcttctctgc  
ctcccgacagacctaccccgcaatctctatatttgaaacatcactgaggagttcaatgcttatcaaaactacatg  
gtggaagaaatggtagaggatatgaagtctctgttctcgcaggctttaaagccttgtgtgaaattaacacccatg  
tgtgttaggatgctctgtgttgaaagttaacacggtttcgaatgccagtaccactcctgcccctagtacccccaca  
ccctggggaaattggggaggggaatggaacaggacagccagtatataattgtcatttaaccagactacagaattc  
agggataaaaagaagcaaatgtatagcttattttggaagggaagacataatgaaggaggaaggaagcaatggcagt  
cactattacatcctgaattgcaacacatcatacataacccaagcttgtgagaagtccaattatgagccagttcct  
ttgcattattgtgcacccccaggctatgctttattgagatgtgatgaccccgccctttacgggacaaggaggtgtg  
tctaattgttctgcagtaacatgtactcatgctatccaacctatagtagctacttgggtccagttgaacagtacg  
ggtaatgctcccaatacaacagtaaatgatgaataagcagaaaaatgagtctatagtagtttagattggctaagcac  
ctacatgtcaacattacttgcattaggccaggaaacaaaactattaggaatttacagataggagcaggcatgaca  
ttctattcgcaacttatagtgggaggttaatactcgtaaaagcctactgcaaaagtttaataagacccaatgggagact  
gcctacaggcagttcacgaggcagtaaaaaactgagtggggaaaagaaaaacaatggaaccaatgtgaccacaata  
tcttgagatttcaacccaaggggacaaggaggtccagactcactggtttaactgccaggggagaattcttttat  
tgtaatgtctcagctttattcattaatagaagaaccaacaaaacggacgggatattctccattcagcgtgaataac

aagcccaacaccacgtatcatgggtgggtggctagcatgtaccataagacaaatgggtgacacaatggggatatgtg  
tcaaagagtatctacctacctccacggaaaggccatgtgcagtgtagcatctaatactactgccctcctgattaca  
ggggagttgtatcaaaacaacgtgaccttgttccctcggcacaggtgagtgactcatggagatcagagctcagt  
cgatataaggtgggtggaaattgaccccttatctatggcacctacaacagcgcagagaaggactggggtacacagg  
gaaaagagaaatgcatggggatgtgccaataaagccgtgtgtcacacaacagtgccgtggaacaattcttgggca  
aaaggtcacttccctgagtgggacaatatgacatggcaacagtgagtgagttagtagataatgacacaatgacc  
attcagcagctcttggagctgcgcaagagcagcaaggcaaaaaccaacatgagttaatgaagccgggacaatgg  
gacttcctgtggaattgggtttgacatctccaaatgggtgtgtgtacatcaaaatattcattatagtagtagcagct  
ttgataggcttaagaatacttatgttcatactaggagttatcagtaggttacgcttgctagcctactgccagggc  
agaaatggcaacaacgccggcaacctctggacgacgacgacgacgacgaggtgtcggttgtccagtaaggccc  
cgagttccgcttcgacacctacttggagctcatgatggacctctctcattatttgaaagaaaaggaggactg  
ggagagatgttttactgtgaagacagacatagaaagatagagcaatatgcctatctggaatggggcttaatcca  
ggatggctacaatataggaagggccaggggtcaggtaccgactatgcccggttccctgtgggtgcttgcgcccg  
gtagccaccacggaggattccgaggaggagatgaggacttctcctaaccatccggcctatcaaggccggatg  
gaggacccccatagacagttcttgggtcttctcattctgctccaagctggcagtcagagcggcagacagctagca  
cagcttcagcaagaggagcgggaagagcgcttagccgcaaacgcacacctctag

>#6 KJ461716 7461 nt

atgggggcgaggcactcagcgatgcttactgggaaaaagcttgataagtatgagaagatcaggctaaggccgaaa  
ggcaaaaagaagtaccagataaagcatatagtttgggcatccaaagagttggaacgatttggactatcagactcc  
ttattggaaaataaggagggctgccaaaagatcttagagggtcattgttccattggaagaaacaggggtccgagctt  
ctaaaatccctctttggattagtttcagttttgtgggtgtgtacatgcagatgttacagtagaagacacagaggaa  
gctaaaaaacagatcagaatttaggtgccacatgagtggaagaaggagagacctccgcgggcgagggtgcctca  
ggacaaaactatccaattgttaggaatgcacagggacagcatcagcatcaggctttgtccccaagaatcctcaag  
acatggataacaaccattgaggagaaaaaattttcagcagaagtagttgccctattccaggcactgtcagaaggc  
tgtataccctatgatataaatcagctcatgaatgccataggggaacatcaaggagcggtagacgttatcaaagat  
gtagttaatgaggaagcagccgcttgggatcagttgcaccacagccagcacagccgcagcccaacgcaggcttg  
agatacccatcagggagtgacattgcaggggtatcatcatccatacaagaacagctagaatggatgacaagagca  
gtagacccagtaaatgtaggagaaatatacagaaaatggatagtaatgggtctgcagagatgtgtcaaaatgtac  
aaccacagttaacattctggacataagacaagggccaaaagagagcttcaaagactatgtagacccgattctacaaa  
tgtctgagagcagaacagggtgatcaatcagtcaaaaattggatgactacaacctcttgggtccagaatgctaac  
ccagaatgcaaggccatcttaaaggccatgccaggagccagcttagaagaaatgcttacagcatgccaaggcgta  
ggagggccacactataagaccaagctgttagcagaagccatggcatcagctttccaaaagacaggaaattacaac  
atgggtgcagggcccacgaggcccgaaaggggtcgcagggggccaatgaaaaaccctaactcctaggtgtttcaat  
tgtggacagttcggacacatgtccaaacagtgcccacacccgaaaaagataaagtgttttaagtgtggcagagag  
ggccatatggcaagacagtgctcgagcctcagaaggtgcacagggaggagcatcctgcttagtgagaggcaagaa  
gttgacctactattggacacgggtgcagatgatacaataatccatgatcaggacatagaactaggagataactgg  
cacccaaaaattatagggggagtaggtggcaatattagagtaaaagcatatcatagtgttgaaatagaatggcag  
ggaaaaagagtaacagaggaagtattggtgggagacactcccatcaatataatggggagaaatttcttaacaaa  
tttgggggtgacttttaacatggttagtaggcaaattttaagccgacagaagtacgggctaagagaagggaagatgga  
cccaaagtcaaacaatggccattaagtgcagagaaaaatcacaggcactaaaagagatagtacaagatatggtagat  
aaaggacaattggaaaaaataggggccagaaaaccatacaattctccagtattttgtattaggaagaaggacaaa  
acaaaatggaggatgctaattgatttcaggaaactaaatgagcacacacaggacttagcagaagtacagttgggg  
atcccacacccagcaggtttacccaagaaggcacaggtttccatagtagacatcaaagatgcctactatgcaatc  
ccgctacatgaggactttcaaaaatacacagcattcaccataccttcagtgacaacatgggaccaggagaaaga  
tatcagtttaaggtactgccacaggggtggaaggcatctccaactataatttcagaacacaataggagacctgttg  
caacagatcaggaaaaaatacccacaaaatccttatgattcagtagatggatgacctcctcatagggtcagatgaa  
acagtaacagaacacaggaaaaatagtagagcaaatttaggaacatccttctaaaacaaggggttacagacccctgag  
gaaaaataccagccacaaaggccagtttaattgggttaggggtatgagcttagacctagagagtggaacaattcctaga  
ataacattgccagtttaagcaggtctatacagtcattgagatccaaaagttagtaggacaattaaattgggccagc  
caatatatccagggtataaaaacaaaggctctgtgttaaatttaattagaggaacaaaagggttaacagaagaagta  
caggtcacagaagaggcagaaacagagcttgcagaaaaccaagccatttttagaccaagaagctaaagggggatac  
tatgatgcagagaagccattagaagtagatatcatacagttgggaggaaccagtggggggtacacagtaagacaa  
gacaaagaagtactaaagacaggtaaatttgcaaaaacaaagaagtgcacatagtaaccattcaaacaattggta  
gatgccattatgaaaataggaaaagaaagcttagtatactggggggagaataccacaattcaatgtcccagttaac  
aaagagcagtgggacgcagtggtggaatgaacattggcaggtgtcctggattccggatataaaaaccagtgcacact

ccacctttgatacaaatgtggtaccaattagtagcaggatccaatttcagaagcagaaacttggtatattgatgga  
gcagcaaataggggaatctaaattagggaagcaggatatgtgcagatataggaaaagagaaagtagtagcatta  
gaacataccaccaatcaaaaagcagagttacaagcattacttctagctctacaagatgggggaacaaaacagaac  
atagttacagactcccaatatgttctaggaatcataacaggagctcccacagaaacagaccatccaatactagag  
caaataataacacagttacaaagcaaagaagcaatatacctctcatgggtaccagcccataaaggcatagggggc  
aatgaagcagtagacaaactagtaagcaaaggaatcagaaggggtattgttcttggaacaaataccacaagcccag  
gaagaacatgaaaggtatcataacaattggcaagaccttagagacaggttccagataaccagcattaatagcaaaa  
gagatcttaaaagcatgccccaaagtgtcaaggaaaaggagagccaatgcatgggcaggtgaacatggaagtggga  
ctctggcagatggattgtacacacttgggaagggaaaatcataatagtagcagtagcatgtagccagtggtacaca  
gaagccaagctaattcccacaagaaacaggaaaagagacggctatatctctgttacaactatgtgctagatggcca  
gtcacacagatacacacagataatggaccaaatctaccagccaggaattagcagcagcagcatggtgggcta  
gtacaacacagcacaggtgtgccttacaatccacagagtcagggagtagtagaaaacaagaacaagcaattaaag  
gaaacaataagcaaaatcagagatgaagtacaatacttagagacagcagtagcaatggcactcctcattctta  
tttaagaaaaggggaggaataggggggatgacaccagcagaaaggctaataaacatgatacacacagacttagaa  
ctacaacaaaccaaatttccaaaatttctgaatttctgggtttattacaggacaggggaagagccctgagtggcta  
gggcccagcacaactcctgtggaaaggagaaggtgcagtggttaataagacaactacaggtgagctggtgacagtc  
ccaaaagggaaagcaaagatcattaagcccctaactaagtatctcaagtataaaacaaaggaattagaggaa  
caatggatacatcattaccaattatatgcacataggtatacacaaaacaaagcaatcatcccacttaccttga  
gtatcacaggattatgtggaagcaacagccatagaagtacaaatattgtgggatctgtcaagttgtagaagtagg  
gatccacctggaacaagagacacacaagcccttactattagttggacttacaccaggttgactaagggagacaga  
gagatagatagaatcagctatgagacagagattactccgcacttagctgatgcaatgatacatgtggagcatttc  
tcttgttttacagctcaggatttccactagagcaatcagaggacagcaattgctaggtgagtgccatcatccacat  
tatttaggcaaagagataccacattgcaatacctagcactaagggcaatacaatggacagaacagcaggcaatg  
gcagctactgcaatagattacataaggatcggttcaaaagttattgtgggatcattataagaaaggatgctatcac  
agataccatgctagagtaaggaggttccacaactgagaccactgagaggtacagcaggacaggacacgccccat  
gacagtgatccgccacaggtgctaagaccctctcggttatcatccagataacgatccatctcaagaggggttagaa  
aatggcataggggcgctgcacaacctccaactgcttgcactccatgcttttgcaaaaactgcatatatcactgc  
atattgtgcttccaacgaaaaggacttggcatccgcagacaaaagtataagcttatagttataggtatagcaatt  
ataataggtttaataacaatagatttgaacagggggatgaaaatgatggatgggtaacagttttctatggggt  
ccagtggtggcataatgccacccctcctttgttttgacagcagatgcaagacatacatgggtcactactaattgc  
ttgccaacagatccagcccctatagagacacctatgaatatctcaggagaatggttcaatgtacacaccaattat  
atgggtggaccatattggacaaagatatggcagcattgtttctacagggtacaaagccatgtaccaaattgacccct  
atgtgtgttaaaatgaagtgtcagaattataactaaagaagctacaaccacaacaaccaacatcatcaacaaca  
tcaaaagcaccaccaacaacaacccaaaggcctgcaacagaatggtggggaggaaaagatcctcaatctttactc  
aattgcacttttaacatgaccccaggttttaagataggaaaagctcattattggggtcctttttatacattggat  
ttatggcaacaatctaattggtactaatggaacaggggaatattatgtaaagtattgcaacacgtctgctatgaca  
caagcctgtgataaatttcatttttcagcctttccagttcattactgtccaccagcagggtatgcattgttcaa  
tgcaatgacataccatggaatggacaagggccatgtaaaaatgtgacagcagtagcatgtacacatgcaattaat  
acattggctagtagatggctccagttaaatggcacatatgaaaagaatacagatgaggtgcaggttatgagaaag  
tataattccaattacagtgtagcttttatcttctcagagagccaaatagtaaatttaacatgtgtaagaccagg  
aataaatcaataaggaacttgcaaataggagcaggcatgaccttttactcacaactcatagtagggggaaatact  
agaagagcttattgcaaaaataaatggcacacagtggtacaatgctttaaatgctacctatagggccataaagaag  
gagtataatcttacaggggatcaaccaatcacctggagatctcaaccaaggggggatagagaagtggagagtcac  
tggttccagtggtcaaggggagttcttttactgtaatttatctaggatctttcagaaaaccaatttcacaaatgat  
accttctatccacgaacataacaaaggaaggggcagagttgagcaacatatggttcacatgtaccatcaggcaa  
gtagtgaacagatggtcagatgtagaaaagttgatgtacttaccaccaagaaggggacatggtcagtgtagatct  
aatgtcacaggaatcttgggtggaatctgaatactatccaggaagtccatttaacatgaccccatcagccaatatc  
aaggacttgtggaataatagatttaagaagatataggtggtggaatagatccaattggcctagcaccactcca  
ataaaaagatatgaaccaccaccaagcaaaagcgttgtcaaaagagcttcatatgggtgccaattcaaacaatt  
tgtttacctcagttccttgggaataaatcctttgctgatggagcacttctgcttggcacaacatgacctggata  
gagtgggaaagaaaagtgactaatcatacaggtatcatcaatactttgttggtagaggcccaaaggaggcaagaa  
gaaaacacacataagttacagaagttaggagaatgggataatctttggaattggtttgacatctccaagtgggtt  
cagtggtattaaaatagcagtggtgatagtaataggtttaatagcattaagaatagtaatgtggcttattaatata  
ttgtgggtggtttggacgtgcttatcctcgcttgatactagcagcagaagcaacagcagaagcaaccagaagagca  
gtagcttacattcacgaagaaacagccgagacagccaagagaggggaagttgtacctgtaagatacaacgaaggt

gacagcaccgagatgatgatgaagaaggagtgggtttccagtatgccacaagtaccctcagacaaatgaca  
ttcaagacggctgtggatttctcctgggttttaaaagaaaagggaggactggaaggggtgttttattcccctgag  
agacacaagaaattggacctatatgcttataatgtatggggactagttccaggggtggcaaggatacaccaggggg  
ccaggcacaaggttcccaacatgctttggcatcctctgggaattgggtcccgggtggagatagggccacagggcctg  
ggagaaggagatgaaagagcatcgttgctccatgcggggcaacaagtctaccaggacccccattgtgagaccctg  
gtatggcacttcaatcccacccttgccctttgagccaggcatactgaaggctgacaagttgggacagaagcctttg  
cctgggcaaaagacctttctaacaggaagagactag

>#7 KJ461714 7554 nt

atgggggagaggcactcagcgatgcttactgggaaaaagcttgataagtatgagaaaatcaggctaaggccgaaa  
ggcaagaaaaggtaccagataaagcatatagtttgggcatccaaagagctggaacgatttggactatcagactcc  
ttattggaaaataaggagggctgccaaaagatcttagaggctcattgttccattggaagacacagggtccgagtct  
ctaaaatccctctttggattagtttcggttttgggtgtgtacatgcagatgttacagtagaggacacagaggaa  
gctaaaaaacagatcagaattaggtgccatagagtggcaagaaggaggaaacctccgcgggcgagggtgcctca  
gggcaaaattatccaattgttaggaatgcacaggggacagcatcagcatcaggcctttgtccccaagaatcctcaag  
acatggataacaaccattgaggagaaaaaattttcagcagaagtagttgctttgtttcaggcactatcagaaggc  
tgtataccctatgatataaatcagctcatgaatgccataggggaacatcaaggagcagtagcgttatcaaagat  
gtagttaatgaggaagcagccaattgggaccagctgcacccacagccagtacagccgcagcccaacgcaggctta  
agatacccatcaggggagtgcataagcaggggtatcatcatccatacaggaacagctagaatggatgaccagaaca  
gtagaccaagtaaatgtgggagaaaataacagaaaatggatagtaatgggtctgcagagatgtgtcaaaatgtac  
aatccagttaacattctggacataagacaagggccaaaagaaagcttcaaagactatgtagacagattctacaaa  
tgtctgagagcagaacagggtgatcagtcagtcaaaaattggatgactacaaccctcttgggtccagaatgctaac  
ccagaatgcaaggccatttctaaaggccatgccaggagccagcttagaagaaatgcttacagcatgccaaaggcgta  
ggagggccacactataagaccaagctgttagcagaagccatggcatcagctttccaaaagacagggaattacaac  
atgggtgcaaggcccacgaggcccgaaaggggctcgcagggggaccaatgaaaaaccctaaccctaggtgtttcaat  
tgtgggcagttcggacacatgtccagacagtgcccacagccaagaaagataaagtgttttaagtgtggcagagag  
ggccatatggcaagacagtgctcgagcctctgaaggtgcacagggaggagcatcctgttttagtagagggacaagaa  
gttgacctactattggacacgggtgcagatgatacaataattcatgatcaggacatagacttaggagataactgg  
cacccaaaaattatagggggagtaggtggcaatattagggtaaaagcttatcatagtggttagcatagaatggcag  
ggaaaaagagtaacagaggaagtattggtgggagacactcccatcaatataatggggagaaaatttttaaccaa  
tttggggtaactctaaatatggttagtaggcaatttaagccaacagaggtacggttaaaggaagggaagatgga  
cccaaagtcaaacaatggccattaagtgcagaaaaatacaggcactaaaagagatagtacaagatatggtagac  
aaaggacaattggaaaaagtagggccagaaaaccatacaattctccagttattctgtattaggaagaaggacaaa  
acaaaatggaggatgctaattgatttcaggaaactaaatgagcacacacaggacttagcagaagtacagttgggg  
atcccacacccagcaggtttacccaagaaagcacaggtttccatagtagacatcaaggatgcctactatgcagtc  
ccgctacatgaggactttcaaagatacacagcattcacataaccctcagtgacaacatgggaccaggagaaaga  
tatcagtttaaggtactgccacaggggtggaaggcatctccaaccatatttcagaacacaataggagacctgtta  
caacagatcaggaaaaaatacccacaagtcctcatgattcagtagatggatgacctcctcatagggtcagacgag  
acaataacagagcacaggaaaaatagtagagcaaattaggaacatccttctaaaacaagggtacagaccctgag  
gaaaaataccagccacaaaaggccagtttaattggttagggtagagcttaggcctagagagtggacaattcctaaa  
ataacattgccagtttaagcaggccatatacagtcattgagatccaaaagctagtaggacaattaaattgggccagt  
caaataatacccagggtataaagacaaaaggctctgtgtaaatttaattaggggaacaaaagggtctaacagaagaagta  
cagggtcacagaagaggcagaaaacagagcttgcagaaaatcaagccatttttagaccaagaagctaaagggggatac  
tatgatgcagagaagccattagaagtagatatcatacaattagggggaaccagtggggtatacagtaagacaa  
gacaaagaagtactaaagacaggtaaatgtgcaaaaacaaagaagtgcacatagtaaccattcaacaattggca  
gatgctattatgaagatagggaaaagagagcttagtatattgggggagaaataccacaatttaattgtcccagttaac  
aaagagcagtgggacgcgtggtggagtgaacattggcaggtgtcctggattccggacataaaaaccagtgcacacc  
ccacctttgatacaaatgtggtaccaattagtagaggaaccaatcccagaagcagaaaacttggtatattgatgga  
gcagcaaatagggaattctaaattagggaaagcaggatatgtgcagatagaggaaaagagaaggtggttagcatta  
gaacacaccaccaatcaaaaggcagagttacaagcattgtccttagctttacaagatgggggaacaaaacagaac  
atagttacagactcccaatatgttctaggagtcgtaacaggagctcccacagaaacagaccaccaatactagag  
caaataataacacagttacagagcaaagaagcaatatacctctcatgggtaccagcccataaagggtatagggggc  
aatgaagcagtagacaaattagtaagcaaaggaatcagaagggtattgttcttggaaacaaataccacaagcccag  
gaagaacatgaaagggtatcatacaattggcaagaccttagagacaggttccaaataccagcattaatagcaaaa  
gagatcttgaaagcatgccccagtgtaaggaaaaggagagccaatgcatgggcaggtaaacatggaagtgggg  
ctctggcagatggattgtacacacttgaagggaataatcataatagtagcagtagcatgttagccagtggttacaca

gaagccaaactaatcccacaagaaacaggaaaagagacggctatatattcctgttacaactatgtgctagatggcca  
gtcacacagatacacacagacaatggaccaaatctaccagccaggaaactagcagcagcagcatgggtgggcta  
gtacaacatagtagcaggtgtgccttacaatccacagagtcagggagtagtagagaacaagaacagggaattgaag  
gaaacaataggcaaaatcagagatgaagtacaatacttagagacagcagtagcaatggcactcctcattctta  
tttaagaaaaggggaggaataggggggatgacaccagcagaaaggataataaacatgatcacacagaattagaa  
ctacaacaaacccaaaattccaaaattttcgaattttcgggtttattacaggacaggggaagagccctgagtggcta  
gggccagcacaactcctgtggaaaggagaaggtgcagtggttaatcaagacaactacaggtgagctggtgacagtc  
ccaagaaggaaagcaaagatcattaagcctctaactaagtatctcaagtataaaacaaaggaattagaggaagta  
caatggatacatcattaccaattatatgacataggtatacacaaaacaaagtaatcatcccacttaccttgaaa  
gtatcacaggattatgtggaagcaacagccatagaagtacaaatattgtgggaactatcaagttgtagaagtagg  
gatccacctggagtaagagacacacaaggcctcactattagttggacttacaccagattgcacaaggagagacaga  
gagatagatagaatcagctatgagacagagattactccgcaattagctgatgcaatggtacatgtggagcatttc  
tcttgttttacagctcaggatttcaatagagcaatcagaggacagcaattgctaggtgagtgccatcatccacat  
tatttaggtaaagaggtacccacattacaatacttagcactaagggcaatacaatggacagaacagcaggcgtgg  
gcagctactgcaatagattacataaagatcattcaaaagttattgtgggaccactataagaaaggatgctatcac  
agataccatgctagagtaagaggtatccacacctaagaccactgagaggtacagcaggacaggatacgccccat  
gatagtgatccaccacaggtgctaagaccctctcgttatcatccagacaatgatccctcccaagaggaggtagaa  
aaatggcataggggcctgcacaacctccaactccttgcaattcctgcttttgcaaaagctgcatatatcactgc  
atattgtgctttcaacgaaaaggacttggcatccgcatgacaaaagtatacgcttatagcattaggtatagcaatt  
ataataggttttagtaataatagatttgcaacaaggggaagaaaataatggatgggtaacagttttctatggggta  
ccagtggtggcagaatgcctccccctcctttgttttgcacagcagatgcaagacatacatgggtcaccatgaactgc  
ttgccaacagacccagccccctgtagagacacctatgaatatcacaggagaatgggttcaatgtgcacaccaattat  
atgggtggaccacatggatcaagatatggcagcgctgtttctacagggtacaaagccatgtaccaaattgaccct  
atgtgtgttaagatgaagtgtagcaattatactagagagggtacaacagcagcaccatcaacaacagcaccaacg  
accaaagggcatacaacagaatgggtggggaggaaaagatcctcaatcttactcaattgttcttttaacatgacc  
ccagggttttaagataggaaagctcattattggggtcctttttataaattggatttatggcaacataataatgg  
actaatggcacaggggaatattatgtaaagtattgcaacacgtctgcaatgacacaagcctgtgacaaaatttcat  
tttcagcctttcccagttcattactgtccaccagcagggtatgcattgttcaatgcaatgacataccatggaat  
gggcaagggcaatgtaaaaatgtgtcagcagtagcattgtacacatgcaattaatacattgggctagtagcatggctc  
cagttaaatggcacatatgaaaagaacacagatgaggtgcaggtcatgagaaagtataattccaattacagtgta  
gcttttatcttttcagagagccaaatagtaaatgtgacatgtgtaaggcctgggaataaaaacaataaggaatttg  
cagataggatcaggcatgaccttttactcacaactcatagtagggggagatactagaagagctttttgcagaata  
aatggcacacagtggtaccatgctttaaatgctacttatagggctataaagaaggagtataatcttacacagaac  
caaccaatcacctggagatctcaaccaaggggggacagagaagtagagagtcactgggtccaatgccaaggggaa  
ttcttttattgttaacttatctaggatctttcagcaaaccaattttaccaatgacaccttctatccaagaaacata  
acagaggaaggggaaaggttgagcagaacatggttcacatgtaccatcaggcaagtagtgaaataggtggtcacat  
gtagaaaagttgatgtacttaccaccaagaaggggacatggttcagtgtagatctaatacacaggagtcctgggtg  
gaatcagaatactatccaggaggtccatttaatatgaccccatcagccaacatcaaggacctgtggaaaatagat  
ttaagaagatataaggtggtggaaatagatccaattggcttagcaccactccaattaaaagggtatgaaccacca  
tcaaacaccaaagtgttgtaaaaagagcttcataatgggtgccacttcaacaaaatttggttacacctcagttcct  
tggaatatatcttttgctgatggaggagtgcttcctgactggaataatatgacctggatagaatgggaaagaaaa  
gtgaccaatcacacaggtcatcattaataatttggttggttagagggtcaaaggaggcaagaagaaaaacacacataag  
ttacagaagttaggagaatgggataatctttggagttggtttgatctccagatgggttcagtggttaaaata  
gcagtggttaatagtaataggttttaatagcattaagaatagtaatgtggcttattaatatattggggttcttagca  
gttgctctgggacgacctgagagcgatcgctctgtggatccaccggacattgggtcgacttaggctggctgattcgt  
catctgtggagcagcttaactgactgggtggtttggaagtgttatcctcgcttgatactagcagcagaagcaaca  
gcagaagcaactagaagagcaatagcttacattcaagaagaagcagcagcagccaagagaggagaagttgtacc  
atgaggtacaatgaaggtgacaacaccccgagatgatgatgaagaagaagtggtttccagtagcggccacaagta  
cccatcagaaacctgacattcaaaatagctgtgattttctcctgggttttaaaagaaaaggaggactggaagg  
ttgtattattcccctgagagacacaagaaattggacctatatgcttatcatgtatggggagtagttccagggtgg  
caaggatacacccctggcccaggcccagggttcccaacatgttttggcatcctctgggaattgggtcccgtggat  
gtggggccacagggcctgggagaaggagatgaaagggcattgttgctccatgcggggcaacaagcataccaggac  
ctccatggtgagacctggtgtggcacttcaatcccacccttgcccttgagccaggcatactgaaggctgacaag  
ttgggcccagcagccattgcctgggatgaagagctgcataacaggaagagactag

>#8 KJ461715 7464 nt

atgggggcgaggcactcagcgatgcttactgggaaaaagcttgataagtatgagaagatcaggctgaggccgaaa  
ggcaaaaagaagtaccagataaagcatatagtttgggcatccaaagagctggaacgatttggactatcagactcc  
ttattggaaagtaaggagggctgcaaaaagatcttagaggtcattatcccattggaagaaacaggggtccgagtct  
ctaaaatccctctttggattagtttcagtccttatgggtgtgtacatgcagatgttacagtagaggacacagaggaa  
gctaaaaaacagatcagaattaggtgccacataagtgacaaaaaggaggagacctccgcgggcgagggtgcctca  
gggcaaaattatccagttgttaggaatgcacagggacagcatcagcatcaggctttgtccccaagaatcctcaag  
acatggataacaaccattgaggagaaaaaattttcagcagaggtagttgccttattccaggcactatcagaaggc  
tgtataccctatgacataaatcagctcatgaatgccataggggaacatcaaggagcgggtacagcttattaaagat  
gtagttaatgaggaagcacacacttgggaccagttgcacccacagccagcacagccgcagcccaacgcaggcttg  
agatacccatcagggagtgacatagcaggggtatcatcatccatacaagaacagctagaatggatgacaagggca  
gtagaccaagtaaatgtgggagaaatatatagaaaatggatagtaatgggtctgcagagatgtgtcaaaatgtac  
aaccagttaacattctggacataagacaagggccaaaagaaagcttcaaagactatgtagaccgattctacaaa  
tgtctgagagcagaacaggctgatcaatcagtcaaaaattggatgacttcaacccttttgatccagaatgctaac  
ccagaatgcaaggccatcttaaaggccatgccaggagctagcttagaagagatgcttacagcatgccaaggcgta  
ggagggccacactataagaccaagctgttagcagaagctatggcatcagctttccaaaggacaggggaattacaac  
atggcgcaaggcccacaaggcccgaaaggggctcgaagggggcccatgaaaaaccctaactcctaggtgtttcaat  
tgtggacgatttggacacatgtccagacaatgccacagccaaaaaagatgaagtgcctttaagtgtggcagagag  
ggccatatggcaagacagtgctcgagcctctgacagtgacaggggagagcatcctgttttagtggaggggcaagaa  
gttgacctactattggacacgggtgcagatgatacaataattcatgatcaggacatagaattgggagataactgg  
cacccaaaaattatagggggagtaggtggcaatattagagtaaaagcatatcataatgttgacatagaatggcag  
ggaaaaagagtaacaggggaagtgttggtgggagacactcccatcaatataatggggagaaatcttctaactaaa  
tttgggggtgactctaaatatggttagtaggcaaatttaagccgacagaagtacggttaaaagaaggggaaagacgga  
cctagagtcaaacaatggccattaagtgcagaaaaatacagggcactaaaagagatagtgcaagatatggtaaat  
aaaggacaattggaaaaaatagggccagaaaaccatacaattctccagtattttgtattaagaagaaggacaaa  
acaaaatggaggatgctaattgatttcaggaaactaaatgagcacacacaggacttagcagaagtacagttgggg  
atcccacacccagcaggtctacccaagaaggcacaggtttccatagtggaacattaaagatgcctactatgcagtc  
ccgctacacgaggactttcaaaaatatacagcattcacgataccttcagtaaacacatgggaccaggagaaaga  
tatcagtttaaggtgctgccacaggggtggaaggcatctccaactataatttcagaacacagtagggagacctgtta  
caacagatcaggaaaaaatacccacaaatcctcatgattcaatacatggatgacctcctcatagggtcagatgag  
acagtaacagaacatagaaaaatagtagagcaaattaggaacatccttctaaaacgaggggtacaaaaccctgag  
gacaaatatcagccacaaaaggccagttaattgggttagggtagaacttaggcctagagaatggacaattcctaga  
ataacattgccagttaagcaggtctatacagtcfaatgagatccaaaagttagtaggacaattaaattgggccagc  
caaataatacccagggtataaaaaacaaaggctctatgtaaattaaatagagggacaaaaggcttaacagaggaagt  
caggtcacagaagaggcagaaaacagagctttagtagagaaccaagccattttagaccaagaagctaaaggggggatac  
tatgatgcagagaagccattagaggtagatatcacacaattgggagaaaccagtggggtacacagtaagacaa  
gataaagaagtactaaagacaggtaaatgtgcaaaaacaaagaagcgcacatagtaaccattcaaacaattggta  
gatgccattatgaaaataggaagaaagagcttagtatattgggggaagaataaccacaatttaattgtcccagttaat  
aaagaacagtgaggacgcgtgggtggagtgaacattggcaagtgctcctggattccggatataaaaaccagtgacacc  
ccacctttgatacaaatgtggtaccaattagtacaagatccgatcccaggagcagaaaacttgggtatattgatgga  
gcagcaaataggggaatctaaattagggaaagcaggatatgtgcagacagaggggaaagaaaaagtagtagcatta  
gaacacaccaccaatcagaaagcagaattacaagcattacttctagctctacaagatgggggaacaaaacagaac  
atagttacagattcccaatatgttctaggaatcataacaggagctcctacagaaacaaaccaccaataactagag  
caaataataacacagttacaaagcaaagaagcaatatacctctcatgggtaccagcccataaggggtataggaggt  
aatgaagcagtagataaattagtaagcaaaggaatcagaaaggtattgttcttgaacaaataaccacaagcccag  
gaagaacatgaaaggtatcataacaattggcaagaccttagagacaggttccgaataaccagcattaatagcaaaa  
gagatttttaaagcatgccccaaagtgtcaaggaaaaggagagccaatgcatgggcagggtaaacatggaagtggga  
ctctggcagatggattgtacacacttggaaagggaatcataatagtagcagtagcatgttagccagtggttacaca  
gaagccaaactaatcccacaagaaacaggaaaagagacgggtatattcctgttacaactatgtgctagatggcca  
atcacacagatacacacagataatggaccaaatctcaccagccaagagttggcagcagcagcatggtgggcta  
atacaacacagcacaggtgtgccttacaatccacaaagtcagggagtagtagaaaataagaacagggaattaaaa  
gaaacaataagcaaaatcagagatgaagtacaatacttagagacagcagtagcaatggcactcctcattctta  
tttaagaaaaggggaggaataggggggatgacaccagcagaaaggctaataaacatgatacatagacttagaa  
ctacaacaaaccaaatcttccaaaatcttcgaattttcgggtttattacaggacaggggaagagcccagagtggt  
gggccagcacaaactcctgtggaaaggagaaggtgcagtggttaataagacaactacaggtgagctgttgacagtc  
ccaaaaggaagcaagatcattaagcctctaacaagcatctcaaatataaaaacaaaggaattagaggaagta

caatggatacatcattaccaattatatgcacataggtatacacaaaacaaagcaatcatcccacttaccttgaaa  
gtatcacaggattatgtggaagcaacagccatagaagtacaaatattgtggaactgtcaagttgtagaactagg  
aatccacctggagtaagagacacacaagctcttactattagttggacttacaccagattgaataaaggagacaga  
gagatagatagaatcagctatgagacagagattactccgcaattagctgatgcaatggtacatgtggagcatttc  
tcttgttttacagctcaggatttcactagagcaatcagaggacagcaattgctaggtgagtgccatcatccacat  
tatttaggcaaagagataccacattgcaatacctagcactaagggaataacaatggacagaacagcaggcatgg  
gcagctactgcaatagattatataaagatcattcaaaagtattgtggtggtcattataagaaaggatgctttcac  
agataccatgttagagtaagaagatttccacagcttagaccactgagaggtacagcaggacaggaaacgccccac  
gacagtgatccgccacaggtgctaagaccctctcgttatcatccagataatgatccatcccaagaggggttagaa  
aaatggcatagggcgctgcacaacctccaactccttgcaattcatgcttttgcaaaagctgcatatatcactgc  
atattgtgcttccaacaaaaaggacttggcatccgcatgacaaaacataagcttatagttataggtatagcaatt  
ataataggtttaataatagtagatttgcaacaagggaagaaaataatggatgggtaacagttttctatggagta  
ccagtgtggcataatgccaccctcctttgttttgcacagcagatgcaagacacacatgggtcactactaattgc  
ttgccaacagatccagcccctatagagacacctatgaatatctcgggagaatgggttcaatgtacataccaattat  
atgggtggaccatattggaccaagatatggcggcattgtttctacagggtacaaagccatgtactaggttgaccct  
atgtgtgttaagatgaagtgtagtaattttactaaaccaacttcaacaccacaaccaactacatcatcaaaacca  
acaacattgacagcgacaaccaaaaagcttgtaacagaatgggtggggaggaaaagatcctcaatctttactcaat  
tgctcttttaacatgaccccagggttttaagataggaaagctcactattgggctcctttttataaattggattta  
tggcaacataagaatgatagcgaaactaatgtcacaggggaaggggaatattatgtaaagtattgcaacacgtct  
gcaataacacaagcctgtgataagtttcattttcaacctttcccagttcattactgccaccagcagggtatgca  
ttgttcaaatgcaatgacataccatggaatgggcaagggccatgtaaaaatgtgacagcagtagcattgtacacat  
gcaattaatacattggctagcacatggcttcagctaaatggcacatatgaaaagaacacagataaggtgcagggtc  
atgagaaaagtataattccaattacagtgtagcttttatcttctcagaaaagccaaatagtaaatttaacatgtgta  
agaccagggataaatcaataaggaaacttgcaaataggagcaggcatgaccttttactcacaactcatagtggga  
ggaaatactagaagagcttattgcaaaaataaatggcacacagtggtactctgctttaaatgctacctatcgggct  
atacagaaggagtataatcttacagagaaccaatcaatcacctggagatctcaaccaaggggggatagagaagta  
gagagtcactggtttcagtgccaaaggggaattcttttattgtaatttatctaggatctttcagaaaaccaatctt  
acaaataacaccttttaccacaaaaacataacacaggaaggggaagcggttgagcaacatatgggttcacatgtacc  
atcagggaagtagtgaaacagatgggtcacatgtagaaaagtgtgatgtacctaccaccgagaaggggacatgttcag  
tgtacatccaacatcacaggaatcttggtggagtgcagaatactatccaggaagcccatttaacatgaccccata  
gccaatatcaaggacctgtggaaaatagatttaagaagatataaggtggtggaaatagacccaattggcctagca  
cccactccactaaaaaggtatgaaccaccaccaagcaaaagcattgtcaaaagagcttcatatgggtgccaattc  
aaacaaatttgttacacctcagttccttggaataaatcttttgctgatggtgaagcgcttccctgaatggaacaac  
atgacctggatagagtgggaaagaaaaagtgactaatcatacaggtatcatcaatgggttggttggttagaggcccaa  
aggaggcaagaagaaaaacacacataagttacagaagttaggagaatgggataatctttggagttggtttgacatc  
tccagatggtttcagtggttaaaaatagcagtattaatagtaaataggtttaatagcattaagaatagtaaatgtgg  
cttattaatataattatggtggttcggaagtgttatcctcgcttgatactagcagcagaagcaacagcagaagca  
actagcagagcagtagcttacattcacgaagaagcagcccaaccaggagaagtagtacccttaagggtacaacgag  
ggtgactacacccgaactgatgatgaagaagaagtggttttccagtagcggccacaagtagcccatcagaacaatg  
acattcaaaacagctgtggattttctcctggttttttaaaagaaaaagggaggactggaagggctattttattccct  
gagagacaccagaaattggacctatatgcttatcatgtatggggactgactccaggggtggcaggggatacacccaa  
gggccaggccccagggttcccaacatgttttggcatcctctgggaattggtcccgggtggaggttagggccacagggc  
ctgggagaaggagatgaaagggcaaaagtgtctccatgcaggggaacaatcattccaggaccctatggtgaggtc  
ctggcgtggcacttcaatcccacccttgctttgagccaggcataactaaaggctgacaagttgggacagcagcct  
ttgcctgggcaggagaccttttcaacaggaagagactag

>#9 JX860407 7215 nt

atgggcgcgagaagctccgtcttgtcagggaaaaaagcagatgaattagaaaaggttaggttacggcccgcgga  
aagaaaaagtacatggtgaagcatgtagtgtgggcagcaaacgaattggacagattcggattggcagagagcctg  
ttggaaarcaaagaaggttgtaaaaarattctttcagtttttagctccattaacaccaacaggggtcagaaaattta  
aagagcctctacaatactgtctgcgtcatygtgtgcattcacgcagaagagaaagtgaacatacygaggaagca  
aaacaaatagtgcagagacatctagtgttagaaacaggaactgcagatcccattgccgaaaagyagtagaccaaca  
gcaccacctagtggcatgaagggaaattaccagtgacgaagtrggtggcaattatgtycacctaccattaagy  
cccaggacattaaacgcctgggtaaaattagtggargaaaagaaatttggggcagaggttagtgccaggggtttcag  
gcactrtcagaaggctgtactccttatgatatcaatcagatgctaaattgtgtgggagaacaccargcagccatg  
cagatcataagggaatcatcaatgaagaggcagctgattgggacctgcaacatccacaaccaggtccaatacca



gcaggacagcttagggacccaagaggrtcagatatagcaggaaccaccagcacagtggagaacaaattcagtgga  
atgtacaggcagcagaatccgataccggtaggaaacatctacaggagatggattcaacttgggttgcaaaaatgt  
gtgaggatgtataatccaacaaacattctagatgtgaaacagggacccaagagccatttcaatcttatgtagac  
aggttctacaaaagtttgagrgcagarcaaacagatccrgcagtwagaattggatgactcagacactgctgatt  
caaaacgccaaccagaytgtaaattggttttaagggtctgggaatgaacccactctagaagaratgctaacr  
gcctgtcaagggtagggggaccaggacaaaaggctaggctaattggcagaagccctgaaagaagccctaacca  
gggccactcccatttgcagcagcccagtttaagaggaggacaaaaagaacagtc aaatgttggaattgtgaaaa  
gatggacacactgcaagacagtgtaaagctccaagaagacarggctgctggaaatgtgaaaaaatgggcccagtc  
atggctaattgcacagaaagacaggcaacagcgcaggtcgagggctcagcctgtggaaagtattactggacacaggg  
gctgatgactctatagtagcaggagtagaatttaggaacaaattacaccccaaagatagtaggaggaattggaggt  
tttattaataactaaagaatataaaaatgtagaatagaagtactagggaaaagaatttagaggaacactcatgaca  
ggagataccccaatcaatatttttggcagaaatttactaacagctttgggtatgtccttaaacttccaatggcc  
caagtggagccggtaaaagtaacactaaaaccaggaaaagatggaccaaaaagtaaggcaatggccactatcaaaa  
gaaaagatacaggcattaaaagagatctgtgaacagatggaaaaggatggtcaattagaagaagctccacctacc  
aatccatacaatacacctacttttgcataaagaagaagacaaaaacaagtggagaatgctaatagatttcagg  
gaactaaataaagtcactcaggatttcacagaagtgcagttgggaattccacaccagcaggattggcaaagaga  
aaaaggattacagtcctggatgtaggggatgcatatctctatacccttagatgaggacttcaggcagttact  
gctttcacccctaccatcggtaaataatgcagagccaggaaaaagatatatctacaaggttctaccacaagggtgg  
aaaggatcaccagcaatttttcaacatacaatgagaggtgtattggagccatttagaaaagcaaatccagatgta  
accctaattcagtagcatggatgacatcctgatagccagtgacagaacagacttagaacatgacagagtagtgctg  
cagttaaaagaactcttaaacggaatgggcttctactccggatgagaagttccagaaaagaccctccatatcaa  
tggtatgggtatgaactgtggccaacaaaatggaaattgcaaaaaatagaattgcctcagaaaagacaattggaca  
gtaaatgacattcagaaaactagtaggagtgtaaatgggcagcgcgaagtctatccaggaatcaaaaaccaacat  
ctttgtaaactgatcagaggaaaaatgactctgacagagggaagtccaatggactgaattggcagaagcagagtat  
gaggaaaaacaagatcattctcagtcaggaacaagaaggatgttactaccaagagggaagcccttagaggcaacg  
gtagtgaaaaatcaggataatcagtggtcttcaaaaatccaccaggaagataaagtattgaaagtaggcaaat  
gccaaaataaagaatacacatacaaatggagttaggctattggccacatgtggtacaaaagataggaaaaggaggct  
atagtgtatctggggacggatcccaaaatccatctaccagtagagagagaaatctgggagcaatggtggacagac  
tactggcaggtgacctggataccagactgggactttgtatcaacaccccccttgggtcagattagtttcaacct  
gtaaggatcctcttgaaggagaagaaaacattctacacagatggatcatgcaacaggcagtcataaagaaggga  
gcaggttatgtaacagatggaggaaaagacagggttaaagggtgttagaacagaccactaatcagcaagcagagcta  
gaggcctttctcatggcattaacagactcaggacaaaaagcaaatatcatagtagattcacaaatgtaatggga  
atagtagcaggtcaacctactgaatcagaaaaataagatagtaagccaaatcatagaagaaatgatcaaaaagacg  
gcaatttatgtcacatgggtaccagctcacaaagggctaggaggaaatcaagaagtagaccacctagtcagtcag  
ggaatcagacaagtattgtttctagaaaagatagaaccagctcaagaagagcatgaaaaataccacagcaatgta  
aaagagttggtattcaaatatggcataccaagattggtagcaaaaacaaatagtagatacctgtgacaaatgccac  
caaaaaggggaagctatacatggacaagttaatgcagatctaggaacctggcaaatggattgcacacacttagaa  
ggaaaaatagtcatagtggcagtagcatgtggctagtggattcatagaagcagaagtaattccacaagagacaggg  
agacagacagcattattcctgtttaaattggcaagtagatggcctatcacacatttgcatacagacaatggtgcc  
aactttacttcacaagaagtaaaaaatggtagcttgggtggacaaatatagagcacaccttggagtaccctataat  
ccacagagccaaggagtagtggaagctatgaatcaccacttgaaaacacaaatagacagaattagagagcaagca  
aattcagtagaaaccatagtactaatggcagttcattgcatgaatttttaaagaagggggaggaataggggatatg  
acccagcagaaaagactaattaatatgattaccacagaacaagaaatacaattccagcaatccaaaaattcaaaa  
tttaaaaattttcgggtctattacagagaaggcagagatcagctgtggaaaggacccggtgaactattgtggaaa  
ggggaaggagcagtcattcttaaaggtagggacagatataaaggtagtgcccagaagaaaagctaagatcataaaa  
gatctcataaagcattttaaataataacactaaagacctacagcaggcatgttatgtcccccataaaagtggga  
tgggcatggtggacttgcagcagggtaattctttccattacaaggagaatctcatttagaagtacaagggtactgg  
aacttaacaccagagaaaggatggctcagtagtcttattgtgtgaaggataacttggtagacagaaaatttttgga  
gatgtaacaccagattatgcagatacattactgcatggatcttattttcttcttgccttacagcgggagaagtaaga  
agagccatcaggggagaacagttactgtcttgcgtgaagttcccaagagctcatagaatcaggtaccaagtctg  
caatatctagcactgagtgtagtaagtatggcagaagctccccagaggatgaggccccacagagagagccgtgg  
gatgaatgggtaatggaagtcctggaggagctcaaagaagaagctaaaaggcattttgatcttcgcttgctaact  
gcgcttggttaactacattttatgataggatgggatgtcttgggaatcaactgcttatcgccatcttgctagtaagt  
gcttatgggatctattgtgctcaatatgtcacagtagttctatgggtgtccagcatggagggaacgcgacaattccc  
ctcttctgtgcaaccgagaatagggaacacttggggtacaactcaatgcttgccagataatgatgactattcagaa

ctagcaatcaatgtcacagaggcttttgatgcctggaacaatacagtcacagagcaagcaatagaggatgtctgg  
aatctctttgagacatccataaaaccatgtgtaaaattaacccattatgtatagcaatgagatgcaataaagct  
gagacagacaagtggggactaacaggaacagcagcaccaccaacaacaaagacactaaagacaacatcaacaaca  
aaaccaccagtactcgaagtaaatgataccgaaccctgtgtaaaacttaacaactgcacaggattggaaccagaa  
ccaatgataggatgtaaattcaatatgacaggattgaaaagaggcaggaaaaaggagtacaatgaaacatggtac  
tctagtgatttggctctgtgagcaagggtggttaacaacacaaatgaaagcagatgttatatgaatcattgtaataca  
agtgtaatccaagagtcctgtgacaaacattattgggatgctattagatttagatactgtgcaccaccaggctat  
gctttgcttagatgtaatgattcaaattattcagggttttatgcctaattgttctaaggtagtagtctcttcatgt  
acaaggatgatggaaacacaaacctctacatgggtttgggttttaatggcactagggcagaaaaatagaacttacatt  
tattggcatggctcataggaatagtactataattagtttaaatagctattacaatttaacaataagatgtagaagg  
ccagggaataaaacagtactaccagtcaccataatgtcaggggttagtttccattcacaaccataaatgagagg  
ccaagacaggcatgggtgctgggtttggaggaaaatggaagtcagcaataaaagagggtgaaggagaccttggtcaa  
catcccagggtatacaggaaccaatgatacaagtaaaatlaactctgacagcaccaggaggaggagacctgaggtc  
accttcatgtggacaaattgtagaggagaattcctctattgtaaaatgaattgggttcctaaattgggtagaagat  
agaaacagaacgcagatggaggcgagaaacaacaacgataaagagaggagaaagagggaactatgtgccatgtcac  
attagacagggtgatcaatacatggcacagagtaggtaaaaatgtatatttgccgcctagagaaggagacctgaca  
tghtaactccactgtgaccagtcataatagcagaaatagactgggtatgataaaaaccaaactaatatcaccatgagt  
gcagaggtggcagaactgtatcgattggaattgggggattacaaattagtagaaatcactccaattggcatagcc  
ccaacaaatgtaaagagggtacaccactactactacctaagagctaaaaattcatggggatgtgctgttaggcag  
gtctgccacactactgtcgaatggccagccgcaaattgtgacaccagattggaataacatgacctggcaagagtgg  
gagagaaagggtgactatctagaggcaaataacgcttctattagaagaagcacaattcaacaagaaaagaac  
atgtatgagttgcaaaaactaaatagctgggatgtatttggcaattgggttgatctcacctcttgggtaaaaat  
atacagtatggaatatatatagtagtaggaattatattgttaagaatagtaatctatgtagtacagatgttagct  
agggttaaggaaagggtataggccagttttctcttccccacctaattatcgccagcagctcacctatatattggacct  
cagatgtataatgaaggccagttacatgaatacccccctggagaaacctgcaagagaaagagccaaattagcatat  
aggaaacaaaatattggatgatgtagatgaggaggatgatgaattagtaggggtagcagtagacatccaaaagtcca  
ttaagagcaatgtcatacaaattggcaatagacatgtcacatttttataaaaagaaaaggggggactggatgggatt  
tattacagtgtagagaagacataggattctagacatgtacctagaaaaggaagaaggaataataccagattggcag  
aattacacctctgggccagggtataagatacccaatgttctttggctgggttatggaaactgggtaccagtagatgta  
tcagatgaagctcaagaagatgagacccactgtctggtgcatccagcacagacatatcagtgggatgaccttgg  
ggagaagtcctagcatggaagtttgatccaacattagcttatacctatcaggcatttgttaaataccacagaagag  
tttggatataagttaggcctgtcagaggaagagggttaagagaaggctaaccgcaagaggccttttaaaatggctg  
acaagaaggaaacca

>#10 U79412 7287 nt

atgggcgcgagaaactcgtcttgtcaggggaagaaagcagatgaattagaaaaattaggctacgacccggcggg  
aagaaaaagtacatgttgaagcatgtagtatgggcagcaaatagaattagatagatttggattagcagacagcctg  
ttggagaacaaagaaggatgtcaaaaaatactttcggccttagctccattagtgcacaacagggtcagaaaattta  
aagagcctttataatactgtctgctgcatctggtgcattcacgcagaagagaaagtgaacacactgaggaagca  
aaacagatagtgcagagacacctagtgtgtggaacaggaacagcagaaactatgccaaaaacaagtagaccaaca  
gcacctctagtggcaaaagagggaattacccagttacaacaaataggtggtaactataccacacctaccattaagc  
ccgagaacattaaatgcttgggtaaaattgatagaggagaagaaatttgagcagaagtagtgccaggatttcag  
gcaactgtcagaaggctgcatccccctatgacattaatcagatgtttaaattgtgtgggagaacatcaagcagctatg  
cagattatcagagaaattataaacgaggaggctgcagattgggacctgcagcaccacacaacaaagctccacaaca  
ggacagcttagggagccgtcaggatcagacattgcaggaacaactagtacagtagatgaacaaatccagtggtatg  
tacagacaacagaaccccataaccagtaggcaacatttataggagatggatccaactgggggttgcaaaaatgtgtc  
aaaatgtataacccaacaaacattctagatataagacaagggccaaaagagccatttcagagctatgtagacagg  
ttctacaaaagcttaagagcagaacaaacagatccagcagtaaaagaattggatgactcaaacactgctgattcaa  
aatgctaaccagatttgcaagctgggtgctgaaggggctgggtatgaatcccaccctagaagaaatgctgacggct  
tgccaaggagttaggaggaccaggacaaaaggcaaaatlaatggcagaagccctgaaagaggcccttgaccaggg  
ccactcccttttgacgcagcccaacagaagggaaccaagaaagccaattaagtgttgggaattgtgggaaagaggga  
cactctgcaaggcaatgcagagccccaagaagacagggtgctggaaatgtggacaaatgggcatgttatggcc  
aaatgccagacagacaggcagggttttttaggcttttgcccatggggaaagaagccccgcaatttccccatggcc  
caaatgcatcaggggctgacaccaactgctcccactgctcatattgagggacagcctgcagaagtactattggat  
acaggggctgatgattctattgtagcaggaatagagtttaggtccacattataccccaaaaatagtaggaggaata  
ggaggtttttattaactaaagaatacaaaaatgtagaatatagaagtttttaggcaaaaggattaaagggacaatc

atgacaggggacaccccgattaacatttttggtagaaatttgctaacagctctgggaatgtctctaaatttcccc  
atagctaaggtagagcctgtaaaagtcaccttaaagccaggaaaagatggacaaaattgaggcagtgccatta  
tcaaaagaaaagatagttgcattaagagaaatctgtgaaaagatggaaaaggatggtcagttggaggaagctccc  
ccgaccaatccatacaacacccccacatttgctataaagaaaaaggacaagaacaaatggagaatgctgatagat  
tttagggaaactaaataaaggtcactcaggactttacagaagttcaattaggaataccacacccctgcaggactagca  
aaaaggaagaggatcacagtagtgatgtaggtgacgcataatttctccatacctctagatgaagaatttaggcag  
tacctgcttttacttttaccatcagtaaaataatgcagaaccaggaaaacgatacattttataaggtcctgcctcag  
gggtggaaggggtcaccagccatcttccaacacactatgagaaatgtgctggaacccttcaggaaggcaaatcca  
gatgtgaccctagtcagtagtatatggatgacatcttagtagctagtgacaggacagacctggaacatgacagggtta  
gttttacagttaaaggaactcttaaatagcatagggttttctaccccagaagagaagttccaaaaagatcccca  
tttcaatggatggggtatgaattatggccaacaaaatggaagttgcaaaagatagagttgccacaaaaagagacc  
tggacagtgaatgatatacagaagtttagtaggagtattaaattgggcagctcaaatttatccaggtataaaaacc  
aaacatctctgtaggttaattagaggaaaaatgactctaacagagggaagttcagtggaactgagatggcagaggca  
gaatatgaggaaaataaaaataattctcagtcaggaacaagaaggatgttattaccaagaaggcaagccattagag  
gccacggtaataaagaatcaggacaatcagtggtcttataagattcaccaagaagacaaaatactgaaagtagga  
aaatttgcaagataaaaaatacacataccaatggagttagactattagcacatgtaatacagaaaataggaag  
gaagcaatagtgatctggggacaggtcccaaaattccacttaccagtcgagaaggatgtatgggaacagtggtgg  
acagactattggcaggtaacctggataaccagaatgggattttatctcaacgccgccactagtaagattagtcctc  
aatctagtgaaggaccctatagaggggagaagaaacctattatgtagatgggtcatgtaataaacagtcaaaagaa  
gggaaagcaggatatatcacagataggggcaaagacaaagtgagagtccttagaacagactactaatcaacaagca  
gaattggaagcattttctcatggcattgacagactcagggccaaaggcaaattattatagtagattcacaaatagtt  
atgggaataataacaggatgccctacagaatcagagagcaggctagtttaaccaataatagaagaaatgattaaa  
aagacagaaattttatgtagcatgggtgccagcacacaaagggtataggaggaaaccaagaatagaccacctagtt  
agtcaagggattagacaagtcctcttcttggaaaagatagagccagcacagaagaacatgataaataccatagt  
aatgtaaaagaattgggtattcaaatttggattaccagactagtgccaaacagatagtagacacatgtgataaa  
tgtcatcagaaaggagaagctatacatgggcaggtaaattcagatctagggacttggcaaatggattgtacccat  
ctagaggggaaaaataatcatagttgcagtagatgtagctagtggaattcatagaagcagaagtaattccacaagag  
acaggaagacagacagcactatttctgttaaaattggcaagcagatggcctattacgcactctacacacagataat  
gggtgccaactttacttgcgaagaagtaaaagatgggtgcatgggtgggcagggatagagcacacctttggggtacca  
tacaatccacagagtcagggagtagtggaagcaatgaatcccatctaaaaaatcaaatagatagaatcaggga  
caagcaaatcaatggaaccatagtatattaatggcagttcattgcatgaatttttaaaagaaggggaggaataggg  
gatatgactccagcagaaagggttaacttaacatgatcactacagaacaagaatatacaattccaacaatcaaaaaac  
tcaaaatttaaaatttttcgggtctattacagagaaggcagagatcaactgtggaaggggacccgggtgagctattg  
tggaaaggggaaggagcagtcacttaaaaggtagggacagacattaaggtagtaccagaagaagggctaagatt  
atcaaagatctcataaaatatctgaaatataaaactaaagatctacaaaagggtttgctatgtgccccatcataag  
gtcggatgggcatgggtggacctgcagcagagtaatcttcccactacaagaagaagccagttagaagtacaaggg  
tattggaatttaacaccagaaagaggggtggctcagtagcttattgcagtgagaataacctgggtactcaaggaacttt  
tggacagatgtaacaccagactatgcagacattttactgcatagcacttatttcccttgctttacagcgggagaa  
gtgagaagggccatcaggggagaacaactgctgtcttgctgcaggttcccagagctcataagaaccagggtacca  
agtctacagtagcttagcactgagagtagtaagtagtgaagaaagacctccagaagatgaaggcccaaaaggga  
ccatgggatgaatgggtagtgagggttctggaggaactgaaagaagaagctttaaaacattttgatcctcgcttg  
ctaactgcgcttggttaattatatctatgatagaatgggatgtcttgggaatcagctgcttatcgccatcttggtt  
ctaagtgcctatgggatctattgcattcaatatgtcacagtccttttatgggtgtaccagcttgagggaatgcgaca  
attcccctcttctgtgtaaccaggaatagggatacttggggaacaactcagtgccctaccagataatgatgattat  
tcagaattggcccttaataattacagaaagctttgatgcttgggagaatacagtcacagaacaggcaatagaggat  
gtatggcatctctttgagacctcaataaagccttgtgtaaaattaaccccattatgcattactatgaaatgcaac  
aaaagtgaacagataaatggggattgacaaaatcatcaacaacaacagcagcaccaacaacaaaaacaacaaca  
acaaaggaaatagaagtgggtcaatgaaaatagtagtcttgtgtaaatcgtgataattgcacaggccttggaaacagag  
ccaatgataagctgtaaattcaacatgacagggttaaaaaagagacaagaaaagagagtacaatgaaacttggtac  
tctgcagatttggtttgtgaacaaggtaatagcactgaagatgaaagtagatgttacatgaatcactgtaacact  
tctgttattcaagaatcttgtgacaaacattattgggatgctattagatttaggtattgtgcacctccaggttat  
gctttgcttagatgtaatgacacaaagtattcaggcctttatgcctaactgttctaaggtgggtgctcttcatgc  
acaagaatgatggagacacagacttctacttgggtttggctttaatggaactagagcagaaaatagaacttatatt  
tactggcatagcaaagataataggactataattagtttgaataagtataataatctaacaatgaaatgtagaaga  
ccaggaaataagacagttttaccagtcaccattatgtctggattgggttttccactcacaaccaatcaatgaaagg

ccaaaacaggcatggtgtaggtttgaaggaaattggaaggaggcaataaaaagggtgaagcagaccattgtcaaa  
catcccaggtatactggaactaacaatactgataaaatcaatttgacggctcctcgaggaggagatccggaagtt  
accttcatgtggacaaattgcagaggagagtttctctactgtaaaatgaattgggtttctaaattgggtagaagat  
aagaatctgactggaactaccagaagccacaggaacagcataaaaaggaattacgtgccatgtcatattagacaa  
ataatcaacacttggcataaaagtaggcaaaaatgtttatttgcctccaagagagggagacctcacgtgtaactcc  
acagtaaccagttctcatagcaaacatagattggattgatggaaaccaaactaatatcaccatgagtgagaggtg  
gcagaactgtatcgattggaattgggagattataaatttagtagagatcactccaattggcttggccccacaaat  
gtgaagagggtacactactggtggcaccccaagaaataaaaatgcttggggatgtgcatttagacaagtctgccat  
actactgtaccatggccaaatgcaagtctaacaccaaattggaacaatgagacttggcaagagtgaggagcgaag  
gttgacttcttggaggaaaataaacggcccttctagaagaggcacaattcaacaagaaaagaacatgtatgaa  
ttacaaaagttgaatagctgggatgtgttggcaattgggttgaccttgcttcttggataaggtatatacaatac  
ggagtttatatagttgtaggagtaatactgttaagaatagtcatttatatagtaacaatgctagctaagttaagg  
caagggtataggccagtggtctcttccccaccttcttatttccagcagctaacctacctacaaggacagaaatac  
aatcagggacagtttatgaatactccatggaaaaaccagctggagagaggggaaaaattagcatacagaaaacaa  
aatatggatgatatagatgaggaagatgatggcttggtaggggtaccagtgaggccacgagttcccttaagagca  
atgacttacaaattggcagtagatatgtctcattttataaaaagaaaaggggggactggaagggtattattacagt  
gaaagaagacataaaatcttagacataatacttagaaaaggaagaaggcatcgtgccagattggcaggattacacc  
tcgggaccaggacctagatacccaaagacatttggctggctatggaaattagtccctgtaaatgtatcagatgag  
gcacaggaggggtgaggagaattatttactgcatccagctcaaacttcccagtgggatgaccttggggagaggtt  
ctagtatggaagtttgatccaactctagcctacacttatgaggcatatattagataccagaagagtttggaaagc  
aagtcaggcctgtcagaggaagaggttagaagaaggctaaccgcaagaggcctcttaaaaatggctgacaagaag  
gaaactagctga

>#11 JQ864086 7218 nt

atgggcgcgagaaactccgtcttgtcagggaaagaaagcagatgaattagaaaaaattagggttacggcccaacgga  
aagaaaaagtatatgttgaagcatgtagtatgggcagcaaatgaattggacagattcgggattagcagaaaagcctg  
ttggataacaaagaaggttgtcaaaaaattctttcggtttttagctccattagtccgacagggttcagaaaaattta  
aagagcctttataatactgtctgcgtcatttgggtgcatttcacgcagaagagaaagtgaacatactgaggaagca  
aaacaaatagtgcagagacatctagtgggtggaacaggaacagcagacagaatgccagtaacaagcagaccaaca  
gcaccacctagtggcagaggaggaaattaccagtgagcaagtaggtggcaattatgtccacctacccttaagt  
ccaagaacattaaatgcttgggtaaaaattggtagaagagaaaaaatttggggcagaggttagtgccaggatttcaa  
gcgctatcagaaggctgcactccctatgatataatcaaatgctaaatttgtgtaggagaacatcaggcagccatg  
caaattattagagagattataaatgaagaagctgccgattgggatttacaacaccaccgccagggtccaccacca  
gcagggcaacttagagagccaagaggatcagacattgcaggaactactagtacagtagatgaacaaatccaatgg  
atgtacaggcaacaaaaccctataccagtaggcaacattttatagaaggtggatccaattagggtgcagaaatgt  
gtaagaatgtataacccaacaaacatttttagatgtgaaacaaggaccaaagagccatttcaaagctacgtagat  
agattctataaaaagtctaagagcagagcaaacagatccggcagtaagaattggatgacccaaacactgctgatt  
caaaatgctaaccagattgtaaattggtgctcaagggtctgggtatgaatcccacttttagaagaaatgctgaca  
gcctgtcagggaaataggagggccaggacaaaaagctagattaatggcagaagcattgaaagaggcactgagacca  
gaccaactcccatttgcagcagtgccaacagaaaggacaaaaggaggacaatcaagtgttggaaattgtggaaaggag  
ggacactctgcaagacaatgcaggggccctagaagacagggtgcttgggggtgcggaaaaacgggtcatgttatg  
gccaaatgccctgaaagacaggcgactgctacattgaagaacagcccgtagaagtattattagatacaggggct  
gatgattcaattgtagcagggtatagaattaggtccaaattatacccctaaagtagtaggaggaataggaggcttc  
attaataccaaagaatataaagatgtaaaaataaaaagtcttaggcaagggtgattaaggggaacaattatgacggga  
gataccccaattaatatTTTTTggcagaaatttgcataacagctatgggcattgtctttaaattctccccatagctaag  
gtggagcctataaaaagtaacactaaaaccagggaagaaggacaaaaattaagacagtgggccgctatcaaaagaa  
aagataattgcatttaagagaaatctgtgaaaaaatggaaaaagatggccagtttagaggaagccccctccaaccaat  
ccgtataacacccccacttttgcataaaagaagaagacaaaaataaatggaggatgctaatagatttttagagaa  
ttaaataaggctcactcaagactttacagaagtacagtttaggaataccacacctgcaggactagcaagagaagg  
aggatcacagatttggatgtagggtgatgcataatttctccatacctctagatgaagaattcaggcagtagactgcc  
tttactttaccatcagtaataatgcagaaccaggaaaaagatacatctataaggtattacctcaagggtggaag  
gggtcaccagctatttttccagtatactatgagaaatgtattagaacctttcaaaaaagcaaatccagatgtgacc  
ctgatccaatacatggatgacgtcttaatagctagtgtatagaacagatttagagcatgacagggtagttttacag  
ttaaaggaaacttctgaacggcataggatttcttaccacagaagagaagttccagaaagatccccattccagtggtg  
atgggatatgaattgtggccaaccaaattggaaactgcagaaaaatagagttgccacaaagagagatttggacagta  
aatgacatacaaaaatttagtaggagtgctaaattgggcagcacaaatttatccaggaataaagactaaacatctt

tgcagactaatcagaggaaaaatgactttaacagaagaggttcagtggactgagatggcagagggcagaatatgaa  
gaaaacaagataattctcagtcagaacaagaaggatgttactaccaagagggaaaaccaatagaggcaacagta  
ataaagagtcaggataatcaatgggtcatataaaattcaccaagaagacaaagtactgaaagtaggcaaatttgca  
aagggttaaaaatacacatacaaatggagtcagattactagcacacgtagtgcagaaaaataggaaaagaagcacta  
gtaattttggggagaggtgccaaaattccatttgccagtagaaagagaaaatttgggaacaatgggtggacagattat  
tggcaagtaacctggataccagattgggactttgtgtcaacacctcccttagtcagattagtcttcaacctagta  
aaagagcctatacagggggcagaaacattctatgtatagatggatcctgtaataggcagtcagagaaggaaaagca  
ggctatgtggcggatagggggcagagacaaagcaaaacttttagaacagactaccaaccaacaagcagagtggaa  
gccttctatctagccttagcagattcgggaccaaagcaaatattatagtagattcccaatatgttatgggcata  
atagcaggtcaaccctgaatcagaaagtaggttagtaaacagataatagaggagatgattaaaaaagaagca  
atztatgtagcatgggtgcctgcacataaaggaataggaggaaatcaagaagtagatcacctgggttagccaggga  
attagacaagtcctattcttagaaaaaatagaaccagcacagaagagcatgaaaagtaccatagtaattgtaaaa  
gaattggtattcaaatttgggttacctaggctagtagcaaaacagatagtagacacatgtgataaatgccaccag  
aaaggagaagccatacatgggcaagtaaatgcagaactagggacttggcaaatggactgtacgcacctagaaggc  
aaaataattatagttgcagtacatgtggctagtggattcatagaggcagaagtaatcccgaggaaacaggaaga  
caaacagcactgtttctgttaaagttagctggcagatggcctatcacacatctgcatactgataatggtgccaat  
ttcacatcacaagaagtaaaaatgggtgacctgggtgggcagggattgaacagacctttgggggtgccttataatcca  
cagagccaaggagtagtggaagcaatgaacctcattttaaaacccagatagatagaattagagaacaagcaaac  
tcaatagagactatagtactaatggcagttcattgtatgaatttttaaaagaaggggaggaataggggatagact  
ccagcagaaagattagtcaatatgatcaccacagaacaagaatacaattccaacaatcaaaaaattcaaaattt  
aaaaattttcgggtctattacagagaaggcagagaccagctgtggaaaggaccggtagactattgtggaaaggg  
gaaggagcagtcacctaaggttagggacagagatcaaggtagtaccaggaggaaagctaaaattatcaaagac  
ctcatcaaacacctgaaatataacactaaagacctacagatggcttgttatgtgccccatcataaagttggatgg  
gcatggtggacttgcagcagagtaattttccattaagagatgagactcatttggaaagtacaaggatattggaat  
ttggcaccagaaaaaggatggctcagtagtcatgcaagaaataacctggtagtccagaaatttctggacagat  
gtaacaccagattatgcagacactttactgcatagcacttatttcccttgcttttcagagggagaaagtacgaagg  
gccatcaggggagagaaaattgctgtcttgcaggttcccgaagctcataaaaaatcaggtaccaagcctacag  
tatctagcactaacagtagtaagtatggcagaaagacctccagaagatgaagccccacagaggggaacctgggat  
gaatgggtagtggaaagttctggaggaattaaaagaagaagccctgaaacattttgatcctcgcttgctaactgcg  
cttggtaactatattatgggatgtcttgggaatcagctgcttatcgcgctcttgctagtaagtgttttagagatt  
tattgtgttcaatatgtaacagtatctatgggtgtaccagcatggaagaatgcgacaattccccctcttctgtaca  
accaggaatagggacacttgggggaacaacacaatgcttgccagataatgatgattactcagaattggcaatcagt  
atcacagaggccttttgatgcttggaaataatacagtcacagaacaagcaatagaggatgtgtggaacctcttgaa  
acatccattaagccctgtgtaaaaactcacccactatgtatagcaatgagatgtaataaaaactgagacagatagg  
tgggggtttgacaaggaacgcaggggacaacaacaacaacaacaacaacagcagcaacaccaagtgtggca  
gaaaatgttataaatgaaagtaatccttgcataaaaaataatagttgtgcaggcttggaaacaggagcccatgata  
ggttgtaaatttaacatgacaggggttaaaaagggacaaaaggatagaatataatgaaacatgggtattcaagagat  
ttaatctgtgagcagtcagcgaatgaaagttagagtaaatgttacatgcatcattgtaacaccagtggtatttcag  
gaatcctgtgacaagcattatttgggatgctattagatttagatattgtgcaccgccagggttatgctttgcttagg  
tgtaatgattcaaattattcaggctttgctcctaactgttctaaggtagtggtttcttcatgcacaagaatgatg  
gaaacgcaaacctctacttgggttggcttcaatggtagtgggcagaaaaatagaacatacatttattggcatggc  
aaaagtaatagaaccataattagcttaaataagtattataatctaacaatgagatgtagaagaccaggaaataag  
acagttttaccagtcaccattatgtcaggggttggctcttcattcgcaaccataaatgagagacaaaaacaggcc  
tgggtgctggtttggaggaagctggaaagaggccatccaggaagtgaaggaaaccttgggtcaaacatcccagggtat  
acgggaactaatgatactaagaaaaattaatctaacagctccagcaggaggagatccagaagtcacttttatgtgg  
acaaattgtagaggagaattcttatactgcaaaatgaattgggttcttaattgggttagaggacagagaccaaag  
agtagcagatggagacaacaaaatacagagagcgcagagaagaaaaattatgtgccatgtcatattagacaaata  
atcaacacgtggcacaagtaggcaaaaaatgtatatttgcctcctagggaaggagacctgacatgtaattccact  
gtaactagtctcatagcagagatagattggaccaatagcaatgagaccaatatcaccatgagtgcagaggtggca  
gaactgtatcgattggagttgggagattacaaattagtagagattactccaattggcttggccccacaaagtgt  
agaaggtagaccacaactgggtgcctcaagaataagaattcatggggatgtgcttttaggcaagtctgtcacact  
actgtacatggccaaatgaaacattgggtgcctaattggagcaatatgacttggcaagagtgggaaagacaggtt  
gacttcctagaggcaaatataactcaattattagaagaagcacaaattcagcaagaaaagaatatgtatgaattg  
caaaaactaaaatagctgggatattcttggcaattgggttgaccttacttcttgataagatatatacaatatgggt  
gtactaatagttttaggagtagtaggggttaagaatagtaatatatgtagtgcagatggttagctaggttaagacag

ggttataggccagtgttctcttccctcccgttatgttgtcatcagaattggaatagcctacctacaacctcag  
aaatatagtgagggacaatatatgaataccccctggaggaacccagcaacagaaagagaaaaattaggttataga  
caacaaaacatggatgatgtggatgatgaagatgatgacttagtaggtgtctcagtgcacccaagagtcccctta  
agggccatgacatacaaaattggcaatagacatgtctcattttataaaagaaaaggggggactggaagggtttat  
tacaatgagaaaagacatagaatattagatatgtacatggaaaaggaagaaggaataataaccagattggcaaat  
tacacatcagggccaggaactagataccctatgtactatgggtggctctggaaattagtcccagtagatgtctca  
gatgaagctcaggaagacgagacacattgcctgatgcacccggcacagactcatcagtgggatgacccctgggga  
gaggtactggcatggaagtttgatccagaattagcttataagctataaggcattttattaagtacccagaagagttt  
ggtagtaagtcaggccttgtcagaggaagaggtaaagagaaggctaaccgcaagaggccttattaaaatggctgac  
aagaaggaaacaagctga

>#12 AF334679 7233 nt

atgggcgcgagaggctccgtcttgtcagggaaaaaagcagatgaattagaaaaagttaggttacggccccggcgga  
aggaaaaagtacatgcttaagcatattatatgggcagccagagaattagacagatttggatcggcagaaaagcctg  
ttggaaagcaaagaaggatgtcaaagaatattagcagtagctccattaatgccaacaggctcggaaaattta  
aaaagcttgttttagtactgtctgcgtagtgttgggtgtctgcacgcagaaatgaaagtgaagacacagaggaagct  
aagaaaacagtacagagccatctagtggtagaaagtggaaactgcagaaaaattgccagctcaaagcagaccaaca  
gtccacctagtggaggaaactatccagtgcagcaagtaggaaataattatgtgcacactccactgtccccacgg  
acactcaatgcgtgggtcaaactggtagaagaaaagaaatattggagcagaagtagtgccaggatttcaggcacta  
tcagaaggctgtacaccctatgacattaatcagatgcttaattgtgttaggtgaacatcaggcagccatgcaaat  
atcagagaaataattaatgaggaagcagcagactgggacctacaacacccaagaggacaacagccggcgcaaccg  
gctggagggctaagggaaccatcaggatcagacatagcagggacaactagcaccccaagtgaacagatagaatgg  
atgtatagggcacaaaacccagtcaccagtgaggagacatctatagaaggtggatccagctgggactccaaaaatgc  
gtcaggatgtataacccaacaaacatcctggatgttaacaagggtccaaaggagccctttcaaagttatgtagat  
aggttctacaaaagtttgagagcagagcagacagatccggcagtgagaattggatgacacaaaacactgctgatt  
cagaacgccaacctgattgcaaaactagtattaaaaggggtgggcatgaatcccacccctagaagagatgctaaca  
gcctgtcaagggtaggaggccaggaagagggccgcctcatggcagaggccatgaaagacggccctcacgggg  
tcttttagtggcagcacagtttaggggagcagcgaaggccaagggaataagcctatcatcaggtgttttagagca  
ctaataagagggtcagcccctagagggttctactggacacaggggcagacgactccatagtagcagggatagagtta  
gggccagggtagcacaccaagaattgtaggggggattggaggattcataaatacaaaaagaatatagaacagtaaaa  
atagaagtttttaggaaaggtataaagagaaacactaatgacaggagataccccgataaaatatttttggcagaat  
attctagcagcattaggggtctcttttaaattaccagtgggcaaaaggtagaatatacaaaaagtaaagttgaaggag  
ggaatggatgggccaagattaaaacaatggcccttatctaaggaaaagatacaagcattaacagagatctgcgag  
aaaatggaaaaggagggaacaattggaacgagccctcctacaaatccttataatacacccgacctttgctattaag  
aaaaagaataaggacaagtggagaatgtcatagatttcagagaattaaacaaaatgacacaagaattcacagaa  
gtacagctgggtatcccacatccggcaggcctaaggaaaatggaaaggataacagtgctagatataggggatgcc  
tatttttcagtacccctagacccggaatttagacaatacacagcattcactataccatcagtgaaacaaccaagaa  
ccaggaaaagaggtatatttacaaggtcctgccacaaggatggaagggatctcctgcaattttccaggcaaccatg  
aggcaggtattagaacccttcagaaaagctaaccagatgtgcttctcgtccagtatatggatgatttactaatt  
ggcagtaacagaggcctaacagagcatgacaaaatggtaacacagtttaagagacatgctcaacaatctggggttc  
agtaccccgagaagacaagtttcaaaaagaatccaccattacagtggtatgggatatttgtttataccccaagaagtg  
aaattacagaaaatagaactccctgaaaaggagcagtggaacagtaaatgacatacaaaaactagtgggagttcta  
aattgggcagcacagatatatccagggattaaaacaaaaaacctgtgcaaaatgatcagaggggaaaatgactctg  
acagaagaagttcagtggaacagaattagcagaagcagaattggcagagagaatagaattattctaaatcaagagcag  
gaaggaagatattacagagaagatgaaccgctagaagcaacgggttctaaagaatcaagacaatcagtggagttat  
aagattcatcaaggtgacaggattctcaaggtaggggaagtttgcaaaaaataaaaaatacacatacaaatggaata  
aggttactggctaattgtagttcaaaaagataggaaaagaaagtctagtgatatggggaaagacaccattttttcac  
cttcagtagaaaagggagggttgggatcaatgggtggacagattattggcaagctacttggattccagagtgggac  
ttcatctccacaccacggttaatcaggttagtgtttaatttagtaaaagatccaatagaaaaggaggaagtatat  
tacattgatggctcctgcaatagaaacagtaaaagaagggaagcaggatatgtcacagacaggggaaaagaaaag  
gtcctgccattagaacaggctaccaatcagcaagcagagctgcaggccctgttattggccttgaaagatttcca  
agtaaggtcaatgtagtaacggactcacagtatgtccttgaacataataacaggacagccatcagaatcggattca  
gatatagtggcacaaattattgaacaactagttcagaaagaagcagtatatacataggtgggttccagctcataaa  
ggcataggagggaacaatgaggttagaccgttttagtttagtcaaggaataagacaggtcctgttccctagaaagtata  
gagccagcacaaagaagaccatgacaaatatcatagcaatgtaaaggagttagctcagaaatataacatcccacaa  
ttagtagctaaacagatagtaaatgcttgaacaaatgccaacagaagggaagcgatacatggtcagacaaat

gcagaggtaggcacatggcagatggactgcacccacttagaaggaaagggttatcatagtagcagtacatgtggct  
agtggctttatagaagcagaggttaatacctagggaaacaggaagacagacagcattgttccctcttaaaaatagca  
tcaagatggcctataaagcatctgcatacagacaacgggtgccaatttcacctcccaggaggtgaagatggtagca  
tggtggtaggagtggaacagtcctttggagtaccgtacaaccacaaagtcaggagtagtagaagccatggac  
ttacatcttaagaaaaacatagataaaataagggaacaagcagagtcagtagagaccctagtactaatggcagca  
cattgcatgaatttttaaagaaggggaggaataggggatatgactcctgcagaaagaatagtaaatatgatcacc  
acagaactagaaacccaatacttaattcacaaaattcaaaatttcaaaattttcgggtttattacagagaagga  
agagaccaactgtggaagggaccagcagagctcctctggaagggagaaggggctgttgtaattaaggtagggaca  
gaaataaaagtggtagcaagaagaaaagcaaaaatcatcaaagatagaatagtggagcgctggcatagctgcatt  
aaattccataagtataaaacaagagagctagagaaagcctgctatgtgccacatcacaaagtaggatgggcatgg  
tacacagcctctaggggtgattttccccttgaggaggggaagtcacttgagggtacaagtgtactggaatctgacc  
ccagaaaaaggtgggttatcaagctatgcagttaggattacttggtactcagaaaaattttggacagatgtaacc  
ccagatgtagcagatcagttagcacatagtagtacttatttcccttgctttgcagcgacgcgggtgagacaagccatc  
agaggagagcaggtgttatcctactgtggctacgcggttagcccatcactctagtgtccaaagcctacagctgttg  
gccctaaaggtagtattacaaatggaacatgctccagaggatgagaccaaccaagagaacctatgggatgagtgg  
ataagagatgtactggaagaattgaaagaagaggcactgaaacattttgaccctcgcttgcttactgcttagga  
aattacgtatatgatacttacggggatacaatagaaggggcaggggaaataattaagatattacaaaaggcattg  
ttcttacacttttaggatggcgtgtcctggacttcacctgcttatagacatcttgtttttaagtgtgttagggacc  
tggtgtgcacagtatgtaacaatcttttatgggtattcctgcatggaggaacgctacgatccccctcttctgtgcg  
accagaatagagacacatgggggaccgttcagtgttgccagataatggagactattcagaattggcccttaatt  
gttacagaggccttcgatgcttgggataatacagtaactgaacaagcaatagaagatgtttggaatctctttgaa  
acatctattaaaccttgtgttaaagttaactccattatgtattgctatgaaatgtaataaaaaatgagacagacaga  
tggggggttgacaagagcagctactactactagctcaccaactactactagcccccttaactgctgctagcccatca  
ggagaggaaatcggttaacgacactatgtcttgtacaaagaacaacaattgctctggcatagagcaggaaccaatg  
atagggtgtcaatttaacatgacaggactaaaaagagaccagaaaaaggcagtacaatgaaacctggtagtccaga  
gatctagtctgtgagcaaggaggaaatgaaagcagtagatgttacatgaatcattgcaatacaagtgttatacaa  
gagtcagtgtgacaagcactattgggatgccatcagatataggtagtgcaccaccaggctatgctttgcttaga  
tgtaatgatacaaattattcaggctttgcacctaattgttagtaaggtagtagtatcatcatgtacaaggatgatg  
gaaacacagacttctacatgggtttggctttaatggtagtagcagagagaatagaacatatatatattggcatggc  
ggaagtaatagaacaataattagcttaaataagtattataatttgacaataaagtgcagaagaccaggaaataag  
acagtcctaccagtcaccattatgtcagggtttggcttttcattcgcaaccaataaatgagaggccaagacaagca  
tggtgctgggtttggaggaaaaatggagagaagctatgcaggaggttaagaaaaccatagtcacacccccagggtat  
actggaaccaatgatactaggaaaattaatctaacggccccgggaggaggatccggaagtcacattcatgtgg  
acaaattgcagaggagaattcctttactgtaaaatgaattgggtcctcaattgggtagaggataggaatacagac  
agcccaagggtggacaactcaaaccaaaaaggaacagcacaaaagaaattatgtaccttgccacatcaggcaata  
attaatacgtggcacagggttaggaaaaaatgtctatttgcctccaagggaaggagacttaacttgtaactccaca  
gtgaccagcctaatagcaaatattgattggattgacaacaatgagaccaatattaccatgagtgcagaagtggca  
gaattgtatcgattggaattgggggattataaattggtagagatcactccaattggcatggctcccacacatgtg  
aaaaggtagaccacaagtagctcaaagaataaaaaattcatggggatgtgcatttaggcaagtctgccacactact  
gtactatggccaaatgacagtccttgtcccagactggaacaatatgacatggcaagaatgggagaaaaagggtgaa  
ttcctagaggcaaatataactcaaattgttgagggaagcagactacagcaagagaaaaacatgtatgaattacag  
aaattgaatagctgggatgtgtttggaaattgggttgaccttacctcctgggtaagatacatacagtatggagtc  
tttctagtcataggaatagtagttgtaagaatagttatctatgtagtacaatgttaagtaggttaaggcagggt  
tataggcctgttttctcctccccccatcttatcatcagcaggagcttgtcagaagagaagcaggctatatccgt  
gatggatataaatacaatgtagggggaatttatgaacacccccatggagaaacctgctacagaaagacaaaagcaa  
cagtataggcagcagtgtagtgatgatagatgaggatgatgatgagctggctggagtagttgtctggccaaa  
gtacccctaagagcaatgtcatacaaattggcaatagacatgtcacattttataaaaagaaaaggggggactggat  
gggatttattacagtgagaggagacatagaatcctagatatatacctagaaaaagaggaaggtatcatcccagat  
tggcagaattatacaagtgggccaggaataaggtacccaaagttctttgggtggctctggcagctgggtgccagta  
gacgtctcgatgaggcaacaatgatgagaccattgcttggtacatccagcccagacatatcagcattcagac  
ccttggggaaaggtccttagcctggaagtttaacctcacctagcctacacatatgaagcattttgtaaggcaccca  
gaagagtttgggtggaagtcaggcttgacagaggaagaggttgagagaaggttagctaacaagccaaaaccgcag  
aagaagatggcggataagaaggaacaagctga

>#13 JX860414 7200 nt

atgggcgcgagaagctccgtcttgtcagggaaaaagacagatgaattagaaaagggttaggttacggcccaacgga  
aagaaaaagtacatgttgaagcatgtagtggtggcagcgaacgaattggatagatttggattggcagaaaagcctg  
ttgggagaacaaagaaggttgtcaaaaaattctctcgggtcttagctccattagtagtaccacaggttcagaaaattta  
aagagcctttataatactgtctgcgtcatttgggtgcatccacgcagaaacagaaagtgaacatacagaggaagca  
aaacaaatagtgagagacatctagtgggtggaacaggaactgcagatacaatgccagccacaagtagaccaaca  
gcaccacctagtggtgagagaggagaaattaccctgtgcagcaaataggcggcaattatgtccacctacctttaagt  
ccaagaacactgaatgcatgggtaaaattgggtggaagagaagaaatttggagcggaggttagtgccaggattccag  
gcactatcagaaggctgtaccccatatgatattaatcaaattgttaaatgtgtggtggggatcatcaggcagccatg  
caaattataagagaaatcataaatgaggaagcggctgattgggacctacaacacccacagccgatgggccaata  
ccagcagggcagctcagagacccgaggggatcagacattgcaggaactactagcacagtagaggagcagatagaa  
tggatgtataggcagcaaaatcctataccagtaggtaacatctacagaagatggatccagcttgggctacaaaa  
tgtgttagaatgtataatccaacaaacattctagatgtaaagcagggaccaaaagaaccttttcaggcctatgta  
gatagattctacaaaagcttaagggcagagcaaacagatccggcagtaaaagaattggatgactcaaacgctgctg  
attcaaaatgcaaaccagattgtaaagtgtatcttaaaagggtctgggtatgaacccaccctagaggaaatgatg  
tcagcctgtcaaggagtgggtggaccaggacaaaaggctagggttaattggcagaggccttaagagtgcttttagca  
ccaggagtacttccatttgcagcggcccaacagaaaggaggactgagacatacagtaaaagtgtggaattgtgga  
aaggagggacactctgcaaaacaatgcagagcccctaggagacaaggctgctggaaatgtggaaaaatgggccat  
atcatggctaaatgtccagagagacaggtgacagcccatattgaaggctcagccagtagaagattatttagacaca  
ggggctgacgactcaattgtagcaggaatagaattaggattaaattataccccaaaagtagtagggaggatagga  
ggattcattaataccaaggaatacaaaaatgtagcaatagaagatttaggtaaaacaattaggggaacagtcattg  
acgggggataccccaatcaacatTTTTTggcagaaatctgttaacaagattagggtatgtcttttaaattttccagta  
gctagggtagaaccagtaaaagtgcactaaaaccagggcaggatggaccaaaattaagacagtgggcattatct  
aaagaaaaaatagaggcattgaaagagatctgtgaaaaaatggagaaggaggggccagttggaggaagctcctcct  
actaatccatacaatacgcaccctttgccataaagaaaaaggacaaaaataagtggagaatgctaatagacttc  
agagaactaaatagggttacacaggatttcacagaagttcaactaggaataccacaccctgcaggactagcaaaa  
agaagaagaattacagtactggatgtaggggatgcatacttttccataccactggaccagaattcagacaatat  
actgcctttaccctaccatcagttacaatgcagagccaggaaagagatacatctacaaggctttaccacaagga  
tggaaagggtcaccagcgattttccaacacacaatgagaaatgtattggagccttttagaaaggccaatccagat  
ataaccttagttcagtagatggatgacatcttgatagctagtgtataggacagacttggaaatgacaggggtggtc  
ctgcagttaaaagaactattgaatggcctagggttctccaccccgatgagaaatttcagaaaagacctccatat  
cattggatgggatatgagttatggcctacaaaatggaagctgcaaaagatagagctaccacaaagagaaaagctgg  
acagtaaatgacattcagaagtttagtaggagtactaaattgggcagcacaaatttatccagggtataagacaaaa  
cacctctgcaagctaattagaggaaagatggcattgacagaagaagtccaatggacagaaatggcagaggcagag  
tttgaggaaaaatagaatcattcttaatacagaacaagaagggtgttactaccaagaggataagcccttagaagca  
accatagtgaagcgaagataatcagtggtcttataagatccatcaagaaaaataaataactgaaagtaggtaaa  
tatgcaaaaaataaagaatacacatacaaatggagtcaggttattggcacatgtagtacaaaagataggaaaagaa  
gcaatagtaatttggggaaaaagtgctaaatttcatatgccagtagaaaagagaaatttgggagcagtggtggaca  
gactattggcaggtaacatggataccagaatgggatttcatatcaacacccccctttagttaggctagtgttaaat  
ctggtaaaaagacctatagaaggggcagaaacattctatgtttgatggttcttgtaataggcagacgaaggttagga  
aaagcaggatacataacagacagagggaaaagataagggtaaaactcttagaacagactaccaatcaacaagcagaa  
ttagaagcttttctcatggcagtaacagattcaggaccagaagcaaacattatagtagactctcagtatgtcatg  
ggaatagtagcaggacaacctactgaatcagaaagcagggtagtaaaccaataatagaggagatgatcaaaaag  
acagcaatctatgtggcatgggtaccagcccataaaggcataggaggaaatcaggaaatagatcatttagttagt  
caaggaatcagacaagtctgtttctagagaaaatagagccagcacagaagaacatgagaagtaccatagtaaat  
gtaaaagaactgggtgttcaaatttagaatacccagatttagtagcaaaacagataattgatacttgtgacaaatgc  
caccaaaaaggggaggcaatacatggacaagtaaatgcagagtttagggacttggcaaatggactgcacacactta  
gaaggaaaggtaatcatagtagcagtgcatgtagctagtggattcatagaggcagaagtaataccacaggaaaca  
ggaagacagacagcattgttctgttgaaattggcaagcagatggcccatcacacatttgcatacagacaatgggt  
gccaatttcacctcgcaagagggtgaagatggtagcctgggtgggcaggcatagaacagaccttgggggtgccttat  
aatccacagagccaaggggtagtagaagcaatgaatcatcacttaaaaaactcaaatagacagaatcagagaacaa  
gcaaaactcagtagaaacaatagtactcatggcagttcattgcatgaattttaaaagaaggggaggaataggggat  
atgaccccgacagaaagattaatcaatatgattaccacagaacaagaaatacaattccaacaatcaaaaaattca  
aaattttaaaaattttcgggtctattacagagaggggcagagaccaactgtggaaaggacccgggtgagctattgtgg  
aaaggggaaggagcagtcataaaaggtagggacagacattaaagtagtaccaaggagaaaaagcaaaaattatc  
aaagacctcataaagcatttgaaatataacactaaagagctacagaaagcctgctatgtgccccatcataaggtt



ggatgggcttggtggacttgcagcagagtgatcttccattagaaggggaatctcacttagaggtacaaggatat  
tggaaacttgacaccagagaagggatggctcagtaacttatgcagtaagaatcacctgggtacaccaggaggttctgg  
tcagatgtaacaccagactatgcagacacgttactgcatggcacttatttcccttggttttacagcgggagaagtg  
cgaagggccatcaggggagaacaattgctgtcttctcctgcaggttcccgaagctcataagaaccagggtaccaagc  
ttacagtatctagcattaagaatagtaagcatggcagaaagacctccagaagatgaaggcccacagagagaacca  
tgggatgagtggttagtggaagttctggaagaattaaaagaagaagctctgaagcattttgatactcgcttgcta  
actgcgcttggttaattatatctatgataggatgggatgtcttggcaatcagctgcttatcgccagcttgctacta  
agtgcttgctcgatataattgcaagaaatatgtaactgttttctatggcattcccgcagtgagggaacgcgacagtt  
cccctcttctgtgcaaccaagaatagggatacttggggaaacagtcgaatgcttgccagataatgatgattactca  
gaattagctctcaatgtcacagaggcctttgatgcttgggagaacacagtcacagaacaggcagtagaggatgta  
tggaaacctctttaagacttctataaaacctgtgttaaactaacaccactatgtatagctatgagatgcaatagg  
acagagacaaatcgatggggactaacgggcaactccgacacacaacagtaaacacctagcgccaaaactacaaca  
gaaaaaggtgaaataaatgacactgacccctgttcaaaggtaacaactgtacagggataggaagtgaagaattg  
gtatcttgcaaattcaatatgacaggggttaaagagagacaaaaagaaggagtacaatgagacctggtactcaagg  
gatttggctgtgtaacgagacggaaatgaaatagcaaatgaaagtagatgctacatgaatcattgcaatacttct  
gtaatccaggaatcttgtgacaagcattattgggatgctataagatttagatattgtgcaccacctggctatgct  
ttgcttagatgtaatgatacaaattattcaggctttgcacctaatgcaagtaaggtagtggtctcttcatgcaca  
aggatgatggaaactcaaacctctacatggtttggatttaattggcactagagcagaaaaatagaacatacatatat  
tggcatgggagagacaataggactataattagtttaataagattataatctaacaataaaatgtagaagacca  
ggaaacaagacagttatgcctgtgacaatcatgtcaggcttgggtcttccattcccaaccaataaatgacaggcca  
agacaagcctggtgttgggttgggtggaaaatggaaatcagctatgcaggaggtgaaacaaaccttgtaaaacat  
cccagatatactggaaccaatgatactaaaaacataaaactttactgagccaggaaaaacctctgaccacagaagta  
gcttttatgtggacaaattgcagaggagaattcctctattgtaaaatgacttgggttccctcaattgggttgaagac  
agaaacatgtcttcacaaaacaaggcagacacaaaaagacgtaactatgtgccttgccacattcggcagataatt  
aacacttggcacaaggtagggaaaaatgtatatttgcctcctaggggaaggagaactgacatgtaattcaacagta  
accagtcttattgctaacatatattggattgatggaaacagacaaaatatcaccttcagtgacagaggtggcagaa  
ctgtacagattggagttgggggattacaaatttagtagaaattactccaattggctttgcacctaccgatgtaaaa  
agatattcctctgtaacgacaccgaggaataaaaaattcatggggatgtgcattcagggaagtctgccacactact  
gtaccgtgggtcaatgattcactccaaccagactggaacaatatgacttggcaagaatgggagaaacaggtagct  
tacctagaggcaaatattacacagcaattggaagaagcacaataactacaagaaaagaatatgtatgatttaca  
aaattaaatagttgggatgtttttggcaactggtttgacctcacgtcatgggtaaaaatatgtctatttcggattc  
tatgtagtagcaggagtaatatgattaaaggatagtaattctatgtaatacagatgttaggtaagttaagaaagggc  
tataggccagtgttttccctcccctcccacttatcgccagcagctgacctacctccaaggagagaggttacagtcag  
ggtcagtttatgaataccccctggagaaacccagctagagagagagaaaaattggcatataggcaacaaaatata  
gatgatatagatgatgataatgatgatttaataggagtaccagtacactcaaaagtcaccttaagatgcatgact  
tacaaattagcagtagacatgtcacattttataaaaagaaaaggggggactggaagggatttattacaatcagaga  
agacatagaatactagacatttacttagaaaaggaggaaggaatcatccctgactggcagaattacacatcagga  
ccaggaataagatacccaatgatgttcggatggctgtggaactagtcccagtagaggtctcagatgaggcacag  
aatgatgagacacattgtctggtgcatccagcacagacgggccaatgggatgacctgtgggaaaggtcttggca  
tggaaagtttgacccactctggttatacctatgaggcatatattaagtaccagaagattttggggacaagtca  
ggcttgtcagaggaagaggttaagagaaggctaaccgcaagaggccttttaaaaatggctgacaagaaggaaact

>#14 HM803689 7230 nt

atgggtgcgagagcgtcggttttgtcagggaaaaaactagatgcctgggaacaaattcggcttcgtcccggtagc  
aagaaaaagtatatgctgaaacatctagtgtgggcaagtagggagctagagagatttggcctaagtgatacgttg  
ttagattcagcagtaggatgtcagaaaaatttaggagtcctgttgctctagtccgacaggggtcagaggggcta  
aaaagcctctttaattttatgctgcgactttggtgctgacattcggaagtgaagtgtgagagacacagaggaagct  
atacaatatgtaagaaacagtgccatctagaggacagagaagatagtgcagcagaaaaagaaaaaggtgccaca  
gcgacatctagtggccaaaaaggaattacccaataataacagtaaatcagcagccagagcaccagccatttca  
ccacggacacttaatgcttgggtgaaagtggtagaagagaaaaagtttgggctgaagtgggtgcccatgttttcg  
gcactttcagaaggatgcataccttatgatataaatcaaatgttaaattgcaataggagaacatcaaggagctttg  
caaatagtgaagaagtcataatgaggaagcagcagattgggatgctagacatcctaattctaggaccactacct  
gcagggcagcttagagagcctacaggaagcgatattgcaggaacaacaagcagtggttgagaacagatagcttgg  
tcaacaagagctaaacccaataatagtagggaacattttatagaaattggattatttctgggggttgcaaaaatgt  
gtaaggatgtataaccagtaaatgttctggatattaaacagggacccaaaagagccattcaaggactatgtagat  
aggttctataaaagccttgagagcagagcaaacagatccagcagtaaaaaattggatgactcagacactgctgatc

cagaatgccaatcctgactgtaaaaacagttctaaaagggtctagggcatgaaccctccttggaagaaatgttgcta  
gcatgccaaggagttggaggaccccaacacaaggctagagtattggcagaagccatgcagcatgctaatagcagtg  
atgatggctcaaatgagagggcaaggaaggtcagggccaccaagaagaggtggagaaagaccagtacaaaaatgt  
tacaattgtggaaaaacaggacataatttccaggttttgaaggccctagaagaaaaggatgctggaagtgtgga  
gatgaggatcatcttatgaaggattgtaccaagcaggttatgggtcaatatagaagggcaaaaggtagaagccctc  
ttagatacaggggcagatgacacagtaattaatgggatagaattaggagaaaattggaagccaaaaattataggg  
gggtattgggtgatatataaatgtgaaacaatattacaattgtgaagatagaaatagcaggggaaagtaacacatgcc  
catgtattggtagggccaacacctgtaaatattattggaagaaatgttttacacaaattaggagcctctttaaat  
tttccaattagcaaggcagaaacaattgaagtgaattgaaaccaggacaagatgggcctaaagtaaaacaatgg  
cctttaagcaaagaaaagatagaagcgttaacagaaatttgtaatgctatggaaaaagaaggaaaaatatccaaa  
atagggccagaaaatccttacaatacgcctattttttgcattaggaaaaaggattctacaaaatggagaaaattg  
gtagatttcagagaattaaataagagaactcaggacttctttgaggtacagctgggaataccacatcctgggggt  
ttgaaaaaatgtaaacagataacagttttggacataggggatgcttatttttcatgtcctctatatgaacctttt  
agaaaatatactgcattcacaaataccagcaatcaataatcagggaccaggagttaggtatcaatacaatgtgctc  
ccacagggatggaagggtatctccagctatatttcaacaactgcaaatagaatcttagagccattcagaaaagaa  
aatccagatgtagtaatctatcaatacatggatgatttattgtaggtatctgataggacagaattagaacataat  
cagatgataaaaagactcagagaacatttgttgatctgggggtttgaaacccagataaaaaatttcaggacaaa  
cctccctttgaaatggatgggggtatgtactccatccagacaaatggacagtacaagaaattaaattacctgagaaa  
gaggaatggacagtaaatgatattcagaaattagtgggaaaaattaaactggggccagtcaaatctatacaggaata  
aagacaaaagaattatgtaaatatagaggagtaaaaagggtagatgaaaaggtagaattcaccagagaagca  
gaactagaatatgaggaaaaacaagctattgctgaaagaacaaatgcatggagtctactatgatccagaaaaacct  
ctgatagctaaagtacaaaaggttaacaggagggcagtggtcttatcaggtagaacaaggagatggtaaaccatta  
aagacagggaaatatgccaaagcaaaagactgcacacaccaatgagatcaggatgctagcaggattggtacagaaa  
atatgtaaagaagcagtagtcatttggggaaaaattgccaaaatttgagctgccaatagagagagaggtatgggaa  
caatgggtgggctgattattggcaggtatcatggattcctgagtggggaattcgtgagcacgccccattaaattagg  
ttatgggtataatctggtaaaaagatcccataccaggggaagaagtctattatgtagacggggcagctaacagaaat  
agcaaacagggaaaagcaggatacattacagacagaggaagagaaaaaggtaaaagaattagaagataccactaat  
caaaaggcagaattggaggcagtccttattagcattaaaagattcagggaaaaaggtaaatatagtaacagattca  
cagtatgtgttttggcatatttggcaggaagtccagacactagtgatagtcctcttgtacagcagatcatagaacaa  
ttaatagggaaagaggaagtgtacctctcctgggtacctgcacataagggtcataggaggaaatgaggaagtagac  
aaattagtaagtaaaaggaattagacaagtcctcttttttagatggaatagaaaagggtcaagaagagcatgaaaaa  
tatcataataattggagagcaatggcagaagattttcagataaccacaagtagtagcaaaaggagatagtagcccaa  
tgccctaaatgtcaggtgaaaggagaagcaatgcatggacaggttagatgccagtccaaaaaacatggcagatggac  
tgcaactcatttagaaggaaaagggtcatcatagtagcagtcctatgtagccagtggttatatagaagcagaagtttta  
ccagcagaaaacaggaagaaacagctcacttctgctaaagctagcagccagatggccagtaaaacatttgcac  
acagacaatggagcaaattttacgagctcagcagtagacaagcagtttgttgggtgggctcagatagagcacaccttc  
gggggtacctacaacccacaaagtcaaggagtagtagagtcctgaatcaccagctaaaaactataataacacaa  
ataagagatcaagcagaaaagatagagacagcagtagacaatggcagtgctcattcacaaattttaaaagaaaagg  
gggattgggggtacagtgacaggagaaagaataatagatataatagcatcagacttacaaacaactaaattacaa  
aatcaaatttcaaaaattcaaaaattttcggttttatttcagagaaggaagggtcaacagtggaaggacctgcc  
actctaacttggaaggagaaggagcggttagtaatccaggacggacaagatttaaaggtagtcccaagaagaaag  
tgtaaaatcataaaagatcagtggcactccctagtaaaatatcatatgtataaaggaaaagaaagaagcaagagaa  
tgggaatatgtaccccatttcaaaagtaccttgggggtggtggtctcattcagaggtccacattcccttgggaaat  
aacactaagataaagggtgaccacctattggaatctaacaacagaaaagggtggttgggaacttatggggcagct  
cttgcttatatagaccagaaatgtgacctccctacttccagatatagaccatagtggcagacagcttaata  
cataagatatatttccctgttttacagataaggcaattagacaagctatattgggagaaaagggttttgctgtgt  
ggattccagaggggacatagagatcaggtagggacactccaatacctagcaatacaagcttgggctagagagcaa  
gtaaagaaaatggagatgcccccggaagatgaaggccctcagagagagccaatgaatgaatggctactagacacg  
cttatggagctacaggaagaagcagctaagcattttacaatggagcttttacatgcagtagggaattacatatat  
gagcaatatggggtagcttagagggagttagagtactaattactttgcttcaaagggtctgttcttgcactat  
agaaaatgttattgcaagaaatgtgcatatcactgccagctttgctttcttcaaaaggcattaggcattaacatg  
aagtgcctaagcttaatagtgttaagtagtctgattcttttagcttttagcaaaacagaagccacaatatgtgaca  
gtattttatggagtaccagtatgggtcaacagtagtagtacctatgttttgtgttactgacaacacaaactcatgg  
ggtagctttaaattgcatcccagaaggaggaatatcaccagaagtagcagttaatgtgtcagaaaaatttgatgct  
tgggaaaaatgccctgtatgaacaagcaaaagataatgtgtggaatctttatgattctaccctaaaaccttgtgtt

aggttatcccctttatgtgtaacaatgaattgtactgtaataaatgggagttgggatgggtataacaacaccagct  
ccatcaccagcacctacaacaccaacagcagcaaaaactacaacaaaagtagattgccctatgaataatgaaaca  
tgtgcagcagttccagatgaggatgttatgaattgtgagtttgcagtgccaggattaaaaagggatgaaaaatat  
aaagctaattgacacgtggtactcaagagatctttgggtgtgagaaagataaaaaataataaagactactaagagg  
caatgttttatgcgacattgtaatactactagatttcagcaattctgtgagcctaataactgggaaccttttagg  
attagatattgcgctccaccaggatttgcctattgggtatgcaaagataaaaaattatacaggatttgatacctgt  
cataatgtgacagccacttcatgcacagatatgataaatacaacagtatcaacctcatttggactaaatggatca  
attagtgaacacagaacttggatttatcagagaaagcaatcgaatcggacagtaataggggttaaatagagagtat  
aatctaacagtgggaatgtagaaggccatcaaataaggacagtgaaagggaatctcattgggtacaggagtcctttatc  
tccttaagagtagagaaacgaccaaaggagcttgggtgtagattttatggcaattggacagggtgcttgggaagaa  
gttaaaaaagaggttaataaaaaacgaagggtatataaagggacaaatgatactaagaaaatatataagatcacat  
tatggaggggatgatgaagctaaatacttttgggttaaattgtgatggggaattcttatattgcaaattgaattgg  
tttctcaacctattaaataatagaactgatggaacataaatgagcgaagacaagccatgtttgtgccttgtatc  
acaaaaatggtgggttaattgattgggtatacagtggtcaaaaaagggtatacacaccaccaagacctgatgcattgaaa  
tgcagggccacgggtcacttacttgggtggcagacatagattatatacataccaatgaaacaaatgttactctgact  
gcagaggtaggagatctatgggcagcagagtttaggaagatacaaagtagtagaaattaaaccaattggctatgca  
cctacagatgttaaaagggtacgagacaagacagaaaaatacatttggctgtgcatggagggaagtctgtcataca  
acagtgacagtggaactttcaatgcaacacctgaatggaataaacagacatggcttgaatgggaaaggaatatatca  
ataatagaagggaatatctcttttagcattacaggaagcccaggatcaacatgagagaaatgtgcatgaaactggag  
aaattaaataattggggagatgccttttagttgggtgagggcttgactgggtggatggaatatctaaaaataggagtt  
tttataattttaggagttataggactaagaattttctttcttctatggggatgtatcagtaagattagagcaggg  
tatactcctttgttgcgccccacccttattatcatcagcagatacaaggaggaataacaatagaaacacagcaa  
agtgtagatgctatagattgggtatgaggagacagatgataccttggtaggtttccagtgaaaccacaagtacca  
ttaagacctatgacttttaaaattggcaatagatctctcacattttttaaaagaaaaggggggactggaagggtatt  
tattactccaccaggagacatagaatcttagatatatacttagaaaatgagcatggaattatccctgattggcag  
aattacacaaaaggaccaggtattagatacccaatgatgtttggatggctgtggaatttagtaccagtagatgtg  
attgatgaggctaaggaagatgaagagcatagcctgctacaccagctgagacttgtgggatggaagaccctgg  
ggagaggtccttagcttggagtttgatcctatgctagcaatagatttatgtgggtataaaactgcaccagaggac  
tttggagagaagaagaacaagaccacaataa

>#15 HM803690 7203 nt

atgggtgcgagagcgtcaattttgacagggaaaaagctagatgcctgggagcagattcggcttcgccccgggagt  
aagaaaaatatatgttaaaacatctagcatgggcatgtagggaactagagagatttggcttaagtgtacattg  
ttagattcagcagggggatgtgaaaaaatcttaggagtccttttgcctctggttccgacaggggtcagaggggctg  
aaaagcctctttaattttgtgctgcgcactttgggtgcgttcacaagggaagtgaagtgaagacacagaagaagca  
gtgcagtatgttaagaaacagtgccatctagtggagaaagaggatactgcaggagaaaaagaaaaagggtgccaca  
atgacatctagtgggtcaaagagggaattaccccatagtaacaattaatcagcagccagaacaccagcctatttct  
cccaggacgttgaatgcctgggtgaagggtggttgaggaaaagaagtttggagcagaagttagtgcccatgttttcg  
gcactttcagagggctgcataccttatgatgtaaatcaaagtgtaaatgccataggagaacatcaaggagcatta  
caaatagtgaagaagtaataaatgatgaagcagcagactgggatcttaggcacccaatccaggggccactacca  
gcaggacagctaagagagccgacaggtagtgtatattgcaggaaccaccagcaatattgctgaacagatagcctgg  
acaaccagagcaataacccaatagcagtaggaacatttatagaaattggatagtactagggttcaaaagtgt  
gtaaaaatgtataaaccagtaaacatcttggatataaaagcaggggaccaaagaaccttttaaaagattatgtggat  
aggttttataaagcacttagagcagaacaggcagatccagcagtaaaaaattggatgactcaatcacttttgatt  
cagaatgcaaaccagactgcaagacagtgtgaaggggctaggaatgaatcccactctagaagaaatgctaaca  
gcctgtcaaggagtaggaggaccacagtataaagccaggggtcctagcagaagccatgcaacaagcgaatagcgct  
atcatggctcaaattgagaggtgggcaagatcaggccccgccaaaggaggaaggaagacattcttgaatgt  
tacaactgtggaagtgtggggcacatttcaagatatgttaaagccccagaagaaaaggatgtgtggaagtgtgga  
gaggaggatcacatccttaaggattgccctaagcaggtatgggtcaccatagagggtcaaaaagtagaagccctt  
ttagacacaggtgctgatgatacagtcacagtgacatagaattaggagataattggaagccaaaaattatagga  
ggaatagggggatatataaatgtaaaacagttatataattgtaaaatagaaatagcaggggaaagttacacatgct  
catgtattagtaggtccaacaccggtaaatataattggggagaaatgtgttacacaaattaggagcttcattaaat  
tttccaataagtaaaagcagaaataattaaagtagagttaaaggaagggtcaggatggaccaagagtaaaagcagtg  
cccctcagtaaaagaaaaaatagaagccttaacagaaatatgcaatgcaatggaaaaggagggaagaaattagtaga  
ataggaccagagaatccatataatactccaatattttgtattagaaagaaagattcgaccaaatggagaaagcta  
gtagatttcagagaactaaataagaggacacaggatttctttgagggtacagctggggattccacatccaggagga

ttgaagaaatgcaagcagattactgtgctggacataggggacgcataatccccctgccccctctatgagcccttc  
agaaagtatacagcttttactataaccagcaataaataatcaagggccaggtatcagatatcaatacaatgtgctt  
cctcagggatggaagggctccccagccatatttcaaaccactgctaacaaaattttagaaccagtcaggaaacaa  
aatccagatttagtcatctatcagtatatggatgacctgtttgtaggatcagacagaacagaattagaacacagt  
caaatgataaagaaattgagggacatttgctcgccctggggatttgagacaccagaaaagaaatttcaagataaa  
ccaccatttgaatggatggggtatgtactccaccagacaagtggacagtgccaggaaattaagttgccagaaaag  
gaagaatggacagtgaaatgacatacagaagttggtaggcaaattgaactgggcaagtcagatctatgcaggaaatc  
aaaactaaagaattgtgcaaattaattagaggaataaaaaagattagatgataaggtagaatttacaaaagaagca  
gaattagagtatgaagaaaataaactgctattaaaagaaaaattgcatgggggtatattatgacccagaaaaacca  
ttgatagcaaaagtacagaaattagaaggaggacagtggtcatatcaggtagaacaaggagatggaaaacctcta  
aaaacaggaaaatatgccaaagcagaagacagcacataccaatgagattagaatgctggcaggggttagttcagaaa  
atgtgtaaagaagcaatagttatgtgggaaaattgcctaaatttgaaattgcctgtagaagagaggtatgggaa  
caatgggtgggctgattatggcaagtctcatggattccagaatgggaatttgtagacacgcccctttaattagg  
ctgtggtataacctagtaaaggatccataaccaggagaggaggtgtattatgtggatggggcagcaaacagaat  
agtaaattaggaagcaggatacataacagatagaggaaaagaaaaagtaaaagaattagaagataccaccaat  
cagaaggcagaattagaggctgtacttttagctttaaaagattcaggaaaaagagtaaatatagtaacagactct  
caatatgtgtttggcatattagcaggaagtccagacactagtgtgagagtccttagtacagcagataatagagcaa  
ctaattagggaaagaagaagtgtacctctcctgggtaccggcacataagggtataggaggaaatgaagaggttagat  
aaattagtgagcagaggaattagacaagtattattccttgatggcatagaaaaagcacaagaagaacatgataaa  
tatcatagcaattggagagctatggcagaagatttcagaataacctcaagtagtagctaaggaaatagtggcccaa  
tgtcctaagtgccaggtgaaaggggagggcagtcctatgggcaaacagatgctagtccagggacatggcaaatggat  
tgtactcatttggaaggaaaggtaatcatagtggcagtcctatgtagccagtggtatataagaagcagaagtcata  
ccagcagaaaacaggaaaagagacagcatacttccctgtttaaatttagcagcaagatggccagtgaaacacttacat  
acagataatggagctaatttcacaagtgcagcagtaacaggcagtcctgttgggtgggctcagatagagcacaccttt  
ggagtaccctacaatcctcaaagtcagggagtggttgaaagtatgaatcatcaattgaagacaataatagggcaa  
attagagaccaagcagagaaaattagaacagcagttcaaatggcagtgctcattcacaattttaaaagaaaagg  
gggattgggggtacagtgccaggagaaaagaataatagacataatagcatcagagttacaaaacaaataaattacaa  
aatcaaatttcaaaaattcaaaaattttcggtttattttagagaaggcagggtatcagcagtggaagggaccggcc  
actctcatctggaaggagaaggagcagtggtgatccaggatggacaggatctgaaggtagtccttagaagaaaag  
tgtaaaattgtaaaagatcaatggcactctctagtaaaataccatcagtaaaaagggaaaaaggaagcaaaggaa  
tggaatatgtgccccattttaaagtaccttggggatggtggtctcattcagaaatccaggttcccttgggaaaa  
aacactaagggttaaaattaccacttattggaatctcacagcagaaaagggtatggttaagtacttatggagtaggg  
atagcctatatagataacacttgtgaccttgcactttacagatatagatcctattctggctgacaagatgata  
cataatgtctattttccctgttttacagatcaggcaattaggaaagctcttttaggagagaaagtgttagtgtgt  
ggctttcagcgaggacacagagatcaggtagggactcttcagtaaccttgctttacaagcttgggttaaattcccag  
ttacagaaaatggaaattccccaggaggatgaaggccctcaaagggaacctatgataaatggcttttagacacg  
cttatggagctacaagaagagggcagctaagcattttaccatggagcttttgccaggcagtaggaaattacagttat  
gagcagcatggagaaggtatagaaggggttaagaaaatgataacttgttgaaatagagctttgtttttgcactat  
agagcttgcatttgaagaagtgtgcttaccactgtcagctttgctttcttcaaaaggcaataggcatacaaatg  
aaaagtgcaataggaatagtgataatagctagtctaataagtgtatagtaagtaacaatgggtaacagtatctc  
tatggggttccggtatggaaaaatagtacagcaccaatgttttgtgttacagataatgcaaatcatggggcact  
ctaaattgtataaccagaagggggactgtcaccagaggtacctgtaaatgtctcagagcagtttgatgcatgggaa  
aacagtttgtatgaacaggccaaggacaatgtgtggcatctatatgattccacctgaagccttgtgttagacta  
tcaccttatgtataacctgaactgcacagcattaaatggaagctgggatggatcagtaacaacaacaacacaa  
ccaagaacaacaccatccgcaacagcatcaacaatatagactgtggaataaacaatgaaacatgtagtgagta  
gaggatgaaaatgttatgcagtgtagatttgcagtagcaggggtgaaaagagatgaaaagcataaatacaatgat  
acttgggtattcaagagacctctggtgtcagaaagctaacaatgtgacccaatgttttatgagacactgtaacaca  
actagcatacaccagttttgtgaaccaagatactgggaaccctttagggttaagatactgtgctccaccaggcttt  
gccttgcataaaatgcaatgattataattacacgggttttgatacttgcataatgtaacagctacttcatgtaca  
gacatgataaacacaacagtgctctactagttttggattaaatggatcaataagtgaatatagaacttggatctat  
caaagaaaacagagtaacagaacaatcatagggttgaaatagtttctataacttgacagtaagttgtagaagacca  
tcaaataggacaataaaagggaatttccttagccacaggagttatctatatctctaaaagtagaaaaaaggccaaa  
ggagcttgggtgcagattttatggaaattggaaaggagcttggaaagaggtgaaaagagaaggtcatacaaaacaa  
ggatataagggaacaaatgacacaactaaaataaacataagggtcagtttatggaggagatgatgagactaaatat  
tttggctaaattgcgatggagaattcctctattgtaaactcaattgggttttgaattatttgaacaataagaca

gagggtaatgagaaggaaagaaggcaagccatgtttgttccttgcgtcacgaaaatgattgttaatgattggtac  
acggtgtcaaggaaagtttatacaccgccaaggcaagatgcgtaacatgtaatgctacagtaagctatttgtta  
gcagacatagagtatgtgaatcaaaatgagactaatgtgacactgtctgcagaagtaggagacctatgggcagca  
gaattgggaagatacaaaagtagtggaattaaaccaattggatatgcaccaacagctataaaaaggtagcagaca  
aaacagaaaaatacatttgggtgtgcctggagacaagtgtgtcacacctcagtccttggagctttaataagaca  
ccggactggcagaaacagacatggccttgatgggaaaggaatgtctcatatttagaagcaaacataacagcctca  
ttacaagaagcacaagatcagcatgagaaaaatgtacatgaactagaaaagtgaacaattggggagatgcattt  
agctggctaaggctggactgggtggatggagtatataaaaaataggaatctttgttatactaggcattatagggtta  
agaatagtcttcttgcctatggagctcygttagtaagcttagagcaggatatactcctttgctctctccccaccc  
tattatcattcacaggtgcaaggagggttactatagaaacacagcagtcagtagatgctatggattggtatgag  
gagacagatgacaccttggtaggatttccagtcgaagccacaagtagcatttaagagcaatgagtttcaaattggca  
atagacatgtcccactttttaaaagaaaaggggggactggaagggtattattattcaataagaagacatagaatt  
ctagatatatacttagaaaatgagcatggaataattcctgattggcagaattacactccaggacctggtcccagg  
taccgcaccttcttcggatgggtgtggtggtaccagtggtgagtgatgaggcaaaagaggatgaggaa  
catagtctcctgcatccagcagaaaagtagtgggattgaggacccttggggagaaacattggcttggaagttta  
cctatgttagcagtagattacataggctatagactgcaccctgacttcttggagagagaaagaacaagaccga  
taa

>#16 M58410 7014 nt

atgggcgggggtcactcagcactgtcagggagaagcctcgacacgttcgagaagattaggctacgtccgaacggg  
aaaaagaagtaccaaattaaacatttaatatgggcaggaaaagaaatggaacgatttgggttacatgagaaactt  
ttagaaacaaaagaaggctgtcaaaaaatcatagaagttttaaccccgttggaaaccgacaggctccgaggggcta  
aaagctctgtttaatttgtgctgcgtcatttgggtgcatttcacgcagaacagaaagtgaagacacagaggaaagct  
gtagtaaacagttaagcaacactaccatctagtggacaaaaatgagaaagcagctaaaaagaaaaatgagacaaca  
gcgccacctggtggcgaatcaagaaattaccagtagtaaatcagaataatgcctgggtacaccagcctttgtct  
ccgcgcacgttaaatgcgtgggtcaaatgcgtggaggaaaaaagggtggggagcagaagtagtccccatgttccaa  
gcactctcagagggatgtctctcctatgatgtaaatcagatgctcaatgtaataggagaccatcagggggcatta  
caaattcttaaggaagtcattaatgaagaagcagcagagtgggacaggacacacagaccaccagctggcccgta  
ccagcagggcagctaagagacccgacagggtcagatatagcaggaactaccagctcaattcaggaacaaatagag  
tggaccttcaatgccaatccaagaatagacgtaggggcacaatacagaaaaatgggttattttgggcttacaaaag  
gtagtgcagatgtacaatccccaaaaggctcctagacatttcgacagggacctaaagaaccttccaggactatgta  
gacagattctataaaagccctgagagcagaacaagcaccacaggatgttaaaaattggatgacacaaactttgctt  
atccagaatgccaatccggattgttaaattgattctgaaaggattgggaatgaatccaaccttggaggaaaatgcta  
atagcttgccaggagtaggagggccacaacataaggctaagctaattggtagaaatgatgagtaattggacagaat  
atgggtccaagtgggacctcagaaaaaggcccccgaggcgctaaaaatgctttaattgtggcaaatttggacat  
atgcaaagggaatgcaaggcaccaagacagatcaaatgctttcgagtcatcatagaaggaacgccagtgaagcc  
ttgttagatacaggagcagatgacactataattcaagaaaaggacttgcactttccccacataaaccatggcgt  
tccaaggtagtaggaggtataggaggaggattcatgtcaaagaatatcagggggtacaagtacaattggaggat  
aaaatcatcacccggtcaatttcaataggaagtacaccaatcaatattataggaagaaatatttttagctcaggca  
ggcatgaaatttagttatgggagttctatctagtgcagattgaggaaacaaaagtacaactaaaagaagggaagat  
ggacctaaattgaaacaatggcccttatcaagagaaaaaattgaagctttaacagaaatatgcaaacaaatggaa  
gaggagggaaaattatctaggataggaggagaaaatccttataatacaccagtgtttgccataaagaaaaaggat  
aaaacacaatggagaatgctttagatttcagggaactaaacaaaagctactcaagacttttttgaggttcagctg  
ggaattcctcaccagcgggccttcagaaaaagaagcaaatcacagtaatagacataggggatgcctattattca  
ataccattatgcaaggaattcagaaaaatatacagcatttaccatcccctcagtaataatacaggggccagggata  
aggatatcagttcaattgtctgcctcagggatggaaaggatctcctacaattttccagaatacggcagcaaacatt  
ttagaggagatcaaaaggcacactcctgggttagaaattgtccaatacatggacgatttgtgggtggcgtcagac  
catgatgagactagacataatcaacaggtagacatagtaagaaagatgctgctagaaaaagggtctagaaaccca  
gacaagaaagtccaaagagaaccgccatgggaatggatgggggtataaattgcatccgaataaatggaccattaac  
aaaatagaattaccccccttagaaggagaatggacagtaaacaaaatacagaaggtagtaggagttctaaattgg  
gcaagtcaaatttatccaggaattaaaaccaaacatacctgtgccatgttgagagggaaaaagaacctcctagaa  
gaaatagtatggacagaagaggcagaggcagaatataagaacaatcaagggatagtgcaggaaacacaagaagga  
acatactatgacctctcaaagaattaatagcaacagttcaaaagcaaggagaagggcaatggacataccaattc  
accaagaaggggcagtttaaagggtgggaagatatgccaaagcaagagaaactcatactaatgatctaaggact  
ctagcacaccttgtccaaaaaatctgtaaggaagcacttaccatttggggaagacttccacgagtacaactccca  
gtagacaagaaaacatgggatatgtgggtggcaggactattggcaagtatcctggataaccagaatgggagtttgtt

agcacaccactcctagtaaaactgtggtattccttagtaaaagaaccaatcaaaggagaagatgtttattatgtg  
gatggggcagcatccaaagtgaccaaattaggtgaaggcaggatatctgtcagagagaggaaaaagtagaattagg  
gaattagaaaacaccactaaccaacaagcagaattaacagcagtttaagatggcattggaggacagtgaggaaaat  
gtaaatatagtcacagattctcaatatgtaatgaacatcttgacagcatgtccacaggaaagtaactcaccctta  
gtggaacagataatacaagccctaataaaaaagaggcaggtctacttacaatgggtaccagctcataaggggata  
ggaggcaatacagaaatagataaattagtaagcaaaggaataagacagatcctcttcttagatagaatagaagaa  
gcacaagatgaccatgcaaagtaccataacaattggagaagtatgggtacaggaatttggattacctaatatagta  
gcaaaagagatagtagcgcatgtcccaaagtccaaataagaggagaaacctaagcatggacaggtagacgcctcc  
attgaaacttggcagatggactgcacccatttagaaggaaaagttataatagtagcagtagcatgtagccagtggga  
ttcatagaagcagaggtgatcccaagagaaactgggaaggagacagcacactttctgctgaaactgttagcaaga  
tggccagtgaacatctacacactgataatggcccaaactttacctctcagaatgtgggcagcgggtgtgctgggtg  
ggtaatatagagcacaccactggaataccttataacccacagtcacagggtagtgtagaagcatgaacagacag  
ctcaaggaaatcatctctcaaataagagatgattgtgagagattggagacagcagtgcaaatggctacgcatatc  
cacaattttaaaagaaagggaggaatagggggtatctctagtgcagaaagattgggttaatatgctaacaacacaa  
ctagaactaaatactctacaaaaccaaattccaaaaattttgaattttaaggtctactacagagaaggtagagat  
ccagtgtgaaaggaccagcgcgactcatctggaaggagaaggcgcggtggtaattaaagaggggggaagacatc  
aaggtagtccccaggagaaaggctaagattatcaaagatcaattgccttgggaatacagacatcattggcaggtg  
caatggcagttttggacctacagccagttcattatccccttatcaaaagatgattacatagaagtgaatatttat  
cacaacctcaccacagaaagaggatggctctcaagtcatggagtagggttatcctattaccatcaaaagggatat  
aagacagaagtagatccaggaacagcagacagaatgatacacctatatatttttaactgttttacagatagagcc  
atccaacaggctatcagaggggagaagtatacgtggtgcacattcaaggaaggacataaaaggtcaggtacaatca  
ctgcaacttttggcactagttgcatatacaaccccatggaatgagataggctacaagtactatagaattgttcaa  
aagtctatgtttgtacatttcagatgtggttgtagaaggagaggaccttttccccttacgaagagaggagacca  
ttacaacctgtactaataaatgctattgcaaaaaatgctgttatcactgtgagctttgcttcctgcagaagggc  
ttaggagtgcttatatggggagattgcttataaaaaatactaataatagcaatagggataagtataggaataggt  
aacctgtatgtgacagtggttttatggaatcccagtatggaaaaattcaacagttcaggcatttttgcagacgccc  
aataccaatatgtgggcaaccaccaactgcataccagatgatcatgataatacagaggtgcctctaaacattaca  
gaagcttttcgaggcttgggataatccgctggttaaaacaagcagagagtaataacatctactctttgaacaaacg  
atgaggccttgtgttaagctctcccccatatgtattaaaatgtcctgtgtagagctgaatggtacagccacgaca  
aaggccaccactactgcaactacaacaatgactacccctgtcagaattgcagtagacagagcagatagaaggagaa  
atggcagaggaaccagcatccaactgcacttttgcattgcaggatatcaaagagatgtaaaaaagaattatagc  
atgacctggtatgatcaggagtttagtctgcaataataaaacaggaagtgaagggaagtaaggattgttacatg  
atacattgtaatgattcagtgataaaagaagcttgtgataaaacatatgtgggatactttaagagtaagatactgt  
gcaccagcagggtagtctttgtcaaaatgtaatgataaggattatagaggctttgtctcaaaagtgcagaatgtt  
tcagtagtgcatgtactagattaatcaatactactataactacagggataggattaaatggtagtagatcagaa  
aatagaacagagatatggcagaaaggaggaatgataatgatacagttataataaagttgaataagttttacaac  
ttgacagtgagatgccgaagacctggttaataaaacagtggttgcagtaacaatcatggcaggggttagtatttcac  
tctcagaaatataataccaggttaaaacaagcgtggtgccacttccaaggagattggaaaggggcatggaaagaa  
gtcagagaagaagtaaaagaaagtgaaaaaatcttacagaagtaagcatagaaaatatacatctgagaaggatatgg  
ggagatccagaatcagcgaatttttgggtcaattgtcaagggtgaatttttctattgtaagatggactggtttatc  
aattatctaaacaatcgaacagaagatgcagaaggtactaataaggacctgtgacaaaggggaagccaggaccagga  
ccatgtgttcagagaacttatgttgctgccatatacgacaagtagtaaatgattggtacactgtctctaaaaag  
gtatatgctccaccaaggggaaggtcatttggagtgttaactcatcagtcacggcactatacgtggcaatagattat  
aacaacaagcttgcccaataaatgtgaccctaagtccctcaggtacgcagcatatgggcgtacgaactgggagac  
tataaattagtagagataacaccaattggctttgtcctacagatgtaagaagatatactggccccacaaagagaa  
aaaaattcatggggatgtgctggtggaacaagtatgtcacaccacagtgccatgggaagtataataacactcctaag  
tgggacaatatgacttgggttgagtgaggagacaaattaatgccttgggaaggcaacataactcaactattggaa  
gaagcacaaaatcaggaatcaaagaatctggatctgtaccagaaattggatgattgggtcaggggttctgggtcatgg  
ttctcactgtcaacttgggttaggctatgttaaaataggatttttagtgatagtgattattctaggattaagattt  
gcatgggtattatggggatgtatcagaaatattaggcagggatataatcctctcccccagggtaaaaatgactcca  
gacggccgccgctgcaagaaggagacacctttgatgagtgggatgatgatgaagaagaagtaggcttccctgtg  
caacctcgagtccccttaagacagatgacctataaatttagcagtggaacttttcccacttttttaaaatcaaagggg  
ggactggatgggatatattactctgaaagaagagaaaagatcctgaatttgatgccttgaaacagagtggggaata  
atagatgattggcaagcttactcaccaggcccggggataaggatcccagagatctttggcttctgctttaagcta  
gtcccagtggaactgcatgaggaggcacgcaactgtgagagacactgtctgatgcacacagatgggggaa

gatcctgatggaatagatcatggagaagtcttgggtctggaagtttgacccgaagttggcggtggagtaccgcccg  
gacatgtttaaggacatgcacgaacatgcaaagcgctag

>#17 LC114462 7218 nt

atgggtgcgggtacctcagcattgtcagggagaaaatttagatgaatttgagaaaatacgacttcgcccgaacggt  
aagaaaaaataccgattaaaacatataatatgggcaggcaaagaaatggagcgcttcggcctccatgagaaactc  
ttagaaacagaggaaggatgtaaaaggataatagaagttctattacctttagaaccaacaggatcagaaggtttg  
aaaagcttgtttaatctcgtgtgcgtgctgtattgcattcaccgagaaacagaaagtgaagacacagaggaagct  
gtagtaacagtaaaacaacactgccacctagaggaaaaacaaaaaagtgagctgcgccacctgggtggcgaaaag  
aaaaattacaacagtagagagacatctggtggccaaagtcagaactaccagcgcaacaacagggaatgcttgg  
gtacatgtgccgctctccccaggacgttaaattgcctgggtgaaagcagtagaagagaaaaaatttggggcagaa  
atagtgcccatgtttcaagccctctcggagggatgcaccccttatgacatcaatcaaatgctaaatgttttagga  
gaccatcagggggcactacagatagtaaaagaaatcatcaatgaggaagcagcaaattgggacttacaacatccc  
ccgcccgtggacccctaccagcagggcaattgagagaccctaggggatcagacatagcaggtaccaccagcaat  
gttcaagaacagctggagtggatctataccgccaaaccctagagtagacgtaggggccatttataggagatggatc  
atcttgggggttacaataatgtgttaaaatgtacaaccagctctcagtgctagacatcagacaagggcctaagag  
cccttcaaagattatgtagatagattctacaaagctataagagcagaacaaacatcaggagaagttaaacaatgg  
atgacagagagctctgctcatccaaaacgccaaccagaaatgtaaagtaattctaaaggggtctgggaatgcacca  
acattggaagaaatgctcacagcctgtcaaggggtaggaggacccaggtacaaagccaaattgatgggtggaatg  
atgcagcaaatgcagggaacaaaacatggtgcagcaagggggcccaagaggaccaccgagaggaaaccctcgctgc  
ttcaattgtggaataatttggccatttacaaagaaattgctgcagagccaagaaagatgaaatgctttaaatgtgga  
aaaataggacacatggccaaggactgcaaaggacaggttattgttagaataaggggtcagccaatcaaagtccttg  
ttagatacaggagcagatgataccatcataaaagaacaggacttagcattaacgggatcatggcgaccccaaatc  
ataggaggaataggaggaggtttacaagttaggagtagataataatgtagaagtaataattagaagacaaaacatta  
aaagggggcagtccttattaggaccaacacctataaatattataggaagaaatTTTTTAGCCcaggcaggagtcaaa  
cttggttatggggcaattatcagaagcaatccccataactccagtcagactaaaagaagggggccaaaggaccttgt  
gtaaagcaatggcctctatctagggaaaaagataaaaagctttgacagatatttgtgactccttagaaaaagaggga  
aaaatatcaagaataggaggggaaaaatgcatataacaccccagttattctgcataaaaaagaaggatcaatcgaaa  
tgagagaatgctaatagacttttagggagctaaataaggccacccaggacttctttgaagtccagctaggaatacct  
catccctcagggtacagaaaaagaaacaagtaactgttttagacataggagatgcttattacagcattcctcta  
gatccagagtttagaaaaatatacagcctttactattcctagcataaaacaatcagggaacccggacagaggtatcaa  
tttaattgtttgccacaaggatggaaaaggatccccacaaatttttcagaatacagcagcaaaaaatactggcccag  
attaaagaagaattaccgggggctagaaattgtccagtatatggatgacctctgggtagggtcaaactactcagaa  
agagaacatgatgaaaaagtttagacagccttagagagaaactattacagtggggctttgagaccccgaaaaagaaa  
gttcaatcagaacctccctatgaatggatgggatataaaactttggccaagcaaatggcagttacaaaagttagag  
atagaagaaaaagatcaatggacagtaaatgatattcagaaattggcaggaaaacttaactgggcagcacaaacta  
tatccagggtttaaaccacacacatttgcgcctcattaggggaaaaaaggggattgttagatccagtcctatgg  
actcctgaggcagaactagaacttgaagagaatagaagcattcttaagacagaacaagaagggggcatattatgac  
ccacaaaagcccctaagagcagcagtcacaaaagttaggaaatggacagtggggatatacaataaaacaggagcaa  
aaggatattaaaagtaggaaaaatagagaaacagaaagcaatacataactaatgaacttagaatattagcaggactt  
gtgcaaaaagatagctaaagagagcctagttatctggggaaaccttaccacaaatttgagttaccagtagaaaggag  
gtatgggaacaatggtggagtgtatttggaagtcctcttggtaccagaatgggaattcgtcagtggtcccacct  
ctagtaaaattgtggtactctctggtcaaagatccaattccaaaagaagatgtctattatgtagatggggcctgt  
aatagacaatcaaaagaaggaaaaagcaggttatatcactcaatatggaaaacaaagagtcaaaactccttgagaat  
actactaatcaacaggcagaactgcaggctatcctcatggctctagaggatagcgggtctaaagttaatatagta  
acagactcccaatatgcgttagggatcttgacagctcacccacacagagtgattccgccttagtaaatcaata  
attgagcaattaatcaagaaggagcaagtataccttcaatgggtcccagcacataaaggcataggaggaaatgaa  
gaggtagacaaattagtcagtaaaaggaattaggcaagtgttattcttagaaaggatagaagaagcacaggaagaa  
catgagaggtaccataacaattggaaggaaatggcggacacatttggcatcccacaagtagtggttaaagaaata  
gtagcagcatgtcctaaatgccaaagtcaaaggagagcccggttcatggccaggttagacgcgtccccagggtctgg  
cagatagactgtacccacatagaaggacacatcatcatagtagctgtccatgtggccagtggttcatagaagca  
gaggaaataccaagggaacaggaaaggctacagccaaattcctattaaagttactatcaagatggccagtaaaa  
cagattcacactgacaatggaccaaattttgtatcacaagaagtcaaagctatttgttgggtggggaaaaaatagaa  
catacaacaggagtagcctataatcctcaatctcaaggtcagtagaatctatgaataaacaattgaaagaaata  
ataggaaaaattagggtgactgccaatatgtcgaaacagcagtagtaaatggcatgccacattcacaaattttaa  
agaaagggaggaataggggggtatgaccagtgcgaaaagactactaagtataactgcacaaatagaaacacaa

accttacaacaaaaaatccaaaaaatTTTTgaatttttagagtctactacagagaaggaagagaccctgtgtggaag  
ggaccagcacagctcatttggaaaggagaaggagcagtggtaataaaagaagcagacggagacttgaaagtaata  
ccaagaagaaaggctaagattattaaagaccatataagtagatggcaaggcatagtaagatactggatggaaaaa  
aggggaatacagtgggaatataagatgcactataaaattcattgggcattggtacactatgtgtcaatacattatc  
cctctggaaacaggagacatctatgtagacatgttctggcacttgacccacagacgggatggctctccacatat  
gcagtagggatacagtatTTtaagttaccaggggaattataggacagaattagatccaggggacagctgacagtatg  
atccacctccactacttcaattgctttacagaaagagccatccagaaagccatcaggggagaaagggttcgtcttc  
tgcaactaccagaaggacacaaacagacagggcaagtacagacccttcaattcctagccctacaagcagtacaa  
gtgccaatgagtgagcgagcctataggtattataggattgttcagaaagctctgtttgtacatttcagggtgtgga  
tgtagaaggaggacaccatttgaaccttacgaggagaggagaaatttacaacctgtataataaagtgtcttttgc  
aagcgtgtgttatcattgccagctttgtttcctacaaaaaggattgggtataaatatgaacataaagtacata  
aattttctaatagttataggtataggtataggactagtgttaagtaaacagttatatgtgacagctcttttatgga  
gtaccagtatggaaaaacagcacagtacaggccttttgtatgacacctaccaatagattatgggcaacaactaat  
tgcacccagatgatcatgactatacggaaagtgcctctgaatattacagagccatttgaagcatgggctgacaga  
aaccctttggttagcacaggcaggagtaataattcacctgctgtttgagcagacactcaaaccatgtgtaaaatta  
agcccattatgtattaagatgtcatgtgtacccttaaatggctccaagacaggggtcaacaacggcaccaagtaca  
acacaaaccacaaagtcaacacaaaggccttgcaagcaatatgagaaaaacaacacgttgaggcatgtaacgac  
accattatagaaagagaaatggatgaagagcccgttcaaattgcacctttgccatggcaggatatattagggac  
cagaaaaagaattattcagtagtatgggatgatagggaatttattgtaaaaatggaagcgacaatagctccaag  
gtgaaagagtgtctatatgattcattgcaatgactctgtgataaagggaagcttgtgacaagacctattgggatgaa  
ttaaggctgagatattgtgtctccagcaggatatgctttgcttaaatgtaatgatcatgattataatggctataag  
caaaattgctctaattgtgtcagtagtacattgcacaggattaatgaacaccacagtttagtacaggcctattgctt  
aatggtagttattcagaaaaatagaactcagatatggcagaaacatagagtgaataatgattcagtgattatcctc  
tttaacaagttttataatcttacagtaacttgtaaaaggccagggaataagacagctcttgccagtcaccattatg  
gcaggattagtcttccactctcagaagtataacatgaggttaagacaagcttgggtgccacttccaggggcaattgg  
aaaggagcctggaaggaagtacgagaggaataagtgaattaccaaaagataggtatcaaggaaccaacaataca  
gagcagataaaaattgctgcgacaggatggggatccagaagcagctaacttgtggttcaattgccaaaggagaattt  
ttctattgtaaaatggattgggtttctaaattacataaacaatgccacaactacgtttgatggaaacaagtgtggt  
aataaaacaaagaaaggaaatgctccaggaccctgtgttcaaaggacatatgttgctgccacataagatcagtt  
gtaaatgattgggtatacagtaagcaaattaacctatgccccgccaaagagaagggcacttacaatgtacttccacg  
gtaacgggtatgacagtagagctaaattacaacaataagaacgtaacaaatgtgacctaaagtccccaaatagaa  
gggatttgggcagcagaattgggtcgatacaaatgggtggagattacccaattggctttgcacccacagaggctc  
agaagatacacagggggacatgagagacaaaaaatgcatgggggtgtgcatggaaacagggtgtgtcataccacg  
gtaccatggaaatggaacaatactcctagtgggacaatatgacctggctcgaatgggaaaggcaaatccaaaaa  
ctggaaggcaacataacagggtctctggaggaagcaagggcacaggaagagaaaaatttggatgcgtatcaaaaa  
ttaacctcatggtcagacttctggagttggtttgacttaagcaagtggtttaacatcttaaaaaataggattctta  
atagtaatatggaattataggattaagactcttatatagtgtatacctttgtatagctagggttaggcagggggct  
ttccagtagctgcaaaagagaccaacaaagggttaggatgactccggaaggacgacgtctgcaagaggagacact  
tgggaagaatggagtgtatgaagaagaataggcttcccagtcaggccttagagtgcctctccgccaaatgact  
tacaaccttgcaagtgtttctcgcaactttttaaagaaaaggaggactggaagggttttattactcagaaagg  
agagataagatcctgaatttatatgccttaaatgaatggggaatcttggatgattggaatgcatggacaccagga  
ccaggaataagatatccgcgctgctttggcttctgctttaagctagtaccagtagagttacatgaagaagcacag  
aattgtgagaggcactgcctgggtccacccccgccagatgatagaagaccccgatggaatcaaccatggagaagtc  
ctggtttggaaagtttgacccaatgctggcggttaggttaaggcagggatacacttttcagacatgcatgcgaca  
gttggttaaaggaaactag

>#18 KR862336 7239 nt

atgggtgcgggttctctcagcattgtcaggggagaaaattagaccgatttgaagaaatacgtttacgcccgaacgga  
agacaaaagtataaattgagacacttaatatgggcagggaaggagatggagcgcttcggcctccacgagaagtta  
ctagaacagaggaaggctgtagaaaatcatagaagtactcttccccctagaaccaacagggtcggaagggttta  
aaaagtctgttaatctcgtatgtgtgctttactgcattcatcgagaacagaaagtgaagacacagaggaagct  
gtagtaacagtaaaaacaacagtgccatctagtggagaaagaaaaaactgcagcagcgccacctgggtggcgaaaag  
aaaaatagcaacaccacagtgacatctagtggctcagagtcaaaattaccagtagacaacaacaagggaatgcttgg  
gtccataccccactctctccaaggaccctaaatgcttgggtaaaagcagtagaggaaaagaagtttggagcagag  
atagtcccatgttccaagcactctcggagggatgcactccgtacgatataaatcaaatgcttaatgtgcttggga  
gaccaccaaggggccttacaaatagtaaaaagagatcattaatgaggaagcagccaattggggaccaaacacatcca



ccaccagcaggtccattaccagcaggacagctgagagatccgagaggatcggacattgcaggaaccactagtaca  
attcaggaacaaatagaatggatctacacagcaaattccaagaacagatgtgggagccatttacaggagatggata  
atcctagggctgcaaaagtgtgtaaagatgtacaatccagtcagtggttttgatattaggcaagggccaaaagaa  
gcctttaagactatgtagacagatttttacaaagccataagagcagaacaggcctcaggagaggtgaaacaatgg  
atgacggaaactctcttaactcaaaatgccaaaccagaatgcaaagtcacctgaaaggcctaggtatgcacccc  
acccttgaagaaatgttaacagcttgtcaaggagtaggaggacctcagtataaggctaaactgatggtagaaatg  
atgcagcaattacagtc aaatcaaaacatgggtccagcaggggacagggaggcccaaggggacccaaagggcctaga  
ggaccaccaagatgctttaattgtggaaaatttggacacttgcagagaaaattgtccagaaccaagaaagagcaag  
tggttcaaatgcgggcaaaacaggccacatggc aaaagattgcaggggacaggtgaattttgaaattctcataaat  
ggcctcccagtcatgggtccttttagatacaggggcagatgatacaattattaagaaacagatatattttggca  
ggaccatggcgggcccaattaataggaggcattgggggaggcttaagagtaaaagaatataacaatgttacagta  
caaatagaggacaaaacattgattggcagcatcttaataggggccaaccccaattaatataataggaagaaacttt  
ttggctagtgcagggatgaaattagtaatgggacaattaaagcgataaaaataccattacacctgctaaattaaag  
gagggagccaaaggtcccaaaataaagcaatggccactctcagcagaaaaaatcaaagccctcacggacatatgt  
gaggacatggaaaaggaaggaactaaccagaataggaggagaaaatccttataacaccccaatcttctgtatt  
aagaaaaaggatacctcacaatggaggtggttagtagatttttagggaattaaataagatgaccaagactttttt  
gaggtacaattagggatcccacacccagcgggactgagggaaaatgaaacagatcacagtgctagacataggcaat  
gcctattacagtgtagcattagacctgacttccgcaaatatactgcatttactatacctgcaattaataatgag  
ggaccagggaaaaggtaccaattcaactgtctcccgcagggatggaaaggatcaccaacctatcttcaaaatacg  
gcagcagggattctagagaaaaattaggaagaggttaaaagaggttaactattatccagtatatggatgatttgtgg  
gtaggatccaattgtggggaaaggaagcatgatgaactgatagagcgactaaggacagagcttctagcctgggga  
tttgaaaccccagacaaaaaggtacagaaacaacctccctttgaatggatgggggtataaattatatcctcagaaa  
tgggtagtacaacccatagaattagaagagaaagaacagtgggacagttaatgatattcagaaaactagtaggaaaa  
ctaaattgggctgcacaaatatatccaggggttaaaaactaaaagaatttgtcaattaataaaaaggaaagaaaaat  
ttgttagacctgtagtctggacagatgaagcagaggcagaatatgaagaaaaataagattattctaaaaacagaa  
caagaagggacatatattgatccagaaaaacctctaaaggtagcagtgcaaaagctgggagatggacaatgggga  
tatcagttcaacaagacaaaaatcttaaaagacagggaaaattcatgaaacagaggaccactcatagtaatgagcta  
agaattttggcaggattggtacaaaagatagccaaagaaagcctagtaacatggggaatactccctaagtttgaa  
ctcccagtagaaagggaggtatgggaacaatgggtggcgaggtattggcaagttggctggatacctgaatgggaa  
tttgtcagtgtagcaccattgggtcaccttatgggtaccgcctcaccaaagaccccatacctaacaagatgtctac  
tatgtagatggagcctgttaacagaaaactccaaaatgggcaaaagcaggatatatcactcaatatgggaaacagaga  
gtgaaagaattggaaaatactaccaaccaacaggcagaattaacagctatccttatggcactacaagatagtggga  
gatcaagtaaacatagtaacagactcccagtatgccttagggatcatatcaagtcacccccacacaaagtgactcg  
cctctggtagaacagatcatccaagaattagtgaagaaaaaggcggtatacctacaatgggtaccagcacacaaa  
ggcatagggggaaatgaagaggttgataaactagtcagcaaaaggaataagacaagtactattcatagaaaaaata  
gaagaggcccaagaagaacacgaaagatatcacaacaattggagagaaaatggcagatacattttggatattcccaa  
gtagtagccaaagaaatagtagctcagtgccctaagtgccaaataaaaaggagagcctatacatggacaagtggat  
gcttcaccaggagtggtggcagatggactgtacccatatggaaggacatgtgatcatcacagccgtacatgtagcc  
agtgggttcatagaagcagaaataatacctagagaaacaggaaaagagacagcaaagttcctgttaaaaattctc  
tccagatggccaataacaaagctacacacagacaatggccctaacttcatttcacaggaagtgaaggcaatgtgt  
tggtggggaaaaatagagcacacaacaggagttccctataatccacaatcacaagggtcagtggaagtatgaat  
aaacaattaaaggaaatcataggcaaaaattagagatgactgtcaatacctagaaacagcagtattaatggcctgc  
cacatccacaatttttaaaagaaagggaggaataggggatatgactagtgcagatagactcctgaacatcctaacc  
acacaaatagaacaaaaaactacaacaaaaaattcaaaaacttttgaaatttcaaggtgtacttcagagaaggg  
agagacccaattttggagagggccagcaacactcatctggaaaggagaaggagcagtggttaattaaagaccaagga  
gaactaaaggtagtccaagaagaaaagcaaaagatcataaaagattggcaaggaatagtttaggttttgatgaaa  
aaacgaggattaaattggcaatatcagatgcattatcagatacattgggcatggtatacaatgagcagatacaca  
attcctcttacttcaggagatatagaagtagacatctattggcacttgacaccagaaaaaggatggctctctact  
tatgcagtaggaatacagtatctttccaagataggacaatatagaacagaattagacccccaaacagctgacagt  
atgattcactgtcattacttttaattgttttacagaaagagccattcaaaaggcaatcagaggggaaagattcgtc  
ttctgcacttatccagagggacataaacagacaggggcaagtacaaaccttcaattttcttgcccttggtagcagta  
caaagagcatacaaatattatagactggtgcaaaaagccctgtttgtacatttcagatgtggatgtaagcgcatg  
acagcctttgatccttacgaggagagaagaccattgcaaaaatgtgataataagtgctactgtaaaagatgttgt  
tatcattgcccagcttttgctttctgcagaaggggttaggtgtgaatatgcatttgcaaaagctcctatctacattc  
ttagtgtaggcttttttagcatgggtaggaataggtaaacaatggatcacagtggttttacggagtagcagtatgg

aaaaacagttcagttcaagcttttctgcatgacacccactaacagactatgggcaacaacaaactgtataccagat  
gatcatgattacacagaaatacccttgaacattacagaaccttttgaggcttggccagatggaaacccttttagtg  
gctcaagcagaaagtaatatatacacttggtgtttgagcagacactcaaaccatgtgtgaaattatctcccttggtgc  
ataaaaatgagctgtgtgcctctaggatctagtaaagctgggcctactactactcctgctagtagtaccaccgcc  
aaaaacctaccatgtgtgaagaatgagactgatccacagctgagggattgtaatgcaacaatcatagaacaggaa  
atggaggaggaaccagcatcaaattgtacatttgcaatggcaggatattgtagggatcagaagaaaaactactca  
gtagtatggagtgtgcagaaatttactgtaagaacagtacctacagtgccaccagtaacaccaaagactgttac  
atgatccattgtaatgattctgtttattaaggaagcatgtgataaaacttattgggatgagttgcaacttaggtat  
tgtgctccagcaggatattgctttgctgaaatgtaatgattatgattataatggatataagcaaaactgcagtaat  
gtttcagtagtacattgcacaaagcttataaatacaacaatttagtacaggcttattgcttaatggaagctattca  
gaaaataggacacagatttggcaggaacatggagtgtgcaacgactcagtataatccattttaacaaacattac  
aatctgacagtaacatgtagaagaccaggaaataaaacggctctaccagtaacaatcatggcaggcttggtattt  
cattctcaaaaatataatacaaaaattaagacaagcttgggtgtcacttccagggaattggaaaggagcctggaag  
gaagtaagagaagaaattgtaaaactaccaaggaagatatcagggaaccaataacacagagaatataaaattg  
ttaaggcaagatggagatccagaagcagccaatttatgggttaattgtcagggagaattcttctattgtaaaatg  
gattgggttccttaattacatcaacaatcagacagttacctttgatggaaatacgtgtaataatactaagactaga  
ccgagaaagggagcgcctggaccttggtgtgcaaagaacatatgttgccctgccacattcgatctgtcgtaaatgat  
tggtacaaagtggcaaaattaacctatgctccaccaagagaagggtcatttgcaatgtacctccacgggtgacgggt  
atgacagtagaactgaattacaattcaggaaatcggaacaaatgtgacactcagccctcaaataagaggcatatgg  
gcagcagaattgggttaggtataaattagtggaaattactccaattggctttgcaccaacagatgtcaggcgatat  
gaaggaccccaaagacagaaaaacgcctggggatgtgcatggaaacaagtctgtcatacaatagtcccgtggcaa  
tggcacaatgtaacaccaaggtgggataacatgacctgggttgagtgaggaaaggcagatagcaaaacttggaaggc  
aacatatcgcgacaattagaagaggccagggtcaggaagagaaaaacatggatgcatatcaaaaactgtcagat  
tggtcaagcttctggagctgggttgacctgagtcggttggttcaactatctaagataggcttcttagtgatagta  
ggaattataggattgagattactctatacagtatacttgtgcatctctagggttaggcagggttatacccctttg  
tctcaacagaaagcttggcagtagcttccacggagaagaaaaaggcagaccaaggaatggaaaaatgagaccagaa  
ggtagatatctacaggaaggagacacctgggatgaatggagtgtgatgaggaggaagtaggctttccagtgaag  
ccaagagtaccaataagacagatgacttacaagcttgcaagttgatttttcgcactttttgaaagaaaaggaggga  
ctggatgggatttattactccgagaggaggaataagatcctggatctgtatgccctgaatgaatggggaatcatt  
gatgattggaatgcctggacaccaggacctggcattcggttaccgcgctgctttgggtttctgctttaagtggta  
ccagtagatctgcatgaagaagcacaacatgtgaaagacattgccttggtcaccagctcagatgggagaagac  
cccgatggaataaacatggagaagtcctgggtgtggaagtttgatccaatgcttgcttgctcaggcccgccaggg  
caatttaatgacatgcatgagctgggtgaagaggaagtag

>#19 KR862356 7275 nt

atgggtgcgggttctcctcagcactgtcaggagacaattggaccaatttgagaaaatacgtttacgcccgaacgga  
aagaaaaattacaaattgaaacatttaatatgggcaggcaaaagagatggagcgctttggcctccatgagaagtta  
ctagaaacaaaggaaggctgtcagaagatcattgaggttctctttcctttggaaccaaccggatctgaaggacta  
aaaagtctctttaatttgggtgtgcgtattatattgtttgcacacagaaacagaaagtgaagatacagaggaagcg  
gtggcagtagttagacaacactgccacctagtggaaaaagaaaaaagtacaacaacgccatctgggtggccaaact  
ggaaataacatgcagacagcgccacctggcggcaggagtcaaaactttccagtacaacaacaggggaaatgcatgg  
gtccatgtacccctctccccacgcaccttaaatgcctgggttaaaagcggtggaggagaaaaaatttgagcagaa  
atagtgcccatgtttcaggcattatcagaaggctgtacacctatgatataaaccagatgcttaattgtgctagga  
gaccatcaaggggcattacaaatagtgaaggaaatcatcaatgaggaggccgccagtgaggacctgacacatcct  
ccacaagcaggaccaataaccagcaggacaattaagggaacccacgaggctcggaattgcagggaaccaccagctca  
ttacaggaacagatcgaatggatttatacggccaaccctaaagtagatgtaggagccatctatagaagatggatt  
atattaggcctacaaaaatgtgtaaaaatgtacaatccagtcagtgctctagatatcagacaggggtcccaaagaa  
cctttcaaggattatgtagatagattctataaggcaataagagcagaacaggcttcaggagaagtaaaacaatgg  
atgactgagagtcctcctgatacagaatgccaatccagagtgtaaaatcatcctcaagggttgggcatgcacccc  
accctggaagaaatgttgacagcatgtcaaggagttagggggcccgcaatacaaggccaaattaatgggtggaatg  
atgcaacaactgaatcaacagaatcaggtcatggtccaacaaggagggggaggaccagacgtggcccccccaaaa  
ccaattagggtgctttaattgcggaaaatttgggcataatccaaaagaattgtacagaaccaaggaaacttagatgt  
ctaaaatgtggcaaaccagggccacatggcaaaagactgcaggggacaggtgaattttacagtgatatattaacggc  
ctccccattaaggctctcttagacacaggagcagatgatactatcataaaagagacagatatacaattagcagga  
cattggagaccaaagttaatagggggaataggaggaggccttaatgtaaaggaatattttaatgtcacccctaata  
ttagaaggaaaagagttaatagggaccatttttagtaggagaaacacctatcaatattataggaagaaacttctta

gccaatgctggtatgagattggtaatgggacaattatctgatgctataccattaccaaagtagctctaaaagaa  
ggagctaaaggaccgtgtataaaacaatggccactttcaagggaaaaaatagaagccctacagcaaatatgcaca  
caaatggaaaaggaggggaaaattaaccaagatagggggagagattgcatataacacccctgtatttgcaataaga  
aagaaagacaaaacacaatggaggatgctaatagatttttagggaattaaataaagtaacacaagacttctttgag  
gtccagttggggataccacatccaggaggccttcataaaaagaagcaaataacagttttggatataggggatgct  
tattatagcattccattggacccggatttcagaaaattcactgcttttacgatacctagtgtaaacaaccagggt  
ccagggactagatacatattttaactgctctccgcaaggatggaagggatccccaactatttttcaaaatactgca  
gcaaagatattagaagaaataaaaaacagaacttctctgctctttacaattattcagtatatggatgatatgtgggta  
ggatcagatttaacaccatattgagcatgataaacagatcacaaactgagagaaaggctatctcaatggggcttg  
gaaactccagaaaagaagctccaaaaggaacccccgtattcatggatgggatataagttgtggccacagaaatgg  
cagctacagcccatagagctaccaaaccctgaggaatggactgtaaatgacatacaaaaattagtagggatgcta  
aactgggctgcacaaatttacgcaggtcttaaaactaaacaaatatgcaaactgatcagaggggaagaaagacctg  
ttggaaggttaacatggactcaagaagctgaaatagagctagcagaaaaatagagaaattctcaaaaccacacag  
gagggagcatactatgaccctacaaaaagtcttagggcaacaatacagaaattgccagatggacaatggagtatt  
caaataaaacaagaaggaaaccaaattttgaggacaggaaaatacatgaaggctaaagctacacatacaaatgac  
ttaagagtactggccggtctagtagcagaaaattgctaaggagagtataacttggtgggggactttaccctgcttt  
gagttaccagtagaaaggggaagtatgggaacagtggtggagtgattattggcaagtcagctggataccagaatgg  
gaatttgtagtggtccaccatttagtcaccctatgggtataggctaacgaaagatcctatacccaaggtggacacc  
tattatgtagatggatcctgcaacaggaatagcaaggaaggaaaggccggatatatcacacaacaggggaagcaa  
aggattaggaccttagaaaaataccaccaaccaacaagcagaattacaagcagtagttgatggccctagaagatagt  
ggaaaacagggttaacataataacagattcccaatatgtgttaggggttataatcgtcacatcccacgcaaagtac  
tcgccactggtagaacaaattattgctgcattaattcaaaaggaagcggtgtatttaaactgggtaccagctcac  
aaagggataggaggaaatgaggaaatagacaaattagtgagccaagggttagacaggtcctcttcttagaaaaa  
atagaagaagcacaagaggaacacgaacggtaccacaacaattggaaggagatggcagatacctttggaatacct  
caagtagtagcaaaagaaatagtagcacaatgtccaaaatgtcaaataagaggggaaccaatacatgggcaagta  
gatgcctcaccgggggtttggcaaatggactgtactcatctagaaggaaaaattattataacagcagtagcatgtt  
gcaagtggctttatagaagcagaaattatacctagagaaacaggaaaggaaacagcaaaatttttactcaagcta  
ctttctagatggcctatcacaaaactacacacagataatgggcccactttgtgtcgcaagaagtacaagcaatg  
tggtgggtgggggaaaatagagcacacaacagggtataccatataaccctcaatcacagggttcggtagagtctatg  
aatagacagttaaaggacattattggaaaaatcagggaagactgccaaacttagaaacagcagtagtcatggcc  
tgccacattcataattttaaaagaaaggagggaataggggatatgactagtgtgatagattactaaacatatta  
accacccaactagaacaaaaactttacaacaaaaaattcaaaaattcttgaatttcaagggtctactacagagaa  
ggccgtgatcctgtgtggaaggaccagccgtgctcatttggaaagggtgaaggggcagtggtgatcaaagaacag  
ggagaactgaaagtcatacccagaagaaaggctaagattattaaggattggcaggggaattgttagattctggatg  
acaaaaagacaactcccatggaagtatgaaatgcattacaaattcactgggcatggtatacgatgagcaggtac  
aggattccactcaaaaatggagaaattgttatagatctctattggcatttaaccccagaaaaaggatggctctca  
acttatgcagtagggatacaatattttaggtaatcaaggacactatagaacagaaatagacccccatacagcagat  
agtatgatacatagagtagtttacttgttttacagaaagagccatccaaaaggcgatcagaggagagagattc  
atcttctgcaactaccagagggacataaacaactagggcaggtacagacccctacagtttctagccttacaggta  
gttcaaatcttagactagagagggcatataagtattacagactgggtgcaaaaagccttggttcggttacttcagg  
tgtggctgcaggcgcaggacaccttttgaaacctacgaagagagaaggatggacaagggggaggcgcagcgctc  
ctccagggttgcatgagcctttgaaggcatgtactaacaatgctattgcaagaactgctgttatcattgtcag  
ttgtgttttctgcaaaaagggttaggtgtgaatatgctcttgcttaagatctgtctcttaggcttaatagggata  
ttagtttatagccaccaccaacaatatatcacagtattctatgggggtaccagtatggaaaaatagcacagtccea  
gccttctgcatgacacctaactactagattatgggctacaaccaattgcataccagacgatcatgattatacagag  
gttcctcttaacataacggaaccctttgaggcatgggcagatagaaatccattagtggcacaagcagaaagcaat  
atacacctgttgtttgagcagacactcaaaccatgtgtcaaattaagcccactctgcataaggatgagttgtgta  
gaattaaaatcctcaagaccaacaaccacggcgctcaacaagtactgtaacagcaccactatctgacccatgccag  
agaaacgagagtgagactgtaattggaaagtgtaatgacacaataatagaaaaggagatggaggaagagccagct  
tctaattgcacctttgctatggctgggtatgtaagagatcaaaagaagaactactcagtagtctggaatgatgca  
gaaattatgtgtaagggaaatgggaccaacgaggccggaaaaagagaatgctatatgattcattgtaatgattca  
gtaataaaggaggcttgtgaaaagacatactgggatgagtttaagactgagatattgtgcacctgcaggcttcgct  
ctactcaaatgtaatgatattggactataatggatataagcagaattgctctaattgtatcagtggtacattgcaca  
ggcttgatgaataccacgggttagcacaggcttattgcttaattggtagttattctgagaatagaacacaaaatagg  
caaaagcatagagtaataatgattcagtgatagtactcttcaataagttttataatctcacagttagatgtaga

agacctggcaataagacagtagtattgccagtgaccattatggcaggtctgggttttccactcccagaagtataacacg  
aggctaagacaagcgtgggtgtcatttccaaggcgattggaggggagcctggagggaggtaaaagagcacatagtt  
aaattaccaaagacaggtataaggggacaaatgacacagaaaagatctatctgcagagacaatttggtagcca  
gaagcagcaaatctttgggttcaattgtcaaggagaattcttttattgtaagatggattgggttcttaattatcta  
aacaacctaacagtagatgcagatcataataagtgaacaattcgccaaaaggaaaagcaccaggaccctgtgtt  
cagagaacatacgttgccctgccatatccgatctgtcataaacgattgggtataccatctctaaaaggacttatgct  
cctccaagagaagggtcacttggagtggtctttccacgggtcactgggtatgacagtagaacttaattatatatccaac  
aatagaacaaatgttaccctatcccctcagataggggggtatatgggcagccgaattggggagatacaaaattagtt  
gaaattacgccaattgggttttgcacccacggacgtcagggcgtatagaggggcacgacagagcaaaaaatgcc  
tgggggtgcgcatggaacaagtagtgcataccactgtaccttggcaatggcaaacaggaccccacaatgggac  
aacatgacttgggttagaatgggaaagacaaatagcggatttggagagcaacataacaggggcaactggtagcggct  
agagaacaagaagagaaaaatttggatgcttatcaaaaacttacctcgtgggtcagatttttggagctgggttgac  
ctgtcaaaatgggttaattattctaaaattaggcttctttatcatcataggcataatagggttaagattgctttac  
acagtatacacatgcatagctaggggttaggcagggttattctcctctgtctccacagacagctttacagcttcta  
caaccaagaaaaaggaatggaaaacttacagaggacggaaggagactacaagcaggagataactgggaagattgg  
actgatgacgaagatgaagtgggcttcccagtgagaccacaagtcctctgagacaaatgacttacaaattggca  
gtggatttctctcattttttgaaagaaaaggaggactgagtggttactactcagaaagaagagataagatc  
ctgactctctacgcactcaacgaatggggaatcatagatgattggaacgcttggaccccgggacctgggatccgc  
tatccccggaccttcgggttctgcttcaaatttggtacctgtaaacctgcatgaggaggcagagacttgtgagaga  
cattgccttgtccaccccgcccagctgggagaagaccctgatggcataaacctatggagaggtgctgggttgggta  
ttcgacccccatgttggcctgtcaggccccgaccaggacagtttaatgacatgcatgagcttgttaagaggaagtag  
>#20 KR862363 7185 nt

atggggagcgggttcctcagcattgtcaggtaggcaatttagaccaatttgaacaaatagccttacgcccgaacgga  
aagaaaaagtataaattaaaacatataatatgggcagggaaggagatggagcgcttcggcctccatgaaaagtta  
ttagaaacaaaagaaggctgtcaaaagatcatagaagtccttttctctagaaccaacggggtcggaaggacta  
aaaagtctttttaatctgggtatgcgtactttactgcctgcatacagaacagaaagtgaagacacagaagaggca  
gtaacaacagtaaggaaacagtgccacctagtggaaaaacaaaaaattgcaacagagacatctagtggccaaaaa  
gaaaatagcagctcaaaagagacacctagtggcagaagtggtaattaccagtgcaacaacaggggaaatgcatgg  
gtacacgttctctatccccgcgcactctgaatgcgtgggtgaaagcagtgaggagaaaaagtttggggcagag  
atagtacccatgttccaagctctatcagaagggtgcacacatatgacatcaatcagatgttgaatgtgttagga  
gatcaccaaggagccctgcagatagtaaaagaaatcattaatgaagaagcagccagtgggacttgacacatcca  
ccgccagcagggccattaccagcaggtcagctaagggtatcccagaggatcagacatagcaggaacaactagtaca  
ttacaggaacaaattgaatggatctacactgctaattcctaaggtagatgtagggtgctatatataggagatggatt  
attttggggctgcaaaaatgtgtaaaaatgtacaacccgggtcagtgctcctagacatcagacaaggaccaaagaa  
cctttcaagactatgtggacagattctataaggccattagagccgaacaagcctcaggggatgtaaaaatgtgg  
atgacagagacccctcctcgttcaaaatgccaacctgagtgtaaagtcatctgaaagggttaggcatgcatccc  
actttggaggagatgctaactgcctgccaaagggttagggggaccccagttataaggcaaaattgatgggtgaaatg  
atgtcccaaatgaatcaacagcaacagatcatggtacagcaggggaaccctagaaagggaaccgccaagaccgtcc  
gcaaaatgttttaattgtggaagggttggacatctgcaaaagaaactgccagaaccagaaaaataaagtgcctt  
aaatgtggaaagccaggacatatggcaaaagactgcagggggcaggtaaattttaccatacatataaatggcctc  
ccaataaaagtacttcttgatacaggagcagatgacactattatcaaagaaacagacattcaattacaaggttca  
tggagacccaaattaataggaggtatagggggaggtattaatgtaaaagaatataataatgtagtagtagaaata  
gaagggaagaactaattggcactgttttagtaggagaaactcctattaacattatcggaagaaatttcttagct  
aacgcagggtatgaaattagtaatgggagcattatctacaaatataccaatcacaaaagtgaatttgaaagaagga  
gcaaaaggaccttgcttaaaacaatggccactgtctaaagaaaaaattctagcattacaacaaatttgtcaggaa  
atggaaaaagaaggaaaattgactaagattggaggggaaaatgcctacaacacaccagttattgcaataagggaag  
aaagacaaaacacagtggcgaatgttaatagacttttagggagctaaataaagtcactcaagacttctttgaagtg  
caattaggaataccacatccgggggattaaaaaagaagaaacaaatcactgtgctagatataggcgatgcctat  
tatagcatccccctggatccagacttttagaaaatacacagccttactataccaagcataaataatgaaggacca  
ggcactaggtatcaatttaattgtctaccacaaggatggaaagggtcaccaccatcttccaaaatacagcagca  
aagatattggaagaaataaaggcagacttacctgcattaactatcattcaatatatggatgatttatgggttagga  
tctgacttaaccccatatgaacatgataaacaattgaaacctcagacagagattaggacgggtggggactagaa  
actcccgagaagaaattacagaaacaacctccctatgaatggatggggtacaaactatggcctcataaatggcag  
ttacaacctatagaattaaaagagccagaagaatggacagttaatgacattcagagagtggttaggacaattaaat  
tgggcagcacaattgtaccaggattaaaaacaaagaacatttgtaaactgataagaggaaaaaagaaccttttg

gaaccagtacaatggacccccggaagcagaggtagaatatgcagagaataaagagatttctcaaaacttcacaggag  
ggagcctattatgacccctcaaaaaatctcaaagtagcagtagcagaagcttccagaaggacaatggagctatcag  
tttaacaagaaggaggaaacatttctaaaaacaggaaaatacatgaaaaataaagcaactcacactaatgatctt  
agagtattggcaggatttagttcaaaaaatagctaaagaaagcatagttatctggggacaattacccatttttgaa  
ttacctgtagaaaaagagacttgggagcaatgggtggagtgaactactggcaagtaggggtggataccagattgggaa  
tttgtcagtggttctccattagttacacttttggtatcgactgacgaaagaccccatcccaaaggaagatgtttat  
tatgtagatgggtcatgcaacagagaaaagtaagttaggcaaagcaggatacatcactcagcaaggaaagcagaaa  
gtcatcacttttgaaaaacacaacaaaccaacaggcagaattgcatgcagtagtactgctggccttacaagacagtggga  
aaaagggtaaacattgtgacagattcacaatatgttttaggtatcatctcttcacacccccacacagagtgttca  
ccactggtagaacaaataatagcccagttgattcaaaaggagtttagtataatttaaatggggtgccagcccataaa  
ggtatagggggaaatgaggaaatagacaaaattagtaagtcgaaggaattaggcaagtagtcttctcagaaaaata  
gagcatgcacaggaagaacatgaaagataccataacaattggaaggaaatggccgacacatttgggataccacag  
gtggtagcaaaagaaatagtagcacagtgccccaagtgccagataaggggagaaccaatacatgggcaaattgat  
gcctcaccaggtgtgtggcaaattggattgtaccacttagaaggaaaaataattatcacagcagtcacagttgcc  
agtgggttcatagaagcagaggtcataccaaggagacaggaaaagaaaccgccaatttcttcaaaaaataata  
tcaaggtggcctatcacaaagttacacacagataatggcccaaattttgtatcacaggaagtacaagccatgtgt  
tggtggggaaaaggttgagcatacaacaggagtaccttacaatccacaatcacaaggttcagtagaatcaatgaat  
agacaattaaaagagattatttggcaaaatcagagatgactgtcaattcttggaaacagcagtagtatttgacctgc  
cacattcataatttttaaaagaaagggaggagtaggggatatgactagtgcagaaagattattgaatatgttaacc  
acacaattagaaatcaatcacttacaaaaacaacaaaaaattttcaaatttcaaggttacttcagggaaggc  
agagatcctgtctggaaaggacccgcaacactcatctggaaggggagaaggagcagtggttaataaaagaccaagaa  
gaattaaaagtagtcccaaggaggaaagcaaaaaattataaaagatttttggatgaataagaggggcctcccatgg  
caatatacaatgcattacaaaattcactgggcatggtacacaatgagtagatacacaaatccctgtaggaggggga  
caaataagtaatagatctttatttggcatttgaccccagaaaaaggatggctctctacatatgcagtaggcatacag  
tatttggacttgcaaagctcctactggacagaagtggaaccagaaaacagcagacagtatagtagattgtcactat  
tttaattgctttacagagagagccgtccagaaggcaatcagaggggaaagattcatcttctgcaactaccagag  
ggacataaacagacaggggcaagtacaaaactctccaactcctagctctcattaaagttcagagagcatataaatat  
tacagattagttcaaaaggccttgtttgtccatttcagatgtggttgtagacgtaggggaccttttgatccctac  
gaagaaagaagaccttttgaagcatgttttaataaatgctactgtaagaaatgttgttatcactgccagcctttgc  
tttttgcaaaagggattaggtatcaatatgactatagtagcctgtactagtttatttaggaatagggtctttatta  
gcaaaggagcagtagatattacagtagtattctatggagtaccagtagtgaagaatagttcagttcaagcattctgcatg  
acccccaccacaagattatgggctactacaaattgtatcccagatgatcatgactatacagaggttcctttgaat  
atcacagaaccttttgaagcatgggctgatagaaatcccttggtagcacaaagcagggagcaacatacatctattg  
tttgagcagacactcaaaccttgtgtgaaattgtccccctatgtataaaaatgtcctgtgtagagcttaactct  
tctagaatcactacaaccagtagtccatcagccactgacaagccctcagacccttgtggtggtaatagtgcgacc  
ataggaagatgtaacaatactcttatagagcaagaaatggaggatgagccagcttctaattgtacctttgcaatg  
gcagggtatgtgagagatcagaaaaagaattattcagtggtatggaatgatgcagaaattatgtgcaaaagcaag  
aacagcagtgacaataagactaaagagtgctatatgatcacactgcaatgactcagtgatcaaagaggcatgtgaa  
aaaacgtactgggatgagctgagattaagatactgtgtctccagcaggatagctttatttaaaatgtaatgatgaa  
gattataatggatataagagaaattgctcaaatgtgtcagtagtgattgcacaggactgatgaataccacagtc  
agtacaggcttactgcttaattggtagttatagtgcataaagactgaaatatggcagaagcagagggttaataat  
gattcagtaatcatactgttcaataaacattataacctgacagtgagatgcaggagaccagggaacaaaactgta  
ttacctgtaaccataatggcaggattggtcttccactcccagaagtataacacagggttaagacaagcatggtgt  
cacttccaaggcaattggcgaggggcctggaaggaaagttaaggagaaaaatagtagttaccaaaaggacagatat  
caaggaaccaatgatataaaaacaaatatttttgcaagacaatttgagatcctgagggcagcgaatctatggttt  
aattgtcaaggagagttcttctatttgaagatggattggttccctaaactaccttaataaccttacagtagatgca  
aatcacataaatgcacaaacagcaccaagaaggagacgcaccaggaccttgtgtacagaggacctatgttgct  
tgccatatccgaacagttattaatgattggtacacagtagtcaaagagaaacatatgccccaccaagagaaggacac  
ttggagtgtttatctacagtcacagggtgacagtggaattgaattataattcaaagaacagaactaatgtgaca  
ttgagtcccaaatagaaggcatttgggcagcagaattgggcagatataaattagtggaataaacaccaattggc  
tttgcacccacggatgtcaggcgatatacgggaggacacgaaagacaaaaaacgcctgggggtgctgttgaaa  
caagtttgtcataccactgtccctggacttgagtaaacaggactccagagtgaacaacatgacttggttgag  
tgggaaagacaaatagcggacctggaaagcaacataacaggacaattagtcgctgccagggaacaagaggaaaag  
aatttagatgcatatcaaaaattgacctcggtgcagacttctggagttggtttgacttatctaaatggtttaat  
atccttaagttaggcttctttgtaatcataggaataataggcttaaggttgctatatagtggtgtatctttgcata

gcaaggggttaggcaggggttattctccccttcttccgcagacagcttttcaatacttgcagaagcccaggaagaaa  
aatgggaacatgactgcagaagggaggagattacaacaaggagatgagtggagcgaatgggtccgatgatgaagaa  
gaagtcggccttcccagtc aaaccacgagttccacttaggcagatgacctataaacttgcagtggtttctctcac  
tttttaaaagaaaagggaggactgagtgggatttactactcagaaagaagaaataagatcctgaccctttatgct  
ctcaatgaatggggaatcattgacgactggaatgcctggaccccaggtccaggaatcaggtacccgcgcaccttc  
ggcttttgctttaagcttggtccagtagtcctgcacgaggaagcagaaacatgtgagagacattgcctcgtccac  
cccgcgcagatgggagaagacccggatgggatatcccatggagaggtcttgatctggcagtttgatcccatgcta  
gcctgtcaggctaggccaggacagtttactgatatgcatgatcttgtcaagaggaagtag

>#21 M29975 7350 nt

atgggggcggtacctcagcactgaataggagacaattagatgaatttgagcatatacgacttcgcccgaacgga  
aagaaaaagtatcaaattaacatttaatatgggcagggaagaagatggaccgcttcggcctccatgagaagtta  
ttggagacagaggaaggttgtaaaaagatcatagaagttctctctcccctagaaccaacaggggtcggaaggaatg  
aaaagtctgtataatctgggtgtgcgtattgctttgcgtccaccaagaaaagaaagtgaagacacagaggaagct  
ttagcaatagtaagacaatgctgccacctagtggacaaagaaaaaactgcagttacgccacctgggtggacagcag  
aaaaataacacaggaggaacagcgcacacctgggtggcagccaaaattttccgcacacagcaagggaatgcatgg  
gtgcatgtaccactttcacctcgcaccctaaatgcatgggtaaaagcagtagaagagaaaaaatttggggcagaa  
atagtacccatgttccaagccctctcagaaggctgcaccccatatgacatcaatcagatgcttaatgtcttagga  
gatcatcagggggccttgcaaatagtgaagaaataattaatgaggaagcagcccagtggttgtaacccacca  
ccgcccgcaggcccccttgccagcgggacagctcagggatccggggggatcagatatagcaggggaccactagtaca  
gtgcaagagcagctagagtggatctatactgctaaccgaagggtagatgtaggggcatctatcgaagatggatc  
atcctaggggttcaaaaaatgtgtaaaaatgtacaatccagtgctgttttagatatcagacaagggcccaaagaa  
ccattcaagattatgtagacagattctataaagcaataagagcagaacaagcttcaggagaagtc aaacaatgg  
atgacagaatccttgcctcattcagaatgccaaccagattgcaaagtaattttgaagggcctagggatgcacccc  
actcttgaagaaatgctgacagcctgtcaaggggtgggaggcccaagttacaaagccaaagtcattggcagaaatg  
atgcagaacctgcagagtcagaacatggtacagcagggaggtggaaggggaagaccaagacccccgccaaagtg  
tacaactgtggaaaatttgccacatgcagaggcagtgctcctgagccaagaaaaataaaatgtcttacctgtata  
ataggaggaactgccgttaaggcattattagatacaggggcagatgacactataataaaggatacagatttaca  
ttaaggggatcatggagaccaaaaaatagtaggaggaattgggggaggggttaaactgtaaaagaatatgataatgta  
gaagtacaattggaagacaagatattaagaggaacagtcctcataggagcaactcccatcaatatcataggaaga  
aacttttttagcccaggcaggagccaaattagtgtatggggcaattgtcgcagacaataccaatcacccccggtacgc  
ttaaaggaaggggcccagaggaccacgattgaagcaatggccactctctaagaaaaaataatagccctgcaagaa  
atgtgcaaaacattagaggaagaaggaaaattaagcagggtagggggagacaatgcatacaatacaccagtattc  
tgtataaggaaaaaagacaaatcacagtggagaatgctggtagatttcagggaactcaacaaagctacacaagac  
ttctttgaagtccaattaggtatacccatccagcaggggttaaagaaaaatgaagcaataaccattatagatgtg  
ggggatgcatattatagcataccactggatcctgagtttagaaaatacacagctttcaccatccctacggtaaac  
aatgagggaccaggcataagatatcaatttaattgcctaccgcagggctggaagggatccccgcacaattttccaa  
aacacagcatcaaaaattctagaagaaataaagaaagaattaaaacagctgacgattgtccagttacatggatgac  
ctctgggttaggatcacaagaagaggggtccaaagcatgatcagctagtacaaacacttaggaatagattgcaagaa  
tggggattagaaacaccagagaaaaaggtgcaaagagaacctccctttgagtggatgggatataaattatggcct  
cataaatggaagttacaaagtatagaattagagaagaaagaacaatggacagtgaatgatcttcagaaattggta  
gggaaattaaattgggcagcacaattatatccaggattgagaacaaaaaataatctgtaagctacttagaggaaag  
aaaaatttattagacgtggttagaatggaccccagaggcagaagcagagtacgaagaaaaacaaggagatcctaaaa  
acagagcaagaaggtacttattatgcaccagaaaaaccccttagggcagcagtagacagaaattaggagatgggcaa  
tggtcataccaattcaagcaggaaggaaaaatcttaaaggtagggaagttcgccaaacagaaagctactcacacc  
aatgagttgcgtgtactagcaggagtagtacagaaaatagggaagagggccttagtaatttggggacaattacc  
acttttgaactcccagtgagagggacacatgggaacaatgggtgggcagactattggcaagtcagttggataccc  
gaatgggactttgtcagtggtccgccccttagtaactttgtgggtatacactgactaaggaacccatcccgggagag  
gatgtctactatgtagatggagcctgtaatagacagtcgaaagaggggaaagcagggtacataacccaacaaggc  
aaacaaagagtacaacagctagaaaacacaacaatcaacaagctgaactgacagccataaaaaatggccttgag  
gatagcggccctaaagtcaatatagtaacagattcacaatatgcgatgggcatattgacagcacagcccacacag  
agtgactcccactagtagaacaataatagcacagatggtacagaaagaagccatctatctgcaatgggtacct  
gctcataaagggtatagggggcaatgaagaaatagacaaattagtaagcaagggagttagaagaatatgttccatt  
ggcaggatagaagaagcacaagaagaacatgataggtatcacagtaactggagaaatctagcagacacatttgga  
ttgccacaaatagtagctaagaaattgtagcaatgtgccccaaatgtcaagtaaaaggggaaccaatacatgga  
caagtagatgcttcaccaggagtggtggcagatggactgcacacatatagaaggaaaaatagtgatagtagcggtc

catgtagccagtggtttatagaagcagaggttatccctagggaaacaggaaaagagacagcaaagttcttggtta  
aaaataataggaagatggcccatcactcacctccatacagataatggaccaaatctcacttctcaggaagtagct  
gctatgtgctggtggggaaaggtagaacacacaacgggggtaccatataatccacagtcacagggatctatagaa  
agtatgaacaaacaattgaaagagataattggaaaaataagagatgactgtcaatatacagaaacagcagtactt  
atggcctgccacattcacaatttttaaagaaagggaggaataggggggctaacagctgcagagagactaataaat  
atgataacaacacaattagaaatcaacactctacaaacccaaatccaaaaattttgaattttagagtctactac  
agagaaggcagagatccagtggtggaaggacctgctcgctgatctggaaaggagaaggcgcggtagttctcaag  
gaaggtgaagaactgaaggtagttccgagaaggaaagcaaaaatcataaaagactattggatgaataaaaggaat  
ctgaaatgggaatacaaaatgcattatcaaatacacttgggcagtggtacactatgagcagatatgtaatacccctc  
ccaggaagtggagaaatccatgtggatatctattggcatttagctccaaaacaaggatggctctcaacttatgca  
gtaggaatacaatatgttagcctagtaaatgataaatatagaacagaattagatcccaatacagcagactccatg  
atacattgtcattattttacctgttttacagatagagccatccaacaggcactaaggggaaacagggtcatcttc  
tgtcaatttccaggaggacataaactaacaggtcaggtaccctccttgcaatatttagcattactagcccatcaa  
tattatcgcttagttcagaaagctctctttgtgcatttccgggtgtggatgtcgagagacaaccctttgagcca  
tacgaggagaggagacaatacaggaaacccttgagacatgtacaaataaatgcttttgcaaaaaatgctgttat  
cattgccaatctgcttcttacggaaaggactaggtattacctatatgacaaagttcttaggaatttttatagta  
ttaggaatagggataggaatagggataagtacaaaacagcagtggtataacagtggttctatggagtaccagtatgg  
aaaaacagctcagtccaagctttttgcatgacacctactactaggttggtgggcaactactaattgcataccagat  
gatcatgactatacagaagtaccactgaatataacagagccatttgaagcatgggcagacagaaatcccttagta  
gcacaagcaggaagtaacattcacctgctggttgaaacagacattaaagccctgtgtaaagctatcacctctatgt  
atcaaaatgaattgtgtagagttaaaaggctccgcaacctctaccccagcaacctctactacggcaggaaccaa  
ctaccctgtgttagaaataaaacagactccaacctacagtcagtcacacgacaccatcatagaaaaggagatgaat  
gacgaggcagcgtcaaactgcacctttgctatggctgggtacattagggaccaaaagaagaattactcagtagta  
tggaatgatgcagaaatcttttgtaagcgtagtagatcgcataatgggacaaaagagtgctatatgatccactgt  
aatgattcagttataaaggaagcttggtgataagacatattgggatgaattaagactaagatatgtgtcctcagca  
ggatacgctttgcttaaatgtaattggtgattatgcaggatttaagccagaatgttctaatgtttcagtagtg  
cattgcacaactttaatgaatacaacagtaaccactggctgttattgaatggaagctattcagaaaaatcgaacc  
cagatctggcaaaaacatggagtgcagcaatgactcagtggttaattcttgctcaataagcattataacctgacagtt  
acatgcaaaaggccagggaataagacagtccttgccagtaacgataatggcaggattagtcctccactcacagaag  
tataatacaagactaaggcaggcctggtgccacttccagggaattggaaaggagcttggaaaggagtacaagag  
gaaatagtaaaattacaaaaagaacgggtaccaaggcaccaatgatacaaaacaaaatctttttgcaaaagacaattt  
ggagacccagaagcagcaaatctatggttcaactgtcaagggggaattcttctactgtaaaaatggactggttttta  
aattatctgaataatttaacagtggtatgctgatcataatcattgtaaaaacaacgcagggaaggtcgaagtcca  
ggctccctgtgtacagagaacttatgttgctgcatatccgatctgtcataaatgattgggtatactatatcaaag  
aaaacatatgctccaccaagagaaggacatttgcagtgacgctccacagttactgggatgacagtagagctaaac  
tataataaccagaacaggacaaatgtaacattgagtccccagatagaaaccatctgggcgggcagaattgggcaga  
tacaaattggtagagattacaccaattggatttgcacccacagaagtcaggcgatacacgggaggccaagagagg  
caaaaaaacgcttgggggtgctgctggaaacaagtatgtcatacaacagtacccctggacgtggaataataacca  
gagtggaaataatgatcctggttggagtgggaaaaacagatagaaggattggaggggcaacataacaaaaaattg  
gaacaggcaagggaacaagaggaaaaagaatttggatgcttatcaaaagttgtcagactggctcgagtttttggctct  
tggttcgatttttcaaaatggctgaacattttaagataggcttttggcagtaataggcgttatagggttaaga  
ttgctttacacattatatacttgcatagctagggttaggcagggttactctcctttatctcctcagcaattgggtt  
cttgacactcagcatctggttacacaacagctgctgacctccttctcaagcttagatgggcttggggagctca  
aagccgcagcacaagaagcagtttaacctctggcgagcttggcacgcaacgcggcacaccagatatggcttgctt  
gcagatccgcttatcgggcaatcatcaactctccaagaagagtgcgacaagggcttgaggaagtccttaattagg  
aagagaaatggcaacatgactccagaagggaagacgtctacaggacggggaccaatgggatgaatggtcagatgaa  
gaagatgaagtgggatttccagtaagaccaagagtgccactaagacaaaataacatacaaaacttgcagtagat  
tcgcactttttaaagaaaagggaggactggatgggatttattactccgataggagaaataagatccttaattctg  
tatgccctcaatgaatggggaatcattgatgattggaacgcagtggtcaaaaggacctgggataagatacccgagg  
tgctttggcttctgcttcaagctagtaccggttgccctgcatgaggaagcagaaacatgtgaaaggcattgcttg  
gtacaccagcacaactgcatgaagaccctgatggtataaatcatggagaaatattggcatggaagtttgatcca  
atggttgctgttcagtagcaccctcaaggagtagtctttacagacttatattcaacagttggtacaggaaactag  
>#22 AF301156 6996 nt  
atgggcaacgagcagggactgttagggaagaaaacattagaagacctacagaaagtcgggctgaagaaagggaag  
aaaggatgttataagataaaaacatgttagatggatgtgcacagaggtaagccgctgtgttttaatatattgagctg

ttaaagtcagcaacaggagtggtctcaaatatttgaaaaaggtgacgccattagtgggacacaggatcagaagtgttg  
aggtccctatatggatgttctgtgtgttactgcctgcacagaaaatggaatattgaggacactcaagaggcagaa  
aagaaagtagaagaagcttataaaaagcaggccatgatagaaatggccagcaaggaggaggagaaagcaaaaaag  
gaagcagagaaattggacatgccaatagtaacagggcctcaagggccagtgcacacccctgagccccaggacg  
ttaggagcctgggttaagtgtgtagagggaggaattgctccttccttggtcccatgttcttagcttattctacg  
ggggcaatagcttatgatatgaacttgatgctcaatatttttgatactcatcaaggattccctcaggtcttgaag  
gatgagattaataaaaaaggcagaagagtatgacctactacatccggtccagcagccacaacagcaaggagcatta  
aggcagcctacagcatcagatatcacaggcaacacaagctcagtagcagaacaagtggcttggggagagcccata  
gccaacatttataggggctggatagtagacagctctggaaaaggtaatccagattgcaagaccatcctctgtacta  
gatattagacagggaagtaaaagaggattttaaaagctatgtagacagattttattcagccctaagggcagaacct  
gcagcaggagaaatcaaggcctggatggctaataatttgctaatacagcatgccaacctgactgcaaaagaatt  
ctgaaaggactgcagaagccatctttggaagacatgctagcagcatgccagggagtgaggaggaccagaccacaag  
gcaaagggtgctagcagaggctatgcagcagttccagcaagagagaaccaacatgattgaagtaaagacagcaaaa  
tgcttcaattgtcaggggaatagggcacttagccagaatgtgtcccaaaagaccaataggaggagccggtcgagga  
agaggccgaggacggggagggttttagaggagctcccagaaggccagtgaggtgttttacctgcaatcaggaagga  
cacatgcaaagagattgtcccaacaagcaggcaatagtagaagtagaaggacaaaagtccaagcgctgttagat  
acaggagcagatgatacagtttttaagaagaagatgttcaattaacaggcgcttggacagcagtacaaattcag  
ggaatagggggagcaatcagagtaaaacagtatagagataaaattctaaagatgggaggaaaagaatacagagga  
gatattcttaataggacacacccccataaatatagtaggtagaaatattgttaaaagaagggaatttagtagtagct  
caattatcagataggatcccagtcaccaaggtgacgtttaaagaggggcatggatggggccaaaagttaaagcagtg  
cccttaagcaagaaaaaatagaaggtttacaaaagatatgtgaaagattggaagcagaggggaaaaatagaaaaa  
gcagaattaggggaatccatataatacaccaatattttgcattaggaaaaaagataaaaaatgaatggaggaaatta  
atagatttcaggagctaaacaagagaacacaagacttcatggaagtccaattagggataccacaccaggaggt  
cttatagaaaaagaccatataacagtattagatataggagatgcctatttctcaattcccttggtccggtat  
caaaagtacacagctttttacaatcccacagtgacaattttggcaccagggactagatatgtgtacaaagtgtcta  
ccgcagggttggaagggtctccaacaatcttccaaggaacagtagcaagaatcctagaaccgttcaggaagaga  
ggacaattgcaaatagctcagtagatggatgatttatatctaggatcagatctgccttttagaggagcatagaagg  
gcagtagcaggagctcagagatgcactcttgtactatgggttagagacaccagaaaagaaataccaggcagatcct  
ccatacaagtggatgggctatgaattacatcctaagcaatggaaattacaaaagggtcaaaattccagaacaggat  
aagtggacagtaaatgatatacaaaaaatttgtaggagccttaaatttggttaagccaattatacccggaatcagg  
acaaaggagataagtaaatgcactaaaggtaagaagcatttgttgagggaagtgcagcttagtgagaagcagaa  
gaggagctacaagataacaaacagataatcaagaagaagttcaggggagtgactatataccacatgaggacatt  
tgggtagacattttcagggttagggaaaggacaatggggctatgcagctctgcaaaaaacatggaacgctaagaaga  
ggaaaacataacacaggcaaaaaatcagcactttaatagtatgcaggagttagcttcagttatacaaaaagataggt  
agggaaagccatagtcacctggggaaagggtgcccaaaatgaaagtcagcagaaagagagaggattgggaacagtg  
tggagtgactattggcaaaagtgttggatcccagagatagagtttgtctcatcctcttatgtagtaaaattagta  
tggaaacttggttttagagcctctgaaggaggcaccaacttattggacagatggaggatgtccaggaaattagga  
gcgggaaaggcaggatggataaattcaaaaggagaagaagaagtagtcaatcttcatgaagggtcaaatcagcaa  
gcagagctgacaggagttttgttagctctaaaacatggggccaaaagaatgaatttggttaacagacagctcttat  
gcattagggataattactgggcagccatattgatcagcttccatctagtagaggggagattattcaggcaggtatg  
gctaaagaagccattcatgtagcctggtgtccagcacataaaagggataggaggaaatgaactgatagatcaaaag  
gtaggagtaagacaggtaattgtggatagataaaaatagaagcagcagaagaagaccatcaaaagtttcatagtaat  
gtgcagtatctaaaagaacaatttgggttaccactgttagtagcaaaagaaatttgggaaagatgttcagagtg  
cagaacaaaggacaagctgttcatggccagctagattatagctatggcttatggcaattagattgtactcatgag  
gaaggaaagggttatcttagtagcagtagacgtctgtactctgttctgctgggcaaccatattaaagagagaaaca  
ggggaagaaacaggtagggccctcataaaattggctagtcagtgagggttagacaagttcacacagataatggg  
ccaaattttgtaagtcagcactttaaggcagcagtggtggtggctaggaatagcacacaccacaggacaccctat  
aatcctcaatcacaaggagttgttagagcagagaaacaaggatgttaaaagaaagattaagaaaatgaaagatcaa  
gcagaaacattagaaagcaaagtagcaatggcagtcctatgcgctcaatttttaaaagaaaggaggattagggggg  
aagagtccatgggaaagacaagtagaaagagcaataatagaattagatacacaaaacctaacaaaattacaaaat  
caaaaatttaaaaatttttaaggcctactggaaagagcacacaggagagtggaaggaccaggagaactggtgtgg  
aaagggtgaaggagcggtagtcacagaaattctcaaggtaacctgtttgtgaaacctagaagaaaagtaaagatc  
accagactccaatatggagaagatgtgggcagtgagaatttgttatccaagcagtttccagaatgccaatattat  
tatttaggaaaaacagagtcacccgaatggtggacagaaggtaaaatagagttttacttagggtcagctattaag  
ttaagcataatatacttgggcactttaaccccagatagatatcatagaggaccaccagctctcttatgaattacag



ataggtaagtgggaaacagattttaagctggcaacaagcagtaggggtacatgcacatcataagggggaagtgtgta  
cgcatagaggaagaagcaagaaaagctataaggggcttacccctggaatccttgtgatttccaggtagggacaccta  
ggagtgttgaaagttgcaagaaaacataacccgggaggccagaaggcacttccctttgactcacatctcagtata  
atgtgggggtgtactagaaggcactgggggagaccgtggacggctggctgtggcttatgtgagaatcatggagtgt  
gccctctacttgcacgttcatgcgggggctgtatgcttagatatctctttataaaacttgctagtattaggtata  
gtgttaagtaataaatgggtaacagtatatacaaggagtacctgcatgggaagaagcagatgtaaagtatcagcag  
ttcttctgcttttcttctccccagagattcaacaggtgttgggggtgtttaccacctccgcctggaaagccagta  
gaacaaaacatgccaaatgtaacagaagcttttgatctttttaagaatagcttcagtggggagggtatggataata  
acacagactaccttagaacaaggctaagaccatgtgctaagttgacagcatactgtgctccaatgatttgcacc  
aaagtaaataggactgaaaatggcactagtacagttagcccaacaacaataaatagtgttcagattgggat  
gagtcaaattggaaagaatatccgtggtataattgcagaatgaattcaacagctttcttacttaaagatagaaag  
gagttagaattaggattttcagtagaagatttaactgtgcttggaaataaaaaatgacagtaaatagtatcagggca  
acaatgaaagattgtgcaaattatacagttacccaagtatgtgatatgactatagtggatccagttaggacaggg  
ttctgtgcagctccaggatacatgcttttaagatgtgatgataaaaagtgggatgggacaggagcatgcaacaat  
gtgacagcagtgctcctgtacccatgagtttaataataacagtcattgtctcatgtattagtcaatgcctcaaaagag  
ttgtctgattgggagaaagatagagagggagctggaagaatgactcagggacaattgagttatttggtttcca  
aaagatatagcttttaggggtgtataagaagaggaaatagttctcacagaaatctaaacactgccaatggagcaaaa  
ttctactatgagcttattccttattcaaaaggcatttatggaaggtgtcagtttgtaccaatgactgggcagaat  
aagaaaaacaaaacacaatttcgcaatagaaatcaaaaagaatttaacagcttggctagagcgcatttcacgcaaa  
aatataactatcactccaaggaatggaaatagaacaagtgatccagaggctactttcacctttgtgatttgtcat  
aggttattcctttactgtaatgcatctagtttatggaaacatgattccccagtcattgaactgtaccattagaaag  
ctgggtgaatagttgggtcactcatgccaggatcctgtatggggccgcctccaggaggtcatctacaatgtaactgg  
gagaaacagccagttattgcttcatgggcacatagaaggagacaatgatggtaatgggtgtgcttatccagca  
gcaccaaatttttaagcatgcattaagtactttggaattgggaagatacaaatggtaaaaaatgaggacaactact  
tatgtcccaacagatataaaaaagatcagtgaaatgtaaatggcatcatgggagacaaaagagagggcatctttgca  
ttcgccagcattgggtgtgcaaacatgcaattttgtagaactattgtgacctggaacaagacctggggagaggag  
gatccatggcagaacatgacctggaaacagtggtcatgagcgagtaagaaattacacagatataatagaggcagac  
ttagtagaggcatatgacttacaagaggaaaatgaaaagaattggcagaattaggggattggactaattggttt  
tcaggctttggcctattcaacatctttaagtatgtactctatgctgcatatgttgtaggaggtttaataggactt  
agaattattatggtagtaatagcttgcataagaggagctttcagagtttaagggatttcagcagataggcaggact  
aatgtgtcttcacagatctgcccttgccgctttgctatagacatccagatgtatattaccacaaccacagaacca  
gaggacgtagaagatgtagaagcaggatgttatgtgatgtctcgactgccagtagcagaggcgaccattaagcta  
ctgggtggacatctcttgcctttttgaaagaaaagggtggactggaggggattattagaaccctgagagagatgac  
ctgatagagcagtatgcctacattgagtggggctgcttaaaagggttggttggagtatgaagatgagctgggagag  
gatggagcattaaaagaggacagaaagcctctggttgcctggatggctttggaaattagtctacatagagcaactt  
ggagagtatgcatacagctatgacttgagtctgttgagcgttacaagcaggaagaagaagaaccacaacaggtt  
gccatagagatggtggactga

>#23 AY159322 7449 nt

atgggcgcgagcgcgtcaggacttaggggagaaaaattggatgaactggaaaagattaggttacggccctccgga  
aagaaaaagtaccagttaaaacatgttatatgggtaagcaaggaactagacagatttggcctacatgagaagttg  
ttagaaagttaggaaggatgcgaaaaattcttagcgtactctttccactagttcctacagggtcagaaaaattta  
atctcgctgtacaacacctgttgttgcatttgggtgcgtacatgcgaaagtgaagtaacagatactgaggaagca  
aaagagaaaagtaaaacaacgggtaccacctaagtgttgaagagagagaatgcagcctcagaagaagaaaaaggagca  
acagcgacacctgctgttcgctcaaaaaattacccattcaggtaataaatcaaacaccagtagatcaggggaatt  
tcaccaagaaccttgatgcatgggtaaaatgtatagaggagaaaaagttcagcccagaaatagtgcctatgttt  
attgccttgcagaaggatgcatcccgtatgacctcaatggcatgctcaatgccattggagatcatcagggagct  
ctccaaatagtgaaggatgtcatcaatgaggaagctgcagactgggatcttagacacccccctgtgggacctatg  
cccaaggagtgtcaagaaaccaacagggaatgacattgcaggaacaacaagctccatagaagagcagatagaa  
tggaacaaccaggcagcaagaccaggtaaacgtaggaggtatatacaaaacaatggatagtactagggtgcaaaaa  
tgtgtaagcatgtataaccctgtaaatattttagacatcaaacaggggaccaaaagagccttttaaggactatgtg  
gatagattctacaaagctctgcgggaggagcgcacagatccacaggtcaaaacttggatgacgcagacattactc  
atccagaatgccaaaccagattgttaaagctacctcaaagggttaggcatgaatcccacattggaagaaatgttg  
ctggcctgccaaagggttaggaggacctaaatacaaggcacaaatgatggcagaggccatgcagcaagcacaggca  
gctgtaatgatgcagaactcggggggaccgcccgggggtccccgagacaacccccctagaaaccctagatgcccc  
aattgcggaaaagtttgacatgtactgagggttgcagagcccccaagaaagagaggctgttttaagtgtggagat

ccaggacatctaattgaggaactgcccaaagatggtggaatatagaggggcaaaaggtagaggcacttctagatact  
ggagcagacgatacagtaattaaagatttagagttaacaggaaattggaagccacgaattataggaggaattgga  
ggagcaatcagagtaagacagtatTTTTAATTGTAAAGTAGAAATAGCAGGAAAAATTACTCATGCTGCAGTTCTG  
GTGGGCCCTACCCCTGTAAATATTATAGGTAGAAATGTACTTAAGAAGTTAGGATGTACTTTAAATTTTCTATT  
AGTAAGATAGAGACAGTAAAAGTAACACTAAAACCAGGAACAGATGGACCGAGAATAAAACAGTGGCCACTGTCT  
AAAGAAAAGATCCTAGCCTTACAAGAAATATGCAATCAAATGGAAAAAGAAGGCAAGATCTCTAGAGTAGGTCCA  
GAAATCCATACAACACCCCACTATTCTGTATAAAAAAGAAAGATGGAACCAGCTGGAGAAAATTAGTAGATTTT  
AGACAACCTGAACAAAGTCCTCAGGATTTCTTTGAGGTGCAGTTAGGAATCACACATCCAGGAGGCCTAAAGCAA  
TGTGAGCAAATTACAGTATTGGACATAGGAGATGCCTATTTTTCATGTCCCTTGGATGTGGACTTTAGAAAGTAT  
ACTGCGTTCACCATTCATCGGTGAACAACCAGGGCCAGGAATCAGATACCAGTATAATGTCTACCACAGGGA  
TGGAAAGGCTCTCCAGCAATTTTCCAGGCAACAGCAGACAAAATCTAAAGGCTTTTAAGGAAAAGCATCCAGAA  
GTCTTAATCTATCAGTATATGGATGACTTGTTTGTGGGGAGTGATCTAAGTGCCTCTGAACACAGTAAATGATA  
GTAGAATTAAGGGAACATTTGCAGTTCTGGGGGCTCGAGCCCCAGACAAAAAGTTCCAAAAGGAACCTCCCTTT  
GAATGGATGGGATATGTGCTGCACCCAAAGAAATGGACAGTTTCAGAAAATACAGCTACCAGAAAAAGAAAGCTGG  
ACAGTAAATGATATTCAGAAATTAGTAGGGAACTTAATTGGGCAAGCCAAATCTATTCGGGAATTAACAAAA  
GAGCTCTGTAAATTGATAAGGGGGCAAGACCCCTAGATAAAATAGTGGAATGGACTAGAGAAGCAGAACTAGAA  
TATGAAGAAAACAAGCTAATAGTGCAGGAGGAAGTACATGGAGTGTAATACCAGCCAGAAAAACCTTTAATGGCA  
AAGGTGCAAAAGTTAACACAAGGACAGTGGAGTTACCAATAGAACAGGAAGACAACAACCTCTCAAGGTAGGA  
AAGTATGCCAGGACAAAGAATGCCACACAAATGAATTGAGGGTACTTGCAGGGTTGGTACAAAAGGTAGCTAAG  
GAGTGTCTAGTAATCTGGGGAAAGCTACCGAAATTTCTATCTCCCGTTAGAGAGGGAGGTATGGGACCAATGGTGG  
CATGACTATTGGCAAGTAACATGGATCCAGAGTGGGACTTCATTTCAACACCACCATTAATAAGGTTATGGTAC  
AACCTGTCTAAAAGACCCAATACCAGGGGAAGATGTATATTATGTAGATGGGGCAGCAAAACAGAAACTCCAAGGAA  
GGCAAGGCAGGCTATTATACCTCTAGAGGTAAAAGCAAGGTAGTAGCCTTGGAAGAAACGACCAATCAAAAGGCA  
GAATTGACAGCTATAAAGATGGCTTTGCAAGATTCAGGACCCAGGGTGAATATAGTCACTGATTCCAGTATGCA  
CTAGGCATACTTTTCAGCAGCCCCAGATCAGTCAGACAACCCCATAGTTAGGGAAATAATAGAACTCATGATAGGC  
AAGGAAGAGATTTATCTCTCATGGGTCCAGCCCAAGGGTATAGGAGGTAAATGAACAGATAGATAAATTAGTA  
AGTAAGGGAATAAGACAGGTACTATTTTTAGAGGGAATAGATAAAGCCAGGAAGAACATGACAAATATCACAAT  
AATTGGAGAGCGTTGTCTCAGGACTTTAACCTACCCCCCATAGTGGCAAAAGAGATAGTTGCACAATGTCCAAA  
TGTCAGACAAAAGGGAGAACCTGTTTCATGGGCAGGTAAATGCAGATCCAGGGACATGGCAGATGGACTGCACCAT  
TTAGAAGGAAAAATCATCATAGTAGCAGTCCATGTAGCCAGTGGATATTAGAAGCAGAGGTAATACCAGCAGAG  
ACAGGAAAAGAAACAGCGCACTTCCTGTAAAGCTAGCAGGTAGGTGGCCAGTAAAACATCTACACACTGACAAT  
GGTCCTAACTTTGTCAAGTGAAGGTTGGCCACAGTCTGTCTGGTGGGCTCAAATAGAGCACACCACAGGAGTACCT  
TACAACCCACAGAGTCAAGGAGTAGTAGAAGCAAAAAATCATCATCTTAAGAAGATCATAGAACAAGTTAGGGAT  
CAAGCTGAAAGGCTAGAAACAGCAGTGCAATGGCAGTGCTAATTCACAATTTTAAAAGAAAAGGGGGGATAGGG  
GAGTACAGTCTTGAGAAAGAATAGTAGACATAATAACCACAGACATCCTAACAAACCAATTACGACAAAATATT  
TCAAAAATTCAAAATTTTTCAGGTTTATTACAGAGAAGGAAGGGACCAACAGTGGAAAGGACCAGCAGAGTCAAT  
TGGAAAGGAGAAGGCGCTGTGGTAATCAAAGAAGGAGTTGATTTAAAGGTGGTTCCTAGAAGAAAAGCAAAAATA  
ATTAAGGACCAGGACGTCAAGTTGAGAGATTGGAATTCATAGTAAATATCATAAGTATAAAGGAGAGAAACAT  
TTAGAAAATTGGCAATTATACCCCCATTTTCAATGCTCAGGATGGTGGACACACTCTCAAAAGAAGATCCCTTT  
AAGGATGGTTCAAAGATTATCATCACCGTCTTGTGGAACCTTGACCCCAAGAAAAGGGTGGCTGTCTCAATACGCC  
TTTACAGTAGAATATCAAAAGGAAAATTATTTCACTTACATAGACCCAGTGACGGCAGATAGAATAATCCACGGG  
GAATATTTCCCATGTTTTACAGATCAAGCAATAAGAAAAGCCTTGTTTGAGAAAGACTGGTAGCTTGTTACTTC  
CCCTGGGGACATAGAGGTCAAGTAGGGACTCTACAGTTTTTGGCCTTACAAGCCTATCTCAGAGGTAGAAAGATG  
GAACAGCCACCTGAGGATGAGGCTCCCAGAGAGGACCATATAATAAATGGCTGGTAGGTACTTTGGCAGAAATA  
CAAGAGGAAGCTTTAAAGCATTTGATAGGCGCTTGCTACATGCAGTAGGCTCATGGGTGTATGAGCAACAAGGA  
GACACTTTAGAAGGTGTCCAACAGCTAATAAGCATTTTGCAAAGAGCACTGTTCTTACACTTTAGAAAGTGCTTC  
TGTAAGTGTGTTGCTATCATTGTCAAGTGTGCTTCTTGCAGAAAGCTTTAGGGGTACATTATATGTTAAGATAT  
CTTAGGTATATAGTCTTAGGAATAATAGTAAGTGTAAATAGTAGGAGAACAATGGGTGACAGTGTACTATGGCACA  
CCCAATGGCATAAGGCAAGGACACACCTGTTTTGTGCAACAGACAATAATTCATTCTGGGTGACCACAAGCTGT  
GTCCCCAGTCTGTTGCATATGAAGAACAGCATATCCCCAATATAACAGAGAATTTTACAGGCCCTATAGAAGAG  
AATGAAATAGTGACACAAGCTTGGGGAGCAATTTCTTCCATGATAGATGCAGTATTTAAACCATGTGTAAGGTTA  
ACACCTTATTGTGTGAAGATGAAATGTACAGAAGGTCAAAATGAAACAGAGCAAGCAACAGCTAAGACCACAACA  
CCTGTACCCACAACAACAACCCCTCCACTACCCTAGCTCCAGCACAAATAAGACAACAACCTCCTGTGTTGGTT  
GTTGAGAAAACAATAATGAGACAACAACAGCAAAATAGAGTATGTAAATTCAACACGACAGGATTATGTAGG  
GACTGCAAAATTGGAATAGAGGAAAACCTTTAGATATGAAGATGTAACCTGCACAAAGCTTAATAAAACCTGGTAGT

gctactaatagtactgaacctgaatatgagtgttacatgacttcatgtaacgcaacagtaataaacacaggaccgt  
aaciaagcttccacagatagaatgacatttaggttgtgtgcacccccagggttgtcttactaaaatgtaatgaa  
aaattgaacaagacaaaattatgtgggaatgtgtctgcagtgacagcaccgctgccagccacaatctct  
acaatgtttggcttcaatggaactaagcatgattatgatgagcttattcagacaaacccacgaaaaggaaaagat  
gagtttcatgaccataaatatgtatatagagtggataaaaaatggggattacaggtaaggtgtagaagggaaggga  
aatagatctatcatttccacaccaagttctacaggattgctgttctatcatgggttggagccaggaaagaatctt  
agaaagggaagtgatgagttagaagggaatggggacaggctttacatagtctatcattagagctaagaaagata  
aatgatagcatttacaagacaaccacaatatgacatgtaaaagcagtaacaacaaaaagaacacaacagggtgt  
catcttaaaactataagtataagtgagtcaccgttaaaggcgaaccaggagctgaaactattatgctcctctgt  
ggaggagaatatttcttttgtaattggactaaaatatggaaggcatggaatagcaaacaaagttcagtttggtac  
ccttacatgtctcgcaatattagacaaaatagtaggtgattggcataaagtaggcaagaaaatttatatgcctcct  
gtgtctgggtttaataatgaaataagatgtactaatgatgtgcagaaaatgttctttgaggtccaaaaaactgat  
gatgacaatggatatatcataaaatttataccacaagattggattcaaaatcaatacacagcagtgggggctcat  
taciaaattggtgaagggtggatccgataggttttgcacacagacatacacagacatcatttgcctaatacaagg  
caaaaatcggtatggggatgttcattctcccaagtttgcatactagtgtaaaatggcccaataatagtatagt  
cccaattggacctcagagacatggctggaatgggacagaagagtaaacagcatagtgacaaatatgaccatagac  
ttacagagggcatatgaattagaacagaggaacatctttgagttgcaaaaattaggggacttaaacttccatggg  
ctaactgggttcgaccttacatgggtggcttaagtatgttaagataggactgttagtagtagtagttatcatagga  
ttaagaatgttagcttgcttatgggtcagttatagggaagtttaggcagaagccttggaaggccagagcaagtcagg  
agctggctgaaaaggctcgacgctttacatttggctgaagaacctccaagcagtaattgaacgggatctaaggcac  
cagcaggatgtaactctcccctcagaaaaagagcaaccaagtgatgaagaggaagaggtaggctttccagtcctac  
ccaacgcagccagtgacctgaagcaacctacaaggacttgatagacatgtcccactttttaaaagaaaagggggga  
ctggaagggttttgggtggtctaaaagaagagaagagatcttggacctttatgcacaaaacgagtggggactaata  
cctaattggcagaactacacaaaggggaccggggataaggtatccgaagactttcgggttcttgttcaagctggtc  
ccggtggcagtgctgccccccctggaggaggatgaatgcaacaggctgctaaactcttctcaaatgggaatccag  
gaagacccagagggagagaggttgatgtggaagtttgattcagggttgcttatacgttctatgctcctataatt  
aggccagaggaatacaagtggtgtgacaagtctgagctatgaagcctacaagaaggagggaaaagcctgactgctgc  
aagaggaagtgggtggcagttctag

>#24 AF367411 7014 nt

atgggcgcgagcgcgtcaggtcttaggggagaaaaattggacgagctggaaaagattaggttacggccctccgga  
aaaaagaaataaccagctgaaacacataatatgggtaagcaaggaactagacagatttggccttcatgaaaagctg  
ttagaaagtaaggaaggatgcgagaaaaattcttagcgtactctttccactagttcctacaggggtcagaaaaatta  
atctcgtgtacaacacctgctgctgcgtatgggtgcgtacatgcgaaaagagaaagtaacagatacacaggaagcg  
aaagagaaaagtaaaacaaaagctccatctagtggccgaaaaggaaaatgcagcatcagaaaaagaacaaagagca  
atagtgcacctagtggccgctcaaaaaattacccaatacagataataaatcagaccccagtcctatcagggaatt  
tcaccgcgcacgctgaatgcgtgggtaaaatgcataagaagagaagaagtttagcccagaaatagtgcccatgttc  
atagccttgtctgaagggtgcctcccctatgatctcaatggcatgctcaatgctattggagaccatcagggagcg  
cttcaaatagtgaaggatgtcatcaatgaggaagctgcagactggaacttgagacaccacaagtggtcctatg  
cccaagggtgtcttgagaaacccaacgggcagtgatattgctggaacaacaagctccatagaagagcagatagaa  
tggactacaaggagcaagatgcagtaaatgtgggaggaatatataaacaatggatagttttagggttcagaag  
tgtgtaagcatgtataatccagtaaacatcctggacataaaagcaaggaccaaaggagccgttcaaggactatgtg  
gacaggttttacaagctctgcgggcggagcggactgatccacaagtcaaaacctggatgacacaaactttgtctc  
atccagaatgctaaccagattgtaaatccatccttaaagggttaggcagatgaatccctctttagaagagatgccg  
ctagcctgccaaagggttaggagggccctaaatataaaagcacaatgatggcagaggctatgaaggaagcccagtc  
gctgtaatgatgcagaattcgggagggccaccgcggggccccccgagacaacctcctagaaacatcagatgcctt  
aactgtggaaaatttgggtcatgggtgagggactgtataagccctcgaaaaaagggtgcttcaagtgtggagat  
ctaggacacataatgagaaattgcccagaatggtggagatagaagggcaaaaagtggaggccttactggacaca  
ggagctgatgatacagtaatacaagatctagatttaaaaggtaattggaaaccacagattattggaggaattgga  
ggatcaatcaatgtaaaacagtttttcaattgtaaagtaacaatagcaggcaaaactacacacgcttcagtccta  
gtgggccccacacctgtaaatatgttaggtagaatgtgctgaagaaattaggatgtacactaaattttccagtt  
agtaaaagtagaaacagtaaaaggtaacactaaaaccaggaactgacggacctaaaataaaacaatggccattgtct  
aaggaaaagatttttagccttacaagaaatatgtagtcaaatggagaaggaaggccagatctctaagataggtcca  
gaaaatccttacaacacaccgggtgttttgcataaaaaagaaagatggaaccagctggagaaaattggtagatttt  
agacagttaaacaaagtaactcaggacttctttgaggtgcagttgggaatcccacacctggaggtctcaacaa  
tgtgagcaaatcacgtactggacataggggatgcctatttctcatgtcctttggatgaggactttagaaagtac

actgcattcaccattccatcgggtgaataatcagggcccaggaatcaggtaccagtataatgtcctaccacagggga  
tggaagggctccccagccattttccaggcaacagcagataaaatcttacagcccttcagagagagacatccagat  
gtagtgatctatcaatatatggatgatctctttgttgggagtgatagagttgccccagaacacagcagaatgatt  
caagagtttaagagaccacctcttgttttgggggctcgagaccccagacaagaagtttcaaaaggaaccaccttt  
gagtggatgggatacactgcaccctaagaaatggacagtgacagaaagtacagcttcagagaaagaagaatgg  
acagtaaatgacatccaaaagttggtagggaaacttaattgggcaagtcagattttattccggaattaaaacaaa  
gagctctgtagactaattagaggggcaaaacccctagatgaaaaagtagaatggactagagaagcagaattagaa  
tatgaagaaaacaaactcatagtgacaggaggaagtgcatggagtatactatcaaccagagaagcctttaatggca  
aaggttcaaaaattgacacaagggcaatggagttaccaaatagagcaggaggataataagccgctgaaggtaggg  
aaatatgccagaacaaagaatgctcatacaaatgagcttagagtgcttgacaggactagtagagaagattgcaaaa  
gaagcttttagtgatctggggaaaactccctaagttttatctgccaatagaaagagaagtcctgggaccagtggtgg  
ccagaatatggcaagccacatggattcccgaatgggaatttgatccactccacaccttatcgggttggtgat  
aacctgttgagagaacctgtgccaggagaagatgtgtattatgtggatggagcagctaacagaaaactccaaagaa  
gggaaagcaggatatgtaacagctagaaataaatccagagtaatagccctagagaataccacaaaacccaaaagca  
gaattggaggcaataaaaaatggcattacaagactcaggaccaaaagtaaatatagtgacagattcacagtatgct  
atgggtatcctatcggcagcaccgcaccaatcagacaaccccatagtaagagaaattatagaactcatgatccac  
aaggaagcagtatacctagcttgggtaccagcacacaaaggcataggaggggaatgagcaagtagataaactagtg  
agcagaggagtaaggcaagtagctgtttttagaaggcatagataaagcacagaagagcatgataaatatcacaaat  
aattggagggcattagcacaaagacttctgtataccaaacatagtggcaaaagaaatagtagcccagtggtccaaag  
tgtcaaacaaaaggagagccaatacatggccaggtagatacatccccaggaacctggcaaatggactgcacacat  
atggaagggaaaagtaatcatagcagcagtcctatgtagcaagtaggtatctagaagcagaagtaatacccacagaa  
acaggaaaagaaacagcacacttcctgttaaaattagcaggtagatggccagtaaaacatctacacacagataat  
ggccctaatttcaccagtgaaaaagtagccacagtcctgttgggtgggctcaaatagagcacactacaggaattccc  
tacaatcctcagagtcaaggagtaatagaggcaaaaaacccatcatctcaacaaatcatagggcaagttagagac  
caagcagagaaaactagaaacagcagttcaaatggcagttattaattcacaatttttaaaagaaaaggggggataggg  
gaatacagtcaggagaaaagaatagtagacattatagcaacagacctcctaacaactaaattacaacacaatatt  
caaaaaattcaaaattttcgggtttattacagagaagggaagggaaccaacagtggaaggaccagcagaactcatt  
tggaaggagagaaggagcgggtggtaatcaaagaggggacagacttgaaggtagtagcaaggagaaaagcaaaaatc  
atcagagatagacatgcagtagaaaagatggaattcactggtaaaataccacaaatataaaaggagaaaaacatttg  
gacaaatgggatttaaaaggcacattttcaatgctcaggatgggtggacacactcacaaaaatatattcccctagaa  
gaagatgaacagatcataatcaccatcctgtggaacttaaccccagaaaaaggatgggttatcaacttatgccatg  
acaatagaatatagttcacaaaactactacactcacatagacccccaaacagcagacaggatgatacattggaaa  
tatctcccctgttttacagaacaagcaataagacaagccctgctaggaaagagactaacagtggtgctacttccac  
tggggacataaaagggaaggtagggagcctgcagtagcttggctttgctaagttatacagcctactgtaacatggag  
caaccacccgaggagcaggccctcaaagagaaccatacaatgaatggctaattgacaccttagcagaagttcaa  
gaagaagctttaagcattttgatagacgcttattgcatgcagtaggaagctggatctacaaaacctatggggat  
acattagaagggtgagcagcgttatctcaattcttcaaaaagctctgtctatgcactatagaatgcttaggtac  
ataatataggaataattgtaggactagggttaggaaaccaatgggtgacagtatattatggcacacctaaatgg  
cataaggcagagacacacctgttctgtgcaacagaaaatgattccttatgggttaacaactagttgtgttcccagc  
ttgttgactatgaagagcaaccaattccgaacataacatggaatttcacaggtcccattggaagaaaatgaggtg  
gtaatgcaagcatggggagctatctcctccatgatagacgcagtagtaaaaccttggtgtgaaactgaccccatc  
tgtgtcaagatgcagtgtagcaaaaaggaaaagaccttgctacccctatacccactacatccaccacaactaccaca  
actaccaccaagacgggtggcaataactactgagttggacatagacaccaataacactgaaactacaacacaacag  
aacagggtctgtaaatccaatactacaggattatgtagggattgcaaatggagatagaagaaaatttttagatat  
gaagatgtaactgtacaaatggcacaaaataacacataattcttgttatatgacacaatgcaatacatcagtaata  
accaggactgtaataaagcatccacagatgaaataaaatttagactgtgtgcacctccaggatatgttctcttg  
aggtgcctagaaaagattgaatgtctcttaaaaaatgtaccaatatcacagcagtagcagtgtagacagccattgcca  
gccaccacctcaactatgtgtggatctagtgggacaaaacatgattataatgaatttaatacagacaaaatacaag  
aaaggcaaaagaggagtttcatgaccataagtatgtgtatagagtagatgagaagtacaacttacaagtagtatgt  
agaagaaaaggaaacagatctgtgatctcaacacctagtgcacgggattgatcttttatagtgggttagaacca  
gggaaaaatcttaagaaaggtatgtgtcagttgaaggggacaatggggaatagccatgcatgatctagcaatagaa  
ttaagaaaaatagacagctccatattggagaaatgtaacaaagggtcttgactacaccacgaaaggcgaaccaggagcagaaactatt  
atgctcctctgtggaggagaataacttcttttgtaattggacaaaaatttgagaaacatggaatgatcaaaattca  
tcagtatggatccatggatgtcatgtaatattagacaaataatagatgattggcataaagtaggaaagaagatt

tatatgcctcctgtatctggatttaataatgagataagatgttctaatgatgtaacagaaatgttctttgaggtt  
caaaagacagaagagggatacatcatcaaatttgtgccacaagatgaggtacaaaaccgatttacagcggttagga  
gcacactatcaactagtaaaagtggaccaatttggccttctgctcctacagaagtggcaagatatcatctgccagaa  
gctaggcagaagtccatgtggggctgctcattcgcccagggtatgccacacacatgtaccatggccaaatgactct  
ataacaccaaatttgacctcagagacatggctggaatgggataaaaagagtaacagctctaactgacaatatgaca  
gtaaaacttacagaaggcatatgaattggagcaaaagaatatatatgagctagaaaaattaggagattggacttcc  
tgggctagctgggttcgactttacgtgggtggcttaaatatgttaagataggtttactaatagtaaatagtgattata  
gtgttaaggatttttagcttgcttatggctcagctcttaggaaagtgtgaagaggaagaaacgggctttccagtatat  
ccacagtgccagtaagagaacccacctacaaggacttgggtgatatgccccactttttaaaagaaaagggggga  
ctggaagggatttggcattctaaaagaagagaagagatcttggacttatatgctcaaaatgaatggggattcatt  
cctacctggcaatcttatactgatggcccagggataagatacccgagacatttaggttcttattcaagctttgc  
ccggtggcagtgctccagaccaggagaacaatgagtgtacaaattgctccagtcctctcagctgggaatccag  
gaagaatccttggggagagaggctagtgtggaagtttga

>#25 AF328295 7422 nt

atgggcgcgagcgcgctcaggtcttaggggagagaaattggatgaactggaacaatttaggttacggccctccgga  
aagaagaaataccagttaaaacatataatatgggtaagcaaggaactagatcgatttggccttcatgaaaaacta  
ttagaaactcaggaaggatgagagaaaattcttagcgctactctttccactagttcctacaggggtcagagaatctt  
cttgcgctgtacaacacctgttgttgcacatctggtgctgacatgagaaagtgaagtaactgatacagaagaggca  
aaaaagaaagtagaacaatgcttccatctagcggccaaaggagaaagtgcagcctcagaaaaagaagagaaagca  
acagcgacacctagtggccgctcaaaaaattatcctattcagataataaatcaaacaccagtgcatcaaggaatt  
tcaccaagaacttttaaatgcctgggtcaaatgtattgaggaaaagaaattcagtcacagaaatagtacctatgttc  
atagccctatcagaaggatgcctcccatatgacctcaatgggtatgttaaatgctattgggggaacatcagggagct  
ctccaaatagtgaaggatgtcatcaatgaggaagctgcagactgggatcttagacaccccccaagtaggacctttg  
cctcaaggggtgctgagaaacccaacaggaagtgcattgcaggaacaacaagcagcatagaagaacagatagaa  
tggaacttagacagcaggaacaggtaaatgtaggggcaatctataagcagtggtatgtcctaggggtgcaaaaa  
tgtgtgagcatgtacaaccagtgaaacattctggacataaaaacaagggccaaaagagcctttcaaggactatgtg  
gacagattttataaagctctgcgggcgagcgaacagatccacaagtcaaaacctggatgacacaaaacattgtctc  
atccaaaatgccaaaccagattgtaagagcatcttgaaaggattgggcatgaacctctctttagaagaaatgtta  
ctagcatgtcaaggagtggggggaccacccgcggggtcctccgagacaacccccctagaaaccccagatgtccc  
aactgtggaaggtatggacatgttctgagagactgtagactccccagaaagaagggtatgctttaagtgtggggac  
acaggacatatgatgagaaactgccccaaaatgggtggaatatagagggacaaaaggtagaagccctactggacact  
ggagcagatgatacagtaatacaagatgtagatttaacaggaaattggaaaccccaattataggaggaattgga  
ggagcaattaggggtgaacagtatcttcaattgtaaaaataacagtagcaggaaaaagtagtcatgttccagtgtca  
gtggggccctacccctgtaaatattataggtagaaatgttcttaagaagttaggatgtactctgaattttcctatt  
agtaagatagagacagtaaaagtaacactaaaaccaggaatggatggaccaagaattaaacagtgggccactgtct  
aaagaaaaagatttttagccttacagacaatatgtgatgaaatggaaaaggaaggcaaaatctctagaataggtcca  
gaaaatccatataatacaccagtatcttgtataaaaaagaaagatggaaccagctggagaaaattagtagatttt  
aggcaattaaatagagtgtactcaggatttctttgaggtgcagctaggaatccacatccgggaggtctaaaacaa  
tgtgaacaaatcacatattggatataggagatgcctatttttcatgtcctttggatgagagcttttagaaagtac  
actgcatttaccattccatcggtaaataatcaaggcccaggaatcaggtaccagtataatgttcttccacaggga  
tggaagggctctccggcaatatttcaagcaacggcagacaaaattctaaaaacattcaagaggaataaccagaa  
gtattaatttatcaatacatggatgatctgtttgtgggaagtgtctgagtgcgtcagagcacacaaaatggta  
aataggttgagggaacatttaaggttctgggggtcgagaccccagacaaaaagttccaaaaagaacctcctttt  
gagtggatggggtatgtgctgcacccacagaaatggacagtcctaaaagatacagctgccagaaaaagagacatgg  
acagtaaatgatattcagaaactggtaggaaaactcaattgggcaagtcaaattctattccggaattaaaacaaaa  
gagctctgcaaattgatcagaggggcaaaacctctagatgaagtagtagaatggactaggggaagcagaattagaa  
tatgaagaaaataagttaatagtgcaggaggaagtacatggagtttattatcagccaggaaaacctctgatggcc  
aaggtagacagaaactgacacagggacaatggagctatcagatagaacaggaagagaataagcctcttaaggtaggg  
aagtatgctaggacaaaacatgccacacaaatgagtttaagggtgcttgaggattagtagcaaaaaatagccaaa  
gagtgcatagtgatttggggagaattgccaaaattctatctccccctggagaggggaagtatgggatcagtggtgg  
catgattattggcaggcaacatggatcccagaatgggaattcatctcaacaccaccactaataagggttggttat  
aacctgttaaaagaaccaataaccaggggaggtgtctattatgtggatggggcagcaaatagaaactctaaggaa  
gggaaagcaggatactatacagctaggggaaaaagtaagtaatagccttagaaaacacaactaatcagaaagca  
gaattagaggcaatactgttagccttgaaagattcaggtccttagggcaaatatagtcacagactcacaatatgca

ttaggcatacttttcagccactccagatcgatcagacaaccctatagtttagagaaataatcaaccaaagtatagcc  
aaagaagctgtatacttagcatgggtaccagctcataaaggcataggaggcaatgaacaaatagacaaattagta  
agcaaaggaatcagacaagtactattcctggaaggaatagataaagctcaggaggaacatgacaaataccataat  
aattggagatcattaagtcaggaatttagcatacccccctatagtggaagaaatagttgcacagtgcccaaag  
tgtaggtaaaaggagaacctatccatggacaggtggatgcgggccccaggaacatggcaaattggttgacccat  
ctagaaggaaaggttatcatagtagcagtcctatgtggccagtggtatctagaagcagaagtgataccagcagaa  
acaggaaaagaaacagcacatttctgctaaaactagcaggaagatggccagtgaaacatttacatactgacaat  
gggtccaaactttgtcagtgagaaggtagccacagtggtgttggtgggctcagatagagcacaccacaggaataccc  
tataacccccaaagtcaaggagttgtggaagcaaaaaatcatcatcttaaggtaattatagagcaagttagggat  
caagcagagagactggagacagcagtagcaaatggcagtagctcattcacaattttaaaagaaaaggggggataggg  
gagtacagtcaggagaaagaatagtggtatataataacaacagatattctaactaccaaattacaacaaaatatt  
tcaaaaattcaaaatttttcgggtttattacagagaaggaagggagcagctctggaaaggaccagcagaactcatt  
tggaagggagaaggagcagtggtaatcaagaaggaacagacttaaaagttgtgccagaagaaaagctaaaata  
atcagggataaatggaattcattagtc aaataccacaaatataaggaagaaaaacacttagataagtggaacta  
ttccaccactttcaatgctcaggatgggtggacgcactctcaaaagattatcccccttcaagatgggtcaaagatt  
attattactgcctatggaacttgaccccagaaaaaggatgggttatctcaatatgcaatcacagcagaatacaac  
aaaggggactattatactcacatagacccagtaacagcagacagaatgattcattgggaatatttcccattgtttt  
acagctgccgctgtgagaaaggtgctgtacggagaaagaatagtagcgtgttacagcccctggggacataaaggt  
caggtagggactctacaactccttggtttaaagagcctacatcaagttttgcagaatggaacagccgccagaggat  
gaggtccacaaagagaacctatataatgagtggtgatagatacattagcagaaattcaagaagaagctttgaag  
cattttgataggcgcttattgcatgcagtaggaagctggatttatgaaacatatggggacaccttgaggggggtg  
cagaagcttatcacccctcttacagagagctctattttctgcatttttagacatggatgcaggggaaagccgaattgga  
caagaaggaggcaaatataaccccccttagatcctttccaaggccgaacaaccccttgtaaatgttattgcaagaa  
atgttgctatcactgccagtggttgccttcttgcaagaaagcttttagggatacattatcatgtctacagaaccaggag  
aactcggaaagagacttctgggaaaaatatcacaatgcttagacatttaatacacagcaatagtaataataggtata  
ggtataggaaaacaatgggtaacagtatattatggcacacctaataatggcaccagcaagaacgcattctttttgt  
gcaactgacaacaactccctttgggtaaccacaagttgtgtaccaagcttattgcattatgaggagcaactcatc  
cccaatataacagaaaattttacagtcacctatacaagagaatgaagtggtaaggcaagcatggggagctatttcc  
tctatgatagatgcagttctaaaaccgtgtgtaaaattgacaccatactgtgtcaagatgcaatgtacaaagggga  
gaaaacagtagtagcagcactaccactcccattgccactaccaccactcccaccactccagcagtgacggggctg  
gaggtgacggtacagaataatgagagtagcacacaagaaaaatagggtatgtaaatttaacacaacaggattatgt  
agggtatgtaaaatagagattaaagagagcttttagatatgaggatgtgacctgtactaaaaaggaaaatgacact  
gaaactgaagaatgttatatgacacactgtaatacatcagtaataacacaggattgttaataaggcctcaacagac  
aaaatgacatttagattatgtgccccctcagggtacattctgtctaagatgtcgtgagaaattgaataaaaactaaa  
ttatgtgccaatgtctcagcagtagcagtgtagtgcaccaatgcctgtactatatcaactatgtttggctttaat  
ggaaacaaaacataattatgatgagttattttgggtgaaccctcaaaaggagtttcatgaccataaatatgtttat  
agggtgaacaaaaaatgggggtgaaggtggtatgtgatagggaagggaacaggtctatagtttcagtcaccaagt  
gcatcaggattaattttctatcatgggttagaaccaggcaggaatctgaaaaaggaatgtgcaggttaatagga  
caatgggggaagagctttgaacgcattatcacgtgaattaaagaaagtaaatgcaagttttatagagggtttta  
gcaagtggcccttgcaaggggataaacaatagaggagtggttaacaaaacagggtgtgccttgaaaacaatagaa  
gtaagtaactacaccaccattggcgaaccaggagcagaaacaattatgatcctctgtggaggagaatatttcttt  
tgtaattggacaagaattttggaaaacctggaataacaaaaactcaaatgttttggtatccatatatgtcatgtaaa  
atcagacagatagtggtatgattggcataaagtgggaaggaagatttatatgcctcctgtgtctggatttaataat  
catataagatgcactaatgatgtcacagagatgttttttgagggtccaactagttgaaggaaaaagatacctaata  
aagtttctgccacaagatgaggtacaaaatcaattcacagcagtgaggagcacattataaattggtaaaagtggat  
ccgataggattcggccctactgatgtacacagatatcatctaccagatgcaaagcagaaggcagtatggggatgc  
tcattctcccaagtgtgtcatactaatgttccgtggccaaatgaaagtataactcctaattggacctcagaaaca  
tggttggaatgggtagaagagtgacagctatcactaacaatatgacaatcgatttacagagggcataatgaattg  
gaacaaaagaatgtatgaattacaaaaattgggagatttgacttcatgggctagctgggttcgacctcacgtgg  
tggtcacaatatgttaagataggaatattgataataatggtagtaataggacttagaatttttagcttgtttatgg  
tctacaataggtaggtttggagactatctccgacctcgcaacctcagacagccagacgaagaaagagaaggagag  
ctcaacttagaagaacagaacatcaagtcagagagctccaagaaagaatttggcagaccttgagggccagagcaa  
ataaggaattggttgaggagtcacaatttacatttggtgaagaatctgcaggcagtaattgaagtagatgat  
gagcaaaaagaagaaaggggctttccagtttatccacacagcctgtgcgtgaagcaacctacaaaaacctgata  
gatatgtccacttttttaaaagaaaaggggggactggaagggatttggttctctagaagaagagaagagatctta

aacctgtatgctcagaatgaatggggattcataccagattggcaagaatacacttcagggccagggataagatac  
ccgaagagatttgggttcttattcaagttaatcccagtagaagtagaccagaccaggagaaccaggagtgtaac  
aggctgcttaactcctctcagctaggaatccaggaagaatccatggggggagaggctgatgtggaagtttga  
>#26 KM378564 7386 nt

atgggagcaagcgcgtcaggacttaggggagagaagcttgatgcttttgaaaagggttaggttacggccctccgga  
aaaaagaaatacaggctcaagcatcttgctctgggtagcgaaggaactagatcgattcggcctacatgagagatta  
ttagaaagtcaggaaggggtgccaaaaaattttaggagtactcttctcctctagttcctacaggggtcggagaattta  
atttctctctttaataacctgctgctgtagtttggtgctgttactcgaaagtgaagtatcagacacagaggaagct  
gttcaaaaggtaaaagcaacactgccatctagtggaacaaaaatgagaatgcagcttcaaaaaatgaaaatggggaa  
acagcgacatctagcggcagggtcaagaaattacccattcaagttgttaatcaacaggcagtgaccagggtatt  
tcaccaagaactttaaatgcctgggtgaaggtgattgaggaaaagaagttcagtgacagaagtggtgcctatgttt  
ttggccctgtcagaaggctgcattagctatgacatcaatcaaatgttgatgctattggagatcaccaagggtgcc  
ctccaaatagtaaaagacatcatcaatgaggaagcagcggactgggataggagacatcctcaagtaggacctctc  
ccacaaggggtgcttaggaacccctcaggggtcagacattgcagggaccaccagctctatagaagagcagatagaa  
tggaaccaccagagcccaagatgccatcaatgtgggagcaatttataggcaatgggtggtcttaggggtgcaaaga  
tgtgtaacaatgtataatccagtcacatcttggtgtaaaacaggggtcctaaagaaccattcaaggactatgta  
gatagattttataaagccctcagagcagaacacacagatgcagcagtaaaaaattggatgacacaaacgctgctg  
atacagaatgcaaatccagactgtaaagtgattctcaaaggcctagggtgaacccagctctggaagagatgctg  
ctggcttgccaaggagtaggaggaccaggccataaggcaaggggtcatggcagaagctatgaaagaacaacaagca  
gctataatgatgcagcagaattccctcagagggtccaccgcgggggacccaggggacccctccaagaaaccctaaa  
tgtccaaactgcgggcagttcggacataacctaagacaatgtacaaagcctagaaaaaagggtgcttttaggtgt  
ggagcttttagatcatatgttaagaaattgccaaaacaggtgaatgagatagaagggcaaaagggtggaggcttta  
ctagacacaggagcagatgatacagtaattcaaggattagaattaacaggaaaatggaagccacaaattatagga  
ggaattggaggagctattaatgtgaagcaatattttaattgtgaaatcaaggtagcaggtaaaattactcatgct  
tcagtggttgtagggccctacccctgtaaatattataggtagaaatgtgctgtgttaaattaggagctactctaac  
tttctctgttagtcaagtagaaccagtaaaaagtaacactaaaaccaggaatggatgggccaagataaaaacaatgg  
cccctctccaaggaaaaaattgaagccttaaaagagatatgtgagcaaatggagaaggaaggtcaaataagtaga  
ataggtccagaaaatgcatacaacacaccggtgttttgtattaaaaagaaagatggtaccaaatggagaaaatta  
gtagatttcaggcagttaaaataaagcaacacaggacttctttgaggtgcagttggggataccacaccgggagga  
ttaaagagtgccaacagatcacagtagtggatgtaggtgatgcctacttctcatgccctctggatccggacttt  
agaaagtacactgcattcaccattccatcgggtgaataatcagggcccaggaatcaggtatcagtataatgtcctc  
ccacagggtggaagggtcacctgcaatcttccaagctacagctgacaagatcttacagccattcagagagaaa  
aatccagatgtgattatattatcagtacatggatgatctgtttgtaggaagtgatagacaaagcatttacatgat  
cagatgattaaagaattgagaacacatttaaagttctgggggtcgagaccccgacaaaaaatttcaggacaat  
cctccttatgagtggatgggataccagctgcaccaaagaaatggacagtgcaagaaattcgtttgctgataaaa  
gaaatttgactgttaatgatattcagaaatttagtaggaataactcaattgggctagtcaaatttatccggaatt  
aaaacaaaagagctctgtaaattaattaggggagccaagcccctggatgaagaagtagaatgggtctaggggaagca  
gaactagaatatgaagaaaacaaactgatattaaaagaacaaatgcatgggggtatattatcagccagaaaagccc  
ctaaaagccaagatacaaaaaattgggcaatggacaatggtcatatcagatagaacaagatgacaacaagccacta  
aaaacaggaaaatatgctaaggtaagaatagtcacaccaatgatagaggatgttagcaggactagtgcaaaag  
gtagcaaaaagaagcactggtaatctggggaagattgccattttctacctaccggtagaaaaggaggtttgggaa  
caatggtggcaggagtagtggcaggtaacatggatttctgattgggaatttgtatcaacacccccctctcatcaag  
ttatggtataacttgttgagtgaaccaataaccaggagaagaagtttattatgtggatggagctgctaacagagtt  
agcaaaagaaggaaaagctggctatgttacctccaggggaaaagaaaaggtaatagccttagaagaaaccaccaat  
cagaaggctgaattacagggtattctgttagccttgaaagactctggtccaaaagtcaacatagtgacagattca  
caatatgccatgggcataatatcttctcctcccagaaatcagtgacaaccctatagtgaatcaaattatagaacaa  
atgatcagtaaaagaagcagtttacttaaattgggtaccagcacataaagggtataggaggtaatgaggaggtggac  
aaattagtttagtagaggaataagacaagtgttatttcttagataatatggaaaaggcacaggaagaacatgattta  
taccataataattggagatccttagcacagaattttggtctaccagggtatagtggaagaaatagtggcacag  
tgtcccaaatgtcaatacatggagagccaatacatggccaagtagatgcaagcccaggaacttggaatggac  
tgcacacatctagaaggaaaaataatcatagtggcagtcctatgtagcaagtggatacatagaagcagaagtaata  
ccagcagaaacaggagagaaaaacagcttactttctgctaaagtttagctggcagatggccagtatcacacttgcat  
acagataatggaccaaatttcaccagtgaaaaggtagcaacagtatgctgggtgggctaaaatagagcataccaca  
ggagtaccctataacccccagagtcagggtggttagaatcaatgaacaatcagctaaagaaaattataggacaa  
atcagagatcaggcagaaaaactagagacagcagttcaaatggcagtagtattcacaattttaaaagaaaagggt

gggataggggagtagcagtgacagcagaaagaatagtagacatcatagccacagatctctttaacaagcaaaactacaa  
caaaatattctcaaaattcaaaatctcggtttattacagagaggggaagagatcagttgtggaaaggaccagca  
gaacttgtctggaaaggggaaggagcagtggtcatcaaggaaggtagtactgacttgaaagtaatacctagaagaaag  
gcaaagatcatcaaagataggtacatggtagagagatggaactccctgtgtaaatatcacaagtataaggggagaa  
aagtatttagaaagatggcattatgcacctcacttccaatgctcaggttggtggactcatagtcagtgaccatc  
cccttccaagacaaaagtaaaatagtagtaacagtcctgtggaacctcaccagacaaaaggggtggttaagtaag  
tatgccataacaatagaacatattcaggagaagtttgcacctcatagacccaacaacagcagataaaaataatc  
cacttggaatatttcccttgttttacagatcaagcaattagaggtgtcctgctgggatttagaattcaagcttgc  
tatttccctagagggcataaggggtcaggtagggagtcctcagtatcttgccttgcaagcacacataaaatatctt  
aagatggaaaggccacctgaggatgaaggaccgccaagggaaccttatgatgagtggttagtagatacttttagta  
gaaatacaagaggaagctttgaagcattttgataggcgcttactgcataatgtaggatcatgggtctatgaaaga  
tacggagattcattagaaggagtagcagcagcttataacaatcttgcaaagagcgcttttcttgcattttagaatg  
gatgccaggaaggtagacttgaccagcaggacgctggaatccatttcgaacctttccaagggcggaaccagcaat  
tgtatgattagacatatagttataggcttatgcattttaggatttttaggattaagtataggaaaacattgggta  
acagtggttttatggaaccccccaagtggagaccagcatccacacatctgatctgtgctacagataatcattcattc  
tggttaactacaagttgcataccaagtctattgcattatgaagaaacacaaattgaaaatatagaagaaaatctt  
actgtccctatgacaaaaaatgaagtgataaaacaagcatgggggtgcattatcatctatgatagatgcagtgctt  
aaaccatgtgtcaaaatcaatccttattgtgtaaaaatggaatgtactgatggcccaccacaaccaacaact  
acagcaactagtactagtactactagtgtgccccaaatataacagcagatttgagatagacagaaaataacaca  
gaaccaaaaaacagaaacaaatagagtatgtaagtacaatgtgacaggattgtgtagggactgtaaagaagagatc  
acagaaaaattttaggtatgatgatgtagtgtgtaaatgtggcagtagagctgaatcaccagaagagaacaactgt  
actgaaagtagaatatgtttatgttcaccattgcaactcaaccgtgattactcaggattgcaataaggcttctact  
gatatgatgaaattcagattgtgtgtctccaccaggatatatatcttaagatgtaatgagaagctaaataaaact  
agaaagtgtagaatatataacagcagtgtagtgtagtagacacatgcctgccacaatctctagcatgtttggcttc  
aatggcacaaaagcatgatcaagatgagttaatagagacaaggggaagaccagactttattgatcataaaatcgtg  
tttaggggtgataggaaatggaaccttagaattctctgtagaagaaaaggaaataggagtagatgtgcaacggcc  
tcagccacaggggtgtgtgttttatcatgggttagaaccaggaagaaaatctaaaaagaggaatgtgtatatttcag  
ggacactggggaatggcttttagaaagcctagccaaagaattgaaaaaagtaaatgcatttgagaaataact  
aataagaccagccaatgtaacgggctcaaaggaaagacaaacgcaacaggggtgcctgttgagcagcttagggta  
gataattacaccgcccaggggagatctggcatcagagaacctcatgatgatgtgtggaggagaatatttcttctgc  
aatgttactaaaaatggaacacatggaataatagatcaagtagtggtgtgtgtatccatagcatcctgccacata  
aaacaaataatagatgattgggcaaaaagttggcaggaaaaatttatatgcctcctgtatcaggatttaataatgag  
ataagatgtacacaagaagtcacagaaatgttctttgaggttcaccgtttggacacaaatgtaaccgatgattct  
cattatcagattaaatttataaccacaagatgaagtgcaaaatcagtcacagcagtaggagcacattacaaattg  
gtcaaggtggagccaattggctttgtccaactgacgtgcatagatacaacctgccggaacacaggcagaaaaagc  
ctctggggatgctcctttgcacaagtatgtcacacaaatgtagagtgccctaatgaaacagtgactccaaattgg  
acctcgagacatggatggagtggaacaaaagagtggtatagatatcaaacaacattactcttgatttacagaag  
gcataatgaacaagaacaaaagaatatctttgaattgcaaaaattaggagatttaacatcatgggctaactggttt  
gattttacttgggtggttttaatatattaagataggattctttgtagtgatagtaataatagggttaagaatctta  
gcagctttatggagtacagtaggttaggttaggcagggttatcgccctcttcttataatctttaagagcttagat  
actactcttatgcaagcagcagcagcagcagagaaagatgtcaccctcccactgaagaagaacaacctcagaa  
gaagaagaagaagtaggctttccagtatatcctcgatgtcctctaagagaaccaacatataaagatctggttagac  
ttttcccacttttttaaaagaaaaggggggactgaaggggatttggtggtctcacagagagagacaatcttgga  
ttatatgctcaaaatgaatggggcttcataaaaggctggcaagctacaccagaggacctggtatcaggtacca  
aaagtgtttgggttctgttcaagctggtccctgtggaggttagatgaagatgtggttaaatacagccgtgcaacagc  
ctgttaaactccagccaaatgggtcctattgatgacccaaacggagaaagactcatgtggcagtttgatccaacc  
ctggcatattccttcaaggcttgattcaccatccagaggagtttgacatgctagaagtatagagcacatagca  
gaggagccagcctgctgcaagaggaagtggtggcag

>#27 KM378563 7431 nt

atgggagcaagcgcgtcaggacttaggggagagaagcttgatgcttttgaaaagggttaggttacggccctccgga  
aaaaagaagtataagctcaagcatcttgtctgggtagcgaaggaaactagatcgattcggcctacatgagagatta  
ttagaaagtcaggaagggtgccaaaaaattttaggagtactcttcccttagttcctacaggggtcagagaatcta  
atttctctctttaataacctgctgcgtagtgttggtgcgttcactcgaaagtgaagtaacagacacagaggaagct  
gttcaaaaagtaaaacagcactgccaatctagtggacaaaaatgagaatgcagcttcaaaaaatgaaaatggggaa  
acagcgacatctagcggcagggtcaagaaattacccattcaggttggttaataacaggcagtagacacaggctatt



tcaccaagaactttgaatgcctgggtgaaggttaattgaggaaaagaagttcagtgacagaagtgggtgcctatgttt  
ttggccctgtcagaaggctgcatcagctatgacatcaatcagatgttaaattgctattggagatcaccaagggtgct  
ctccaaatagtaaaagacatcattaatgaggaagcagctgactgggataggagacatcctcaagtaggacctctc  
ccgcaaggggtgcttaggaacccctcagggtcagacattgcaggaaccaccagctctatagaagagcagatagag  
tggaccaccagagcccaggactccatcaatgtgggagcaatttatagacaatgggtggtcttaggggtgcaaaga  
tgtgtgacaatgtacaatccagtcaacatcttggatgtgaagcaaggctcctaagaaccattcaaggactatgta  
gatagattctacaaagccctcagggcagaacatacagatgcagcagtaaaaaattggatgacacaaacgttgctg  
atacaaaatgcaaattccagactgtaaagtgtattctcaaaggcctagggacgaaccccgactctggaagagatgctg  
ttagcttgccaagggtgtaggaggaccaggccataaggcaaggggtcatggcagaagctatgagagaacaacagaca  
gctataatgatgcagcaaaatccccccaggggtccaccgcggggaccaggggacccccctccaagaaaccctaga  
tgtccaaactgcgggcagtatggacataccctaagacaatgtacaaagcctagaaaaaagggtgctttagatgt  
ggagctttagatcatatgttaagaaattgcccaaacagggtgaatgaaatagaagggcaaaaggtagaggcttta  
ctagacacaggagcagatgatacagtaattcaaggattggaattaacaggaaaatggaagccacaaattatagga  
ggaattggaggaaccattaatgtgagacaataattttaattgtgaaatcaagatagcagggaaaattactcatgct  
tcagtgttagtagggcctacccctgtaaatattataggtagaaatgtactctgtaaattaggagctactcttaac  
tttcctgttagtcaagtagaaccagtaaaaagtaacactaaaaccagggaatggatggaccaagataaaaacaatgg  
ccctctccaaggagaaaattgaagccttgaaagaaatatgtgaacaaatggagaaggaagggtcaaataagtaga  
ataggtccagaaaatccatacaacacaccgggtgttttgtattaaaaagaaagatggtagcaaatggagaaaacta  
gtagatttcaggcaattaaacaaagcaacacaggacttctttgaggtgcagttagggataccacaccaggagga  
ttaaagcatgcgaacagatcacccgtactggatgtagggtgatgcctacttctcatgccctctggatccggacttt  
agaaagtacactgcattcaccattccatcgggtgaataatcagggcccagggaatcaggtatcagtataatgtcctt  
ccacagggatggaaagggtcacctgcaatcttccaagctacagctgacaagatcttacagccattcagagagaag  
aatccagatgtgattatatatcagtacatggatgatctgtttgtagggagtgtatagaccaaagcatttacatgag  
cagatgattaaggaattaagaacacacttaaagttctggggggcccgagacccagacaaaaaatttcaggacaat  
cctccttatgagtggatgggggtaccagctgcacccaaagaagtgagacagtgcaagaaattcgcttgctgataaa  
gaaatttgactgttaatgatattcagaaatttagtaggagtgttaattgggctagtcaaatttattccggaatt  
aaaacaaaggagctctgtaaattaattaggggagccaaacccctagatgaagaagtagaatggaccagggaagca  
gaactagaatatgaagaaaacaaactgatattaaaagaacaaatgcatggggtatattatcagccagaaaaacc  
ctaaaggccaagatacaaaaaactgggcaatggacaatggatcatatcagatagaacaagatgacaacaagccacta  
aaaacaggaaaatatgctaagggtaaaaaatagtcacaccaatgatatgagaatgttagcaggactagtgcaaaag  
atagcaaaaagaggcactgggtgatctggggaagattgcccactttctacttaccagtagaaaagggaagtttgggaa  
caatgggtggcaggagtactggcaggtaacatggatcccggattgggaattcgtatcaacaccacatctcatcaag  
ttatgggtataatttgcctgagtgaaccaataaccaggagaagaagtttattatgtggatggagccgctaacagagtt  
agtaaagaaggaaaagctggctatgttacctccagggggaaagagaaggtgatagccttagaagaaaccaccaat  
cagaaggctgaattacaggccatcctgttagccttaaaggactccggtccaaaagtcaacatagtgcagagattca  
cagtatgccatgggcataatatcatcctccccagaaatcagtgacaacccgatagtgaatcaaattatagaacaa  
atgatcagtaaaagaagcagtttacttaaattgggtaccagcacataaaaggaataggaggtaatgaggaggtggac  
aaattagtttagtagaggaataagacaagtgttatttctagataatatggaaaaagcacaggaagaacatgattta  
taccataataattggagatccttagcacagaatttgggtctaccagggtatagtggcaaaagaaatagtggcacia  
tgtcctaagtgtcaaatacatggagaaccaatacatggccaagtagatgcaagcccagggaacttggcaaatggac  
tgcacacatttagaaggaaaaataatcatagtggcagtcctatgtagcaagtggatacatagaagcagaagtaata  
ccagcagaaacaggagagaaaaacagcctactttctgctaaaattagccggcagatggccagtggtcacacttgcac  
acagataatggaccaaatttcaccagtgaaggaagtagcaacagtatgctgggtgggctaaaatagagcataccaca  
ggagttccctataacccccagagtcaggagtggtagaatcaatgaacaatcagttaaagaaaatcataggacaa  
attagagatcaggcagaaaaactagagacagcagttcaaattggcagtagtaattcacaaattttaaaagaaaagg  
gggataggggagtacagtgacagcagaaagaatagtagacattatagcctctgatctcttaacaaataaaactaca  
caaaatattctcaaaattcaaaattttcggtttattacagagagggaagagatcagttgtggaaaggaccagca  
gaacttgtctggaagggggaaggagcagtggtcatcaagggaaggtagtactgacttgaaagtaatacctagaagaaa  
gcaagatcattaaagataggtacatggtagaaggtggaactccctgtgcaaatatcataagcataaggagaa  
aagtatttagaagatgggtattatgcacctcacttccaatgttcagggttggtggactcatagtgcagtgaccatc  
cccttcaagacaagagtaaaatagtagtaacagtcctgtggaacctcaccacagacaaaggggtggttaagtaaa  
tatgccataacaatagaacatattcaggagaagttttgtaccttcatagacccaacaacagcagatagaataatc  
cacttggaatatttcccttgttttacagatcaagcaataagaggtgtcttactgggatatagaattcaagcttgc  
tatttccctagagggcacaagggccaggtagggagtcttcagtatcttgcttgcaagcacacataaagtagctt  
aggatggaaaggccaccggaggatgaaggaccgccaagggaaccctatgatgagtggctagtagatacttttagta

gaaatacaagaggaagcctttgaagcattttgataggcgcttattgcataatgtaggatcatgggtctatgaaaga  
tatggagattcattagaaggagtgagcagcttataagaatcttgcaagagcacttttcttgcattttagaaaa  
tgctgggtgcaaactgcgcttaccactgtcagctttgctttcttcaaaaaggcttagggatacgttatatgatt  
agacatatagttataggcttacgcatttttaggatttttaggaataagtataggaaaacattgggtaacagtgttc  
tatggaaccccccaagtggagaccagcatccacacatctgatctgtgctacagataatcattcattctgggtaact  
acaagttgcataccaagttttattacattatgaggaaacaaaaattgaaaatatagaggaaaattttactgtccct  
atgacagaaaaatgaagtgataaaacaagcatgggggtgcgctgtcatctatgatagatgcagtgttaagccatgt  
gttaaaatcaatccttactgtgtgaaaatgatatgtaatgataccaaagaaataccaactacaacaacagtagct  
acaacagtggttactactacttagtactacagctccaaaaaatgctagtgttgcccaacaacagcaaatggcact  
ttggatatagatacaaaataatacagaaaaagtaacagaagcaaacagagtatgtaagtacaatgtgacaggattg  
tgcagggactgtaaggaagaaatcacagaaaattttaggtatgatgatgtagtttgtaaatgtggcaatgtaact  
gaatcaccagaaaaataataattgtaatggtacaagaacatgttatgtgaccagttgcaactcaacagtgattacc  
caggattgtaataaggcctccacagatatgatgaagttcagattgtgtgctccaccagggatatattgtctaaga  
tgtaatgaaaaactgaataaaagtagtaagtgtaaaaatatataacagcagtgagtgactagacacatgcctgcc  
acaatctctagtatgttttggcttcaatggcacaagcatgatcaagatgagttaatagaaacaagaggaagacca  
gaatttgtggatcataaatatgtgttttaggggttaataagaaatggaacctcaaaatcatgtgtagaagaaaagga  
aacaggagtgtaatatctacacctcagctacaggggtgtgttttatcatgggttagaaccagggaaaaatcta  
aacagaggaatgtgtaaaatttgagggacaatggggaaaggcttttagaaagcttagccaaagaattaaaagcagta  
aatgcctccatttggagaaatactactattaaagggaaagaatgtaaacgtctcaaagaaaccaaagacacaaaa  
acagttgggacaggggtgcatgtttgaagcagcttaaggtagataattacaccaccaagggggatctagcatcagag  
aacctcatgatgttgtgtggaggagaatacttcttctgtaatatctctaaaatatggagaacatggaataataga  
tcaagtaatgtgtggtatccatatgcatcctgccacataaaaacaaatagtagatgattgggcaagagtgggcagg  
aaaatttatatgcctcctgtatcaggatttaataatgaaataagatgtacacaagatgtcacagaaatgttcttt  
gagatccaaaaattggagacaaatgaaatcaatgattccaactatcagattaaaatttgtgccacaagatgaagtg  
caaaatcagttcacagcaataggagcgcattacaaattgggtcaagggtggagccaattggctttgctccaactgat  
gtacatatagatacaacctgccggaacacaggcagaagagcctctggggatgctcctttgcacaagtgtgtcacaca  
aatgtggtgtggcctaagtgcagtgactccaaattggacctcagagacatggatggagtggcaaaaaagagta  
gatagtatatcaacaacattactcttgatttacagaaggcatatgaacaagagcaaaaagaatatttttgagtta  
caaaaattaggggacttaacatcatgggctaactggtttgatttcaacttgggtggtttaaatatattaagatagga  
ttcttttatagtaatagcaataataggattaaagaattttagcagctttatggagcacagtaggtaggtttaggcag  
ggttatcgccctcttcttcttatgtctttaagagcttagatactactcctatacaagcagcagcagcagagaaa  
gatgtcaccccttcccacagaagaagaacaacctcagaagaagaagaagaagaagtaggctttccagtatatcct  
caatgcccgttgagagaaccaacttacaaagagttagtagacttctcccactttttaaaagaaaaaggggggactg  
aaaggggatttgggtggtctctcagaagagaatcaatcttggatctttatgctcaaaatgaatggggcttcataaaa  
ggctggcaaaagctacaccaagggacctggcatcaggtacccaaagggtatttgggttctctgttcaagttggtccct  
gtggatgtagatgatgacctgatagatcagccgtgtaacaggctgttgaactccagccagatgggtcctattgat  
gactcagaagggagaagagactcatgtggcagtttgatgcaagcctggcatacacctttcaggcttgattcaccat  
ccagaggagttcggacatgttacaagtataagacatgataaaagagaagagccagattgttgcaagaggaagtggtg  
ggcag

>#28 M27470 7710 nt

atgggtaatgggaactctgccttgtagggactgatttggataaatttgagaaaataagattaaagagaggtgggt  
aaaaaatgttatagattgaaacacctctgttgggtgtaaagggtgaattagatagatttggcttatcggataaaactc  
cttgaaacacagcaaggatgtgaaaaaatcctctcagtatgttggccattatatgaccaaggatcagataatcta  
aaagcttttgtagggacagtcctgtgtttagcctgcatacacgcaggtatagaaattaagagcacacaagatgct  
ttaaaaaaattaaaagtcataacaagaaaggaagaaaagcaggaggatgaaagtaagaatttccctgtacaaagg  
gatgcagcaggacagtatcagtatactccaataagtcctaggattatacagacatgggtaaaaacagtggaagaa  
aagaagtggaaaccggagggtcatccctctattctcagcattgacagaaggagcaatcagtcatttgaatatc  
atgctgaatgcagtaggagatcatcaggagcaatgcaagtcttaaaagatgtaattaatgagcaagcagcagaa  
tgggatctaacacatcctcaacaacaaccagcacacacaggaggagattaaaggaccttccaggtctgatata  
gcaggaactacttctacagtggaagaacaattggcatggatgaatatgcaacaaaatgcaatcaatgtaggaaca  
atctataagagtttgattatactgggcatgaatagattggtaaaaagtcattgtccaataagtataacagatgta  
agacagggaccaaaaggaagcttttaaaagactatgtagatagattctacaatgtaatgagagcagaacaagcttca  
ggagaagtaaaagtgtggatgcagcagcatctgcttatagaaaatgcaaaccagaatgcaagcagattttgaga  
agcttagggaaaggagcaacttttagaggaaatgttggaaagcatgtcagggagtaggtggggccacaacataaagcc  
agattaatggcagaaatgatgagaacagtggttaggacaatcacaaaattttgtgcagcagagagggcctcaaaga

ggaccagttagacaacctactggaaggaaacctatctgcttcaactgtaataaagaagggcatgtagcaagggttc  
ttcaaggcccctagaaggaaaggggtgctggaattgtggagcaatggatcatcagaaagctcaatgccctaagcca  
gctcagcagcagaggggttgagggtctcagtggtggtgtcactataagagctctactagatacaggagctgatgat  
accatctttaatgaaagaaatataaaattaaaaggaaattggcagccaaaaattatagggggaatagggtgaaac  
ttaagagtaaaacagtatgataatgtatatgtagaataaagagggaagggaacatttgggacagtattgatagga  
cctactccaatagatataatagggagaaacataatggaaaaattaggaggaaaattaatattggcacaattgtct  
gataaaataccaataacaaaagtgaattaaaaccaggagtagatggaccagaataaaacaatggcctttaagt  
aaagagaaaaatagttgggtcttcagaaaaatgtgatagattagaggaggaaggaaaaattagtagggtagatcca  
ggaaataattacaatacacctatctttgccataaagaagaaggataaaaaatgaatggagaaaaattaatagacttt  
agagaattaaacaagttaacacaggattttcatgaattacagtttaggtatacctcaccagcaggaataaaaaag  
tgtaaaagaataacagtcctagatataggggatgcctatttttagtatacctctggatccagattatagaccctat  
actgcctttacgggtaccatcagttaataatcaagcaccaggaaaaagatacatgtataatgttcttctcaaggg  
tggaagggaagtcctatgtatctttcaaggacagtagcatcactgctggaggtatttagaaagaacatccaaca  
gtacagttatatcaatacatggatgatttgtttgtaggggtcagactatacagcagaagagcatgagaaagctata  
gtagaattaagggcttttattaatgacatggaacttagaaacacctgaaaagaaatatcagaaagaacctcccttt  
cattggatggggatgagttacaccagataagtggagatagaaaagggtcaactaccagaattagcagaacag  
ccaacagtaaatgaaatacagaaattggtaggtaaattaaattgggctgcacagttatatcctgggatcaaaaca  
aaacaactgtgcaagctaataagaggaggactaaacataacagagaaagtcacaatgacagaagaagcaagactg  
gaatatgaacaaaataaagagatcttggctgaagaacaagaaggggtcttattatgatcctaataaggaattatat  
gtaagatttcagaaaaacaacaggaggagatatatcattttcaatggaagcaaggaaataaggttttaagagcaggg  
aaatatgggaaacagaaaaacagcacatagtaatgacctcatgaaattggcaggtgctacgcagaaggtaggaaga  
gaaagtatagtaatctgggggttttgtacccaaaatgcagatacccactacaaggagatatgggaagattgggtgg  
catgagtattggcagtgtagatggataaccagaagtagaatttatcagcacacctatgtttagaaagggaatgggtat  
agcttgtccccagaacctctagagggggtagaacatatattatgttgatggagcagctaacaggggacagtaaaatg  
ggaaaagcaggatatattacagatagagggttttcaaagggtagaagaatatctaaataccaccaatcagcagaca  
gaattacatgcagtaaaactagctctagaagatagtggaaagttatgttaacatagtaacagattcacaaatgtga  
gtaggtatactagcaagcagacctactgaaacagatcaccccatagtaaaggaaataatagaattaatgaaagga  
aaagaaaaaattttatttaagttggctaccagcacacaaagggataggaggggaatgagcaaatagataagctagta  
agttcaggaatcagaaaagtcttattcctacaaaatatagaaccagcacaggaagaacatgagaaatatcatagc  
aatgaagcacaattaagagagaaattccacttaccagctctagtagccaaacagattgtgcaaagttgcagtaag  
tgctgtcatcatggagagcccataaaaggacagacagatgcttcacttggagtctggcagatagattgcacacat  
ctggaaaaatcaaattattatagtagcagtgcatgtagcttcagggttcctatgaaggcagaagttataacagcagaa  
actggaaaaaagacagcagagtttctgttaaagttagcagcacaaatggcctattagtaaaactacacacagataat  
gggcctaaactttactagtcaggaagtagaaacctgtgtttgggtgggttagggatagaacacacatttggaaatccc  
tataaccacaaaagtcagggggtagtggaataaaaaataagtatctaaaagaattgattgagaaaaataagagaa  
gattgcaaagaattaaaaaacagcagtagccatggccacattcattcataatttttaacaaaaggggaggactaggg  
gggatgacagcaggagagagaatagtaaatatgatcaatacagaattagaatatcaatatcaacaaaatcaaatt  
tcaaaaaatttaatttttaaggtttacttcagagaaggaagagatcagctgtggaaggacctgggtatccttttg  
tggaaggagaaggggcagtagttttaaaatatcaagaagagataaagatagtagcttagaagaaagtgtaaaata  
ataaaagatcagagaatagaaaagtggcactgggttagtaagaagacagatggcatgggacctgcaataatgag  
gaaggatgttgggtggctgtatcctcattttatggcttataatgaatgggtatacttgcagtaaaagtagtgattata  
ataaatagggacataagattaatagttagaagctatttggcatttgcataatagaggtaggatgcttaagtacttat  
gcagtaagcatagaagcagtagttagaccgccacctttgagaaagagtggtgtacagagataactccagaggta  
gcagatcatctaatacattttacatttttatgactgcttcagtgacagtgtagttatgaaagccatcaggggagaa  
gaagtgttaaaagttttagatattccagctggccataaagcacaaaggtgttctctcttttgcagtttctctgttg  
agagtcatccaagtatcagaagatcaaggacctcccagagagccatacaatcagtggttagcagatactatggag  
gaaataaaggaagaagcaagaaagcacttccctctcattatcctaaatgcagtatcagaatatgtgtgcaaaac  
acagggagtgaggaagaggcctgtgagaaatttattaccttaatgaatagagccatttgggtccacctagctcaa  
gggtgtcaactgctagaagagtattatcagcctttgcaagcttgtgagaatatgtctacaggaaacgtgtaccag  
gaactaataagaagatacctggtagtggtgaagaagctatacgaaggtaagtatgaagtgtccagggtctttttct  
tatactatgtttagcctactagtaggtattataggaacaaatatgtgacagctcttctatggagtaccagtatgg  
aaggaaagctaaaacacatttgatttgtgtacagataattcaagctctctgggtaaccactaattgcataccttca  
ttgccagattatgatgaggtagaaattcctgatataaaggaaaaattttacaggacttataagggaaaaatcagata  
gtttatcaagcatggcatgctatgggaagtatgttagataccatacttaagccatgtgtaaagattaacccatat  
tgtgttaagatgcaatgtcaggaaacagaaaatgtatcagcaacaacagctaagcctataactacacctactact

acatctacagttgcaagtagtacagagatttacttagatgtagataaaaaataatacagaagaaaaggtagagagg  
aatcatgtatgtaggtataacataacaggactatgcagggattcgaaggaagaaatagtaacaaattttagaggg  
gatgatgtgaaatgtgaaaataatacttgctatatgaatcattgtaatgagtcagttaatacagaagactgtcag  
aagggacttttgataagatgtatttttaggttggtgtgcctccaggatatgtcatgttaagatataatgagaagtta  
aataataataaattgtgtagcaatatatcagcagtgtagtgactcagcacttagtagccacagtaagtagcttt  
tttggttttaatggaactatgcataaggaaggagaattgatacccatagatgataaatataggggccagaggaa  
tttcatcaaaggaagtttgtctataaggtgccaggaaaaatatggcctaaagatagaatgtcacagaaaaggaaat  
aggtcagtagtgagtagtccatcagctacaggattattattttatcatgggttagaacctggaaagaatttaaag  
aaaggcatgtgcaccttcaaaggacgttgggggttagcactttggagtcagctaaagaactaaataaattaaat  
gactccatcaaagtgaaccagacctgtaaaaattttactagcactggagaggagaacaaacaaaacacggacaag  
caaaaggagtttgccaaatgcataaagactcttaagatagataattatactacatcaggagatagagcagcagaa  
atgatgatgatgacatgtcaaggtgaaatgttcttctgtaatgtaacaagaatcatgagggcatggaatgatcct  
aatgagaagaagtgggtatccttatgcctcatgtcaaattaggcaaatagtagatgactggatgcaagtaggaaga  
aagatatatttaccacctacatcaggatttaataatcacataaggtgtacacatagggtaacagaaatgtacttt  
gaaatgcaaaagatagatagtaatgaaacaaaaatgcaaattaaattcttgccctccagtgaaacctccaatcaa  
tttgttgcttatggagctcattataaattagtcaaaaataatgccaatggcatagcacctacagatgtgaaaaga  
cacactttacctgaacatcataaagagaagagaggagcagtaatacttggtatccttggtctgctctcgctggca  
ggatccgcgatgggctcagtgctcggtggcactgactgtccaatctcagtccttggtgactgggtagtggaacaa  
caaaaacagttgttgaaagctcatagagcaacagtcctgaactcttaaaactcaccatatggggagtaaagaattta  
cagactcgctgaccagtttggagaattatatcaaggaccaagctttgctgtctcaatgggggtgttcatgggca  
caggtgtgtcatacttctgtagagtggactaatacaagcatcactccaaattggacatcagaaacttggaaggaa  
tgaggagacaagaactgattatctgcaacaaaacattacagaaatgttaaaacaggcatatgatcgagagcaaaga  
aacacatatgaattacagaagttaggagaccttacatcttgggcaagttggtttgactttacttggtgggttcaa  
tacttaaaatggggagttttcttagtgtaggaattataggattaagaattttgtagccttatggaatacaata  
agtaggttttaggcagatgggttcctcgagtcgaagaagcgatcagaagcttgggttcgctactcgtcagctttg  
cggcaattagttggagggccggttacaccggatggctacaagcaaatagaatcttcacaggggtgcagagaagcaa  
tcattgctgcggggacgtgcataatggcacatactcagaaggattagacaaagtgcagaacgaccccttaactaaa  
gatgagaaacttgacttaacacagcaggatccagaagaggaggaagaagttggatttcctgtgtgtcgccaagtt  
tccttaagagtgccatcatacaaagatctgatagacttctctcattttataaaagaaaaggggggactgggaggg  
atatattatagcaggagaagagaagaaatcctagatctctatgcagagaatgagtggggatttgaacctggatgg  
caacagtatacgacaggtccaggaaccagatatcctaagacatttggttctgtttaagctggaaccagtgagc  
agagctataggagatgagtatgcagctaacaatcatctgttacactcctcccagttatgtcctcaggaagatcca  
gaaggagagacctcatgtggtctgggacctcatcttgccatgactttgcagcattaa

>#29 AF131870 7113 nt

atggggagcgggaaactccacagtggatagggaagttgtgaggagctttgaaagagtagctctgaaacctggaggg  
aaaaagacctaccaggcaagacatgtagtatgggcaggtaaagaattagataggtttggacttaacaaggaactg  
ttaagaacagtggaaggctgtcagaagattctgtcagtcctgttggcctttgtatgcactctggttctaagaacctg  
aaggccttagtaggtacagtatgtgtgcttgccctgttgtcatcaaggcattccagtaaaagacacacaggaggct  
ctaaaaaaggctcagactagagccagcaaaaaatgaagaagcacaagcttctcaaaattttccagtgtagagagag  
ggacaaaaattacattcatcagcctctctcgccctagaacagtgcaaacatgggtgaagatagtggaagagaaggga  
tggaaccagaaacagtggaatgtttgcagctttaatgacaggagcaattccagaagacatcaatgtgatgctg  
aatgccataggggagcatcaaggagctatgcagatgataaaagatcatatagtggaggaaagtgcagaatgggac  
agaatgcacctcagcagcagcctgcacagccaggaggagcctaaggactcctaattggtacagacatagcaggg  
gtaacatcaacagtagaagagcagatacagtggtatctatggccttaatggagcaacaagagttgcagtacaagac  
atctataaaggctgggtcatagagggcatggaagagtagtttagactccatcagactacctcagtagtagaaatt  
agacagggaccaaagagcctttcagagactatacagataggttcttcaaggctttaagagcagaatcagggtca  
gaggaagttaaagagtggtgaaagagaaaaatgctagtgcaaaatgcaaaccagattgttaaatttggaataaag  
gcaactgggagaaactccatcattagaggagatgatgagagcctgccaaggggttggggggccgagccataaagga  
aagatcctggcagaagcaatggcctctgcttttaggcagcaagtaggaagacaagctatggtgcagcaaaactta  
ccaccagaaacagccaggggaggtttgtaagaataggaggaggaggacctaggaagcccagctgacttgtttta  
tgtggtaaaccaggacatctagcaaatcagtgtagagagccaaagaaaggaccacccggctcctgctggaatgt  
ggaaagatgggacataaggtcttcattaatgggcaacctgtgactgctttattggacacgggagcagatgacaca  
atagtgctgaagattctgtgtccatagaaggtcactggaagcccagggtagtgggtggtatagggggacaaatt  
agagtaaaagaatatgcagatgtctttgtagaatttagggataaaacagctacaggaacagtggttgggtggggcca  
acaccagtagatatcatagggagaaatattctttcagccttagggggaagattagtttttagccactcttagtgaa

aagatcccaattacaaaagttaagttaaaagaaggggcccgtggacccaaaagtgaacaatggcccctgtcaagg  
gagaaaatagaaggcctacagaaaattttgtgatagattggaagcagaaggaaagatttagcagggcagaccagg  
aaccccttataacacaccaatttttgcctataaagaagaagacaaaaatgaatggagaaagttaatagattttaga  
gtactaaatgggtatgactcaagactttcatgagttacagttagggattcctcatccagcaggattaaagaagtgt  
aaacagattacagtagtagatgtgggggatgcatacttctcaataccattggatccagattatagaaagtataca  
gcattcacaataccgctcagtaataatcaggcaccaggaaaaagatatgtgtataatgtcctaccacagggctgg  
aaaggaagtccttgcatctttcagggaaacggtagcgagcctcttagagaaaatttagaagacagtatccagaagtt  
caattgtaccaatacatggatgatttactcataggatctgattatgagaaaaagaagcatgaagaaatagtga  
caattgaggcagctactcatggaatggaatttagaaacaccagagaaaaaatatcagggagagccaccctataag  
tggtatgggtacatattacaccagacagatgggagatagagaagataaaattacccctctagaagaagagcca  
acagtgaatgacatacagaaaattgtaggagttatcaattgggcttcacaattatatgaagggctcagaacaaaa  
gaattatgtaaactaatttagaggggaataaaccattagcagagaaagtaagatgacagaagaagctaggggaaga  
taccagagtaatcaggaggtattacaggagtcagtatcaggcagttactatgaaccagataaagaattaatttgc  
agagtgcaaaaggtaagcaaggaatattaacctttcaatgggtgcagggaaaacaagtattaagggttaggaaga  
tatcaaaagagaggggcagcacatgagaatccttgtcaacagtttagcagctgccctacaaaagataggaagagaa  
agcatagttatatggggatttgtgccaaagatacaggtagccatacaaaagagagatatggagtcagtggtgggca  
gactactggcagtgtagatggatccctgagttagaatttgcagcactcctaagttggagcaagagtggtatact  
ctagccacagaaccagtgccaggagacacctactatgtggatggagcagctgaaaagctagaaaagagagggaaa  
gcaggatatataaccaggagggaagatccagagttaagaaattggaaaacaccaccaatcagcaagcagaacta  
gaggctataaaaaatggccttggaggatagtaggagctcagttaatatagtaacagactcacagtatgccttaaga  
ctgctcagtaagagacccacagaaacagattcagagctagtaaaaggagatcgtagagctcataaggcaaaaggac  
caggtatacctaggttgggtaccggcacacaaaggaataggaggaaatcaagaaatagatcaactagttagccag  
ggaatcagaaagagacaggtaatgtttatagaaaagatagaaccagctgtagaagaacatgggaagttccataac  
aatgcagcctctttgcaggagatgtttgacatacccttagtggttagcaaaagcagatagtcgaatgtgcacaa  
tgtcaacagaaaggggaagccataacaggacaagtagatgcctcagtgggcatctggcagatagattgcaccac  
atgggaagaaaaagtcataatagtagcgtgtcatgtggcttcagggatatggttagcagaagtactaccaatgag  
caagggaagacaacagccacttggctgttaaagctctgtgccatgtggccagtaaaacagatacatacagataat  
gggcaaaatttcatcagtaaaagatgtggaggcagtatgttgggtgggttaggcatacagcatacaacagggatacct  
tacaaccctcagagtcaaggagtagtggaagcaagaacaaggtattaaaacaattatcagcagaattagagaa  
gatgcacaggaattgaaaactgcagtactcatggctctgcacattcataatttttaacaaaaggggaggactagg  
ggaatgacagcagcagagaggtttatcaacatgattaatgcagatctagaaacacaatacttacagaaaataaat  
tcaaaaattttaaaatttaaggctactacagagaaggaagagatcctcagtggaaggacctgctaaacttctg  
tggaagggggaaggagcagtagtcatcaaacaggtgagaacatcctggtagtagcttaggagaaaagcaaaacta  
gtaaggacagagaatgggaagatagaagacagtataagatagttagaatagtagtggttatagatagaattgct  
gtagagaaaatttttagatttaagaagaatgcatagggaacaaaagatgattgggtatctatgtatggaacaggt  
actggatgggagtggtacacatacaataaaattattattccagtaacttatgggacagtagtagtaaggatctat  
ggacacctcacaccagcaaaaggggttgattaaccagtggggatgtagtatggaatggatttataacagttatcaa  
acagaaaatagatcctcttgtggcagatcagatgatccactttaagtattttgattgttggacctctaggtgtatc  
agaagagctatgttaggggaaaaaatactacatgagtgagaaatcaagtagctcacaaggcctggttctctct  
ttgcagtttctctgcttgagagttctcgcttgttcattcatctgccaatgtgtccttcttacatcagaatcaga  
agtggatcaggattggaggcctgtgataacaaatgctggtgtaggagatgctgctttcactgtcaactttgcttt  
ctgcagaaaagggttagggatccactatatgcggtgccctgaaatattgataggtttctctttgctgttaggtagt  
atagcaatacagtagtaacagtagttctatgggactcctaagtggaaccagcagtagtgccattaatatgtgct  
tcagctaataatagcttgtgggtgactacttcatgcttgccagatttacaaacttatgcagaagtgcccataaca  
gggttagaagagaattttacagaggggaataagcaataatcaaatagtgagcaagcatggcaagctatgacctct  
atggtagatgccattatgaagccttgtgtaaagatcaatccctatttgtgtcaaaatgaagtgtccaccgaaaccg  
acaactccctcctccaactcaacagtcaaaagtagctgtgattattggacgaccaccagggctaagactacaact  
cagactacaagtagtaccagctccactgctagtacaactactccaatgcctctagatttggaattgtactgacaca  
gagaacatagcggagagcaataaagtagtaaatataatgtgacagggcctttagtagagattgtaaaacggaggtg  
gaacaaaactttagggtacagaagttacttgcaatggtaatgacacatgttatatgacacattgcaatgattca  
attattacacaagactgccataagggtattatgcaaaatgcttacttcaggctttgtgcacctgcggggtatatg  
ttattaagatgtgatgaaaaattaaatgctactaagaaatgtaaaaataaactgctacccttgtactaattat  
atgacaagtacagtttagtagcttttttggctttaaagggaactagacataaggaagatgagttaataccaatcaat  
aacaaggtaggacaaggggctgagggagaatatgtatggaaagtagcagctaagtgggggttagtaattcagtcg  
ataaggaaagggaataggtcacaagtaagtactataagtagtacaggactgctgtttttattatgggctagagcca

ggttctaagttaagactggcacagtgtaaatgttaggacaatggggaagagcctttgccaccttagggaaacta  
ttgaggcaggtggaaccttttagctaacaatgagtaatggctgtacatttgataatataacaaagacatgcagattt  
accaatggtacagatttttaaaaagatgattaagtttaaccaatggagaagcatggagcagatgcagcaacagag  
atgttgatgatgacttgtggagaagagatgttcttttgaatttaacaagaattttcaaagtatggaatgacaca  
acctccaataaatggtatccttgggccaatggccacataaaaaagtgatgatagatgattgggcgtcagtgggcaag  
aagatttacttgcacccaacatcagggtttaataacagaataagatgtgcaaacagagtgcagaagcatgggtc  
acactggaaaggggtggaagactggaaggtaaatggatcaaacatctcagttgtagccttcagccacctaccaac  
accttaaatacaatttgtgagcacaggagcacattacaaactagtaagaattaggccaattgggtttgctccaaca  
gatgagcaccggtacgcacccaggaaggaaaagagggttcttgggggtgtcaatggaaacaagtatgccatact  
aatgtgccctggaattataatatcacgcccaattggactaaggacacctggatggaatgggataggcaagtaaaa  
atgtatgatgataatataacagctcttctccaggaggcatatgtaacagagttagagaatcaaaacaagttcaaa  
cagctacaagaatttaacttctggagttggttggacctgtctcaatggtttctatacataaaaatatgcagtcctg  
attataggcattataatagcagctagaattcttagttttatcatacaacagatctataggatgtgtcagggatat  
aggggtgttgtcccttctgcttatgttgaacagccaacatataagcagctaataagatctctcacattttataaaa  
gaaaaggggtgactggaagggctctggtactccagaaccagagaagaaatcttggatttgtatgcagaaaatgag  
tggggcttcataactggctggcaagattacaccaaagggcctggagtggatataccaaaggcctttggctggcta  
tggaagctagcaccagtcaccattgatgaagacagggatcctaataccttgtcaagccctactgcattccagc  
cagcaaggggttaatgaagacccttggggagagagacttatctggacatttgcacccactctggcctatgat  
agggccatacaaaaagcaccctgaagagtcaagcatgttactagtctgcagtgagggtgtag

>#30 AF075269 6960 nt

atgggatcggttaactctgtcctcagtagggcaaattgaaaaagattttttagtggtcaggctaagacctgggagt  
aaaaagacttatcaaaaaagacatgtagaatgggcaacgaaagaattagacagatttggattgggatcacaactc  
ttggaaacagcagaaggggtgtaagaaaatcctatctgtctgctggcctttatatgcaactgggttctaagaacct  
aaggccttagtagggacagtatgtgtcatctgtctgtcacctaggagtaagaatatcagacactcaggaagcc  
atcagtaaaagtaaaaatagaaccagcaccagaagcagcaggggaagaaacaacagacaggggggaaattatccctg  
ataagagaaaatcagagatgggtacatacacctttatcgcccagaacaatacaaacatgggtgaaaatagtggaa  
gacagaggttggaaaccagaaacagtagcaatgttttcagccttaacagaaaaagctttgcctgatgatttaaat  
gttatgttaaatgcaattggagatcatcagggcgccatgcaataataaaaagatcacatagtgagggaaggtgca  
gagtgggatagacagcaccgcgaacaacagccagctcaaccaggaggggtttaagaactcctaatacaacagat  
gtggcaggggtcacctcaacagtagaagaacaactagcctggactacagcagacactcctgtagatgtaggaaaa  
atattataaagaatgggtcattcaggctatggaaaaagtagtcagaatccatcaaccagtaagtgtcatggacatc  
aaacaaggacccaaagagccttttaagaatatgcagataggttcttttaagcactgagagcagaaggaggctct  
catgaagtaaggagtgatgaaggagaaaatgcttgtgcagaatgcaaaccctgactgcaggttagttataaaa  
gcactaggagaaggggcatctctagaagagatgatgaaagcttgtcaggagtaggaggacctgctcataaagga  
aaaatatgtgcagaagcaatggcttcagccatacagcaacaagtaagacaaaacatgggtgcaggtcactccgctt  
agaaatgcgcaaggcaggtttgtgagaacaggaggaggaggtcccaggaaaccctcacttgcctcaattgtgga  
aagccaggtcacacagcaagaatgtgcagacagcccagacaggaaggttgttggaactgtggcagtaaaagagcat  
agtataattggtcaatgggcaaccagtggtcagcactgttggacactggggctgatgacacaattttttcagaaaat  
tcagtaagaatagaaggacctatactccaagagtagtagggggcataggggggcaaattagggtaaaagaatat  
agagatgtctttatagaaatagcaggaaaaactacagtagggacagtccttattaggacctacccagtagatatt  
gtagggaggaatattttaactgcaatgggggccaaattgatttttagctcagttaagtataaaattcctattaca  
aaggatcttttaaacctgggtgtgatggaccaagagtaaaagcagtggcctctatcaaaagagaaaaatagaaggc  
ctacaagctatttgtgataggttagaaaaagaaggaataatctccagtggtccagggaaccctatacaatact  
ccaatatgtctatcaagaagaaagacaaaaatgaatggagaaagttaattgatttcagaaagctcaatgaatta  
actcaagactttcatgagctacaattaggtattccacaccagcaggtatcaagaaatgcaaacagattacagta  
gtagacataggagatgcctattttagtatcccttttagatccaaattacagaaagtatacagcatttactatacct  
tctctcaataatcaagagccaggaaaaagatatcagtacaatgtgctgccacaaggggtggaaggggagcccttgt  
atatttcagggaacagtagcaggacttctctcagagtttaggaaattaaatccagacatgatcatttaccatata  
atggatgatttattcataggatcagatagagagagaaaaggacatgatcaggcagtaaaagaactcagagaactt  
cttatgacatggaacttagagacaccagaaaagaagttccaagcagagccaccctatcattggatgggttatgta  
ctgcacctgataggtgggaaatagaaaagattaaattaccagagatggatctaacaaaaactacagtaaatcaa  
atacagaaactgggtgggagtacttaattgggcagctcaattgtatgatggatttaggacaaaagaactctgcaa  
ttaataaggggagtaaaacccttgaagaaatcataaactggacagaggaagccttggagaatatgggcagaac  
aaagaggtacttaagaaaagatgcaggggagcctattatgaccagaaaaggaacttattgtcaggggtacagcaa  
aacaaaaaggggataattactttccagtgagacaaggaaataacatcttaagagctgggaggtatcaagacag

aaggcagcacacacaaatcccctacagaaattagtagaagctattcagaagataggaaaagaaagcatagtcac  
tggggctttgtgccaaaaattcaagtccagtgactagagaagctctgggagcactgggtggagcgaccactggcag  
gttacatggattccagacttagaattcatttctaccccgcaattagaacaagagtgggtacatttgggaggcagaa  
cccataataggggtagacacctactatgtagatggagcagcagaaaaggtaggaaaaacaggaaaagcaggatat  
ataacacaatcagggaaagagaaagtaaaggagttaactgacaccacaaatcagcaagcagaactagaggcagtt  
ctaattggcattacaagatagcaatagtaaagtaaatatagtaacagattcacaatatgtaatgaaaatatttgtca  
caaagaccaacagaaacagaacacccccatagtaaaagacatcatagaacaatgcaagcagaaagatcaagtttat  
ctaggatgggtgcctgctcataaaggaataggaggtaatcaagaggtagaccacctagtaagtaaagggtataaga  
cagaaacagggtcatgtttctagaaaagatagaacctgcagtagaagaacatagcaaattccataacaatgcaaag  
gatctagaagaaaaatttaacctaccccccatggtagccaaacaaattgtcaatgactgtgcaaactgtcaaaag  
aaaggagaagccataacaggacaagtggatgtctcagtggggtatttggcagctagactgtactcacttagaagga  
cagggtcattataaatgcagtcctatgtggcctcagggttcatgggtgcagaagttataccagatgagacaggaaaa  
acaacgtcacatttctgttaaaattatgcagtagatggcctgtaaaacaaatacatacagacaatggtccaaat  
tttgtaagtaaggaggtacaggcagtaacctgggtggatagggtatagaacatacaactgggataccttataacct  
cagagtcaaggggtttagaagcaaaaaacaaagttttaaaaagattatagaaagagtaagagaagatgcacag  
caactaaaaacagcagtagtaattggcagtcacacattcataattttaaacaaaggggaggactaggggggcttaca  
ccagcagagaggtttattaatatgattaatgcagaactagaaacacaatatctacaaaaattaaattcaaaaatt  
ttaaatttaagggtttattacagacaaggaagagatcctcagtggaaggaccagcgcaacttctgtggaaggga  
gaaggtgctgtagtggtaaaagaaggggagaacatcttctcagtgcccagaagaaaagcaaaactagtaaaagat  
tccttaatatagaaaagtttttagacatagtcagggttaaaccacagaggcaaaaagaaaattgggttaggcttacatgga  
acaggtgtaggttgggaattctataacctatcataaattagtgataacctctagagtcaggaacttttagtagtcaga  
atatatgcacatttggcagcaggaaggggatggatctcacaatgggcagtttccatagaatgggtctatagagac  
tatcaaacagaaatagaccccatactagcagaccaaatgatccactataaatattttaactgcttcatacaaaaga  
gacattagaagggcacttctgggagaaaagaataactatgtgttgccagcctttaggacataaagggttgtgttctc  
tctttgcagtttatctgcttgagacaactacaagctttgtttcttcacctcccaacttgtcccagcgccctgcaa  
gcgtgtcagaataccatggcatgtccaggattaggaattctgcttttgccttcttggcataatatggggaaaacaa  
tatgtaacagtattttatgggggtgccaaattggggatgataatgtttcagtgcccttgatttgtgcttcagccaat  
actagcctctgggtcacgacatcttgcttgccagatttgcfaatcttatgcagaggtacctatctataatatttca  
gaaaactttacaataccagtaaaagacaatcaggttatacagcaagcctggctctgctatgaatgctatggtagac  
agtattatgaaacctgtgttaaaaatcaatccatattgtgtgtgagaatgcagtggtgggaaggttcaaaaaacacca  
acaacaacacaaaaactactacacagatgccttgttttatcaacgaacaggtaacagttagaacccgggggaat  
gaaacaagatttagaggaagatcttaattgcacaagagggttaatgagaccacagagaggaatgcagaatgccag  
tataatgtaacagggttatgcagagactgcaggacggaaataaaacaaagcctttagatatgatgatgtaacgtgc  
tcaggagagaggggagaacagaacctgttacatgactcattgtaatgattcaataataacacaagattgtaataag  
ggggtaatgcaaaatgcttatttttaggctttgtgctccagcaggctatatgctattgagatgcaatgaacaatta  
aacttttagtaaaaaatgtgaaaatataacagctacaccatgtactggatatatgcttagtagtgtaagtagtttc  
tttggctttaatggaactaatcataccagggatgagcttattccactaactccaaataagatggaagatctaaat  
gggtgcaaagtttgtgtataaagtagcaggaaaatgggggttaattattagatgcataagaaaaggaaaatagatca  
gaagtatccacaattagctctacaggatatttatttttattatggcctagaacatggcagcagattaagattagca  
cagtgtaaatttgaaggccaatggggaagaatgtttaataatctaggcaaaatgctaaaggagttgaatgcagaa  
gccatgaattatacagaagggacagggacatgtgattctaagaaaacaacttgtggacggaaattaaaaggctta  
ccaatagctaatatgactaggcatggagcagacttagcaacagagatgttaatgcatacttgtggagaggaaatg  
ttcttttghtaatgtaactaggatattccaagaatggaacaataaaaaattcagataaatgggtatccttgggccaac  
tgccacataaaaagcatcattgatgattgggctacaataggaaagaagatttatctaccacctacttcagggttc  
aacaatagaatcagatgtactcatagagtaacagaaatgttctttgagatggaaaaatgggaaccacatgaggac  
ttaggaggcaacctaaagtataaagtcttggctccatcatgggaaactaatcaatttgtggcagaaggggtctaaa  
tataaattgataaaattgaatccaattgggtttgtcctacagatgagcacagggtacgacccagggggaaggcaa  
accagagcctcttgggggtgtcaatggaaacaggtttgtcatactaatgtggagtggacatatataatcacacc  
aattggaccaaggtacctggagagaatgggaatcaaaggtagcaatttatgacaagaacattacttctctgtta  
caagaagcatacaccacagagctagagaatcagaataaatttaagaagttacaagaatttaacttttggagttgg  
ttggatatctcacactgggttacttatgttaagtatgcagtggttaattatacttghtaatcatagggttaagagta  
ttgagctttataatacaaaatgtagtaaaaatgtgtaggggggtatagggtgctctccccctctgttttatattgaa  
caggactacaagtgggagaaagaacctacctataagactcttatagacctctcacattttataaaagaaaagggt  
ggactggaagggtatattgggtcccagagaagacaggacatcttaattctctactgtgagaatgagtggggtctc  
attggagacttcatgaactacacagatggaccaggaacaagataccctctgacatttggatgggtgtggcagtta

gaaccagtggccttgatgagtataaagatccctcagatgagacacaatgccttttgcattcaagccagctgggg  
gtcctggaagaccctggggagagaggcttatctggcacttcaatccaatggtggcagtggactttatagccctc  
aaaaagcagcctgcgaagatacaaaaatactgctttcgcttttgactgcaagaggaagtag

>#31 AF188116 7026 nt

atgggatcggggaactccgtcctcagtaggcaaattgagaaagatttttgtaatgtcaggctaagacctgggagt  
aaaaagacttatcagaaaagacatgtagactgggcaacgaaagaactagataggtttgggctaggagcaaacctt  
ctagaaacagcagagggctgtaagaagattttgggagtcctgtggcctttatatcctacaggctctaaaaatctg  
aaagctctagtagggacagtggtgtgtcatctgttgctgtcacctaggaataagagtcaatgatacacaggaagca  
attaataaagtgaaaattgagcagaacaaacctgtgccagaaagtaaaaaatttccttttgattagagaaaatcaa  
agatgggtccataccctctatcacccagaacaattcaaacatgggtgaaaatagtagaagataggggatggaag  
ccagaaacagtggctatgttttcagctctgacagaaaaagccttgccagaagacttaaatgtcatgttaaagtct  
ataggagaccatcaaggggcaatgcagataataaaaagatcatatagcggagaaggagctgaatgggatagacag  
catccccagcagcaaccagcacaaccaggaggagggttaagaactccaaatgcaacagatgtggcagggtacaca  
tcaacagtagaagaacagcaagcctggacaacagcagacacacccatagatgttagggaaaatctataaagaatgg  
gtaatccaggctatggagaaagtggtaagaatacatcagccagtcagtgtaatggacataaaacagggtccaaaa  
gaaccattcaaggactatgctgataaggttctttaaggccttaagagcagaaggaggttcacatgaagtgaagag  
tggatgaaagagaaaatgctagtgcagaatgcaaacctgactgcaaaatggtaataaaggccttaggagaaggt  
gccactttagaagaaatgatgaaagcatgtcaggagtaggaggacctgccataaaaagaaaaatcttagcagag  
gcaatggcaacagccatgcaggggagatgaaacatctcatggtgcagcaaacaccacctagaaatgcacaaggg  
agatttgtaagaacggggggaggtggcccaagaagacctctcacttggttcaattgtgggaagccaggacattca  
gcaaaaatgtgcaggcagcctagacaggaaggctgttggaactgtggtgctaaagtactgggtcaatgggcaagaa  
gtaactgccctattggacactggagcagatgatacaatcttttctgaaaattcagttagaatagaaggaccttat  
actccaagagtagtagggggtatagggggacaaattaaagtaaaagaattcagggatgtttttatatacaaatagca  
gggaagaccacagtaggggacagttttgctaggaccaaccccagtagatatagtaggaagaaacattttaaacct  
ctaggggctagattagtgttagcacaattaagttagaaaaatacctatacaaaaggtgcatttgaagccagggtgt  
gatgggccaagagtaaaacagtggtccactatccaaagaaaaaatagaaggattacaagcaatttgtgatagatta  
gaaaaggaagggaatatccccagttgatccaggaaatccttacaacaccccaatctttgctataaagaaaaag  
gacaaaaatgaatggagaaagttgatagatttcagaaaattaaatgagttaacacaagactttcatgagctacag  
ttaggaataccacaccagcaggaataaagaaatgcaacaaattacagtagtagatataggagatgcctatttc  
agcataccttttagatcctgattacagacaataactgcgttcactataccgtcactaaacaatcaggaaccagga  
aaaagatatcagtataatgtgttgccacaaggatggaaggggagtccttgtatttttcaagaaacagttagtggga  
ctccttgtagagttcaggaaattaaatccagacatactcctctaccagtagcatggatgatttgttcataggttca  
gacaggggagaaagaaggacatagtcaggcagtaaaagaattaagagaacttttaataaacttggaaacttagaaact  
ccagagaagaaatttcaagacaaaccacctaccattggatggggatgtcctgcacccagatagatgggaaata  
gagagagtaaaactgccagagatagacacaaggaaaactacagtaaatgaaattcagaaactggtaggagtttta  
aattgggcagcacaactgtatgatggaatcagaacaaaagagctctgtaagttgatttagaggagtaaaagcccttg  
gaacaactagtgtacttgacagaggaagcactagaagaatatgagaccaataagacaattctaaaagaaaaagta  
cagggggcttactatgatccaagtaaaagaacttgtagtaagggtacaacagaacaagaaaggggttataactttc  
caatggaggcaaggaaatgccattctaagagcaggaagatatcaaagacaaaagagtgtcacatgaatccctt  
cagcaattagcagaagctgtacagaaaaataggaaaagaaagcatagtcatttgggggttttgtaccaaagatacaa  
gtacctgtcactagagaaacatgggaaaattgggtggataaacttttggcaagtaacttggataccagacttagaa  
ttcatctccacacctcaattagaacaggaatgggtatagcttggagcagaacccatagaagggtacagatacctac  
tatgtggatggagctgcagaaagagtaggtaaaacaggaaaagcagggtatataactcaatcaggaaaagagaaa  
ataaaaagaattacaagatactactaatcagcaggcagaattagaggcagtagttgttagctttacaagatagcaaa  
tcaacagttaacatagtaactgactcccaatatgtaatgaagggtcttaagttagagacctacagaaactgagcat  
cctatagtgaagaacatcataaaggagctgcagaagaaagatgcagtttacctaggatgggtaccagctcataaa  
gggtatagggggaaaccaggagatagatcaattagttatttaaaggaattaggacaaaacagggtcatgtttctggag  
aagatagaaccagctgtagaagagcatggaaagtttcacaataatgcaaaagacttagaagaaaagtatgggata  
cccccatggtagctaagcaaatagtaaatgagtgtgctaagtggtgcagcagaaggggagaagccataacagggtcaa  
gtagatgtatcagtggttatttggcaactggattgtactcacctagaaggggcaaatcatcatgaatgcagtcctat  
atggcatcaggcttcatggttgcagaagtgttccagatgaaacaggggaaaactacagcaaattttttgttaaag  
ttatgtagcagatggcctgtaaaacaaattcacacagataatgggtccaaatttttgtgagtaaagatgtacaggca  
gtgacctggtggttaagtatatagagcacacaacagggtatccatataaccctcaaagtcaaggagtagtagaggca  
aaaaataaagtttttaaagcaaatcatagaaagagtaagagaagatgcacagcagctaaagacagcagtggttaatg  
gcagtcacattcataatttttaacaaaggggaggactgggggggttatcaccagcagagagatacatcaatatg



atcaatgcagatttagaaaactcaatacatatacaaaaaattaaattcaaaaattttaaaatttaaggtttactacaga  
caaggaagagatccacagtggagaggacctgctcaacttctgtggaaaggagaaggtgctgtagtggtaaaggag  
ggagagaacatttttctctatcccaggaggaaagcaaaattagtgaagatagcttagtagagaaatttctagat  
atcaaaaggaatcattcagaaagtaaaaatgattgggttagtttacatggtacaggagtaggatgggagttttat  
acttacaataaattactaattccattagatacaggaacttttagtagtaagaatttatgctcatctggcagcaggg  
agaggatggatttcacagtgggcagtatcaatagaatggatctatggaaactatcagacagaagtggatccatt  
ctagctgatcaaatgcttcatgtgaagtattttgactggtgggtgcatagggacatagttagggccataagggga  
gaaaagattctgcacagctgtaaaatgcctactggacataaaaggttggttctctcattgcagtacctctgcttg  
agacaactacaaagagctctctattttacatctgcctcaatgtcccagtcactccaatcctgccagaataagtgc  
cactgcaaagtttggttgccttctactgtatactttgcttccagcagaaggcgtagggatacgggtatatggcatgt  
ccaggtaacatattgctattgctgctctgcttgggactaacagcaggagaaaaggagaaacaatatgtaacagta  
ttctatggagtacaaaaatgggaagatgctgtagtacctttaatctgtgcttcagctaataatagcttgtgggtc  
actacatcttgtctcccagatctgcaatcttatgctcagatccctattcataatattactctaaattttactcaa  
gaaattaaggacaatcaaataatacagcaggcatggggagctatgacgagcatgggtggatgctattatgaagcca  
tgtacaaaaataaatccttattgtgttcgcatgaaatgtacaggggaaggactaggttaagaagagaaacaaca  
acaacaacaccaacaacaacacccatgccttgctttataacagaatctactactactacaaagagttcaggg  
actgaacaacccatctttaatagaagatacaaaattgtacacgatgggttaaagagactacagaaattaataggga  
tgttcatataatgtgacaggggctttgtagagattgcaaggaagagataaagcaaaatttttaggtatgatgagaca  
acatgtaatgagaatgggtacttgctacatgaccattgcaatgatagtattattctgcaagactgcaataagggga  
gttatgtcaaatgcttatttttaggctttgtgcaccagctgggtacatgcttttaaaatgcaatgaaaagctaaac  
ttttcagctaattgtactaatataacagctacaccatgcacagattacatgataagttcagtttagtagcttcttt  
ggctttaatggaaccaatcatacagaagacgagtttaattccactaactccaaaaagatgggagatcttaatgga  
gctaaatttggtttacaaggtagcaggaaaatggggactaatcattagatgtataagaaaaggaaataggtcagaa  
gtctccacaatcagttcaacaggacttctgttttactatgggttagaacatgggtctagactaagattggcaca  
tgcaaatttgaggggtcaatgggggaagaatgtttaacaatttaggaaggatgttaagaagcttaatgagactgct  
atgaattataaagaaggaaattgttccacaccaggaaaacccatgtggttagacaattaaaggggtctacccatagca  
aatatgacgagaagaggagtagatctcgcaacagagatgctcatgcacacttggtggtgaggaaatgttctttgt  
aatgtcacaagaatcttccaggaatggaacaataaaaaactcagataaatggtatccctgggccaattgccacata  
aaatcaattatagatgattgggcaactgttgggaagaaaatttatcttccccaacatcaggatttaacaataga  
ataagatgtactcacagagtgacagaaatgtggtttgaaatggaaaaatgggaaccacatgaagacttaggagga  
aatctgtctattaagtttttgcctccctcatgggagacaaatcaatttggtggcaacaggagctcattacaaattg  
atcagactgagaccaattggctttgctccaacatcagagcatcggtacgcacccagggggaaggcaaaacaagagcc  
tcttgggggtgtcagtggaacaagtggtgtcactaatgtacatggaattataatgttactcctaattggaca  
agggatacctggatagaatgggaaagacaagttggatctttagaagcaaacatcaccacactggttgcaagaggct  
tacacaacagagtttagagaataggaataactttaaaaagttacaagattttaatttttggagttggatggacctc  
actacttggttccaatatattaagtatgcagtgttataatcataggtataataataactaagaattctaagcttt  
atcatacaaagtgtagtgaagatgtgtaggggctataggggttctcgccccctctgcttatgttgaacaggacttc  
aagtgggagaacggatctacctataaaaccttgatagacctctcacattttataaaaagaaaagggtggactggaa  
gggctatattggtcccagagaaggaatgacatcttaacactctactgtgagaatgaatggggtctcattggagac  
ttcatgaactacacagatggaccaggaaactcgttaccactcgcctttggatggctgtggcagttggagccagta  
gcatgtgatgagtttaagatccctcagatgagagacaatgtttgctacattcaagccagttgggggtcctagaa  
gacccttggggagaaaggctcatctggcactttaatcccatggttagcagtggaactatgttagccctgagaaagcaa  
ccagcaagtgttcaagcaactgctatgagatttaactgcgagaggaagtag

>#32 AF188115 7053 nt

atgggatcggggaactctgtcctaagtaggcaaattgagggagaattctgcagtatcaggctaagacctggcagt  
aaaaagacgtatcagaaaagacataattgtgtgggcaacaaaagaattagataggtttggtttaggagcacacttg  
ctggagacagcagatggctgcaagagaattcttggagtctgttggccactatactccacaggctcaaagaattta  
aaagcacttgtaggaactgtatgtgtgctgtgttgccttttagggataaaaaatagcaaacaccgcagaagct  
atgcaaaagataaaaaatagaaccaactcaggaagacaggcagcaaaaagtggcaattatccactcatcagagaa  
aatcagagatgggtacacacgccattgtcacctagaacaatacaaaacttggttaaaaatagtagaagatagagga  
tggaaccagaaaacagtggcaatgttttctgcctcacaagaaaaagctttgccagatgacttaaatgtcatgtta  
aatgccataggagaccatcaagtggcaatgcagataattaaagatcatattgtggaagaaggggcagaatgggac  
aggacacatccgcaacaacaacctgcacaaccaggaggagggttagaaccctaatgcaacagatgttgaggga  
gtcacctcaacagtagaggagcagctagcctggaccactgcagacacccagtggtatgtaggaaaaatttataaa  
gaatgggttaattcaagctatggaaaaagtagttagaattcatcaaccagttagtgtaatggacatcaaacagggg

ccaaaagaaccattcaagaatatgcagataggttcttttaaagcattaagagcagaaggaggctcacatgaggt  
aaagaatggatgaaagagaagatgctggtacaaaatgcaaacccagattgtaggatggtaataaaagccttagga  
gaaggggctagtttagaagacatgatgaaggcctgtcagggagtaggaggaccagcccataaaggaaagattttg  
gcagaggcaatggcaacagccatgcaaagtcaaagagacagaatatggtacaagtgcaccaccaaggaatgag  
caggaaggtttgtaagaacaggaggaggaggccctagaaagcctttaacttgctttaattgtggaaagccaggt  
catacagcaagaatgtgtagacagcctagacaggagggtatgctggaactgtggtagcaaagaacataggtttgct  
caatgtccaaagcctaacattctggtcaataggcagccagtgctgctcttcttgacactagggcagatgatacc  
atcttttcagaaaattcagttaaaatagagggaccttatacacctagagtagtagggggaatagggggacaaatt  
agagtaaaagaatacaaggatgtctttatagaaatagcaggggaagacaacagtagggacagtactattaggacct  
acaccagtagacattgtaggaagaaatattttaactagtgtgggagcaaaatttagtactagcacaaattaagtgc  
aaaatacctatcacaaaggtcagattgaagccaggctgtgatgggtcccagagtaaaacagtggcctttgtcaaaa  
gaaagatagagggcctacaagcaattttgtgatagattagaaaaagaagggaaaatatcaaaagcagatgcagga  
aaccatataacacaccaatctttgccataaagaagaaggacaaaaatgagtgaggagaaaactgattgattttaga  
caactaaatgctttaacacaagaccttcatgaagtacaattaggcattccacatcctgcaggaataaagaaatgc  
aagcaataacagtggttagatataggagatgcctattttagtattcccctggatccagactatagacagtacaca  
gcattcacagtaccatctattaataaccaggaaccagggagagatatcagtataatgtactacccaaggatgg  
aaggggagtccatgcatttttcaagctacagtagcaggactcctatcagaatttagaaaattaaacctgacata  
atcctgtatcaatacatggatgattttactcataggggtcagataggggacaagaaagggcatgatcaggcagtaaaa  
gaattaagagagctcttaatgacatggaatttagaaacaccagaaaagaaatttcaagcagagcctccctatcat  
tggtatggggtatgtacttcatccagataggtgggaaatagagaaagttaaactgccagacatagacctcagaag  
acaacagtaaacacatacagaagctagtaggagctcttgaattgggcagcacaaactttatgaggggaattagaact  
aaagaactttgtaaatattaattaggggggtaaaagctctagaagaagttgtaacctggacagatgcagcattagaa  
gaatatgaacaaaaccaacagatactaaaagaaaaactgcaggggagcttattatgaccctactaaagaattggta  
gtaagagtacagcagaataaaaaaggggtcattaccttccagtgaggagcaaggaaattctattctgagagcagga  
aggatcaaaggcaaaaagcagctcacacaaatcccctacaaaagttggcagaggcagtaaaaaataggaaaa  
gagagtatagtcatttgggggtcatgtgcctaagatccaggtaccagtaacaagagaagtggtgggatcaatgggtg  
agtgatcattggcaggtcacctggataacctgaattggagtttatctcaacccacagttagaacaggaatgggat  
agcttagaagcagaacctatagaaggggtagatacctattatgtagatggagctgcagaaaaagtagggaaaaca  
ggaaaagcaggttatgtcacacaatcaggaaaggagaaagttaaagaattaacagataccaccaatcaacaagca  
gaattagaggctgtcttatttggcattaaaagacagtaaaagcaggggtcaacatagtaacagactcacaatatgtg  
atgaaagtccttatctcaacggcctacagaaacagaacacctgtagtgaagcagattatagaggaatgtaagaag  
aaagaccaagtatatctaggatgggtaccagctcacaaaggtataggggggaaatcaagaagtagaccacctagtc  
agtaaaggaattagacaaatacaagtagtcttctagaaaaaatagagccagcacaggaagagcatagcaaat  
cataataatgctaagatctagaagaaaaatttcacctaccccctatggtagctaagcaaatagtgaacagttgt  
aataaatgtcagacaaaggagagccataacaggacaagtagatacttcaccaggtatttggcaaatagactgc  
actcacatggagggacaggtaatcattaatgcaatccatgtggcctgtggatttatggtagcagaagtaattcca  
gatgaaacagggaaaacaacagcaaaacttctgttaaaactgtgcagcagatggccagtagcagaagtcataca  
gacaatggaccaaactttgtcagcaaggaggtacaagcagtaacctgggtggctaggtattgaacactcaacagg  
attccttacaatcccagagtcaggagtagttgaagccaaaaataaagtgctaagcaaatcatagaaaggggt  
agagaagatgctcaacaattaaagacagctgtcctaattggcagtagcacattcataattttaacaaaggggagga  
ctaggggggctttcaccagcagaaaggttattaatatgattaatgcagacttagaaacacaatatttacaaaa  
ctaaattcaaaaatttttaaaatttaaggtttactacagacaaggacgagatcctcagtggaagggacctgcaca  
attctgtggaaggagaaggtgctgtagtggtaaaagaaggagataccatcttctcagtccccagaagaaaagct  
aagctagtaaaagataacctgatagagaaattcctagatattaggagagcacataaagaaactcaggttgattgg  
gtaagcttacatggaacaggggtaggctgggaattttatacttataataaaatagtaataccttttagagatagga  
accttagtagtaagatgctatgcacacttggcagcaggaagaggatggatctctcagtgggcagtagtaataagaa  
tggttttatgggaactatcaaacagaaaatagatcccattctagcagatcaaatgatacactgtaaatattttaac  
tgcttttctacaagggatatttaggaaggctttatggggagaaaagataatggcaatctgcgctatgccactgga  
cataaaggttggttctctcattgcagtttctctgcttgagacaactacaagcactctttattcatttgcttacc  
tgtcccagcccactgagtgctgtgacacaagtgctgctgcaaaaggtgttgctttcattgtattctttgtctt  
cagcagaagggttagggatagatatatggactgtcttaagctcctacttttcttgctcttttttaggagcaca  
ggggaggcaagaagcagtagtaacagtattttatgggggtgcctaagtggaagatgctgtagtgccattaatt  
tgtgcttcagctaataatagcttatgggtcacacatcatgcctaccagatttacagtccttatgcacagattcct  
attcacacataagttttaatttctactcaagagataaaagataatcaaatcatacagcaagcatggagtgctatg  
accagtaggtggatactatcatgaagccttgtgtaaaagataaatccatactgtgtgagaatgaaatgtacagg

ggaggaataggacacaaaaacaacaccatcaccaataggaaaaacaacaacacccatgccttgctttatagcagaa  
acaaccacaaccaccaccaaaggaatacaactatggaaagttaaataagaggacacaaattgtactagatggtta  
aatgagactactgagattaatagagaatgtaaatataatgtaacaggactatgtagggactgtaaagaagaaata  
aagcagagttttaggtatgatgagacaacctgtgataagaatggaacctgttatatgacccactgtaatgatagt  
attattcagcaagattgtaataagggagtaatatctaattgcttatttttaggctttgtgcaccagcaggctatatg  
cttttaaaatgcaatgaaaaattgaatttctcagctaattgtaccaatataacagcaactccttgcacagactat  
atgattagtagcagtgagtagtttctttggctttaatggaaccaatcatacagaggataagttaattccactaact  
ccaaaaaagatgggaaatctcctggacgcgaagtttgatatataaagtatcaggaaaaatggggactcattatcaga  
tgtattaggaaaggaacagggtcagaagtctctaccatcagttcaacaggacttctgttttactatggcttggaa  
catggtagcaggctgagattggctcagtgtaatttgaaggacaatggggaaggatgtttaataatttagggaaa  
atgcttcaaaagcttaatgcaacagcaatgaattatacaaatggacaatgtcctgagggaaaacagccttgtggt  
agacatctaaagggattacctatagcaaatatgacaagacgtggggaaggcttgcacagagatgttgatgcat  
acatgtggagaggaaatgttttctgcaatataacaagaatactccaagaatggaataataaaaaactcagataaa  
tggtatccctgggccaattgccacataaaatcagtcatagatgattgggcaactgtaggggaagaaaatctatatc  
cctccaacatcaggctttaataacagaataagatgtactcatagagtaacagaaatgtgggttgaactggaaaag  
tgggagccagaggaaaacctggggggaaatttgtctgtcagattcttgctccctcatgggagacaaatcaattt  
gtggcaacgggagctcattataaattaataaggattagaccaattggctttgctccaacagctgagcaccagtac  
gcacccagtagtaagcagaagagagcttctgggggtgtcaatggaaacaaatatgtcataactaatgtggaatgg  
aattataatataactcctaattggacaagggatacctggattgagtgaggacagacgagttggagtattagaagca  
aatatctccacctgtttgcaagaagcctataccacagagttagaaaatagaaatgccttcaagaagctacaggag  
tttaacttttggagttgggttgatattttatcatggttccaatatattaagtatgcagtactaataataataggt  
attatagtgttaagaatagtaagctttattgtgcagaatatagtaaaaaatgtgtaggggatataggggttcttgcc  
ccctctgcttatgttgaacaggactacaagtgggagaaaggacctacttataagactctgatagacctctcacat  
tttataaaagaaaaggggtggactggaagggctatatgggtcccagagaagacaggacatcttgtgtctttactgt  
gagaatgaatgggtctcattgggagacttcatgacctacacagatggaccaggggacaggttaccattaacattt  
ggatgggtgtggcagctggaaccagtggtctgtgatgagtagacacagatccctcagatgccagccaatgctgctg  
cactcaagccagctgggggtccaggaggaccttggggagagaggcttatctggcacttcagtcctatgctagca  
gtggactttgtagccctcagaaaacaacctaagagcatatacaagcatcatctcttagcttgaactgtaagaggaag  
tag

>#33 AY523867 7185 nt

atggggagcagggggatcgggcatcctaacaggtagaaaagcttgataaatatgagaaaaattcggttcggccgaag  
gggaagaagcgctacctagttcgacatttagtttgggcaggaaaggagctggacagattcggcctctcagaccag  
cttcttgaaagtaagaagggtgtgtaacaaatcataaaaaccttaccattagaaaaacatgggtcagaaaaat  
ttaaatacattatgttgacataacagcagtagtctgggcggtccacgcagaaaaagacgtggaagatacggaaaca  
gcaaacagacacagcgacatctagtggcagagaaggaaaaatgcagctgccagcagcaatgccatctagtggcggc  
tcaggaaattaccctctaattagaaacccacaaaatcaatggattcatgtaggggtcaacaccaggactttaaaa  
acctgggttagaggcagtgaaacagcaaaaaatttgatgcctcactgggtcccactattccaaattttaacagaagg  
tttataaccttatgacctcaatgacatgcttaatgccattggagatcatcaaggagcaatgcaagtgatcaaagat  
gtgattaatgaggaagggtctgaatgggacctacaacaccacacacctcaacagcagcagcctgtagcagggcta  
agagatcctagtgctcagacatagcaggaacaaccagtacctccaagaacaaatagagtggataactagacag  
aacaaccaattcaggttggacagatctacaggcagtggtataattctaggattacaaaagtgtgtgcaagctctac  
aatcctgtcaatattttggacatcaggcaaggacctaaagaaacatttaaggattatgttgatagattctatcat  
tgtcttagagcagaacaagcggacccggctgtaaaaaatttggtcacacagtcattactaattcagaatgcaaac  
cctgagtgacagaagcattctgaaagcaatggtcaaaccaaccttggaagaaatgcttcaagcttgccaaggggtg  
ggaggaccacaatacaaagcaaaaactattagcagaagcaatggtaatgacacaacacagcttgggcatgatataa  
gggccaagacaaggaagcaatcccaggagagggccaacaagatgctttaattgtgggcagttaggacatcttcaa  
aaagactgccctaggccaaaaaagcttaagtgttttaactgtggaggaacgggacacatagcaaggcagtgtaga  
caaccaagaaaaggacaaggcaacctcctccacaggccgaaataaatgtagaagggaccaaggtaacaatgttg  
ctggacacaggggagatgacaccataataagagaacaagacatccagttacatcaaccttggacccccaaaaata  
gtaggggggattaggaggaaacataagggttaagacaatatataaccagatcagatttcaaatagaaagaccagatggg  
agaataaaaggaagtagagggtagtcttctagtaggacctacaccagtaaaatatttttaggaagaaacatattgagc  
aaattgggagcaaaattagtaatgatagcaaaaaatttagaaccaatgaaagtccaactaaagccagggaaggag  
ctacctaaattaaaacagtggcctctgacaagagaaaaacttgaggcactgcgagcaatagtttcagatatgctt  
gaaaaggggcaattggaaaaggcctcccctacaaatccttataataacccagtttttgaatacaaaaagaaggac

aaattaaaatggaggatgcctatggatttttaggaaactcaatgaagcaacacaggacttttgggaagtacagtta  
ggaatacctcatccaggagggctcagtacaaaaagaatgacagtattagacttgaaagacgcctattacacagta  
cctctagatgaagagttcagacagtatacagcatttacagtgcccagtataaacaattcttctccaggagagaga  
taccagttcaaggtgttgccacaaggatggaagggatcgccactatctttcagggaacagtaaatcagatactc  
caacctataagggaaaagaattcagatataataatagtacagttacatggatgaccttttggtaggggtctaacaga  
tcagaaaaggaacatgggtcaaattgtaagtgaattgtaaaaagtctattagcagtaggattctctattccacca  
gaaaaatggcaggacaaaattccccttgcaatgggttaggggtacacgctacaccctgataagtggaggtctacaaaag  
gttcaactaccagaaattacagaatcaccaacagttaatgagttacagaaaataataggagtcctaaattgggca  
agtcaaataatctcctgggtatcaaattgtaaagcattgagtaagtgacataagagggggcaaaagcacttaccgacatt  
gtagaactgacagaagaggcagaagcagaaatggctgaaaatagagagatactcaaagtagaacaacagggtct  
tattatcagccagaaaaaccattagaagcacacattagcaagttaggacaacaacagtggggggtacataattaaa  
caagggccacaagaaaaacctctgatcacaggaaaaacaggaaaaagcatatgcgacccatcacaaatgattaccag  
gcattggctcagctgatgaataaaaataggaatacaagccctatggatttggggaaaaatccctgaattccacctc  
ccagtaaaaaggggaagaatgggaaaaatgggtggacagatcactggcaagcaacatgggttgccagaagtaaaatgt  
gtgcacacccccatattagtttagatgggtattacaatttgggttcagagccagtagaagcagaaacattttatgtc  
gatggggccgctaataaggaatagcaaagaaggacaagcaggttacataacagataggggtaaacagacattaaag  
aggttggaacacacaaccaatcaaaaggctgagttagaagcagttattaatggcattacaagactcaggaccagaa  
gttaacatagtaacagattctcagttatgcatttaggaatattaatgaactgtcctacatcctcggaacaccagta  
gtcgaacagattatgcaaaaggctatggagaaagaaaagatctacataacctgggttccagcccataaaggaata  
ggaggaaatcaagaagtagatcaattagtaagtaaggggaattaggaaaaatactgtttctgggataacatcccaaaa  
gcacaggaagaacatgagaaatatcacactaatgtagaatacataaggcaagaatttcatctaccagacaggtta  
gccaaagctatagtagaaatgtgtcccaaatgccaaatcagaggagaaccaaaacatgggcaagtagacacagat  
ctagggtacatggcaaatggattgtacccacttagaaggaaaagtaatttgtgtagcagtaaacacagccagtggtg  
tatacagaaactaaaatattgaaaagagaaacagggcaagaaacaggactattccttttgcaaatagcagcaaga  
tggtccaaatataacatatacatagacaatgggtccaaacttcatcagtgatgcctttgctggcagcctgttggtgg  
gcaggagtcgaacacaccacaggaataccatacaatccacaaagccagggaatagtagaaaacaaaaatagacaa  
ttaaagaaaccatcaatcaaattaggggaagaagtagaaaagattagagacagcgggtggcaatggccacgttcatt  
ttaaatttttaaagaaagggaggaataggggggactacaccagcagataggtatattaacatgctatacacagaa  
ctacaactacaaaatacacacacacaaaaattttcgaattttaaagtattatagacatggtacttctgattgg  
cagggaccagcttctctactgtggaaggggagaaggagcagtagtgatccagacaccagatcaacaggtaaatagca  
gtacctagaaggaaagcaaaaatcatcagcagtaaaatgcagcatatattaaagggtacacaagtataaaagcaaa  
caattagagaaagccacatataaacatcattatcagattacatgggagtggtggactcgagcacaatgggaaata  
ccagtaggacaaggtgtatttaattataaaattctatcataatttgacaccagagaaaggcctgttaagaacagag  
ggagtaggattaatttgggcccacccgtctggatggagtagcagaagtaacaccacaaacagcagatgcattagta  
catagtcaatacttcccttgtttttcagatagggcagtcacaacagcacttagagggggagaagttgacttcgcac  
tgctggaatttccataaagaacaggtactttcattgcaatatttggctttacaaaagtatttaagcaagtgcatg  
ctagatatgcatagagcactcaactttatgctttttgaacattttgctgcattagaaggaacatttctctcaaat  
gggcctcagactccttgtagcagatgctattgcaaaaagtgttgctatcattgttatagatgctttcttcaaaa  
ggcttagggataacaatgaaactttttaatatcataagtgtagtgtaggtatagtttaagtttaggcatagta  
gctaggttagaacaatatgtcacagtattttatggagttcccaattgggaagatgctcaagtacctatgttttgt  
gcaaccccccatagggaggttgggcaacaagaactgtgtacatcttctgaacagatagaagtcagagttaat  
attagtggggaatatttactgcgtggaattcttcccattggcataagacaacagcttttgcaggacatgtctgat  
cttttctgcaggctgataggccttgtgtaaaattatctcctatgtgtatcagaacgttatgtgtagaggacaag  
gacagtagtagtggtaatcttaccacaacaatcagtcacaacaacaacaacaagcagcaacaccacctgca  
tggtggggggacaactctacagaaactaggtacaattgtttcatttaacatgacaggggggttttaaggataagaaa  
catcagtataatgcattcttttacaagtcagatataatgagagaggaaggaaatgaaagttattactatttacag  
cattgtaatactagtgtaatgcgcaatgcttgtgaaaaacagacttttcgcccatttcccattcaatactgtgct  
ccaccgggatactcactgttgaaatgtaatgatacagaatttgaaggagatgctgagtgtaaaatgtaacagca  
gtttcatgcacacatcctttcaacacttttggttagtacatggtttcagttaaatggcacctataaagcaaaaagac  
aaagttaggtttatttagacaaaaggataaaaaatgaatcagtgattatactagtgccagaaaaattaggattaca  
ctggtgtgtgaaagaccagggaatgagttataaaaaacatccaattggcagcaggatttttcttgccagtgatt  
caagggagattgaaaacaggggaaagctgcgaaaagagcatttttgcaaagtc aaaggagaatggggaaagttttt  
gagcaggtccataatgagagttataaagggtgtggaaaaatgtgacctcaacatcatggaggtcgcaaccacaagga  
gacctggaagtgagaacacattgggttcaatgtggcgaggaatttttttactgcaatgtttcaaagatttttgca  
aatgtgtcaaatggctatgctaataccaagcaattatgcaaaaaatttatatctctcgtgtgccatacagacagatt

ataaactatttgggggtatgtaaccaagctaattgtattttgccacctacagaagggcacattaagtgcactttctaattactgctgtatttaacagatatagagtactatccaaattcacagttgaattttgcacctactgctaattgtggaa  
gatgtgtggagagctgattttattcaattataaattgatttcggattaaacctattggcctttgcgctacaagtcaa  
agggcgtatgagctgcctacgaaacagaaaagatcaaattggggatgcgcatttaagcaaatttgtcacacagca  
gtaacgtggcagcaagcatgtggcaataactctcgttgcccacaccccaatgggaaaacatgacatggcataca  
tgggaacggcaggtagataatttgacagaccacatagataatttactgagagaagctcaggagcagcaagagaag  
aatgtgcatgatcttactaaattacaagaatgggattccctgtggagctgggttgatctgtcgaaatgggtccag  
taccttaagataggattctttgccatagcagctatagtgatattaagagtacttagttttgcttggggcatagta  
agaaatatgttgggaggctattctcctcttttgagggacttgtaattgcctggggattcatcagtcccatcttg  
gatcccaaaagagactttgactctggggggaaaaaatggaatgcgggagacatctgtcatgatgagggagatgag  
gatctagtaggctttcctgttttaccacaagtacccttgagacccttaacttacaacttgccatagatctctcc  
cattttataaaaagaaagggaggactgcagggcatgttttctgtcaaaagagacatgagattctacagctgtat  
ttaagaatgagcatgggtgtgatagatgacatcacctatacagagtgggaggaacaagatacccgctgatcttc  
gggtgggttatgggaattggcccctaatagaaatagaagggtagttagatgaggaagacacactgatgatgcac  
ccagcagcaggagtgggggcttcagaagaccacatagggagaatctcatgtggaacttcaatccacacttagcc  
tatacaccaggctgggaaatggctcgtcagcaattagagagacaaacaggaaagcgctag

>#34 AY655744 7197 nt

atggggggcacggcactcggcgatgctcaccggtagggccttagataaaatatgagaaagtgagactgaggccgaaa  
gggaaaaagaagtatatgggtgaagcatattgtatgggcttccaaagagatggagagggttggcctgagtgcgcc  
ctgttagagaccaaaagaaggggtgcgttaagatcatagaagccatttacatgttagaaccgaatgggtcagaaggg  
ataaagtctctctttggaatcggtgtgtgttctatactgcattcatgctggtatagacattgaggatacagagcag  
gccaaaggcagaagtaaggaaacgctgccacctaggggagaaaaaggaacaacagaggaggaaaaagtaagaaag  
gcaacagtgcacatctagtggccaaacaggaaattaccccataataagaaatgcacagcagcagtatcaacatcag  
gcactgtcacctaggctgctaaagacatggattgccactatagaggagaaaaaatgtggccctgaaacagtggcg  
ctcttctcggcactagcgggaaggggtgcacccctatgacatcaatcaaatgcttaatgcagtaggagagcatcag  
ggggcaatgcagatcataaaggacatcattaatgagcaggcatcagagtgggatcagatgcacccagataggt  
ccactaccagcaggacagttaagggaaccagcagggagtgcacatagcaggagacaacaagcactcccgctgaacag  
gtggaatggaccaccagagcacagaaccccgtagatgtgggagcaatatacaaaagatgggtcatcatgggctta  
cagcgctgtgtaaaaatgtacaatccagttaacatactggatgtgaaacaaggccccagggaaccattcaaagac  
tatgtagacaggttctacagatgtcttagggccgaacaaacagatcaggcagtaaaaaattggatgacacagacg  
ctgttggtccagaatgctaaccagagtgcaggccatcttaaaagccatgggcccaggagccaccttagaagaa  
atgctccaggcctgtcaaggggtaggaggaccccagcataagagcaggccttatggcagaagctatggcagaagcc  
ttaaacaacaaacacccaacaagtcatagccatggtacaacaggggcaaggaggcccaagggggagagggggacct  
agaaggaaacccccagggcagattaggtgttataactgtggaaaatttgccatatagcaaaagaactgccccggc  
ccgccgagacagaaggtgcgcgcaggcacttgctataagtgtggcaaacaggccacatagcaaaacaatgctcc  
tcagcacaggccaatttttttagggaaagtgtgatagaaggacaagaggtggaggtactcctagacacaggagca  
gatgacacaattatacaagtaggagaaaatagaattggaaggagtacccccacaaaaaacagtaggggggattggca  
ggatacatacaagtgcaaagttatagtgccatagaaatacagtgggaaaacaaaagagcaaggggacacagttttg  
attggaccaacgccaatatacattctaggagaaaatttttagcaaaatttagtggttacacttaacatgggtcagc  
tcagacataccgataaccaaggttaaattaaaagagggtaaggaaaccccccaaatcaagcaatggcccttaacc  
agagaaaaaatagaagggctacaaatcatcatagacgacatggtgaaggcaggacagtttagaggaggttgaccg  
gaaaatccatataattctccagtgttcgctatcagaaagaaggacaaaactcaatggagaatgctcatagacttc  
cgcgccttaaatcaagcaacccaagacttcgcggaagtacaacaggggatacctcaccctcaggcctgcctcag  
atgaagcaaaataacggctcctagacatgaaggatgcctattacagcatcccttagaccagacttctcacagtac  
acagccttcaccatcccgctctctgaacaatgataggccaggaagaagatatcaattcaagggtgtaccccaagga  
tggaagggttcgcccaccatcttccaacatacctcggatcaattattgaggaaattcagggacaagtaccctcag  
gtagcactctttcaatacatggatgacctatttggttaggaagcaatgagagcttgagggaacatagaaggatagta  
ggagaactaagagctctcttaaaacaaggtagggatccagaccccagaggctaataaccaagacaaaccgcccatt  
aatggctagggtatgaattgtatccagataagtggaaagtacagcctattgaattgccagataaactcacatgg  
acagtcaatgagttacagaagttaataggaaaacttaattgggcatgccaaatatattctggtattaaaacaag  
gcctctgcaggtagctcaggggagtaaaaggacttctagaagaagtacagttatcagaggaagcagaggcagaa  
ttagcagaaaacagggaatcttagcagaagaactcacggtacatataccaggaaggagagcccctggaggca  
gaactgaccaaattggcagaaggtcaatggggctatatgataaaacaaggcaaacggctcttaaaaacaggcaag  
tttgccaaacagagaacagcacacagtaacccttatcaacagttaataggagctatgcagaaaataggcaaggag  
tccatagtcttttgggggcaggtagcagtagtccaggtcaaggaggaatgggaacagtgggtggaca

gaacactggcaatgctcatggataccaccatcgtgcccattcacacaccaccattagttaggctatggtataac  
ctagtgcaggagcccatagaaggagcagacacgtattacgtagacggtgcagcccaccgagaggtcaaaagaaggc  
aaggcaggatacgtgactgcaacaggaaaagaacatgtcatcaagttagaaaaaactaccaaccaaaggcagaa  
ttggaagcagtactattggcactcaaagattcagggcccaaggtaaataatagtcacagactctcagtatgtctat  
ggcataattggcaggaagccccacagaaacagataacaagataatagaagacattatccagctactactaagcaag  
gaggcagtctacttggcttggctgcccggccacaaaggcataggaggaaatgaacaggtggataagttagtaagc  
caaggaatcaggaagatcctttttagaagacagatcccagaagcacaagaagaacatgagagataaccataaat  
tggagggatcttaaggcaagatttaagttaccaccatagtagccaaggctattatagaagcatgcccacaaatgt  
caagtacaaggagaacctaagacaggacagaacaatgcagctgtaggacatggcaaatggattgcacccatttg  
gagggacaaatcatctgtgtagcagtagacgtggccagtggtacatagagactaagattctgccaaggagagc  
ggcgaggagaccgcccctcttctcttacaagtggccagcagatggcctataagccacctgcatacagacaatggg  
ccaaactttgtctcagcagaaatgcaggccatggatgggtggctcaaaatagagcactccgcaggaggtcccatat  
aatcctcaatcccaggaggcagtagaaaacaaaaataaacagctcaagaagacaatcacacaaattagggatgaa  
gtacaatacctgtccacagcagtgccacaggcgactttcattttgaattataaaaagaagagggggattaggggat  
atgtgccagcagaagcaataattaacatgatctacacagaactacaaactacacaactacaaaaccaaattcaa  
aatttttcggattttaaggtctattacagaaaggtgctaactcctcttggcagggaccagctcacctcatttgg  
aaaggagaaggagcggttgtcttgcgaacagacgaaggagaggtaatcacagtccctagaagggaaggcaaaaata  
attaagccctttcacatacataaaaaccaagtacttacaaaagttgatttgggttcatacctttcaattgagacac  
gcctcctatacacaagcaaagtggatactcccgttagaagaaaaggacaccagagtagaataatttaaccataaca  
cagttattggtgttttagcaccagaccatggatatacgtccgattgggacacaatatccattgagtggtcagtcctg  
gatatagtccgagacgaaaaggtgtacgccactgaagtaaccccaaatgtggcagatcacttgattcataccaaa  
tatttcccatgttttacagcgtcagcagtcagacaagccatcagaggggaggtgctactagcagtttgtggagtc  
agacacaaaggtagggacacgccaccgtctctacagttcctagccttgacagcagcagttagatggacaggagaa  
caggcatgggctgcctcagtcatagattttgctaggaagggtaatacaaatgttactcctacatttccagcaagg  
tgctattgtctattgcaagaaatgttgttaccactgccagctttgcttcttgcaaggggttaggtatccggatg  
aaatacttagcagttatttttgtcttagcttacttaggaaggtttataataggaaccagtatgtcaccatctat  
tatggagtaccagtggtgaaaaatgcaacacccccattgttttgtgccaccatggcaagggaccaatggtcaaca  
tcccaatgcgtcccacagatcctcagaatctcgaggtaccagtgaaatctcactgagtagtacttcgatgtgtataaa  
aattacatggtggaccacatagcagaagacatggatagcctcttttgacagccacaagaccatgtactaagtta  
acaccaatatgtgtaaggatgaagtgtgaggacataacaaagaaccttacaatcagtgccaataccacaacacca  
gccccgacggccatgagcaatagcaatatgccgtgggtggggagacaatacaacagaaccagtatataattgtaca  
tggaacatgacaggagcatttagggataagaggtatacctacttttctcactggtacctagcagacctaatgaag  
gaaccaggcaatggatccttctattatgccacaggatgcaatgtgtcagttatagcacaagcttgtgaaaaaact  
cactaccaggcatttctctatacagtagtctgtctccagcaggtttgccctgataaagtgtaatgatagcccatgg  
acaggtagaggaaagtgtcacaacatctcagcagtagactgtacagaccctatcaccacaatagcagctacgtgg  
ttaattctcaatgggacaaaggaaaatcacacacaggtcatacatcaggctccaaagaatgaaagtgtataatc  
ctcctaggaaggaacacaacctcacaatcacatgcataagaccaggaaataggacaataaaggacttacagata  
gcagcaggactaatgtttcacagccagataatagcagggaagaacctcaacagggcctattgtgaagctagagggc  
aattggactaaagccatggaatcggccaatgaagaaatagcaaaaaggtacaaggagcatatcaacaacacagat  
aaagtgaacatcacatggacggcagtcaggagaggagacctagaggtacaacttttctggcatgcatgtcaggga  
gaattcttctattgcaacataagttctatgttctgaatacttctctatgagtataactacacatcaaaccaaggc  
aaattacaccaaggggtcataggaaagaagccgaggtcgagtgataggaccaagttctacatgtcatgccaaactg  
aggcaaatgatcaacaggtggagcaggtggagaagttaatgtacctcccaccagggaaggacacctgcagtc  
aaaagtaacatcacaggattgttgggtggatatcaaccaccaccgcggtctagtacataacagtagagccctcg  
tcacagatacgtgactcgtggcgagcagcagtttcacggtacaaggtgatagagatcgtgccttttgggtatgcg  
ccgacaaatatcagaaggtacgatgggcccgtcaacaagcaaaaacgaaattcatgggggtgcgcatggaacag  
atctgctacacctcggtagcgtggaacaaaacatgggtcgaattacacagatcctcaatggcagaatatgacatgg  
caagaatgggagatgaaagtagacaatcacacagggctcatatcacagttgttacaagaagcacaagagcaacag  
gaaagaaatgtccatgagttgcaaaagttaaatgactgggacagtcctctggagctggttcaatttgtctgctgg  
tttagatggcttaggatagcagtaatagtagtagcttagtcttacttaggattgtaatgtacatagttaat  
gtgctcaagttgtcaggcagggctacttacctcttccgtttgaagaatggcaagcaacaggagcggactacatg  
ggcaaggcattaacacaaggagaggtttggtatgaaaaagaacaagaagaaaatgacatggaaactagtgggcttc  
cctgtgaggcctaaagtccgttgagaacctgtacttataaactaggtatagacttctcgttcttttgaagaa  
aagggaggactgaaggggatattttacaacaaacgtaggcatgcaatcttgaatctgtatgccacaatgaatgg  
ggcatactgccagactggcagaactacacagaggggaccagggaacaagatacccatgtgtcttgggtatcctgtgg

aaactctgcccagtagagatccatgaggatgacacggaggacggacatctcctcccgcacccagcatatgatggg  
caggcagaagacccatgggggagaatccctgggtctgggtctttgatgagaagctggcctacacccccggagcgaag  
atggccgagtgaggacaggttgagagagagaagcggatgctgctagctccaccgcaaaccgcacccctcttga  
>#35 AY523865 7326 nt

atgggggcgggcggtcggcaccattaaccggggcggttttagacagatttgaaaaagtaagattgagacaaaa  
ggcaaaaagaagtatatgataaagcacctcgtctgggcaggttaaggaaactagacagatttggccttgacgagca  
ttattagaaaataaggaaggctgtcaggaaattttgactaggttacagcctttagaagcaacaggcagtgagaat  
ttgaaatctctatatggcatagctgtgtcatctgggcatgccatgccaacctctcggtggatgacaccgaggag  
gccaaaaaggcagtgtagcaggaggataaagcaggtggaacaggaggaagaattagaaatggccctaatacgaaga  
cagaaagagaaggaagtagaacagaaacaacaaaagcaacagggaacaaagacagcaggagcctcaggcagcacc  
cagacaacaccatcagttaactaccctatcttaagacaggggcaacagtttgtgcatatgccattaagccccagg  
atagtaaaaacctggataaatgctgtagaggaaaagaaattttctccagagatagttcctctttttcaagtcttg  
gcagagggctgtacccctatgacattaatgggtctacttaatgcaattggagatcttcagggggctatgcagatc  
attaaagatgtaattaatgaggaagcagcagagtgggatttacaacaccacaacaacagccgccacaggggagcag  
cttagggaaccatcaggagcagacatagcaggaacaaacagcacagtggaagaacagatagcatggatgaccaga  
ccagcaggtcaaggacaaggacccatagatgtaggacaaatatatagaagatgggtcatactaggtctgcaaaga  
tgtgtgaaaatgtacaatccaaccaacatcttggtatgttaacaagggcccaaggaaccattcaaagattatgtt  
gacaggttctataagaccttaagagctgaacaagcagatcaggcagtaaaaaattggatgaccaccaccctcatg  
attcaaaatgcaaaccttgattgcaggatcatcctgaaaggattaggtcagaatcccaccttggaagagatgcta  
catgcatgccaaaggggtgggaggcccacagcaaaaggccagacttatggcggaggctatggcctcagccttaaaa  
gaggcaggggtccctaggcatggtacaacaaaggagaggacccccctggttctagaagacagattagatgcttcaat  
tgtggacaaattggacatctccaaaaggactgcaaaagacctagaaagaccaaattgttttaaatgtgggcaggaa  
ggccacattgcaaaaaattgtggacagactccgagggcaacagtagacacatagaaggaagaaaagtccaggtgcta  
atagatacaggggcagatgataccattatctcagaaaaagatatagatttagaggcaccttggaaccccaaaaaca  
gtaggggggattaggaggtttcataaatgtcaaatgttaccagggatagaattgcaatggctaataaggtagca  
gtatcagatctattagtaggagataccccaattaatattctaggaagaaattatttagcaaaaatgggggtatct  
ataaattttccagtattagattatacccccagtaaaattaaaagagggggcagatggaccaagattaaacaatgg  
ccactttcaagggaaaaaatagaggccttaaaagatatcttaaagcccatgatagaggcaggacagatagtcctcg  
gcagcgcccaccaaccatataactctccagtgtttgtaataaagaagaaggacaaaagtaagtggcgaaatgcta  
atagacttaagagccttaacaaggccacacaggaggtgtgggaggtgcagacaggtataccacacccatctgca  
ctaccacaaatggaacagatcactgtcttagatcttgcatatgacctatttcaatagcactagacccaacattt  
gcaaaatacacagcattcacagtaccatctgtcaataatatacaaccaggagaaagatatgagttcagagtactg  
cctcagggatggagcgcttcaccagccatttttcaagcctcagtagggagacagttacagatcttttagggaaaag  
aatccagagctaataatagtcaggtatatggatgatttactagtagggtcagatttaaggaaagatcaacaccta  
aagaaggtagcacaaattaagacagttcctcctagagaggggattgaggacaccacctgagaagtatcaggaagac  
ccaccctttcactggatgggggtatgagttacaccctaaaaaatggcggttgatgccagttaccctaccagatgaa  
gaagaatggacagtgcataaaattcagaagtttagtaggacagttaaattgggcaagccaaatttattcagggtata  
aaaacaaaacacttatgtaggggcaatcagaggggtcccgggattaacagacccggttacccctctctgaagaagct  
caagcagaacttagagagaacaaggaaatcctgaagcaagaagtgtcaggagtttactataaagagcaggaacca  
ttaatagcagaattatccaaattagggaaaggacaatggggatatgtgatcagacaacctaagggaatattaaag  
acaggaaaattctctagagataaaggagctcactataatgatttccatcaattagctaagggtatgtataaaata  
ggaacagaaagcatagttttttggggaagaataccacagttcagggtcccagtggtaaaagaagaatgggacaat  
tggtggcataatcactggcaagccgcctggatcccagactgggaggcaatacataccccatctggtcaagctc  
tggtatgagctggtgtcagaaccataccagatgcagacacctactatgtagatggggcagctaacaggggagtcc  
aaattagggaagctggctatgtcacagagtggggaaaacaaagtgtaaaatgcttagagaataccactaatcag  
aaagcagaattagaagccatattgttggccttggaagaaggcccatcaaaaatgaatatagtaacagactcccag  
tatgcactggggataatttttagaacacccatctgagacagaacataagatagtagaaaaggtaatacaggccttg  
caagggaagaacaaatttatctagcatgggtaccagcccacaagggaataggaggaaatgaccaggtagataaa  
ttagtcagtaaaaggaataaggaggtcctcttcttggaagggttagaggaagcccaaggagaccatgaaaaatac  
catgggaattggaacaattaagggtatgaataccaactacctacactcatagctaagcaaattataacacaatgc  
cccaaatgtcagacaagaggggagcccacacatgggtcaggtggatgcctcaatgggcatctggcagatggactgc  
acccatctggaacaaaataataatagtggcagtcctatgtggctagtggtatataagagaccaagatcctacca  
gcagaaacaggaaaagagacagctctgttctgttacagtttaggagcaagatggccagtaactcagatacacaca  
gacaatggaccaactttatcagtcacccagtcacggcagcttgctgggtggctaggtattgagcacaccacaggg  
gtaccatataaccacaaaagccaggagtggtagaagtaagaacaggattctaaaagataccatcaaacaatc

agagatgatgcagagagattggaaacagcagtagcaatggctacctacataattaatttttaaagaaggggagga  
ataggggatatgtctccgatagaaagactagtaaacatgataacaacagaaatagaaacaaaaactttacaacaa  
aaaatttcaaaacttttaggcttcaaggtctattacagagaaggtgctgatccaacttggaaagggccagcaacc  
ctgctgtggaaaggagaaggtgcagtggtgtgcaagacagaggtaggagatatcaaagtgggtccctagaaggaaa  
gcaaaagtaatcaaagaattagataggtggtgcagtgctataaaaagagaaaaatacaagaccaaagaattagat  
actgtacaatggatacaccattttgaattaaggaactcatattatacacaaaaaatagtattccccatcaca  
aaagaagggggagtagtagtagaattactatggtgcttgacccagagaaaggatggctacccactatggcagta  
gcaatagcatgggaaacaaaaacatggaagacagaactaacaccagatttagcagatcaccttatacacctaaga  
tactttccatgtttctcccaacaggcagtgagacaagccataaggggagagatcctactgcaacagtgtcagcag  
taccataggggaccagaaggtaaaggaccaccttactacagtacatagcacttagagtagcagtaaaatacata  
aaaatagttcaaaaaatgttatggttgacctgagagaagcttgctttcacagggagagagagggctaccagaggg  
tattcctaacattagggcattgacaggaagaaatagagaagtttagggacggagaataaatggagagcatagatcca  
tttgaagaaagagctaatacacccccaccccgcttgatgtgcaaagcctgcattctacattgccagctgtgtttt  
atacaaaagggctctagggatttccatgaggcttatacagcttttgctacttatttttagggttaatagttaggt  
acacaggggaaacagaaaaagcaacaatacttgacagtatattatggagtaccagctctgggtagatgccaaagtt  
gatttgttctgtacagccaactcatcagagtcaggatgggcagtgacagcatgcctgccacatgccttagtgaga  
gaagaagtcctaagtcctaattgtgacccaaaactttaatgcttttgataaccccatagaggagcagctatggcag  
gatatgactagtttgtacaaacagtcattcaaaccatgtgttaaagctaaccacatattgtgttagcatgcagtg  
ataaaaacatcaacaaatccaacaccaacaaacacatcaacaacaacaacaataagcaacaacaacaaaaaca  
actacagattgggtcaggggaaaacataaccatgacacaatattggaattgttcattttaatgtctcaggtccttat  
agagataaagaagaaaagagctcagcagtatggctagaggatgatatccagtgggcggataataaagatggtagt  
gggaacagaacaggggtacatgaaacactgtaatgactctgtcatcaccagtccttgtaaaactagccgctttaa  
ccttttaagatcaggtactgtgcaccagctggatattggtctactaagatgtgatgataaaaaattttaatggtaca  
gggttatgcaacaacgtgactgcagtggtcatgtacaaatctcatcacaccatggcatccacatgggtacaattt  
aatgggtctgatgaggagaggggcagaagagcttcatataataagaaaagaggtaaaaggtgaggtgcagaatgga  
agcattactataagagtgcgcgctaaatacaacttgacattaacatgtgttaaggccaggaaataagacctaccga  
gccatacacatgggtacaggtctgtccttttatactacctttatacaaaaggctgaggataaaagagagcacattgt  
agactaaacggaagctgggcaaacgcaacaaaggaaatgcgacaaaagatattggaatatattggaaggcaaat  
aggacaaaataatctgacaatacactacccaaaaggagatagggaaagtacaaagtgtctggtttcagtgatgga  
gaattcttctattgtaacatttccaaagccctagatctcctactcctacaaaataacactagaaatagcacttgg  
tctgacaagtgggtgatgccttgtaggataaatcagtttagtaaacacttgggtatacggtagggcaacatatctat  
ctacctccgaaagaaggagagttgaagtgcagctcacacatttctgcatttgtttttgatgtagatcactataat  
gggagtataacccttacaccatcagcagacatcagggcagtatggagagcagacctattttaatatataaatcata  
gaagtaaaacctataggattcgctccctccgcagtgagaaggtacgagggaccggagtcggtaagacacaagagg  
aatgaatggggctgcgccttcaaacagatctgtcataccacgggtcccttggaaataactctctggaggatccagac  
tgggacaatatgacctggcaggagtgggaaatgaaggtagcaaattatacagatgagtggggaaggagctttacag  
agagcacaagagcagcaggagaggaatgtacatgccctacaatcactacaagattgggactctttatggaattgg  
tttgacctgtccagatggttctggtggattagattagtagtatacataatagctgctttaatattgctaagaata  
gctatgtttggagtgaatattggaagtagaggctttgaattactgcaagaaggaatatatagactgtcatttgc  
ctttggcaaagactgagactcttgggggaacgcttttagagtgttgggggtacttacagttctggggaagtcc  
agaagagaaataaagtgcaccaataagcaacaacaagacttagatcagacagaagcagtaggcttcccagtacgc  
ccccaggtatccatccgagacccccacatataagttaatgatagactactctcattttttgaaagaaaaggggtgga  
ctggaggatgttttttactctgccagaaggcatgctatttttagagcttcatgccagaatgaatggggaattata  
ccaggctggctacagtacacaaaggacctggagttaggtatccaatttacttcgggttccctctttaaaactggtg  
ccagtagaaatagcagacccagattatgagaatgatgagaggaacatcttgttacatgatgccaccaggggatg  
atggaagacccccatagagagaggttggtttggaagtttgacagcactctggcctattgtttataaggcaggccat  
gctgaacaaagagagcataactagaagatgtatgttccctaagaggaagtag

>#36 AY523866 7269 nt

atgggggcgggcgatcggcgccattaacgggggcagcttttagacagatttgagaaaataagattgagacccaaa  
ggcaagaaaaagttttgataaaagcacctcgtctgggcaagtaggggaactagacagatttggccttgaggagca  
ttattggaaaccaaagaaggatgtcaagagatcttaactagattacaaccttttagaggcatcaggcagtgaggc  
cttaagtccctatacggcatagtatgtgtcgtttgggcatgccacgccaacctctcggtagaagataaccgaggag  
gcaaaaaaggcagtggttagaaggataaagcaggcagagcaggaggaagagtttagagatggcattaattcagaag  
aaagcagaaaaaggagtttagagaaaaagcagaaaaactcaggcagcagcagcagacacacagcaaaaaacaaacaa  
ccagctaattttccaatcctgagacaaggacagcaaatatgtacatatgcctttaagtccctaggtattgtgaaaacc



tggataaatgcagtgaggagaaaagaaattttccccagagatagtgcccctatttcaagtattggcagaaggggtgt  
actccctatgatattaatgggctgctaaatgccataggagatctacaaggggcaatgcaaattataaaagatgtg  
attaatgaggaagcagcagagtgaggacttacaacacccacagcaacagccaccacaaggtcagcttagagagcca  
tcaggagctgacatagcaggaacaaacagcacagtggaagagcagatagcttggatgaccaggccagcaggacaa  
ggagcaggcccaatagatgtaggacagatatacaggagatgggtcatcctaggcttacagagatgtgtaaaaatg  
tacaatccaactaacattttggatgttaagcagggctcctaaggaacccttcaaagactatgtagatagattctac  
aaaaccttgagggctgaacaagcagatcaggcagtcaaaaattggatgaccaccaccctaattgattcagaatgct  
aaccagattgtagaataattctaaaagggtaggacagaaccccactttagaagaaatggtgcatgcatgccag  
ggagtaggaggtccccaacagaaagcccgtctgatggcggaggctatggcctcggccttaaaagaagcagggtcc  
ctggggatggtgcagcaaagaggaggacaaggaggaggtcctagaagacagcttagatgctttaattgtggacag  
attgggcatgtgcaaagggattgtaaaaagcctagaaaaggttaaattgcttcaaattgtggttaaggagggccacata  
gcaaagaactgtggacaagtaccaagggcagcagtatatgtggaaggaaaaaggggtccagggtgctaatagacaca  
gggtgcagatgatacaattatttcagagaaagatttagatttagatgcaccttggaccccgaaaacagtgggggga  
ttagggggatttatcaatgtaaaatgctacccagggtatagagattaaaatggcagacaaggtagctgtttcagat  
gtgttagtaggtgataccccaatcaacatattgggaaggaattatttggcaaagatgggggtatccataaatttt  
ccagatttggactttacaccagtaaagttgaaggagggagctgatggccaaggattaaacagtgggccctttca  
agagaaaaaatagaagccttaaaagagatcataaggcctatggtagaagcaggacagatagtcccccacagagccc  
actaacccatatagtctctcctgtgtttgttataaagaagaaggacaagaataaatggagaatgcttatagacctg  
agagcccttaataaggctacccaggatgtctgggaagtgaacacagggatcccgcacccctcgggggtgccacaa  
atggaacagataacagtcctagacttggcagatgcctattattcaatacccttggatccacagtttgcacgttat  
acagcattcacaataccttcggtgaacaatacacaaccaggagagagatatgagttcagagtagctacctcaaggc  
tggagtgcacaccagccatattccaggcaacagtgggcaggcagctgaaactttttaaggaaaaataccagac  
ttaattatagtcctaataatattggatgacctatttggtaggatcaaatttagataaggtctcacatttagaacaggta  
aaacagcttaggaaattttctcctagaaaaggggttaaggacacccccggagaaataccaggaggatccccatac  
cattggatggggatgagttacatccaaagaaatggcacttgttgccaatagagctaccagaagaggaggagtg  
acagtccacaaaatccagaaaactggtaggacagttaaattgggcaagtcagatatactcaggaataaagaccaa  
cacttgtgcaaggcaatcagaggggttccagggttaacagataaaagtaagcctttcagaggaagcacaaagcagaa  
ctgaggggagaataaagaaactcccaaacaggaagtctcaggggtatactacaaagaagatgagcccctaataatca  
gagatttccaaaataggaagaggacagtggggatatgtaattagacaaacaaagggattgctaaaaacagggaaa  
ttctcaaaggacaagggaaactcattataatgactttcatcaactagctaaggcaatgtataaaataggcacagag  
agtatagtcatttggggaaaaagttcccaaatttaggttgccagtagtaaaaggaagaatgggataactggtggcat  
aaccactggcaggccacttggatccctgactgggagggcgtgcataccccacaactagtcaggctatggtatgag  
cttgtatcagagccaataccagatgctgacacctattatgtagatggagcagctaataagggaatcaaaaatggga  
aaagcaggctacatatcagaatggggaaaacagggagtaaaaagtctggaaaatactaccaatcaaaaggcagaa  
ttagaagccatcctactggccttggaggagggacccctccaagatgaacatagtaacagactcccagtatgcttta  
ggaatattgttagaacaccccacggaaaacagaacatgagatagtagaaaagatcatacaagccttacaagaaaag  
gaacaggtatatcttaattgggtaccagcccacaaaggtataggaggggaatgatcaggtagacaaattggttaagt  
agaggaataaggagaatcctattcttggaaagagtagaagaggctcaagaggatcatgagaaatatcatggtaat  
tggaaacaattgagagatgaatttcagttacctacctaataagccaagcagattattgcgcagtggtccaaagtc  
cagataaaaggagagcctatgcatggtcaagtagatgcctccatgggggtatggcaaatagattgcacccacct  
gaaaacaaagtcatcatagtagcagtgcatgtagctagtggtattatggagactaagggtcttatcagcagaaact  
ggaaaggaaacagccttattcttattacagttggggggcaagatggccattaaacagatacacacagacaaatgga  
ccaaatttcataagtcagccagtcaggcagcatgttgggtgggtgggaatagatcatactacaggggtaccatat  
aaccacaaaagtcaggggtagtagaaagcaaaaatagggctcctaaaagaactatcaaacaaattagagaagat  
gcagaaagactagaacacagcagtagcaatggccaccttcattattaattttaaaagaaggggaggaataggggat  
atggcagcaatagagagactagtaaacatgataactacagacttggaaacacaaaccttacaacaaaaaatttca  
aaacttttaggttacaaggtatattacagagaaggagctgacccaacttggaaaggaccgcctaccttactgtgg  
aaaggagaaggagcgggtggtgtgttaaaacagaggtaggagacataaaggtagtaccagaagaaaagccaaggtg  
ataaaagatttagataagtggtgtagtgccataaaaagaggaaagtataagaccaagaattacaagcaataaag  
tggatacaccattatgaatttaagaagggcattctacactcagacaaaaaatagtccttccccgtcacagaagaagga  
aaagtagtagtggaatatcttggagcctggctccagaaaaaggggtggatgcctctatggcggttaggaatctct  
tgggagcagacaggggtggcagacagaattaacacctgacctagctgatcatttgatacacttaagatacttccct  
tgtttctcccaacaggcagtcacacaagccctaaaggggagagaaactactacaacagtggtcagcaataccatagg  
ggaccagaaggtaaaaggaccacctcattacagtacttagcactaaggacagcagtaaaaatatataaaaaatagta  
caaagaatgctttggcttcatctgagagaagcatgcttccatagagagagggaagctactaggagataccccaat

attagaccctaacaggaagaacagggaggtcagggatggagaataaatggaagaaatagatccattcaaggaa  
acagctaatacacccccatcctaattgtatgtgcaaagcctgtactatgcattgccagctgtgctttatgcaaaaa  
ggctctagggatctacatgcttagcttattaataataatagcaagtctgaccctggtaggggcagcaccaaaaag  
caacaatgggtgacagtatattatggagtgcccgtatggcacaatgccactgttggcttattctgtacagcta  
agttcagaatcaggatgggctgtgacagcatgcttgccacatgcaatggtagagaacaagtccttatgccta  
gtgtcccagtatTTTTgactctTTTTcaaatgttatggaacaacaattatgggacgacatgactagcttatacaga  
caatctTTTaaaccctgtgtaaagttaaccccatattgtgtgcggtgaactgtagtagtacaacaacaaca  
acagcagcaacaacaacaataaaaaacaacaactgactgggtcaggagagaataagacagtgcacagctattggaat  
tgtacctcaatgttacagggccatatagggacaagaaggaaatgcaaagtgcagtgtggtagaggatgacata  
cagtgggagacagaaaaaccaacaataactaacaagaagtataagacatgggtatatgaaccactgcaacaattca  
gttataacacagtcctgtgaaaccagtcgctttaagcctTTTaaagataagatactgtgcaccagctggatatgg  
ctgttaagatgtgatgacagaaactTTaatgggtaccggctgtgtgaccaatgtgactgcagtggtgacataat  
ctcatataccatggcatcaacatggatgcaattcaatgggtcagatgaagaaagggcagaagacatacatatc  
ataaggaagggcctggaaaataagaccattactgtcagaatccaccaaagtataatctatctttggattgtgtt  
aggccaggaacaagacgtatagagctgttcatatggccacagggctatcctTTTatacaaccttcataccaagg  
ctgaggataaagagagcacattgttaggatgagaggttaattggacagggagcagttaaggagataaggagcagatta  
aaggagatatataatgtgacaaaaataacagtacactatccaggaggtgataggaggtacaaaacacgtgggtt  
caatgccatggagagttctTTTattgtaatgtttccaaagcatttaatctgctcatgaataaaaactaataacata  
acctggagtaataacacttttgatgccttgtaagattaatcaattggtaaacacatggttcaaggtaggacaacat  
gtatatTTTgctccaaaggaaggagaattgaagtgtcattcttctgtttctgcacttgTTTTgaggtagctcat  
tatgggcaaaacatgaacataacaccctcctcagatatattaaggcagtttgaggggcagatctatacaagtataag  
atcatagaagttaaaccatcgggatggcccctacaagtataagaaggtagcagggaccggagctctgcaagacaa  
aaaaggaatgaatggggatgtgcctTTTaaacaaatctgtcacactacggctcccttggaaccatacatggggagaa  
cctgattggaataatatgacctggcaagagtgggaaaggaaagtagcaaaactatacagatgaatgggaaggagcc  
ttacagagagcacaggaacaacaagagagaaaatgtgcatgccttacagtcactgactgattgggattcattatgg  
aattggTTTTgacctatccagatgggtctgtggtagtagtagtatataatagcagctttgatattgctt  
aggatagcaatgtttggggTTaatatcgggactaagagaggctttgagctcctgcaagaaacaatatatagactt  
tcatTTTgcatTTTggcaaagactgagactcttgggggaacatttaagagtggtctggggTTattgtcaagaacca  
ctctatgcagacccccacagagagataaaatgcactcagagagcccaggagtggttatgatgaggaacatgggata  
ggctTTTgctgtcagaccaagggTcccaattagggaaaccacttacaaattgatgatagactactctcattattta  
aaagaaaagggTggactggaggatattTTTTactctgctagaagacatgctatattagaaatccatgccaccat  
gaatgggggaataataaccaggttggttgaaagtacacagaaggccaggaccaaggtatccaacatactTTTgggtc  
ctatttaagctagtgcagtagagatagcagatcctgactatgagaatgatgagagaaaatatcctcttacatgat  
gcccaccaaggacaagcagaagacccccataaggagaggctagtatggaagTTTTgatccctcccttgccatttg  
tataaagcaggacatgaagcccataaaaccagagcataacagaagatgcatgttccttaaggaggaagtag

>#37 FJ919724 7212 nt

atgggagcggggcgatcagcaccgttaacggggaaagcTTtagacaaatttgaaaaggtgaggttaaggccaaaa  
ggtaaaaaagaagtatatgataaagcacctcgtctgggcagctaggggaattagatagggtcggcctctcagaggca  
ttgttagaaaacaaggaggatgtcaggagattctaaccaggttaacacctTTTggaagcaacaggcagtgagaat  
ctcaagtctctTTTatgggacatgttgtgtcatatgggcctgccatgcaggtctccaaatagaggacacagaagaa  
gcaagaaggcagtaaaacttagaattgctcaagtagaagcagaggaccaattagaaatgcaggtcctgcagaaa  
aaagcagaggcggaagcagcaaaagaaacaaggggcagtatcagctcaagcccaaccagcccaggttcaatcagca  
gccccacaacagggaacagtagtaaggggcaactacccaatcctcagacaagggggacagtatgtgcatatgcct  
ctaagtccaaggatagtaaaaacttgataaatgcagtagaggagaaaaagttctccccagagatagtcctctt  
ttccaagttctagcagagggtgtaccccatatgacatcaatgggttactcaatgccataggagatttacaaggg  
gcaatgcagataataaaggatgtaataatgaggaagcggccgagtggtttacaacaccacacacagcagcca  
ccccaaaggacagttgagagaacctcaggagcagatatgtcagggaccaacagcacagtagaagaacaaattgca  
tggtatgacaagagcccaggagtgaggaggagcccatagatgtaggacaaatttatagaagatgggtaattttg  
ggctacaaaagatgtgtaaaaatgtataatcctaccaacatcttggtatgtgaaacaagggccaaagagccattc  
aaggactacgtagacaggttctacaagaccttgagggcagaacaggcagaccaggcagtaaaaaattggatgacc  
accaccttatgattcaaaatgctaaccagattgcaggacaatcttgaaggctTTTgggacctaatcctactcta  
gaggagatgctgcatgcatgccaaagggtaggaggaccccaacagaaagcaaggctcatggcggaggcaatgggtc  
tcagccatgaggggaggaggaggccttaccatggtacaacagaggggaccaggagggccaagacctgggaataga  
attagatgctataattgtggacaaattggccatgttcaaaaggactgtaggaagcccagaacagtttagatgcttc  
aaatgtcaacagacagggcacatggcaaaaaactgccccaaagcagctcctcagtcaaagaatacaatagagata

gaggggaagaaggggtgcaggttctattagatacagggggcagatgatactataattcatgagaaagatattcaactt  
acctcaccctttgtcccaaaaacagtaggggggtctgggaggtttttataaatgtaagatgttatccagggatagaa  
atccaatgtcaaggtaaggtagcagtaggggaagtcctagtgggagagacacccattaatattttagggaggaat  
ttcttagcacccttaggcttctcgataaacatgctagagagtcagattcaatataccccgagtgaattaaaagaa  
gggaagtcaggaccaaagtcacaacatgggcctctagccagggaaaagatagaggctctcagggaaatagtggg  
aaagatggtggaggaaggccaatggctcctgcctcaccaccaatccatataactcacctgtggttgccattaaa  
aagaaagacaagaacaaatggagaatgttaatagatcttagagaattgaacaaggcaacacaaccagtttgggag  
gtccagacagggatcccgacccagcaggtctgccacagaaaaggcagataacagttttggacatagcagatgca  
tactattctataaccattagatccatcctttgctcagtatacggcatttactataaccatcagttaataacacagcc  
cctggagagaggtatgagttcagggtgctgccacaaggatggagtgcacaccagctatatcccaacacactgtt  
catcggtatttggaaggatttagaaagaaatacccgatgtactcatagtccagtacatggatgacctattggta  
gggtcagacagaacagaagaacaacacagactagtagtcaaaacactaagagattatctcctagagagggggtta  
aaaacacccccagagaaatttcaggcagagccccctatcagtggatgggatatgtccttcacccaaaaaagtgg  
actaccaaccaattcagatccctgaggaagaggaatggactgttaataaaatacagaaactagtaggaatcttg  
aattgggcaagccaaatatattcagggataaaaaacaaacacctgtgcaagagtattagaggggttcagggtta  
acagaccctgtaaagttaacagaagaggcacaggccgagctggaagaagccagacagatcttaaagaacaagtg  
tcagggacctattacaaagaacaggagacctcatagcagacattactaagctttcagaagggcaatggggatc  
accattagacagtcaaaagggaatcctgaaaacaggcaaatatgcaaaggcaaaaggggcacatttcaatgatttt  
catcagatagcaaaattgatgatgaaggtaggaacagaaaagcatagtaacatgggggaggttaccacattttagg  
ttacctgtccagaagcaggactgggatggatggatggcatgagcattggcaagccacttggatcccagaatgggag  
gcggtacacactcctcccctagtgcagattatgggtattccttgggttcagaacctataaaagaagcagatacatat  
tatgtggatggagcagctaacagagaatccaaggaagggaagcaggggtacatttcagagagaggaaaacagagt  
gtaaaggccttagaaaacactaccaatcaaaaggcagaattaacagcagttctcatggccttagaagatagtggg  
gaaaagggtgaacatagtaacggactcccagtatgtactaaacataactaacagaacacccccacacaccactgaacat  
gaattagtagagaaaataattcaacaactacagaagaaacaggaagtatatcttcagtggtgcccagctcataaa  
ggtctgggaggtaatgaacaaatagataaattagtttagtaagggaattagaaagatcctttttctagaaaagagta  
gaagaggctcaggaagatcacgataaataccacagtaattggaaacagctaaggaggaggtttaatctccccacc  
ttagttgcaaagcaataattaatcaatgtcccaaagtcaaaatacatggggaacccaaacatggacaagtcaat  
gcagacttgggtatttggcaaatggactgcacacattttagaaggaaaagtcataatagtagcagttcatgtggct  
agtggatttacagaaacccagggtgttaaaggaggaaaacaggaaaacagacagctttattcctgttacaattaggg  
gctaggtggccatacaacaagttcacacagacaatggacccaactttattagtcaggcatttggctgccgcctgt  
tggtggttagggatagagcacaccacaggggttcatacaacccacagagtcaaggagtagtagaaaaacaaaat  
agacaattaaaggatacaatcacacaagttagggaagatgcacaacgattggaaacagcagtagctatggctact  
cacattcttaatttttaaaagaaggggaggaataggggatatgaccccttcagaaaggatagtcfaatatgattaat  
acagaactagaaataaaatacctacaacaaaaaatttcaaaattttcaggattcaaagtctactacagagaagga  
gctgatcccagtttgaaaggcccagcaacactcctgtggaaaggagaaggagcagtggtaatcaaatggacaca  
ggggatttaaaagtagttcccagaagaaaagcaaaagtaataaaggacttagatagatggtgtagtgctataaaa  
aagggaataataaaaccaaagaattggctcctataacatggcaacatcactttgaactcagaaatagttatttt  
actcagacaagaataatatttccctatcacaaaagaaggaaaagtagtagtagaactccttctgggtgcctagcgcca  
gaaaaaggatggttgccagggaatggcagtaggtctcagttgggagcagggaaactggcagacagagctatctcca  
gaattggcagaacacttaatacacttaagatatttcccctgttttactcaacaggcggtgaggcaggccattctg  
ggggagaagctgctcacgtgctgccagcaatatcataggggagcaggaggtaacggaccaccttcattacagtac  
atttgcttaagggttagccataaaaagggcagcagcttcaagacattaccctaacatcagaccactgtcaggaaga  
aatcaggaggttagggatcaggaataaatggaggaggaaatggacctattccaagggagaggggagaggagaagca  
aatcaccctagttgctattgcaaaatctgtacttttcattgctacttgtgcttcacgcaaaaaggcttagggatc  
acgatgcttgctttcatattagctattatagtaattatcttaggacaaaagacagaacagggttagccagcaacaa  
cagtatgtgacagtattttatggggttccagtttggaaaaatgcctcagtggttggttttgcacagcaaatggt  
tcagagtcaggatgggcagtgacagcctgcctaccacactccgtgataagagaacagggtacacatgccaaatgta  
tcacagctactttgatgcattcaagaatcccatagaagaccaattatgggaagatatgacaggggttatataaaca  
acatacagaccctgtgtaaagttaacaccttattgtgtaaagatgcggtgtaagactgaaacaaccctaacaatca  
aacctaacaactccaaagacaacaactgattggagtggagaaaacaacaccatgtcacaatatgggaattgctct  
ttcaatgtctcaggtccatatagagataagaaagaaggggacatgccatgtggctaacagatgatctggaatgg  
gcaaatggaaatgagacaggggatactaggggagcttatatgaggtattgcaacaggtctgtaataactcaagcc  
tgtgacaaaagtcacttttaaacctttcaaaataagggtactgtgcaccagctggatattggtctaagatgtgat  
gacaaaaatttcaatggttacaggactttgtaccaatgtgtctgcagtggtcatgtacaaacttaatacacacaatg

gcacccacctggttacagttcaatgggtcagatgaggaaagagcagaagaaattcatgtcataagaaaggtctt  
gaaaataagacaataacaattaggattcctcccagagtacaacctccgttttagactgtgtccgtccaggtaataag  
acatatagagcaactcacatggccacaggattatcattttacacaacctttgtagaaaggctaaggatcaaaaga  
gcacattgcagaatgcgaggtaattggagtggcgagtttctgacataaaacaagtattaaagggcatatataat  
gttactaacataacaatgcattaccaggaggagatagagaggtacaaagggatgggtccaatgccatggagaa  
tatttttattgcaatgtcagtaaggcctatcaactttcaccaatgacaccataacatggagtaacaacactttg  
atgccctgcaaaattaatcaattggtaaacacctgggtacaagatagggcagcatatataacttggccaccaagagaa  
ggggagttgaggtgtgactcacatgtttctgcaataatttttgatgtggctcactatggacacatgttgaatttg  
accccatcatcagatattaaggcagtggtggagagcagatctgtataagtacaaaatcatagaagtgcagccaata  
ggctttgcacctactgctgtcagacgctacgagggaccagagtcgtgtgagacaaaaaagaaatgagtggggatgt  
gcttttaaacagatctgccacaccacagtgcccttggaatggatcaataggacaaccagattggaataacatgaca  
tggcaggaatgggaacagaaggtagcaaaactacacagatatatgggaagaagcattacagaaagcacaggaaaaa  
caggagcagaacgtacatgccctacagtcactacaagattgggactctttgtggaattgggttgacctatccagg  
tggttctggtggattagaatagtgggtgtatgtaatagcaggattagatttgcttagaataataatgtttgtagta  
aatataattagtctgagctttgctattttggactttgctacaaagacttggggaacaactaagagtactttgggga  
tacttgcaagaaacctttataggaaatccaagaagagaaatcaagtgtacacagagacaacaacaagattttgac  
caacaagaggaagtgggatttccctgtcaaaccagggtcccaattagagaccccacctataaattaatgatagac  
tactctcatTTTTTAAAGAAAAGGGTGGACTGGAGGATATTTTTTACTCAGCCAGGAGGCATGCAATCTTGGA  
CTGCATGCCAAAATGAATGGGGAATAATACCTGGTTGGCTCCAGTACACTGAGGGCCAGGGATTAGATATCCT  
AAGTACTTTGGGTTCCCTCTTTAAGCTAGTGCCAGTAGAGATAGCAGACCCAGACTATGAGAATGATGAAAGGAAC  
ATCTTGTTACATGATGCCACCAGGGTCAGATGGAAGACCTTATAAGGAGAGGCTGGTATGGAAGTTTGATTCA  
CAACTAGCCTACTGCTATAAAGCAGGCCATGAAGCTCATACTAAAGAGACACATACTAGGAGATGTATGTTCCCT  
AAGAGGAAGTAG

>#38 AF208027 7281 nt

atgggcgcgagaagctccgtcctgtcagggaaaaaagctgatgaattagaaaaagttaggttacggcccgcgga  
aagaaaaatacatgtttaaacaatgttgtgtgggcagcggaacgaattggacagattcgggattagcagagagcctg  
ttggaatcaaaagaaggttgccaaaaaattctttcagtagtagctccattagtagtaccacaggttcagaaaaatta  
aagagcctttataatactgtctgcgtcatttgggtgtttgcacgcccgaacagaaagtaaaacatactgaagaagca  
aaacaagtagtgagagacatctagtggtagaaactggaaactacagaaaaagtgccctgccacaagcagaccaata  
gcaccacctagtggcagagaggagaaactaccagtgagcaagtaggcggcaactatgttcatctgccattaagt  
cctcgaaactttaatgcatgggtaaaaattggtagaagaaaaagaagttcggggcagaagtgggtgccaggatttcag  
gcgctgtcagaaggctgcctaccatatgatatcaatcaaatgctaaattgtgtaggagaacatcaagcagccatg  
caaattattagagaataaattaatgaggaggcagcagaktgggatcttcaacatccacaacaagggccgcccga  
gcaggacaamtacgggaaccgcagagatcagatatagcagggaccactagtacaatagaagaacaaattcagtg  
acacacaggcagcaaaacctataaccagtaggaaatatytatagaagatggatccarttaggacttcaaaaatgt  
gtcaggatgtayaatccaacaaacatcctagatgtaaaaacaagggccaaaagaaccttttcagtccttatgtagat  
agattctacaagagtctragagcagaacaaactgatccagcagtaaaaaattggatgacacagacactactgatt  
caaaatgccaaaccagattgtaaattagtactaaaggggttgggaatgaatcctacttttagaggaaatgttgaca  
gcctgtcaagggrtaggaggaccagggcaaaaagccaggcttatggctgaagcattaaaagaagccttaaaccct  
acagccctaccatttgcagctgctcaacaaaaaacaggaggaaaaagggagcacaataaaatgttggaattgtggc  
aaggagggacatacagtttagacagtgagagccccagaagacaggggtgctggaagtgtgggaagccaggccac  
attatggccaaatgtccagagactgcatacatagaaagtcagccagtagaagtactattagacacaggggctgat  
gactctatagtagcaggaatagaattaggaagtaattatagtccaaaaatagtaggaggaataggaggatttatt  
aataccaaagaatacaaaaatgtagaaattaaagtggtaggaaaaagaatacaggctactgttatgacaggggat  
accttataaataatcttttgaaggaacatttttagttaagctaggcatgtctctaaattttccaattgcaaaggta  
gagccagtaaaagtaagggtaaaaacctggcatggatggggccaaaatcaggcaatggcccctatctaaggaaaaa  
atacaagcactcagggaaatttgtgacaaaatggaacaggaagggcaattggaagaagcaccccccaccaatccg  
tataacacaccacctttactatcaagaagaaggacaaaaacaaatggagaatgttaatagacttcagagaactt  
aacagggttaaccaggactttactgaagtcagttgggcatacctcaccctgcaggtttggcagaaaaaaggaga  
ataacagtactggatataggggatgcctacttcagcattcctctagatgtagatttcaggcagtagacagctttc  
actttaccatcagtaaaacaatgcagaaccaggaaaaagatacatctacaaggtcctaccgcaaggatggaagggc  
tcaccagctatcttccaacatacaatgaggaaggtactagacccttcagaaaaagccaatgaggatrttaattat  
atccaatatatggatgacattcttgtggccagtgacagaactgatttagaacatgatcaagtagttttgcagcta  
aaggaaactcttaataaaaacrgggttctctaccctgatgaaaagttccaaaaagacctccatatcaatggatg  
ggatatgaatttggccaaaaaagtggaactacaaaagattaacctgcmgaaaaagagacttggacagtaaat

gatattcaaaaactagtaggggtactgaaytgggcagctcagctatatccaggaatcaaaaacaaaaacctgtgy  
aaattaattagaggtaaratgaccttgacggaagaagtacagtggaacagaattggcagaagcagaattgcaagaa  
aacaagattatcctaraacaggarcaggaaggcgctattacaaagaagragagcctttrgaagccactgtacag  
aaaaatttagacaatcagtggaacatacaaagttcatcaaggaaacagaatcctaaaagtaggtaaatatgcaaag  
ataaaaaatacccatatacaaatggagtaagattattgggtcatgtggtccaaaarataggaaaggaagcactagta  
atatgggggaaaattacccttctttcatctgcccagtagaaaagggacacctgggaacaatgggtggacagactattgg  
caagtaacttggatcccagattgggactttgtgtctacaccgcatctagtaagggttagtctacaacctagtcaaa  
gaacctctagagcagacagagacctattatacagacgggtcctgcaataaaaacctccaaggarggaaaagcaggc  
tacgtcacagacagaggaaaagacaaggtaaargtcttagagcagacaacaaaccagcaggcrgaacttgaggca  
tttgcaatggccttgcaggactcaggtccaaaagtcaatatcatagtrgattcccagtatgtcatgggratcata  
gcaggrcaaccaacggaacagaatccccgttagtaaaataaaataattgaagaaatrattaaaaaagaarctcta  
tatgtaggtgggtaccagctcataaaggaataggaggtaatcaagaggtagaccrtctagtaagccagggaatt  
agacaagtactattcttgraaaaaatagaacctgctcaagaagaacatgaaaartttcatagtaatgtaaaagag  
ttaactcataagtttggcattcctcaattagtagcaaaacagatagtaaatccataccacagttgccaacagaaa  
ggagaagccattcatggacaggtaaatgcagaattgggtacttggcaaatggactgcacccatttagaaggaaaa  
gtaatcatagtagcagttcatgtggccagtggtttgtagaagcagaagtaatcccacaagaaacaggaaggcaa  
acagcattattcctgtttaaattagcagggagatggcctatcacacacctacatacagacaatgggtgccaacttc  
acctcgcaagaggtgaagatggtagcctggtgggtaggcatcgagcaagcatttggagtaccatacaacccccag  
agtcaaggggtagtagaatcaatgaatcatcatctaagaaacaaatagataaaattagagatcaagcaaattca  
atagaaaccatagtggttaattggcagtagatttgcattgaatttttaaagaaggggaggaataggggatatgaccct  
gcagaaagaataattaacatgattactacagaacaagaatacaatttcaacaaacaaaaattcaaaattttaa  
aattttcggtctattacagagaaggcagagaccagctctggaaaggacctggtgagcttttgtggaaaggggaa  
ggagctgtcatcataaaggtagggacagaaatcaaagttgtaccacagaagaaaagcaaaaatcataaaagatctg  
ataaaattcttaaagttttaaacaacaaagacctacagaaggcggtttatgttcctcatcacaagttggatgggct  
tggtggacttgcagcagggtaatatcccatatacaaaagaagcacatttggaaatacaaggggtattggaacttg  
acccctgaaaagggatgggttaagccagtagtgcagtaagattaacctggtacacaagaaaattttatacagatgtg  
acaccagagacagcagatcaattattgcatggatcttattttgattgctttacagctggtgaagtaagaagagcc  
atcaggggagagcagatattgtcctgctgcaactatccaacagctcataaaaggcaggtgcctagcttgcaattt  
ctagccttacaagtagtgcaaaaagggaatggcagaagaaatccccccagaagatgaggccccccagagagagcca  
tgggatgaatgggtagtagaagttctggaagaaatcaaagaagaagccttaaaacattttgacctcgcttgcta  
actgcgcttggttaactatatctatgataggaaatgttattgcaaaaaatgctgctatcattgtcagttatgcttt  
cttaacaagggactcgagtagtatgtatggcatatcttggcaatcagctgcttatcgcaaccttrctcttaagtact  
tatgggttctattgtaccaaataatgtcactgttttttatggcataccgcatggaggaacgcgagcgtacctctc  
ttctgtgcaacaaaaatagggacacatggggcactacacagtgcttctctgataatgatgattacagtgaacta  
gcattgaatgtaacagaagcttttgatgctgggataacacagtaacagaacaggcagtagaagatgtttggaat  
ctgtttgagacatctacaaaaccttgtgttaattaacacctctgtgcattgccatgagatgcaataaaaactgag  
acaaacaaatgggtctaacagggaccaccactgtaacctctgcaacagttcccacaactaaaatgggtgacagct  
gaactagtgaaatgactagccagtgcttaattgtacgataattgtacaggtatacagtcagaatccatggttggc  
tgcaaatttaacatgacaggggctaaaaagggatcagagaaaggaatacaatgagacttgggtattcacaagatttg  
caatgygaacagtccaataagagtgagaatgagagtagatgctatatgaggcactgtaatacatcagtcattcag  
gaatcatgtgataaacattattgggatgctataagatttagatattgtgctccgccaggggttgctttgctaaga  
tgtaatgataactaactattcaggatttgcacctaatgtctctaaagtagtggtctctacatgtacaagaatgatg  
gaaacacaaacctctacatgggttcgggttaattggaacaagggcagaaaaatagaacatatatctattggcatggg  
agagacaataggactataataagtttaaataagttataatttaacaataaratgtaggagaccagggaataaa  
acagtattaccaattactattatgtcagggctagtccttccactctcaaccaatcaatgaaagacccagacaggct  
tggtgttggtttggaggcaaatggaaggaagccatgcaggaggtaaaggaaaccgtgggtcaagcaccacagctat  
aaaggacaacatgacacaaagaamataacctttacaacaccaggagaaggttcagatccagaagtaaaagttcatg  
tggaactaattgcagaggagaattcttgtattgtaaaatgacttgggttctaaattggatagaggacagaaatatg  
actctcctaaagcccaggaacgacaaagacgcaattatgtaccctgccatattaggcagataattaacacatgg  
cacaagtaggaaaaaatgtgtacttggccccagagaaggtgatctgacgtgtaattcaacagtcaccagccta  
atagcgaatatagaagagaataggtctaacaaccatacaaatatcattttcagtgacagaggtggcagaactgtat  
cgattagaattgggggattataaattagtagaataaactccaattggctttgcacccacaaatgtaaaagagatat  
tctctgtgacaccgaaaaataaaaaattcatggggatgtgcttttagacaggtctgccacactactgtaccttgg  
gatgcccttgggtgctaataaaacattggagccacaatggaataatatgacatggcaagaatgggaaaagcagatc  
aactttttggaggacaacatcacacggctattagaagaagcacaaattcagcaagaaaaaaatatgtatgagtta

cagaaattaaatagctgggatgtattttggcaattgggttgacctaacctcctgggttaaatacgtttacttaggc  
ctttatgtagtggcaggagtaatagtgttaagaatagtcatatatgtagtacaataactaggaagacttaggcaa  
gggtataggcctgttttcttccctccctcttatgttcagcaggaacatctccggctagaagcagcttatttc  
agcgggcaacaatacacgcagggtcaatttatgaatacccatggagaaaccagcaacagaaagagcaaagtta  
gcatacaggyagcaaaataatgatgatgtagatagtgatgataatgacttagtaggagtagaccagtctacccaaa  
gtcccgtctagagtaatgagttacaaattggcaatagacatgtcacatttttataaaagaaaaggggggactggaa  
gggatttattacagtgaagaagacatagaatcctagacatatacatggaaaaggagcaagggtataattccagat  
tggcagaattacacagcaggaccagggtataagatatccartgacgtttggctggctatggaaactagtagaccagtc  
acggctctctgatgaggcacaggaggacgagactcattgcttggtagacatccagcacaaactagcccatgggatgac  
ccggagaccgaagtgttggcgtggaagtgtgaccctacattagcctatgactacagggcatttatattgcatcct  
gaggagttcagggtggaagtcagggtaccagaagcagtagtggaagagaaaactaaaacagagaggactgcctata  
gaataa

>#39 M30502 7080 nt

atgggcgcgagaaactccgtcttgagagggaaaaaagcagacgaattagaaaaagtttaggttacggcccggcgga  
aagaaaaagtacaggttaaaacatatgtgtgtggcagcgaatgaattggataaattcggattggcagagagcctg  
ttggagtcaaaagaaggttgccaaaagattctcagagtttttagatccattagtagccaacaggggtcagaaaattta  
aaaagcctttttaataccgtctgcgtcatttgggtgcttgacgcagagaagagaaaagtgaagatactgaggaagca  
aagaaactagcacagagacatctagtggcagaaactggaactgcagagaaaaatgccaaatacaagtagaccaaca  
gcaccacctagtgggaaaaagaggaaactaccccggtgcaacaagcgggtggcaactatgtccatgtgccactgagc  
ccccgaactctaaatgcatgggtaaaattagtggagggaaaagaagttcggggcagaagtagtgccaggatttcag  
gcactctcagaaggctgcacgccctatgatattaatcaaattgcttaattgtgtgggcatcaccaagcagctatg  
caaataatcagagagattattaatgaagaagcagcagactgggattcgcagcacccaataaccaggccccctacca  
gcaggacagctcagagaccaagaggggtctgacatagcaggaacaacaagcacagtagatgaacagatccagtgg  
atgtataggccacaaaatcccgtagccgttagggaacatctacagaagatggatccaaataggggtgcaaaagtgt  
gtcagaaaagtacaaccaactaacatcttagacataaaaacagggaccaaaagaaccgttccaaagctatgtagac  
aggttctacaaaagcttgagggcagaacaaacagacccagcagtaaaaaattggatgacccaaacgctgctaata  
cagaatgccaaaccagactgcaagttagtactaaaaggactggggatgaatcccaccctagaagagatgctaacc  
gcctgccagggggtaggcggaccaggccagaaagccagggtaatggctgaagccctaaaagagggtatgggacca  
agccctatcccatttgcagcagcccaacaaagaaaggcaattaggtattggaactgtggaaaggaggggacactcg  
gcaagacagtgccgagcacctagaagacaggggtgctggaagtgtggcaagccaggacacatcatggcaaaactgc  
ccggaaaagacaggcaggttttttaggggtgggcccacggggaaagaagcctcgcaacttccccgtgacccaagcc  
cctcagggggtgataccaacagcacctccggcagatccagcagcggaaactgttgagagatatatgcagcaaggg  
agaaagcagaggggagcagagggagagaccatacaaagaggtgacggaggacttgctgcacctcgagcagagagag  
acacctcacagagaggagacagaggacttgctgcacctcaattctctctttggaaaagaccagtagatgacagga  
gataccccaatcaacatctttggcagaaatattctgacagccttaggcattgtcattaaatttaccagttgccaag  
atagagccaataaaaagtaacattgaagccagggaaagatggaccaaggctgaaacaatggcccctaacaaaagag  
aaaatagaagcactaaaagagatctgtgaaaaaatggaaaaagagggccagctagaagaggcacctccaactaat  
ccttataataccccccacatttgcattaagaaaaaggacaagaacaaatggaggatgctgatagatttttagagaa  
ctaaataaggtgactcaagatttcacagaaattcagctaggaattccacacccggcaggactagccaaaaagaaa  
aggatctctatattagatgtaggggatgcctatttttccataccactacatgaagatttttaggcagtatactgca  
tttaccctaccagcagtaacaatatggaaccaggaaaaagatatataaaagtcttgccacaaggatggaag  
ggatcaccagcaatttttcaatacacaaatgaggcaagtcttagaacctttcagaaaagcaaaaccagatgtcatt  
ctcatccagtacatggatgatattttaatagctagtgcaggacaggttttagagcatgacaaagtggctcctgcag  
ctaaaagaacttctaaatggcctagggttttctactccagatgagaagttccaaaagaccctccatttcaatgg  
atgggctgtgaactatggccaactaaatggaagtgcagaaactacaactgccccagaaagacatatggacagtc  
aatgacatccaaaagctagtgggagtcttaaatggggcggcacaaatctattcaggaataaaaaccaaactta  
tgtagactaattagaggaaaaatgacactcacagaagaagtgcagtggacagaactagcagaagcagagctagaa  
gaaaacaaaattatcttgagccagggaacaagaaggatattattaccaagaagaaaaagaattagaggcaacaatc  
caaaaaagccaaggacatcaatggacatacaaaatacaccagggaagagaaaaatcctaaaagtaggaaagtatgca  
aagataaaaaatacccataccaatggggtcagattactagcacaggtagttcagaaaataggaaaagaggcacta  
gtcatttggggacggataccaaaatttcacctgccagtggagagagagacctgggagcagtggtgggataactac  
tggcaagtgcacatggatcccagagtgggactttgtatctaccccaccactgggtcaggttaacatttaacctagta  
ggagatcctataaccaggcgcagagaccttctacacagatggatcatgcaatagacagtcaaaagaggggaaaagca  
ggatatgtaacagatagaggaaaagacaaagttaaagtattagaacaaactaccaatcagcaggcagaattagaa  
gtctttcggatggcactggcagactcaggcccaaaggttaatatcatagtagattcacagtagtaaatggggata

gtagcaggccagccaacagagtcagaaaatagaatagtgaaccagatcatagaagaaatgataaagaaggaagca  
gtctatgttgcatgggtcccagcccataaaggcataggaggaaaccaggaagtagaccatttagtaagtcaaggc  
atcagacaagttatttcttggaagatagagcccgctcaagaggaaacatgaaaaatatcatagcattataaaa  
gaactaaccataaatttggaaatacccttctagtagcaagacagatagtaaactcatgtgcccattgccaacag  
aaaggagaagccatacatgtggcaagtaaatgcagaaataggcggttggaatggactacacacacttagaagga  
aaaatcattatagtagcagtagcatgttgcaagtggattcatagaagcagaagtcacccacaggaatcaggaagg  
cagacagcactcttctattaaaaactggccagtaggtggccaataacgcacttgccacacagacaatggcccaac  
ttcacttcacaggaagtgaagatgggtggcatgggtgggtaggtatagaacaatcctttggagtaccttacaacca  
caaagccagggagtagtagaagcaatgaatcaccacctaagaatcagataagtagaattagagaacaggcaaat  
acaatagaacaatagtactgatggcagttcattgcatgaattttaaagaaggggaggaataggggatatgacc  
ccagcagaaagactaatcaacatgattaccacagaacaagaatacaattcctccaaagaaaaaattcaaatttt  
aaaaatttccaggtctattacagagaaggcagagatcagctgtggaaaggacctgggtgaactactgtggaaggga  
gaaggagcagtcatagtcaaggtagggacagacataaaagtagtaccaagaaggaaggccaagattatcagggac  
acttatttctcttgctttacggcaggtgaagtaagaagagccatcagaggggaaaagttattgtcctgctgcaac  
tatccccaagctcataaagcacaggtaccatcacttcaataccttagccctagtagtagtacaacaaactgaagca  
ccaacagagtttccccagaagatgggacccacggagggacttagggagtgactgggtaatagaaactctgagg  
gaaataaaggaagaagccttaagacattttgatccccgcttgctaattgctcttggtactatatccataataga  
caaggagaagaactccttgcccagctgcaccgacccctagagccatgcactaacaatgctattgtgaagcgatgc  
agtttccattgccagctgtgtttctcgaaaaaggggtcggaatatcaatggagcctggtaggaatcagctgttt  
gttgtcattttactaacaagtgtttgcttagtatattgtagccagtagtgactgttttctatggcatacccgcg  
tggaaaaaatgcatctattcccttattttgtgcaactaaaaatagagacacttgggggaccatacagtgttgcca  
gacaatgatgattatcaggaaataattttaaatgtgacagaggcttttgatgcatggaataatacagtgacagaa  
caagcagtagaagatgtctggcatctatttgagacatcaataaaaccatgtgtcaagctaacacctctatgtgtg  
gcaatgaattgtagcaggggttaagggaataccacgaccccgaaatcccaggacctcgagttccacaacctcgaga  
ccaccacatccgcagcctccataataaatgaaacttctaactgcatagaaaacaacacatgcgcagagattaggg  
tatgaggagatgatgcaatgtgagttcaatatgaaggggttagaacaagataagaaaaggaggtataaggacaca  
tggtatttagaagatgtgggtttgtgacaacacaacagctggcacatgttacatgagacattgcaacacatcaatc  
atcaaagagtcagtgataagcactattgggatgctatgaggttagatactgtgcaccaccgggctttgccta  
ttaagatgtaatgataccaactattcaggcctttgaacctaaagtgcactaaagtagtagctgttcatgcacaagg  
atgatggaaacgcaaacttctacttgggtttggctttaatggcactagagcagaaaaatagaacatatatctattgg  
catggcagagataataggactatcattagcttaacaagtattataatctcacaatgcgttgtaagagaccagga  
aataagacagttttaccaataacacttatgtcaggattagtggttctactctcagccaatcaacacaaggcctagg  
caggcatggtgcccgttttgaggcagatggagggaaagccatgcaggaggtgaagcaaacccttgtaacaatccc  
agatacaaaggaatcaatgatacagggaaaatttaactttacgaaaccgggagcaggctcagacccgggaagtggca  
tttatgtggactaactgcagaggagaatttctctactgtaacatgacttggttctctcaattgggtagaagacaag  
aaccaaacacggcgcaactattgccatataaagcagataattaatacctggcataaagtagggaaaaatgtatat  
ttgcctcctagggaaaggggagttggcctgtgaatcaacagtaaccagcataattgctaacattgacatagataaa  
aatcggactcataccaacattaccttttagtgagaagtggcagaactgtaccgattagaactgggagactacaaa  
ttaatagaataaacaccaattggcttcgcacctacagatcagagaaggtactcctcaactccagtgaggaacaaa  
aattcatggggatgtgctgttagacaggtctgccacactactgtaccgtgggtaaatgactctttatcgctgac  
tggaaaaaatgatcatggcaggagtgaggagaacaagtccgctacctagaggcaaatatcagtcaaagtttagaa  
gaagcccaaattcaacaagaaaagaatatgtatgaattacaaaaattaaatagctgggatattcttggcaactgg  
tttgacttaacctcctgggtcaagtataattcaatatggagtgcataatagtagtggaataatagctttaagaata  
gcaatctatgtagtgaattgttaagtagatttagaaagggctataggcctgttttctcttccccccccggttat  
ctccaacaggcgcccaactgcaaggacagcagtatcagcagggagagtagatgaacagcccattggagaaacca  
gcaacagaaagacagaaagatttgtataggcagcaaaatatggatgatgtagattctgatgatgatgacctata  
ggagttcctgttacaccaagagtaccacggagagaaatgacctataaattggcaatagatatgtcacattttata  
aaagaaaaagggggactgcaagggatgtttacagtaggaggagacatagaatcctagacatatacctagaaaaa  
gaggaagggataataaccagattggcagaattatactcatgggccaggagtaaggtacccaatgtacttcgggtgg  
ctgtggaagctagtatcagtagaactctcacaagaggcagaggaagatgaggccaactgcttagtacaccagca  
caaacaagcagacatgatgatgagcatggggagacattagtgtggcagtttgactccatgctggcctataactac  
aaggccttactctgtacccagaagagtttgggcacaagtccagattgccagagaaagaatggaaggcaaaactg  
aaagcaagagggataccatatagtgaataa

>#40 AF082339 7074 nt

atgggcgcgagaaactccgtcttgagagggagaaaagcagacgaattagaaagaattaggttacggcccgcgga  
aagaaaaaatatcagctaaaacatatgtgtgtggcagcgaatgaattggacagattcggattggcagaaaagcctg  
ttggagtcaaaagaaggttgccaaagaattcttaaagttttagaaccattagtgccaacaggatcagaaaattta  
aaaagcctttttaatactgtctgctgtagtttggtgctgacgcagagagaaagtgaagatactgaaggagca  
aaacaaataatacagagacatctagcggcagaaatagaaacagcagagaaaatgccaaagcacaagtagaccaaca  
gcaccacctagtgaaacaggggggaaacttccccgtacaacaagtagccggcaactacacccatgtgccgctgagc  
ccccgaaccttagatgcttgggtaaaattagtagaagaaaagaagttcggggcagaagtagtgccaggatttcag  
gcactctcagaaggctgcacgccttatgatattaatcaaagtcttaattgtgtgtggcgaccatcaagcagccatg  
caaataatcaggagattatcaatgaagaagcagcagactgggatgttgacatcccataccaggccccttacca  
gcagggcagcttagagaaccaagaggggtctgacatagcaggaacaacaagcacagtagaagaacagatccagtgg  
atgttcaggccacggaatcctgtgccagtagggaacatctatagaagatggatccagatagggctacagaagtgt  
gtcaggatgtacaacccaaccaacatcctagacataaaaacaaggaccaaaaggagccattccaaagctatgtagat  
agattctacaaaagcttaagggcagaacaaacagatccagcagtaaagaattggatgactcaaacactgctggta  
cagaatgccaaaccagactgcaaattagtgctgaaaggattagggatgaatcctaccttagaagagatgctaacc  
gcctgtcaggagtagggggaccaggccagaaagccagattaatggcagaagccttaaaggaggccatgacacca  
gtcctatcccatttgcggcagcccaacaaagaaggacaattaagtgtggaattgtggaaaggaagggcactcg  
gcaagacaatgccgagcaccacagcctacattgagggccagccagtggaaagttttactagacacaggggctgac  
gactcaatagtagcaggaatagagttagggagcaactataccccaaaaatagtagggggaatagggggattcata  
aataccaaagaatatgaagatgtagaaataaaagtactaaataaaaagagtaaaagccaccataatgacagggtgac  
accccaatcaatatttttggcagaaacattttgacagccttaggcatgtcattaaacctaccagttgccaaagata  
gagccaatagaggtaagattaaagccaggaaaagacggggccaaaattaagacaatggcccttaacaaaagaaaaa  
atagagggcactaaaagaatatctgtgaaaaaacggaaagagaaggccaattagaggaggcacctccaactaacct  
tataataccccacattttgcaataaaagaagaaggacaaaaacaaatggagaatgctaatagatttttagagaatta  
aacaaggtaactcaagatttcacagagattcagttagggattccacatccagcaggattagccaagaaaagaaga  
atcactgtgctggatgtaggggatgcttactttccataccactgcatgagagcttttagacagtatactgcattt  
actctaccatcagtaaaacaatgcagaaccaggaaaaagatatatatataaagtcttaccgcaggggatggaaggga  
tcaccagcaatttttcaacacacaatgagacagatcttagagccattcagaaaggcaaaccaggatgtcattctc  
attcaatacatggatgatattcttaatagctagtgcaggacagatttagaacatgacaaggtggctcctgcagtta  
aaggaactcctaattggcctaggattttccaccccagatgagaagttccaaaaagaccctccatacaaatggatg  
ggctatggactgtggccaactaaatggaagctgcaaaaaatacaattgccccagaaagaagtatggacagtcaat  
gacatccaaaaacatgtgggtgtcctaaattgggcagcacaatctaccaggaataaagaccaaacacttatgt  
agactaattagaggaataatgacactcacagaaggagtgcagtgagacagaactagcagaagcagaactagaggag  
aacagaattatcttaagtcaggaacaagaggggcactattaccaagaagaaaaggagttagaagcaacagtccaa  
aaagatcaagacaatcaatggacatatataaacaccaggggagaaaaaattctaaaagtggaaaagtatgcaaaa  
atgaaaaatacccataccaacggggtcagattgttagcacaggtagttcaaaaaataggaaaagaagcactggtc  
atgtggggacgaataccaagatttcacctaccagtagaaaagagaaaacctgggaacagtggtgggatgactactgg  
caagtgacatggatcccagactgggactttgtatctaccccaccactggtcaggctagcatttaacctagtaaaa  
gatcctatactaggcgcagagaccttctacacagacgggcccgtgtaataggcaatcaaaagaaggaaaagcagga  
tatataacagatagaggggagagacaaggtgaaggtactagaacaaactaccaatcagcaagcagaattagaagcc  
ttcgcgctggcagtaacagactcaggtccaaaagccaatattatagtagattcacagtatgtaatgggaatagta  
gcaggccagccaacagaatcagaaaatagaatagtaaatcaaatacatagaagaaatgataaaaaagggaagccatc  
tatgttgctgggtcccagcccacaaaggcatagggggaaatcaggaagtagaccatttagtaagtcaggggcac  
agacaagtattgtttctagaaaaaatagagccagctcaggaagaacatgaaaagtatcatagcaatgtgaaagaa  
ctatcccataaatttgattacccaatctggtggcaagacagatagtaaacacatgtgcccaatgtcagcagaag  
ggagaggctatacatgggcaagtgaatgcagaactaggcacttggaatggactgcacacacttagaaggaaaa  
gtcatcataatagcagtgcatgttgccagtggtatcatagaagcagaggtcatcccgagggaatcaggaagacaa  
acagcactcttctattaaaactggctagtagatggccaataacacacttgcacacagatagtggtgtcaacttc  
acctcacaggaagtaaaagtggtagcatggtgggttggtatagagcaatcctttggagtaccttacaatccacaa  
agccaaggagtagtagaagcaatgaatcaccacctaataaaatcagataagcagaattagagagcaggcaaataca  
gtggaaacaatagtactaatggcagttcattgcatgaatttttaaagaaggggaggaataggggatatgaccca  
gcagaaagactcatcaatatgatctccacagaacaagaatacaattcctccaaacaaaaaatttgaaatttaa  
aatttcccggctctattacaggggaaggcagagatcagctgtggaaaggacctggggagctactgtggaaaggggac  
ggagcagtcatagttaaggtagggacagacataaaagtagtaccaagaagggaaggccaagatcatcagagacctt  
gtcaagtacctaagtagagaacaaaagatctagaaaagggtgtgctatgttccccaccataaagggtgggatgggca  
tggtggacttgacgcagggtaatattcccattacaaggaagaagtcatttagagatacaggcatattggaaccta



acaccagaaaaaggatggctctcctcttatgcagtaagaataacttgggtatacagaaaagttctggacagatggt  
acccagactgtgcagactccctaatacatggcacttatttctcttgctttacggcaggtgaagtaagaagagcc  
atcagaggggaaaagttattgtcctgctgcaattatccccaggcccataagtcacaggtaccgtcactccaattt  
ctggccttagtggttagtgcaacaaactgaagcaccaacagagtttccccggccggaatgggaccccaccaggga  
gccagggatgagtggtgaatagaagtctgagagaaaataaaagaagaagctttaaggcattttgaccctcgcatg  
ctaattgctcttggcggctatatctatactagaatgatgtctagtagaaatcagctgcttggtactatcttacta  
gctagtgttgcttagtatattgtaaacaatatgtgactgttttttatggcgtgccagcatggaaaaatgcatcc  
attccccctcttttgtgcaacaaaaatagagataacttggggaaccatacagtgcttaccagacaatgatgattat  
caggaaaatagctttgaatgtgacagaggctttcgatgcatgggataatacagtaacagaacaagcagtagaagat  
gtctggagactatttgagacatcaataaaacatgtgtcaagttaacacctttatgtatagcaatgaagtgtagc  
aacataagcacagagagcacaccacatccccgagccaggggagcacactcaaaccctgataaatgagagcgat  
ccatgcataaaggcagacaactgccccaggggactaggggatgaagagatgggtcaattgtcggttcaacatgaca  
ggattacagagagataagccaaaacagtataatgaacatgggtactcaaaagatgtgggttgtgaaccatttaac  
accaccacaaaccagaccaggtgttacctgaaccattgcaacacatcagtcatcacagagtcagtgataagcac  
tattgggatgctataagggttagatactgtgcaccacctgggttacgcctactaagatgcatgatatcaattat  
tcaggctttgcacccaattgctctaaagtagtagctgctacatgcacaaggatgatggagacgcaaacttctact  
tggtttggctttaatggcactagggcagaaaatagaacatatatctattggcatggtagagataatagaactatc  
atcagcttaaacaaacattataatcttactatgcattgtgaagaggccaggaaataagacagttgtaccaataaca  
cttatgtcagggttaatattttactcccagccaatcaataaaagacccagacaagcatgggtgctgggttcaaaggc  
gaatggaggaaagccatgcaggaggtgaaggaaacccttgtaaaacatcccagggtataaaggaaccaatgacaca  
aaccaaattaactttacaaaaccaggaagaggctcagatgcagaagtgggtatatatgtggactaactgcagagga  
gaatttctccattgcaacatgacttgggtcctcaattgggtggaaaacaaaacgggtcaggaacagcacattat  
gcaccgtgccatataaagcaataattaatatctggcacaaagcagggaaaaatgtatatatttgcctcctagggaa  
ggagagttgacctgcaactcaacagtaaccagcttgattgttaacattgacacggatgggaaccagacaaatatt  
accttttagtgagaggtggcagaactataccgattagaattgggggattataaattagtagagataacaccaatt  
ggcttcgcacctacatcagaaaggagatactcctctactccaaggaggaataaaaaattcatggggatgtgcattt  
agacaagtctgccacactactgtaccatgggtaaataactccttaaaacctgattgggacaacatgacgtggcaa  
gagtgggaaacaacaagtccgttacctagaggcaatatcagtgaaacagttagaacggggacaaaattcagcaagaa  
aagaatacgtatgaactacaaaaattaatatagctgggatgtttttaccaactggcttgacttaaccgcctgggtc  
aagtataattcaatatggagtttatataatagtaggaatagtagctcttagaatagtaatatatgtagtgc aaatg  
ttaagtagactcaggaagggtatagggctgttttctcctccccctcccggttacatccaacaggcagcctacctg  
caggggacagcggatcagcagggagattttatgaatacccatggagaaccccagcaacagaaagagagaaaagaa  
ttgtacaagcaacagaatatggatgatgtagatttagatgatgatgacctagtaggggtctctgtcacacca  
agagtacaattaagaacaatgacatacaaatggcagtagatatgtcacatttaataaaaagaaagggggggactg  
gaagggatgttttacagtgagagaagacatagaatcttagacatatacttagaaaaggaagaagggataattcca  
gattggcagaactatactcatggggccaggaataagggtaccgatgttctttgggtggctgtggaagctagtacca  
gtagatgtcccacaagaaggggaggacactgagactcactgcctgctacaccagtagacaaacaagcaggcatgat  
gacacgcatggggagacattagtttgagatttgaccctaagctgggtcatgattacaaagcctttattctacac  
ccagaggaatttgggtacaagtcaggcctgccagaagatgagtggaaggcaagactgaaagcaagaggggatacca  
tttagtaagaacaggaacagctga

>#41 U27200 7065 nt

atgggcgcgagaggctccgtcttgtcagggagaagacagatgaattagaaaaggttaggttacggcccgccgga  
aagaaaagatacatgctaaaaacatatagtatgggcagtgaatgaattagagagatttggattggcagagagccgg  
ttgggatcaaaagaaggatgccggaaaattcggaaggtcttaggaccattagtagccaacagggttcagaaaattta  
aaaagtctttataataccgtctgcgtcatcttttgcctgcacgcagaagagaaagtgaagatactgaggaagca  
aaaaagatagcacagcgacatctagcagcggacacagaaaaaatgccagctatgagtaaaccaagtaaaaccaact  
agccgcctagcttatccagtgcagcaaatagctggcaattattcccacctgcccgttaagcccccgaaaccttaaat  
gcctgggtaaaattagtagaagagaagaagttcggggcagaagtagtaccaggatttcaggcactatcagaaggg  
tgcaccccttatgatattaatcagatgttaattgtgtaggagaacatcaggcagccatgcaaatatttagggag  
ataattaatgaggaagcagcagactgggaccaacagcatccatcgccaggcccaatgccagcagggcaactcagg  
gaaccaagagggtcagacatagcgggaaccaccagcacagtagaagaacagatacagtggtgtacagaccccaa  
aatcctgtcccagtgggaaacatctatagaaggtggatttcagttagggtacagaaatgtgtccggatgtacaat  
cctactaatatactggacataaagcaagggccaaaagaacccttccaaagctatgtagatagattctacaaaagc  
ttacgggcagagcaaacagacccagcagtaaaaaattggatgacacaaacactgctgattcagaatgctaaccga  
gattgcaaatagtgcttaagggttgggaatgaaccccacattagaagaaatgctaacagcctgccaggggata

ggaggcccagggcagaaggcaaggctaattggctgaggctttaaaagaagccttgacaccttccaccaatccgttt  
gccgcccgtcaaccaagagcaggggaagaggacagtgcacatgctggaactgcggcaaggcgggacatacagccagg  
cagtgcgaaggcccttagaaggcagaaagcaactattgaggggtcaatcagtagaagtattactagacacaggagct  
gatgactcaatagtagcagggatagaattaggcagcaattacacccccaaaaatagtaggtgggataggaggattt  
ataaataccaatgaatacaaaaaatgtagaaatagaagtagtaggaaaaagagtaagagcaacagtaatgacaggg  
gacaccccaataaaacatttttggcagaaatattttaaatagcttaggcatgactctaaatttcccagtagcaagg  
atagaaccagtaaaaagtcagttaaagcctgaaaaagatggggccaaaaatcagacaatggcccctatccaaagag  
aaaatactagccctcaaagaaatctgtgaaaaaatggaaaaagaggggacagttagaagaggcgccctcctactaat  
ccatacaattcgccaccttcgccataaaaaagaaagacaaaaacaaatggaggatgctaatagatttcagagaa  
ctaaacaaggtaaccaagaatttacagagggtccagctgggtattcctcaccagcaggactggcatcaaagaaa  
agaataacagtactagatgtagggagatgcctacttcagtggtccactagatccagacttcagacaatatagca  
ttacttttgccagcagtaataatgcagaaccaggaagagatatctttacaaagtcctaccacagggatggaag  
ggatccccagcaattttccagtagacccatggcaaaggtagtagaccctttcagaaaagccaacaatgatgtcact  
ataatccagtacatggatgacattctcgtggcaagtgcaggagcgatctggagcatgacagggtagtgctcaa  
ctaaaagagctattaaataacatgggattctctactccagaagaaaagttccaaaaagaccctccattcaaattgg  
atggggtagtgagctctggccaaagaaatggaaactgcaaaaaatacagctaccagaaaaagaggtttggacagta  
aatgacattcagaagtttagtgggagtagtaaaattgggcagctcaacttttcccggggattaagaccaggcatata  
tgtaaaactaataaggggaaagatgaccctaacagaagaggtacaatggactgaattggcagagggcagaattccag  
gaaaaacaaaatcatcctagaacaagagcaggaaggatcctattacaaagaaggggtacctttagaagcaacagtg  
cagaaaaatctagcaaatcagtgagacatacaagattcatcagggagataaaaatcctaaaagtaggaaaaatagca  
aagggttaaaaaactcacaccaatggagtaagactattgggtcatgtagtccaaaaaataggaaaggaagcattg  
gtcatctggggagagataccaatgttccatctaccagtagaaagagagacatgggatcagtggtggacagattac  
tggcaagtaacctggatcccagaatgggattttgtctcaacccccaccattaataagggttagcctataacctgggtc  
aaagacccccctagaaggagtagaaaacttactacacagatggatcctgtacaaaagcctcaaaaagaagggaagca  
ggatatgtcacagacaggggaaaggataaaagttaaaccattagaacaaacaacaaatcagcaagcagagcttgaa  
gcatttgcactagcactacaggactcaggaccacaggtcaatatcatagtagattcacaaatatgtcatgggaata  
gtagctgcacaaccaacagaaacagaatcaccgatagtaagagaaaataattgaagaaatgatcaaaaaggaaaaa  
atatatgtaggatgggtaccagctcacaagggactgggtggtaatcaggaagtagaccacctagtgagccaagga  
attagacaaatcctattttctagaaaaaatagaaccagctcaagaagaacatgaaaaatatcataataatgtaaaa  
gaactagtcataaatttgggattccacaatttagtggcaagacaaatagtaaaattcctgtgataaatgccaacaa  
aaaggggaagctattcatggacaggtaaattcagaactagggacatggcaaatggactgtacacatttagaggga  
aagggttataatagtggcagttcatgtagccagtggttcatagaagcagaagtaataccccaagaaacaggaaga  
cagacagctctcttccgtttaaagctggccagcagatggcctatcacacacctgcacacagacaacggtgccaac  
ttcacttcacaagatgtgaaaatggcagcctgggtggatagggatagaacaaacattcggagtgccctataatcca  
gaaagtcagggagtagtagaagcaatgaacctcatctgaaaaatcagatagacagaattagagatcaggcagta  
tcaatagagacagttgtgttaatggcaactcactgcatgaattttaaaagaaggggaggaataggggatagacc  
cctgcagaaagaatagtcaacatgataactacagaacaagaaatacaattcctccaaacaaaaaaatttaaaattc  
caaaatttccgggtctattacagagaaggcagagatcaactctggaagggacctgggtgatctattgtggaaggg  
gaaggagcagtcataaaaggtagggacagaaatcaaagtaataccagaagaaaaagcaagatcataagggaac  
tacctgaaatataggacaaaagacttgcaacaggtctcttatgttcctcaccataaggtaggatgggcttggtgg  
acttgtagtagagtaatatttcccctgaaagaaggagcacatctagaagtcgaaggatactggaacctgaccca  
gaaaggggattcttgagttcctatgctgtaagactaacatgggtatgagaggagcttttatacagatgtaactcct  
gatgtagcagaccgattactgcatgggtcttattttctcttcgtttacagctaatgaagtaaggagagccatcagg  
ggagaaaaagatatgtcccactgcaactacccatcagctcatacaggccaggtaccaagtttacagtttctagcc  
ctaagagttgtacaagaaggaaaaagcagaagcagtcacagagattcctccagaggataaaaaaccacaaagagaa  
ccgtgggaacagtgggtagtgagcgtcctggaggaaataaaaacaagaagccttaaagcattttgacccccgctta  
ttaactgcacttggcaattttatctacaatagggcatgcagtaatacatgctactgtaaaaaatgttcctaccat  
tgccagctttgctttcttaaaaaagggcctggggatagtgtatggcacatgttaataattacctacttggtacactc  
ctgcttataagtatctatgggtatatgggcaagaactttgtcactgtcttctatggtatacccgcatggaaaaat  
gcatcaattccctctttttgtgctaccagaaacagagataacctggggaactgtacaatgcctcccagataatgat  
gactataccgaaatccaattaaatataacagaggcttttgatgcatgggataatacagtgacagatcaggcaaca  
aaggatgtgtggagtctctttgagacctcaataaaaaccatgtgttaaattaaccccactgtgtgtgacaatgaag  
tgtaataagacgtggagctcagctagcaagagaccactacgtcctccgctccctcagatcttctactcagacc  
ctactcaacgaagatagcaaatgtattcaaaatgacagctgtgcagggataggactagaagaaatgatagactgt  
caattcaaaatgacaggattaaaaagagatgagtcaaaacaatataggacacctggtataaacaagatttagtg

tgtgaaaaggggacaaggagtaatgaaagcaaatgttatataaaaaacctgtaatacatcaattatccaagaatca  
tgtgacaaacattattgggtagttaaagatttaggtattgtgctccccaggatttgctttgctaagatgcaat  
gatactaaatattcaggcttcatgccaactgtagtaaggtagtagtatctctgtacagaatgatggaaacacag  
acctctacatggtttggcttcaatggtacaaagggcagaaaacaggacatatatctattggcatggtaaagacaat  
aggactatcataagcttaaattcatattataatctgacaatgcactgtaaaagggccaggaaacaaaatggttgtg  
ccaataagaaccgtgtcaggtattctcttccattcacagcctatcaataaaagacctaacaagcttggtgctgg  
tttaaaggaaactggacagaagccatacaggaggtgaaagagaccattaaaaatcatcccagatattcaggaaca  
acaaatatctcacagataagggttagcagagcacgcgagaagctcagatccagaagtaagatatatgtggactaac  
tgtaggggagagtttctctactgtaatatgacttttttcttaaactgggtagaaaatagaactgggctcaagaga  
aattatgctcatgccacatcagacagatagtcacacgtggcacaagattggaagaaatgtgtatttgcctcca  
agagaggggtgaactctcctgtaattccactgttaccagcctcatagccaacattgactggatagataagaacctt  
actaatattactgtgagtgacagaagtgtcagaactgtataaattggaactgggggactacaaattagtagagata  
acaccaattggctttgcacctacaagtataaaaagatattcctcagtgacaccgaggaataaaaattcatgggga  
tgtgctttcagacaggtctgtcacacgactgtaccatgggtaaatgaatcccttaagccagactggaataacatg  
acatggcaacaatgggagagggaagtccgcttcttggtgcaaatatacaaaaattactagaagaggcacagata  
caacaagaaaagaacatgtatgagttacagaaattaaatcaatgggataatttccagtaattgggttgacttcacc  
tcttggtggcatacatcagggttaggattatatatagtaataggaatagtagtattaagaatagcaatatacatt  
atacagatgctagcaaggcttaggaagggtataggccagtttctcctcccctccctcttatactggacaaaag  
actttgggagcagaagggggaggaaaacaagattcagatgaggatgatgaggacaatgaagtgggggtccgtgta  
agacccgggggtcccactgaggccaatgacattcaaactagcagtagacatgtctcatttttttaaaagaaaagggg  
gaactggaagggttttctatagtgagagaaggcataaaaatactagacacatacttagaaaatgaagaaggcatt  
gtgtctggatggcagaactacacacatgggccaggagtaagatatccaagtcttttggtggttatggaagcta  
gtgccaaataaatatgatagcagaaccagaggacgaggaacccattgtctggtgcatccagcacagacctccgca  
tgggatgacccccacgaagagaccttgtctggcagtttgactccctcctagcatatgactatgtggccttcagc  
aggttcccagaggagtttgggtatcagtcaggaatgccagagaaaagagtggaaggctaaactgagagcaagagga  
atacctacagagtag

>#42 KP004991 7530 nt

atgggtgcgagagcgtctgtgttgtcagggagtaaattggatgagtgggaaaaaatccgggttaaggccaggatct  
aaaaagaaatatctgctaaaacatttagtatgggcaagcagggagctggaaagatttgcttgtaatcctgagcta  
ttagaaacagcagaagggtgagaagctactgcagcagctagaaccagctctcaagacaggggtcagaaagcctg  
cagtcactctggaacacgatagtagtactctggtgtgttcacaacagattcaaagtgggtgatacacagcaggca  
atacaaaagtgaaggaagtgaaggggcataaaaacacaagtgcgcagcagacagatcaaaggagctcgcagcag  
acaggacaaaattaccctatagtaccaaattgcacagggacaaatgacgcacagccccctctcccccagaacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgagattattcctatgtttatggcattatcagaa  
ggagctatcccatatgacatcaatactatgctaaatgccataggaggacatcagggggccctacaagtgtgaag  
gargtcatcaatgaagaagcagcagattgggacagaactcaccgccagtggtgggaccattgccaccagggcaa  
ataaggaaccagcaggaagtgcattgctgggacaactagcaccagcaagagcaggtccactggactactagg  
gctaacaatcctatcccagtaggagatatctacagaaaatggatagtaatgggttaaaacaagatggtaaaaatg  
tacagtccagtgcacatcttagacataaagcagggaccaaaagaaccatttagagattatgtagacaggttctay  
aaaactttaagagctgaacaagcaacccaagaagtaaaaaattggatgacagagacactgcttgttcagaatgcc  
aatccagattgcaaacagattctaaagtcattagggccaggggctaccttgagggaatgatgatagcctgtcaa  
ggggtaggaggaccaactcataaggctagagtactagcagaagcaatggcctctgtccaccaagatctaaaagga  
ggatacacagcagtttcatgcaaagaggggcaaaacccaaataagagagggcctataaaatgttttaactgtgga  
aaagaagggcatttagcaaaaaattgtcgagcacctagaagaaaagggttgctggaaatgtggacaggaggggtcat  
caaatgaaagattgcaaaaatggaaggcaggcaacagcgaaaaatcgggggccatctatgtgaagttttgtggtgat  
acaggggcagatgatacagtgctacatgacatacaattagaaggaaaaatggacacccaaaaatgataggggggtata  
gggggttttataaagggtgaaagaatttaacaatgtgacagtagcaaatagaaggcaggggaagttcaggggaacagta  
ttggtgggacctactcctgttaatatgttgggaagaaacatatgtacaggggttgggttgacattaaatttccc  
ataagccccatagccccagtgccagtaaaaactaaaaccaggaatggatggacaaaagttaaaacaatggcccta  
tctagagaaaaaatagaagcattaacagcaatatgtcaggaaatggaacaagaaggaaagatatcaagaataggg  
cctgaaaaatccttataatacaccccatatttgcataaaaaagaaagatagcactaagtggagaaaattagtagat  
ttcagagagttaaataaaaagaacacaagatttctgggaggtacagttaggtatcccacatcctgggggtttaaag  
aaaaagcaatctgtcacagtttttagatgtaggagacgcctatttctcatgtccattagaccagatttcagaaaa  
tatacagcttttactattcctagtgtaaacaatgagacaccaggagtgagataccaatacaatgtcctcccgcaa  
ggatggaaaggctctccagctatatttcaaagttcaatgactaagattctagatccattcagraaagacaatcca

gaaatagaaatztatcagttacatggatgacctctacgtaggggtcagatttaccactagcagaacatagaaggaaa  
gttgagggtgcttagggagcatctataccagtggggatttactaccccagayaaaaarcaccaaaggagcctccc  
tttttgtggatgggctatgagctccaccagataaatggacagtagcccatcaaattgcctgacaaagaagta  
tggaacagtaaatgatatacaaaargctggtaggaaaattaaattgggcaagtcaaattctatcaaggaatcagagta  
aargaactatgtaagttgattagaggaaccaagtcatttracagaagtagtacctctaagcaaagargcggaacta  
gaactagargaaaatagggaaaaggctaaaggaaccagtgcatggggtatattaccaacctgacaaagacttatgg  
gttaatatcaaaaacarggagaagggaatggacgtaccaggtctatcaagatgagcataaaaaaccttaaaaca  
ggaaaatatgctaggcaaaaagtctcacatacaaattgatataagacaaactagcagaagtaattcagaaagtgtct  
caagaatctatagttatattggggaaagtgcctaagtttaagctgccagttactagagaaaacttgggaagcatgg  
tgggcagactattggcaagccacctggattcctgaatgggaatttgttagtacacctccattgatcaaattatgg  
tatcaattagaaagtgagcctatttcaggggagagacatactatgtagatggggcagccaatagggacacaaaa  
ttaggaaaagcagggtatgttacagaacaaggaaaacagaagataatcaaattagaggagactactaatcagaaa  
gctgaattaatggcagtccttagtagcactgcaagactccaaaaagaagtaaatatagtaacagactcgagtat  
gtattaggtgttatctcagcccaacctacacaaagtgattccccctagttcagcagataatagaggaattgaca  
aaaaaggaaagagtataccttgctgggttctgcccataagggcatagggggaaatgaaaaaatagacaaacta  
gtaagtaagatattagaagagttctattcctagaagggatagaccaggcacaagaggatcatgaaaaatatcat  
agcaattggagggcggttggccagtgactttggactgccaccagtggttagccaaagaaatcattgctagctgccct  
aaatgtcatgtgaaaggggaagctatgcatggtcaagtagattgcagtcaggggatatggcaactggactgcacg  
catttagaaggaaaaattatattagtggtcagttcatgtggccagtggttcatagaagcagaagtaatccctgca  
gaaacaggacaggaaaactgcttacttctgcttaaaattagcagcaaggtggccagtcaaagtaatacacaccgat  
aatggaccaaaactttaccagtgctgcagtaaaaggctgcttgttgggtggcttaataaactcatgaatttggaaat  
ccatataatccacaaagtcaaggagtagtagaatctatgaataaagaggttaaagaaaaataatacagcaagttaga  
gatcargcagagcagttgaaaacagcagttcaaattggcagtatattgtccacaattttaaaagaaaagggggatt  
ggggggtacactgcaggagataggataatagacataatagcttcacaaatacaaaacaacagaattacaaaaacaa  
attttaaaaattcaaaattttcgggtctattacagagacagcagagaccctatttggaaaaggaccggcacagctc  
ctgtggaaaagggtgagggagcagtagtcatacaagacaagggagacattaaggtagtaccagaagaaaaggcaaaa  
ataatcagggattataggtccaaaaaggccaaagattgggttttacagacaccattatgaagccacaaatccaaga  
gtcagttcaggtgtatatattccagtaggtggtgcttgcataatagtgaccacatattgggggttgatgccargg  
gaagmagctgarcaattgggaaatggggttagtatagaatggcagctaaggaattatagaacacagattgatcct  
gaaacagcagacaggatgatacacctgtattatytttcmtgttttacagagtcagcaatcaggaaaagccatctta  
gggcaaaaagggtgttaccacttgtgaataacctgacaggacatagtcaggtagggacccttcaattcctagctttg  
agggtattagtaaaaaacaagaaaatttagacctcccttaccagtggtccagaagttagcagaagatgcagaagca  
ttaaacaattttccttagaccttggctacacgccttgggacaacacatttatgaaacttatggagacacttgggag  
ggagtaacagccattataaggatcttacaacaattaatatttaccattatagaattggctgccatcatagtaga  
ataggaattatcccatctaacgcaagaggaagaagaagaagagtgcccccttggcatcatcctgggagtcacccc  
caaacccttgtataaactgctytttgcaaaaawtgcgctatcattgctatctttgtttcacaaagaagggtttg  
gggatctccccactgtaygcaacagtcattatgggggtccctgtatggagagatgcacaaactacattattctgt  
gcagcagatgcaaaaatggcaagctcagagatgcataatgtatgggckacacaagcatgtgttcccacagacca  
carccaatagaactgaaactaaccaatgtgacagagaccttaacatyttgaaaagtggaaatggtagagcaaatg  
caggaggatattattagcttatgggaccaaagtttaaaagccmtgtgtcaagttaacagtcagtggtgtgaccatg  
aattgcakccgawttacccttaayacgacaacccatagccttaacatgacaggtccagcccctaggacaagtamt  
ccaaccactagcagccataacatgacaagtaactccaaacattccagagctagaagtttacaactgtactttta  
gtcaccacagtatgtgaaagataaaaaaagtcaacaacaggcggttgttttacagagaagacttatctcagataggt  
gatrasaacagcacctataggctgattaactgtaatacttctaccatctctcaagcttgtcccaaagtgtccttt  
gagccattgccaatacagtatgtgtcaccggcaggctatgctttaatgaaatgtaaccaaagcaagtttaatggg  
acagggacatgtaatgagactttaataactcactgtacacatgggattagaccgacagtgtaacacaaattcatc  
ttcaatgggacgttagaaaaggaaactcctgatgctaagtaaaaaacatttcagacagtggaaaaaacaattatagtt  
aagttaaaaaaggcagtaacattcaagtggtgaaaggacaggggaacaacacgcgaggggcaaattcagatagggcc  
atgacaatttacaattcagaaaaacattgtgggcaaaaccaggaaagcctattgtgcatataatagaacagaatgg  
gaacaggctctgaaaaccatcagtgaaagcctttgcaaagttagagaatgtgacaaaggtacagtggaagaacagt  
tcaggaggtgatctagaggtagcaatgctgcatttttaattgccatggtgagttcttttattgcaacaccacgaca  
atgtttaattatacttacaattgtagccaccatagctgttaaagctcaatcaaagaacatttcagaggggcagcggg  
gactcgtatattccctgtaaattgaaacaagtagtaaaattcatggatgagagtaggatcaggtctttttgcccc  
cctatacggggaaactctcaaattgtatgtcaaatataacagggtttactactagaaagagatgtccattkaacata  
ackgccactracagaaatataactctcagaccaacgggggggagaaatgaaagatatatggagaagtgaactatac

ccatacaaggtggtgcaagtc aaagcattatctgtggcaccacaaagataaaaagaccataattggtctgaac  
agagaaaaaagaggactgtggggatgtgcagggaaattgrtttgttataactaatgtgccatggaataacttgg  
actaataaaaagtratacagaattagagcacatytgggagaacctaacatggcaggaatgggacaaactrgttgac  
aattacactgawgacatcttctcaagatacagsaggcgaacacacaacaagaggttaatgaaaagaagttacta  
gagttagacaaatgggcagacttgtggagttgggttgacataactaaatggctgtggtacataaaaatagctata  
atgatagtagragctttaataggactaagagttgtcatggtagtgcttagtttagtaagaacattaggaaggga  
tatcaacctctctcgttacaggaagcttgcaaaacacttaaggctacagcacaatattggctacaagaattgcaa  
agaagcrtactaacttactagatactgttgagtggtggcagttgccaatggactgacagcattatcttaggtgtg  
cagagattcgggaaggggaattcttaacatcccaagaagaataagacaagggttagaactcagtttattgtaaatg  
gggaatgcttgggaagaaaagcagcttctgtgggatggccagcagtaagggtatagaatgaggcaaacctcccctgac  
cctgagccatgtgcccctggggtaggaatagtttctagagaattagcacagaaaggaggcataccaagctcatac  
acacctcagaacaatgcagcccttgcttccctagacagtcatacagaggaagaagtaggtttcccgattacacct  
caagtgcctctaagaccaatgacctttaaggagcgtttgacctcagcttcttttaaaagaaaaggaggactg  
gatgggctaatttactccccacagagagcagagattctggatctttgggtcyatcacactcagggtattcttcct  
gattggcagaactacacaccagggccaggaaytagatacccactgacctatgggtggttggttaagttagtacca  
gtatcagaagctgaggcagaagaatgggcaataagaatgagagggctaaactcctacaccagcttgyaatcat  
ggctatggggatgagcatggacaaataactaaagtggcagtttgatagatcactaggcaacaacctatgttgctctg  
gcccttcacccagagtactttaagaactaa

>#43 FJ424866 7494 nt

atgggtgcgagagcgtcagtggttgacagggggacgattggatgcatgggaacgaattaggcttaagccaggaagt  
aagaaaaagtatatgtctaaaacatgtagtatgggcaagcaggagctggaaagatttgcatgtaatcctgagctt  
atggaaacagccgagggctgtgaaaaattattagggcaactagaatcagctctcaaaacaggggtcagatggcttg  
cgatctctgtggaacacttttggtagtgtgtggtgtgtccaccggagaattgatgtatcagacactcagcaagcc  
ttagaaaaatttaaggaagtcagtgtcaaaaagaaagtcagacagccgccctgaaacaagtcagaactatccagtg  
gtagcaaatgctcaagggcagatgggtccatcagccgctgtctcccaggactctaaatgcctgggtgaaagcggta  
gaagaaaaggccttcaatccagaaatcatccctatgttcatggcattatcagaagggtctatcccttatgatatt  
aatactatgctgaatgccattggaggacatcagggggcattacaggtattaaaggaagtcataatgaggaagca  
gcagaatgggacaggatgcacccggcagtggtgggacctctgccagtgggacaactgagggagccgtcaggggga  
gatattgcagggacaacaagtactcaacaagaacaagtagcttggataacaaggaataacaaccctgtgccagtg  
ggtgacatatataggaaatggatagtgctagggttaaaacaaagtagtaaaaatgtactgtccagtcagtatccta  
gatattaagcaggggacctaaaggaaccattccgagactatgtagacagattctacaaaaccctcagagcagaacag  
gcaagtcaagatgtaaaaaattggatgacagaaactttgttaattcagaatgctaatcctgattgtaagcaaat  
ctaaaagccctaggcccgaggggcaaccctagaagaaatgatgaatgcttgtcagggagtggggggacctactcac  
aaagcaagagtccttggcagaggcaatggcagcagcccactcagatttaaaaggaggatatacagcagtcctttatg  
caaaaggggggaaacaatcaagggttaagaagggaccagtaaaagtgccttcaattgtgggaaagtaggacatata  
gcaaaaaattgtagggcacccagaagaaagggtatgctggaaatgtgggcaagatgggcaccaaataagaaactgc  
agatcaggcagacaggcgctgtgaagatagggggacatctatgtgaggctttgttagacacaggggctgatgat  
acagtagtagaacacttatctttagaaggtaggtggaaaccaagaatgataggaggcataggaggatttattaaa  
gtaaaagaatatgaagatgtagaaatagaatagaacataggaaagtagtagggacagttctagttggaccaacc  
cctgtaaaatattataggaaggaatattttaacaaaaattggatgtaccctaaattttcccataagctccatagat  
gtagtacccgtatctttaaagccagggtgatggacccaaagtcaagcaatggcctttgtcaaaagaaaaaata  
gaagccttaacagctatttgtcaggaaatggaacaggaaggcaagatatcaaaaattgggcctgaaaatccatat  
aatacacctatttttgccataaaaaagaaagacagtactaaatggagaaaatttggtagatttttagagaattaaat  
aaacgaacacaggattttttgggaagtgcagtttagggattcctcaccagaggggcttaaaaagaaaaaatcagta  
acagtactggatgttggggacgcttatttttctgtcccttagacccagatttttagaaaatatacagctttcaca  
attcctagtgtgaataatgagacaccaggggtaagggtatcagtacaatgtactacccagggatggaaaggatct  
ccagcaattttccagcactccatgacaaaaatacttgatcctttcagaaagaaaaaccagagatagaaatctat  
cagtacatggatgacttgtatgtagggtcagatttacctataacagaacataggcagaaggtagaaaaactcagg  
gaacatttatatgcatggggattcaccactcctgacaaaaagcatcaaaaggaaacctccctttttgtggatgggg  
tatgagctgcacctgataagtgagcagtgagcctataaaagttaccagaaaaggaaagttggacagtcattgat  
atccagagattggtaggtaaactaaattgggctagtcaaatatatccagggtataagagtaaaagaactctgcaaa  
ttaattaggggtactaaatcacttacagaagtagtgaccttagtaaaagaagcagaattagaactagaagagaac  
agggaatatataaaagaacccgtacatggagtgtattaccagcctgaaaaggaaattaatagtgatgtgcaaaaa  
caaggagaaggcagtggtacttatcagatcttccaggatgaatacaagaatctaaagacaggaaagtagttaga  
caaaaggccactcataactaatgacattagacagttggcagaagtgatacaaaaggctctcaagaagcagtagtt

atctggggaaaactgcctaagttcaggctacccatatgtcggagtagcctgggacgctttttggactgactattgg  
caggcttcttgatccctgagtggaattttattagtagacacctccctcatcaagctctggtatcaattggaaaag  
gaaccataaccaggagcagaaaaccttttatgtagatggagcagctaatagagaaaagtaacaaggaaaagcagga  
tatgtaacagataagggtagacagaaaataagaaaactagagggcacaactaatcagaaaagcagaactagaggca  
gtcctcttggccttagaagaatcaggaaaaaatgttaacatagtgacagactcccagtatgtactagggattatt  
gcagcaagtcctgatcaaagtgactcccccttagtgagaaaaataatagaggaaatgacaacgaaggaaaaagtc  
tatttagcttgggtaccagctcacaaggtatagggggaaatgaagaaatagacaaattagtcagtaagatatc  
agaagagtcttattcctagaaggcatagatcaagcgcaggaagatcatgaaaaatatcacagtaattggagaaca  
ctagccagtgactttggctctgccgccagtggttagccaaagaaatcatcaatagctgccctaagtgccatgtaaaa  
ggggaagctaggcatggacaagtagattgcagcccaggtatctggcagttggattgcactcacttagaagggaaa  
atcatttttagtagcagtcctatgtggccagcggcttcatagaagctgaagttattccagcagaaaacagggcaggaa  
acagcctacttctgtcgaagttagcagctaggtggccagtaaaaaataatacacacagacaatgggcctaatttt  
actagtgccacagtcaaggctgcctgttgggtggctcaatgtaacacatgagtttggaattccctataatcccaa  
agtcaaggagtagtggaatctatgaacaaagaattaaaaaagattatacaacaagtgaagatcaagcagaacat  
ttaaagacagcagtgagatggcagtatgttgcacaaatttttaaagaaaaggggggattgggggatacactgca  
ggagacaggataatagacatgttagccacacaaatacaacaacagaattacaaaaacaaattttaaaaattcaa  
aattttcggtctattacagagacagcagagaccctatgtggaaaggaccagcgacgctcctgtggaaaggtgaa  
ggggctgtagtcattcaggacaaaggggacattaaagtagtccctaggagaaaaggcaaaaaataattagggattac  
cataaatatagaactaaacaagcaaacagtggttctatagggcatcactatgaagcagtcattcctagggtaagt  
tcaggggtatacataaccagtagggccccgctgaaattatagtaaccacatatgtggggactcatgccaggagaaaag  
gaagaacaattaggccatggggtaggcatagaatggagacagggaaaaatacataacacaattagatccagaaaca  
gcagataggataatccatcttttattactttcaatgttttacagaatctgcagtgaggaaagcaattgtgggggaa  
aaactcctgtacaagtgttaactacccggcaggacatagtcaggtagggacattgcaatacttagcattaagagct  
ttagtagggaaagtcagggttaagaccaccttttccaagtggttcagaaattagcagcagatatgttagaagaactt  
aagcaagaagcagtaagacactttcctaggccctggttgaccaattgggacagcatgtttatgatacttatgga  
gacacttggaaggagtgacagcaataatcagaatcttacagcaagtaatctttgttcattatagaattgggtgt  
catcatagcagaatagggttttgccaccctctagaagaggaagaagactgccaccatggcagcaaccaggggagc  
cagcccccaaccccatgcaacacatgctattgtaaaaagtgctgttatcactgctatgtttgtttcacaagaag  
ggtttggaatctccgctacgcattatgctactgtgtattatggagtgccagtcctggcgagaggcaaatgtaact  
ttattctgtgcagcagatgctaattatgtgagcaaaagaacaacacaatatgtgggcaacgcaggcatgtgtgcct  
accgacccaaggccaacagagtttccattggaaaatgtaacagaaaacctttaatatctggaaaaattacatggta  
gatcaaatgcaggatgatatagttagcttatgggatcagagcttaaagccttggtgtaaaaactaacagttatgtgt  
gtcactctgaattgtacacaactaaatacaacaatacaacacagactgagatgacaaatacaactataaccacca  
catacaactataaccaccacacatcccacagtttagacattttacaactgtagcttttaattgttaccacggttctaaaa  
gataagacaacaaagcagcaagctttattttatagacaagatatataagaacagggtgaaacagggtacaaatggg  
atcaaaggtatagattaatcaattgttaatacctctactatatcgcaagcttgtcccaaagctctcctttgagcca  
ctacctatacagttattgtgcaccagcaggctatgccctgatgaaatgtaatgatatacaatttaattgttacagga  
gaatgcagaaacgtgtcaatagttcattgtacccatgggatcaggccaacagtcctccacacagttgatactcaat  
ggaacttttagcagaagggaatgccacaataatcagcaaaaatagtagtgatagtggaagagatattatagtcaaa  
ctagccagaccagtagaaaattacctgtgaaaggacaggttaataatacaagaggacagatccaaatagggcccatg  
acaattttataactcagaaaacatagtaggaacacaaagaaaggctttttgcaagtataatgagacaaaactggcag  
ggtgcgttgaaagacacagtgacaggtctcaacgagagcctgatccacttccggaattcttcaggaggagatcca  
gaagttacctttctgcatttttaattgtcatggagaatttttctactgttaataccactaaaatgttttagctacaat  
tgcacaacagagggttgcaataccactgaaacaagcaataccactgaaacaactaaatatattccctgccatcta  
aaacaggtagtcaggctcctggatgagagtaggctcaggcctatgttgcctccgctattaggggaactctaagatgt  
atatctaacttacaggaataatattacaaagggatgcacccctaaaaaactgatgagaacagcaccttaagacca  
ataggaggtgacatgacaaacatttggaggagtgaactgtacccctacaaggtggtaggggtcaaggcattgact  
gtggcaccaacaaaagcaagaggcctgttattggccataacaggggaaaaaacgtggactgtggggatgcacaggg  
agattaatttgttacactaatgtgccatggaacaagacctggaccgggaaaaatgacactgaactagatgacatt  
tggggaaacatgacttggcaacaatgggacaaattggtagacaactacactgacacaatattttttagaaatacaa  
agggcacaggaacagcaggaggctaataaaaaggccctactagagttggataaatgggcagatctttggagtgg  
cttgacataacacaatggctatggtatataaaaaatattcataataataatagcagggttagtaggactaagaatt  
ctaattggctataataaatatgtgtcacagggttaggcagggttactcacctctgtcatttcagttgacaagagac  
tgctttgcttttattgtcttactggggacaagaacttaagcaaagtgctatttagcttgctagactgtgttgctgta  
tggaccgctaattggactgatcaagtaatagcaatagctcaaagaataggtaggggcatcttaaacataaccaga

aggattagacaaggattagaaagaagcctattataaatgggaaacacatggaaaaagagtagcttcataggatgg  
ccagcagtaagggaaagaatgagacaaaccaaccctgagccaaagccggctccaggggtgggtgaagtgtctaga  
gcattagcacaagaggagggatacctgcaaaatatactccacaaaacaatcaagcttttagcattcctagaagct  
catgaagatgaagaggtaggatttccagtcagacctcaagtgccgttaagaccaatgacctttaaaggggcattt  
gacctcagcttctttttaaatgaaaaggggggactggaaggggttagttttctctcaggccagaagtgatatctta  
gacctctgggtttatcatactcagggatacttccctgactggcagaattacacaccagggccagggataagatat  
cccctgacctttggatggctgtttaagttagtgccagctctcagaggcagaagcggaggagatgggaacatcaaat  
gagaaggccatgctgctgcatccagcgtgcagccatgggagagacgacctatggagagatccttgtctggaga  
ttcgatagagcattgggaacaactcatgttgcccttacagaagcaccacagaactgttcaagagagactaa

>#44 KP004990 7539 nt

atgggtgcgagagcgtcagtggttaacagggggctcgattggatgcatgggaaagaattaggctcaagccaggaggt  
aagaaaacctatatgtctaaaacatgtagtatgggcaagcagagagctggaaagattcgcttgtaatcctgagctt  
atggagacagcagaaggttgtgagaaattactaggacagcttgagccagctctcaaaacaggttcagaaggcctg  
cagtcgctttggaacaccctggtagttctatggtgtgttcacaagcgaatagacgtagccgacacccagcaggcc  
attacaaaatggaaggaggaaatgcaaaaacgaagaaaagagaaagaaagcagccccggaacaagtcaaaactat  
cctatagtgcagaatgcgagggggcaaatgatacatcagccactgtctcccaggactttaaatgcttgggtgaag  
gcagtagaagagaaaagccttcaaccctgagattatccctatgtttatggccttatcagaaggatctataccttat  
gacattaatactatgcttaatgcaataggcgggcatcaggggagcattacaggtgttgaaagatgtgattaatgag  
gaagctgcagaatgggacaggttacaccctgccccgtagggccgttacccgcccagggcagataaggggaacctaca  
ggagggggacattgcaggaaccaccagtactcagcaagagcagatagcatggataacaaaaaatcctcctatacca  
gtaggagacatctatagaaaatggatagtgttgggactcaataaagtggtaaaaatgtatagccctattagcatc  
ctggacataaagcagggacctaaggagccattcagagattatgtagataggttctataaaaaccctcagagcagaa  
caagccagtcaggatgtaaaaaattggatgacagataccttatttagtacaaaatgctaatacccgattgcaagcag  
attctgaaaagccctaggaccaggggcccaccttggaggaaatgatgaatgcttgtcaaggagtagggggaccaaca  
cataaggccagggtccttggcagaagctatggcagcagccaaccaagcyagccaagacttgaaagggggatacaca  
gcagtcctttatgcaaagaggacagagagggccagtttaagtgtttaaactgtggaaagctagggcatatagcaaag  
aactgtagagcacccgaggagaaaaggatgctggaaatgtggacaagagggtcatcagatgaaagactgcaaaata  
ggaaaacaggcacctgtaaaaatagggggacatatttgtgaagctttattagatacaggggctgatgacacagta  
gtagataaaaataccattagaaggaaggtgggtacccaaaaatgataggaggaataggaggatttattaaagtaaaa  
gagtttgaaaatgttaaaaatagaaatagaaggtagagaagttcatgggacagtattagttggcccgaccccagtt  
aatataataggaaggaacattttgacatccattggctgtactttaaattttccctatcagccccatagaagtagta  
ccagtaaaaattgaaaccaggcatggacgggcctaagggtgaagcaatggcctttatcaaaagagaaaaatagaagca  
ttaactgctatctgccaaagatatggaacaggaaggaaaaaataacaagaattgggcctgaaaaatccctataacacc  
cctattttttgcaataaaaaagaaagatagcagtaaatggagaaaagctagtagatttttagagaggttaataaaaga  
actcaagattttttgggaagtccagctgggaatccctcaccacaggaggtcttaagcagaagaagtcagtaacagta  
ctagatgtgggagatgcttatttctcctgtcccttagatccagatttcaggaagtacacagcttttactatacct  
agtgtaaaataatgaaacaccaggggtcagataccagttacaatgtgttacctcaaggggtggaagggatcaccagcc  
atcttccaacattccatgaccaagatcctagatccattcaggaaaaataatccagaaatagaaatttatcagtac  
atggatgattttatatgtaggggtcagacttgccactatctgaacataggcaacgagtcgaaaagcttagagaacat  
ctctatgcttggggattttacaactcctgataaaaaacatcagaaggaacccccctttcctttggatgggggtatgaa  
ctccaccctgacaagtggacagtgcaacccttaagttgccagaaaaagaaagctggacagtgtaatgatccag  
ggactagtagggaaactaaattgggcaagtcaaatttatccaggaataaggataaaaagagttatgcaaactcata  
aggggaactaaagctttaacagaagtagttaccttcactagagaagcagagttagaactagaagaaaaataaagaa  
atcttaaaagaaccaaggcatggagtttattaccaaccagaaaaagaattaatagtagatatacagaaacaagga  
gagggacaatggacttatcagatatttcaggaagaacataagaatttgaagacaggggaaatatgccaggcaaaag  
gtactcacaccaatgacataaggcaattggcagaagtaatacagaaggtatcacaagagagcatagtaatatgg  
gggaagctgccc aaattcaggttaccagtaaatagaaccttgtgggaagcctgggtgggtcagattattggcaagcc  
acctggataccagagtgaggatgttagtcacacccccctcttattaaactctggtaccagctagaaaaggacccc  
ataccagagacagaaactttttatgtagatggggcagcaaatagagaaaccaagctaggtaaggctggctatgta  
acagatagggggaagacaaaaaatagtcaaaactagaaggaaccaccaatcaaaaagcagaactagaagcagtgcta  
ttagccttaaaagaatcaggaaagcaggctaataatagtaaacagactctcagtatgtgtttagggattattgcagca  
actccagatcagagtgactcccccttagtacaaaagataatagaagaaatgacaaaaaaagaaaagggtgtacctta  
tcatgggtaccagcacacaaaggcatagggggtaatgaagaaatagacaaatttagtcagtaaaagacatcaggaga  
gtcttattttttagaaggcatagatcaggcgcaggaagatcatgagaaatatcatagtaactggaggaccttagcc  
agtgactttgggcttcaccaatagtggaacaaagagattattaacagttgccctaaatgccatgtaaaaggagaa

gccatgcatgggcaggtggactgcagtcaggaatatggcaattggactgtacccacacagaaggaaaaatcatc  
cttgtagcagtcctatgtggccagtggttctctggaagctgaagtaattccagcagaaaacaggacaggaaaactgca  
tacttctctgcttaagctagcagcaagatggcctgtaaaagccatccacacagacaatgggcctaacttcgctagt  
gctgcagttaaagcagcttggttggtggtcaacataactcatgaatttgggataccctataatccccaaagtcaa  
ggagtagtagaatccatgaacaaggaattaaagaaaattatactgcaagttagggaccaagctgaacatttaaaa  
acggcagttcaaatggcagtatgttgcacaaattttaaaagaaaaggggggattgggggggtacactgcaggagat  
aggattatagatatataatggctacacaaatacaaaacaacagaactacaaaaacaaattttaaaaattcaaaatttt  
cgggtctattacagagacagcagagaccctatgttgaaaggaccagcgacgctcctgtggaaagggtgaaggggca  
gtagtcatacaagataagggagacattaaagtagtccctagaaggaaagcaaaaatcattagggattacaggtct  
aaaagagcaagaattgggttttatagacatcattatgaggcagttaatcctagagttagttcaggggtctatatt  
ccagtagggacagcaatgattattgtaaccacctactgggggctcatgcctgggtgaaaaagaagatcagttgggg  
catggagcaagtgtagtagtgaggtcaaggcaatacagcacacaaatagatccagagacagcagatagactaatt  
cacctccactacttccaatgtttttcagattcggctgtgaggaaggcaataactaggggatagattactgaccagg  
tgtgaatattcagcaggacatagtcaggtaggctccctacagtacttagccttaagagtgttagtaggaaaagta  
agaagggaagccacccctccctagtgttcagttattgacagaggacaccttgagggaactcaaagcagagggtgta  
agacactttcctaggccttggttacactccctaggacaacatatatatgatacctatggggacacctgggaagga  
gtaactgcaattattagaatccacaacaattaatttttatccactatagaattggatgcctcatagcagaata  
gggatagcgccacaccctcaaaggggggagaagattgcctccatggcaacagccagggagtcagccctcaagcccg  
tgtaacaattgtttctgtaaaagcttgctgctatcactgctatgtttgtctcgtaaagaaggggttgggaaatctcc  
actggaagctatgttatgggtacacgttatgtcactgtatattatggagtgcagtggtggaggggaagccaaaact  
acattattctgtgcagcagatgcaaacctagctagcaagagcagcataaatatttggggccactcaagcctgtgtg  
cctacagaccctactccaataaagggtcaagctaaatatatcagaaccctataacatttgggaaaatttatatagta  
aagcaaatgcaaaaaaacatcattagcttattaaatcagagcttaaaaccttgtgttaagctaacagtcatatgt  
gttacaataaattgtagtaagtttaaaccagctactaccaatacaactagtgcaccaattaacgctagtctacaa  
agtagcactactgcacaaaaataacctaacttttataactgttcttttaatgtaactacagtgctaaaagataaa  
aaagaaaaagaagcaagctctcttctataaagaaaaccttgtaccacttaatcaaacatctaagaaaaaactatat  
aggctaattaattgtaacactactacaattacgcaagcctgtccaaaagtgtcttttaaacattaccaatacag  
tattgtgcaccagcaaaatatgcattaataaaatgtaaacaaaaaggttttaatrgtacarractttgcaatraa  
acagtaataacacattgcacacatggaattagaccaactgtgtccacacagttaatattttaatggaaagtttagca  
gaagaagaggctctagtgtatgcaaaagatgttacggccactgggaaaaacatcataataaaaattaagtacagga  
gtaaacataacgtgtatcagaacaggtaataatacaagaggacaaacacaaataggaccatgacctggtataat  
agtgtgaattatataggtaatatcaggagggttatttgccaggtggaggaaacagactggaaggggaattttgaaa  
aatgttagcaagctctcataaaacgttacaatggcaaggtaaatgaaaccatacgttttgagtttaagaacgct  
tctgggggagaccagaggttacacacctgcacttcaattgtcatggggagtttttttattgtaatacctctaaa  
ctcttcaactatacctatgtctgtaatcagacagatcaaggtaatgctaattattcctgtcatagtactagtaca  
ttagaaaaatggaaccttagtaataccctgcaattaaggcaggttagttaattcatggatgagagtgggatcagga  
ctttttgcaccacctgtcccggaagcctaactgccaactccaatatcacaggtctaatecttcaaagggactgg  
ccactaaacaataatacgaactactattttgaggcctgaaggaggagacatgaaagacatctggagaagtgtgcta  
tatccatataaggtagtccaagtaaaagctttggctgtggcacctacaaaaatctccagaccaacaattatggca  
cagactcatcagagggaaaaaagaggcctgtggggatgtacaggacaaaatagtctgtataccaatgtgccatgg  
aatcaaacctggactggttaggaatgacactgaattagatagcatttgggaacaagttgacatggcaggaatgggat  
aaattagtagataattacactgacaccattttttagagatacaaaaaagcaaatgaacaacagaaagaaaatgag  
aaaaaactgttagagtttagaccaatggacacagctgtggagctgggttgacataacaaaatggttatggtacata  
aaaattttcatcatgatagtaggagcctcatagggtcaaaaattttttagctataattaacatagttaaaaga  
gtcaggcagggatactcacctttgtcattacagtgttgagagactgcttggctgtgtgtggtattgggcacaa  
gaactacaacagagtgaactagcttattggacactgttgctgtgagagttgctgactggactgaccaagtgtc  
ctagtagggcaacgaatagggagaggtcattgaacataccaagaagacttagacaaggactagagaggagcttg  
ctataaatggggaatgcatggaagaaaagtagtttagtaggggtggccagcagtcagagacagaatacaccagact  
accccagagatagaccagcacctggggtggggaaaatctccagagaattggcaaaagagaaagcaatacctagc  
aagtacaattcaagaataatgaggcattagctttcttagaggctcatgaagatgaggaagtaggggtttccagtg  
aagccccaagtacccctaaggccaatgactttcaaaggagcatttgatctcagcttctttttaaatgaaaagga  
ggactggatgggttagtttattcacctgagagagccgagattctagatctctgggtctatcacactcagggcttc  
ttccctgattggcagaattacaccccaggtccaggagtcatgagggccctgaccttgggtggatgtttaaacta  
gtacccgtctctgaggcagaagctgagtacatgggaataaggatgagagagctaaagttgttacaccagcttgc



acctatggggttttcagatccacacaaggagatcctagctctggaagtatgacagatcactaggaacacagcatgtt  
gccctgatgaaacacccagagctgtttatcaaagactaa

>#45 KP004989 7614 nt

atgggggagagagcgctcagtggttaacagggggccgattggatgcatgggagagaattaggccttaagccaggaagt  
aagaaaacatatatgctaaaacatgtagtatgggcaagcaaagagctggaaagatttgcatgtaatcctgagcctt  
atggaaacagcggatggctgtragaaattatttagggcagttagaaccagctcttaaaacagggtccgatggcctg  
cagtcctctttggaacaccctagtagttctgtggtgtgttcacagaagacaggaagtaagtacacccagcaggct  
attgcaaaatggaaggaggaaatgcagaagaggaaaaaggcacaagagggcagcactggaacaagtcaaaattat  
cctattgtgcagaatgccaagggacaaatgggtccatcagccgctgtctcccaggacrttraatgcctgggtaaag  
gcggttgaagaaaaagccttcaaccctgaaatcatccctatgtttatggccttatcagaaggggtctataccctat  
gacatcaatactatgctcaatgcagtaggtgggcatcagggagcggttacaggtgttgaaggatgtaataatgag  
gaagctgcagaatgggatagaacacatcccgccccagtagggcctttaccaccagggcaaattagagaaccaaca  
ggaggggatattgcaggaagcactagcactcagcaggaacaaatagcatggataacaagagccaatcctatacca  
gtaggagacatctatagaaagtggatagtgctgggacttaataaggtggtaaaaatgtacagccccattagcatc  
ttggatataaagcagggacctaagaaccatttagagattatgtggatagattctacaaaaccctcagagcagaa  
caagccagccaggtatgtaagaattggatgacagaaactttactaatrcaaaatgctaataccagattgtaagcaa  
atthttgaaagctctgggaccagggggccaccctggaagaaatgatgaatgcctgtcaaggagtagggggaccaaca  
cataaggccagggctcttggcagaagctatggcagcagccaatcaagccagccaagacttgaaaggaggggtataca  
gcagtgttcatgcaaagaggacagagagggccagttaaatgctttaactgtggaaaggtcggacatatagcaaag  
aactgtaaggcacctaggagaaaaaggggtgctggaaatgtggacaggaaggtcaccaaatagaagattgtaaatca  
gggagacaggcwccagtaagatagggggacatatttgtgaagctttattagacacaggggctgatgacacagta  
gtagataaaataccttttagarggtagatggaagccaaaatgatagggggaataggaggttttattaaagtaaaa  
gaatttgaraatgttaaaatagagatagaagggagagaagtttctgggacagtattagttggcccaaccccagta  
aatatagttggaagaaatatcctaacattagtgggttgactctaaatthttcccattagccctatagaagtagta  
ccagtaaaattgaagccaggaatggacgggcctagagtaaaagcaatggcctctatcaaaagaaaaaatagaagct  
ttaactgctatctgtcaagagatggaacaagagggaaaaataacaaaaattgggcctgaaaaatccatataacacc  
cctatctttgcaattaaaaagaaagatagcagcaaatggaggaaattagtagacttcaggggaattaaataaaaga  
acacaagacttctgggaagtcacagctgggaatccctcacccaggtggtcttaacaaaggaaatcagtaacagtg  
ttggatgtgggagatgcttatttctcctgtccttttagatccagattttcggaaagtatacagctttttacaatacct  
agtgtgaataatgaaacaccaggagttagatatcagtaacaatgtacttctcagggctggaaraggatctccagcc  
atthttccagcactcaatgactaaaaatcctggaaccctttagaaaagagaacccagaaatagaaatttatcagtac  
atggatgattttatatgtagggtcagatttgctctgtcctgaacataggcagcgrtagagaagcttagagaacat  
ctctatgcatggggrttttacaactcctgataagaacaycaaaaggaaacctccattcctctggatgggctatgag  
ctccatcctgataaatggacagtacaacccatcaagctaccagaaagagaaagctggacagtaaatgatatccag  
aaattagtaggcaaattaaattggggccagtcagatatatccaggaataagagtaaaagagttatgcaaactaatt  
agagggactaaagccttaacagaggtgattcctcttactagagaagcagaattagagttagaagaaaaataaagaa  
atcttaaaggaaccagtgcatgggrgtctattatcagccagaaaaagatttaatagtagatatacaaaaacaagga  
gagggacaatggacttatcagatatthtcaggaagaacataaaaaacttgaaaacwggaaagtatgctaggcagaag  
gctacccataccaatgatataaggcaattggcagaagtaatacagaaagtatcacaagaaagtatagtaaatatgg  
ggaaagctrcccaaatttaggttaccagtaaataggactttatgggaagcctgggtggtcagactattggcaggcc  
acctggatacctgagtggaatttgttagcacacccccctctcattaagcttttggtatcaattggaaaaggacccc  
ataccaggaacagaaactthttatgtagatggggcagcaaacagagaaaccaagctaggtaaaagctggatatgtg  
acagataggggttaggcagaaaatcattaaattggaagaaacaactaatcagaaagcagaattagaagctgtacta  
ttagccttaaaagaatcaggaaaaacaagctaacatagtaaacagactcccaatatgtattagggattatctcagca  
actccagatcaaagtgactccccctagtgcagagaataatagaagaaatgacaaaaaaggacaaggtgtacctt  
tcatgggtaccagcacataaaaggcatagggggtaatgaggaaatagacaaatttagtcagcaaggacattagaagg  
gtgttatttctagaaggcatagatcaggcacaagaagatcatgaaaaataccacagcaattggaagaccctagct  
agtgaactttgggcttccaccaatagtagcaaaagagatcatcaatagttgcctaaatgtcatgtaaaaggagaa  
gccatgcatggacaggtagattgcagtcagggatatggcagtttagattgtacccacacagaaggaaaaattatc  
cttgtggcagtcctatgtagccagtggttccctggaagccgaggttaattccagcagaaacaggacaggaaactgca  
tactttctgtcaagtttagcagcaagatggcctgtgaaagtcatacacacagataatgggcctaacttcactagt  
gctgcagtaaaagcagcatgttgggtggctcaacataacacatgagtttgaataccctacaatccycaragtcaa  
ggagtrgtagaatctatgaacaaagaattaaagaagattatacttcaagtacgagaccaggtgagcatttaaag  
acagcagttcaaatggcagtatthtgtccacaattthtaaaagaaaaggggggattgggggggtacactgctggagac  
agaatcatagatatgatggctacacaaatacaaaacaacagaactacaaaaacaaattthtaaaattcaaaatttt

cggggtctattacagagacagcagagaccctattttggaaaggaccagcgacgctcctgtggaaagggtgaaggggca  
gtagtcatacaagataagggagacattaaagtagtccctagaaggaaagcaaaaataattagggattatagatct  
aaagaagcaaaaaattgggttttataggcaccactatgaggcaactaatcctagagttagttcaggagtttacata  
ccagtaggaacagcaactattattgtaactacatattggggactcatgcctggggaaagaaaagarcaattaggg  
catggggcaagtgtggagtggagacaaggtagatacatcacacagatagatccagaaacagctgataggctaatt  
catctccactacttccaatgtttttcagattcggctgtgaggaaggcaataactaggggacagattattgcacagg  
tgtgaatactcagcaggacatagtcaggttaggatccttacagtacctagccttaaggggtgttagtagggaaagta  
aaaaggaggccaccccttccctagtggtcaggtgttgacagaagatacactagagggaactcaaggcgggaagcagt  
agacacttccctaggccttgggttgcaattattagggcagcacatctatgatacctatggggacacctgggagggga  
gtaactgcaattattaggatcctacaacaattgggtcttggttcattatagaattggatgccagcatagtaggata  
gggtatattgccaccctcacgaagaggaagaagactgcctccatggcagcagccagggagtcagccctcaagcca  
tgtaacacttgcttctgtaaagtctgctgctatcattgctatgtttgttctgtaaagaaggggttggaatctcc  
atgaaggatatgacagtaatgaagaagaagaagagcagcttaggaaactggggaatttgcttggccttgataata  
tactttaatgctatcagttatgttaattgcacacrttatgttactgtatattatggagttccagtttggcaagat  
gctaagactaccttgttttgtgcagcagatgcagatctagctagcaaagagcagcataatatttgggccacacaa  
gcctgtgtgcccctagatccaacaccaatagagcttaagttgaatatcacagagtcctttaatatatttgggaaaat  
tatatggttagagcaaatgcargaggacatcgttagtttatgggatcagagtttaagccttgtgttaaattgaca  
tttcttgtgtcactatgaattgttagtgagtataaaggttataattgttctacagaagggaacacacacagctgca  
ccatgcaatacaaccgaaaacactacaaaagagaacagcacaggaatgttgacctgtaattttaatgtgactaca  
gtattaaaagataaaaaggaacagaaacaggcactcttctatagagaagacctagcaagcttagaaagcaataat  
agttatagactaattaattgcaatagttctaccatcacacaagcatgtccaaaagtgtcttttgagccactacca  
atacaatactgtgcaccagcagggtagcactaatgaaatgcaacaggacagactttaatggcacaggaacttgt  
aatgagacatctatagtagcactgcacacatggaatcaggccaacagtttcaaccagtttagtgctcaatggaact  
ctagcaaaaaggaaaaccttttagtaattactaagaatgtctcgggagactggagcgcctatcatagtgaaattgagt  
gcaagtactgcgataacctgtataagacctggtaataataaccaggggagaagttcaattaggacccatgacatgg  
tacaacatgagacactacataggcgatatcagaaaagcacattgcactgtctctcggggaaattggacaaaggtc  
ctacaaaatgtcagtgagctctctgggaagcctatccagcagagtggaaaaaataaaacacaagataaaaaatcac  
acaatactatttagggcaagctctggaggagaccagaagttgcttcttgcacttcaattgtcatggggaattc  
ttttattgcaacacctctgcactgtttaacctagctgtacaaaagaatatgacaaagaacgaatggatatgtaca  
ccaaacaatgccactggcacattaagattaccttgcagggtaaaacaggtagtgaactcatggatgagagtrggg  
tcaggcttgttgcgccacctatcccaggaagtttaacctgtaaatctaactcacaggtatactgttggagaga  
gaccttccctctgggaaatatgaccaacaccaccttaagaccataggaggggacatgaaaaatatattggagaagt  
gaattgtacccctacaaggtggtccaagtaaaagcttttaggggtggcacctacaaaaatctccagaccacaatt  
atgggtcctcacagagaaaaaagaggcctgtggggatgttcaggaaaaattagtatgttataactaatgtgccatgg  
cagaaaaattggacgacttaccaaagtgcagtcgaattagatgctatttgggataatttaacatggcaggaatgg  
gacaaacaggtaaacaattacactgatctaatttttcttgaaatacaaatagcacaggaacagcaagaacagaat  
cagaagaaattgttagaattggaccaatgggcacagttgtggagctggttggacataacacagtggttgtggtac  
ataaagatttttatcatgatagtaggagggcttataggactaaggatttttatagctgtagttaatgtagttaag  
agagtcaggcagggatactcaccttgtcattgcagtggtgtgagagactgcttggctgtgtgtggtactgggtg  
caagaattacaacgcagtgcaaccaatctgttggacactactgcagtggcagttgctgaatggactgatcaagt  
atcttaatagggcaagaataggagaggtatactgaacatacccagragaattagacaaggggctagagagaagt  
ttactctaaatggggaacgcagtggaagaaaagtagtctggttaggatggccagcagtcagagacaggatgcaccag  
actaccccgagaagaagcagcacctggggttggggaagtctccagagaattggcaaaggggaaaaggaatacccgat  
aaatacaatgcaaggaacaatgcagccttagcttctttagatgctcatagagaggaagaagtaggattccccgtc  
agacctcaagtgccttggagatgcatgaccttcaaaggggcatttgacctcagcttctttttaaatgaaaagggga  
ggactggatgggttaatttactcacctgagagagcagaaatcctagatctctgggtctatcacactcagggatc  
ttccctgactggcagaattacactccaggggccagggtcagatatcctttgaccttgggtggctgtttaagcta  
gtgccagtccttgaggcagaagctgaggaaatgggaaataagaacgagagagctaagctgttacaccagcctgt  
gcttatggattctcgatccacataaggagattttgatgtggaagtttgacagatcactaggaatcacacatgtt  
gccctacaaaagcaccgggaactgttttctaaagactga

>#46 FJ424863 7479 nt

atgggtgagagcgctcagtagttgacagggggacgattggatgcgtgggaacgaattcggcttaagccaggaagt  
aagaaaaagtatatgtctaaaacatgtagtatgtgcaagcaggagctggaaaggttgcagtgaatcctgagctt  
atggaaacagcygagggtgtgaaaaattattagggcaactagaaccagctctcaaaacaggggtcagatggctta  
cgatctctgtggaacactttggtagtggtgtgtggtgtgtccaccggagaattgatgtatcagatactcagcaagcc

ttagaaaaatttaaggaagccatgtcaaaaagaaagtcagacagccgccctgagacaagtcagaactatccagtg  
gtagcaaatgctcaagggcagatgggtccatcagccgctgtctccaaggactctaaatgcctgggtgaaagcagta  
gaagaaaaggccttcaatccagaaatcatccctatgttcatggcattatcagaagggctctatcccttatgatatt  
aatactatgctgaatgccattgggtggacatcagggagcattacaggtattaaaggaagtcacatgaggaagca  
gcagaatgggacaggctgcacccggcagtagtaggacctctgccagtaggacagctgagggagccgtcaggggga  
gatattgcagggacaacaagtactcaacaagaacaagtagcttggataacaaggaataataaccctgtgccagtg  
gggtgacatatacaggaaatggatagtgctaggggttaaacaaagtagtaaaaatgtactgtccagtcagtatccta  
gatattaagcagggacctaaggaaccattccgagactatgtagacagattctacaaaaccctcagagcagaacag  
gcaagtcaagatgtgaaaaattggatgacagaaactttgctaattcagaatgtctaactctgattgtaagcaaatt  
ctaaaagccctagggccgggggcaaccctagaagaaatgatgaatgcttgtcagggagtgggaggacactcac  
aaagcaagagtcttrgcagaggcaatggcagcagcccactcagatytaaaaggggatatacagcagtcctttatg  
caaaaggggggaarcaatcaagggattaagaagggaccagtaaaatgcttcaattgtgggaaagtaggacatata  
gcaaaaaattgtagggcaccagaagaaagggatgctggaaatgtgggcaagaggggcaccaaataagaaactgc  
agatcaggcagacagggcgctgtgaagatagggggacatctatgtgaggctttgttagacacaggggctgatgat  
acagtagtagaacacttatctttagaaggtaggtggaaaccaagaatgataggaggcataggaggattcattaaa  
gtaaaagaatatgaagatgtagaatatagaatatagaacatagaaaagtagtagggacagtttttagttggaccaacc  
cctgtaaatatcataggaaggaatattttaacaaaaattggatgtaccttaaattttcccataagctccatagat  
gtagtacccgtatcttttaaaaccagggatggatggacccaaagtcaagcaatggcctttgtcaaaaagaaaaata  
gaagccttaacagctattttgtcaggaaatggaacaggaaggcaagatatcaaaaattgggcctgaaaatccatat  
aatacacctattttgcgcataaaaaagaaagacagtaackaaatggagaaaatttggtagatttttagagaattaaat  
aaaaggacacaagatttttgggaagttcagttagggattcctcaccagggagggttaaaaagaaaagatcagta  
acagtactggatggttggggacgcttattttcttgtcccttagaccagatttttagaaaaatatacagctttcacaca  
attcctagtgtgaataatgagacaccaggggtaaggtatcagtacaatgtactaccccagggatggaaaggatct  
ccagcaattttccagcactccatgacaaaaatactttgatcctttcagaaaagaaaaaccagaaatagaaatctat  
cagtacatggatgacttgtatgtaggggtcagatttaccataacagaacataggcagaaaagtagaaaaactcagg  
gaacatttatatgcatggggattcaccacccctgacaaaaagcatcaaaaggaacctccctttttgtggatgggg  
tatgagctgcaccctgataagtgagcagtgcaacctataaaagttaccagaaaaggaaagttggacagtcacatgat  
atccagaaaactggtagggaaattaaattgggcccagtcacaaatatccaggaataagagtaaaaagaactctgcaaa  
ttaattaggggtactaaatcacttacagaagtagtgacccttagtaaaagaggcagaattagaactagaagagaac  
agggaaaatattaaaagaacccgtgcatggagtgtattaccagcctgaaaaggaattaatagtgaatgtgcaaaaa  
caaggagaaggacagtggaacttatcagatcttccaggatgaatacaagaacttaagacaggaaagtagttagg  
caaaaggccactcatactaatgacatcagacagttggcagaagtaatacaaaaggctctcacaggaaagcatagtt  
atctgggggaaaattgcctaagttcagggtacccatatgtcgaagtacctgggacgctttttggactgactattgg  
caggcttcttggattcctgagtggaatttgttagtacacccccctcattaagctctggtatcaattggaaaaa  
gaaccataccaggagcagaaaaccttttatgtcagtgaggcagctaataagaaaagcaaaacaggaaaagcagga  
tacgtaacagataggggtagacagaaaaataaggaaactagagggcacaactaatcagaaaagcagaactagaggca  
gtcctccttggccttggagaatcaggggaaaaatgttaatatagtgacagattcccagtatgtactagggtattt  
gcagcaagtctgatcaaaagtgactcccccttagtgacagaaaataatagaggaaatgacaacaaaagaaaaggtc  
tatttagcttgggtaccagctcacaaaggtatagggggaaatgaagaaatagacaaatttagtcagtaaaagatatc  
agaagagtcttattcctagaaggcatagatcaagcacaggaagatcatgaaaaatatcacagtaatttgagagca  
ctagccagtgactttgggtctgcccagtggttagccaaagaaatcatcaatagctgccctaagtgccatgtaaaa  
ggggaagctaggcatggacaagtagattgcagcccaggtatctggcagttggactgcacccacttagaagggaaa  
atcatttttagtggcagtcctatgtggctagcggttcatagaagctgaagttattccagcagaaaacagggcaggaa  
acagcctacttctgctcaagtttagcagctagatggccagtaaaaaataatacatacagacaacgggcctaatttt  
actagtgccacagtcagggtgctgttgggtggtcaatgtaacacatgagtttggaaattccctataatccccaa  
agtcaaggagtagtggaatctatgaacaaaagaattaaaaaagattatacaacaagtgagagatcaagcagaacat  
ttaagacagcagtgacagatggcagtatttgtccacaatttttaaaagaaaaggggggattgggggatacactgca  
ggagacaggataatagacatgtagccacacaaatacaaaacaacagaattacaaaaacaaatttttaaaaattcaa  
aattttcgggctctattacagagacagcagagaccctattttggaaaggaccagcgacgctcctgtggaaaggtgaa  
ggggctgtagtcattcaggacaaaaggggacattaaagtagttcctaggagaaaaggcaaaaataattagggttac  
cataaatatagaactaaacaagcaaaacagtggttctataggcatcactatgaagcagtcacatcctagggttaagt  
tcaggggtgtacataccagtagggccccgctgaaattatagtgaccacatatttggggactcatgccaggagaaaag  
gaagaacaattaggccatggggtaggcatagaatggagacaggggaaaatacataacacaattagatccagaaaca  
gcagataggataatccatctctattactttcaatgtttttacagaatctgcagtgaggaaagcaattgtgggggaa  
aaactcctgtgcaagtgtactaccagcaggacatagtcaggtagggacattgcaatacttagcactaagagct

ttagtagggaaagtcagggtaagaccaccttttccaagtgttcagaaattagcagcagatgtgttagaagarctt  
aagcaagaagcagtaagacactttcctagggccttggttgaccaattgggacagcatgtttatgatacttatgga  
gacacttggggaaggagtgcagcaataatcagaatcttacagcaagtaaatctttgttcattatagaattgggtgc  
catcatagcagaatagggattttgccaccctctagaagaggaagaagactgccaccatggcagcagccagggagc  
cagcccccacccccatgcaacacatgctattgtaaaaagtgtgttatcactgctatgtttgtttcacaagaag  
ggtttggaatctccgctacgcattatgctactgtgtattatggagtgccagtctggcaagaggcaaatgtaact  
ttattctgtgcagcagatgctaattatgtgagccaggaacaacacaatatatgggcaacgcaggcatgtgtgcct  
accgaccaagcccaatagagtttccattggaaartgtaacagagacctttgatatctggaacaataacatggta  
gatcaaatgcaggatgatataattagcttatgggatcagagcttaaagccttgtgtaaaaactaacagttagtgt  
gtcactttgaattgtacaaagacaacagagacgacaacrcagacaaatryaacaatacaactataaccaccatac  
atcccacagttagacattttacaactgtagctttaatgttaccacgggttctaaaagataagaaaacaaagcagcaa  
gccttattttataagcaagatataataaaaaacagatgagacgaatgagaccaaagagtatagtgtataggtta  
atcaattgtaatacctctactatatcgcaagcttgtcccaaagtctcctttgagccactacctatacagtattgt  
gcaccagcrggctatgccctgatgaaatgtaatgataaacaatttaaatggtacaggagaatgcaaaaatgtgtca  
atagttcattgtacccatgggatcaggccaacagctctccacacagttgatactcaatggaacttttagcaaaagag  
catgccacaataatttagcaaaaatagtactgatagtggaaaagatattatagtcaaactagccagatcagtagaa  
attacctgtgaaaggacaagtaacaatacaagaggacagatccaagtagggcccatgacaattttataactcagaa  
aacatagtaggaaacacaagaaaggcttttctgcaagtataataagacaaaactggcagaatgcattgaaagataca  
gtacgggctctcaaagcgaatcagatccgcttcagaattcttcaggaggagatccagaagttacctttctgcat  
tttaattgtcatggagaatttttctactgtgataccactaaaatgtttaactacaattgtacaaaggagagctgt  
gattgcataacaggggaattgcacaaattatatccccctgccatctgaaacaggtagtcatgtcctggatgagagta  
ggctcaggcctattttgctccgcctattaggggaactttaagatgtaaatctaataattacaggaataatattacaa  
agggatgtacccctgaataagactaatgagaatagtactgattacaacaccttaagaccaataggaggggacatg  
acaaacatttggaggagtgtgtgtacccctacaaaagtggtaaagggtcaaggcattgtctgtggcaccacaaaa  
gcaaggagacctgttattagccataacagggaacacgtggactgtggggatgcacaggggagattaatttgttac  
actaatgtgccatggaacaagacctggaccgggaaaaatgaaactgaactagatgacattttggggaaacatgact  
tggcaacaatgggacaaattggtagacaactacactgacacaatattttttagaaatacaaaaaggcacaggaacag  
caggagggttaatgaaaaggccttactagagttggataaatgggcagatccttggagtgggttgacataacacaa  
tggctatggtatataaaaaatattcataatgataatagcagggttagtaggactaagaattctaattggctataata  
aatatgtgtcacagggttaggcagggttactcacctctgtcatttcagttgacaagagactgctttgcttttatt  
gcttactggggacaagaacttaagcaaaagtgtattagcttgcctagactgtgttgctgtatggactgctgattgg  
actgatcaagtaatagcaatagctcaaagaataggtaggggcatcttaaacatacccagaaggattagacaagga  
ttagaaaagaagcctattataaatgggaaacacatggaaaaagagtagcttcataggatggccagcagtaaggga  
agaatgagacaaaccagccctgagccaaagccggctccgggggtgggtgaagtgtctagagtgttagcacaagg  
ggagggtacactgcaaaaatatactccacgaaacaatcaagcttttagcgttccctagaagctcatgaagatgaggag  
gtaggatttccagtcgyacctcaagtgcccttaaggccaatgacctttaaggggcatttgacctcagcttcttt  
ttaaagaaaagggggactggaagggttagttttctctcaggccagaagtgtgatcttagatctctgggtttat  
catactcagggtacttccctgactggcagaattatacaccaggggccagggtataagatatccctgacctttgga  
tggctgtttaagttagtgtccagtctcagaggcagaagctgaggagatgggaacagcaagtgagagagctatactg  
ctgcatccagcgtgcagccatgggagagacgaccacatggagagatccttgtctggagattcgatagagcattg  
ggaacaactcatgttgcattacagaagcaccagaactgttcaagagagataa

>#47 FJ424864 7494 nt

atgggtgagagcgtcagtggtgacagggggacgattggatgcatgggaacgaattaggcttaagccaggaagt  
aagaaaaagtatatgctaaaaacatgtagtatgggcaagcaggagctggaaagatttgcattgtaacctgagctt  
atggaaacagccgagggctgtgaaaaattattagggcaactagaatcagctctcaaaacagggtcagatggcttg  
cgatctctgtggaacacttttggtagtgtgtgtgtgtccaccggagaattgatgtatcagacactcagcaagcc  
ttagaaaaatttaaggaagtcagtgtcaaaaagaaagtcagacagccgccctgagacaagtcagaactatccagt  
gtagcaaatgtcaagggcagatggtccatcagccgtgtctcccaggactctaaatgcctgggtgaaagcggta  
gaagaaaaggccttcaatccagaaatcatccctatgttcatggcattatcagaagggtctatcccttatgatatt  
aatactatgctgaatgccattggaggacatcagggggcattacaggtattaaaggaagtcataatgaggaagca  
gcagaatgggacaggatgcacccggcagtggtgggacctctgccagtgggacaactgagggagccgtcaggggga  
gatattgcagggacaacaagtactcaacaagaacaagtagcttggataacaaggaataacaaccctgtgccagt  
ggtgacatatataggaaatggatagtgctagtgttaaaacaaagtagtaaaaatgtactgtccagtgcagtatccta  
gatattaagcagggggcctaaggaaccattccgagactatgtagacagattctacaaaaccctcagagcagaacag  
gcaagtcaagatgtaaaaaatggatgacagaaactttgtctaattcagaatgtctaattcctgattgtaagcaaatt

ctaaaagccctagggccaggggcaaccctagaagaaatgatgaatgcttgtcagggagtggggggacctactcay  
aaagcaagagtccttggcagaggcaatggcagcagcccactcagatttaaagggggatatacagcagtcctttatg  
caaaaggggggaaacaatcaagggattaagaagggaccagtaaaartgcttcaattgtgggaaagtaggacatata  
gcaaaaaattgtagggcaccagaagaaaggatgctggaaatgtgggcaagatgggcaccaaatgaaagactgc  
agatcaggcagacaggcgctgtgaagatagggggacatctatgtgaggctttgttagacacaggggctgatgat  
acagtagtagaacacttatctttagaaggtaggtggaaccaagaatgataggaggcataggaggatttattaaa  
gtaaaagaatatgaagatgtagaaatagaaatagaacataggaaagtagtagggacagttctagttggaccaacc  
cctgtaaatattataggaaggaatattttaacaaaaattggatgtaccctaaattttcccataagctccatagat  
gtagtaccctgtatctttaaagccagggatggatggacccaaagtcaagcaatggcctttgtcaaaagaaaaata  
gaagccttaacagctatttgtcaggaaatggaacaggaaggcaagatatcaaaaattgggcctgaaaatccatat  
aatacacctatttttgccataaaaaagaaagacagtactaaatggagaaaattggtagatttttagagaattaaat  
aaacgaacacaggatttttgggaagttcagttagggtatcctcaccaggagggttaaaaaagaaaaaatcagta  
acagtaytggatgttggggacgcttatttttctgtcccttagaccagattttagaaaaatatacagctttcaca  
attcctagtgtgaataatgagacaccaggggtaaggatatcagtacaatgtactacccagggatggaaaggatct  
ccagcaattttgcagcactccatgacaaaaatacttgatcctttcagaaagaaaaaccagagatagaaatctat  
cagtacatggatgacttgtatgtrgggtcagatttaccyataacagaacataggcagaaggtagaaaaactcagg  
gaacatttatatgcatggggattcaccactcctgacaaaaagcatcaaaagggaacctccctttttgtggatggg  
tatgagctgcaccctgataagtgagcagtgagcctataaaagttaccagaaaaggaaagttggacagtcattgat  
atccagagatttggtaggtaaactaaattgggctagtcaaatatatccaggaataagagtaaaagaactctgcaaa  
ttaattaggggtactaaatcacttacagaagtagtgacccttagtaaaagaagcagaattagaactagaagagaac  
agggaratattaaaagaacccgtacatggagtgtattaccagcctgaaaaggaaattaatagtgaatgtgcaaaaa  
caaggagaaggacagtggaacttatcagatcctccaggatgaatacaagaatctaaagacaggaaagtagtctaga  
caaaaggccactcataactaatgacatcagacagttggcagaagtgatacaaaaggctctcacaagaaagcatagtt  
atctggggaaaaactgcctaagttcagggtacccatatgtcggagtacctgggacgctttttggactgactattgg  
caggcttcctggatycctgagtggaatttattagtagacacctcccctcatcaagctctggtatcaattggaaaa  
gaaccataaccaggagcagaaaccttttatgtagatggagcagctaatagagaaagtaaaacaggaaaaagcagga  
tatgtaacagataagggttagacagaaaaataagaaaactagagggcacaaactaatcagaaagcagaactagaggca  
gtcctccttggccttagaagaatcaggaaaaaatgttaacatagtgacagactcccagtatgtactagggtattt  
gcagcaagtccctgatcaaagtgactcccccttagtgcaaaaaataatagaggaaatgacaacaaaggaaaaagtc  
tatttagcttgggtaccagctcacaaaggtatagggggaaatgaagaaatagacaaatttagtcagtaaaagatatc  
agaagagtccttattcctagaaggcatagatcaagcgcaggaagatcatgaaaaatatcacagtaattggagaaca  
ctagccagtgactttggtctgcccgcagtggttagccaaagaaatcatcaatagctgccctaagtgccatgtaaaa  
ggggaagctaggcatggacaagtagattgcagcccagggtatctggcagttggattgcactcacttagaagggaaa  
atcatttttagtagcagtcctatgtggccagcggttcatagaagctgaagttattccagcagaaacagggcaggaa  
acagcctacttccctgctcaagtttagcagctaggtggccagtaaaaaataacacacagacaatgggcctaatttt  
actagtgccacagtcagggtgctgttgggtggtcaatgtaacacatgagtttgggaattccctataatccccaa  
agtcaaggagtagtggaatctatgaacaaagaattaaaaaagattatacaacaagtgagagatcaagcagaacat  
ttaaagacagcagtgagatggcagtatgttccacaatttttaaagaaaagggggattgggggatacactgca  
ggagacaggataatagacatgtagccacacaaatacaaaacaacagaattacaaaaacaaattttaaaaattcaa  
aactttcggtctattacagagacagcagagaccctatttggaaaggaccagcgagctcctgtggaaagggtgaa  
ggggctgtagtcattcaggacaaaggggacattaaagtagttcctaggagaaaggcaaaaaataattagggttac  
cataaatatagaactaaacaagcaaaacagtggttctataggcatcactatgaagcagtcattcctagggttaagt  
tcaggggtatacataccagtaggccccgctgaaattatagtgaccacatatgggggactcatgccaggagaaaag  
gaagaacaattaggccatggggtaggcatagaatggagacagggaaaaatacataacacaattagatccagaaaca  
gcagataggataatccatctttattactttcaatgttttacagaatctgcagtgaggaaagcaattgtgggggaa  
aaactcctgtacaagtgtaaactacccggcaggacataggcaggtagggacattgcaatacttagcattaagagct  
ttagtagggaaagtcagggttaagaccaccttttccaagtgttcagaaattagcagcagatatgttagaagaactt  
aagcaagaagcartaagacactttcctaggccctggttgaccaattgggacagcatgtttatgatacttatgga  
gacacttggaaggagtgcagcaataatcagaatcttacagcaagtaactcttgttcattatagaattgggtgt  
catcatagcagaatagggttttggccacctctagaagaggaagaagactgccaccatggcagcaaccaggggagc  
cagccccaaccccatgcaacacatgctattgtaaaaagtgtgttatcactgctatgtttgtttcacaagaag  
ggtttgggaatctccgctacgcattatgctactgtgtattatggagtgccagctctggcgagaggcaaatgtaact  
ttattctgtgcagcagatgctaattatgtgagcaaaagaacaacacaatatttgggcaacgcaggcatgtgtgcct  
accgaccaaggccaacagagtttccattggaaaatgtaacagaaacctttaatatctggaaaaattacatggta  
gatcaaatgcaggatgatatagttagcttatgggatcagagcttaaagccttgtgtaaaactaacagttatgtgt

gtcactctgaattgtacacaactaaatacaacaatacaacacagactgagatgacaaatacaactataaccacca  
catacaactataaccaccacacatcccacagtttagacatttacaactgtagcttttaattgttaccacggttctaaaa  
gataagacaacaaagcagcaagctttattttatagacaagatatataagaaacaggtgaaacaggtacaaatggg  
atcaaaggggtatagattaatcaattgtatacctctactatatcgcaagcttgtcccaaagtctcctttgagcca  
ctacctatacagttattgtgcaccagcaggctatgccttgatgaaatgtaattgatatacaatttaatggtacagga  
gaatgcagaaacgtgtcaatagttcattgtacccatgggatcaggccaacagctctccacacagttgatactcaat  
ggaacttttagcagaaggaatgccacaataatcagcaaaaatagtagtgatagtggaagatattatagtcaaa  
ctagccagaccagtagaaattacctgtgaaaggacaggttaataatacaagaggacagatccaaatagggcccatg  
acaattttataactcagaaaacatagtaggaaacacaagaaaggctttttgcaagtataatgagacaaactggcag  
ggtgcgttgaaagacacagtgacaggtctcaacgagagcctgatccacttccggaattcttcaggaggagattca  
gaagttacctttctgcattttaattgtcatggagaatttttctactgtaataccactaaaatgttttagctacaat  
tgcacaacagaggggttgcaataccactgaaacaagcaataccactgaaacaactaaatatattccctgccatcta  
aaacaggtagtcaggtcctggatgagagtaggtcaggcctatttgcctccgcctattaggggaactctaagatgt  
atatctaacattacaggaataatattacaaagggatgcacccctaaaaactgatgagaacagcaccttaagacca  
ataggaggtgacatgacaaacatttggaggagtgaactgtacccctacaaggtggtaggggtcaaggcattgact  
gtggcaccacaaaagcaaagaggcctgttattggccataacaggggaaaaacgtggactgtggggatgcacaggg  
agattaatttgttacactaatgtgccatggaacaagacctggaccgggaaaaatgacactgaactagatgacatt  
tggggaaacatgacttggcaacaatgggacaaattggtagacaactacactgacacaatatTTTTTAGAAATACAA  
AGGGCACAGGAACAGCAGGAGGCTAATGGAAAGGCCCTACTAGAGTTGGATAAATGGGCAGATCTTTGGAGTTGG  
CTTGACATAACACAATGGCTATGGTATATAAAAAATATTCATAATAATAATAGCAGGGCTAGTAGGACTAAGAATT  
CTAATGGCTATAATAAATATGTGTCAACAGGGTTAGGCAGGGTTACTCACCTCTGTCAATTCAGTTGACAAGAGAC  
TGCTTTGCTTTTATTGCTTACTGGGGACAAGAACCTTAAGCAAAGTGCTATTAGCTTGCTAGATTGTGTGTGCTGTA  
TGGACCGCTAATTGGACTGATCAAGTAATAGCAATAGCTCAAAGAATAGGTAGGGGCATCTTAAACATACCCAGA  
AGGATTAGACAAGGATTAGAAAGAAGCCTATTATAAATGGGAAACACATGGAAAAAGAGTAGCTTCATAGGATGG  
CCAGCAGTAAGGGAAAGAATGAGACAAACCAACCCTGAGCCAAAGCCGGCTCCAGGGGTGGGTGAAGTGTCTAGA  
GCATTAGCACAAAGAGGAGGGATACCTGCAAAATATACTCCACAAAACAATCAAGCTTTAGCATTCTTAGAAGCT  
CATGAAGATGAAGAGGTAGGATTTCCAGTCAAACCTCAAGTGCCGTTAAGACCAATGACCTTTAAAGGAGCATT  
GACCTCAGCTTCTTTTTAAATGAAAAGGGGGGACTGGATGGGTAGTTTTCTCTCAGGCCAGAAGTGATCTTA  
GACCTCTGGTTTATCATACTCAGGGATACTTCCTGACTGGCAGAATTACACACCAGGGGCCAGGGGATAAGATAT  
CCCCTGACCTTTGGATGGCTGTTTAAGTTAGTGCCAGTCTCAGAGGCAGAAGCGGAGGAGATGGGAACATCAAT  
GAGAAGGCCATGCTGCTGCATCCAGCGTGCAGCCATGGGAGAGACGACCCATATGGAGAGATCCTTGTCTGGAGA  
TTCGATAGAGCATTGGGAACAACCTCATGTTGCCTTACAGAAGCACCCAGAAGCTTCAAGAGAGACTAA

>#48 FJ424871 7500 nt

atgggtgcgagagcgtcagtggttgacagggggacgattggatgcatgggaacgaattaggcttaagccaggaagt  
aagaaaaagtatatgtctaaaacatgtagtwtgggcaagcagggagctggagagatttgcattgtaacctgagctt  
atggaaacagccgagggctgtgaaaaattattagggcaactagaaccagctctcaaaacaggggtcagatggcttg  
cgatctctgtggaacacttttgtagtgctgtggtgtgtccaccggagaatagatgtctcagatactcagcaagcc  
ttagaaaaatttaaggaagccatgtcaaaaagaaagtcagacagccgccctgaaacaagtcagaactatccagtg  
gtaacaaatgcgcaagggcagatgggtccatcagccgctgtctccaaggactctaaatgcctgggtaaaagcggta  
gaagaaaaggccttcaaccacagaaataattcctatgttcatggcattatcagaaggggtctatcccttatgatatt  
aatactatgctgaatgccattggaggacatcagggggcattacaggtcttaaaggaagtcataatgaggaagca  
gcagaatgggacaggcagcaccagcagtggttaggacctctgccagtgggacaactgaggggaacctcaggggga  
gatattgcaggaacaacaagtactcaacaagaacaagtagcttggatgacaaggaataataatcctgtgccagtg  
ggtgacatatagcaggaatggatagtgctagggttaaacaagtagtaaaaatgtactgtccagtgcagtatcctg  
gatattaagcagggaacctaaaggaaccattcagagactatgtagacagattctacaaaaccctcagagcggaacaa  
gcaagtcaagatgtaaaaaattggatgacagaaactttgctaattcagaatgccaatcctgattgtaagcaaatt  
ctaaaagccctaggcccagggggcaaccctagaagaaatgatgaatgcctgtcagggagtgggaggacctactcac  
aaggcaagagctcttggcagaagcaatggcagcagcccactcagatctaaaagggggatatacagcagctctttatg  
caaaaagggggaaacaatcaagggattaagaaggggccagtaaaatgcttcaattgtgggaaggtaggacatata  
gcaaaaaattgtagggcacccagaagaaaggatgctggaaatgtgggcaagatgggcaccaaataagaaagactgc  
agatcaggcagacaggcgctgtgaggatagggggacatctatgtgaggctttgttagacacaggggctgatgat  
acagtagtagaacacttacctttagaaggtaggtggaaaccaagaatgataggaggcataggaggatttattaaa  
gtaaaggaatatgaagatgtagaaatagaaatagaacatagaaaagtagtagggacagctcttagttggaccaacc  
ccggcaaatattataggaagaaatgtgttaacaaaaattgggtgtaccctaaattttcccataagcccatagag  
gtagtaccgcgtatctttaagccagggatggatggacctaaagttaagcaatggcccttgtcaaaagaaaaaata

gaagccttaacagccattttgtcaggaaatggaacaggaaggcaagatatcaaaaattgggcctgaaaatccatat  
aatacacctatTTTTGCCATAAAAAAGAAAGACAGTACCAAATGGAGAAAACCTGGTAGATTTTAGAGAGTTAAAT  
aaacgaacacaagatTTTTGGGAAGTTCAGTTAGGGATCCCTCACCAGGAGGGCTTAAAAAGAAAAAATCAGTA  
acagtactggatggttggggacgcttatttttcttgtcccttagaccagatttttagaaaatatacagctttcaca  
attcctagtgtgaataatgagacaccaggggtaagggtatcagtacaatgtactaccccagggatggaaaggatct  
ccagcaatTTTCCAGCACTCCATGACAAAAATACTTGATCCCTTCAGAAAGAAAAACCCAGAAATAGAAATCTAC  
caatacatggatgacttgtatgttagggtcagatttaccataacagaaacataggcagaaagtagaaaaactcagg  
gaacatttatatgcatggggattcaccacccctgacaagaagcatcaaaaggaaacctccctTTTTGTGGATGGGG  
tatgagctgcaccctgataaatggacagtgcagcctataaaagttaccagaaaaggaaagttggacagtcaatgat  
atccagaaatttgtaggcaaattaaattgggctagtcaaatatatccaggaataagagtagaaagaactctgcaaa  
ttaatcaggggtactaaatcacttacagaagtagtgacccttagtaaagaagcagaactagaattagaagagaac  
agggaaatcttaaaagaaccagtacatggagtgtattaccagcctgaaaaggaaattaatagtgaatgtgcaaaaa  
caagaagaagggcagtggtacttatcagatcttccaggatgaacacaagaacttaagacaggaaaatatgctagg  
caaagggccactcatactaatgacatcagacaattggcagaagtgatacaaaaggctctcacaggaaagcatagtt  
atctggggaaaactgcctaaattcaggctaccatagtcggaagcacctgggacgctTTTTGGACTGACTATTGG  
caggcgtcctggattcctgagtgggaatttattagtagacccccctctcattaagctctgggtatcaattggaaaaa  
gaaccataacaggagcagaaacctTTTTATGTAGATGGAGCAGCTAATAGAGAAAGCAACAAGGAAAAGCAGGA  
tatgtaacagataggggtagacagaagataagaaaactagagggcacaactaatcaaaaagcagaactagaggca  
gtcctcttggccttggagaatcagggaaaaatgttaatatagtgcagactcccagtatgtgctggggattatt  
gcagcaagtctgatcaaagtgactcccccttagtacagaaaataatagaggaaatgacaacaaaagaaaaagtc  
tatttagcctgggtaccagctcacaaaggtatagggggaaatgaggaaatagacaaatttagtcagtaaagatatc  
agaagagtccttattcctagaaggcatagatcaagcacaggaagatcatgaaaaatatcacagtaattggagagca  
ctagccagtgactttggkctgccaccagtggttagccaaagaaatcatcaatagctgccctaagtgtcatgtaaaa  
ggggaagctaggcatggacaagtagattgcagcccaggtatctggcagttggattgcactcacttagaagggaaa  
atcattctagtagcagtcctatgtagctagtggcttcatagaagctgaagttattccagcagaaacagggcaggaa  
acagcttacttctgtcgaagttagcagccaggtggccagtaaaagtaatacacacagataatgggcctaacttt  
actagtgccacagttaaggctgcctgttgggtggctcaatgtaacacatgagtttggaaattccctataatcccaa  
agtcaaggagtagtggaatctatgaacaaagaattaaaaaagattatacaacaagttagagatcaagcagaacat  
ttaagacagcagtgagatggcagtatTTGTCCACAATTTTAAAAGAAAAGGGGGATTGGGGGATACACTGCA  
ggagacaggataatagacatgtagccacacaaatatacaacaacagaattacaaaaacaaatttttaaaattcaa  
aattttcgggtctattacagagacagcagagacctattttggaaaggaccagcgacgctcctgtggaaagggtgaa  
ggggctgtagtcatcaggacaaaggggacattaaagtagttcctaggagaaaggcaaaaaataattagggttac  
cataaatatagaactaaacaagcaaaacagtggttctataggcatcactatgaagcaatcaatcctagggttaagt  
tcaggggtatacataccagtagggccccgctgaaattatagtgaaccacatattggggactcatgccaggagaaaag  
gaagaacaattaggcaatggggtaggcatagaatggagacaaggaaaaatacataacacaattagatccagaaaca  
gcagataggataatccatctctattactttcaatgttttacagaatctgcagtgaggaaagcaattgtgggrgaa  
aaactcctgtgcaagtgttaactaccagcaggacatagtcaggtagggacattgcaatacttagcatthaagagct  
ttagtagggagagtcagggtaagaccacctttccaagtgttcagaaattagcagcagatttgttagaagaacta  
aaacaagaagcagtaagacactttcctaggccctggttgaccaattgggacagcacgtttatgatacttatgga  
gacacttgggaaggagtgcagcaataatcagaatcttacagcaagtaatctttgttcattatagaattgggtgt  
catcatagcagaatagggattttgccacctctagaagaggaagaagactgccaccatggcaacagccaggagc  
cagcccccaccccatgcaacacatgctattgtaaaaagtgtgttatcactgctatgtttgtttcacaagaag  
ggtttgggaatctccgctaagactgagcattatgtactgtatattatggagtgccagtcctggcgagaggcaaaa  
gtaactttattctgtgcagcagatgccagttttgtgagcaaaagaacaacaatatttgggcaacgcaggcatgt  
gtgcctaccgacccaagcccaacagagtttctatttgaaaaatgtaacagagacctttgatctctggaaaaattac  
atggtagaacagatgcaggaggatataattagcttatgggatcagagcttaaagccttgtgtaaaactaacagtc  
atgtgtgtcactatgacttgttcaaacgacacaaaggggagcaataaatcaactgcaactacaactagcgcaaac  
acacctacaagcacagagacaactataccaacaaacatcccagagttagatattttcaattgtacttttaatgtc  
accacggttctaaaagataagaaaaacaaagcagcaagccttattctacaagcaagatataacagaaacagataaa  
aatgagtataggttaataaattgtaacacctctactatatcacaagcttgtcccaaagtctcctttgagccacta  
cctatacagtatTTGTGCCACCAGCAGGCTATCCCTGCTGAAATGTAATGATGAACAATTTAATGGTACAGGAGAA  
tgcaacaatgtgtcaatagttcattgtacccatgggatcaggccaacagtcctccacacagttgatactcaatgga  
acttttagcaaaagggaataatgccacaataatcagcagcaatagtagtgatagtgcaacagatattatagtcaaa  
ctagccaaccagtagaaatcacctgtgaaaggacaggtaataatacaagaggacagatccaagtagggcccttg  
acaatttataactcagaaaacataataggaaacacaagaaaggctttctgcaagtataatragacagcatggcag

aaggcggttacaagctacagtgcgggctctcaaaacgaacctgaccactacttcaacaagtccttcaggaggagat  
ccagagggttacctctctgcactttaattgtcatggggaatttttctactgtaataccactaaaatgtttaactac  
aagtgtacaggggaacactgcaattgtacagacaaggagctttgcaataagactgcagaaatggagtatatcca  
tgccgcctaaaacaggttagtcaactcctggatgagagtaggctcaggcctatttgctccwcctmttaggggaact  
ttwagatgtatatytwatattacaggaatamtattacaaagagatacaccccsygcctgagaataataataacacc  
accttaagaccattaggagggtgaaatgagaaacatttgaggaggagtgaattgtacccttacaagggtggtaaagggtc  
aaggcattgtctgtggcaccacaacaaaagcaaagaggcctgttgtagccataacagggaaaaaacgtggactgtgg  
ggatgcacagggaaattgatttggttactaacgtgccatggaacactacctggaccgggaaaagtgatagtga  
ctagatggcatttggggaaacttgacttggcaacaatgggacaaaattggtagacaactacactgacacaatattt  
ttagaaatacaaaaggcacaagaacagcaggaggctaataaaaaggccttactagagttggataaatgggcagat  
ctttggagttggcttgacataacacaatggatatggtacataagaatattcataatagtaatagcagggctagta  
ggactgaaaattctaattggctataataaatatatgtcacaggggttaggcagggctactcacctttgtcatttcag  
ttgacaagagactgctttgcttttattgcttactggggacaagaacttaagcaaagtgcctattagcttgctggac  
tgtgttgctgtatggactgctgattggactgaccaagtaatagcaatagctcaaagaataggtaggggcatctta  
aacataccaagaaggattagacaaggattagaaagaagcctattaggaaacgcagtggaagagagtagctttgta  
ggatggccagcagtaagggaaagaatgaggcaaaccagccctgagccagatccggctccaggggtgggtgaagtg  
tctatagcatttagcacaaaggaggaggatacctgcaaaatatactccaaaaacaatcaagctttagcattccta  
gaagctcatgaaaatgaggaagtaggctttccagtcgtacctcaagtgcctttaaggccaatgacctttaagggg  
gcatttgacctcagcttctttttaaaagaaaaggaggactggaagggttagttttctctcaggccagaagtgat  
atcttagacctctgggtttatcacactcagggtacttccctgactggcagaattacacaccaggggccaggggta  
agatatcccctgacctatggatggctgtttaagttagtgccagtctcagaggcagaagctgaggagatgggaaca  
gcaagtgagagagctatatgtctgcacccagcgtgcagccatgggagagacgaccacatggagagacccttgtc  
tggaggttcgatagagcattgggaacaactcatgttgccctacagaagcaccgcgaactgtttcagagagactaa  
>#49 JN091690 7527 nt

atgggtgcgagagcgtcagtggtgcggggagagaagcttgatagatgggaagccataaagcttagacccggaggc  
aggaaaagatatttgttaaaacacctaatatggggccgggagtgagttacagcgcttcgcatgaatcccgccctc  
atggagagcaaagaaggctgctggaaaatcatcctccagctacagccatctgtagacattgggttctccagaaata  
atctccttgtttaacaccatttgcgtgctttattgcgtacatgaaggagaaaaagtgcaaaatacgggaagaagca  
gttaaaattgtgaaagtgaactaacaagcaagaaagtagctccgcagcgacatctagcggacagaataaaaat  
acagaagagacacctagtggttagccaagagaatgcaggaagagcagcagcgccatctagtggcagactgtatcca  
gttatcacagacatgcagggagcagcaaggcatcagcctatatcacccagaactttaaatgcttgggtaaggaca  
gtggaagacaaaagggttcaatccagaagtataccaatcttttcagctttatctgagggggctaccccttatgat  
ttaataactatgcttaatgctattggggatcatcaagcagcaatgcaaatgctaaaggaagtaataatgaggag  
gcagcagactgggtagaacacacccagctcatgcaggaccccaacaagcggggatgctgcgagagccaacagga  
gctgatattgcaggaaccactagctcagtacaagagcaagtgcagtggtgacaacccctcaggcacaaggagga  
gtaccagtaggggacatctataaaagatggataattataggggttaaacaatttagttaggatgtacagccctgtt  
agtatttttagacattaaacaggggaccaaagaaccattcagagattatgtagacagggttctacaaatgcatcaga  
gcagaacaggcctctcaaccagtaaaagacttggatgacagaaaactctgttagtccagaatgcaaatccagactgt  
aaacacattttgaaggcactaggacaaggagcaaccttagaggaaatgcttacagcttgccagggagtaggagga  
ccttcccataaggcaaaaaatactggcagaagcaatggcatcagcaaacagtgcagttgggggaataaatatgtta  
caaggaggaaagaacccctgaggaaaggccagctgcagtggttcaattgtgggaaaccaggggcatacagccaga  
aactgcagagccccaaggaaaaagggtgctggagggtgtggtcaggaaggacatcagatgaaagactgcacagga  
agaccaacaattcaggggtaactgtgaaagtacaaggacaagtctgtcaagctcttttagacactggagcagat  
gacagcggtttttgtaatcttaagctaaagggacagtggaactccaaaaactatagggggaatagggggctttgtg  
ccagtgaatgaatattacaacattccagttcagataggaaataaagaagtaacagccactgttctagtaggggac  
acccccattaatataataggaagaaatattctacaacaattaggatgtactctaaatttccccattagtaaagtt  
gatgttgtaaagggtgaagctaaaagagggaatggatggggccaaaggtaaaacaatggccccctctctaaagaaaa  
attgaagctttaacagagatctgcaattccttagaagaggaaggaaagatttctgcaattgggccagaaaatcca  
tataatacaccaatctttgcaattaagaaaaaggatggttctaaatggagaaaattggtagatttttagagagtta  
aacaagagaacacaggatttctgggaattgcagctaggaataccccatccagcaggactaaagaagaggggcatg  
gtaacagtagtggttaggggatgcttatttttctattcctctggatccagacttcagacaggtatactgctttt  
accattcccagctttaacaacaatacaccaggaaaaagatttccagtataatgtgttgccctcaagggtggaagggg  
tcaccagcaatttttcaaacagtatgacaaaaatttttagatcccttcagaaaagaccaccagaggtggatgtc  
tatcagtagatggatgatctttatgtaggggtcagattttaaataaaaatgaccataggcagctcataaaaagggtta  
aggcagcatttgttagcctggggactagagactccagacaaaaagtatcaggaaaaacctccatttctgtggatg



ggttatgagctgcatccaaacaaatggacagtgc aaaatattacactgccagagccagagcagtggaacagtaaat  
catattcagaaattagtaggtaaataaattgggctagtcaaatttaccagggaataaaaaactaaggaactgtgc  
aagctcattagaggagtaaaagggctgactgacccagtagacagatgactaggggaagcagaactagaattagaagaa  
aacaagaaattctaaaagaaaaggtacaaggggttattatgatcctaagctacccctgcaggcagcagttcaa  
aagcagggggaaggacaatggacataccagatttatcaggaagaaggaaaaaacctgaaaacaggaaaaatgca  
aaatcagcaggcactcatactaatgagataaggcaactagcaggattgatacagaaaaataggtaatgaaagcatc  
ataatttggggaattgtgcctaaattcttgctgccagtatccaaagaaacatggagtc aatgggtggactgattat  
tggcaagttacctggatacctgagtgagggttcattaataccccaccattaatcagattatgggtataatttggtta  
gataaccccatcccagaagcagaaaactttttatgtggatggagcagctaatagagatagcaaaaaagggaagca  
ggatatgtcacagatagggggaggtacaaggcaaaagagttagaaaacaccacaaatcagcaagcagaattatgg  
gcagtggaatttggcattaaaagattcaggagcacaaagtaaacatagtgacagactcccaatatgttataggaatt  
ctacaaggactgcctgatcaaagtgactcccccatagtagaaca aaatcatacaaaaaattaaccaataaagcagca  
gtctatttagcctgggttccagcccatagaggaatagggggcaatgaagaagtagacaagttagttagcaaaaat  
atcagaagagtactctttctagaaggaattaatgaggcacaggaagatcatgataaatatcatagtaattggaaa  
gcattggctgatgaatacaatcttcctcctgtagtagcaaaagaaatcatagcccaatgccccagtgtcacata  
aaaggagaagccatacatggacaagtagactgtagtcagaagtatggcagctagattgtacccacttggaaggg  
aaaatcatcatagtagcagtagcatgtggccagtggaattcatagaggcggaggtcatacctgaggaaacaggaaaa  
gaaacagcttacttcatattaaaattagcaggcagatggcctgtaaagaagattcatacagataatgggccaaat  
ttcactagtacagcagtaaaaggctgcatgttggtgggcgcaaatccaacatgaatttgggattccatacaatccc  
caaagtcaaggggttggtgaatccatgaataagcaattgaagcaaatatttcagcaggttagggaacaagcggaa  
caactgaaaacagcagttgtaatggcagtcctacattcataattttaaaagaaaaggggggattggggaggtatact  
gcaggagaaagactatttagacctactgactacaaacatacagacaaagcaattacaaaaacaaattttaaaaatt  
caaaattttcgggtttattatagggacggcagagatccgggttggaagggaccagcgcgactgctgtggaaaggt  
gaaggagcagtagtaataaaaggagggggaagatattaaagtagtgccagaagaaaagttaaagataataaaagac  
tatggattagttaaacaccatataattcacaaagtaaatgttgcagcagctggaaatatagacaccattatgaaact  
gatataccaaaaagagcaggagaaatacatattcccattaatgagaaaagcaaaaatagtagtggtacactattgg  
ggtctagcctgtggggagagacatggcatttaggacatggagtaggattggaatggagacaaggaaaaatgctc  
acacaactagacctgcaacagctgaccagttaattcatactaaagtattttgcatgctttactgcaggagcaatt  
cgtcaagcaatcttaggagagagaattctgacattctgccaatttcgatcaggacacagacaggttaggaacttta  
caatatattagcctttttgaaggtagtggaagattcaatacaagacagctccaagacacaggaggccgttgccatct  
gtactaaagttaacagaggacattctagaagaaataaaaacaagaagctgtaggcattttccaaggcaaatatta  
caaggagtagggaattgggtctttacagtgcatggagactcctgggaaggagtacaagaattaatcagaattctg  
cagaaaagctttgtttgctcactatcgacatggttggtgttcacagcagaataggacctatagatcctcaagtagcc  
ccatggaatcatccaggagctgcacctaaagacaccatgttcaaattgttattgtaaaaagtgctgctttcattgc  
ccgctttgctttacgaaaaaagcattaggaatctccgtccattatgctacagtattttatggggtgcctgtttgg  
aaagatgcaaaacctcaattgttttgctctgatgcagacattactagtagagaccacataatatatgggct  
actcataactgtgtacccctagatccacatccctatgaagttccattatcaaatgtctcagtagactttgacatg  
gaaaacaactatatggtggaagaaatgaaaaggatttaattgcaactcttccaacaaagctttaaacctgtgtt  
aagttaacacctttctgtgtacaatgaactgtgtaaaacttaaggagacaacaactacaatagctaccatcaca  
aacccttgtaaacttgacaggaatagaagattataaaagtgtataattgtagtttttaacagaccactgagttt  
agagacaagaaaaagcagatttattctttattttacagagaagatattatgaaaacagacaataacgatagttat  
tatttgcataattgcaacacctcagccattacccaagaatgcgaaaagtcaagctttgaaaccaattcctattaga  
tattgtgctccagcaggatatgctatgttgaaatgtaacagtgcaaaactttacaggagtaggaacttgtaacaat  
gtaagtgtagtacattgcacacatggaatatatcccatgatagccacagccttacatctaaatggaacacttgaa  
aagcacacaacacagcttattttgcaacaccacacacaataagccactgttgataaaattcaataagtcagta  
gacatgaattgtacaagaacagggaataattcaaggggacaagtacaaaatcggtccaggcatgaccttttataat  
atagaaaacatagttggaaataccaggaaagcttattgtacggtaaactaccaggaatggagtcagccatagga  
gaagctaaaaaagtgggccgaagaagccctaaagaagaatattacctttcggtggaaccaaggaggagatctagaa  
gttaccaacttctggtttaattgtcaaggagaatttttctattgcaacctcactaactggacaaatataacgtgg  
ctagagacgtggctaaagactaacaatagttcccgctcccttgtagcaccatgtaaaacttaggcagatagtaaac  
cattggggtatagtatctaaaggtatctacctacctcctagaaggggaaatttaacatgcagatctaacattaca  
gggttcattacgacatgggataatgacacggagaacgtgctgttaccttttcagccaaagtagaagactattgg  
aaggtagaaatgtcacgatacaaagtagtggaatttcagcccttgccatagctcctactacaggaaaaaggccg  
gagattagagccaatcacacaaggtcaaaaagaagtggttggggatgtgccataaaattgggtatgccacagtaat  
gtagtgtggaatatgacatgggctgaaaatggaactacttgcctcagggttcagaagactattataattgcatc

tggaacaacttgacatggcagcagtgaggaaaagctagtggctaattctacagaagaaatatatacattattagag  
aaagcacaagtgcaacaagaaactaacaaaaagaactctttgagttagataagtgaggcactctttgggattgg  
tttgacattacacaatggctgtggtatattaagatagctatacttatagtagcaggggttagtaggacttagaatt  
gttatgtttatagttaattgtaattaggaagttaggcaggggttatatgccctgttttcacagagtagacaactt  
ttcgattggcttagcaatacatatagtatcttaagaacctcgcttatacaggcaatagataggttagctaacttc  
acaggctggtggacggacttggttatagcaggagtagcattttagtagccaaggcatcaggaatatcccaaggaga  
attagacagggcctagaaatagccttaaattaaatgggaaacatctttggcaagtggcctggagcccaaagggca  
atccaagcgatacatgagagtaatcctacaataaaaagggcaagcatcacaggacctccaggcaagggggagggttg  
actactagcactctaggaacatcagcagatgtaataaattactctcatgaccactctgaagaggaagtcggcttc  
ccagttaggccagcagtagcaatgagacccatgacagaaaaactagcagtagatctgtcatgggttcctaaaagaa  
aaggggggactggatgggttacctttctccaaaagagagcagccatcttagatatgtggatgtataatacaciaa  
ggaatattcccagactggcagaactacactcctggaccaggaatcagataccactatgcagaggggtggctgttt  
aaactggtaccagtagaccacactgaagatgatgagaggaacatcttgctacacccttactgttctcatggaaga  
gaagatcctgcaggagaaggagagaatctgatctgggtgctttgacagcagtcctatcaagaagacacatagccaga  
gagagatatccggagtagtacttcaaataa

>#50 AF447763 7578 nt

atgggtgagagagcgtcagtggtgaggggagataagctggatacatgggaatccataaggcttaaattccagagggc  
aggaaaaaatatttaataaaaacatctagtatgggcccgaagcgaactacagcgtttcgcgatgaatcccgggtctc  
atgggagaacgtagaaggctgctggaaaatcatcctccagctgcagccttcggttagacattgggttctccagaaatc  
atctctttgtttaataccatctgtgtactctactgcgtacacgcaggagaaagagtcgaagatacgggaagaagca  
gtcaaaattgtgaaaatgaaactaactgtacagaaaaataactccacagcgacatctagtggacaaaagacagaat  
gcaggtgaaaaagaggaacagtgccacctagtggcaatacaggaaacacagggagagcaacagagacacctagt  
gggagtagactataccagtgataactgatgcacagggagttgcaaggcatcagcctatttcacctagaactcta  
aatgcctgggtaagggtaatagaagaaaaaggggttaattccagaagtaataccaatgttctcagcattgtctgag  
ggagcaacccttatgatctaataatagtatgctcaatgctgttggggaaacatcaagcagcaatgcaaatgttgaa  
gaagtcacatcaatgaggaagcagcagagtgaggacagagcacatcccgcctcatgcaggaccccagcaagcagggatg  
ctaagagagcccacaggggcagatatattgcaggggaccactagtacgctacaagaacaagtactgtggatgacaacc  
ccacagggcacaaggaggagtgccagtaggagacatctataaaaaggtggataattttaggattaaataaattagtc  
agaatgtacagccctgttagcatttttgacataaaaacagggaccaaaagaaccattcagagattatgtagacaga  
ttctacaaaacaatcagagcagaacaagcatctcaaccagtaaaaaacttggtgacagaaaactttactggtacaa  
aatgcaaaaccagattgtaagcatatcttaaaagccttggggcaaggagcaacattagaagaaatgctcacagcc  
tgtcaaggagtgggaggaccctctcataaggcaaagattctggctgaagcaatggcctcagcaacagcaggggga  
gtaaatatgctgcagggaggaaaaagaccaccttaaaaaaggggtcagctgcagtggttttaactgtgggaaagta  
ggccatacagcaagaaattgtagggctccaagaaagaaaggttgctggagggtgtggacaagaggggacatcaaag  
aaggactgcaccaccagaaacaacagcactggggtaacagtaaaagtccagggaagtcgtgtaagctctttta  
gatactggagcagatgacagtggtttttgtaacatcaaattaaagggacagtggaacacaaaaacataggagga  
ataggaggatttgtaccagttagtgtactataatattccagtacaaattggcaataaagaagtcagagccact  
gtcctagtgggagaaacccccattataataggtagaaatattttaaagcaattaggatgtacctaaatttt  
cctattagcccaatagaggtagtaaaagtacaattaaaagaaggaatggatgggcaaaagtaaaagcagtgggccc  
ctctccaaggagaaaattgagggcattaacagaaatatgtaagacattggaaaaggaaggaataattctgcagtt  
ggaccagaaaacccatataacacaccaatttttgccattagaaaaaggatacctctaaatggagaaaattagta  
gatttcagagaactgaataaaagaactcaagatttttgggagttacagctaggaatacccatccggcaggggtta  
agaaaaagaaatatggtgacagtagtgatgtaggggatgcctacttttccattcccctggatccagacttcaga  
aagtatacagctttttaccatacccagtcctcaataataacacaccagggaaaagatttcagtataacgtgttacct  
caaggttggaagggatctccagcaatttttcagagcagtatgacaaaaatcctagatcctttcagaaaagaacac  
ccagatgtggacattttaccaatataatggatgatctttacataggttcagatcttaatgaagaggaacataggaaa  
ctgataaagaagctgagacagcatctgttaacatggggattagagaccctgacaaaaagtatcaggaaaaacct  
ccattcatgtggatgggctatgagctacatccaataaattggacagttcaaaatatcacattaccagaaccagag  
cagtgagcagtgatcatatccagaagttggttaggcaaaacttaattgggcccagtcaaaatttatcatggaataaaa  
actaaagaactatgcaaaattgattagaggagtaaaaggatttaactgagccagtagaaatgaccaggggaagcagaa  
ttggagttagaagaaaataagcagattctaaaagaaaagggttcaaggagcatactatgatcctaaattacctctg  
caagcagcaatacagaagcaggggcaaggacagtggaacatatcagatatatcaggaagaaggggaaaaatttaaaa  
acaggaaaaatgcaaaatcaccaggtacccacaccaatgagataagacaatttagcaggactgatacagaaaaata  
ggcaatgagagcataataatttggggattgtgcctaaatttttattacctgtatccaaagagacatggagccag  
tggtggactgattactggcaagttacctgggtacctgagtgggaatttatttaacaccccaccactaatcaggcta

tgggtacaatctgttgtctgaccccatcccagaagcagaaaccttttatgtagatgggggcagcaaacagagacagt  
aaaaagggaagagcaggatatgtacaacacagaggcagatacagggtcaaaggacttagagaacaccactaatcaa  
caagcagaattatggggcagtagatctagccttaaaagactcaggagcacaggtaaataatagtcacagattcccaa  
tatgttatggggagttttacagggattaccagatcaaagtgactcccatagtagagcaaattattcaaaagtta  
acacaaaagacagcaatttatctagcatgggtaccagcccataaagggtatagggggtaatgaagaagtagacaaa  
ttgggttagtaaaaatattagaaaaatattattcctggatggaattaatgaagcacaggaagaccatgataaatat  
cacagtaattggaaagcttttagctgatgaatataatctgccccagttgtgggctaagaaattattgctcagtg  
ccaaaatgccatataaaaggagaggctatacatggacaggtggactacagtccagaaatctggcaaatagactgt  
accacctagaaggaaagggtcatcatagtagcagtgcatgtagctagtggtttcatagaagcagaagtcatacca  
gaagaaacaggaagagaaaccgcttacttcatcctaaaattggcgaggaagatggcctgtaaagaaaatacataca  
gataatggaccaaattttactagtagcagcagtgaggcagcctgctgggtgggcacaaattcaacatgaatttggg  
attccatataatcctcaaagtcaaggagtagtagaatctatgaataaacaattaaagcaaattatagagcaagtc  
agggaccaagcagagcaactgaggacagcagtaatcatggcagtgatatccacaattttaaaagaaaagggggg  
attggggagtacactgcaggggaaagactattagacataactacaaatatacagacaaaacaattacaaaaa  
caaatttttaaaagttcaaaattttcgggtttattatagggacgccagagatccaatttgggaagggaccagcgca  
ctactgtggaaaggtgaaggggcagtagtaataaaagaaggagaagacattaaagtagtaccaggagaaaagca  
aaaatcataaaagagacatggacaagcctagttaaacatcatatctttacaaccaaatgctgtaaagattggaag  
tatagacatcattatgaaactgatacaccaaaaagagcaggggaaatacacatacctctaacagaaagatcaaaa  
ttagtggttttacattattgggggtctagcctgtggagaaagaccatggcatctaggtcatggcataggattagaa  
tgagagacaaggaaaatacagtagacacaaatagaccctgaaacagcagaccaattgattcacactagggtattttacc  
tggtttgctgcaggagcagtttcggcaagcaatattaggagaaagaatattgacattctgccactttcaatcagga  
cacagacaggtagggactctgcaattcttagccttcagaaaggtagttgagagccaagataaacagccaaagggga  
ccaaggaggcccttgccatctgtttacaaaactaacagaggacatcctagaagaaataaaacaagaagcagtgaaa  
cactttccaagaccaatattacagggggtaggaaattgggtcttcaccatttatggagactcctgggaggggagta  
caggaattaatcaagatcttgcagagagctttgtttaccactatcgccatggttgatatccacagcagaatagga  
cccatagatcctcaggtagcaccatgggaacatccaggagctgcacctgaaacaccttgtacaaaactgttactgt  
aaaaaatgctgctttcattgcccagtttgctttacgaaaaaagcattaggaatctccacttattacaccacagt  
ttttatggagtacctgtttggaaagaggcccaaccaaccttggtttgtgcctctgatgctgatattactagtaga  
gataaacacacatatgggcaacacataactgtgtgccttttagatcccaatccttatgaagtaaccctagccaat  
gtgtcaataaggtttaatatggaagaaaattacatgggtgcaagagatgaaagaagatatattatcactttttcaa  
cagagttttaagccttgtgtaaaaattaacaccattttgcataaagatgacatgtacaatgactaataccacaat  
aaaaccctgaattcggcaacaacaaccttaacaccaacagtaaaatttgagttctatacctaactatgagggtgat  
aattgttcatttaatcagacaactgagtttagagataagaaaaacaaatatattccttggttttatagagaagat  
attgtaaaaaggagtggtacaataatagttattattttacataattgcaatacctcagtcattactcaagaatgt  
gataaatctacttttgaaccaattcccatcagatactgtgctccagcaggccttgccctgttaaaatgtagagat  
cagaatttcacagggaaaggacaatgctccaatgtctcagtagttcactgtacacatgggatttatcctatgata  
gccacagcattacacttaaatgggtccctggaagaagaagaaacaaaagcttactttgttaatacctcagttaat  
acacccttattagtaaaattttaattgtatcaataaatttaacgtgtgaaagaacaggaacaatacaagaggtcaa  
gtacagataggtccaggtatgaccttttataatatagaaaatgtagtaggggacaccaggaaagcttattgttca  
gtcaatgcaacaacatggtacaggaacttagattgggctatggctgccataaacacacacatgagggccagaaat  
gaaacggtacaacaacgttccaatggcagagggatggagaccctgaggtcactagcttctggttcaattgtcaa  
ggagaattcttttactgtaatctcacaaattggactaatacctggacagctaatagaaccaataatactcatggt  
actcttggtgcaccatgcagactgaggcagatagtaaatcattgggggtatagtggtcaaaaggggtttaccttccc  
ccaaggaggggaacagtaaaatgtcactcaaacatcacaggacttatcatgacagcagaaaaagacaacaataat  
agttataccccccaattttctgctgtagtagaagactattggaaagtagaattagcaagatataaagtgggtggaa  
attcagcccttgctcagtggtccaaggccaggaaaaaggcctgaaattaaggccaatcatactagggtcaagaaga  
agcctctggggatgtgctaacaaattggtgtgtcacagtagtggtgccatggaacctcacctgggctgaagattct  
acaaagtgaatcacagtgatgcaaagtactatgactgtatatggaacaatttgacttggcaggaatgggatcga  
ttagtagaaaactctacaggaaccatatactcctgttagagaaagcacaaacacacagggagaaaaacaaacaa  
gagttgttagaattagacaaatggagcagtcctttgggattgggttgatataacacaatggctgtggtatataaaa  
atagctataatcatagtagcaggattagtaggacttagaattctcatgtttatagttaatgtagttaaagcaagtt  
aggcaggggtatacacccctattttcacagactatcatagtaggaggttagacagatcattgagtgagcagtaat  
acttatgctagcttaagagttttgctaatacaagccatagacagacttgctaactttacaggggtgggtggacagat  
ttaatcatagaaggagtggtttacatagccaggggaatcagaaatattcctagaagaattagacaggggtctggaa  
ctagccttaaataaatgggaaacataatttggtagatggcctggggcccgaaagccatcgaagatcttcataac

acctcaagtgagcctgtagggacaggcctcacaagacctccagaataaaggaggtctcactactaacaccctaggt  
acctcagcagatgtgttagaatactctgcagaccatactgaagaagaagtaggttttccagtcagaccagcagta  
cccatgagacccatgacagagaagctagcaatagatctgtcatggttcttaaaagaaaaggggggactggatggg  
ctatTTTTTctctccaaaagagcagccatcctagacacctggatgtataatacacaggggtgtcttccagactgg  
cagaactacacccttgaccaggaatcagataccactgtgtaggggatggttattttaagttggtaccggtagac  
ccaccagaagatgatgagaagaacatcttgctacatccagcctgtagccatggaactaccgatccagatggagag  
actctgatctggcgctttgacagcagcctagcaagaaggcacatagccagagaaagatatccggagtacttcaaa  
taa

>#51 JQ768416 7611 nt

atgggtgcgagagcgtcagtattaaggggagaaaagccttgatacttgggaaagcattaggccttagacccggaggc  
aagaaaaagctacttaataaaaacatctagtatgggccggaagcgagctcgaacgcttcgcatgaatcccggtctt  
atggaaaacaaagaaggctgctggaaaatcatcctccagctacagccctcaatagacattggctctccagaaata  
gtctccttgtacaacactgtctgtacactatTTTgtgtacacgcaggagaaaaggtacgggacacggaagaagcc  
gttaaaattgtgaaagtaaaactaactacagtaaaagatgatgccgcagcgacatctagcggacaagggtcagaat  
gcaggaggaagagggacagcagtgacacctagtggtaaaagtgaaaatgccagtagagtaacagtgccacctagt  
gagggaggaaggttatatccaattgtgactgaccttcagggaacagcaagacatcagcctatttcacctagaact  
ttaaattgcttgggtaaaaaacagtggaagaaaagggatttagtccagaagtcattccaatgttctctgctttatct  
gaaggggcaacccttatgatTTaaattccatgcttaatgctattggagaacatcagggtgcgatgcaaatgtta  
aaggaagtaataatgaggaggcagcagagtgggacagactacatcccgtcatgcaggggcccagcaggcaggg  
atgctaaggagccaacaggagcagacattgcaggggaccactagtacaacacaagaacaaatacagtggatgaca  
acacctccagcacaaggaggagtaccagtaggggatatctataagagatggatcattctaggggcttaataaattg  
gttagaatgtataaaccagttagtattctggacataaagcaagggccaaaggaggcatttagagattatgtagat  
agattctacaaaactatcagagcagaacaagcctctcagccagtgaaaacatggatgacagaaaccttgtctgata  
caaaatgcaaatccagattgcaagcatattctaaaagccttaggcacagggagcaacattggaagaaatgctaaca  
gcctgtcagggggtaggaggccctaccataaggcaaaaatcctggctgaagcaatggcaacagctactaataca  
gtaggagttaaataatgctgcaggggaggtaagaaaccattaagaaaaggggcagcttcaatgttttaattgtggaaa  
ttagggcatacggcaaaaaactgttagagcccaaggaaaaaaggctgttggagggtgtggacaggagggacatcaa  
atgaaagactgcacagccagaactaacaatactggggttgacagtcagagttcaaggacatctctgtcaagctctg  
ttagacacaggtgctgatgacagtgTTTTctgcaatttacagctaaaaggacagtggaaccaaaaaccataggg  
ggtataggggggtttataaccagtaagttagtactataatattccgggtgcaaatggcaataaagaagtaagagcc  
actgtcttagtgggggatacacccctaaatataataggaagaaacattttacaacaattgggctgtactttaaat  
ttccccattagtaaagttgaagtagtaaaagttagaactaaaacaaggcatggacggggccaaaagtaaaacaatgg  
cctctgtctaaagagaaaaattgaagccttaacagaaatatgtagtactttagaaaaggaaggaaaaatctctgcc  
ataggaccagaaaaatccttacaatacacccatatttgcattcaagaaaaaggactcttctaaatggaggaagtta  
gtggacttcagagaattaaataaaaagaacacaggatttctgggagttacaactagggataccacaccctgcagga  
ttaaaaaagagaaaaagtggaacagttctggatgtaggggatgcttattttccattcctctagatccagacttt  
agaaaaatacagcatttaccatccctagtctcaataacaacacaccagggaagagatttcagtacaatgtgtta  
cctcaaggatggaagggatcacctgctatatttcagagtagcatgacaaaaatttttagaccctttcaggaaaaaa  
catccagaggtagatgtgtaccaatacatggatgatctttatgtaggatcagactacagtgaaagaggagcacaga  
aagctaataaagagctaagacagcacttgttagcatggggattagaaacccagacaaaaaatatcaagaaaa  
cctccattcttatggatgggctatgagctacatccagataaatggacagtgacagaacatcacctgccagaacca  
gaacagtgagcagtgaaatcacatccaaaagctggtaggcaagttaaattgggcaagtcaaatctatgcaggaata  
aagacaaaagaattatgcaaatataaagaggagtaaaaggactaacctgtggaactaacaagagaagca  
gaattagagttagaagaaaaataaagaaattctaaaagaaaaggtgcagggtgcatactatgaccctaaactacca  
ttacaagcagcagtacaaaaacaggggacagggtcaatggacatatcaaatatcaggaagaaggaaaaaattta  
aaaacaggcaagtatgcaaaatctccaggcacccacactaatgagataaggcaattagcagggtcttatacagaaa  
ataggtaatgaaagcatagtaatttggggcactgtaccaaagtttctcttgccagtgactaaggaaacatggagt  
cagtggtggacagattactggcaagtcacctgggtacctgaatgggaattcattaacccccccattgattaga  
ctatgggtacaatttgcctctctgacccattccagaagcagaaacattttatgtagatggggcagcaaatagggaa  
agtaaaaagggaaaagcaggatgtgtcacagacaggggttagatataaaaccagggaactagaaaaataccacaaat  
cagcaagcagaactatgggctgtagatttagctctaaaggattcagggtcacaagtaaacatagtaacagactcc  
cagtatgtcatgggggtactgcaagggtgacctgatcaaagtgactcccccatagttgaggaaatcatacaaaaa  
ctcatgcagaaaaatgcagtgatctagcatgggtacctgctcataaaggaataggagggaatgaggaagtagat  
aagctagtcagtaaaaaatattaggaaagtcctattttttagaagggataactgaggcacaggaagatcatgataaa  
tatcatagtaattggaaagcaatggctgatgaatacaatcttccccctatagtagccaaggaaatcattgcccg

tgttctaataatgtcacaaaaaaggagaagccattcatggccaagtagactgtagcccagaagtatggcagctagat  
tgcactcacctagaagggaaagtcatcatagtggcagtgcatgtggccagtgggtttcatagaagctgaggtcata  
ccagaggaaacaggaaaagaacagcttacttcattcttaaattggcagggagatggcctgtaaaaagaatacat  
acagacaatggaccaaattttactagcacagcagtaaaaggcagcatgttggtgggcacaaatccaacatgaattt  
ggcataccttataatccccaaagtcaaggagtagtggaatctatgaataagcaattaaagcaaataatagagcaa  
attagagaccaagcagagcaggttaaaaacagcagtagtaatggcagctctacattcacaattttaaagaaaaggg  
gggattggggagtagtactgcaggagaaaagactgctagatatactaaccacaaatatacagacacacaactacaa  
aaacaaattttaaagttcaaaattttcgggtttattatagggacgccagagacccgatttgggaagggaccagcg  
cggctactgtggaaaggtgaaggagcagtagttataaaagaggggtgaggacatcaaagtagtaccagaaaggaaa  
gcaaaaataatcaaagaaacctggaatagtctagtgaacatcatacttttacaactaaatactgcaaagagtgg  
aaatatagacaccattatgagacagatgtgccccaaagagcaggggaaatacacatacctcttgaaggaaaggca  
agaatagtgtgtgctacattattggggattagcttgtggggagagaccatggcatttgggacatggagtagggata  
gaatggagacaaggaagatatagcacacagatagaccctgaaacggcagaccagcttattcacactaagtacttt  
gcatgttttactgcaggagcagtgccgcaagcaatcttaggagaaaaggatactgacgttctgccattatcaaaca  
ggacatagacaggtagggactttacaatatctagcttttctaaaagtagttgaagctcaatacaagacagcaaag  
aaacctggaagacctttgccagctgtagttaaattaacagaagacgtgttagaggaattaaacaagaagcagtt  
aggcactttccaagaccagtagtgcagggagtaggaaattgggtgtttacagtttatggagattcctgggaagga  
gctcaagagttaatcaaaattctgcaaagggccttgttttctcattatcgacatggttgtgttcacagcagaata  
ggacctatagatcctcaggtagcccatggatgcatccaggagctgcacctgagacaccttgtacaaattgttac  
tgtaaaaagtgtgtgctttcattgcccgtttgttttacgaaaaaagcattaggaatctccacatactatgctaca  
gtcttttatggagtacctgttttgaaagatgctacaccaccactgttttgtgcttctgatgcagatgttgctagt  
acacaggcacacaacatctgggcaacacataattgtgttcccctagatcctcatccttatgaagtgcctttacca  
aatgtatccatagaatttgatatgtctactaattatatggtagaagagatgaaaacagatttgatctcacttttt  
cagcaaagttttaaaccatgtgtaaaattaacacccttttgtataagaatgacatgtgcaaattgtaacagaagca  
acaacaacaacaccaccaacaacgtcaactagcacaaacagaaccaccaacatcaaagaccacagtgaaacgtca  
gagatagaagattataaggtgcttaattgcagctttaatcaaacaactgagtttagggataagaaaaagaacatt  
tactctttattctataggggaagatgttatgaaagaaagccagaataaaacaacaatagcgaatattattatttg  
cataattgcaataccacagccataactcaaagttgtagtaagtcaggttttgaaccaattcccattagatactgt  
gtccagcaggggtatgctatgctaaaaatgtaatgatgcaaattttacaggggcaggagaatgcacaaatgtaagt  
gtagtccactgtacacatgggataatgcccatgatagcctcatggttacatttaaattggaacatatgaaaaggag  
aaaacgaaggtgtatcatacaaatgtaacaaataatccaccactattagtttaagttcaatgagacaatacacata  
acctgtgaaagaacagggaaacaatacaagaggtcaggtacagataggaccagggatgaccttctataacagagaa  
aacatctttggagatactaggaaagccttttgcctatgttaatgcaactgagtgccgggagaactcttgagatggcc  
aaaacagccctcagagaagccacaaaaaacctaccctgaatatcacacggccaaagggggacccagaggttagag  
aacttttggtttaattgtcaggggagaatttttctactgcaatctaacaaaatggattaacgagacctggcttaac  
gagacggaccagaccaatcttgtagcacctgtagactcagacaaatagttaaccattggggcattgtggctaaa  
gccatctacctccctccaagaagaggaacagtaaaatgtgtgtcaaacatcacgggtttcctgatgacaaacgag  
gaaacgggtgtaccttctccggtaaaagtagaggattattggaggggtggaattagcaaagtacaaaattgtagaa  
attcagcccctatcagtggctcctaccacaggaaaaagggccagagattaaggccaatcatacaagatcaaaaagg  
agtgtttggggatgtgccaacaaattgggtgtgtcatagtactgtgggtatggaatgacacttgggctgtaggaaa  
ccctgttcaaacacatctggacctacagattatgattgcatttggcaaaacttaacatggcaacaatggagtga  
ttagtagacaactctacagacacaatttacactttatttagaggttgcaacaatacaacaggaaaaagaataagaaa  
gaattattagaactagataaatggagcactctctgggactgggttgatattacacaatggctgtgtgtatattaaa  
ttggctataatcataatagcaggcttaataggacttagaattctaattgtttatagttaatgtgtcttaggcaggtt  
aggcaggggttatatgcccttgttttcacagttcatacagaccataataatagtacatagaaacttagtgcttaag  
tggagactatttagagattggcttgccaatgcttatgtgattgtaaagacttcttttataaggaacttagatagg  
cttgcaaaatttcacagcctgggtggactgacataactaataagaaggagcagttaacatttttagaggcattagaac  
atcccaaccagaatcagacaaggtttagaataagcttttaattaaatgggaaacatttttggcagatgggctgg  
gtactgaggtcctacgcagattgcatgctgcacctgctcatgatgggcaggcctcaaaagaacttcatgaaaga  
ggaggggtcactaacaataccataggaacagaaaaagatgttgccattactctcaagaccatacagaagaggaa  
gttgggttcccagtcagaccagctgtaccaatgagaccatgacagaaaaattagcaacagatctgtcatggttc  
ttaaagaaaaggggggactggatgggttaatttactctacacgtagagcagctatcctggatacctggatgtat  
aacacacaaggagtattcccagactggcagaattacaccctggggccaggagtaagatacccactctgcagaggg  
tggttatttaagctagtaccagtaactccacctgaggacgatgaaaggaacatcttgctgcatccagctaactct

catggaagagaggacccagatggagacggcgagactctcatgtggcagtttgacaccagcctagcaagaagacac  
atagccagagagagacatccggagtacttcaaataa

>#52 JQ866001 7542 nt

atgggtgcgagagcgtcagttttaggggagagaagtttagatcgatgggaatcggttaaggcttcgcccaggaggc  
aagaaaaaatatcttataaagcatctagtgtgggcccggcaatgaattacagcgattcgctttgaatccggcctg  
atggaaacagcagatgggttcagaaaagatcattatgcaactctcaccatcagtagaaaatagggtcaccagaaata  
atctccttatttaacaccattgcagtggttacattgcatacatgaaggagaaaaaattcaggacactgaagcagca  
gtaaaaattgtgaaagagaaactaaaaataacgagcagtgaaacaacaggaaatgaggaaaccgcaaaaggga  
aaagagacagcagtgacatctagtggtcagacagaaaaaatctaccccacattgccatctagtggtcagacaggg  
agaaactaccctattgtttttgatgctgcgcaacagccaaggcatcagccaatttcaccacagaactcttaatgct  
tgggtaaaaacagtagaggagaaaaattttaagccagaagtaatcccaatgttctcagccttagcagaggggagcc  
atcccacatgatcttaatacaatgctaaatgcaattggggaccatcaaggggcaatgcaagtgtgaaggaggt  
atcaatgaagaagcagctgattgggacaggttacaccaactcatgcagggccgctagtcccagggactctaaga  
gagcccacagggagtgacattgcaggaacaacaagtaccattgtggagcagatacaatgggtaactactcctcaa  
aatcaaggaggagttccagtaggagatatctataaaagatggatcatcctagggctgaataaattagtga  
aacatgcttacagccctgtaagcattctagatataagacagggaccaaaagaaccattcagagattatgtagacaggttctac  
aaaactatcagagcagaacaagcttcccagccagtaaaaaattggatgacagaaactttactggtacaaaatgct  
aaccacagattgtaagaccatactgaaagcattgggaccagggggcaaccttggaagaaatgctgactgcctgtcag  
ggagtagggggaccagcacataaggcaagggtcctagcagaagccatgcagcaaacacagcagaatgttaatatg  
gtacaggggagagcagcgctcaaggaaaaagaggggaggaacataaaaatgttttaattgtggaaagataggg  
catacagcaagaaattgcagagccccaagaagaaagggtgttggaagtgtggacaggaagggtcatcagctgaag  
gactgcacacagtcaaaaagtggagtagaagtaacagtgaggggacaggtctgcacagcccttttagacacaggg  
gctgatgatacagtatgttgacaccttaagttaaaaggatcatgcaaccctaggacaattggaggaataggggga  
tttgtccctgtacaagaatattacaatgtaccaattaccatagcagggaaaacagtgaaaacaaaagtactaata  
ggaccaaccccagtaaatataattggaagaaatgttttaagacaacttggtgtactctaaatttccctattagt  
acagtagaaaatagtaaaagtgaagctcaagggaaggaatggatgggcctaaggtaaaacaatggccactatccaga  
gagaaaattgaagccctaacagaaaatttgtgaaaatttaagagcagaagggaaaatcattgaagtaggacctgac  
aatccttacaatactcccattcttctgtattaaaaagaaagacagtagcaaaaatggagaaaattagtagat  
tagagagctcaataaaaggacacaagatttttgggaggtacaattaggaataccacaccagcaggggttaaaaaagaga  
aaagtcattactgtgttggtgtgtggggtgttatttttcaatcccattagaccagaaatttcaaaagtataca  
gcattttaccataccaagtgtcaataatgaaaggcctggtaaaagatatgtttacacagtgctaccacagggatgg  
aaggggtctccagcaatcttccaatacagtatgacaaaaatttttagatccattcaggaagaagcatcctgaaata  
gatgtttaccaatacatggatgacctgtatgtaggatctgatttgacagctgaaaaacataaagaagtgttccag  
gagtttaagaaccacttgaaagcatggggcttagaaacccccgataaaaaatatcaagagaaaccaccatttctc  
tggatgggatatgaattacaccagagaagtggacagtgagcagataaaattaccagagccagaaacatggaca  
gttaatgatattcagaaattagtgggttaaattaaattgggcaagtcaaatttatccagggatcagaacaagagaa  
ctctgcaaatatttaggggagtcaaaggactaacagatgtagtacagttgactgcagaagcagaattagaatta  
gaggaaaaataacaaattttaaaagaaaacagtaggggacctactatgacccaaaggaaacctcttaaggcagct  
gtacagaagcaaggaaaaggacaatggacttatcaagtctatcagaaagaaaatcaaatattaaaaacaggaaaa  
tatgcaagaaaccatgggtactcatactaatgaattaaaacaattagcaggggtagtgcaaaaaattgggacagaa  
agcattataatatggggaagagtagctgtattccaacttccagttacaaaggaaagtgtggcaacaatggtggtct  
gactattggcaggtcagctggattccagaatgggagtttgttaacacccccccattataaaagttatggtacaat  
ctgttaacagaacctatgccagaagcagagacctattatgtagatggagcagcaaacagggactctaaattaggg  
aaagcaggctatgtgacagatagaggaaaaagcagggttaatagaattaacagaaactactaatcagcaggcagaa  
ttacaggctatactgctggcattaaaagatgcaaaagaaaagggtcaacatagtgacagattcccaatatgtgcta  
ggaatcttacaaggaactcctgaccaaagtgactcccccttagtagaggaaataatacaagaattaatgaataaa  
gaagcagtttatttaaatgggtacctgctcacaaggaataggaggggaatgaagaagtagataaattagtaagc  
aaaaacattagaaaagttcttttccatagaaggaatagatcaagcacaagaagatcatgaaagattccatagta  
atgggaaatggttagctgatgaatataatttccccccatagtagctaaggaaatcatagctcaatgcaataaatgt  
cacaggaaaggagaagccatacatggacaagtggattgtagcccagaaatatggcaactagactgcacacacata  
gaaggaaaagtgttcttagtagcagtcctatgtagccagtggttcatagaagcagaagtgttatcaagtgaaca  
ggcaaggaaacagctttcttcttctttaaactagcaggaagatggccagtaaaaaagatacatacagataatgga  
gccaattttactagtgtgctgcagtaaaaggcagcatgctggtgggcaaacatccaacaggaatttggaattccctac  
aatccacaaaagtcaggagtggttagaatccatgaataaacaattaaaaattattgtagaccaaattagagaacaa  
gcagaacatttaaggacagcagtagctatggcagtgtagattcacaattttaaaagaaaaggggggattggggggg

tacacaccaggagatagaatattagacatattaacaacagacatacaaaactaaagaattacaaaaacaaatTTTT  
aaacttcaaaatTTTtcgggtctattatagggactcaagagacccagtggtgaaaggaccagcccgctctcctgtgg  
aaaggtgaaggggcagtagtcataaaggaggagaagaatcaaagtagtaccaagaagggaaggctaagattata  
aaggatgcttggaacagcctagtaaaacaccatatttataagagtaaacattgtaaagaatggaaatatagacat  
cattatgatatagaccacccagaaaggaggagaagtgcataatccataactgagaaagcaaaattggtaata  
acaatatattggggcctacactgtggggaaaaagcttggcatcttggacatggggcaagcatagaatggagacaa  
gggagatactggacagaagtagaccagaaacagctgaccaaattatacatagtagatatTTTtccttgttttaca  
gaaagggccataagacaagctatTTTtgggagaaaagatcctacagcattgccatttccctacaggacattctaag  
gtagggagcctacagtttctagcctttaaanaagtgctagaacagaacaagcagaagcctcatagacctccatta  
ccctcagtaactgtcctggcagaggatacattggaagaaataaaaaatgaggcaatgagacatttccaagaaat  
acactacaaaacataggcaactgggtgtttcagaactatggagattcatgggaaggagtacaagtgttataact  
ctcttcaaaaagccctgtttactcattatagatacgggtgtgcccatagcagaatagggataggaccaaggagg  
ccttggttacaccaagctctacaccaagcacgacctgcaattcttgctattgtaaagtatgctgttatcactgc  
caactttgctttaccaagaaggctctcggcatctcactaggaattggaacatattacaccacagtctattatggg  
gtgccagtatggaagagggaacaccaacattgttctgtgtctcctcagcaaaggtagcaagcacacaaccacat  
aatatttgggccacacataattgtgtgcctcttgatcctcagccatatgaaatacctattaacattactactgaa  
tttaatatggaaactaattatatggtagaagagatgaaaaaagatttaatctctctgtttcaacagagtttga  
ccttgtgtaaagttgacacccttttgtgtaaaaatgaactgcagtgaattcacaagaaatagtacaacaggaaat  
aatgcaacaaaaaataatacaagtctagaagataaaaaataaaagcaatcttacaagtctagaatgtatgaatgc  
TTTTTaatcaaaactacagaatttagagacaaaaagaagcagatatattcattgttctataaagaggatataatg  
aaagacaaaaacgacagtactaatacctcttattatTTTtaataaattgcaataccacagccataaactcaggaatgt  
gagaagtcttcatttgaaccagttcctattcagtactgtgtccaccaggatgtgtatgctaaagtgtaaagat  
gaaaatttcaggggaaaaggaaactgtacaacagtgaggattgtacattgtacacatagtatatTTTccaatgata  
gctacagctttacattttaaattgggtctgtagaagaaggagaaacaaaggcatactatgtagaagccaaacataat  
gcaccattattaataaaattcaataaagcaacggctctttaaataaacttgtgtgaagacccggcaacaacacaaga  
ggacaggtacagataggggccaggcatgaccttctataatataagaaatgttattggagacactagaaaggcattt  
tgctatgtaaacaaaacactatgggaaaatgctactgaggcagcaaaagttagcaataaacgaaactcttaaaaac  
accacgttcaaaaacaccacctatacatttaggacagatggggatctaaagtggatctcaggaggagaccaagag  
actcagactcattggttcaactgtcaaggagaatttttctattgtgacctcaaaaattggacaaacaatggcatc  
gagatcgatggaatgctgatagcaccatgtcgacttagacagatagtaaatacattgggggaatagtatccaggggga  
atttatctcctcccaggggaggacaggtcaaatgtgtatctagtattacaggattcataatgacagctgagacg  
aatgacactgatggcactatcacacccaccttctctgcaaagggtggaagactactggaaagtagaaatgagtaga  
tacaagtagtgagatacagccattatcagtggcaccactaaaggaaaaagaccagtagttgggtgaccagaa  
gcaaaaagtagaagtaaaagggtctatggggatgtgctaacaattgatctgtcatagttcattagaatggaat  
agctcttggttaaacaacaaacccctgtgcggttaataagacaaacaattatgaaaacaattatgagtgcataatggctc  
caatacacctggcaacagtgaggatgaggaaataaggaacatctcagatgttatctaccttagtttagaaacagct  
caggtgcaacaagaaagaaatcacaagcaactcctagaactagataaatggagctcattatggaaactggtttgac  
atcactaattggctgtggtatattaaaaatagctataataattgttagccagcttagtaggcttaagaatagtaatg  
tttatcataaatttagtggggaagcttaggcagggtctattcacttttgtctccacagcagcattgcattgtttgc  
atagatacttttagcagagttcactggctggtggacagacgggttatagaagcactaagagtagcagtagacata  
ataagacataatacactagaatcaggcagggttagaaaattgtcttaaactaaatgggagctgtactaggaacc  
agattcccagggatagacaacatgttgaacagaattagaacacaccagcagcagatgcaccagggtcacaagat  
ttgcataacagaggaggccttacaacaaacaccataggaacagaacatgatgtattacaacattcaggagaccat  
acagaagaagcagtaggcttcccagtaagacctcaagtgccaatgagacctatgacagaaaaattggcagtagac  
ctctcatggtttttaaagaaaaagggggactggaagggtctatattgggtctccaaagagagcagcaatactagat  
acctggatgtttaacactcaaggaatattccctgattggcagaattacacaccagggccaggagttagatatcct  
ctgtgtagaggttgggttatttaagttagtaccagcagacccaccagaagaggatgaaaggaatctactcatgcac  
cctgcttgctcctatggaagagatgaccctaattggagaactgttgggtatggaagtttgactctgaactggctaga  
agacacatagccagagagagacatccggagtacttcaaataa

>#53 DQ373065 7389 nt

atgggtgagagcgctcagtagttaaacaggaggaaaatttagatcaatgggaaaaaatttattttgagaccaggggga  
aagaaaaatacatgatgaaacacttagtatgggcaagcagggaagctggaagatttcgcgtgtaaccagggtctc  
atggacacagcagaaggttgtgcccaattactcagacaattagaaccagctctcaaacagggtcagaaggactg  
cgctctctatttaacacccctggcagttctttactgtgttcataataacataaagggtacagaatacacaggaagct  
ttagaaaaattaagagagaaaatgaaagcagaacaaaaagaacctgaaccagaacaagcagcaggggcagcggca

gcacctgaaagcagtatcagtaggaactatcctctggtacaaaatgctcaagggcaaatggtacatcagccgctg  
tccccagaaccttaaatgcttgggtaaaagtggtagaagaaaaggcctttaatccagaagtaataccaatgttt  
atggccttgtcagaaggggcaacgccccaaagacttaaacaccatgttaaatacagtagggggacatcaggcagca  
atgcagatgctgaaggaagttatcaatgaggaagcagcagagtgaggacaggggacatccagtagcatatggggcca  
ataccaccaggacaagtaagggagccaagaggaagtgatatagcaggaacaactagtaccctggcgagcaagta  
gcatggatgactgccaatcctcctgttccagtaggagatatttatagaagatggatagtccttgggattaaataag  
attgtaagaatgtatagtcctgccagcattctagacatcaaacagggaccaaaagagacttttagagattacgta  
gatagggttttacaaaactctaagagcagagcaggccactcaggaagtaaagaattggatgacagagacactctta  
gtacaaaatgcaaatcctgattgtaaaaatatcctgagagcattaggaccaggagcctccctggaggaaatgatg  
acagcatgccaaaggggtgggaggaccagctcataaggcaagagtactagcagaagccatgacacaggcacaaaaca  
gcaactagtgtttttatgcaaagaggaaattttaaaaggcataagaaagaccatcaaagtctttaattgtggtaaa  
gagggccatctagcaagaaactgtaaggcacctagaaaaaagggtgctggaaatgtgggcaagagggacatcaa  
atgaaggactgcagaagtggagaaaggcaggcgataggaggagaaataaaagaagctcttctagatacaggagct  
gatgatacagtaatagaagaaatacagttggaaggaaaatggaaaccaaataatgatagggggaattggagggtt  
atcaaagtaaaacagtatgataatgtgataatagagatacaagggaaaaaagcagttggcacagtccttagtaggg  
ccaacacctgttaatatatttgggaagaaattttctgacacaaattggttgtactctaaatttccaataagtcct  
attgaaaccataccagtgaaattgaagccaggtatggatggcccgagagtaaaacagtggtcctttgacagaagaa  
aaaataaaggcactaacagaaatttgtacagaatggaaaaagaaggaaaaatttccagaatagggcctgaaaat  
ccatataatactccaatttttgctataaaaaagaaagatagcactaaatggagaaaatttagtagatttcagagag  
ttaaacaaaagaactcaagatttttgggaagtacaatttaggaatcccacatccagcaggggctaaagaagaaaaaa  
tcagtaaacagtgctagatgtaggagatgcttacttttcatgtcccttagatgaaaattttagaaaagtatacagct  
tttaccatacctagtgtaaataatgaaacacctgggtattagataccagtagcaatgtgctgccacaaggctggaaa  
ggatcaccagcaatctttcagagcactatgacaaaaatattagaaccatttaggaagaacaatccagaactagtc  
atatatcagtacatggatgatctctatgtaggctctgatctagaaataacacaacatagagagggcagtggaaga  
cttaggagtcactttttagcttggggatttacaacccctgacaaaaagcatcagaaagaaccaccatttttgtgg  
atgggatatgaactccatccagataaatggacagtcagacaaatacaattaccagagaaagacacatggactgtc  
aatgatatacaacagtttagtaggaaaaattaaactgggctagccagatctaccagggattaaagttaaacaactt  
tgcaaattaattagaggagcaaaagctctaacagaagtagtcacacttacaagagaagcagaattagagttagct  
gagaatagggagatattaaaagaacctgtacatggggcctattataaaccagacaaagaattaatagcagagatc  
cagaagcagggacaaggtcaatggacatatcagatttatcaagacttacataaaaaatttaagacaggaaaaat  
gcaaaaatgaggtctactcatactaatgacataagacaattaactgaagtggtagcaaaaagggtggcactagaaagt  
atagttatctgggaaaaaactcctaaattcagattaccagtgcaaaaaagaagtatgggagacctggtggacagag  
tattggcaggcaacttggattcctgattgggagtttgtcaacacccctccactagtaaaattatggtatcagtta  
gagacagaaccaattagcggggcagaaaacctattatgtagatggagcagctaattagggaaactaaattagggaaa  
gcaggatttgtgacagataggggtaggcaaaagggtgacctctatctcagaaactaccaaccaacaagctgaatta  
caggctgtcctcatggccttacaagatgcaggacaagaagtaaatatagtcactgactctcagtatgtccttagga  
ataattcactcacaaccagataaaaagtgaatcagaattagtaaatcagataatagaagaacttataaaaaaggaa  
agaatatatctttcctgggtacctgcacataaagggtattggaggaaatgaacagatagacaaatttagtcagcaca  
ggaatcaggaaagtcttattcctagatggtatagataagggtcaagaagaacatgaaagatatcatagtaattgg  
aaggcaatggcagtgatttttaattctacccccatagtagctaaagaaaatagtagccagttgtgataagtgtcaa  
ttgaaaggagaagccatacatgggcaaatcaactgtagtccaggggtatggcaattagattgcacacatttggag  
ggaaaaattatccttgtagcagtcctatgtggcagtggtacttagaagcagaagtcattcctgcagaaacagga  
caggaaactgcataattttatcctaaagttagctggaagatggccagtaaaagtcatacatactgataatgggagc  
aacttcaccagtgccactgtaaaagcagcctgttgggtgggcaaatatccaacaggagtttggaaatccctacaat  
cctcaaagtccaggtgcagtagaatccatgaataaagaattaaagaaaaattataggacaaattagagatcaagca  
gaacatttaaaaacagcagtagcaaatggcagtccttcattcacaaattttaagagaaaaggggggattgggggatac  
actgcaggggaaagaataatagacataatagcaacagatatacaaaacaacaaagctacaaacacaaattttaaaa  
gttcaaaaattttcgggtttattacagagacagcagagagcccacttggaaggaccagccaaactactgtggaaa  
ggagaaggggcagtggttaattcaagataacggggatataaaagtagtccacgtagaaaggccaaaataattaga  
gatttggtaaagcatcacatgtatgtgtcaaagaaggcacgaggttggttctatagacatcattatgaaacagat  
aatccaaaaataagttcagaaatacacatcccattaggagaagcaaaattagtaaatagttacctattggggatta  
atgccaggagaaaggccatggcatttaggacatggagtatccatagaatggagacaaggaatatacaggacacaa  
atagatcctgaattggcagacaagctaatacacctttattattttgattgttttacagcctctgccatcaggcaa  
gcggtcttagggagaccagtaataacctaaagtgtgaataacctgcagggcataaacaggtaggctccctacaatat  
ctggcattaatagcctgggtgggagtagacaagaagaagaccaccttacctagtgtgaccaagttaacagagat



ttgttggaagacctaagaatgaggctctgcgccactttcctcggccttggtacatggactagggcaatacttc  
tataatacatatggagatacctgggagggagtagaggccatcattaggacactacaacaactgttgttatacat  
tataggattggctgtcaacatagcaggataggaatcactcctcaaaggagaagggttagagccctggaatcaccca  
ggaagtcaacctaagacagcttgcaataattgccattgtaaaagttgttgctatcactgtgtgtattgcttcaca  
aaaaaaggcttaggcattctcattgtgggtaacagtgtactatggggtacctgtctggagagatgcagagacagtt  
ctattctgtgcttcagatgctaaggcccatagtacagaggctcacaatatattggggccacgcaagcatgcgtcccc  
actgaccccaaccacagaagtactaataccaaatgtgacagaacgttttgatattgtggaaaaacaatatggta  
gatcaaattgcaagaagacattattagcttgtgggaacagagtttaaaaccctgtgttaagttaacccccattatgt  
gtaaccctatcatgtagctcatggaggagtgtgaacaatagtgttaaccaacaaaccacgtacaaatgcaaaat  
tgctcatttaattgtgaccactgagtttaagagataaaaaagaagcaagcttactctctgttttatatgggagatata  
atacccttagacactaataatagcagtggttaataacagtcaatataggttaataaattgttaacaccacagctgtg  
acacaggcctgtcctaaaatttcctttgagccaattccaatatattattgtgcaccaccaggatttgccattata  
aaatgtaattgatcaagattttaatggaactggggaatgtaacaatgtaagtactgtacaatgtacccatggaata  
aagccagtgatatccacacagttgatcctaaatggcagcttagcaacatcaaataatcgtaataagaaataattca  
aaagacacactcttggtgcaattaaatgaaagtatcccaataaattgcacaagaccaggaaataagacaagagga  
caagtacaaataggacctgggtatgacattctataacatagaaaatataataggagacactaggcaagcatattgt  
gaggtaaacaggacatgggaacaaatatggaatacaacaaaaacaaataataataaacaacagaaagaatattaca  
tttatacccaatccaggcggagacctagaagtaacaaacttaattgatcaattgtggaggagaattcttttactgt  
aataccagtcaattgtttacaaatcaaaatggcaacacaactggcaatatcaccttacaatgcagaataagacaa  
attgtaaatttatggacaagagtaggaaaaggaatttatgtctccgccaattaaaggacctattaactgtctctct  
aacatcactgggataatacttgactatacaaagtctggaactgagaagtacaccatatatcccacagggggagac  
atgactaacctctggaggcaggagttgtataagtataaggtgggtcagcatagaacccataggagtagcaccagga  
aaagctaaaagacacacagtgactagacaaaaaagagcaggcctatggggctgctcaggaaaaatctgtgtgttac  
accaatgtgccttggaataccacttgaggcaacaataactcctatgacacaatatggggaaatatgacatggcaa  
aattgggatgagcaagtaagaaattattcaggtgtcatttttgggctgctagagcaagcacaagagcaacaaagc  
ataaatgaaaagtactcttggaattggatcaatgggtcaagtttgtggaactggtttgacattacaaaatggctg  
tggtacataaaaaattttcataatggtagtagcaggcattgttaggcataagaataataagcataataatgtctatg  
gtagcaagagtttaggcagggatattctcccctctcgttgaggaactcagaatatattttgtggggaataatagct  
tactggggaaggagctaaaaattagtgctataaaacttgcttgatactacagctgttgagtagcagaaggga  
gatagaatcatagagctagtgcagaagaataggacggggaatactacacatacctaggagaatcagacaagggtcta  
gaaagagcacttttataaatgggaaaagtttgggtcaaagagtagccttgtgggtggccacaagtcatagataga  
atgagaagacagcaagatccagcagaaggggtaggagcagtttctcaagatctagctaatacgaggggctattacc  
ataagaaatactaaggagaataatcaagccctagcttggctagaagagcaaaaagaggaagcagtaggctttcca  
gtatgtcctcaggtaccatttaagaccaatgacatacaaagaagcttttgatctttccttctttttaagagaaaag  
gggggactggaagggttagtttgggtcaaaccaagagacaagaaattctagacctctgggtttatcatactcaagga  
atcttccctgactggcagaactacactccaggaccaggcgtcagatacccctgacctttggatgggtgcttcaag  
ctagtaccactgtcacctgaggaggtagaagaagctaatacaggagacaacaatgtcctgttacatcccatgtgc  
caacatggaatggaagatccagacaaagaagtgtcgtgtgtggcgctttgacagctccctagcaagagtagacaga  
gcaagagagctgcatccggagttctaccagaactgctga

>#54 AF103818 7356 nt

atgggtgcgagagcgtcagttctgacagggggacgattagatgcttgggaaaagattcggccttagacctggggga  
aagaaaaagtatatgatgaaacatttagtttgggcaagcaggagctggaaagatttgcttgtaaccagggtcta  
atggaaacagcagacggctgtctccaattattaaaacagtttagaaccagctctaaaaacaggatcggaaggcctg  
cgatcgctctttaacaccttagcggctcctttgggtgtgtccacagtaggggtgacagtggaggatacgcagcaggcc  
ttagtgaaaactgaaagaggtagtgcagttgcagaacaacaggaagaaaaagaacaacagcaacaggagggaagt  
ggcagtaacatttggtagcagcaattacccagtaatacagaacgctcagggaacagatgggtacatcaggcaatgtct  
cccagaactttaaatgcctgggtaaaagcggtagaagaaaaggcctttaacccggaagtcatcccgatgttcatg  
gccttatcagaaggggcgactccccaagatgtcaacactatgtcfaatgctatagggggacatcaggagcaatg  
caagttttaaggaagccatcaatgaggaagcagcagattgagatagaacacatcctctgcatgcaggccctata  
gcaccagggcagatgagagaaccagggggaagtacattgcaggaaccaccagcaccttgcaagaacaagtgggc  
tggtatgacagcaaaccacccattccagtaggagacatatatagaagatgggtgggtcctagggttaataaagta  
gtaaaaatgtactgtcccgttgggtatcttagatatcaagcagggaacctaaagagcccttttagagactatgtagac  
aggttctacaaaacattaagagcagaacaagcttctccagaagtaaaaacctggatgacagagacccttttggtta  
caaaacgctaataccagattgtaaaactattttaagagccttgggacctggagccaccctagaagaaatggtgaca  
gcatgtcaaggagtgaggaggaccgctcataaggcaagggtcttagctgaagccatgtgccaatgaaaaacccc

tcaagcgtat t t t t t t c t a c a g a a a g g a a a c g c t g g g a a g c c a g g g a g a a a a a t c a a a t g t t t t a a t t g t g g c a a a g a g  
g g a c a t c t a g c c a g a a a t t g c a g g g c t c c a a g a a g a a a a g g g t g c t g g a a g t g t g g g c a g g a a g g a c a t c a a a t g  
a a g a c t g c a c a g c a g g a a a c a g a c a g g c t g t a g c a g g g c a g a t a g t a g a a g c t c t t t t a g a c a c a g g a g c t g a t  
g a t a c a g t a c t a g a c a a c a t a c a a a t t g a a g g g a c a t g g a g a c c a a a a t g a t g g g g g g a a t t g g a g g t t t t a t a  
a a a g t a a a c a a t a t g a t c a c g t c a a t a t a g a a a t a g a g g g a a g a a a g c a c a g g g t t c a g t t t t a g t g g g a c c a  
a c a c c a g t a a a t a t t a t t g g c a g g a a t a t t t t a a c a c a a a t t g g a t g t a c t t t a a a t t t t c c t a t c a g c t c t a t t  
a a a a c t g t a c c a g t a a g a t t a a a a c c a g g a a t g g a t g g c c c t a g a g t a a a g c a a t g g c c a t t g a c a g c a g a a a a  
a t t a a g g c a t t a a c a g a a a t t t g c c a a g a a a t g g a a a a g a a g g a a a g a t t a c a a g a g t a g g g c c a g a a a a t c c t  
t a c a a t a c a c c a a t t t t t g c t a t c a a a a g a a a g a t a g c a c t a a a t g g a g a a a t t a g t a g a c t t t a g a g a t t a  
a a t a a a g g a c a c a a g a c t t c t g g g a a g t t c a g t t a g g c a t a c c a c a c c c a g c a g g a t t a a g a a g a a a a g a t c a  
g t a a c a g t c c t a g a t g t a g g g g a t g c c t a t t t t t c t t g t c c a c t g g a t a a g g a a t t t a g a a a t a c a c a g c a t t t  
a c c a t c c c t a g t g t a a a c a a t g a g a c c c c a g g a a t t a g a t a c c a g t a t a a t g t g t t a c c a c a a g g a t g g a a g g g  
t c a c c a g c a a t t t t c a g a g c a g t a t g a c a a a a t t c t a g a t c c t t t t a g a a a c a a c a t c c a g a t g t t a t a a t c  
t a t c a a t a t a t g g a t g a t c t c t a t g t a g g g t c a g a t c t a a a c t t a g a a a g c a t a g g g a a a g g t a g a a c t g c t c  
a g a c a a t a t t t g c t t a c t t g g g g a t t c a c t a c c c c t g a t a a g a a g c a t c a g g a g g a a c c a c c a t t c t t a t g g a t g  
g g c t a t g a a c t c c a t c c a g a t a a g t g g a c a g t g c a g c c c a t a c a g t t a c c a c a a a a g a a a t t t g g a c a g t c a a t  
g a t a t t c a g a a a t t a g t a g g g a a a c t g a a c t g g g c a a g t c a g a t a t a t c c a g g a a t a a a a t a a a g c a g t t a t g c  
a a a t t a a t a a a a g g a g c t a a a g c t c t a a c t g a a g t t g t a a a t t t t a c a c a t g a g g c a g a a a t g g a g t t a g a a g a  
a a c a g a g a a a t t c t a a a g g a a c c a g t a c a t g g g g t c t a t t a t g a c c c a g a a a a g a a t t a g t a g c a g a a g t a c a a  
a a c a a g g a a g g a g t c a g t g g a c a t a c c a a a t t t t t c a a g a a c g g c a t a a g a a t c t a a a g a c a g g a a a a t a t g c c  
a g a c a a a g a t c a g c a c a t a c t a a t g a t a t c a g a c a g c t a g t t g a a g t g g t g c a a a a a a t a g c t a c t g a g a g c a t t  
g t c a t t t g g g g a a a g g t a c c a a a a t t t a a a t t g c t a g t g c a g a a g g a a g t c t g g g a a c a t g g t g g t c a g a a t a t  
t g g c a g g c c a c c t g g a t t c c a g a t t g g g a a t t t g t c a a t a c c c c t c c c c t c g t a a a a c t t t t g g t a t a a g t t a g a g  
a c a g a g g c c a t a g a g g g g c a g a a a c a t t t t a t g t g g a t g g a g c a g c c c a a c g a g a a c c a a g a a a g g a a a g g c a  
g g a t a t g t t a c t g a t a g g g g t a g a c a a a a a t t a t a a c t t t a g a a a a t a c t a c t a a t c a a a a g g c a g a g c t c a c a  
g c g g t a t a c t t a g c a t t a a a a g a t t c a g a g a a t a c a g t t a a t g t a g t c a c t g g c t c c c a a t a t g t c t t a g g a a t c  
a t c c a c t c t c a g c c a g a c c a a a g t g a a t c a g a a t t g g t c a a t c a g a t a a t a g a a a t t a a t a a a g a a a g a a a a  
a g t t a t a t c t c a t g g g t a c c a g c a c a t a a a g g a a t t g g a g g a a a t g a a c a a a t a g a t a a a c t a g t c a g t t c a g g g  
a t c a g a a a a g t t c t t t t c c t a g a t g g c a t a g a t a a a g c a c a g g a a g a c c a t g a c a a a t a t c a t a g t a a t t g g a c a  
g c t a t g g c c a g t g a t t t t a a c c t g c c a c c a g t g g t c g c t a a g g a g a t a g t g g c c a g c t g t g a t a a a t g t c a g c c a  
a a a g g a g a g g c c a t a c a t g g g c a g g t a g a t t g c a g t c c a g g t a t c t g g c a g c t a g a t t g t a c a c a t t t a g a a g g g  
a a a a t c a t t a t a g t g g c a g t a c a t g t g g c c a g t g g a t a c c t a g a a g c a g a g g t c a t t c c t g c a g a a a c a g g a c a a  
g a g a c a g c c t a t t t t a t c t t a a a a t t a g c a g g a a g a t g g c c t g t a a a a g t g a t t c a t a c t g a t a a t g g a t c t a a c  
t t t a c a a g t a g t a c a g t t a g a g c a g c t t g c t g g t g g g c a g g c a t a c a a c a a g a g t t t g g a a t t c c a t a c a a t c c a  
c a a a g t c a a g g a g t g g t a g a a t c c a t g a a t a a g a a t t a a g a a a a t c a t a g g a c a a a t c a g g g a t c a a g c a g a g  
c a t t t a a a g a c a g c t g t a c a g a t g g c a g t a t t c a t t c a c a a t t t t a a a a g a a a a g g g g g a t t g g g g g g t a t a c t  
g c a g g a g a a a g a a t c a t a g a c a t c a t a g c a t c a g a a c t a c a a c a g a c t t a t t a c a a a a c a a a t t t t a a a a g t t  
c a a a a t t t t c g g g t c t a t t a c a g g g a c a g c a g a g a t c c a a t t t g g a a a g g a c c a g c c a a a c t t c t g t g g a a a g g t  
g a a g g g g c a g t a g t a a t c a a g g a a a c g a g g a g g t t a a a g t a g t a c c c a g a a g a a a a g c a a a a t t a t a a a a g a c  
g c t t g g a a t a g t c t g g t a a a a t a t c a c a t g t a t a g a t c a a a g a a a g c t a a a g g a t g g t t c t a c a g g c a t c a t t a t  
g a g a g c a c t a a t c c c a g a g t a a a t t c a g a a g t a c a t a t c c c t a t a g a t a a a g c a a a a a t a g t g a t t a t a a c g t a t  
t g g g g g t t g a a a c a g g a g a a c a a g c c t g g c a c t t a g g g c a t g g a g t a t c a a t a g a a t g g a g a c a a g g a a c t t a c  
a a g a c a c a a a t a g a t c c t g a g a t g g c a g a c a a g c t a a t t c a t c t g t a t t a t t t t g a t t g t t t t a c a g c c t c t g c c  
a t c a g a a a a g c t g t t t t a g g g a g a c c a g t a a t t c c c a a a t g t g a a t a c c c t a c a g g g c a c a a t a a g g t a g g c t c t  
t t g c a a t t c t t g g c t t t a a a g g c c t t a g t a g g a c a g a g c a a a a g a a g a c c a c c c t t a c c t a g t g t g a c t a a a t t g  
a c a g a a g a t g t c t t a g a a g a a c t a a a a g a a g a g g c t t t g c g c c a t t t t c c t a g a c c c t g g c t a c a a g g c t t a g g a  
c a g t a c a t c t a c a g t a c t t a t g g a g a c a c t t g g g a g g g a g t a g a a g c a a t t a t a a g g a t c t t a c a c a a c t t t t g  
t t t a t c c a t t a t a g g a t t g g c t g t a a t c a t a g c a g g a t a g g g a t t t c c t t g g c a a g g a g a a c t c c t c a a g g g a g a  
a g g a t a g a g c c c t g g a a g c a g c c a g g a a g c c a g c c t a a g a c t g c t t g c a a t a a t t g c t a c t g t a a a a a g t g t t g c  
t t t c a c t g t g t g g t t t g t t t t a c g a a g a a g g g c t t a g g a a t t t c c t t a t g g g c t a c a g t a t a t t a t g g g g t a c c t  
g t a t g g a g a g a t g t a g a g a c a a c c t t a t t c t g t g c c t c t g a t g c a a a g g c a t a c a a g c a g g a g g c c c a c a a c a t t  
t g g g c c a c a g g c a t g t g t c c c t a c t g a c c c c a a t c c a c a a g a a g t a c a t t t g c c a a a t g t g a c t g a a a a g t t t  
g a c a t g t g g g a a a t a a t a t g g c a g a c a a a t g c a g g a a g a t a t t a t t a g c c t a t g g g a c c a g a g c t t a a a a c c t  
t g t a t a a a g t t a a c c c c a t t g t g t g t t a c t a t g a c t t g t c t t a a c c c c g a t a g t a a t a g t a g t g c t g t a a a t a c t  
a c t g a t a t a a t g a g a a a c t g t t c t t t t a a t a t a a c t a c t g a a t t a a g a g a c a a a a g a a c a a g t g t a t t c c t t a

ttttatgtagatgatctagctcatatcaataataatacctatagactgataaattgcaacaccaccgctatcaca  
caggcttgtcctaagacctcctttgagccaattccaatacactattgtgcaccaccaggctttgccatcctaaaa  
tgtaatgaaaaagatttcaaaggaaaggagagtgtaaaaatgttagtacagtgcagtgtactcatggcataaaa  
ccagtggtgactacacagctcataataaatggcagtttagcaactaaaaatgttactgtaagaagtaaaaacttt  
gcagacattattctagtagacaattctcagagggagtcaatatgacttgtatttagaccaggaacaatacagtggga  
aatgtacaactaggaccaggaatgactttttataacataccaaagatagtaggagatgtaagagaagcacattgt  
aacatctcaaaactgacatgggagaaacagagaaaaatacacttttagagataataaaaaaggaagcaaacctgaca  
aaggtagagttaattccaaatgcaggaggagaccagaagtggtaaatatgatgcttaattgtggaggagaattt  
ttttattgtaatacaattcccctatttaacatgacctacaacaataccgacaacaccactatcacacttaagtgt  
agaataagacaaattgtaaatcagtggatgagagttaggaaaaggaatccttgccccaccaatcaaaggtgtgcta  
agttgtaactcaaatataacgggaatgattcttgacataagcataagcgcagtcataacgatagtaggaatata  
acagtgatgcctacaggaggagatatgacggctttatggaaaaatgaattacataagtataaggtggtcagcata  
gaacctataggagtggcaccaggaaggccaaaaggcatacagtgaaaagagaaaaagagcaggtctgtggggc  
tgctcaggaaaaacaatttgttataccactgtgccttgggaatgatacctggagtaacaacctctcctatgatgct  
atgtggggcaatctaacttggcaagaatgggacagaaaagtaagaaactattcaggtactattttagtcttata  
gaacaagcacaagaacagcagaatacaaatgaaaaatcactcttggaattggatcaatgggcaagtctatggaac  
tggtttgatattaccaactggctgtggtatataaaaaatatttttaatatgtagtagcaagcttagtaggaatcaga  
attgtaggtgtgatattttcactagtagcaaaagtttaggcaggggttattctcccctctcgttacagggtacaagc  
ttattagatacaacagcaatagcagtagctgaaggaactgatagaattatagaattaacaagaaggctctttcta  
gggtattatacacataccaagaagaattaggcaaggcctagagagaagcttattaggttaacaagtggtctaagagt  
agcatagtaggatggccagaagtcagaaacagattgagacaaactcagacaacagcagcagcagaaggagtagga  
cctgtctctcaagacttagcagaacatggggctatcactactagaaatacaccacagaacaaccaaactctggca  
tggttagatgagatgactaatcatgaaagtgaagtaggcttccctgttcgccctcaagtaccattaaggcccatg  
acttacaacaagcattcgatttaggcttctttttaaaagaaaagggggactggaagggttagtatttccaga  
agaagacaagagatcctagatctctgggtttaccatacacaaggaatcttccctgactggcagaattacaccca  
gggcctggagtaagatatcccctaacatatgggtggtgctttaagttagtcctctcacagaagaggaagtagag  
caggccaataaaggagagaccaacatactgctgcaccccatgtgccagcatggaatggaagatgaacatggcgaa  
gtcttaatctggcagtttgacactgaactggctcggagacacagagctaaagagctgcatccagagtacttccgg  
aactga

>#55 EF535993 7371 nt

atgggtgcgagagcgtcaatattaacggggggacgattagatgcttgggaaaaaattaggctaaggccaggggga  
aagaaaaaatatatgatgaaacatttagtctgggcaagcagggagctggaagattcgcttgttaacctggtcta  
atggaaacaggagagggatgtgaacagctattaaaacagttagaaccagctctcaaaacaggatcagaaggcctg  
cgatcgctttttaacactctagcgggtactttggtgtgttcataaaaagaattccagtggaagacacacagcaggct  
ttaactaaactgaaagaaacagcggccccgrgaacaggaagtggcccaaccacagccgcagcaagacagcaatgtc  
agtagaaaacttcccagtagtacagaatgcacaagggcaattgatgcatcagcccattgtcacctagaactttaaat  
gcttgggttaaggtagtggaagaaaagaattttaatccagaagtgataccaatgtttatggccctgtcagagggga  
gcgactccccaggatgtcaatactatgcttaatgctataggagggcaccagggagctatgcaggtgttaaaggaa  
gtcatcaatgaggaagcactggaatgggacaggaccatcctgtgcatgcaggtccaatagcaccaggacaactg  
agagaggcagcaggaagtgcatactggaaccactagcactctagcagaacagattgcttggatgacagcaaat  
ccacccgttccagtaggagaaatctatagaagatgggtggttctagggcttaacaaagtggtaagaatgtatagc  
ccagtcagtatcctagacattaagcagggacctaaggagcctttcagggactatgtagatagattctacaaaacc  
ctgagggcgagaacaggcaacacaggaggtaaaaacctggatgactgataccctcytggtacaaaatgctaacca  
gactgtaaaaaatatcttgagggccttaggaccaggagccaccttagaagagatgatgacagcatgccaaggagt  
ggaggaccagcccataaggctagggttttggctgaagctatgagccaagtacaaaactccacaagtgtgtttttg  
cagaggggcaataatgggagaccaactaggaaaaatcaaatgctttaattgtggcaagaagggcatttagcaaga  
aactgcagggccccaagaagggaaggggtgctggaaatgtggacaagaggggcatcagataaaaagattgtacagct  
ggagacagacaggctatagaggggcagctgatagaagctctgctagacacaggagctgatgatacagtgatagat  
aatgtacaattaacaggaagtggaaacccaaaatgatagggggaattggaggttttatcaaagtaaaacaatat  
gataacatagcaatagaattgaaggcagaaaagcaacaggcacagtggttgggtgggaccaacaccagtgaatata  
attggcagaaaatatattgacacagattggctgtacttttaatttccctataagtccttgggaactgtgccagta  
aaattaaagccaggaatggatggcccttagagtaaaaacaatggcccttaacagaagagaaaaatcaaagctttaaca  
gaaatttgtcaggaaatggaaaaagaaggaaagatttcaaaaatagggccagaaaatccttataatacaccaatt  
tttgccataaaaaagaaagatgggtgaaaaatggagaaaattggtagatttttagagaattaaatagaagaacacag  
gacttctgggaagtccaattaggcataccacaccggcaggattaaaaaagaaaaagtcagtaacagtagtagat

gtgggagacgcttatttttctgcccactagatgaaagtttttagaaaatacacagcattttaccatacctagtgtgta  
aacaatgagacaccaggaattagatatcaatataatgtgctaccacaaggatggaaaggggtcaccagcaattttt  
caaagcagcatgacaaaaatcttagaaccatttagacaacagaatccagagttgacaattttaccagtacatggat  
gatctttatgtaggctctgayctagaaataggagaacatagaaaaaaggtagagttacttagacaacatctactc  
acttgggggttttactactcctgataagaagcatcaaaaagagccaccttttttgtggatgggctatgagcttcat  
ccagataaatggacagtgcacccaatacagttaccacaaaaagagacctggactgtcaatgatatccaaaagctg  
gtaggaaaattaaattgggcaagtcaaataatccagggataaaaagtaaaacagctatgcaagctcataaaagga  
gcaaaagctttaactgaagtagtgccatgacacaggaagcagaaatggaattggaagaaaatagagaaaatttta  
aaagaccagtgcatggagtgtactatgaccagagaaggagttaatagcagaagtacaaaaacagggaaacagt  
cagtggacttatcaatttttcaggaacagcataagaacttgaaaacaggggaagtatgctaggcaaagatcagca  
catactaatgacataagacaattagcagaggtagtacaaaaagtagcaactgaaagtatagtaatctggggaaaa  
acaccaaaaattcagattacctgttcaaaaggaggtctgggaaacctggtggtcagaatactggcaagccacctgg  
atcccagactgggagtttgtaaatacccctcccctggtaaaattatggtaccarttagaaaacagaaccatacca  
ggggcagaaacatttctatgtagatggggcagccaacagagacacaaaagaaaggaaaagcagggttatgtcacggat  
agaggtagacagaaaatagtcfaatctagaagataccactaatcagaaagcagagctgacagctgtttatctagcc  
ctacaagatgcagaacatatagttaacatagtcactgattcccataatgtgttaggaataattcactctcagcca  
gatcaaaagtgaagtcagaattgggttaatttaataatagaagagtttaataaaaaaggaaaaaagctacctctcatgg  
gtgccagcacacaaaaggaattggaggaaatgaacaggtagataaattagtcagctctggaattaggagagttctc  
ttcttagatggtatagataaggcacaagaagaacatgaaaaatatcataataattggagagctatggcaagtgc  
ttcaacctcccacctgtagtggccaaagaaatagtagccagttgtgacaagtccaattaaaaggagaagccatg  
catgggcaagtagactgcagcccaggaatgtggcaattagactgcacacatctagaagggaaggtcatcctagtgc  
gcagtacatgtagccagtggtacctagaggcagaggtcatccctgcagaaactggacaggaaacagcttatttt  
attctaaaatttagcaggaagatggccagtaaaagtaattcacactgataatggatctaattttaccagtaataca  
gttaaggcagcctgttgggtgggcagggcatccaacaggaattttggaattccttataaccacaaaagccaaggagta  
gtagaatcaatgaacaaaagaattaaagaagatcataggacaaattagagaacaagcagagcatttaaagacagca  
gttcaaatggcagtggttcattcacaattttaaaagaaaaggggggattggggggtacactgcaggagaaaaggatt  
atagacattatagcaacagacatacaaaaactaattttacaaaaacaaattttaaaagttcaaaattttcgggtt  
tattacagggacagcagagatccaattttgaaaggacctgccagacttctgtggaagggtgaaggggcagtagta  
atcaaagataaagaggaagttaaagtagtgcccaggaggaaagcaaaaataatcagagatctagtaaaataccat  
atgtacagaacaaaagaaagcaagaaaatggttttataggcaccattatgaaagttctaaccccagagtaagttca  
gaaatacatatcccttttagaaaaagcaaaatttagtggtcaccacctattggggattaatgccaggagagcatgaa  
tggcacctaggacatggagtgtccatagaatggagatatgggtcatacagaacacaaaatagatcctgaaatggca  
gatagactaattcaccttcattattttgattgttttgcagcttctgccatcagaaaagctgttttagggacacaa  
gtagttcctaagtgtgagtacccagcagggcaccaacaggtagggtccctacaatattttagccttaaaggcctgg  
gtaggagtagaaaagaaaagaccaccttgccatagtgtgcgcaagttagcagaagatctattggaggaaactgaaa  
aatgagggtgtacgacactttcctcgagcatggttacatggattaggacaacacatatatgacacatatggagat  
acatgggcaggtgtagaagctatcattagaatactgcaacagctcttgtttattcattataggattggctgtcaa  
catagcagaatagggttaaccctgggaggaggagactagagccctggcaacatccaggaagccaacctagaact  
gcttgcaataattgctattgtaaatgttgctgctttcattgcatggtctgttttgagaaaaaaggcttaggaatc  
tccgatcagttgtgggcaacagtgactatggagtacctgtgtggaagatgcggagacaacactcttttgtgca  
gcagatgcttcagcacttaacaaaagaagcccacaatatttgggcctcgcaagcctgtgttcccacagaccctaac  
ccacaagaagtgcattgacaaaatataactgaaacctttgacatgtgggaaaataacatggtagaacaaatgcag  
actgatattattagtctatgggatcaaagtctaaaacctgtgttaagttgacaccactatgtgtcactatgcat  
tgtattccatacaacataagcagcactgggaatgacactaggaatagctctacaagccagatggtaaaaaaatgc  
ttctttaatatgactactgaattaagagataaacagaagcaagtatattctttattttatgtagatgatatagta  
smkattaatggtamtaaktcctataggctaataaactgtaataccacagctattacacaagcatgccctaaaacc  
tcctttgagccaattccaatacattattgtgcacccccagggttttgcaatcatgaaatgcaatgagccagatttt  
aatggaacaggaaaatgtagaaatataagtacagtacaatgtactcatggcatcaagccagtggttaactacacar  
ttaattcttaattggaagtctagctgagaacagcagaytgytaggactgaasacatgamaraaatggatragacc  
atcatagtacagtttcataaaagggtccagatgacatgtataagaccaggaaataacagcagaggacagatacaa  
ataggaccagcaatgtcattttataacctagaaaatattataggagataccagacaagcatattgtaatrtcagc  
gccgcagaatgggaacaaaaggttmaawgacactrtgagggctataaaaaagtccttaagccaggcagtaacatcacc  
ttcacagatcaacaaggaggagacccggaaatagtaaacatgatgttcaattgtggggggagagtttttttattgt  
aacaccaccccatgttcaataacagttggacaaatacaactagctcagatataaatagctcaaatataataata  
aactgtagaataaggcaaatgttaaactcctggatgagagtgggcaagggaattttacgccccaccaatttagagga

actataagttgcacatcaaatattactgggctcctgctcgagttagacagaggactcccgagaaatgggactaat  
accaataacaagttaacactataccctacaggaggagagatgagagatttgtggaggctggaattacataaatac  
aaagtagtcagcatagaacccataggagtggcaccaagtaaagctaaaaggcacacagtgacaagagaaaaaaga  
gcaggtctgtggggctgctcaggaaaatccatctgttatactactgtgccttggaatagtacttgggggtgcta  
acctcctatgatgaaatctggaataacctaacatggcaagactgggacaagagagtaaaaaattattcaggagtc  
atctttgaccttatagagcaagcacaagagcaacaraacacaaatgagagaagcttattggaattggatcaatgg  
tcaagtttgtggaattgggttgatatttctaattggctgtggtacataaaaaatatttctaattggcagtagcaggc  
ttaataggcataagaatagtaggagttatcatgtccttaatagcaaaggcttaggcagggatattctcccctctcg  
ttgcaggctacaagcttattagatacaacagcaattgcagtagctgaaggacagatagaattatagaagttgtg  
caaagaataggttagaggtattctacatataccaagacgcattagacaaggcttagagagaagcttgctataaatg  
ggcaacaaatgggtcaaaaagcagcctggttaggtggccagaagtaagagctagaataagacaagctcaaccagct  
gcaccaggggtaggatcagtcctcacgagatttagaggcacatggagcaataaccactagaataccccacaaaac  
aatcaaactctagcatggctagaagaaatgcagggacatgaagaggaggtaggctttccaggttagaccacaagta  
ccccttagacctatgacatttaaaggagcttttgatttaggctactttttaaaagaaaaggggggactggaaggg  
ctaatttactccagaagaagacaagagatccttgatctctgggtctatcatacacaaggattcttccctgattgg  
cagaattacacaccaggaccaggagtcagatatccactaacatttgggtggtgctttaaactgggtccactgaca  
ccagaagaagtggaaaaagccaatgaaggagataccaacatactgcttcaccccatctgccagcatgaaatagaa  
gatgaacatggagaagtcttgggttgagatatgacagcaggctagctttgagacacattgctagagaacaacat  
ccggagtactaccaggactga

>#56 AY169968 7425 nt

atgggtgcgagagcgtcagtggttaacaggggggaaattggatcgctgggaaaaagttcggcttagacccggggga  
aggaaaaatatatgatgaaacatttagtatgggcaagcagagagctggaaagattcgcatgtaacccggggcta  
atggaaagtgcagaaggatgtcttaaattgctacagcagtttagagccagctctgaaaaccgggctcggaagggctg  
cgatctttatttaacactctagcagtggtatggtgtgttcacagtaaacatcgaggtagaagacacacagaaaagca  
ttagaacagcttaagaaacacccatggagaacaagtaagaaaaaatgagaacacagaaaaacaatgaaagcagacag  
ggcgctagtgttccctctggcactagtgggaattaccctatagtacagaatgctcaagggcagatggtacatact  
cccatctcccctagaaccttaaattgcatgggtaaaagtagtggaagagaaggcttttaactcctgaggtaatacca  
atgttttcagctctgtcagaaggagctctaccttggatgttaacacaatgctgaatgctgtagggggacatcag  
ggagccatgcaagttctaagagaggtcatcaatgaagaagctgcagaatgggatcggtatgcctgttcagcc  
ggcccatagctccaggacagctaagagaaccacggggtagtgatatagcagggactaccagcacattgcaggag  
caaattggatgggcaacagcaaacccacccatcccagtaggagacatctatagaagatgggtaattctagggcta  
aacagagtagtaaaaatgtattgtccagtaagcatccttgatataaaagcaaggacccaaaagagccctttaagat  
tatgtagacaggtttttataaaacccatgagagctgagcaagcttctcaggaagtgaaaacttggatgacagacacc  
cttttgggtgcaaaatgctaaccagattgcaagcaatttctaaaggccctgggtccgggggacctccctagaagaa  
atgatgacagcctgtcaaggggtaggaggaccagcccataaggcaagagctcttagctgaagctatgacaatggtc  
caaagtcaagcaagaacagacattttctttcagaaaagggccaggggcaaccccaagaagaaaaataaaatgctat  
aattgtggaaaggaaggccatctggccagaaactgtaaggcaccaaggagaaagggctgctggaaatgtgggcag  
gagggaacccaatgaaagactgttcaggagagacaagtaatagaagggaattatgtgaagccctgttagacaca  
ggggctgatgatacagtaatacaagacattcaattacagggaatttggaaacccaaaatgatagggggaattgga  
ggctttattaaagtgaacaatatgataatgtatcaatagagatagaggggaaaaaagtgaagggacagtggtg  
gtgggaccaacacctgtcaatataattgggagaaatatttttaacacagatagggtgcacactggtattccctatc  
agttcaattgaaactgtcccagtc aaattgaaaccaggaatggacgggccaagaataaaagcaatggcctttatca  
gcagaaaaaattaaagccttgacagaaaatgtgcaggaaatggaaaaggaagggaagatatctaaaataggacct  
gaaaaccatacaataactcctatttttgcaattaaaaagaaagatagttcaaaatggagaaaatttagtagatttc  
agagaattaaataaaagaacccaagatttctgggaagtacaattgggcataccccaccagcaggggttaaagag  
aagaaatcagtaacagtactagatgtgggtgatgcataatttctcttgcctctagataaggacttcaggaagtat  
acagcattcacaattcctagtgtaaataatgaaactccagggtatcagatatcagtataatgttttaccacaagga  
tggaaggggtctccagctatctttcaaagtagtatgacaaaaattctggaacccttcagagcaaaaaaccctgat  
atcactgtctaccaatacatggatgacttatatgtagggtctgatcttgacattacccaacacagacagaaggtg  
gaagagtttaaggcaacatttgccttactgggggtttacaacccagataaaaaagcatcaaaaagaaccaccttc  
ttatggatggggtatgagcttcacccagataaatggacagtgacagcaataaaagctaccagaaaaggaggtatgg  
acagtcaatgatcttcagaaactcataggaaaattaaactgggcaagtcagatttatccaggaataaaaaataaaa  
cagttgtgcaaatttaataagaggaacaaaaaggttaacagatgtagttcctctcacaccagaagcagaattagaa  
ttagcagaaaacagagaaatagtttagtacaccagttacatgggggtttattataatccagataaggagctcatagca  
gaagtacaaaaacaggggagaagggcagtgacatatcagatctttcaggaacaacatagaaatttaaagacagga

aaatatgccagacagagatcaacacatacaaatgatattagacaattggcagaagtcatacaaaaaattgctgtg  
gaaagtatatgtcatttggggaaaaaacacctagatttagattaccagtacaaaaagaaagttgggagacatgggtg  
gcagagtactggcaggccacctggatccccgagtgggagttcattaacacccccccatttagtaaaattatgggtat  
agtttagagacagaccctataccaacggcagacacatactatgtagatggagcagcaaatagggaaacaaagaaa  
ggaaaagcaggatacataacagacaagggaacaaaaataatcagtctagagaacaccactaatcaacaggca  
gagttaggggccttgtatctagctttacaagactctgaacaacaagtgaacatagtaactgactctcaatatgtg  
ttagggattattcagtcacaaccagatcacagtgaatcagaattagtaaatcaaataatagaagaattaattaa  
aaggacaaggtttacctttcctgggtacctgcacataagggcataggaggaaatgaacaagtagataagttagtc  
agttctggaatcaggaaagtactattcctggatggaatagataaaagcacaggaagaacatgaaagatatcatagc  
aattggaaagccttggcggtgaatttaacttaccaccatagtagcaaaagagatagtggctaactgtgataaa  
tgtcaggtaaaaggagaggctctgcatgggcaggttgattgtagcccaggaacatggcagatggattgcacacat  
ttagaaggcaaaatcatcatagtagcagttcatatagccagtggtacatagaagcagaagttatcccagcagaa  
acaggacaagaaactgcatacttcatattaaaattagcaagcagatggccagtgaaagtcttacacacagataat  
gggacaaattttacaagtaatgcagttaaagcagcatggttgggtgggccaacatcaaacaaaagtttggaattccc  
tacaaccacaaaagtcaaggagtggtagaatccatgaacaaagaattaaagaaaatcattgaacaagttagagat  
caggcagaacatctaaaaacagcagtacaaatggcagtggtcagtcacaattttaagagaaaaggggggattggg  
gggtacactgcaggggaagaataatagacataatagcaacagacatacaaacaaaagaactacaaaaacaaatt  
ttaaaaattcaaaaatttcgggtttattacagagacagcagagacccgatttggaaggaccggccacccctgctg  
tggaaaggtgaaggggcagtagtaattcaggatcaaggagaaataaaagtagtacctagaaggaaagcaaaaata  
attagagatgcatggaatagcctagttaaatatcatatgtataaaacaaagaaagcaaaagattgggttctacaga  
caccactatgaacatcctaattccaagagtttcttcagagggtacacattccttttaagataattcaaaattaata  
atcacacactattgggctttaaccacaggagaaagagcgtggcatttaggtcatggagtctccatcacagtggagg  
atgggatcatatgttacacaggtagatccttatgtagcagataaattgatccactctcaatatatttgattgtttt  
gcagactctgccatcagaagagctatatattagggcatattgtagaacccccgggtgtgcttacagagaaggacacagg  
caggtaggcaccctacaattcctagcttttaaagcttttagtaaaagaaaaaaggcttagaccacccttaccagt  
gtagctaaattaacagaggatatattagaagacttaagaatgaagctgtaaaacactatcccagaagttggctt  
caccaattaggccagcatattttataccacctatggggacacgtgggaaggggtggaggcaattataagaatccta  
caacaactactgtttgttcatttttagagttgggtgccaccatagcagaataggtataataccacaaaggagaaga  
gcattggagccatggaagcatccaggcagccagccaaaaacagcttgtaataattgctattgtaaagcttggtgt  
ttccattgtatgtattgtcttcacaaagaaaggcttaggaatttccgaatgggtaacagtgattatggagtacct  
gtgtggagagaagtcaacacagtactcttctgtgcttcagatgctaaagcacatagcacagaggctcataacata  
tgggccacacacgcatgtgtacctacagaccctaattcctcaagaagtagttcttcataatgtaacagaggacttt  
aatatgtggaataatcagatggtagaacagatgcaagaagacatcagtagtctctgggaccagagtccttaacca  
tgtgtaaagctaactcctttatgtgtaacaatgaaatgtagtaacgttactagacaaaatagcactagcaactct  
aacaataaccctaccctcaagaacaatacttcaggtagaatgaaactggagttttacaaatgaaaaactgtaca  
tttaacacaacaacagaattgagagataaaaagaaacagggtctattcattattttatgtagatgatctgcaaagc  
ctaggaagtggaaactgggtgatacatatacaatgattaattgtaacaccacagccataacacaggcatgtccaaa  
gtgtcctttgagcctattccaatacactattgtgcaccagcaggatttgcaattctcaaatgtaatgatgtaaac  
ttttcagggaaggaagaaatgtagaatgtaagcacagtcattgtacacatggaatcaaacagtagtaacaacc  
caattgatcattaatgggagtctagctacagaaaacataacagtaagagtaacaatgcctctaaaaatacccat  
gattggatagtacaactaagcacagcagtgaaatctgacgtgtaagagggtagggaataacacaagaggcaaagta  
cagataggaccaggaatgaccttctataatattggaccatatatttggtgatacaaggaaagccttttgcaactc  
aatgggacaacatggaatgaaacactgcaaaaagtttagagaaagcttaataaaggaaataaaaagcaaatgcaaat  
ggaacctacaatataacgtttgagccaagcagtgagggtgaccagaaaatagcaaatcacatgttcaactgtgga  
ggagaattcttttactgcgatactagaaaaatgtttaatgaaagtgaaccttttcacgagaacatgacaatacca  
tgcagaattagacaaatagtgaattcatggatgagagtaggaaggggaatctatgcacctccaataccaggacat  
ataacttgtaactctctaattactgggtcatattgacacgagaccatgttaataataactaataatacatttaga  
ccaataggaggagacatgaaaaacatttgaggagtgaactctataaatacaaaagtgggtgcgcatagaaccatta  
tctgtggcaccaaccaagcaaaaaggcatacagtaggagaaaggagacagaagagagcaggcctttggggctgc  
tctggaaagtctatctgttataccactgtgccttggaaacaaacatggtcaggcaagtctatgagtgcatttgg  
aacaatttaacatggcaacaatgggacaaattgatcactaattacacagggacaatttttgggtttattagaagag  
gcacaatcacacaagagaaaaatgaaaaggacttattggagttggatcaatgggcatcctttgtggaactggttt  
gacataaccaactggctgtggtacataaaaattttccttatggcagtaggagggtattataggtttaagaattatc  
atgtcagttgtctcagtgatcaggagagtcaggcagggttactcaccctctcgttgagggtacaagcttatta  
gatgcaacagctattgcagtaggagaaggcacagatagaatcataagagcagtgcaaatagtagttcagaatcata

ggcaacataccccggcgcataagacaaggcctagagagaactttacttttaaatgggagctcagtggctctaaaagt  
agcctagtaggatggcctgaaatcagaaaaagaataaaagaggctccaatagcagcagaaggagtaggagaggtt  
tctaaggatctagaaaaatatggagctatcactagtagacatacaccaagtactaatcaaacttttagcatggtta  
gatgaaatgaaacatcatgaagaagaagtgggctttccagtttagaccacaggtgccattaagaccaatgacttac  
aaaggagcctttgacctttccactttttaagaggaaaggggggactggaagggttagtttactcccagaaaagg  
caagaaatccttagatctctgggtttatcatacacaaggcttcttccctgactggcagaactacaccccaggacca  
ggagagagatacccaccctgctttggatgggtgctttaaactagtagcctttgacaactgagcaagtggaagcagcc  
aatgagggagataacaactgcttactgcaccctatatgtcagcatggaatggaggatgaaagtaaagaagtctta  
atatggcgctttgacagcagactggctttaagacatatagcaagagagaaaacatccggagtattacaaagactga  
>#57 AF382828 7380 nt

atgggtgcgagagcgtctatattaaccggcgggcgattagatgcctgggagaaaattagggtcagaccaggggga  
aggaaaagatacatgatgaaacatatagtatgggcaagcagggagctggaagattcgcttgtgacctgggtcta  
atggaaacaaaagaaggctgttatcagttattgaaacagctagaaccagctcttaaaacaggatcagaaggatta  
cggtccttatttaatactttggctgtgttatgggtgtgttcatgctagaatagaagtagaagatacacagcaagcc  
ttacaaaagttgaaagaatttgtgcaaaaggaaacagcaacagcacaggaagcagcagcaaaagcaaaagttagtca  
aacaccactgagataagcagaaattacccagtggtgcagaatgcacagggacagatgatacatcaggccatgtca  
cccagaactttaagtgcctgggttaaagcagtagaagaaaaagccttttagcccagaagtcattccaatgttcatg  
gctttatcagaaggggcaacaccccaagatgtgaacacaatgctgaatgctataggaggacaccaaggagctatg  
caggtactaaaagaggtaatcaatgaagaagcagcggagtgggatagattacaccattacatgcaggaccagtg  
gcaccaggtcaaatgagagagccaagaggcagtgacattgcaggtactactagtagccttgcaagagcaagtagga  
tggtatgacatccaatccaccagtccctgtaggagagatttacagaagatgggtgggtatttagggcttaataagggtg  
gtaagaatgtattgccctgttagcatcttggacataaaacaagggccgaaggagccttttagagactatgtagat  
agattctacaaagttttaagagcagaacagggttcacaagatgtgaaaaactggatgacagagaccctcctggta  
cagaatgccaaaccagattgtaagcaaatacttagggcactaggaccaggagctaccctagaggaaatgatgaca  
gcctgccaaaggtagtaggagggcccgccacataaggctagagttcttagcagaagctatgagccaaatacaacagaca  
agctcaatattcatgcaaagagcagggggaagaactcctcctaggagagtcaagtgcctcaattgtggaaaggaa  
ggatcatatagcaagaattgttaaagcccctagaagaaagggtgttggaagtgtggaaaagaaggacatcagatg  
aaggactgccaaatgaaggaagacaggtggtagcaggacaactatgtgaagccctactagatacaggggctgat  
gatacagtagtagataatatacaactagaagggaatggagacaaaaattaataggaggcattggaggatttatt  
aaagtaaaacaatatgataatgtagaaatagaatagagggaagaaagagtagaaagcacagtagtagtgaggacca  
actccagttaatattataggaagaaatgtgttaaccaattaggatgtactctaaattttccaataagtccaatt  
actcctgtgccagtaaaattaaagccaggaacagatggaccaagggttaaagcaatggccattgtcaaaagaaaag  
atagaggcattaacagaaatttgtagggaaatggaaaaagaaggaaaaatttcaagaataggctcctgaaaatcca  
tataatactcccatatttgcataaaggaagaaagacagtacaaagtggagaaaattagtagattttagagaattg  
aataaaagaacacaagatttttgggaagtacagttaggcattccacaccctgcaggtttaaagaaaaagaaatca  
gtaacagtgccggatgtgggagatgcttatttttctgccccttagatgaaaacttttagaaagtatacagccttc  
accatccctagtgtaaataatgaaactccaggtataaggtaccagtataatgttctaccacaaggatggaaaggg  
tcaccagcaatcttccaaagcagcatgacaaaggttttagacccttcagacagaaaaaaccagaattggtaatt  
taccaatacatggatgacttatatgtaggatcagattttatctttggaagaacacaggaaaaagagtagaacaactc  
agagaacatttactcagatgggggtttaccacccctgacaagaagcaccaaaaggaaacctccttttctctggatg  
gggtatgagcttcatccagacaaatggacagtgcagccaatacagctgcctcagaaagagaattggactgtaaat  
gacattcagaaactggtaggttaaattaaattgggcaagtcagatctatccaggaattaagataaaacaattgtgt  
aaattaatcagaggagctaaggctttaacagaaatagtcgagatgactagagaagcagaattagagttagaagaa  
aatagggaatttttaaaagaaccagtgcatggcacctactatgacccagaaaaagaactaatagcagaagttcaa  
aagcagaataatgggcaatggacttatcagatttttcaggaaacaggaaggaatctaaaaacaggaaaaatatgcc  
agacaaagagcagctcctactaatgacataagacaactagctgaagtggtgccaaaagtttcccctgaaagtata  
atcctttggggaactgttccataatttaagttaccagtgcaaaagggaagtatgggaagcctgggtggacagattat  
tggaagccacctggatccctgaatgggaattcgtcagaacccccacccttgtaaaagttatgggtatcaattggaa  
aaagaacctatacaaggagcagaaacctattatgttgatggggcagccaataggagagacaagaagaggaaaagca  
ggatatgttattaataatggaaaacagaaggtcatttcccttggaagagaccactaaccaaaaggcagaattagag  
gcactcagaatagccctacaggactcagggcaagaagtaaatgtggtaacagactcccaatatgtgttgggaatc  
ataaattcccaaccagaccaaagttagtcagaaatagtgaatcaaataatagaagagctaataaagaaaagagaag  
gtctatttgacatgggtaccagcacacaaaggaataggaggaaatgaacaggtagataagtttagtcagtagtggc  
atcagaaagggtgctatttttagatgggtatagataaggcacaagaagaccatgagagatatcatagcaactggaga  
gccatggctgatgaattccaactcccaccggtagtagccaaagaaatagtagccacatgtgataaatgtcagctt

aaaggagaagcaatacatggacaagtggattgcagtcacagggatctggcagctggactgcacccacttagaaggg  
aaaataatcctgggtggcagtcacatgtggcaagtggatacttagaagcagaagtaattccagctgagactggacag  
gaaactgcataatcttcttaaaattagcagggagatggccagtaaagaagatacacacagataatggaacaaat  
ttcaccagtgagcagcagtaaaagcagcctgttgggtgggcagggcataaaacaagaatttggaataccttataatcca  
caaagtcaaggggtagtagaatccatgaacaaagaattaaaaaagattatagggcaagttagagaccaagcagaa  
cacttaaagacagcagtcacaaatggctgtattcattcacaatttttaaagaaaaggggggattggggggtacact  
gcaggagaaagaatagtagacatgctagcaacagacttacaaacacaagaactacaaaaacaaattctaaaaatt  
caaaaatttcggggtttattacagagacagcagagacccccatttggaagaggaccagcctctctcctgtggaaggt  
gaggggtgcagtagttattcaggacaacggagatataaaagtagtacccagaagaaaagctaaaattattaaacat  
ttagtaaagtttcatatgtacaagtcaaaaaaggccagaggatgggttttataggcaccattatgatagtcaccaat  
cctaaagtaagttcagaagtcacatacccataagagatgcaaaaatagtggtctgtacatactggaatttaatg  
ccaggagaacaacctatggcatctaggccatggagtgctcatagagtggaggcagagaacatatagaactcagata  
gatcctcaaacagcagatcggtgatacactgttattattttgattgttttgagcctctgctgtcagaagagcc  
atcctaggggagattgtgacaaaggtgtgtgaattccctagggggcatcctcaagttcagtcactacaatatctg  
gccatagtacaagtagtaaagacaaagaaaaagaagccacccctacctagtgtcactatcttagcagaagatata  
ttggaggacttaaaaaacgagggctgtcagacattttcctagaccatggctacatcagttaggacaattaatctac  
aataattatggagatacatgggaaggagtagaggccataatcagaatacttcaacacttgctgtttgtgcat  
aggattggctgtcaacatagcaggatagggattgaacgacagaggagaagaaggagacttgagccctggaatcat  
ccaggaagtcagccaaaaacagcttgcaattcatgctactgcaaaaggtgctgctatcattgtatgctttgcttc  
accagcaaaaggcttaggtatttcccaatgggtgggtaacagtatactatgggggttcagctctggaaggaggctact  
acaccattgttctgtgcagcaaatgcaacagcttttaaagaggaacctcataatatttggggccacacaagcctgt  
gtgcctacagacccctctccagaagaggtcatcctaattaatgtgacagaagaatttaattgtatgggacaatgct  
atggtagagcaaatgcaggaggatattactagcctatgggaccagagccttagaccttggtgtaaaattgaaccct  
ttatgtgtgcaattaacgtgtacttctataaatgctactggaaacgaaactaatgctactggaaacggaattgaa  
aaggatgggttggcacaagacatgagaaattgtactttcaatacaaccacagaattaagagataaaaaacagcaa  
atattattccttattctggaaaaatgatcttgttaggtactaacaatacgttttaggttaattaattgcaatactaca  
gcaatcacacaagcttgtccaaaaacctcctttgaaccaattccaatacattactgtgcaccagctggctttgcc  
ctgttgaaatgtaattgataaagattatccaggaaaaggaaagtgtaaaaatgtaagtacagtgcatgacacat  
ggaattaagccaactgtaactactcagttgatactcaatggcagcttagcagaagaagaagaggtgggtgttcaga  
actaagaatatgacagctccaggtctcagtgacacagttatagtagcagttaaaaagggcaattcccattaattgc  
agtagaccaggaaacaatacaggaagagcaataaaccttagccagggacaacattccttaacacggaagcccta  
ataggaaaacctaggaaaagcgtcctgccaccttaattggtacactatggaataacattcctaacagaataaaaaca  
aagattaaaaacagcacaacgtggcacaggggggacatcacattcacaaagcatccaggaggagaccagaaagt  
gtaaatttcatgtttaactgtggaggggagttcttttattgtaatacatcaagattaattacctgtaacagtagt  
gacacaagttagtacattctcccatgcaaaattaggcaagtagtaaatcttggatgagagtggggaaaggtatc  
tttgccccgcctagaagaggaactataacctgtaattccaccattacaggactcctccttagaagtacagaatggc  
acggggaaacaacacagaagtttacctgtcagggggagatatgagagatatttggaggagtgaattatataaatat  
aaaatagtaaaaattgagccactgggggtggcaccaacaaaagcaaaagaggtacacagtgggcaaaagcacttgat  
agatccaaaagagcagcactatggggctgctctggaaaaaactgtgtgctactctactgtaccctggaatacttcc  
tggaacagtaacaaatcttatgaggacatttggagtaatctgacctggcagcaatgggataagtttagtagaaaat  
catacaggaacctttttcaattattacagagagcacatgagcaacagaatagcaatgaaaaagagctatttgaa  
ttggatcaatggctcctcattatggaattggtttgacataacaaactggctgtggtatataaaaaatgtttataatc  
ttagtgggaggggttataggtttaagaattgtaataggtgtagtaaatataataagaagaagtaggcagggatac  
tcacctttatcgtttcaggctattagcctgcttgatactacagcaattatagtagccgaaagaactgatacaata  
atagaagtagcaactagaataggagagggcatattgcatataccaagaagaatcagggaaggttttagaaagagct  
ttactagaataaatgggcaacaaatggtctaaaagcagcattgttaggatggccgcaggtcagagagagacttagg  
cggactcaggaagcagcagaaggagtaggagaagtgtctcaggatttagcaaggcgtggagcaataacttccaga  
catacccctcagactaatcaaactccttgcatggctagaagaaatggaacaggaggatgtaggggtttccagtaaga  
cctcaggtacctttaagaccaatgacatataaagcagcctttgatctcagccacttttttaaagaaaagggggga  
ctggaagggtagtttattccaagagaagacaagagatcctggacctctgggtttatcatacccaaggatacttc  
cctgattggaataactatactcctggaccaggagtgcgttatccgttgacctatggatgggtgcttcaagctagt  
ccagtatcaccagaggcagtagaagaagccaacaagggagaggataatctcctattacatcccctgtgcactcat  
ggatttgaggatgaagagaaggaggttctgatatggaagtttgacagtcaactagccctgcggcatcttgcaaga  
gaaaaacatcctgagtagtattacagagactga

>#58 EF535994 7338 nt



atgggtgcgagagcgctcagtattaacgggaggaaagtttagatgattgggaaaaaatttatctccggccaggggga  
aagaaaaaatatatgatgaaacatttagtatgggcaagcagggagctggaaagattcgcttgtaaccccggccta  
atggacacaaacagaaggatgtgaacaattaattaaccagttgcagccagctctcacaacaggatcagaaggacta  
agatctttattttaacaccctagcagtcctctggtgcgtagcatcaaagaatttagagtaaaagacacaaaagggct  
ttagacaaactagaagaagtgcagcaaaaaagcaaagtgaagtaaaacaggaagccgcgggcggcagaccccagc  
ggcggcgagagcagaaaacttcccgatagtaacaaatgctcagggacaaaatgggtccatcagtcgctctcaccaga  
actttaaatgcatgggtaaaagtagtagaagaaaaggcatttagcccagaagtcatacccatgtttatggctcta  
tcagaaggagccaccctcaggattttaacaccatgctaaatacaatagggggacatcaggcagcaatgcaaate  
ttaaagaagtgatcaatgaggaagctgcagagtgggacaggacacaccctatacatgcaggggccaattcctcca  
ggccaaatgagggaaaccaagaggaagtgcacatagcagggacaactagcaccattcaggaacaagtgggatggatg  
accagtaaccctcctaccccggtaggagacatttacaagagatggatagtttttagggcttaataaaaatagtaaga  
atgtatagccctgtcagtatcttagatataaagcaaggacaaaagaaccatttagagattatgtggacagattt  
tacaaaactctaagagctgaacaagcaaccaagatgtaaaaaattggatgacagagaccttgctagtgcaaaat  
gccaacccagattgtaagcaaattttaagagctctgggtccaggggcaaccttagaagaaatgatgacagcctgc  
cagggagtagggggccctctcataaagccagagtattggcagaagcaatgagtcaggcaaacaccactgttatg  
atgcaaagaggtaatgttaagattcagaaaagaattgtgaaatgctttaactgtggcaaggaaggtcacatagca  
agaaactgtagagcccctagaagaaaaggctgttggaaatgtgggcaagaaggacaccaacagaaaaactgcccc  
gatatgcaacggggcgggagttataaaagaggtactatttagacacaggggcagatgatacagtagactagaggaaata  
gaattagagggaaaatggaggccaaaaatgatagggggaattggagggtttataaaaagtaagacaatatgatcag  
atacccatagaaaatttgtggaaaaagagcaataggtacagtagtagtagggccacacctgtgaatattataggg  
agaaatatcttaactcaaattgggtgtactctaaattttccattagcactatagaaactgtaccagtaaaaatta  
aagccagggatggacgggtccaagaggttaaacagtggcccctaacagaagaaaaaataaaagcattgacagaaatt  
tgtacagagatggaaaaggaaggaaaaatttcaagaatagggccagaaaatccatataatacaccaatatttgct  
attaagaaaaaggatagcacaaaatggagaaaattagtagacttcagagaattaaataaaaagaacccaagatttt  
tgggaagtcagctaggaataccacacccctgcgggactgaaaaagaaaaaatcagtaacagtgctggacgtaggg  
gatgcttatttttcatgccccctagatgaagagtttagaaaaatacactgccttcaccatacctagtgtaaataat  
gagacaccaggaataaggtaccagtacaatgtactccgcaggggatggaaaggatcaccagctatttttcaaagc  
agtatgactaagattctggaaccttatagaaaacagaatccagaaatagtcattctaccagtacatggatgatcta  
tatgtaggatctgatttacatatagagcaacatagagaaaagggtggaagaattaagagctcatctattaaagtgg  
ggctttactacacctgacaaaaagcatcaaaaagaaccaccattcctttggatgggatagtagctccatccagac  
aatggacagtcagcccatacagctgccagamaaagacagctggactgtcaatgacatacagaaattagtagga  
aagttaaattgggcaagtc aaatatatccaggaattaaaggtaaaacaattgtgtaagcttatttagaggaacaaaa  
gctttaacagaggtagttrccctcacacaggaagcagaatttagagtttagcagaaaacagggagatattaagagac  
cctgtacatggggcctactatgacccctcaaaagaattgatagcagaaatacagaaaacaaggtcaaggccaatgg  
acttatcagatttatcaggaacagcataaaaaatctgaaaaacaggaaaaatgcaaaaatgagagctgcccattca  
aatgatgtaaaacagttgactgaagtagtacagaaagtagccctggaaagtatagtcattctggggaaaaaacccc  
aagtttagactgcccatacagaaagaaacatgggaggcttgggtggacagattactggcaagcaacttggatccct  
gaatgggaatatgttaacacccctcccctggtaagctgtgggtaccagttagaacagaacccatagtgggggca  
gaaaccttttatgtagatggggcagcaaatagagaaaccaaattaggaaaagcaggatagtgtaactgatagaggg  
agacaaaagattatctccctaacagaaacaactaatcaaagagcagaactgcaagctatataccttagccctacag  
gattcagaagtagaggtaaacatagttactgactcacaatatgcattagggatcattcaatcacagcctgacatt  
agtgaatcacacatagtaaatcagataatagagcagctagtgtaaaaaggaaaagatttatctttcatgggtacca  
gcacacaaagggttgagggaatgaacaaatagacaaattagttagtgcaggaatcaggaaagtccttttctg  
gatggaatagataaggcccaagaagaacatgagaaataccacaacaattggaaagctatggcagatgaatttaatt  
ttgccacccatagtagccaaagaaatagtagccagctgtgtataaatgccaattaaaaggagaagccatgcatgga  
caggtagactgtagtccaggaatatggcaactagactgcacacatttagaaggaaagatcatcttagtagctgta  
catgtagccagtggtacatagaggcagaagtcatacctgctgaaacaggggcaagagacagcttattttgtgctg  
aaattagcaggaagatggccagtaaaaggttatcacactgataatggcagcaactttactagtgtgtgtcaag  
gtgtcatgttgggtgggcaaatatccaacaggaatttgggaattccctacaatcctcagagtcaggagtagtagaa  
tcaatgaacaaagagttaaagaaaatcatagggcaggttaagagatcaagcagaacatttaagacagcagtgcaa  
atggcagtccttcattcacaatttttaaaagaaaaggggggattggggggtacagtgccaggggaaagaatcatagat  
ataatagcaacagatatataaaactagagaactacaaaaacaaatttcaaaagttcaaaaatttcgggtttattac  
agggacagcagagaacctatctggaaaggaccagccaagcttctctggaaaggtgagggagcggtagtgcttcaa  
gataaggaagatataaaagtagtcccacgcagaaaggctaaaataatcagggacgcagtggaaacagtttggtaaaa  
catcacatgtatgtgtctaaaaaggcacgaggttgggttttacagacatcattatgaaagtgagaatccaaaagtt

agttcagaaattcacattccagtaggagatgccaaattagtaatagtaacctattggggactcatgccaggagaa  
agagactggcatttaggacatggggctctctatagaatggagacagaaaagatatagcacacaaatagatcctgaa  
ttggcagaccacctaattcatttgcattattttgattgttttgcagagtctgccataaggaaagccatactagga  
caaatagtttagccctagatgtgaattccagcaggacacacaaaaggtaggcactctacaatatttggcaatctca  
gcactgctaaaaaggaagccaaagaaccacctctacctagtgttagtaaattagcagaagacttattagatgaa  
ctcaaacaggaagcagtaagacattttcctagacagtggttcatgatttaggacagcacatttataacacatat  
ggagacacttgggcgggggttgaggctatcataaggatcctgcaacaattgctgtttattcattacagaattggc  
tgccaacatagcagaataggcattctgccacaaggaagaaggagattagaaccctggaatcatccaggaagccag  
cctaaaacccctgtaacaattgctattgtaaaatgtgttgctatcactgtcaattttgcttcacaagaaaaggc  
ttaggaatttactctgaaaataatttatgggtaacagtgtactatggagtacctgtatggaaagaggcaaaaaca  
actctttttgtgcatcagacgctaaagcacagatagctgaggcacacaacatatgggcttctcaagcttgtgtg  
cctacagatcctaaccctgaagaaataacgttagaaaatgtaacagaagagtttgatgcatggaacaataacatg  
gtagaccaaagtcaagaagatctcattagcctatgggatcaaagcctaagccatgtgtaaaactgacccccctc  
tgtgtgacctaaactgttccacaaatacaactacagaggcatctcaggtgcagtataattgttctttcaatgta  
actacagaattaagagataagaagaagcaagtgtactccttattttatagagaggacataacaagtcttgatagc  
aataagacagttaaaaatggaacttataggttaattaactgtaataccacagccataaccagggttgtccaaaa  
acatcatttgaaccaattcctatttactattgtgcaccagctggatttgccttttaaaatgtaatgaccagaat  
ttcaagggaaggacatgtagaaatgttagcacagtgcattgtacacatgggtattaagcctgtagtctctacc  
caattcctcttgaaatggaagcctggcagaaggaaacaagactgtagttagggtaagaagtaaatctaatacagag  
actatcattgtgcagctagctacagcaatatatatcaattgtaccagactaggtaataaaaccatagagggcata  
cctatagggccaggacaaatttttataggactaaaacgggtggtagggcgacaccagaggagcagagtgcagaatt  
aatgggacagcctggaatgagactctgagacaggtaaaggaggcattaaacaacacatatcgaaatctcaatctc  
agtctcacagaaataaaactttgaagggtgcatccggcgagatctagaagtaactacacattatttcaattgtgga  
ggagaattcttttactgtaatacatcaaacttattcaatcaatccactattaacaatattacacacattccgtgc  
agaataagacaaattgtaaatcagtggcaaggagtaggaaaaggaatctttgcacctcctatttagaggaacaatt  
caatgtaattccacaatcacaggcctactcttaacaagagatggtaaaaaatgagactgaaacttttagacctaca  
ggaggagacatgagaaataattggagaagtgaattatacaaaatacaaggtagtaaaaattgaacccttaggatta  
gcaccaaccaaggcaaaaagggagaacagtgcaaagagaaaagaggggactatggggctgctctggaaaactcatt  
tgcactactaatgtgccttgggaataatacttggagtaaaaaatttaggaacaaacctatccttttgggataacatg  
acatggatgcaatgggagaaagagattgataactacacagaaactatctatgaacttctaacacgatctcagaat  
caacaggaagtcaatgagcaagaattgttagctctggataaatgggtcaagcctgtggaattgggttcgatataaca  
cagtggctgtggtatataaaaattatttgtcatgatagtaggaggcttaataggcataagaatagtttttgctatg  
ctttctatagtcaatagagtttaggcagggatactcacctttgtcgttccaggctataagcttgccttgacgccaca  
gcaatagcagtagcagagggaacagatagaatyatagaaatagcacaaaagagttggcagaggcattttgcatata  
cctagaagaattagacaagggttagaaaagagctttgtctataaatgggaaacaaatgggtcaaaaagtagcctggta  
ggatggcctgcagtaagggaacagacttagaaggacacctccagcagcagaaggagtagggccagctctcgcgagac  
ctagagagacatggggctataacaagtaggaatactccacagacaaatgagactccttgctgggttagaggagcaa  
agggacgaagaagtaggatttccagtaagaccccaagtgcctttaaggcccatgacctataaagcggcctttgat  
cttagccactttttaaaagaaaaggggggactggaagggtcaatctactcccaaagaaggcaagagatccttgat  
ctctgggtctatcatcacacaaggcttcttccctgattggcaaaactacacaccaggaccaggggtcagatacccg  
gtgaccttcggctggtgcttcaagctagtgcctgtagatccaacagatgtggaggaagcaaatgaaggagacaac  
aatgtgctattacatcctatgtgccagcacggacaagaagatgaacacagagaagtgcctgatgtggcagtttgac  
agccacttggcctgacacacagagccccgagagctgcatccggagtactacaaagactgctga

>#59 DQ373066 7338 nt

atgggtgcgagagcgtcaatattaaccgggggaagattagatgcttgggaaaaaattaggctaagaccaggggga  
aagaaaaatacatgatgaaacatttagtatgggcaagcagagagctggaaagattcgcttgtaaccctggctcta  
atggaaaatgcagaagggttgtagaagttattgaaacagctagaaccagctcttaagacaggggtcagaaggactg  
cgctctttatttaacactttggcagtcctttgggtgtgtacataagagaatagaagtggaagacacacaacaggct  
ttacagaaaactgaaagctgccgtgaaccagaacaggggtgaaacacccatcagctagcgcgaacttccctgtagta  
cgaaacgctcagggaacagttgacgcataatccaatatcaccagaaccctaaatgcctgggtaaaagcagtagaa  
gaaaaagctttcaatccagagggtcataccaatgttcatggcattatcagaaggggcaacgcctcaagacctcaat  
actatgctaaatacaataggaggacatcaggcagccatgcaattctaaaagaagtaaatcaatgatgaggctgct  
gagtgggacaggacacaccctacccatgcagggcctatagctccaggacaaatgaggggaaccaagaggcagtgac  
atagcaggcactactagctccctagaggagcaagtagggtggatgacagcaaacctcctattccagtaggagat  
atttatagaagatggatagtcctgggggttaaataaaaatagttaaaatgtacagtcctgttagcattttggacatt

aaacaaggacaaaaagagcctttcagggactatgtagacagggttctacaagaccttaagggctgaacaagcatca  
caggatgttaaaaattggatgacagacaccctgttgatagagaatgctaaccagactgttaaaaacatcttaaga  
gcattaggaccaggagccactctagaagaaatgatgacagcttgtcaagggtaggaggaccctcacataaggct  
agagtgtgtgcagaagccatgagccaggtaaacaaaacagaaatctttatgcaaagagggggacaaaatagacct  
cctaataaaaagattaaatgctttaattgtggaaaagaaggacacctagcaaggaactgcagggcaccccgaaga  
aagggctgtgtgaagtgtggacaggaggacatcagatgaaagattgtaatcaaaataatggaaggattattgaa  
ggacaattaattgaagccttgctagacacaggggctgatgacacagtaattgaagacttaaatgtccaggaaaa  
tggagtccaaaatgatagggggaattggaggttttattaaagtaaaacaatttgaaagagtaaacatagaaata  
gaaggaaaaaagataaccagtactgtatttagtaggaccaaccctgtcaatataataggaagaaatgtcctaaca  
aaattaggggtgactctaaatctcccaataagtccaatagacacagtaaaagtgtttctaaagccagggtatggac  
gggccaaggtaaaacagtggcctctgtcaaaagaaaaaatagaggcattaactgaaatatgtaaagaaatggaa  
aaggaaggaaaaatttcaaaaatagggccagaaaatccttacaatacacctatttttgcaattaagaaaaaggac  
agcaccaaatggagaaaacttggtgatttcagagaacttaataagaggactcaagaattttgggaagtacaactg  
ggcataccacaccagctgggttaaagaagaaaaaatcagtaacagtccttggtatgtgggagatgcctatttttca  
tgtcctcttgaccagacttttagaaaatttactgcattcaccattcctagcataaaataatgaaactccaggaatt  
agatatcaatataatgtacttcctcaaggatggaagggtatctcctccatctttcagagtagcatgacaaagatc  
ttagaaccctttagaacaaagcatccagaaataattatttaccagtacatggatgacttgatgtgggctcagat  
ttacctatagaggaacatagaaagagagtagaagagctcagagcacatctgttaaaatggggatttacaacacca  
gacaagaagcatcagaaagaacccccatttctctggatgggatatgagttacatccagataagtggacagtccag  
caaataaaattgccagaacaggaagtgtggactgttaatgatattcagaagtttagtaggcaaattaaattgggca  
agtcaaatatatccaggaattaaaattaagcagctttgttaaattaattaggggagcgaaggggtctgacagaagta  
gtagctctcaccccagaagctgaactagaactggcagaaaaatcaagagataactaaaagaaccagtacatggagcc  
tactatgacctgaaaaggaattaatagcagaaatacagaagcaaggacagggtcagtggacatatcaaatattt  
caggagccacataaaaaacctaagacaggaaaatatggcaaacaaagagctgcacataactaatgatattaggcag  
cttgctgaaacagtacaaaaaatagctacagaaagcattgtaatatggggaaaaacaccaaatttagactccct  
gttcaaaaagaaatgtgggaagcctggtgggcagattactggcaggctacctggattcctgagtgggaattcata  
aacaccccaccctagtaaagttatggtaccagttagagacagagcctatagaaggagcagaaacatactatgta  
gatggggcagccaacagagaaacaaaaagaggaaaagcaggctatgtgacaaacagggggagacaaaagattcat  
agtcttgaagataccactaatcaaaaagcagaattacaagcagttttaatggccttacaggactcaggacaggaa  
gtcaatgtggtcactgactcccaatatgtgctgggaatcttacaatcacaccagaccacagtgaatcagatata  
gtaaatcagataatagaagagtttaataaaaaaggaaaaaatattatctatcatgggtaccagcacacagaggtata  
ggaggaaatgaacaggtagataaaactagtttagttcagggatcagaaaagttcttttcttagatggaaatagaaaa  
gctcaagaagaacatgaaagataccactctaattggaaggcaatggctcaggactttaacttaccaccaatagt  
gctaaagaaatagtagcccaatgtgataaatgtcagctaaaaggagaagcaatgcatggacaagttgactgtagc  
ccaggaatatggcagattgattgcacccatttagaaggaaaaataattatagtggcagtcctatgtggccagtgg  
tacatagaagcagaagtcacccctgctgaaacaggacaggaaaacagcatattttgtccttaagtttagcaggaaga  
tggccagttaaagactatacacacagacaatgggcctaatttcactagtaatgcagtaaaggcagcatgttggtgg  
gcaggtatttagacaggaatttggaattccatacaaccacaaaagtcaaggagtagtggaatctatgaataaagaa  
ttaaaaaagatcatagagcaagtcagagatcaggctgaacatttaaaaacagcagtaaaaatggcagtccttcatt  
cacaattttaaaagaaaaggggggattggggggtacagtgaggagagagaataatagacatcatagcaacagac  
atacaaaaagaactacaaaaacaaattttaaaaattcaacaatttcgggtctattacagagacagcaaaagat  
ccaatttggaaggaccagcgaaaactcctgtggaaaggtgaaggggcagtggttaattcaagatcaggacgaaata  
aaagtgtgcttagaaggaaaagctaagataattagggatacctggaatagtttagtgaaatatcatatgtacaga  
tcaaagaaaagcaaaaatttggttctatagacatcactatgatggcaccaaccctaggatggcttcacagatatat  
attccaataaatcaggctaaagctaattgtcacacatatattggggactaatgccaggagaaagagattggcatctg  
ggacatggagtagcaatagaatggagagaaagaggttacagtacccaggtagaccctgaaacagcagataggcta  
atacaccttcattattttgattgttttacagcaactgccatcaggaacgctatcttagaaaaggcagtcctccct  
aagtgtgaattcccagaagggcacagcaaggtagggcttttacaatactgggctctaagcagtttggttaaaacc  
aagaaaaatagaccacctctgccctcagtagcaaagtttagcagaagatacattggaagaaattaaacaagaagca  
gttagacactttccagacccctgggttacatgcactaggagaacatatattatgaaacatatggagactcctgggcg  
ggagtacaagctataataagaattttgcaacaattactgtttgtccatttcagaattggctgccatcatagcaga  
ataggcataaacctcagagaagaaggagattagaaccatggaaccatccaggagcaaacctagaacagaatgc  
aataagtgttttgcaaaaagtgtgttatcattgtatactttgctttacaaagaaaggcttaggcattctccgaa  
aattgggtgggtcactgtttattatgggtcccagtatggagggaggcaaaaaccaccccttttctgtgcctccgat  
gctaagagttatagtagcagaagctcataacatctggggccaccaagcttgtgtacctactgatcccactcctcaa

gaggtagtactcttacctaattgtcactgaagagtttaacatgtgggaaaattacatggtagatcaaagtcaggaagac  
ataataagtcctctggaacaaagtccttaaacatgtgtgtaaaattaacacccttatgtgtgacccttacttgtaat  
aatcccactaataacttctgactaactctactgacgatcgcttgggagacatgagaaattgttagctttaaagtc  
acaactgaactaagagataagaaaagacaagtgatttccttattctatgtggaggatataacagcaataggaat  
aatagtagtacttacaggttgatttaattgtaataaccacagccatcactcaagcttgtccaaagacttcctttgaacca  
attccaatacattactgtgcaccagcaggatttgcactcctaaaatgtaatgatatagattacaaagggaatgaa  
acttgtaaaaatgtaagtacagtacattgtacacatggcattaaaccagtggaaccacccaactgattttgaat  
gggagtacagcagacaatcagactgtggccagaatagacccttcagagaatttagcaataatacagctcaaagat  
ccagtaaagattacatgtaggagaccaggaaataacacaagaggtcaaatacaaataggaccagcaatgactttt  
tataacatagaaaatgtagtaggggacactagaaaagcatattgtgagataaatgggacacagtgaggcaaaaagcc  
ctcaatgaaacaaaagaagttctaaggaacatactgaggaagaacataagctttatgggtcccttctgggggagat  
ccagaagtgactaaccatcactttaactgcgggggagaattccttctactgtaatacaagttagatcatcaatc  
actaagataaacaactgagaatatgacaataatcccttgtagaataagacaaatagtgaattcctggatgcgt  
gtagggaaaggaatttttgcaccaccaatttagaggtaacattacctgcacttctaataatcacagggtatgctacta  
gagatacataagaaccgagaagatcaggggagaagatcaggatcagaataacacatacgtttgtctaacaggggggt  
aacatgaaagatatttggagaagtgaactatacaaatacaaaatagttgagatacaaccactaggagtagcacct  
actaaaagttagaagatatgcagtagaaaaacaacaccatagagaaaagagaggtctatggggctgtacagggaaa  
actatttgtcccactgctgtacgctggaacaagacatggggaaatattagtactatcaggttatttggaaat  
tacacatggcaacaatgggtagagaagtaataattacacaggactcatctacacattgctagaggaggcta  
acacagcaggagaaaaatgaaaaggagttattggaattggattcatgggctaatttatggagttgggttgacata  
acaaattgggtgtggtacataaagatgttcttaatagtagtaggaggtcattataggcttaagaatatgctttgca  
ataggatcactaatcaatagggttaggaagggtactcacctttgtcattgcaggccataagcttattagatact  
accgctattgcagtaggagaagggaactgatagaatcttagaagcaataacacgcttgggcaggggcattttacat  
atacctagaagaatttagacaaggcttagaaagagctttgctttaaatgggagccaagtgggtcaaaaagtagccta  
gtaggatggccagaaataagagagagaataaaaagagctccaacagcagcagatggagtaggggaagtatcaca  
gacatagcaagccgtggagcagtcacaattagaaataccccacaaaccaatgagacttttagcttggctagaagaa  
atgcaggatgaagaagtgggatttccagtcacaaccacaagtgccttaagacctatgacctttaagggtgccttt  
gatctctctcacttttttaaaagaaaagggggactggaagggttaatctggtcaaggaaaagacaggagatcctt  
gatttatgggtttatcacacacaagggttacttcctgactggcaaaaactacaccccggggcccaggagtgcgctac  
ccactaaccttcgggtgggtgctttaaactggtccctttgccacctgaggaggtggagaaaagccaatgaaggagaa  
aacaactgcctgctacatcccatgtgccagcatggaatggaggatgaggaaagagaagtactgggtatggactttt  
gatagcaagctggctctcagacatctagcaagagagaaaacatccggaatattacagagactga

>#60 DQ373064 7356 nt

atgggtgtagagagcgtcaatcttaacaggcggaaagtttagatgattgggaaaaagttcgggctaaggcccggggga  
agaaaaagatatatgatgaaacatttagtatgggcaagcaggggagctggagagatttgccttgtaaccccgggctt  
atggaaacaacagaaggctgtgagcaattgattacacagttagaaccagctcttaagacaggggtcagaaaacctt  
aaatctttatttaacaccatagtggtcctctggtgcgtgcacagagaatcgcgataaaaagacaccaaggaggct  
ttagatacactaacagcagtttagacagaaacagcaaaaaggaaaaggaagcagctgcagccgagggaaggacaat  
gacagtggttagcagaaactaccctatagtacaaaatgcacaagggcagccggtacaccaggccctctcacctaga  
actttaaatgcctgggtcaaggtagtagaagaaaaggcatttagcccagaagtaatacccatgttcgcagcctta  
gcagaaggagccacccctcaagatttaaataccatgctaaatacagtagggggacaccagggcagccatgcagatc  
ttaaagagggtcattaatgaggaagcacaagaatgggatagggtgcacatccatattggggccaatagcacca  
ggccaaatgagagaaccaagggaagtgcacatagcaggaaccactagtagtgcagaagcaaataggatggatg  
actagcaacccctctataaccagtaggagaaatttacaaaagatggataattatggggctgaataaggtagtcaga  
atgtacagccctgttagcatcctggacataaagcaaggggccaaaagaaccattcagagactatgtggacaggttt  
tacaaaacattaagagcagaacaagccacacaggaagtaaaaaattggatgacagacaccttgcttgtagaat  
gctaaccagattgcaaaagtatcctgagagcattgggtccaggagcctccttagaggaaatgatgacagcatgc  
caggagtcgggggtccagcccataaagccagggtccttagcagaagctatgagtcagcaaatgcagcaacagtc  
attatgatgcaaaagggaatttttaaaaggacaaaaagagttattaaatgtttcaattgtggcaaaagggcac  
atagcaagaaattgtaaagccccagggagaaaaggctgttggaatgtgggcaggaaggacatcggtatgcaagat  
tgtaacatggggaaggttgctcgggggtacttgaaaggagcactgttagatacaggggcagatgatacagtgcta  
gaagatttagaattagggggaaggtggaaacaaagatgataggaggaattggaggttttatcaaagtaaagcaa  
tatgataatataccaatagaaataggaggaaaaaaggcactaggtacagtttttagtaggacccacaccagtaaat  
atcataggaaggaacatttttaactcaaatggatgtactctaaattttcctattagccctattgaaactgtacca  
gtacaattaaagccaggaatggatgggcaaaaagtaaaacaatggcccttaacagaggaaaaaattaaagcttta

acagaaatctgtacagaaatggaacaggaaggaaaaatttcaagaatagggcctgaaaacccatataataactcct  
gtgttttgctataaaaaagaaagatagcacaaaatggagaaaaattagtagatttttagagaattaaataaaagaact  
caagacttttgggaagttcaattaggaatacctcaccctgcgggattaaagaagaaaagggtcagtcacagtattg  
gatgtaggagatgcctacttttcatgccccctagatgaaaactttagaaaatatactgcattcaccatacctagt  
ataaacaatgaaacaccaggaatcagatatcaatacaatgttctaccgcagggatggaaggatcaccagctata  
tttcaaagtagcatgacaaagatttttagagccattcagaagacagaaccagatatagtaatttatcagtacatg  
gatgatttatatgtaggggtcagatttgaaaatagagcaacacaggaacaaggtagaagagctgagagctcacttg  
ctaaagtgggggtttaccacccctgacaaaaacatcagaaggaaccaccatttctctggatgggatatgaactc  
catccagacaaatggacagtagagccatacagttaccagaaaaggaaagtggactgtcaatgacatacagaaa  
ttggtgggaaaattaaattgggcaagtcaaataataccagggcatcaagataaaacagatatgcaggcttcttagg  
ggagtaaagaattcaacagaagtagtcacctttactagagaagcagaattagaattagcagaaaaatagggaata  
ttaaaaaacccagtagcatgggggtctattatgacccggctaaagacctgatagcagaagtacaaaaacaaggacag  
agtcaatggacctatcaaatctatcaggaacaattttaaaaatctgaaaacaggaaaaatatgccagacaagggtct  
gctcataccaatgatgtaaaacagtttagcagaggtaatgcaaaagatagccatagaaagcatagtcatatgggga  
aaaataccaaagtttagattgcccattcaaaaagaagcatgggaagcatggtggacagattattggcaagccact  
tggatccctgaatgggaatatgttaatacccttcccatgtcaagttttggtaccaattagagcaagaacctata  
ccaggggacagaaacattttatgtagatggggcagctaacagagaaaactaagttaggaaaagcaggatatgtaca  
gatagggggaagcagaaaaataatcccttaacagaaacaaccaatcagaaggctgagttacaagccattcaatta  
gccttacaagactcaggacctgaggtaaatatagttactgattcacaatatgcattaggaatcccttcaagcccaa  
ccggatcagagtgattcagaattggtgaatcaaatcatagaaaatctaataaaaaaggaaaaagtttacttaaca  
tgggtacctgcacataagggaataggaggaatgaacaagtagacaaattagtcagttcaggaattaggaaagtc  
ctttttctggatggaatagatcgagcccaggaagagcatgaaaaataccataataattggagagctatggccagt  
gatttcaatctgccaccattgttagcaaaaagagatagtagctagttgtgataaatgtcagctaaaggagaggca  
atgcatggacaggttagactgttagcccaggaatatggcagtttagattgtacacacctagaaggaaaagtcatttta  
gtagcagtgcatgtagctagtggctatatggaagcagaagtcatacctgcagaaacaggacaggaacagcttat  
tttatcttaaaattagcatcgagatggccagtaaaaattatacatactgataatggtagcaattttactagcact  
gcagtcagggtgcatgtttggtgggagcagatccagcaggaatttggaattccctacaatccccagagtcaggga  
gtggtagaatcaatgaacaaagaacttaagaaaaataatagggcaggttaagagatcaggcagagcacctaaaaaca  
gcagtacaaatggcagttattcattcacaatttttaaaagaaaaggggggattgggggatacagtgaggagaaaga  
ataatagacataatagcaacagatatataaaactacagaattacaaaaacaaatttcaaaagttcaaaaaatttcgg  
gtttattacagggaccgcagagatccctatttggaaggaccagccaaactactgtggaagggtgaaggagcagta  
gtgctgcaagatcaggaagaaataaaggtagtcccacgtagaaaagctaaaattattagggatgcatggaacagt  
ttggtaaaaatatcatatctatgtatccaggaaagcaagaggctggttttatagacatcattatgagagtgaaaat  
ccaaaagtaagttcagaaatacatatccactaggggaggccaaattagtaatagtaacttattggggacttaca  
ccaggagaacgggactggcacttaggtcatggggatatctatcgagtggaaacagaagaaatatagtacacaaata  
gacctgagttggcagatcatatgattcatttatatttttaattgttttgagaatctgccataaggaaggcc  
atattaggacgagtagttagccctagatgtgaatttccagcaggacacaaagaaggtaggaacctacaatatgtg  
gcaatctctgccttattacaaagacagccaacaaggccgcctttgcctagtgtcagcaattagcagaagatgta  
ttagaagaactcaaacaggaagcagtaagacacttttcttagacatgggtccaccaattgggacaatatatatat  
gacacctatggagacacctgggagggagttcaagctatcataagaatcctgcaacaactcctgtttattcattac  
agaattggctgtcaacatagcagaataggcattacaccacaaagaagaaggagactagatccctggaatcatcca  
ggaagtcagcctaaaactccctgtaacaattgcttttgtaaaaaagtggtgctatcactgtccattttgcttcaca  
aagaaaggcttaggaatttccagcactaaaaatgaaaatttatgggtgacagtgtactatggagtgcctgtctgg  
aaagaagcagaagcaactctcttttggtgcgtcagatgcaaaagcacaagggcagaggcacacaatatatgggcc  
tctcaagcttgtgtacccacagatccctgatcctaagcaatagaactaagcaatgtaacagaaaaattttaatatg  
tggacaaatgcaatggtaaatcagatgcaacaggatgtaattagcttatgggatcaaagcctaaaaccatgtata  
aagctaaccctctttgtgttactttacattgcagtatccctaaatttgataactctagcattaatagctcta  
gagactatgaaaaattgtagcttcaatacaacaacagaactaagagataagaagaaacagacttactcattgttt  
tatgtagatgatttaactcagataaacaagacaaccgagagctataagcttataaattgtaatactacagccata  
accaggcttgcccaaagatttcttttgagccaatacctatacattattgtgtctccagctgggtttgtcttcta  
aggtgtaacaataaaaacatataatggtagtggtccatgtaacaatgtagtacagtacactgtactcatggaatt  
aaaccagttatttctactcaattgatcctgaatggtagtctagcagaagaaaaaatcatgattaggtacaaggct  
gataaggttctagtacagctcaatacaagtatacacatcaattgtactagggttaggaataagacaataaaagga  
atccccctaggaccaggacagctgttctatggaacagaaactgtagtaggagacacaagagaggctcattgtgaa  
attaaccagacacattgggtataaaaataactaaaccaggtgaaaagagagctaaccacgggtcttcaatgaatctaac

aaaactgtacacttttgcaaacagttcaggtggagatccagaagtggcaaaccttcatttttaattgttgaggagaa  
tttttttatttgtaacacctcgcccttggtcaatgacaccttggtacgcaataaaaccttgctcaatgaaaccttg  
cacaataacttgacactaccttgtaggattagacaaattgtaaacctatggctaagagtaggaaaggggaatattt  
gctccacctatttagaggtaacatccgctgtaattccactattactgggttgatcctagaaaaacacacaaacaca  
gacaatatcaccttccgtccaataggaggggatatgacagacatctggagaagtgaattatataactataaaata  
gtaaaaaattgaaccattaggagtagcgcctaccagggcgagaaggaggactgtggatagagaaaaaagaggaata  
tgggggttgctcaggaaaaactcatctgcaccacttctgtgccatggaatagaacttggagtaacaaaacatataat  
gaaatttgggacaacatgacatggatggaatgggacaggggaagtaagaaattacacagaaattattttatgggtta  
atagagcaagcacaagaccagcaggaaaaataatgagaaaaaacttttagaactggatcattggacaagcctgtgg  
aattggtttgacataagtcactggctgtgtgtacataaaaaatattcattatgataataggaggcttaatagtgtgt  
aggataaatttttgcgtgtgctcgctatagtaaataagagtcaggcagggatactcacctctgtcatttcaggccact  
agcttgcttgatacaacagcaatagcagtagctgaggggaacagatagaatcatagaaatagtacaaagaattgggt  
agaggaatattacatatacctagaaggattagacaaggttctcgaaagggtttattataaatgggaagcaaatgg  
tcaaaaagtagcctggtaggatggcctgaagttagaagaagaattagacaagaaactgtagcagcagaaggagta  
ggaccagcctcacaagacctagctagggcatggggcaattacaagtagtaatacccccacaaactaatgagaccatt  
gcctgggttagaggagcaaaaggaggaagaaatatgggttccagtaaaacctcaggtaccattaaggccaatgact  
tttaaagagggttttgatcttggctactttttaaaagaaaaggggggactggaagggttagtttactctaaaaag  
agacaagaaatccttgacctcggggtttatcacacacaaggaatcttcctgactggcagaattacaccccaggg  
ccagggttagatatccaataaccttttggcgggtgcttcaagctagtaccactaacccccagaagaggtggaggag  
gctaataaaggagagagaacaatctactactgcacccaatatgccagcatggaatggaagatgaagacaaagaagtg  
ctgatattggaatatgacagccagctcgccctaagacacatagctcgagagctgcattcgggagtactacaagaac  
tgctga

>#61 KP861923 7566 nt

atgggtgctgagagcgtcagtatattaaccggtagtaaattggatgattgggagaaaattagggttaaggccaggggggt  
aagaaaaaatatatgatgaaacatttagtatgggcaagcagggagctggacagatttgcttgtaaccccgccctt  
atggaaacaggagaaggctgtgaacagtttaattaaacagctagaaccagctctcggaacaggggtcagagggattt  
agatctctctttaataacttttagtagtcctctggtgtgtacatcagagaattcaggtaaaagacaccaaaagaagcc  
ttagaccagctggcagaatggcaacaaaaagcaaaagaaaaaggaagcagcagcgacagcagcagacagctcagtc  
agcagaaaactacctgtagtagcaaatgcacagggacagatgggtgcacagccattatcacccagaaccttaaat  
gcctgggtgaaagtggtagaagaaaaggcatttagcccagaagtaatacctatgttcatggcatttagcagaagga  
gccacccctcaagatttaaataccatgctgaatacagtagggggacatcaggcagccatgcaaatattaaaagaa  
gtaattaatgaggaagcatcagaatgggataggatacatccattcatatggggcctatagcaccaggccaaatg  
agagagccaaggggaagtgatatagcaggaactactagtaccatacaggagcagataggctggatgactagtaac  
cctcccatctccagtgaggagagatttataaaagatggatagttctggggctaaataaaaatagtaagaatgtatagc  
cctgtcagttattctagacataaaagcagggacaaaaagaaccattcagagattatgtggacagattttataagacc  
ttaagggcagagcagggccacacaggaagtaaaaacttggatgacagacaccttgcttgtgcagaatgctaacca  
gattgtaagaacatcttgagagcactgggtccaggagccaccctagaggaaatgatgacagcatgccagggagtg  
gggggccctgcccataaggctagagtactggcagaggccatgagtcaagcaaatgctacagtaatgatgcagagg  
ggaaattttaaaggccctaagagaactattaaatgctataactgtggcaaggaaggccacctagccaggaactgc  
aaagcccccagaaggaaaggctgttggaatgtggacaggaaggacacagaatgcaggattgtaaactaagcaag  
gttataggaggacacttaaaagaggcactgttagacacaggggcagatgatacagtgctagaagagctagaatta  
gggggaaaaatggaaacaaaaatgatagggggaattggagggttttatcaaagtaaagcagtatgaaaatatacca  
atagaaatatgtggaaaaagagcagtaggtacagtttttagtaggacccacacctgttaatatataatagggagaaac  
atattaactcaaattggctgtactttaaattttcctatcagtcctattgaaactgtaccagtagcattaaagcca  
gggatggatggaccaagagtcaaacaatggccattgacagaagaaaaataaaaagcattgacagaaatttgcaca  
gaaatggaaaaggaaggaaagatttctaaaattgggcctgaaaaatccatacaatacaccagttatttgcataaaa  
aagaaagatagtacaaaatggagaaaaattagtagatttcagagaattaaataaaaagaactcaagatttctgggag  
gttcagtttaggaataccccaccctgcggggttaagaagaaaaaatcagttactgtattggatgtgggggatgct  
tatttttcatgccccctagatgaaaatttttaggaaatatacagcattcactatacctagtgtgaataatgagaca  
ccaggaatcaggtatcaatacaatgtactcccgagggtggaaggatcaccagccatatttcaagctagtatg  
acaaaaattctagagccttacagaaagcagaatccagagataattatttaccatacatggatgatttgtatgta  
ggctcagatttaaaaattgagctacacagacaaaaggtagaagagctgagagatcatctactaagatggggattt  
actaccctgacaagaaacatcagaaggaaccaccattcctctggatggggatgagctccatccagacaaatgg  
gcagtacagcctatacagttaccagacaaggagagctggactgtcaatgatatacaaaaactagtgggaaagtta  
aattgggcaagtcaaatatatccaggaattaaagtaaaagcaattatgcaagctaatttagaggaacaaagagttta

acagaggtagttaccctcacaaaagaagcagaattagaattggctgaaaacagggagatatattggcaaaccagta  
catggggtctattatgacccttcaaaagaattgatagcagaagtacaaaaacagggacagagtcagtgacatat  
cagatatatcaagaacagtttaagaatttaaaagacaggaaaatatgctaaaacaagatcagcccataccaatgat  
gtaaagcaattaacagaagtagtgcaaaaaatagcattagaaagcattgttatctggggtaagataccaaagttt  
agactgcccatacaaaaggaaacatgggaagcctgggtggactaattattggcaggctacctggatccctgaatgg  
gaatatgttaataccctctccctagtaaaactctgggtaccagttagaaacagaaccaataacaggtgcagagaca  
ttctatgtagatggggcagctaataagagataccaagttagggaaagcagggtatgtaacagatagggggaaacaa  
aagataatctccctaacagaaacaactaatcagaaagcagagttacaagctattcagctagctttacaggattca  
ggatcagaagtaaacatagtaactgactcacaaatattgcattaggaattatccaaggccagccagataaaaagtga  
tcagaaatagtaaatcagataatagaaagttaataaacaaggaaagggctctatctctcatgggtacctgcacac  
aaaggaattggaggaaatgaggaagtagacaaattagtcagttcagggattagaagagttctcttcctggatgga  
atagacaaagcacaggaagagcatgaaaaataccataataattggaaagcaatggccagtgactttaatatacc  
ccaatagtagcaaaagaaatagtagccagttgtgataaatgtcaattgaaggagagaagcaatgcatggacaggt  
gactgcagtcctggaatatggcaactagattgcacccacctagaaggaaagatcatcctagtagcagtagcatgtt  
gccagtggtacatagaagcagaagtcatacctgcagaaacagggcaggagacagcatacttcatattaaaatta  
gcaggaagatggccagtaaaagttatacacactgataatggcagcaactttaccagtaatgcagtcagggtgca  
tggtgggtgggcacagatccaacaggaatttggaattccctacaatccccaaagtcaaggagtagtagaatccatg  
aataaagaactaaagaagattataggacaagtaagagatcaggcagaacatttaaagacagcagtagcaaatggca  
gtattcattcacaaattttaaaagaaaaggggggattgggggggtacagtgcaggagagagaataatagacatcata  
gcaacagacatacaaaactacagaactacaaaaacaaattttaaaagttcaaaaatttcggggtttattacagggac  
agcagagatcctatttggaaggaccagcaaaactactttggaagggtgaaggagcagtagtgcttcaagatcag  
gaagaaataaaggtagtcccacgtagaaaagcaaaaattattagggatttggtaaaacaccacatgtatgtgtcc  
aaaaaagcaaaaattgggttttatagacatcattatgaaagtacaagtcctaaaagtaagctcagaaatacacatt  
ccaataggagatgctaaattagtaatagtaacttattgggggtctgcaaccaggagaaagagactggcatctggga  
catggagtgcttatagaatgggagacagagaagatatagtagacacagatagatcctgagttggcagaccacctgatt  
catttgcattatttttaattgttttgcagaatctgccataaggaaggccctattaggacacatagtttagccctaag  
tgtgaatatccagcaggacacttaaaaggtaggctccttacaatatattggcaatatcagccttggtcaaaagcaac  
ccaaaaagaccacccttgcttagtgtaagtaaaactaacagaggatgtgctagaagaacttaaaacaagaagcagta  
agacattttcttagacagtggttcatggcttaggacagtagacatatcaacacatatggagataacctgggaggga  
gttgaaagccataataaggattctgcaacaattgctgtttattcatttcagaattggctgtcaacatagcaggata  
ggcattgtggttcgaagaaggacaatagagccctggaatcaccaggaagccaacctaactgcatgtaacaat  
tgttattgtaaaagctgtagctttcattgtccactttgcttcatgaaaaaaggcttaggcatttccagtaaggag  
gaactgtgggtgacagtgtagtactatggagtacctgtatggagagatgcagaaacaactctcttttgtgcatcagat  
gcaaaggcacaagaacagaggcacataatatctgggcctctcaagcttggtgtacccacagatcctaaccctgaa  
gaaatacacctaccaaatgtaacagaatactttgatatgtggaaaaataatatggtggaacaaatgcaggaagat  
ataattagtttgtgggatcaaagtttaaaacatgtgtaaagttgactcctctctgtgttactttaaactgcact  
aattgtatttggggaatggcacttttagggaatggaatgacacaagggaagacttgagaaactgcagctttaat  
gctggggatataagagacaagaaaaagagggtccattcactattttatgctgaagatatataactaatagaccgc  
accagaactacaaagcagggaattcaacacaagcccccgccacgacgcctatagcgagtaccaaggtaccgat  
agcaatgacacatgcagccccaacaatactctagaatatagacttataagttgtaataacctcagtcataaccag  
gcctgccccaaaacttcttttgaaccaatacctatacactattgtgctccagctgggttttgcctcttttaaatgt  
aatgatacaaattttagtggaacagggtatatgtagaaatgtcagcacagttcattgtacacatggaattaggcca  
gtggtgtcaactcacctacttttaaatggcagtttagcaaaaggggatcatgataagggtaaaagaacaaaaac  
caaagtactgacaccattatagtacaattgaacaagagtataaatattacttgtattagaccagggaataacacc  
ataaaaggcatttctatagggccaggacaacacttctatggtacagaaacggtagtaggtgatcaaggaaagcc  
tactgcaaaatcaatggaacacaatggtttgatacattaaagagagtagcttgggaattaaaggaaacattcaat  
cttaccagagtaacatttgatcaagcatcaccggagatccagagatacaaaaacactacttcaattgtggagga  
gaattcttttattgtgagacatcttcattgtttaatgctacaatagatatcaccaataactacactgaatgag  
acgacctgggattatccagctgagaacaatattaaccaagaaatgataatccattgtagaataaaacaaattgta  
tcaatgtggcagagagtgggaaaaggaatatcttctcctctattagagggaaccattcaatgtaactccactatt  
acaggactactgctaactcgcgatggtaataacaaagcagatagtgagaacaaaacaaggattgaaacaggacag  
aacaagcagaagagattaataggactgacatttttagacctgcaggaggagaaatgagagacaattggagaagt  
gaattatatagatacaagggtggtgaaaattgaaccactaggactagcaccaccaaggcaaaaagaaggactgta  
aatagagaaaaaagggaatctggggatgctcaggaaaactcatctgcactactgatgtaaagtggatgaaaca  
tggagtaataaatcttataatgagatctgggataacatgacatggatgcagtgggacaaagaagtcagaaattac

acagaaaccatttatgattttaatagaacaagcacaaaaaccaacaggagtacaatgaaaaaagtttggttagagctt  
aaccagtgggcaagcctgtggaattggtttgatatatcaaattggctgtggtatataaaaaatattcattatgata  
gtaggaggattaataggctgtagaatagtttttgctttgctatctatagtaaataagagtcaggcagggatactca  
cctctgtcatttcaggggtgttctacagtattggggaaggggaactaaaagtttagtgctataagccttgcttgataca  
acagcaatagcagtagcagaaggaacagataggataatagaagtagcacaaagatttggttagaggcatacttaat  
atccccacacggatttagacaaggattagaaagagcttttgctataaatgggagccaaatgggtcaaagagcagccta  
gtaggatggcctgaggtgagagaaagaatcagacaaacacaaccagcagcagaaggagtaggaccagtggtcaaga  
gacctagacaatcatggagcaatcacagtcagaaatactccacaaactaatcaaacccttgcttggttagaagag  
cagaaagaggaagaagtaggtttccagtaaggcctcaggtaccattaagaccaatgaccttcaaaggtgctgtt  
gatctcagccactttttaaaagaaagagggggactggaagggctaatttattccagaagaagacaagagatcctt  
gatctctgggtttatcacacacaaggcttcttccagactggcaaaactacacaccaggaccaggcgctcagatat  
ccactgacctttggctggtgcttcaagttagtaccagtgctccagaggaagtggaaagagccaatgaaggagag  
aacaatgtgctgctgcacccaatgtgccagcatggcatggaagatgaagatcgagaggtcctgcaatggcgcttt  
gacagtcacctcgccctgagacacatagccagagagcaacatccggagtactacaagactgctga  
>#62 AJ302647 7494 nt  
atgggtgcgagagcgtctgtgtgtggtcagggagcaaattggatacatgggaacaaattaggttaaagccaggatgt  
aaaaagaaatacagactaaaacatttagtatgggcaagcagggagctggaaagattcgcatgtaatcctgagcta  
ctagaaactgcagagggcaatgaggaactgttacagcagtttagagccagctctcaagacaggggtcagaaagcctg  
cagtcactctggaacacaatagcagtgctctggtgtgttcacaaaagatttaaagttgaagatacacagcaggca  
atacagaaactaaaggaagtaatggggagcaggaagtctgcaggtgccgctaaggaagacacaagcgcaaggcag  
acgggtcaaaactaccctgtagtagcaaatgcacagggacaaatggtacatcagtcctctccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgaaatcatccctatgttcatggcattgtcagag  
ggagctattccttatgatactaataccatgctaaatgccataggaggacatcaaggggctttacaagtgtcaaaa  
gaagtaatacatgaggaagcagcagaatgggatagaactcaccacaaagcggcagggccattgcctccagggcag  
ataaggaaccaacaggaagtgcacatcgctgggacaactagcaccagcaagagcaagttcactggattactagg  
cccaaccaacctatcccagtaggagacatctatagaaaatggatagtggttagggttaaacaagtagtaaaaatg  
tacagcccagtgagcatcttagatattagacagggaccaaaggaaccatttagagattatgtagatcggttctac  
aaaacattaagagctgaacaggcaactcaagaagtaaaaaattggatgacagaaaccctgcttggtcaaaatgcc  
aaccagattgcaaacagattttgaaatcattagggccaggagctacctagaagaaatgatgatagcttgtcag  
ggagtaggaggaccaactcataaggccagagtactagcagaagcaatgtctgcagcccaagatctgaaggaggga  
tactcagcagtatttatgcaaagagggcaaaaaccaggtaggaaaggccctataaaaatgtttcaattgtgaaaa  
gaaggacatctagcaagaaattgtcgagcacctagaaagaaagggttgctggaaatgtggacaggaaggtcaccaa  
atgaaagattgcagaaatggaaaacaggcaccagcaagggttggggggccatctatgtgaagttttactggataca  
ggggcagatgatacagtactaaataacatacaattggaaggaaaatggacacaaaaaatgatagggggtatagga  
ggttttataaaggtaaaagaatataatcaagtgccagtagaaatagagggaagggaagtactgggaacagtattg  
gtgggacctactcctgttaatatatttggaagaaacatatgtacaggattgggttgtagactaaatttcctata  
agtcccatagccccagtagcagtaaaaactaaaaccaggaatggatggacaaaaataaaacaatggccctatct  
aaagaaaaaatagaagccttgacagcaatatgtcaggaatggacaagaaggaaaaatttcaagaataggacct  
gaaaatccttataatacacctatctttgctataaaaaagaaagatagcactaagtggagaaagctggtagacttt  
agggaattaaacaagagaacacaagatttctgggaggtacagtttaggtatcccacatccggggggtttaagcaa  
aagcaatctgttacagtccttagatgtaggagatgcttatttctcatgcccttagaccagatttcagaaaaat  
actgccttactattcctagtgtgaacaatgagacccaggaataagataaccagtacaatgtcctcccgcaggga  
tggaagggtcgccagctatatccaaagttcaatgacaaaaatttttagatccatttaggaaaaacaaccagaa  
ttagaaatttgtcaatacatggatgacttatatgtaggatcagatttaccctgacagaacatagaaagagagta  
gaattgcttagagaacacttatatcagtggggattcactaccctgataaaaagcatcaaaaggaacctcccttt  
ttgtggatggggtatgagctccatccagacaaatggacagtacaacccatccaattgcctaacaaggaggaatgg  
acagtaaatagatatacaaaaactagtaggaaaattaaattgggcaagtcaaattctatcaaggaattagagtaaaa  
gaattgtgtaagttaattagaggcaccaagtcattgacagaagtagtacctttaagtaagaggcagagctagaa  
ttagaggagaatagagaaaagttaaaagaaccagtgcatgggtgtatactatcaacctgacaaagacttatgggtt  
aatattcagaagcaggggaaaaggacaatggacttatcagatatatcaggatgaacataagaacctcaaaacaggg  
aatatactaagcaaaaggcctctcacacaaatgatataagacaattagcagaagtactccagaagggtgtctcaa  
gaagctataattatctggggaaaattgcctaaatttaagctgccaatcactagagaaacttgggaaacatgggtgg  
gcagactattggcaagccacctggattccagaatgggaatttgtcagcacagccccattgatcaaatatggtac  
cagttagaaagtgaacctattataggggcagaaacctattatgtagatggagcagctaacagagatacaaaaacta  
ggaaaagcaggatattgttacagaaaaagggaacagaaaaatagtaaaattagaggagaccaccaatcaaaaggct



gaattaatggcagtagtattattagccttacaggattccaaggaacagtaaatatagtaacagattcacaatatgta  
ttgggcatcatctcctcacagcctacacagagtgagtgccctctagttcagcagataatagaggaactaacacaa  
aaggaacaggtgtttcttacatgggttcctgcccataaaggcataggaggaaatgaaaaatagataaattagta  
agcaaggatattagaagagtcctattcctagaaggaatagaccaggcacaagaagatcatgaaaagtatcatagc  
aattggagagcattagctagtgattttggattgccaccagtggtggccaaagaaatcattgctaattgtcctaaa  
tgtcatataaaaggggaagcaattcatggtcaggtagactacagtcacagaagtatggcaaataagattgcacacat  
ctagaaggcaaaatcataatagttgctgttcatgtggcaagtggattcatagaagcagaagtaataaccagcagaa  
acaggacaagaaactgcctacttctgtttaaattagctgcaagatggcctgtttaaataatacatacagacaat  
gggcctaatttcacaagtgaaccatgaaggctgcatgttgggtggacaggcataaaacatgagtttggaatacca  
tataatccacaaagtcaaggagtagtagaggccatgaacaaggaattaaaatcaattatacagcaggtgagggac  
caagcagaacacttaaaaaacagcagtagcaaatggcagtagtttgggtcacattataaaaagaaaaggggggattggg  
gggtacactgcaggagaaaaggataatagacatattagcatcacaatacaaaacagaattacaaaaacaaatt  
tttaaaattcaaaaatttcagggtctattacagagacagcagagatcctatttggaaaggaccggcacagctcctg  
tggaaaggtgagggagcagtagtcatacaagataaaggagacattaaggtagtagccaagaagaaaggcaaaaata  
atcagacattacaggtcaggggaagaccagagactgggtattacagacaccattttgaatctaaaaatccaagagtc  
agctcaggtgtatatattccagtaggagggccttggatagtagtgaccacatattggggattgatgccaggggaa  
agagatgaacatttgggacatgggggttagcatagactggaggtacaggaagtatacaacacagattgaccctgaa  
acagcagacagaatgatacatatattatttgcctgttttacagagtcagcaatcaggaaagccatcttaggg  
cagagagtagtaccaggtgtgaatactctgcaggacatagtcaggtagggacactgcaactactagctctaaga  
gtggtagtaaaagaaaaaagacataagcctcccctaccagtggtccagaagttaacagaagatctcctagaagaa  
ctaaaagcagaagcagtaagacatttccctagaccttgggtacaggccttgggacaatacatttatgacacttat  
ggggacacttgggtaggagttatggccattataagaatcttacaacacactgctatttggccatttttagaattgga  
tgccaacatagtagaataggaattaacccatctaacacaagaggaagaggaagaagaatgcccccttggcatcac  
cctggaagtgcagcccagacccttgttaataagtgtattgcaaagcgtgctgctaccattgctatgtttgtttt  
gcaagcaagggtttgggactctcccaacactatgcaacagtcctatgctgggtacctgtatgggaagaggcaacc  
ccagtagtattctgtgcttcagatgttaacttaacgagcactgagcagcataatatttgggcatcacaagcctgt  
gttccaacagaccctctccatataaatatcctttaaaaaatgtaacagataacttcaatatatgggaaaattac  
atggtagaacaatgcaggaagatattattagtttatgggaacagagtttaaaaccttgtgttcaaatgactttt  
ctgtgtgtacaaatgaattgtacaaatgtaaatgatgagaccaacagctccgtaaagaatgataccagcagctca  
gagaaccttatgaaaaagtgtgagtttaattgaaccacagttctcaaagacaaaaaggagaaacaacagggtcta  
ttctatgtatcagattttgatgaaagtgaatgaaaataatgacacaatgtatacatattaattgtaattccaca  
accattaagcaaacctgtccaaagggtatcgtttgaggcaattccaatacactattgtgctccagcgggatagcc  
atctttaagtgtacaacacaggggttaattggaacaggcccatgcacaaatgttacagtagttacttgtacacat  
ggcatcagaccaacagtaagtactcaactaatattaaatgggacaatctctgaaggaaaagataagaattatggga  
aaaaatatttcagacactgggaaaaatatcatagtgaccataaattctactataaacatgacctgtgagagacca  
ggaaatcagacagtagcaaaaagataactaacaggtccagtggtgacagcatgggcctgaaaaataacctaact  
aactcaagggcagcctcttgcaagtataacagctctgtttgggaagaagccttaaaacaaacagctgaaagggtat  
ttagaacttatgaacaatacaaatacagttaacataacattcaatcacagcactgggtggagacccagaggtaacc  
catttgcatttttaactgtcatggagaattcttctattgttaacacatctcagatgtttaattataaccttttcatgt  
acaagaaccaactgtattagacaaagtaacagtagcattaatggcacaatatcttgcaggataaaacaggtggta  
aggtagtgatgatacagggaggggtcgggactttatgcacctcccaggccagggttacctaacatgcaactcatccata  
actggaatgattctacaattgggataagacatggaaccgcaccaacaacagcgaatccacatttagaccaataggg  
ggagatatgaaagatatatgggagaactgaattgttcaaatacaaaagtagtaaaagataaaaccttttagtggtgca  
cctacaaaaattgcaagaccagtcataggcactggcactcgaagagaaaaaagaaacctatggggctgtaaagga  
aggtagtctgctacacatcagtaaaatggaacaggacatggacaaataataactgatttagatacaatttgg  
ggaaatctaactggcaggaatgggatcagcagataagcaacataagcgccaccatatatgatgaaatacaaaag  
gcacaagtacagcaggaacacaatgagaaaaagttgctggagttgatgaatgggcttctatttggaaactggctg  
gacataactaaatggttgtggtatataaaaaatagcaataatcatagtaggggcactaataggggtgagaattgtt  
atgatagtagttaaacttagtgagaaacattaggcatggatatcaaccctctcatttcaggcttgcagaatttgc  
atagctgtaatacaatactggctacaagagttgcagaatagtgctacaagcctactagatacccttgcagtgga  
gttgccaattggactgacggtataatttttagggctacaaaggataggaagagggaattcttaacatcccaagaaga  
attagacagggcttagaaaagagctttattgtaaatgggaaacgtattgggtaaagataaaatttaagggtatggtca  
gcagtcagagaaaagaatgagaaaaacttcccctgagcctgaaccatgtgcacctggagtaggacaagtctccagg  
gaattagcagtagaggaggggatatacaattcccatactcctcaaaacaatgcagcccttgcattcctagaaagt  
caccaagatgaagacgtaggcttcccagtaagacctcaagtgccctctaaggccaatgacctataaaggagcattt

gacctcagcttcttttttaaaagaaaagggaggactggatgggttaatttactccccctgaaagagcagagatcctg  
gatctttgggtgtatcacactcagggattcttccctgattggcagaattacacaccaggaccaggaacaagattc  
ccactgacatttgggtggctatttaagctagtaccagtgtcagaagctgaggcagaagaactaggaaataagtgt  
gacagggctaaactcctgcatccagtttgcaaccatggctttgaagatccacacaaggagatgctgaaatggcag  
tttgatagatcactaggcagcacccatgttgctctgataacccacccagagctctttctcaaggactaa

>#63 AJ302646 7548 nt

atgggtgcgagagcgtctgtgttgacagggagcaaattggatgcatgggaacaaattagggttaaagccaggatgt  
aaaaagaaatacagactaaaacatttagtatgggcaagcagggagctggacagatccgcatgtaatcctgagcta  
ctagaaactgcagagggcaatgagaaactgttacagcagttagagccagctctcaagacagggtcagaaagcctg  
cagtcactctggaacactatagcagtgtctggtgtgttcacaacagaattaaagttgaagatacgcagcaggca  
atacagaaactaaaggaagtaatggggagcaggaagtctgcaggtaccgctaaggaagacacaagcgcaaggcag  
acgggtcaaaactaccctatagtaacaaatgcacagggacaaatggtacatcagtcctctcccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgaaatcattcctatgttcatggcattgtcagag  
ggagccattccctatgataactaatccatgctaaatgccataggaggacatcaaggggctttacaagtgtctaaaa  
gaagtaataatgaggaagcagcagaatgggatagaactcaccaccagcggcagggccattgcctgtagggcag  
ataaggaaccaacaggaagtgcattgctggaacaactagcaccagcaagagcaagttcactggattaccagg  
cccaaccaacctatcccagtaggagacatctatagaaaatggatagtgttaggattaaacaaagtggtaaaaatg  
tacagcccagtgagcatcttagatattagacagggacaaaagaaccatttagagactatgtagatcggttctac  
aaaacattaagagctgaacaggcaactcaagaagtaaaaaattggatgacagaaaccctgcttgttcaaaatgcc  
aaccacagattgcaaacagattttgaaatcattagggccaggagctaccttagaagaaatgatgatagcttgtcag  
ggagtaggaggaccaactcataagggccagggtattagcagaagcaatggctgcagcccaagatctgaaggaggga  
tacacagcagtatattatgcaaagagggcaaaacccaagtaggaaagggcctataaaaatgtttcaattgtggaaaa  
gagggacatctggcaagaaattgtcgagcacctagaaaagaaaggttgctggaaatgtggacaggaaggtcaccaa  
atgaaagattgcaaaaaatggaagacaggcaacagcaaggggtgggggcatctatgtgaagttttactggataca  
ggggcagatgatacagtactaaccaacatacaattggaaggaaaatggacacaaaaatgataggggggtatagga  
ggttttataaaggtaaaagaatataatcaagtgccagtagaaaatagagggaaggggaagtactgggaacagtattg  
gtggggacctactcctgttaatatatttgggaagaaacatatgtacaggattgggttgcacactaaatttcctata  
agtcccatagccccagtagcagtaaaaactaaaaccaggaatggatggacaaaaataaaacaatggccctatct  
aaagaaaaaatagaagccttgacagcaatatgtcaggaaatggaacaagaaggaaaaatttcaagaataggacct  
gaaaatccttataatacacctatctttgctataaaaaagaaagatagcactaagtggagaaagctggtagacttt  
agggaaattaaacaagagaacacaagatttctgggaggtacagtttaggtatcccacatccgggggggtttaagcaa  
aagcaatctgttacagtccttagatgtaggagacgcttatttctcatgcccttagaccagatttcagaaaaat  
actgccttactattcctagtgtgaacaatgagaccccaggaataagataccagtacaatgtcctcccgaagga  
tggaaagggtcgccagctatatattccaaagttcaatgacaaaaatttttagatccatttaggaaagacaaccagaa  
ttagaaaatttgtcaatacatggatgacttatatgtaggatcagatttacccctgacagaacatagaaaagagagta  
gaattgcttagagaacacttatatcagtggggattcactacccctgataaaaagcatcaaaaggaacctcccttt  
ttgtggatggggtatgagctccatccagacaaatggacagtgacagccatccaattgcctaacaaggaggaatgg  
acagtaaatgacatacaaaaaactagtaggaaagttaaattgggcaagtcaaattctatcaaggaattagagtaaaa  
gagttgtgtaagttaattagaggcgccaagtcattgacagaaatagtacctttaagtaaaagacagagctagaa  
ttagaggagaatagagaaaagttaaaagaaccagtgcatgggtgtatactatcaacctgacaaagacttatgggtt  
aatattcagaagcagggatggggacaatggacttatcagatatatcaggatgaacataagaacctcaaaacaggg  
aaatatactagacaaaaggcctctcacacaaatgatataagacaattagcagaagtactccagaggggtgtctcaa  
gaggtataattatctggggaaaattgcctaaatttaagctgccaatcactagagaaacttgggaaacatgggtg  
gcggactattggcaagccacctggattccagaatgggaatttgtcagtacacccccattgatcaaatatgggtac  
cagttagaaaagtgaacctattatgggggcagaaacctattatgtagatggagcagctaacagagatacaaaaacta  
ggaaaagccggatatgttacagaaaaggggagacagaaaataattaaattagaggagaccaccaatcaaagggt  
gaattaatggcagtatattatagccttacaggattccaaggaaacagtaaatatagtacaagattcccaatatgta  
ttgggcatcatctcctcacagcctacacagagtgaatcctctctagttcagcagataatagaggaactaaca  
aaggaacaggtgtatcttacatgggttcctgccataaaggcataggaggaaatgaaaaaatagataaattagta  
agcaaggatattagaagagtcctattcctagaaggaatagaccaggcacaagaagatcatgaaaagtatcatagc  
aattggagagcattagctagtgttttggattaccaccagtggtggccaaagaaatcattgctaattgtcctcaa  
tgtcatataaaaggggaagcaattcatgggtcaggttagactgcagtcagaaagtatggcaaatggattgcacacat  
ctagaaggcaaaatcataatagttgctgtccatgtggcaagtggttcatagaagcagaagtaataccagcagaa  
acaggacaggaactgcctacttccctgttaaaattagctgcaagatggcctgttaaggtaatacatacagacaat  
gggcctaattttacaagtgacagccatgaaggctgcatgtttgggtgggccaacataaaaacatgagtttggaaacca

tataatccacaaagtcaaggagtagtagaggccatgaacaaggaattaaaatcaattatacagcaggtgagggac  
caagcagaacacttaaaaacagcagtagacaaatggcagtagtttgtgcacaattataaaagaaaaggggggattggg  
gggtacactgcaggagaaaggataatagacatattagcatcacaaatacaaacaacagaattacaaaaacaaatt  
tttaaaattcaaaaatttcaggtctattacagagacagcagagatcctatttggaaggaccggcacagctcctg  
tggaaggtgagggagcagtagtcatacaagataaaggagacattaaggtagtagtaagaagaagaaaggcaaaaata  
atcagacattacaggtcaggggaagaccagagactgggtattacagacaccattttgaatctagaaatccaagagtc  
agttcaggtgtatatattccagtaggggggcttggtatagtagtgaccacatattggggattgatgccaggggaa  
agagatgaacatttgggacatgggggttagtatagaatggaggtacaagaagtataaaacacagattgaccctgaa  
acagcagacagaatgatacatatatattattttgcctgttttacagagtcagcaatcaggaaagccatcctaggg  
cagagagtactgaccaggtgtgaataccctgcaggacatagtcaggtagggacactgcaactactagctctaaga  
gtggtagtaaaagaaaaaagaataagcctcccctaccagtggtccagaagttaacagaagatctcctagaagaa  
ctaaaagcagaagcagtaagacatttccctagaccttgggtacaggccttgggacaatacatttatgacacttat  
ggggacacttgggtaggagttatggccattataagaatcttacaacaactgctatttgccattttagaattgga  
tgccaacatagtaggataggaattaccccatctaacacaagaggaagaggaagaagaatggatccagtagatcc  
tgaatgcccccttggcatcaccttgggaagtcagccccagacccttgtataaagtgtctattgcaaagcatgtctgc  
taccattgtctatgtttgttttgcaagcaagggttgggaatctcccagcactatgcaacagtcctatgtctgggta  
cctgtatgggaagaggcaaccccgatattattctgtgttcagatgctaaccctaacaagcactgagcagcataat  
atttgggcatcacaaagcctgtgttcccacagaccctctccatatgaatatcctttaaccaaggtgacagataat  
ttcaatatatggaaaaattacatggtagaacaatgcaggaagacattattagtttatgggaacagagcttaaaa  
ccttgtgttcaaatgactttcctgtgtgtacaaatgaattgtacaaactatgtacaagggaattatacaaacaat  
agctccataaataatgataccagcagtcagagaaaccttgtgaaacagtggtgaatttaattgaaccacagttgtc  
aaagacaaaaaggagaaaaaacaggtctattctatgtatcagatttgatgaagataaatgaagcaaatgacaca  
aaggacatgtatacatattaatttgaactccacaaccattaagcaagcctgtccaaagggtatcgtttgagcca  
attccaatacactatttgtgtccagcgggatatgccatctttaagtgtaacagcacagagtttaattggaacaggc  
ccatgcaacaacattacagcagttacttgtacacatggcatcaaaccaacagtaagtactcaactaatattaaat  
gggacactctctgaaggaaacataagaattatgggaaaaaatatttcagacaatatgaaaaatatcatagtacc  
ctaaattctactataaacatgacctgtgtgtgagacaaggaaatcagtcagtagacaagatacaaatagggtccaatg  
gcttggtagacatgagcctggcccaagaggggaaaaccaaataactcaaggatagcctattgcaagtataacatc  
tctgattgggaaaaagccttaaaacagacagctgaaagggtatttagaccttaggaacaatacaaatacagttaac  
ataacattcgagcgcagcatttgggtggagattcagaggttaacccatttgcatttcaactgtcatggagagttcttc  
tattgtaacacatctaagatgtttaattataccttttcatgtataggaaccaactgtactagtaaccaaaatagc  
agcaacagtaatgacactcggatataattgcaggataaaacaggtggtaagggtcatggatacaggggaggtcagga  
ctctatgcacctcccaggaaaggtaacctaacatgcagctcactcataactggaatgattctacaattggatatg  
ccatggaaacagcaccaacaacagcaacgccacatttagaccaacagggggagatatgaaagatatatggagaact  
gaattgttcaatacaaaagtagtaaaaggtaaaaccttttagtgtggcacctacaaaaattgcaaggccagtcata  
ggcactggcactcaaagagaaaaaagaacctatggggctgtgaagggaagctaactctgtacacatcagtaaaa  
tggaacacgacatggacaaattgcacaaataccaataagtttagatgatatttgggacaagctaacatggcagcaa  
aatgagaaaaagttgctggagtttagatgaatgggcttctatttggaaactggctggacataactaaatggttgtgg  
tatataaaaatagcaataatcatagtaggggcactaataggggtgagaattgttatgatagtacttaacttagtg  
aaaaacattaggcagggatatacaaccctctcatttagagcttgcagacttgcatagtctgtaatacaatactgg  
ctacaagagttgcagaatagtgtacaagcctactagataaccattgcagtggcagttgccaattggactgtcaca  
ataattttagggatacaaaaggataggaagaggaattcttaacatcccagaagaatttagacagggccttagaaaga  
agtttattataaatgggaaacgtatttgggtaaagatatatttaagggtatggtcagcagtcagagaaagaatgaga  
ggaacttcccctgatcctgaacatgtgcacctggagtaggacaaatctccagggaatttagcagctagaggaggg  
ataccaagttcctatactcctcaaaacaatgcagcccttgcattcctagaaagtcaccaagatgaagaagtaggc  
ttcccagtaagacctcaagtgcctctaaggccaatgacctataaaggagcatttgacctcagcttctttttaa  
gaaaaggaggactggatgggttaatttactcccataaaagagcagagatcctggatcttgggtatatcacact  
cagggatttctcctgatttggcagggttacacaccaggaccaggggccaagattcccactgacatttgggtggtta  
tttaagtttagtaccagtgtcagaagctgaggcagaggaactaggaaacaagtggtgagagggctagcctcctgcat  
ccagcttgaaccatggcttgaagacaaccaggggcaataactgaaatggcagtttgatagatcactaggcagc  
acccatgttgctatggttaaccaaccagagctctttaacaaggactaa

>#64 AY169812 7479 nt

atgggtgcgagtgcgctccgtgttgacagggagtaaatggatgcatgggaacgaattcggttgaagccaggatct  
aaaaagaaatatagactaaaacatttagtatgggcaagcaggagctggacagattcgcatgtaactcctgagcta

ctagaaactgcagagggcaatgagaagttgtttacaacagttagaaccagctctcaagacaggggtcagaaagcctg  
cagtcactctggaacacaatagcagtgctctggtgtgttcacaacagatataaagttgaagatacgcagcaggca  
atacaaaagttaaaggaagtaatggggagtaggaagtcctgcaagtgccgctaaggaagaaacaagtgcaaggcag  
acgggtcaaaattaccctgtagtaccaaatgctgcagggacaaatgatacatcaggccctctccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgaaatcattcctatgttcatggcattgtcagag  
ggagctattccctatgatattaataccatgctaaatgccataggaggacatcaaggggccttacaagtgctaaag  
gaagtaataatgatgaagcagcagattgggatagaagtcacccaccagtggttagggccgttgccaccaggggcaa  
ataagggaaaccaacaggaagtgcattgtctgggacaactagctcccagcaagagcaagttcactggattactagg  
gccaccaccctatcccagtaggagacatctatagaaaatggatagtggtgggactaaacaaaatggtaaaaatg  
tacagtcagtgagcatcttagatattaacaggggacaaaagaaccatttagagattatgtagatcggttctac  
aaaacattaagagctgagcaagcatctcaagatgtaagaattggatgacagaaaccctgcttggtcagaatgcc  
aaccagattgcaaacagattttgaaagcattagggccaggagctaccttagaagaaatgatggtagcctgtcag  
ggagtaggaggaccaactcataaggccaaattgctagctgaagcgatggttaccgcccataagatctaaaagga  
ggatacacatcagtatctcatgcaaagaggacaaaatccaatgaggaaggacataaaaatgtttcaattgtgga  
aaagagggacatatagcaaaaaattgtcgagcacctagaaagaaagggtgctggaaatgtggacaggaagggtcac  
cagatgagagattgcagaaatggaaaacaggcaacagcaaaagttgggggcatctatgtgaagtkttrctggat  
acaggggcagatgatacagtactaaacaacatacaattggaaggaaaatggacacccaaaatgataggggggtata  
ggggggtttataaaaagtaaaagaatatgatgatgtgacagtagaaatagaggggaagacaagtacaggggaacagta  
ttgggtgggacctacccctgttaatatatttgggaagaaatatattgacaggattaggttgtagactaaattttct  
ataagccccatagccccagtrccagtaaaattaaaaccaggaatggatggacaaaaataaaacaatggccccta  
tctaaagaaaaaatagaagcyttgacagcaatatgtcaggaaatggaacaagaaggaaaaatttcaagaatagga  
cctgaaaaatccttataatacacctatctttgcaataaaaaagaaagatagtagtaagtggagaaaaattggtagac  
tttagggaattaaacaagagaacacaagatttctgggaggtacagtttaggtatcccacatccagggggtttaag  
caaaagcaatctgttacagtcctagatgtaggagatgcttatttctcatgccccttagaccagatttcagaaaa  
tatactgccttactattccttagtgatgaacaatgagaccccaggaataagataccagtagaatgtcctcccgcaa  
ggatggaaaagggttaccagctatatccaaagttcaatgataaraattctagatccatttaggaggggacaacca  
gaattagaaatttgtcagtagacatggatgacctatatgtaggatcagatttaccctgacagaaacatagaagaagg  
gtagaaatgcttagagaacacttatataagtggggattcactacccctgataaaaagcatcaaaagggaacctccc  
tttytggtggtgggtatgagctccatccagacaaatggacagtagacagcccatccaattacctaacaaggatgtg  
tggaacagtaaatgatatacaaaaaattagtaggaaagttaaattgggcaagtcaaatctattcaggaattagagta  
aaagaattgtgtaaatatttagagggaccaaattcattgacagaagtagtacctttaagtaaaagaggcagagctg  
gaattagaggagaacagagagaagctaaargaaacagtgcatgggtgtatactatcaacctgamaaagamttatgg  
gttcagattcagaagcatgaawcagggcaatggacttaccagatatatcaggatgaatataagaacctcaaaaca  
ggaaartatactaggcaaaaaagcctcccacacaaatgatataagactattaacagaagtagtccagaagggtggct  
caagaagccatagttatctggggaaaaattgcctaaatttaagctgccagtcactagagaaaacttgggaaacatgg  
tggaacagactwttggcaagccacctggattccagaatgggaattcggttagtagacccccattgatcaaattatgg  
tacaggttagaaagtgaacctatcataggagcagaaacctattatgtagatggagcagctaataagaaatacwa  
ctaggggaaggcaggatagttacagaacaagggaacagaaaaatagtaaaatttagaggagaccaccaatcaaaag  
gctgarthtaatggcgatactatttagccctacaggaytccaargaaacagtaaatatagtaacagattcacaatat  
gcattgggtatcatctcctcccacacctacrcagagtgattccccattagttcagcagataatagaggaactaaca  
aaaaaggaacaggtgtatcttgcatgggttctgctcataaaaggcataggaggaaatgaaaaaatagataaatta  
gtgagcaaggatattagaagagtcctattcytagaaggaatagaccagggcacaagaagatcatgagaaatatcat  
agcaattggaaagcatttagctagtgactttgggctaccaccagtagtggccaaagaaatcattgctagttgtcct  
aaatgtcatataaaaggagaagcaatgcatggtcaggtcgactgcagtcagaaagtagggcaaatagattgcaca  
catttagaaggcaaggtcataatagttgctgtccatgtggcaagtggttcatagaagcagaagtaataccagct  
gaaacaggacaagaaactgcctacttctgtttaaatttagctgcaaggtggcctgtttaaattatacatacagac  
aacgggcctaattttacaagtgcacatgaaagctgcatgttggtggaccaacatacaacatgagtttggata  
ccttataatccacaaagtcaaggagtagtagaagccatgaataagggaattaaaatcaattatacagcaggtgagg  
gaccaagcagaacacttaagaacagcagtagcaaatggcagtagttgttcacaatttttaaagaaaaggggggatt  
ggggggtacactgcaggagaaaggataatagacatactagcatcacaatacaaaacaacagaattacaaaaaca  
attttttaaattcaaaaatttcaggtctattacagagacagcagagaccctatttggaaggaccggcacagctc  
ctgtggaaagggtgaggagcagtagtcatacaagataaaaggagaaattaaagtagtagcaagaagaaaggcaaaa  
ataatcagacattacaggtctgggaaggccaggaaactgggtattacaggcatcattttgaatctagaaatccaaga  
ttcagttcaggtgtacatattccagtagggatggcttgtagtagtagtaggaccacatattgggggactgatgccaggg  
gaaagagaggatcagatgggacatggggttagtagaagtggcagtagcaaacagtagatacaacacagattgacct

gaaacagcagacaggataatacatctgtactatcttacttgttttacagagtcagcaatcaggaaagccattcta  
gggcagagagtagttgcccagggtgtgaatacactgcaggacatagtcaggtagggacactgcaactattagctcta  
agagcagtagtaaaagcaaaaagaaataagcctcccctaccagtggtccagaaattaacagaagatactctagaa  
gaactaaaaacagaagcagtaagacattttcctagggcyttggctacakagcttrggacaatacatttatgagact  
tatggggacacttgggtaggagttatggcaattataagaatcttacaacacctgctattcaccatttttagaatt  
ggatgccaacatagtagaataaggaattaacccatctaaccaccagaggaagaggaagaagaatgccccatggcat  
caccctggaagtcagccccygacccttgcaacacttgctattgcaaaagatgctgctatcattgctatgtttgt  
ttcacaagaaaggggttgggaatctcccagctgtatgcaacagtttatgctgggggtacctgtatgggaagaggca  
gccccagtagttattctgtgcctcagatgctaaccctaacaagcactgagaagcataatgtttgggcatcacaagcc  
tgtgttcccacagacccccactccacatgaatatttattaaaaaatgtgacagatarcttyratatatggaaaaat  
tacatggtagaacaaatgcaggaagacattattagtctatgggaccagagtttaaaccttggtgttcaaatgact  
ttcatgtgtgtacaaatgaattgtacagacatagaaaaacaaaaacagtagctcagaaaaacccatgaaaaagtgt  
gagtttaataataaccacagttctcaaggacaaaaaggagaaaaaacagggtttattctatagagcagatttgact  
gaaataagagacaacagcacaaacagcacaaatatacatattaattaattgtaattccacaaccattaagcaagcc  
tgtccaaaggtatcttttgagccaattccaatatactactgtgctccagcaggatattgccatttttaagtgtaac  
aatgcagaatttaattggaacaggcaaatgcaacaacatttcagtgggtgacttgtagacatggcatcaagccaaca  
gtgagtactcaactgatattaaatgggacactctcaaaagaaaaaataagaattatgggacaaaataatttcggcc  
actgcacaaaatatcatagtgaccctaagtctgtgctgtaaacataacctgtgtgagaccagggaataagacagta  
caagagatgagaatagggtccgatggcctggtacagcatggccataagtggacaacacagctcaagggttagcctat  
tgccagtagtaaacaccactgagtgaggaaaaagccttaaaaaacacagctgaaaggtattttggaacttataaataag  
acagaagagataacaacaataatgttcaaccggagccatgatggcgatgtagaggttaaccattttgcattttaac  
tgtcatggagagttcttctattgttaacacatctgggatgtttaattatacctttttatgtaattgggaccaactgt  
aaaaaccaaagtaccatagcaataatggcacgataccttgcaagttgaaacaggtggtaagatcatggatgagg  
ggaggggtcgggactctatgcacctcccacccaggttaacctaacaatgcacacataactggaatgattcta  
caaatagatgggcatggaacaacaacaccacaacaatacatttagaccaatagggggagatatgaaagatata  
tgagagaaatgaattgttcaactacaaagtagtgagggtaaaaaccttttagtggtggcacctacatcaattgcaagg  
ccagtcataaggcactggcactcatagagagaaaagaaacctatggggctgttaarggaagactaatctgctacaca  
tcagtaaaatggaacgasacatggagwrgtacaactaatatagaccaaatttggggaaacttaacatggcaggaa  
tgggatcagcagatagacaacgtaagtgccrccatatatgaggaaatacaaagggcacaagtagcagcaggaaaca  
aatgagaaaaagtgtgctggagtttagaygaatgggcttctcttttggaaattggcttgacataactaaatggttgtg  
tatataaaaaatagcaataatcatagtaggagcactaataggtgtgagaattgtcatggttagtgcttaattctagt  
agaaacattaggcagggtatatcaacccctctcggttacaggcttgcaagatttgtgcagctgtaatacatttctgg  
ctacaagaattgcagaagagcgctactagcctactagatacctgtgcagtagcagttgctaattggactgacggc  
ataatcttaggggtacaaaaggctaggaagagggaattcttaatatccccgaagaataagacagggcttggaaga  
agtttattgtaaatgggaaacgtattggggaaagataaaatttaaaggatgggcagcagtaagagagagaatgaga  
aaaacttctctgatcctgatcctcaacctgtgcacctggagtagggccagtggtccagggaactagcagctaga  
ggaggagtaccaagttcctatactcctcaaaacaatgcagcccttgcatcctagaaagtcataagatgaagat  
gtaggtttcccagtagacacacagtgcccttaaggccaatgacctataaagcagcatttgacctcggtttcttt  
ttaaagaaaaggaggagactggatgggttaatttactcccatargagagcagagatcctagatctttgggtvtat  
cacactcarggatttttccctgattggcagaactacacaccaggaccagggactagatacccactgacatttgga  
tggttatataagctagtagcagtgwcagaaacygaggcaargaaactaggaacacatgtgagagggctatgctc  
ctgcatccagcttgtgcacatggctttgahgatccacacggagaaatactgaaatggcagtttgatagatcacta  
gcctccacccatgttgctaagataactcaccagagctcttcccccaaggactaa

>#65 AY169816 7449 nt

atgggtgagagtgcgctctgtgttgacaggaagtaaatggatgcatgggaaagaattagggttaaagccaggatct  
aaaaagacatataagctaaaacatttagtatgggcaagcaggagctggacagattcgcatgtaactctgggcta  
ctagaaactgcagagggtaatgagaagctgctacagcagtttagagccagctctcaagacaggggtcagaaagtctm  
cartcactctggaacacaataacagtgctctgggtgtgttcacaacagatatcaagttatagacacgcaggaggca  
atacaaaagttaaagggaagtcaggggagcaggaartctgaggaggccgctaagaaaaacaaaagcacaaagcag  
gagggtcaaaattaccctatagtaacaaatgcgaggggcaagtaacgcatcagccatctccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaargcctttaaccctgaaatcattcctatgttcatggcattgtcagag  
ggagcaattccctatgatattaatactatgctaattgccataggaggacatcaggagctttacaagtgctaag  
gaagtaattaatgaggaagcagcagattgggatagaactcaccaccaccggtagggccgttgccaccaggggcag  
ataagggaaccaacaggaagtgcattgtggaacaactagcaccagcaagagcaaattcaatggattaccagg  
cccaatcaacctatcccagtaggagacatctacagaaaatggatagtgtaggactaaacaaaatggtgaaaatg

tacagcccagtgagcatcttagatattaagcagggacccaaaagaaccatttagagactatgtagatcgattctac  
aaagtattaagagctgaacaagcatctcaagaagtaaaaaattggatgacagaaaccctgcttggtcctcaaaattcc  
aatccagattgcaaacagattttgaaatcattaggrccaggagctaccttagaagagatgatggtagcctgtcaa  
ggagtaggaggaccaactcataaggccagagtactagcagaagcaatggctacagcccagcaagatttgagagga  
gggtgcacagcagatttcatgcaaagagggcaaaatcaaggaaggaaaggacctataaaatgtttcaactgtggg  
aaagaggggacatatagcaaaaaattgtcgagcccctaggagaaagggttgctggacagcaagagttggggggccac  
ctatgtgaagttttgctggatacaggggagatgatacagtattaaccaacatacaattggaaggtaaatggaaa  
ccaaaaatgataggaggtataggaggctttataaaaggtaaaaggaatatgagaatgtgacagtagaaatagaagga  
agagaagtacagggaacagtatgttggtgggacctactcctgttaatatatttggaagaaatatattgacaggacta  
gggtgtactactaaatctccctataagccccatagccccagtgccagtaagactaaaaccaggaatggatggacca  
aaagtaaaacaatggccccctatctaaagaaaaaatagaagccttaacagcaatatgtcaggaaatggarcaagaa  
ggaaaaatttcaagagtaggacctgaaaatccwtataatacacctatctttgctataaaaaagaaagatgggtacc  
aagtggagaaagctggtagacttttagagaattaaacaagagaacacaagatttttgggaggtacagttaggtatc  
ccacatccgggggggttaaaagcaaaagcaatctgttacagtcctagatgtaggagatgcttatttctcatgtccc  
ttagatccagatttttagaaaaatatactgctttcactattcctagtggtgaacaatgagaccccaggaayaagatac  
cagtacaatgtcctcccgcaaggatggaaagggtcaccrgctatatccaaagttcaatgacaaaaattctagay  
ccatttagaaaagacaaccacagaattagaatatgtcagtatatggatgacttatatgtaggatcagatttacc  
ctgacagaacatagaaaaargattgaattgcttagagaccacttatatcagtggggattcactaccctgataag  
aagcatcaaaaggaacctccttttctgtggtgggtatgagctccaccagacaaatggacagtgcagcctatc  
caattgcctaacaaggatgtgtggacagtaaatgatatacaaaaactaataggaaagttaaactgggcaagtcaa  
atttaccaaggaattagagtaaaagaattgtgtaaattaattagaggcaccaagtcattaacagaagtagtacc  
ttaagtaaaagaggcagagctagaattagaggaaaacagagaraggctaaaagaaccagtgcatggggtatattat  
caacctgamaaagacttatgggttgatattcagaacagggagaaaggcaatggacttaccagatatatcaggat  
aaatataagaacctcaaaacagggaaatatacaggcaaaaggcctccacacaaatgatataagacaattagca  
gaagtactccagaaggtgtctcargaatctatagttatctggggaaaaattgcctaaatttaagctgccagtcact  
agagaaaatttgggaagcatggtgggaggactattggcaagccacctggattccagaatgggaatttgtyagcaca  
ccccattgattaaattatgggtaccagttagaaagtgaacctattatgggggcagaaacttattatgtagatgga  
gcagctaataagagagacaaaactaggaaaggcaggatatgttacagaactagggaacagaaaaataataaaatta  
gatgaaaccaccaatcaaaaggctgaattaatggccatattatttagccttacaggattccaaagaaaaagtaaat  
atagtaacagattcacaaatgtcattgggcatcatttcctctcaacctacacagagtgaatctcctatagttcag  
cagataatagaggaactaacaagaaaggaacaggtatatcttgcatgggttcgggtcataaaaggcataggggga  
aatgaaaaaatagataaattagtaagcaaggatattagaagagtcctgttcttagaaggaatagaccaggcacaa  
gaagatcatgaaaagtatcatagtaattggagagcattagctagtgaatttgactaccaccagtagtgccaag  
gaaatcattgctagctgtcctaaatgtcatataaaaggggaagcaatgcatggtcaggtagactgcagtcagaa  
gtatggcagatggattgcacacatctagaaggcaaaatcataatagttgctgtccatgtggcaagtggattcata  
gaagcagaagtaataccagcagaaacaggacaagaaactgcctacttctgttaaaactagctgcaagatggcct  
gttaaaatattacacacagacaatgggcctaattttacaagtgcactatgaaggctgcatgttggtgggccaac  
atacaacatgagtttggaataccatataatccacaaagccaaggagtagtagaagccatgaataaggaattaaaa  
tcaattataggacaggtgagggaccaagcagaacacttaagaacagcagtacaaatggcagtatgtttgttcacaat  
tataaaagaaaaggggggattggggggtacactgcaggagagaggataatagacatattagcaacacaattacaa  
acaacagaattacaaaaacaaattttaaaaattcaaaattttcgggtctattacagagacagcagagacctatt  
tggaagggaccggcacagctcctgtggaagggtgagggagcagtagtcatacaagayaagggagacattaaggta  
gtaccaagaaggaaggcaaaaataatcagagattacaggtctagaaagaccaaggactggtattacagacatcat  
tatgaatccagaaatccaagagtcagttcaagtgtatatattccagtagagaragcctatatagtagtgaccaca  
tattggggattgatgccaggagaaagagatgwacatmtgggacatggagttagtatagaatggcagtataaaaaa  
tataaaacacagattgacctgaaacagcagacaggatgatacatctgcattatttcacctgttttacagacaca  
gcaatcaggaargccatcctagggcagagagtactgaccaagtggtgaataacctgcaggacatagtcaggtaggg  
acactacagctactagctctaacagcaatagtaaaaaacaagaaacagtagggccccccctaccagtggtccagaaa  
ttaacagaagatctcttagaagaattaaaarcagaagcagtaagacattttcctagggcctggctacatgccttg  
ggacaatacatttatgagacttatggggacacttggggaaggagtkatggcaattacaagaatcttacaacaactg  
ctgtttaccattatagaattggatgccaacatagtagaataggaatttaccctaactaatacamgaggaagagga  
agaagagtgctgttggtggcaccacctggaagtcaacccagaccccttgtaataagtgctattgcaaagaatgc  
tgctatcattgctatgtttgtttcacaagcaagggttggaatctcccagctgtttgcaacagtcctatgctggg  
gtgcctgtatgggaagatgcagcaccagtatatttctgtgttcagatgctaatacaagcactgagcagcat  
aatatttgggcagcacatgcctgtgttcctacagatccctctccatatgaatatccattggacaatgtgacagat

tattttaatgtatggaaaaattatatggtagaacaatgcaggaagacattattagtttatgggaacagagtctt  
aaaccttggtgttcaaagtactttcctgtgtgtacaaatgaattgtaccaacttaaatgacacagtaaatggaacc  
agcagctcagaaagcgatatgcaaaggtgtgagtttaattgtaaccactgttgtaaaagacaaaaaggagaaaaa  
caggctttattctatagatcagatttgatggaattaaaggataaggataatagcacaacacacaatgtataca  
ttaattaattgtaactccacaaccgtcacgcaagcctgtccaaaggtatctttccagccaattccaatacactat  
tgtgctccagcaggatttgctatctttaagtgtaacagcacagaattcaatggaacaggcacatgcgaaaacata  
acagtagttacttgtagacatggcatcaagccaacagtaagtactcaactaatattaaatgggacactctctaaa  
ggaaaaataagaatgatgtcaacaaatatttcagacagtggaagaatatcatagtgaccctaaattctaccata  
aacatgacctgtagtagaccagcattggaagtacagagcatgggctgtaggtccaatggcgtatacagtgcacac  
ctaagggaatcagggaacacggatcaaggatagcttactgtgagtataataccagtgattgggaaaaagcatta  
agacaaacagctgagaggtatttagaacttgtaacaacacaggtagtattagcatgacattcaacaaaagcaac  
gatggtggagatccagagacaacccatttacattttaattgtcatggagaattcttttattgtaacacatcta  
ttatttaattatacctttcatgtaatggaaccacctgtaatgatagccaaagtaccaccaatgacacacagata  
ccttgcaaacctgagacaggtagtaaggtcatggataaaaggacagtcaggattctatgcacctcccatcaagggt  
aacctgacatgtacatcaacataacaggaatgattctacaaatggatgcaccatggaacagcaccagaaacaac  
agcgaacccaaactgcaacatttagaccaacagggggagaaatgaaagatatatggagaactgagttgttcaac  
tacaagtagtaagagtaaaaccttttagtgtggcaccacatcaattgcaaggccagttgtaggcactagcact  
catagagaaaaaagaaacctgtggggctgcaaaggaaagctagtctgctacacatcagtaaaatggaatgaatca  
tggaacaggaacgaaagcatttggaagaactaacatggcaggaatgggatcggcagataagaaacataagctcc  
accatataatgaggaaatacaaaaggcacaagtacagcaggaagtaaatgagagaaaggtgctggagttggatgaa  
tgggcttctctttggagttggcttgacataactaaatgggtgtggtatataaaaaatagcaataatcatagcagga  
gcactaataggcctgagagttatcatgatagtacttaattctagtgaagaacattaggcagggatatcaaccctc  
tcgttgacaggcttgagaatttggtgcagctgtaacacaatattggctacaagaattgcagaatagtgtacaagt  
ttgctagatacagttgcagtgaggtagccaattggactgacggtataatctcagggatacaagcaataggaaga  
ggaattcgtaacatcccaactagaattagacagggcttagagagaagtctattgtaaatgggamacgtattggga  
aaaaataaatatgagggatgggcagcagtaagacaaagaatgaggagaacwagaatttcccatgagcctgaacca  
tgtgcacctggagtaggacagatttccagggaacttagcagctagaggrgggataccaatttcccatactcctgaa  
aacaatgcagcccttgcatccttagaaaagtcaccaagatgaagaagtgggtttccagtaaggcctcaagtacct  
ctaaggccaatgacctataaaggagcatttgacctcagcttcttttaaaagaaaaggaggactggaagggtta  
atttactcccataagagagcagaaaatcctggatctttgggtgcatcacactcagggaattcttccctgattggcag  
aactatacaccaggaccaggaactagattcccactgacatttgggtggctatttaagctagtaccagtgcagca  
gaagaagcagaaagactaggaatacatgtgagagggctcatctcctgcaccagcgtgttcccatggctttggt  
gatccacatggggaaatactaattgtggaagtttgatagatctctagggcaacacccatgttgctcagataacccac  
ccagagctcttccagaaggactaa

>#66 KU168282 7521 nt

atgggtgagagcgtctgtgttgacagggagtaaatggatgcgtgggaacaaattaggctaaagccaggatct  
aaaaagaaatataggctaaaacatttagtatgggcaagcagggagctggaagattcgcatgtaatcctgggtcta  
ctagaatctgcagagggtaattgagcaactgttacagcaattagagccagctctcaagacaggggtcagagagcctg  
caatctctctggaactcagtagcagtgctctggtgcgttcacaacagatttgatgttcaagatacacagcaggca  
ataaaaaagttaaaggaagtaatggcgagcaggaagcctgccactgccgctaaggaggaaacaggtcaaggcag  
acaagtcaaaattaccctgtagtaacaaatgcgcagggacaaatggtacatcaagccctttccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaagcctttaaccctgaaattattcctatgtttatggcattatcagaa  
ggagctatttccctatgatatacaataccatgatgaatgccataggagatcaccaaggggctttacaagtgtgaag  
gaagtaataatgaggaagcagcagaatgggatagaactcatccaccagcaatggggccgttaccaccaggggcag  
ataagggaaccaacaggaagtgcattgctggaacaactagcacacagcaagagcaaatcactggattactaga  
gggaataaccctatcccagtaggagatatctatagaaaatggatagtgtaggattaaataaagtggtaaaaatg  
tacagtccagtgcagcatcttagatattaagcagggacaaaagaaccattcagagactatgtagatcggttctac  
aaaacattaagagctgagcaagctactcaagaagtaaaaaattggatgacagaaaccctgcttggttcagaattcc  
aaccagattgtaaacaaattttgaaatcattaggaccaggagctactctagaagaaatgatggtagcctgccaa  
ggagtaggagggccatctcacaaggcgagagtactagcagaagcaatggtttctgcccacaagatctaaaagga  
ggatacacagcagtatctcatgcaaagagggcaaaatccaaaaagaaaagggcctataaaatgtttcaattgtgga  
aaagagggacatatagcaaaaaattgtcgagcacctagaagaaaagggtgctggacagcaagggttgggggccat  
ctatgtgaggctttactggatagaggggcagatgatacagttataaatagcatatacaattagaaggaagatggaaa  
ccaaaaatgatagggggtataggaggctttataaaagttaaagaatatgataatgtgacagtagaaatacaagga  
aaggaagtasaggggacagtatgttggtgggacctactcctgttaatatatttgggagaaatatattgacaggatta

ggatgtactactaaatcccccataagtcccatagccccagtagccagtagctaaaaccaggaatggatggacca  
aaagtaaaacaatggccccctatctagagaaaaaatagaagcactaacagcaatatgccagaatggaacaggaa  
ggaaaaatctcaaggataggacctgaaaatccttataatacacctatTTTTGCTATAAAAAAGAAAGATAGCACA  
aaatggagaaaagttggtagacttcagggaaatataataaaagaacacaagatttctgggaagtgaattaggtatt  
ccacatccagggggtttaagcagaggcaatctgttacagtccttagatgtgggagatgcttatttctcatgtcct  
ttagaccagacttcagaaaaatacactgccttactatacctagtttgaacaatgagacccccggagtaagatac  
cagtacaatgtcctcccgcaagggtggaaaggttcaccagccatatttcagagttctatgacaaagatttttagat  
ccatttagaaaagacaaccagaaatagaaatTTATCAGTACATGGATGACTTATATGTAGGATCAGATCTACCA  
TTGGCAGAACATAGAAAGAGGGTTGAATTGCTTAGAGAACATTTATATCAGTGGGGATTCACTACCCCTGATAAA  
AAGCAYCAGAAAGAACCCTCCCTTCTATGGATGGGATATGAGCTCCATCCAGACAAGTGGACAGTACAGCCATT  
CAATTGCCTAACAAGGAAGTATGGACAGTAAATGACATACAAAAAGTAATAGGAAAATTAATTGGGCGAGTCAA  
ATCTATCCAGGAATCAGAGTAAAAGAATTGTGCAAGTTAATTAGAGGAATAAATCATTGACAGAGGTGATACCG  
TTAAGTAAAGAAGCAGAACTAGAATTAGAAGAAAACAGAGAAAAGGCTAAAAGAGCCTATACATGGAGTATATTAT  
CAACCTGACAAAGACTTATGGGTAAATATTCAGAAGCAAGGAGAAGGGCAATGGTCTTACCAGATATATCAGGAT  
GAACATAAGAACCCTTAAAACAGGGAAATATACTAGGCAAAAGGCCTCTCACACAAATGACATAAGRCAATTAGCA  
GAAGTGGTCCAGAAGGCATCTCAAGAATCTATAGTTATATGGGGAAAATTACCTAAATTTAAGTTGCCAGTCACT  
AGAGAAACTTGGGAAGCCTGGTGGGCAGATTATTGGCAAGCCACTGGATTCTCTGAATGGGAATTTGTGAGCACR  
CCCCATTGATCAGATTATGGTACCAGGTGGAAACAGAACCTATTGTAGGGGCAGAAACCTATTATGTAGATGGA  
GCAGCTAATAGGAATACAAAACCTAGGAAARGCAGGATATGTTACAGAACAAGGGAACAGAAAAATAATAAGTTA  
GAGGAGACAACCAATCAGAAGGCTGAATTAATGGCCATACTATTAGCCTTGCAAGGATTCACAAAAACAAGTAAAC  
ATAGTAACAGACTCACAAATATGCATTGGGCATCATAGCCTCCCAACCAACACAAAGTGACTCCCTATAGTTCA  
GAGATAATAGAAGAACTAACCAATAAGGAACAAGTGATCTTACATGGGTACCAGCTCACAAAGGCATAGGAGGA  
AATGAAAAAATAGATAAGTTAGTAAGCAAAGATATTAGAAGAGTCCTGTTCTTAGAAGGAATAGATCAGGCACAA  
GAAGATCATGAAAAATACCATAGCAATTGGAGAGCATTAGCTAGTGACTTTGGAATACCACCAGTAGTAGCTAAG  
GAAATCATTGTAGTTGTCTCTAAATGCCATATAAAAGGAGAAGCAATGCATGGCCAAGTAGACTACAGCCAGAG  
ATATGGCAAATGGATTGCACACATTTAGAAGGCAAGATCATAATAGTTGCTGTCCATGTGGCAAGTGGCTTTATA  
GAAGCAGAAGTAATACCAGCAGAAACAGGACAGGAAACTGCCTATTTCTGTAAAATTAGCAGCAAGATGGCCT  
GTCAAAGTAATACATACAGACAATGGGCCTAATTTTACAAGTGCAAGCATGAAGGCTGCATGTTGGTGGACAGGC  
ATACAACATGAGTTTGAATACCATATAATCCACAAAGTCAGGGAGTAGTAGAAGCCATGAATAAGGAATTAAG  
TCTATTATACAGCAGGTGAGAGACCAAGCAGAGCATCTAAAAACAGCAGTACAAATGGCAGTCTTTGTTCACAA  
TTTAAAAGAAAAGGGGGGATTGGGGGGTACACTGCAGGAGAGAGATTAATAGATATACTAGCATCACAAATACAA  
ACAACAGAATTACAAAAACAAATTTTCAAATTCAAAATTTTCAAGGTCTATTACAGAGATAGCAGAGACCCTATT  
TGGAAAGGACCGGCACAACACTACTGTGGAAAGGTGAGGGGGCAGTAGTTATACAAGATAAAGGAGACATTAAGTA  
GTACCAAGAAGAAAGGCAAAAAATAATCAGAAATTACAGATCTAGAAAGGCTAAGAGATGGAATTATAGACATCAT  
TATGAAACAAGGCATCCAAAAATTAGTTCAGTTATATACATTCCAATAGCAGAAGCTGAGATAATGGTTACCACA  
TATTGGGGATTAATGCCAGGGGAAAGAGAGGAACACTTGGGACATGGGGTCAGTATAGAATGGCAATACAAGAAG  
TATAAAACACAGATTGATCCTGAAACAGCAGACAGGATGATACATCTGCATTATTTTACCTGTTTACAGAGTCA  
GCAATCAGGAAGGCCATTCTAGGGCAGAGAGTGCTGACCAGGTGTGAATACACTGCAGGACATAGTAAGGTAGGG  
ACACTACAGTTCTTAGCCTTAAAAGCATTAGTGAAAGTAAAGAAAAACAAGCCTCCCTACCCAGTGTCCAAAAG  
TTAACAGAAGACAGATGGAACAAGCACCAGAGAATCAAGGGCCAGCTAGAGAGCAATCCAATGTGTGGACATCTC  
CTGGAGGAGCTAAAACAAGAAGCAGTGAGACATTTCCCTAGGACTTGGCTACAAGCCTTAGGGCAATACATTTAT  
GATACTTATGGAGACACTTGGGAGGGAGTTATAGCAATTATAAGAATCTTACAACAAATACTGTTTATCCATTAT  
AGAATTGGATGCCAGCATAGTAGAGTAGGAATTATTCATCTAATACAAGAGGAAGAGGAAGAAGATGCCTCCT  
TGGCATCACCTGGGAGCAGGCCCAACCCCTTGTAATAATTGCTATTGCAAACGCTGCTGCTATCACTGCCTC  
CTTTGTTTACAAAGAAGGGTTTGGGAATCTCCCCACAAATGTATGCAACAGTCTATTCTGGGGTACCGGTATGG  
GAAGATGCAAAACCAACACTATTCTGTGCTTCAGATGTTAACTTGACAAGCACAGAGAAACATAATTTGGGCA  
TCACAAGCCTGTGTTCCACAGACCCTACTCCAATGAATATCGTCTAGAGAATGTGACAGATAAATTTGATATA  
TGGAAAAATTATATGGTGGAAACAATGCATGAAGACATTATTAGTTTATGGGATCAGAGTTTAAAGCCTTGTGTG  
CAGTTGACTTTCTTATGTGTACAAATGAAGTGTACAGATGTAAATCAAATACAACAAATACAACCATCCTAAAA  
GAAGAAGCAACAGCCATAAAAAGCTGTAGCTTTGATGTAACTACAGTTCTCAAAGACAAAAAGGAGAAAAACAG  
GCTCTATTTTATGTAACAGATCTGGCTAAGGTTGACCCAACAGATCCAAATTCACAGATACAACAACCTATACA  
TTAATTAATTGTAACCTCACAACCATCAGGCAAGCCTGTCCGAAGGTAAGCTTTGAGCCCATCCCTATACATTAT  
TGTGCTCCAGCAGGATATGCCATCTTTAAGTGTAAATGAACAAAACCTTTAATGGAACAGGCACATGCCAATGTT  
ACAATGGTTACTTGTACACATGGCATCAAGCCAACAGTAAGTACTCAGCTAATATTGAATGGGACAATATCTAAA  
GACAAAACAAGAATTATGGGACAAAATATCACAGACAGTGGGAAGAATATCATAATAACCCTAAATACTACTATA



aaaatgaattgcacgaaagaaggaaataatgagatacaagaaataaaaaatagggcccatgtcatggctcagtatg  
gcagttactgcaaataaaactgggtcaaaatcaaggatagcttattgttaattatagtagcaccgaatgggaaaag  
gccttaaaactaacagctgaaagatatgtacaacttttaaacataacagaaaaagttaccataaacattcaaaaat  
agcagtgggggagatgcagaaataagccgtttgcatttttaactgtcatggagaattcttttattgtaacacatct  
aagatgtttaactatacttttgactgtacaagtggcaactgtactgagatcaattccatgaataaaactgatgag  
cataatggactaccttgcagggttaagacaggttagtaagatcatggataaaggagagtcaggactttatgcacct  
cccatcagaggcaacctcacatgccagtccaacataactggaatgattctacaactagatgaaccatataaccgc  
acatcagatgcaaatagtcacacttagaccaagtgggggagacatgcaagatatatggagagctcaattgtacaac  
taciaaagtagtacagataaaaaccttttagtgttagcacctacaagaatctcaaggccaacaataaaaccttaacacc  
cctcgcagagaaaaaagaaacctatggggctgttaagggaaggataatctgttacacatcagtaaaatggaacaca  
tcatggggagattacaatgacagtatgttggaaccactatacatggcagcaatgggaccaacaataagataatata  
agctccattatctatgatgaaatacaagcagcacaaagaccaacaggaaagggaatgtaaaggcactgctggagcta  
gatgaatgggcctctctttggaactgggttgacataactaaatggctgtggtatataaaaaatagctataatcata  
gtaggagcactgataggtataagagttatcatggtagtacttaatctagttaggaacattaggcagggatatcaa  
cccctctcgttgaggctttcaaacctttgtggagctgtaacacaatactggctacaagaattgcagactagtgcct  
ataaatctgtttgatacttttgcaagtggcagttgctaattggactgacagctttatcttaggtatacaagaata  
ggacgaggatttccttaacatccaagaagggttagacaaggcgagaaatagcattattgtaaatggggaatgcc  
tggagcaaaagcaaatttgcaggatggtcagaagtaagaaggagaatgagacaaacctcccctgagcctcagcca  
tgtgcacctggagtaggagaagtctccagggcattagcagacagagggggaataccaaatttcctacaatcctcaa  
aacaatgcagctctcgcatttcctagaaagccacacagatgaggaagtaggtttccagtaaaacctcaagtgcct  
ctaagaccaatgacctacaaagcagccgttgacatcagcttctttttaaagaaaaggaggactggaagggtta  
atttactcccataagagagcagaaatcctggatctctggatatatcacactcagggtttttccctgattggcag  
tgttacacaccgggaccaggaacttagattcccactgacattttggatggctattttaagtttagtgccagtgtaaga  
gaggaggcagaaggactgggttaatacacgtgaggatgctagtctgctacatccagcttgtaaatcatggcgctgag  
gatgaacacggggagatgctaaaatggcagtttgatagaacatttaggcagcacacatatagccctgcaaaagcac  
ccagagctcttccccaagtaa

>#67 AY169809 7509 nt

atgggtgagagcgtctgtgttgaaaggagcaaattggatgcatgggaacaaattaagttgaagccaggatct  
aaaaaagcatataggctaaaacatttagtatgggcaagcagagagctggaaagattcgcatgtaatcctgagcta  
ttagaaactgcagagggtaatgagaaactgtttacaacagtttagagccagctctcaagacaggggtcagaaagcctg  
cagtcactctggaacacagtagcagtgctctggtgtgttcacaacagattttaagttgaagatacgcagcaggca  
atacaaaaagttaaaggaagtaatggggaaaaggaagcctgtagatactgctaaggaagacacaaaactcaaggcar  
acaggtcaaaattaccctgtagtaccaaatagcacagggacaaatgatacatcaggccctctccccaggactttg  
aatgcatgggtaaaagcagtagaagaaaaagcctttaaccctgaaattattccaatgttcattggcattgtcagag  
ggagctgttccctatgatatacaatactatgctaaatgccataggagggcatcagggggctttacaagtgtgaag  
gaagtaataatgaggaagcatcagactgggatagaacgcacccaccagcagtgggggcgttgccaccagggcaa  
ataaggaaccaacaggaagtgcattgctggaacaactagcaccagcaagagcaagttcactggactaccagg  
cctaacaacctatcccagttggagatatattatagaaaatggatagtgtaggattaaacaaaatggtaaaaatg  
tacagtccagtgcagcatcctagatataggcagggaccaaaagagccatttagagactatgtagatcggttctac  
aaaacattaagagctgagcaagcaactcaagaagtaaaaaattggatgacagaaacctgcttgttcaaaatgcc  
aaccagattgcaaacagattttaaaatcattagggccaggagctacctagaagaaatgatgatagcctgtcaa  
ggagtaggagggccaacacataaggccaaaatactagcagaagcaatggctacagcccagcaagatctaaaagga  
ggatacacagcagtggtcatgcagagagggcaaggcccaattaggaaagggcctataaaaatgtttcaactgtgga  
aaagagggacatatagcaaaaaattgtcgagcacctagaaagaaaggctgctggaaatgtggacaggaaggtcat  
caaatgaaagattgcagaaatggaaaacaggcaacagcaagggttgggggccatctatgtgaagttttactggat  
acaggggcagatgatacagtactaaacaacatacaattggaaggaaaaatggacacccaaaatgataggggggtata  
ggaggctttataaaggtaaaaagaatatagcaatgtgaaagtagaaatagaaggaagggaagtacagggaacagta  
ttagtgggacctacccctgttaatatatttggagaataatattgacaggatttaggttgtacactaaatttcct  
ataagccccatagccccagtagcagtaaaactaaaaccaggaatggatggacaaaagttaaacaatggccctta  
tctaaagaaaaaatagaagctttaacagcaatatgtcaggaaatggaacaagaaggaaaaatttcaagaatagga  
ccgaaaaatccttataatacacctatctttgctataaagaagaaagatagtaccaagtggagaaaattggtagac  
tlyagagaattaaacaagagaaacacaagatttctgggaggtacagttaggatttccacatccgggggtttaaag  
caaaagcaatctgttacagtcctagatgtaggagatgcttatttctcatgtccttttagaccagatttcagaaaa  
tatactgccttcactattcctagtgtgaacaatgagaccccaggagtaagataaccagtacaacgtcctcccgcaa  
ggatggaaaggatcgccagccatattccaragttccatgacaaaaattctagatccatttaggaaaaagaacca

gaaatagaaatztatcagttacatggatgacttatatgttaggatcagatttgccttggcagaacatagaaaaagg  
gttgaattgcttagagagcatttatatcagtggttgattcacgacccctgataaaaaacatcaaaaggaacctccc  
tttctgtggatgggatatgagctccaccagacaagtggtgacagtagcccatccacttgcctaataaggacgtg  
tggacagtaaatgatatacaaaaactagtaggaaaattaaattgggcaagtcaaattctatcaagggattagagta  
agagaattgtgtaagttaatcaagggcaccaagtcattgacagaggtggtacctttaagtaaagaggcagaacta  
gaattagaagaaaayagggaaaagctaaaagaaccagttacatgggrgtatactatcaacctgacaaagatttatgg  
gttaatatcagaagcaaggagagggacagtggtgacttaccagatatatcaggatgaacataagaacctcaagaca  
gggaaatatactaggcaaagagcctccacacaaatgatataaggcaattggcagaagtagtccagaaggtatct  
caggaatcgatagttatctgggggaaattgcctaaatttaagctgccggtcactagagaaacttgggaaacatgg  
tgggcagactattggcaagccacctggattccagaatgggaatttgttagcacacccccattgatcaagttatgg  
taccagttagaaagkgaacctattaggggggcagaacatattatgtagatgggagcagctaataagagatacaaaa  
ctaggaaaggcaggatattgttacagagcaagggaaacagaagataataaaaattagaagagaccaccaatcaaaag  
gctgaattaatggcagtggttagtagccttacaggattccaaggagaaagtaaacatagtaacagattcacatatt  
gtattgggtatcatctcctcccaacctacacagagtgaatcccctatagttcaacagataatagaagaactgaca  
aaaaaggaacaggtgtaccttacatgggtccctgctcataagggcatagggggaaatgaaaaaatagataaatta  
gtaagcaaagatattagaagagtcctattcctagaaggaatagaccaggcacaagaagatcatgagaaataccat  
agcaattggagagcatttagccagtgactttggactaccaccagtggtggccaaggaaattattgctaattgtcct  
aaatgtcatataaaaggggggaagcaattcatgggtcaggttagactgcagtcagaaagtatggcaaatggattgcaca  
catgtagaaggcaaagtattcatagttgctgtccatgtggcaagcggattcatagaagcagaagtataccagca  
gaaacaggacaggaaactgcctatttccctgttaaaatttagcagcaagatggcctgttaagtaatacatacagac  
aacgggcctaattttacaagtgcaacctgaaagctgcatgttggtggactaacatacaacatgagtttggaaata  
ccatacaatccacaaagtcaaggagtagtagaagccatgaataaggaattaaaatcaattatacagcaagtgagg  
gaccaagcagagcacttaaggacagcagtagcaaatggcagtagtttgttcacaattttaaaagaaaagggggatt  
ggggggtacactgcaggagagagattaatagacatatttagcatcacaatacaaaacaacagaactacaaaaacaa  
atthttgaaaattcaaaaatttcgggtctattacagagacagcagagaccctatctggaaaaggaccggcacagctc  
ctgtggaaaaggtgagggagcagtagtcatacaagacaaaggagacattaaggttagtaccagaagaaaaggcaaaa  
atactcagggtactacaggtctaggaaaaccaaggactgggttttacagacatcattatgagttctagaaatccaaga  
gttagttcaggtgtatatattccagtagggtaggtgtgtataatagtgaccacatattgggggattaatgccaggg  
gaaagggatgagcagttgggacatggagtttagtatagaatggcagtagacaagaggtataaaaacacagattgacct  
gaaacagcagacaggatgatacatctgtattatttcacctgttttacagagtcagcaatcaggaaaagccacctta  
gggcagagagtgctgaccaggtgtgaataacctgacaggacatagtcaggtagggaacrtgcaactattagckctg  
agaatagtagtaaaaagaaaaaaggaataagccccccctaccagtggtccagaagttaacagaagatctcctggaa  
gaactgaaagcagaagcagtgagacatttccctaggaattgggttacaagacctgggacaattcatttatgagact  
tatggagacacttgggtaggagttatggccattataagaatcttacaacagatactattttacccatttttagaatt  
ggatgccracacagtagaataggaattaacccatctaacacaagaggaagaggaagaagagtgcccccttggcac  
caccctggaagtcagccccagaccccttgtaatgcttgctattgcaaaaagtgtgtgctatcattgctatctttgt  
ttcacaagcaagggtttgggaatctcccagttgtatgcaacagtgctatgctgggggtgctgtatgggaagaagca  
aacccaatactattctgtgcttccgatgctaacttaacaagcactgagaagcacaatattttgggcagcacaaagcc  
tgcggtcccacagacccccactcccatgaatatccattatccaatgtgacagataaacttcaatatatgggaaaat  
tacatggtggaccagatgcatgatgatatactgatttgtggaagcagagtttaagccatgtgttgaaattgact  
ttcctgtgtgtacaaatgaattgcacagatgttactcatactaataatgtaacctctctgcaggctgtaaccagc  
cccgtaaaaaagtgtgatttcaatgtaaccacaattttcaaagacaaaaggagaaaaaacagggtctatttctat  
aaagcagatttgcctgaaacaaaagaattagaatcaaacagacaatgtatacatattaactgtaactccaca  
accatcaagcaagcctgtccaaaagtaacttttgaaacctattccaatacactactgtgctccagcaggctatgcc  
atctttaagtgtacaataagcgaatttaacggaaaaggtgcatgcagtaatttacagtagttacttgtacacat  
ggcatcaagccagcagtagtaactcaactaataactaaatgggacactctctaaaggaaaaataagaattatggga  
aaaaatatthtcagacagtggtgcaaaagtatcctagtactctaaatttctactataaaacataacctgtgagagacca  
ggaaatcggaagagagaggagataaaaaataggtccaatggcttggtacagtagtgcagtagaaaacaacataaca  
taaggggaagcttattgacacataatgtcagtaaatgggcaacagccctaagcaaacagctgagaggtatcta  
gaacttgtaacaatacacaggctagcataacattcaatcaaagcagtggtggagatccagagataaccaattta  
catttcaattgtcatggagaattcttttattgttaacacaacggggtgttttaattataacctttctgtgtgaaaac  
tccatctgtaacttcacccataacaatacttcagaggagcgcaatctaacttgtagaatttagacaggtggttaagg  
tcatggatgaagacaggggtcgggactctatgcacctcccatcgaaaggtaacctaactgtaggtcaaacataact  
ggaatgattctagaaatggataaacatggaacaaaagtacaaacaatgaaacagccatatttagaccaataggg  
ggagatatgaaagaaatatgggagaactgaattgttcaactacaaagtagtaagggtaaaaccttttagtgtggca

cctacaaaaattgcaaggccagtcataaggcactggcactcctagacagaagagaaacctgtggggctgtaaggga  
caattagctctgctacacatcagtaaaatggaacacaacatggggaagcaatattcctaataattactaatctr  
gag gaaatttggggcaaactaacctggcaggaatgggatcagcaggtgaagcaatgtaagctccatcata  
tatatgaggaa atacaaaaggcacaagtacagcaggaacaaaatgagaagaagttgctggagttaaatgaat  
gggcctctatttgg aattggccttgacataactaaatgggttggtatataaaaaatagctataatcata  
gtaggagcactagtaggtgtg agagttgtyatgataatacttaatctagtgagaacattaggcaggg  
atatcaacccctatcgttacaggcttgt agaattggtagagctgtaatacaatactggctacaaga  
attgcagaatagtgctataagtctggtagataccttg gcagtggtagttgccaattggactgacgg  
catcatttttaggactacaacgcataaggaagaggaattcttaacatc ccaacaagaattaggcag  
ggcctagaattagggtttattgtaaatgggaaacgcattraaagaaaagtagctttgtg ggatgg  
ccagcagtaagagaaagaatgagaaaagctcccagtagtgatcctgagccatgtgcacctggagtag  
ga gaactctccagagaatttagcagctagaggaggataccaggctcatatactcctcaaaaataatgc  
agcccttgca ttccctagaaagccaccgagaagaagaagaagtaggtttccagttaaacctcaggtgc  
cttttaaaaccaatgacc tataaaggagcatttgacctcagcttcttttaaaagaaaagggaggact  
ggatgggttaatttactcccatact agagcagagatcctggacctttgggtgcataacactcaggg  
attcctcctgattggcagaactacacaccagga ccaggaaccagattcccactgacatttggtatg  
gttatttaagctagtaccagtgtcagaagctgaggcagaagaa ttaggcaataagtgtaaagggct  
tagactcctccatccagcttgtgatcatgggtttggagatcaccacggggaa atactgaaatggcag  
tttgatagatcactaggcaacactcatgttgctatgataaccacccagagctcttccac aaggactaa

>#68 KU168283 7389 nt

atgggtgcgagtgcgctctgtgttgaaagggagcaaaattggatgcatgggaacaaattagggttaaagccag  
gatct aaaaagaaatatagactaaaacatttagtatgggcaagcagggagctggaaagattcgcatgta  
atcctgagcta ctagaaactgcagagggcaatgagaaactattacaacagtttagagccagctctcaag  
acaggggtcagacagcctg cagtcactctggaacacaatagcagtgctctgggtgtgttcataacaga  
tataaaagtagaagatacacagcaggca acacaaaagctgaaggaagtaatggggagcagaaagtctg  
cagcgccgctaaggaagacacaagcgggaggcag acgggtcaaaaattaccctgtagtaccaaatgc  
acaaggacagatgggtgcatcagcccatctccccaggacttta aatgcatgggtaaaggcagtagag  
gaaaaggcctttaaccctgaagtcacccctatgttcatggcattatcagag ggagctattccctatg  
atattaatactatgctaaatgccataggaggacatcaaggggccttacaagtgtaaaa gaagta  
atcaatgaggaagcatcagattgggatagaactcatccaccagcgatgggacggttaccaccaggg  
cag ataagggaaaccaacaggaagtgcattgctggaacaactagcaccagcaagagcaagttcactg  
gggttaccagg gccacaacccctatcccagtaggagatatctatagaaaatggatagtgctaggat  
taaacaaaatggtaaaaatg tacagcccagtgagcatcttagatattaaacagggaccaaaaga  
accatttagagactatgtagatcggttctat aaaacattaagagctgagcaagcaagtcaagacg  
taaaaaattggatgacagaaacattgcttgttcaaaatgcc aaccagattgcaaacagattttg  
aaatcatttagggcaaggagctaccttagaagagatgatgryagcctgtcag ggagtgggagg  
accaactcataaggccagagtgttagcagaagcaatggctacggcccagcaagatctgaaggga  
 ggatgcacagcaatatttatgcaaagagggcaaaatccaattaggaaaggacctataaaatgtt  
tcaattgtgga aaagagggacatctagcaagaaattgtcgagcgccctagaaagaaagg  
ttgctggacagcaaggggtgggggccat ctatgtgaagctttactggacacagggg  
cagatgatacagtactaaccaacatacaattagaggggaaaatggaca ccaaaaatgatagg  
gggtataggaggttttgtaaaagttaaagaatatgatgacgtgacagtagagaaagaggga  
 agaagagtacagggaacagtatgttggtgggacctactcctgttaataattattggaagaa  
tatattgacaggatta ggttgtagactaaacttccctataagccccatagccccagtgccag  
taaaactaaaaccaggaatggatggacca aaagtaaaaacaatggccccctatctaagaa  
aagatagaagccttgacagcaatatgtcaagaaatggagcaagaa ggaaaaat  
ttcaagagtaggacctgaaaaatccttataacacctatctttgctataaaaaagaaggatag  
tact aggtggagaaagctagtagacttttagagaattaaacaagagaaacacaagatttctg  
ggagggtacaattaggtatc ccacacccggggggtttacagcaaaaggcaatctgttacagtc  
cctagatgtaggagatgcttatttctcatgcccc ttagacccagatttcagaaaaatactg  
ctttcactattcctagtgtgaacaatgagacccccagggataagatat cagtacaatgtcct  
cccgcaggggatggaaaagggtcaccagctatattccaaagttcgaatgacaaaaattctagat  
ccatttaggaaaaacaaccagagctagaaatttgtcagtagctggatgacctatatgtagcat  
cagatttacc cctgacagaacatagaaaacgggtagaattgcttagagaacacttatatcag  
tgggggttactaccctgataaaa aagcatcaaaaaggaacctcccttctgtggatgggg  
tatgagctccatccagacaaatggacagtacagcccatc caattgcctaacaaggacgtatg  
gacagtaaatgatatacaaaaactagtaggaaagttaaattgggcaagtcaa atctatccagga  
atttagagtaaaagaattgtgtaagtttaattagaggcaccaagtcattgacagaaatagta  
ccc ttaagtaaaagaagcagagctagaattagaggagaacagagaaaggctaaaagaaccag  
tgcatggtgtatactat cagcctgacaaagacttatgggttaataattcagaagcaaggaga  
agggcaatggacttatcagatatatcaggag gaacataagaacctaaaaacagggaaatact  
taggcaaaaggcctcccacacaaatgatataagactattagca gaagtagtccagaagg  
tgtctcaagaagctatagttatttggggaaaattgcctaaatttaagctgccagtcgct

agggagacttgggaacatggtgggcggactattggcaagccacctggattccagaatgggaatttgtcagcaca  
ccccattaatcaaattatggtacaggttagaaaagtgaccctattaggggggcagaaacatattatgtagatgga  
gcagctaataagagatacaaaaattaggaaaggcaggatatgttacagaamgagggaacagaaaataataaaatta  
gargagaccaccaatcaaaaggctgaattaatggcagttattattagccttacaggattccaaggaagcagtaaac  
atagtaacagattcacaatatgcattgggcatcatctcctcccaacctacacagagtgttcccctatagttcag  
cagataatagaggaactaacaagaaaggaaagggtgtatccttgcattgggttccctgctcataaaggcataggagga  
aatgaaaaaatagataaattagtaagcaaggatattagaagagtcctatttctagaaggaatagaccaagcaca  
gaggatcatgaaaagtatcatagcaattggagagcattagctagtgtactttggactaccaccagtggtagccaaa  
gaaatcattgctaattgtcctaaatgtcagacaaaaggagaagcaatgcatggacaagttagactgcagtcagaa  
gtatggcaaatagattgcacacatacagaaggcaaagtcataatagttgctgtccatgtggcaagtggatatata  
gaagcagaagtaataccagcagaaacaggacaagaaactgcctacttctgttaaaattagctgcaagatggcct  
gttaaagtaatacatacagacaacgggcctaattttacaagtgccaccatgaaggctgcatgttggtggaccaac  
ataaaacatgagtttggaaataccatataatccacaaagtcaggagtagtagaagccatgaataaagaattaaaa  
tcaattatacagcaggttaagggaccaagcagaacacttaagaacagcagtagatggcagttttgttcacaat  
tttaaaagaaaaggggggattggggggtacactgcaggagaaaggataatagacataattagcatcacaaatacaa  
acaacagaattacaaaaacaaatttttaaaattcaaaaatttcagggtctattacagagacagcagagatcctatt  
tggaagggaccggcacagctcctgtggaagggtgaaggagcagtagtcatacaagataaaggagacattaaggta  
gtaccaagaagggaaggcaaaaataattagacattacagatctagaaagaccaagggaatgggtattacagacaccat  
tttgaatccagaaatccaagattcagttcaggtgtacatatcccagtagggaaggcttgggtagtagtgaccacc  
tattggggattgatgccaggggaaaaagatgaacatttgggacatggggttagtatagaatggcagtagaagaga  
tatacaacacagattgaccctgaaacagcagacaggataatacatcagttatttttacctgttttacagagtca  
gcaatcaggaaagccgtcctagggcacagagtgtgtgaccaaattgtgaatactctgcaggacatagtcaggtaggg  
acattgcaactactagctctaagagcagtagtaaaagaaaaaagaaataagcctcccctaccagtggtccagaaa  
ttaacagaagataccctagaagatctaaaagcagaagcagtaagacattttcctagaccatgggtacatgccttg  
ggacaatacatatatgaaacttatggagacacttgggtaggagttatggcaattatgagaatcttacaacaactg  
ctattttaccatttttagaattggatgccaacatagtagaataaggaattaacccatctaacacaagagaaaagagga  
agaagaatgcccccttggcatcacccctggaagtcaacccagaccccttgtataaagtgtattgcaaaaagatgc  
tgctatcatttgctatgtttgtttcacagaagggttgggaatctcccagctgtatgcaacagtgctatgctggg  
gtacctgtatgggaagggaacccccagttatttctgtgtcttcagatgccaacctaacaagcactgagcagcat  
aacatttgggcatcacaagcctgtgtccccacagatcccactccatatgaatatccattaaagaatgtgacagat  
aacttcaatatatggaaaaattacatggttagaacaattgcaggaagacattattagttttatgggaacagagctta  
aaaccttgtgttcaaatgactttcctgtgtgtacaaatgaattgtacagacataatgaaacagtggtgcctttaat  
ataaccacagttctcaagacaaaaaggagaaaaaacagggtctgttctatgtatcagatttacataaattctat  
gataacgagacaaatagcacaatgtatagattaactaactgtaattcctcaaccattaggcaagcctgtccaaag  
gtatcttttcagccaattccaatacactattgtgtcctcagcaggatatgccatctttaagtgtaacagctcagaa  
tttaattggaacaggtacatgccgcaacattacagtagttacttgtacacatggcatcaagccaacagtgagtact  
caactaatattaatgggacactctctgaaggaaaaatcagaattatggggaaaaatatctcggacagtgggaaa  
agcatcttagtgaccctaaattctactataaacataacctgtgagagaccatggaatctgtcattacaagagata  
cgcataggtccaatggcctggtatagcattgctttacagacacaacccccagggaagggttagctcattgcagtat  
aataccactgattgggaaaaagccttaaaacaaacagctgaaaggtaacttagaacttgtaaactatacaagtggg  
aatgttaacataacattcaatagaagcaatgakggaggagatgcagaaataacccagctacatttttaactgtcac  
ggagagttcttctattgtaacacatctagtctgttttaattatagcttttcatgtaacggaaccaactgtactatt  
aaccaaactaaaaatgagacttggataccttgcaggataaaaacaggtagtaagggtcatggatacaggggagggtca  
ggactctacgcacctcccacccaggtgcactaaaatgtgagtcacacataactggaataattctagaaatggat  
cagccatggaataaaagcagcccagatgtcacatttagaccaatagggggagacatgaaagacatatggagaact  
gaattgttcagatacaaagtagtaaaaggtaaaaccttttagtgtggcacctacaaaaattgcaaggccagtcata  
ggcactaacactcatagagaaaaaagaaacctatgggggttgaagggaaggataatctgtctacacatcagtaaaa  
tggaacagtagcatggggaaatgtcaccagtatgagtgaagtttgggacaaactaacctggcaggaatgggatcag  
cagatagacaacataagcaatgttatatttgatgaaatacaaagagcacaagtagcagcaggaacaaaatgagaag  
aagttgctggagtttagatgaatgggcttcaatttggaaattggccttgacataactaaatgggtgtggtatataaaa  
atagcaataatcatagtaggagcactaatagggtgaagaattgtcatggtagtacttaattctagtgagaaacatt  
aggcagggatcaacccctctcgtttcaggcttgcagaatttgtgcagctgtaggacaatactggctacaagaa  
ttgcagaatagtgctacaaacctattagataccattgcagtggcagtttgccaattggactgacggcataatatta  
ggaatacaaaggataggaagaggaattcgtaacatcccaaggagaactagacagggttagaacaagtttattg  
taaattgggaaacgcattgaggaaaaagccatttccaggatgggcagcgataagagagagaatgagaagaacctcc

cctgagcctgaaccatgtgcacctggagtaggacaaatctccaaggaattagcagctagaggagggataccaagt  
tctatactcctcaaaacaatgcagcccttgcatctcctagaaagtccaagaggaagaagtaggtttcccagta  
agacctcaagtgccctctaaggccaatgacctataaagcagcatttgacctcagcttctttttaaaagaaaaggga  
ggactggaagggctaatttactcccatcagagagcagagatcctggatctttggatttatcataccaaggattc  
ttccctgattggcagaattacacaccaggaccaggaactagattcccactgacatttgggtgggttatttaagcta  
gtaccagtgtcagaagctgaggcagaagaactaggaataaatgtgagagggctaaactcctgcatccagcttgc  
aaccatggctcggaagatgcacacggacagatactgaaatggcagtttgatagatcactaggcaacacccatgtt  
gctatgataacccatccagagctcttcaacaaggactaa

>#69 AY169813 7488 nt

atgggtgcgagagcgtctgtgttgacagggagtaaattagatgattgggaacaaattagggttaaggccaggatct  
aaaaagaaatataggctaaaacatttagtatgggcaagcagggagctggaaagattcgcagtgaatcctgagctg  
ttagaaactgcagaaggtaatgagaaactgttacaacagttagaaccagctctcaagacagggtcagaagacctg  
aagtcactctggaacgcaatagcagtactctggtgcgttcataacagatataaagttggagatacacagcaagca  
gtgcaaaaattaaaagaagtaatgggaaacaggaagtctgcagataccgctaaagaaaccactagctcaaagcag  
acaagtcaaaattaccagtagtagcaaacatgcaagggcaaatgatacatcagccctctccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccggaaattatccctatgtttatggcattgtcagaa  
ggagctattccctatgacattaatactatgctaaatgccataggaggacaccagggggctttacaagtgttgaa  
gaagtcatcaatgaggaagcagcagattgggatagaactcaccaccggtggtagggccgttaccaccagggcaa  
ataagggaaccaacaggaagtgcattgctggaacaactagcaccagcaagagcaagtccactggattaccagg  
gctaacgcccctatcccagttggagatatctatagaaaatggatagtgctaggactaaataaaatggtaaaaatg  
tacagtccagtgcagcatcttagatattaaacagggaccaaaagaaccatttagagattatgtggataggttctac  
aaaacattaagagctgaacaagcaaccaggaagtaaaaaattggatgacagaaaccctacttgttcagaatgcc  
aatccagattgcaaacagattttgaaatccttagggccaggagctaccttagaagaaatgatggtagcatgtcag  
ggagtaggagggccaactcataaggcaaaaatactagcagaagcaatggcctcagtcacaacagatctaaaagga  
ggctacacagcagtatttatgcaaaggggacaaaatccaactaggggaagacctataaaatgtttcaattgtgga  
aaagatggacatctagcaaaaaattgtcgagcacctagaaaaaaagggttgctggaaatgtggacaggaaggtcac  
caaatgaaagattgcagaaatggaaaacaggcaacagcaaaaggttgggggccatctatgtgaggttttgcctggat  
acagggggcagatgatacagtactaaacaacatacaattggaaggaagatggacacccaaaatgatagggggaata  
ggaggtttttataaaagttaaagaatatgataatgtgacagtagaaatagaaggaaaaaagggtgcaggggaacagta  
ttgggtgggacctactcctgttaatatatttgaagaaatatattgacaggattgggttgcacattaaacttcct  
ataagccccatagacacagtagcagtaaaactaaaaccaggaatggatggacaaaagttaaacaatggccccta  
tctagagaaaaaatagaagccttaacagcaatatgtcaggaaatggaaacaagaaggaaaaatttcaagaatagga  
cctgaaaaatccttataatacacccatcttgcctataaaaaagaaagatagtactaagtggagaaaaattggtagac  
ttcagagaattaaataaaaagaacacaagacttctgggaggtacagttaggtatcccacatccggggggtttaaag  
caaaaacaatctgttacagtttttagatgtaggagatgcttatttctcatgtccttttagatgagaatttcagaaaa  
tatactgctttcactattcctagtataaacaatgagaccccaggaataagataaccagtacaatgtcctcccacaa  
ggatggaaaagggtcaccagctatattccaaagttcaatgacaaaaattctagatccattcagaaaaacaatcca  
gaaatagaaatttgtcagtacatggatgacttatatgtaggggtcagatttgccttggcagagcatagaaaaagg  
gtagaatcacttagagagcattttatatcggtggggattcactaccccagataaaaaagcatcaaaaagaacctcca  
tttatgtggatgggatatgagctccaccagacaaatggacagtagaccccatccaattgcctgacaaggaagt  
tggaacagtaaatgatatccaaaaattagtaggaaggttaaatgggcaagtcagatatatcaggggaattagagta  
aaagaattatgcaagttaatcagaggaaccaagtcattgacagaagtggtaacctttgagtaaaagaggcagaacta  
gaactggaagaaaacaggggaaaggctaaaagaaccagtacatgggtgtatattatcaacctaaacaagacttatgg  
gttaatatcagaaacaaggacaagggcaatggacttatcaggtgtatcaggatgaacataagaacctcaaaaca  
ggaaaatatgctaggcaaaaggcctcccatacaaatgagataagacaaaatagcagaagtagtccagaaggtggct  
caagagtctatagtcactctggggaaaattgcctaaatttaagctgccagtcactagagaaacttgggaagcatgg  
tgggcagactattggcaagccacctggattcctgaatgggaatttgcagcacgccccattaatcaaattatgg  
taccaattggaaagtgaacctattgtaggagcagaaacctattatgtagatggagcagctaataaggagacaaaa  
ttaggaaaggcaggatattgttacagaacaaggaaaaacagaaaaataataaatttagaggagaccaccaatcaaaag  
gctgaattaaatggcagtactaatagcattacaggattccaaagaaaaggtaaacatagtaacagactcacaatat  
gtattgggcatcatctcctcccacctacacaaagtgattcccctatagttcagcagataatagaagaactgaca  
aaaaaggaacaaacgtatattacatgggttcctgctcataagggcataggaggaaatgaaaaaatagataaatta  
gtaagcaaaagatattagaagggtcttattcctggaaggaatagatcaggcacaagaagatcatgaaaaatatcac  
agcaattggagagcatttagctagtgaacttggactaccaccagtagtagccaaagaaattattgctagttgtcct  
aaatgtcatactaaaggggaagcaattcatgggtcaggttagattacagtcagagatatggcaaatggattgcaca

catttagaaggcaaagtcataatagttgctgtccatgtggcaagtggattcatagaggcagaagtgataccagca  
gaaacaggacaagaaactgcctatcttctgtttaaatttagcakaagatggcctattaaaaatattacatacagat  
aatgggcctaatttttacaagtgaacatgaaggctgcatgttggtgggcyacataaaacatgagtttggcata  
ccatataaccacaaaagtcagggttagtagaagccatgaacaaggaattaaagtcaattatacagcaggtgagg  
gaccaagcagagcattttaaaccagcagtcacaaatggcagttttgttcacaattttaaagaaaagggggatt  
ggggggtgtactgcaggagagagattaatagatatgttagcatcacaaatacaaacacagaactacaaaaaca  
attttaaaaattcaaaaatttcgggtctattacagagacagcagagaccctatttggaaaggaccggcacaactc  
ctgtggaaagggtgaggagcagtagtcatacaagataaaggagatatcaaggtagtaccaagaagaaaagcaaaa  
atactcaggtgtctggtgaaataccataagtacaggtctaaaaaggcccagagatggcattatagacatcattat  
gaaaccagaaatccaagaattagctcaggtgtatatattccagtaggtacagctaatatagtggtgactacatat  
tggggattaatgccaggggaaagagatgagcatttaggacatggagtcagtatagaatggcaatacaaaaaatat  
agtacacagattgaccctgaaacagcagatagatratatctgcattatttcacctgttttacagaracagca  
atcaggagtgccatttttagggcagagagtgctgatcaggtgtgaataccctgcaggacatagccaggtagggaca  
ctgcaactcctagcattaagagcagtggtataaagacaaaagaagtaaacctcccctaccagtggtccagaagtta  
acaggagacaccctggaagaactaaaagcagaagcagtaagacactttcctaggccttgggtacaaaacttagga  
caatacatctatgatacttatgggagacacctgggaaggagttatggcaatcataagaatcttacaacagttgata  
tttatccatttttagaattggatgtcaacatagtagaattaggaattaccccatctaacgcaagaggaagaggaaga  
agagtgccccctggcatcacccctggaagtgcagcccccaaccccttgcaacgcttgctattgcaaaaaatgctgt  
tatcattgctatctttgtttcacaaagaagggtttgggaatctccaatctatatgcaacagtcatttctgggggtg  
cctgtgtgggaagatgcaascccaacattattctgtgcttcagatgttaaccttactagcactgagagccataat  
atgtgggcatcacaggcctgcgtccccacagaccctcaccacatgagtatccactaattaatgtgacagataga  
ttcaatatatggaagaattacatggtagatcaaagtcaggaagacattattagtttatgggagcagagtcataaaa  
ccttgtgttcaaagactttcctgtgtgtacaaatgaattgtacagatgtcaatcaaacattgagtaatgcgaca  
caagggtatggaagtaaaaaagtggtgaatttaattgtaactacagttttaaagacaaaaaggaaaagaaacaggct  
ctattctatgtatcagatttgggctaagggtcaagatagtggtcagaatggaacatatacattaattaattgtaat  
tcacacacatcaagcaagcctgcccacaaagggtttcttttgagcccatcccaatacattattgtgctccagcagga  
tatgccatctttaagtgtaatgacacagcatttaattggaacaggccttatgcaagaacatttccagtagttacttgt  
acacatggtatcaagccaacagtaagtaactcaactaataactaaatggaacaatctctgaaggaaacataagaatg  
ctgggaaaaaatctgacaagtaatgagaatatcctagtgactctaaattccactataagcataacctgtgagaga  
ccatacaatcagtcatacaagagtttaaggataggtccaatggccttggtacagcatgacattagaacaaaaaaa  
acaggcagtaacataaggacagccttattgcaattataatggcctctgactgggaagggtacattaaaaggagtagct  
gaaagatatttagaacttataaatcagacaaacaatgctaccgtgacattcagtaatatgacgggtggagatcca  
gagataagccttttgcatttttaactgtcatggagaattcttttattgtgacacaagtaagatgttttaattatacc  
tttaattgtaacaagaccaaatgtaataatagtaaaaaatagtaaccataataacactatgacaacaataccttgc  
agaataaaaacaggtagtaaggctcatggataaggggagagtcgggactctatgcacccccattaaaggtaattta  
acctgcataatcaacataactggaatgattctattaaggggacgagccagggaataacagcagacacacccttagg  
ccagtagggggagatatgaaagatatatggagaactgaattagtcattacaaagtagtaaaaaataaaacctttt  
agtgtagcacctacaaaaattacaaggccagtcataagcacccatagagaaaaaagaaacctctgggggtgtaag  
ggaaagctaatttgcatacatcagtaaaatggaacaaaacatggggaggagatgagtcattctggggtaacct  
acatggcagcagtggtatcagcagatagagaatgtaagctccatcatatatgaagaaatacaaaaggcacaagaa  
caacaggaacaaaatgagaagaagttgctggaattagatgaatgggcctctctttggaattggccttgacataact  
aaatgggtgtggtatataaaaaatagctataattatagtaggagcactaatagggtgtgagaattatcatggtaata  
cttagtctagtgaagaacatttaggcagggatatcaaccctctcgttacaggcctgcagacaaacaagagcttta  
ttacaatatgtgctacaagaattgcaaaaaagtgctacaagcttgctagataccattgcaataatagttggcaat  
tggtgtagatgatcatcttaggactacaaagaataggaaggggaattcttaacatcccaagaagaattagacag  
ggccttgaacgctgcttagtgtaaatggggagtgcatggagtaaaagtaaattttcaggatgggtcagcagtaaga  
gatagaatgagacaaacctcccctaatacctgagccmtgtgcacctggggtaggagaaatttcyagacagttatca  
gaaagaggggggataacaaattcttatactcctcaaaacaatgcagcccttgcatcctcgaaagccaccaagag  
gaggaagaagtaggggtcccagtaagacctcaagtgcctctaaggccaatgacctataaaggagcatttgacctc  
ggcttctttttaaagaaaaggaggactggatgggttaatttactcccatagaagaaaagagatcctggatctt  
tgggtgtatcacactcagggtattcttccctgattggcagaactacacaccaggaccaggaaccagataccattg  
acatttggatggccattttaaactagtagcagtgacarmagaagaggcagaaagaatgggcaatcagtgtaaggg  
gctatgctcctacatccamtgtgtaaccatggtagtgaggatgaagaaggggaaataactacaatggaagtttgat  
agttcattagcgcgcacccatgttgctttaataactcaccagagctcttcaacaaggactaa  
>#70 AY169805 7551 nt

atgggtgcgagtgcgtcagtggtgacaggaagtaaattggatgcatgggaacaaattaggctaaagccaggatct  
aaaaagaaatataggctaaaacatttagtatgggcaagcagggagctggacagattcgcatgtaatcctgagcta  
ctagaaactgcagagggcaatgagcaactgttacagcaattagagccagctctcaagacaggggtcagaaagcctg  
cagtcactytggaacacaatagcagtgctctggtgtgttcacaacagatataaaaattggagatacgcagcaggca  
atacaaaagttaaaggaagtcagtggggaacaggaagtcctgcgagtgccgctaaggaagacacaagtgcaaagcag  
gcaggtcagaattaccctgtagtatcaaatgcgcagggacaaatgatacatcagcccatctcccctaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgaaatcattcctatgttcatggcattgtcagag  
ggagctattccctatgatattaatactatgctaaatgccataggaggacatcaaggggctttacaagtgctaaag  
gaagtaataatgaggaagcatcggagtgggatagaactcaccaccaccgataggggccgttaccaccaggggcag  
ataagggacccaacaggaagtgacattgctgggacaactagcaccagcaagagcaagttcactgggttaccagg  
aaccccaaccctatcccagtaggagacatctatagaaaatggatagtggtgggactaaacaaaatggtaaaaatg  
tacagcccagtaagcatcttagatattagacagggaccaaaagagccatttagagactatgtagatcggttctac  
aaaacattaagagctgagcaagcaactcaagaagtaaaaaattggatgacagaaaccctgcttgttcaaaatgcc  
aaccagattgcaaacagattttaaaatcattaggggccaggagctaccttagaagagatgatggtagcctgtcag  
ggagttaggaggaccaactcataaggccaaaatattagcagaagcaatggctgcagcccatcaagatctgaaagga  
ggatacacatcagtatctcatgcaaagagggcaaaacccaattaggaaagggcctataaaaatgtttcaactgtgga  
aaagagggacatatagcaaaaaattgtcagcacctagaaaagcgaggttgctggaaatgtggacaggaaggtcat  
caaatgaaagattgcagaaatggaaarcaggcaatagcaaggggtgggagrcatctatgtgaagttttactggat  
acaggggagatgatacagtactaaacaacatacaattggaaggaaaatggacacccaaaatgataggggggtata  
ggaggtttttataaaaagtaaaagaatatgataatgtgacagtagaaatagaggggaagagaagtagaggaacagta  
ttggtgggacctactcctgttaatatcattggaaggaatatattgacaggattaggatgtacactaaatttcct  
ataagccccatagccccagtgccagtaaaaactaaaaccaggaatggatggacaaaaataaaacartggccccta  
tctaaagaaaaaatagaagccctgacagcaatatgtcaggaaatggaacaggaaggaaaaatttcaagaataggr  
cctgaaaaatccttataatacacccatctttgctataaaaaagaaagatagtactaagtgagaaaarttggtagac  
tttagggaattaaacaagagaacacaagatttctgggaggtacagtttaggtatcccacatccgggggtytaag  
caaaagaaatctgttacagtcctagatgtaggagatgcttatttctcatgcccttagaccagacttcagacca  
tatactgctttcactatcccagtgtaaacatgagaccccaggaataagataccagtagaatgtcctcccgc  
ggatggaaaggttcaccagccatattccaaagttcaatgataaaaattctagatccatttaggaaagacaacca  
gaattacaaatttgtcaatacatggatgacctctatgtaggatcagatttacctctgacagaacatagaaaaagg  
gttgaattgcttagagaacacttatatcagtggggattcactacccctgataaaaagcatcaaaaggagcctccc  
tttctgtggatggggtatgagctccatccagacaaatggacagtacagcccatccaattgcctaacaagggaagt  
tggaacagtaaatgatatacaaaaactaataggaaagttaaattgggcaagtcaaatctatcaagggaattagagta  
aaagaattgtgtaagtttaattagaggcaccaagtcattgacagaagtagtacctttaagtaaaagaggcagagttg  
gaattagaggaaaacagagagaagctaaaagaaccagtgcatgggtgtatactatcaacctgacaaagacttatgg  
gttaatatcagaagcaaggagaagggcaatggacttaccaatatatcaggatgaacataagaatctcaaaaca  
gggaaatattgtaggcaaaagagcctcccacacaaatgagataagacaattagcagaagtagtccaaaagggtgtcc  
caagaagctatagttatctggggaaaattgcctaatttaagctgccaatctactagggaacttggaagcatgg  
tgggaggactactggcaagccacctggattccagaatgggaatttgtcagtacacccccattgatcaaattatgg  
taccaattagaaagagaacctattataggggcagaaacttattatgtagatggagcagctaataagaaatacaaaa  
ctaggaaaggcaggatattgttacagaacaagggaacagaaaataataaaattagaagagaccaccaatcaaaag  
gctgaattaatggcagtagtatttagccttacaggattccaaagaaaaggtaaatatagtaacagattcacaatat  
acattgggcatcatctcatcacaacctacacagagtgaatcccctatagttcaacagataatagaggaactgaca  
aaaaaggaaaagggtgtatcttacatgggttctgctcataaaaggcataggaggaaatgaaaaatagataaatta  
gtgagcaaggatattagaagagtcctattcctagarggaatagaccaggcacaggaagatcatgaaaaatatcat  
agcaattggagagcatttagctagtgaacttggactaccaccagtggtggccaagggaatcattgctagctgtcct  
aaatgtcatataaaaaggagaagcaatacatgggtcaggttagactgcagtcaggaagtatggcagatagattgcaca  
catgtagaaggcaaagtcataatagttgctgtccatgtggcaagtggttcatagaagcagaagtaataccagca  
gaaacaggacaggaaactgcttacttctgttaaaatttagctgcaagatggcctgttaagataatacatacagac  
aatgggcctaattttacaagtgcaactatgaaggctgcatgttggtggactaacatacaacatgagtttggaata  
ccatataatccacaaagtcaaggagtagtagaagccatgaataagggaattaaaatcaatyatacagcargtgagg  
gaccaagcagaacacttaagaacagcagtacaaatggcagtagtttgttcacaattttaaaagaaaagggggatt  
ggggggtacactgcaggagagaggataatagacatactagcatcacacatacaaaacaacagaattacaaaaaca  
attttaaaatcacaatttttcgggtctattacagagacagcagagaccctatttggaaggaccggcccagctc  
ctgtggaaagggtgaggagcagtagtcatacaagataaaggagacattaaagtagtaccagaagaaaggcaaaa  
ataatcagagattacaggtctaggaagaccaaggactggtattacagacatcattatgaatgtagaaatccaaga

atcasttcwagtgtatatattccaatagggccggctttttatagtagtgaccacatatattggggattgatgccagga  
gaaagrgatgaacatatggggacatggggtagtatagaatggcagtagacaagaagtatgcaacacagattgaccct  
gaaacagcagacaggatgatacatctgcactattttacctgttttacagaatcagcaatcaggaaagccatccta  
gggcaaagagtactgaccaagtgtgaataccctgcaggacatagtcaggtagggacactacaactactagctcta  
agagctgtagtgaagaaaaaagacataagcctcccctaccagtggtccagaaattaacagaagatctcctagaa  
gagctaaaagcagaagcagtaagacatttccctaggccttggctacagggcttgggacaatacatttatgayact  
tatggggacacttgggaaggggttatggcaattataagagtcctacaactactgatatttgcccattttagaatt  
ggatgccaacatagtagaataggaattaacccatctaacacaagaggaagaggaagaagaatgcccccttggcat  
caccctggaagtcagccccctgacccttgtactaagtgctattgcaaaaaatgctgctatcattgctatgtttgt  
ttcacaagcaaggggttgggaatctccctgtatgcaacagtcctatgctgggtacctgtatgggaagaggcagaa  
ccagttatttctgtgcctcagatgctaaccctaacaagcactgagcagcataatgtttgggcatcacaaagcctgt  
gtccccacagacccctccacatgagtatccattacgcaatgtgacagataaatttaatatatggaaaaattac  
atggtagaccaaatgcaggaagacattattagcctatgggaacagagcttaaaaccttgtgttcaaatagactttc  
ctgtgtatacaaatgaattgtacagacatacaaatcaattctaaagaaaacaactctacaaacgatagctcaata  
aaccttataagcacagagaaccctaacagcatagagaaccctatgaaaaattgtgagtttaattgtaactacagtt  
ctcaaagataaaaaggagaaaagacagggctctattctatgtagcagacttggatagagtgaataatagtgaata  
ggtaacacagcatatacatattaaytgtaactccacaacccatcaagcaagcctgtccaaagggtatcttttgag  
ccaattccaatacactattgtgctccagcaggatttggcatcttcaagtgtaacagcacagagtttaattggaaca  
ggcacatgccacaacattacagtagttacttgtacacatgggtatcaagccaacagtaagtagctcagctaatatta  
aatggaacactttcgggaaggaaagataagaataatagcaaaaaatatttcagctactggcaacaatatcatagtg  
accttaaatactactataaacatgacctgccagagaccaggacatcaagatgtacaagagataatgacagggtcca  
ctggcctggtatagcatgggaactaaagaaagacacaaacacatccaaatcaagaatagcttattgtgagtataat  
accaagaagtgggaagaggccttaagacagacagctgaaagggtatttagaattagtaaacatacaggtgttaga  
gaaatgatattcaattacaatactggaggagatccagagataaacccagttgcatttttaattgtcatggagagttc  
ttttactgcaacacatctcagatgtttaattatatctttaactgtaccggaaccacctgtaattataccaaaaac  
atccaaaattataccttttagccaaaataccactagcactaagataccttgcagattgagggcaggtagtaagggtca  
tggatgaggggaggatcgggaccctatgcacctcccatccgaggttaacttaacatgtggatcaaacataactgga  
atgattctagaaatggatgagccatggaacgagagccacaggggaaagcatatttagaccaacaggggggaaatatg  
aaagatatatggagaactgaattgctcagatacaaaagtagtaaggataaaaaccttttagtgtggcacctacaaaa  
attacaaggccagtcataaggctttggcacccgcagagaaaaaagaaaactcatggggctgtaaagggaaggctagtc  
tgttacacatcagtaatatggaacacatcagaatggaaaggaaatgagtctatttggggcaacctcacatggcag  
caatgggatcaggagatagacaatgtaagtgccaccatatttgaagaaataactaaaagcacaaatacagcaggaa  
acaaatgagaaaaagctgctggagttagatgaatgggcttcyatttgggaattggcttgacataactaaatggttg  
tggatatataaaaacagcaataatcatagtaggagcactaataggtataagaattgtcatggtaatacttaattta  
gtgagaaaacattaggcagggatatacaacccctctcgttccaggcttgcagaatttgtgcagctgtaatacaatac  
tggcttcaagaattgcagaatagtgctacaaatctagtagatactattgcagtagcagtagctaattggactgac  
agtataatcttagggatacaaaagaataggaagaggaatctggaacgtcccaggagaattagacagggatttgaa  
agaagtttgttataaatgggaaacgcattgaggaaaagcaaatttgcaggatggccagcagtaagagaaaagaatg  
agaagggcttcccctaaacctgaagattgtgcacctggagtaggagaagtctccagggaattagcatctagagga  
ggaataccaagttcctatactcctcagaacaatgcagcccttgcatttctagagagccaccaagatgaagatgta  
ggtttcccagtaacaccccaagtgcctctaaggccaatgacctwtaaaggagcatttgacctcagcttcttttta  
aaagaaaagggaggactggatgggttaatttattcccagcaaagagcagagatcctggatctttggatctatcac  
actcagggattcttccctgattggcagaactacacaccagggccaggaaactaggttcccactgacatttggatgg  
ttattttaagctagtaccagtgacagaagatgaggcaaaaagactaggaaatgtgtgtgagaggggctcatctcctg  
catccagcttgaaccacggccttgaagatccacacggagagatactgaaatggcagtttgacagatcactgggc  
aacacccatgttgctaagataacccacccagagttcttcccccaaggactaa

>#71 HQ179987 7557 nt

atgggtgcgagagcgtcagtggttgacagggggccgattggatgcatgggaaagaattaggcttagaccaggaggt  
aagaaaaaatataagctaaaacatgtagtatgggcaagcagagagctggaaagatttgcattgtaatcctgggctt  
atggaaacagcgggaaggctgcgaaaaattattagagcagttagaaccagctctcagaacaggctcygatggcctg  
cagtcctctttggaacaccctagtagttypatgggtgtgttcacaaaagaatagagataagtgacacacagcaggcc  
attacaaaatggaaggaggaaatgcagaaaagaaagaaaacatcagagggcagcactggaacaagtcaaaactat  
cctatcgtgcagaatgcccaggggcaaatgacccatattgccgctgtccccaggacgctgaatgcctgggtgaag  
gcagtagaagaaaaagccttcaaccctgaaattatccctatgtttatggccttgtcagaaggggctataacctgat  
gacatcaataccatgcttaatgcagtaggcggacatcaggagcggttgacaggtgttgaaagaggtaattaatgaa



gaggctgcagaatgggatagaacacatcccgttccagtaggaccattaccaccagggcagcttagagaaccaaca  
ggaggggatattgcaggaaccactagtagcaaacaggaacagataacctggatgacaaggaacaatcctgtacca  
gtaggggacatctatagaaartggatagtgttggggctcaataaagtggtaaaaatgtactgccccgttagcatt  
ctggacataaagcagggacctaaggaaccatttagagattatgtagayagattctacaaaaccctcagagcagag  
caagccagtcaggaagtaaaaagttggatgacagacaccttactagtagcaaaaatgctaattccagattgyaagcag  
atthttgaaagctctgggaccaggtgccaccttagaagaaatgatgaatgcctgtcaaggagtagggggaccaaca  
cataaggccagggctcttggcagaagctatggcagcagctaatacaagctagccaagaattaaaaggagggtataca  
acagtttttatgtagagtgtagacagagaaagccagtttaagtgccttaactgtggaaaagtaggacacatagcaaag  
aactgcaaggcaccttagaagaaggggrtggttggaaagtgtggacaggaaggtcatcaaatgaaagactgcaaatca  
ggaagacaggcaccagtaaaaaataggggggcatatthtgtgaggctctattagatacaggggctgatgacacagta  
gtagataacttacctthtagaaggaagatggaaacaaaaaatgatagggggaataggrggthttataaaagtaaaa  
gaatthgaagaagttaagrtagaatagaaggaagacaagthttatggractgtattagtgggyccaaccccagta  
aatataataggaagaaatathttgacattaattggatgtactthtagtthtccccatcagccccatagaaatagta  
ccagtaaaattaaaagcaggaatggatgggcctaggggtgaagcaatggcccttgtcaaaggaaaaaatagaagct  
ttaagagccatctgtcaagagatggaacaggaaggaaaaaataacaaaaatthgggcctgaaaatccatataacacc  
cccathtttgcaataaaaaagaaagatggcagcaagtgagggaattagtagacttcagagaactaaataaaaga  
acacaagathttctgggaagtccaattgggratccctcatccaggaggtcttcagaaaagraaatcagtgaccata  
ttagatgtaggrgatgctthttctcctgycctthtagatccagathtttagaaaatatacagctthtactatacct  
agtgtaaataatgacacaccaggacttagrtatgtgtayaatgttctgcctcagggatggaagggatcaccagcc  
athtttcagcattcaatgactaagatcttagaacctthtagraagagtaatccagaagtagaaatctaycaatac  
atggatgatytatatgtagggctcagatytgcctthtgcctgaacatagacagcgggtagagaaaactyagggarcac  
ctctatgtatgggggttcacaactcctgacaaaaarcatcaaaaggagcctcctthtctctggatgggatatgag  
ctccatcctgacaagtgagackgtgcaacccatcaaattaccagaaaaggaaagttggacagtaaatgacattcag  
aagctagtaggaaagthaaattgggctagtcaaathttatccaggaatthagggtaaaagagttatgyaaactaatt  
agaggaactaartccttaacagaagtagttgcythttactagagaagcagaattagaactagaggaaaaataaagaa  
athtttaaaagaaccagtgcatggagthttattaccaaccagaaaaggaaatthaatagtagacatacagaaacagggg  
gcgggacaatggactthtcaggtattccaggaagaacataaaaaactthgaaaacagggaaatathgccaggcaaaag  
gtagccacaccaatgatataaggcaactggcagargtaatacagaaggtatcacagaagcatagtgatagg  
ggaaaactaccaagthtttagactaccagtaaatagaatgtgtgggagactthggtggtcagactathggcaagcc  
acctggatacctgagtggaathttgttagcacacccccctctthattaagctctggtatcagctagaaaaagacccc  
ataccaggaacagaaacctthttatgtagatggggcagcaaacagagagaccaagthtaggyaaagctggatathga  
acagataggggtaggcagaagataatcaaactagaagaracaactaatcaaaargcagaatthagaagcagtgtht  
ttagcctthaaagaatcaggagaacaggctaacatagtaacagactcccaatathgtgttaggrattatctcagca  
actccagatcaaagtgactcccccytagtgcaaaaaataatagaagaaatgacaaaaaaggaaaaggtatacctr  
tcatgggtaccagcacacaaaggcatagggggtaatgaraayatagayaaatthagtcagyaargacattagaaga  
gtgttathcttggaaaggcatagaccaagcacaggaggatcatgaaaaatathcacagtaattggagagccctagct  
agtgartthtggcctthccaatagtggaacaaagagathatyaacaattgccttaaatgtcatgtaaaaggggaa  
gccatgcatggacaggtagactgcagtcagggaathttggcaactggactgtacccacatggarggaaaaattatc  
ctcgtggcagtcctatgtrgccagtggttcatggaagcagaagtaattccagtagaaacaggacaagaagctgca  
tactthtgtgctcaaathttggcatcaagatggcctgtaaaagtaatacacacagacaatgggcctaaactthtactagc  
gctgcagtaaaagcagcctgttgggtggcttaataactcatgagthttgggataccctacaatccccaaagtcag  
ggagtagtggaatcaatgaataaagaatthaaagaaaattatacatcaggtacgagatcaagctgagcactthaaag  
acagcagthtcaaathggcagtatthtgtccacaathtttaaaagaaaagggggagthtggggggtacactgctggagac  
aggatcatagatathctggctacacaratacaacaacagaattacaaaaacaaathtttaaaattcaaaathtt  
caggtctattacagagacagcagagaccctathttggaaaggaccagcgacactcctgtggaaaggtgaaggggca  
gtagtcatacaagacaaaggagatathaaaggtagtccttaggagaaaagcaaaaaataathtagaaattatcacaaa  
tataggtctaaaaagacaagaagtggtthttataggcatcattatgagacaacccatcctaggattagthtcagca  
gtthtatathccagtaggaacagcaaccattathtgtgactacytathttgggggtcatgcctggggaaagagaagaa  
caathaggacatggagcaagtgtaggtggagacaaggtaaatacaccacacagatagatccagaaacagcagat  
aggctaathctctccactactthtcaatgtthttcagathtccgctgtgaggagggcaatactaggggacagggtta  
thgaayamatgtgaatactcagcaggacatagtcaggtaggctcctthgcagthtttagcctthaaagtggttagta  
gggaaggtaaaaraggaagccaccctccctagtggtccagatathgacacaagacgaactcaaggaggaagcagta  
agacactthcctaggcctthggttacactcathaggacagtatathctataatacctatggggacacctgggagggga  
gtaactgcaathattaggtacctacaacaathaatythttatccattatagaathtggatgccaacatagtagaata  
ggtatctthgacacccctctcgaagaggaaggagactgcctccatggcaacagccaggagtagcctcagcccaagccca

tgtacaattgctactgcaaagcctgctgctatcattgctatgtttgtttcacaaagaaggggttggaatctcc  
gctattagctatactagtggaaacacggttatgttactgtatattatggggttccagtttgagagatgctaaaatt  
accttattctgtgcagcagatgcatcgctaactagcarwgagcagcataatatttggggccaccaggcctgtgtg  
cccacagaccctagaccaatagaggtcaggatagataatgtaacagagtcttttaataatttgggacaattatatg  
gtgacacaaatgcaggaagacatcattagcttatgggatcagagccttaaaccctgtgtgaaaattgacagttcta  
tgtgttactatgrattgtagcgactgcagcacggttgactgtactaataactcctccagggttaataacagcacc  
gacagcaccaacaccagcaaaaaccaatccattagaattatttcagtgtagttttaatacaaccacaatagtaaaa  
gataaacagcagacacagcaagcactcttttatagagcagacctaacaaaattgggataatgacaatagtacatat  
agattaattaattgcaacaccactaccattacacaggcatgccccaaaagtgaactttgagccgctaccatacag  
tattgtgcaccagcagggtatgcactaatgaaatgcaatcagacaggatttaatggtacaggaccttgtaataag  
acagttataacacactgtacacatggaattaagccaacagtggtcaacacaattaactcaatggaactctagca  
aaggagagcccttagtaattactcagaatgtgtcagatacaggaaaagtcacatagtaaaaattaaatgagagt  
gtgtcactcacctgtataagaccaggtaataacacaaggagacaagtgcaactaggagtcacatgcatggtataat  
atgaaacactacgtaggcgatatcagggcagctcattgtaatgtttctagggaaaattggaaaagaaccttagaa  
tgggtcagtgaggccatctggaaggcttatcctcaacattccaaccatacatccaaacacaaccatacatttgtt  
tttaaaaacagtacagggggagaccagaggtttcttcgctgcacttcagttgtcatggggaattcttttattgt  
aacaccagcagcctgtttaacttttagttatacttggaaatgacaccacctggcgggctgcaggcaatcataataca  
agtgaaaaatataacactgtcttgttagactgaagcaagtagttaattcatggatgagagtgaggatcaggcttgtt  
gagacacctattgagggggaattaaagtgtcaatccaacattacagggttaatgttagaaaagagaactaccttac  
aatgacagcagcaagaacaccactttaagtccctatagggggagacatgacaaatatctggagaagtgaagtatat  
ccctacaaaagtagttcaagtaaaaagctctggcctgggcacctacaaaaatttccagacctacaattatggctcat  
gatggacataggaagaaaaggggactgtggggatgctcaggacaaatartatgttataactaatgtgccatggaat  
agtacctggaccaacaaaaatgaaacagaattagatggcatttggggtaatctaactggcaggagtgggacaaa  
ctgggtggataattacactgacacaatttacttggaaatacagaaaagcacaagagcagcagaaggaaaatgaaaga  
aagctattagaattagacaaatgggcacaattgtggagctggatggacataacaaaatgggtgtgtgtacataaaa  
attttcattatgatagtaggaggaattataggactaaaaatcttaatggctataggtaatgtagtcaggaaaagtc  
aggcagggataytcacctgtrtcgttgtagtgccctgcgagactgctttgctgcgtgtggctattggactcaagaa  
ttaaacaaragtgaaccagcytggtgaacactgttgctatatcagttgcaaattggactgatcaagtaatagca  
gtagggcaacaaataggaagaggcttcttgaaacataccaagaagggttaagacaagggctagaaaagaagcttactg  
taaattggggaatgcatggaagaaaagtagcttagtgggctggccagcagtcagggaaaaataaagcagactacc  
ccgactacccctgacccgactaccccagtaacacctgcacccgggggttggggaatttccaaagaattagcaciaa  
ggaaaaggaatacccgtaaaatttagttcaaagaacaatgcagcattggccttcttggatgctcatgaggaagaa  
gaagtaggrttcccagtcaggcctcaagtacccttaagatgcatgacatacaaggcagcatttgacctcagcttc  
tttttaaaaagaaaagggaggactggatgggttagtttactcacctgagagagcagagatcctagatctctggatc  
tatcacactcagggattcttccctgactggcagaattacactccaggggccaggagaaaagatatcccctgaccttt  
gggtggctgtttaaactagtaccagctctctgaggtagaagctgaggaaaatgggagataagcaggagaaaagctaag  
ctgctacatccagcctgcacttatgggttttcagatcctcataaggagatcctagtgtggaagtttgacagctca  
cttggagagaacatgttgcccttacaagaagcaccgggaactgtttattaaagactaa

>#72 GU111555 7521 nt

atgggtgagagcgtcagtggtgacagggggccgattggatgcatgggaaagaattaggcttaagccaggaagt  
aagaaaaatatatgctaaaacatatagtatgggcaagcagagagctggaaagatttgcattgtaattctgagctt  
atggaaacagcagaaggctgtgaaaaattattagagcagttagaaccagctctcagaacagggttctgatggcctg  
cagctctcttggaaacaccctagtagttttatgggtgtgttcacagaagagtrgatataagtgcacacagcaggcc  
attacaaaatggaaggaggaaatgcagagaagaaagaaagcactagagggcagcactggaactggaacaagtcaa  
aactatcctattgtgcagaatgccaggggcaaatgacccatctgccgctgtctcccaggacgctgaatgcttg  
gtgaaggcagtagaagagaaggccttcaaccctgaaattatccctatgtttatggccttgtcagaagggtctata  
cccgatgacattaatactatgctcaatgcagtaggcggacatcaggagagcrttrcagggtgttgaaagargtgatt  
aatgaagaggctgcagaatgggatagaacacatcctgttccwgrggaccgttaccaccaggggcagcttagagac  
ccaacaggaggggatattgcaggaaccactagtaacaagcaggaacagataacctggacaacaaggaacaataat  
cctataaccagtaggagatatctatagaaagtggatagtggttggggctcaataaagtggtaaaaatgtatagcccc  
attagcatcctggacataaagcaggggacctaaggaaccatttagagattatgtagatagattctacaaaacyctc  
agagcagaacaagctagtcaggaagtaaaagagttggatgacagacacattattaatacaaaaatgctaattccagat  
tgtaagcagattttgaaagctctgggaccaggggccaccttagaagaaatgatgaatgctgtcaaggagtaggg  
ggaccaacacataaggccagggtcttagcagaagctatggcagcagctaataagctaaccaagatttaaaagga  
gggtatacaactgttttcatgacagagtgacagagawagccagttaaagtgccttaactgtggaaaaataggacac

atagcaaagaactgtaaggcacctaggagaaaaggatgctggaagtgtggacaggaagggtcatcaaataagagac  
tgcaaatacaggaagacaggcaccagtaagagtaggggggcatatgttgaggctttattagatacaggagctgat  
gacacagtagtagataaattaccttttagaaggaagatggaaaccaaataatgataggaggaatagggggtttata  
acagtaaaaasaatttgaagwagtttaaggtagaaatagaaggaagagaagtttacggaactgtattagtrggcca  
acccacagtaayataataggaagaaatatgttgacattaattggatgtactctaagtttccccatcagctccata  
gaaatagtaccagtrawattaaaggcaggaawggatgggcctaagggtaaagcmatggcccttrtcaaargaaaa  
atagaagctttaagagstatttgtcaagagatggaaacaggaaggaaaaataacmaaaattgggcctgaaaatcca  
tataacacccccatctttgcaataaaaaagaaagatagcagcaartggaggaaattagtakacttcagagaacta  
aataagagaaacacaagatttttgggaagtacaghtgggaatccctcatccaggaggtcttaagaaragraaatca  
gtgacagtattagatgtgggggatgcttatttctcctgtccttttagatccagatttttagaaaatatacagctttt  
actatacctagtgtaaataatgagacaccaggaattagatatcagtataatgttctgcctcagggatggaaagga  
tcgccagccatctttcagttattcaatgactaagatcttagaacccttttagggagagtaayccagaagtagaaatc  
tatcaatacatggatgatctatatgtagggtcagatttgcctttgtctgaacatagacagcgggtagagaaactt  
agggaaacacctctatgtatgggggtttacaactcctgacaaaaaacatcaaaaggagcctcctttcctctggatg  
ggatatgagctccatcctgacaagtggacggtgcaaccatcgtattaccagaaaaggaagcttggacagtaaat  
gacatccagaagctagtaggaaagttaaattgggcaagtcagatttatccaggaataaggggtaaaagaatttrtgc  
aaactaattagaggaactaaatccttaacagaagtagttgtcttactagagaagcagaattagaactagaggaa  
aataaagaaatttttaaaagaaccagtgcatggagttttattaccaaccagaaaaggaattaatagtagacatacag  
aaacagggagaggggacaatggacttatcagatataccaggaagaacataaaaaacttgaagacaggggaaatatgcc  
aggcaaaaggccactcacaccaatgatataaggcaactggcagaagtaatacagaagacatcacagaaagcata  
gtaatatggggaaaattacccaagtttagactaccagtaaatagaagtatgtgggagacttgggtggtcagactat  
tggcaagccacctggatacctgaatgggaatttggtagtacacccctcttattaagctctgggtatcagctagaa  
aaagacccccataccaggaatagaaaccttttatgtagatggggcgacaaacagagagactaaattaggyaaagct  
ggatatgtaacagataggggttaggcaraagataatcaaactagaaggaacaaccaatcaaaaagcagaattagaa  
gcagtgctgttagccttaaaagaatcaggaaaacagggtacatagtaaacagactcccaatatgtrttagggatc  
atctcagcaactccagatcaaagtgactccccctagtgcaaaaaataatagaagaaatgacaaaaraaggaaaaa  
gtatacctatcatgggtaccagcacacaaaggcataggggggtaatgaagatatagayaaaytagtcagtaaaagac  
attagaagrgtgttattcctagaaggcatagaycaagcacaggargatcatgaaaaatatcacagtaattggaaa  
gccctagctagtgtactttggccttccaccaatagtggcaaaagagattatyaacaattgtcccaaatgtcatgta  
aaaggggaagccatgcatggacaggttagactgcagtcagggaatttggcarctggactgtaccacacagaagga  
aaaattatccttgtagcagtcctatgtagccagtggtttcctggaagcagaagtgtattccagcagaaacaggacar  
gaaactgcataytgtgtgtcaaatgggcagcaagatggcctgtaaaagtgtacacacagacaatgggcctaac  
tlyactagygtgcagtaaaargcagcctgttgggtggcttaataataactcatgagtttgggataccctacaatccc  
cagagttagggagtagtggaatcaatgaataaagaattaaagaaaaatcatacttcaagtacgagatcaagctgaa  
cacttaaagacagcagttcaaatggcagttttgttcacaatttttaaaagaaaaggggggattggggggtacact  
gctggagacaggatcatagatattatggctacacaaatacaaaacaacagaattacaaaaacaaatttttaaaatt  
caaaattttcgggtctattacagagacagcagagaccctatttggaaaggaccagcgagcgttctgtggaagggt  
gaaggggagcagtagtcatacaagacaaaggagatattaaagtagtccctaggagaaaagcaaaaataatcagagat  
ctgggtcaaatatcacaaatataggtctaaaaagacaaagaattgggttttataggcatcattatgagacagtcctat  
cctaggatttagttcaggagtttacattccagtaggagcagcaaccattgttgtgactacttattgggggcttatg  
cctgggggaaagagaagaacaattaggacatggagcaagtggtgagtgagacaaggtaataacaccaccagata  
gatccagaaacagcagatagggtcaattcatctccactactttcaatgtttttcagattcgggtgtgaggaggggca  
atactaggggacagggtattgaacaagtggtgaatactcagcaggacatagtcaggtagggtccttgcagttttta  
gccttaaaagtggtagtaggggaaagtaaaaaggaagccacccctccctagtgtccagatattgacacaagatgaa  
ctcaaggcggaagcagtaagacccttccctytgcaatacttacactcattaggacaatacatctataatacctat  
ggggacacctgggagggagtaactgcaattattaggatcctacmacaattaattttttatccattatagaattgga  
tgtcaycatagtagaataggtatattgccacccctctcgaagaggaaggagactgcctccatggcagcagccaggg  
agtcagccctcaagcccatgtaacaattgtactgcaaagcctgctgctatcattgctatgtttgtttcacaaag  
aagggtttgggatctccgctattagctgtgctagtggaaatacactatgttactgtatattatgggggtccagtt  
tggagaaatgctgaagttaccttgttttgtgcagcagatgcatcgctaactagcaaagagcagcataatatttgg  
gccacccaggcctgtgtgcccaccgaccctacaccaatagagatcccgataaatgtaacagagtccttttaatat  
tggaaaaattatatgggtgacacaaatgcaggaagacatcattagcttatgggatcagagccttaaaccttgtgta  
aaattgacaatcctatgtgtcactatgaattgtagtgaatgccacagggaggttagctgtgaataataacagtagc  
tctctgtgaatakaccgcccagacaatccattagatctatttaagtgcagtttttaatacaaccacagtagttaa  
gataaaaagcagggacagcaagcactcttctatagaacagacctaatagactgaatgagacagcaataatata

ctatatagattaattaattgcaacaccactaccattacacaagcatgccaaaagtgacttttgagccactaccc  
atacagtattgtgcaccagcaggggtatgcactaatgaaatgcaatcagaaaggatttaatggtacaggaccttgt  
aatcagacagtcataacacactgtacacatggaattaagccaacagtatcaacacaattgatactaaatggaact  
ctagcagaggaagagcccttagtaattactcaaaatgtgtcagacacaagatatgttatcatagtaaaatataat  
aagaatgtgtcaatcacctgtgtgaagaccaggttaataacacaagaggacaagtgc aaataggacccatgacctgg  
tataatatgaaattctacacaggtgatatcaggaaagcttattgtaacatttccatgcaaaattggacagaaacc  
ttaaactctgtcagtgaggccatctggaaagcttatcctcaaccccccaacaaaaccatacatttgtctttcga  
aacagtacagggggagaccagaggtttcttttctgcactkcaattgtcatggggaattcttttattgtaacacc  
agtaccctgtttaattatagctatacttgaataacctcggtgcatgtacaggttaaacacacaggtgagaacatg  
acaataacactgccttgtagactaaagcaagtagttaattcatggatgaaagtgggatcaggcttgtttgcgcca  
cctatcgagggacaattgcagtgccactccaacattacaggtttaatattagacagagcatcaccttataatgcc  
aacagcagcaacaccactttaagccctacagggggagaaatgagaaatatctggagaagtgaattatccctac  
aaggtagttaagtaaaggctctggctgtggcacctacaagagtctccagacctacaatcatggctcatgatgct  
cataggaaaaaaggggactgtggggatgctcaggacaaacagtatgttataactaatgtgccatggaataggagc  
tggaccaacaaaagtgagactgaattagatggcatttggactaatctaactggcaggaatgggacaaamtgggtg  
gataattacactgacacaatttatttagaaatacaacgagcacaagatcarcaaaaggctaataaaaaaagtta  
ttagagtttagaccaatgggcacaattgtggaactggttggacataacacaatggttgtggtacataaagattttc  
attatgatagtaggaggaataataggactaagaatcttgttagctataattaatgtagtcaggagaatcaggcag  
ggatactcacctgtatcgttacagtgcctgagagactgctttgctgctgtggctattggactcaagaattaaaa  
caaagtgcaccagcttatttggacactgttgctatatcagttgcaggggtggactgatcaagtaataatagtaggg  
caacaaataggaagaggctttttgaacataccaagaaggataagacaagggatagaaagaagcttgctagggat  
gcatggaagaaaagttagcttagtggtggcagcagtcagagaaagaatgaatcagactgccccagaaacacct  
gcatctggggttggggagatttccaaagaatttagcacaaggaaaaggaataccagtaaatataattcaaagaac  
aatgcagcatttagccttcttagaagctcatgaagatgaagaagtaggattcccagtcaggcctcaagtaccgta  
agacccatgacatacaaggcagcatttgacctcagcttctttttaaagaaaaggggggactggaaggggttaatt  
tattcacctgggagagcagaaatactagatctctgggtctatcacactcaggggttcttccctgactggcagcat  
tacctccagggccaggagaaagattccactgaccttgggtggctgtttaactagtaccagtctctgaggtg  
gaagttgaggaatgggagatgagcaggagaaagctaagctgctacatccagcctgcacttatggggattcagat  
catcataggagatcttaatgtggaagtttgacagatcactgggagaaagacatgttgcttacaaaagcacccg  
gaactgtttactaaagactaa

>#73 DQ017382 7401 nt

atgggtgagagcgtcagtggttaacagggggaaaattagataaatgggaagcaatttatttgagaccaggggga  
aagaaaaatacaaaatgaaacatttagtatgggcaagcaggagctggaagattcgcttgaacccaggtctc  
atggacacagcgcagggctgtaaccagttactaaaccaattagaaccagctctcaatacaggggtcagaaggactg  
cgctccttatataayaccatagcagttctttattgtgtccatagtacaataaccggtactcaatacacaaagaggct  
ttggacaagataaaaagagaaaaaggaacagcacaagtcctgaggcaaaaaatccagaagcaggggcagcggcagca  
gctgataacaatatcagtaggaactatcctctagtccagaatgctcaaggacaaatggtacatcatccgctgaca  
cccagaactttaatgcttgggtaaaagtaatagaggagaaggcctttaatccagaagtaataccaatgtttatg  
gccttgtcagaaggggcaacacctcagatctaaattctatgtttaaatacagtaggaggacatcaggcagctatg  
caaatgctaaaggaagtcataatgaggaagcagcagaatgggacaggacgcatccagtccttgggaccacta  
ccccaggggcaactgagagaacctagaggragtgatatagcagggacaactagtactctgccagaacagataaca  
tggatgacttctaactcctcctattccagtaggagatatttatagaagatggatagttttgggggttaaacagaatt  
gtgagaatgtatagtctgtcagcatttttagagatcaagcaaggaccaaagaacccttttagagattatgtagac  
aggttctacaaaactttaagagcagagcaggcaacacaggatgtaagaattggatgacagaaacactcttagta  
caaaatgcaaatccagattgtaarcatcctaaaagcattaggaccatcagctagcttagaagagatgatgacg  
gcctgccaaaggagtggggggaccagggcataaggcaagagtgttagcagaggctatggcacaggcacaggcagca  
actagtgtcttgtacaaagaggaaactttaaggcacaaggagaaccattaaatgtttcaactgtggcaaagag  
ggccatttggcaaggaaactgtaaggctcctagaagarggggctgttggaagtgtgggcaagaaggacatcaaag  
aaagattgtaaaaatgaaggaagacaggctataggaaatgaagtaagagaagctcttttrgatacaggagctgat  
gatacagtaatagaagaatacaattagaaggaagatggaaacaaaaatgataggaggaattggaggatttatc  
aaagtaagacaatatgataatataacaatagacatacaagggaaggaaagcagttgggtacagtggttgtaggacca  
acacctgttaattataggaagaaactttttaacacagattggctgtaccctaaattttccaataagtcctatt  
aaaactgtaccagtaaaattaaaaccaggaatggatggcccaaaagtaaaacaatggcctttgacagcagaaaaa  
atagaggcattaagagaaatttgtacagaaatggaaaagggaaggaataattctagaatagggcctgaaaatcca  
tataacactccaatttttgcataagaaagaagatagcaccaaatggagaaaatttagtagatttcagagaatta

aataaaaggaccaagacttttgggaagtgcagctaggaattccacatccagcaggattaaagcagaaaaagtca  
gtaacagtcctagatgtaggagatgcttatttttcatgtcccttagatgaagatttttagaaaaatatacagctttt  
accatacctagtgtaaataatgagacacctgggtattagataccagtataatgtgtttaccacagggatggaaggga  
tcaccagcaatttttcaaagttcaatgacaacaattttagaaccatttagaaaagaagcatccagaaataatcatt  
tatcagtagatggatgacctctatgtgggatctgacttagacctagcacacatagagagacagtagaagaactt  
agaggtcatcttttgaagtggggctttacaacccctgacaaaaaacatcaaaaggagccaccgttcctctggatg  
ggatatgagctccatccagataaatggacagtccagccaataaagttaccagaaaaggatacatggactgtcaat  
gatatacaaaaattagtaggaaagttaaattgggcaagtcagatctatccaggaatcaaagtaagacagctttgt  
aaattaatcagaggaaccaaggctttgacagaagtagttacctttacagaagaagcagaattagaactagcagaa  
aatagggagatattaaaagaacccctacatggagtctattatgacccagaaaaagaattaatagcagaaattcaa  
aaacaaggacaaaagtcagtggacatatcagatttatcaggaatcayataaaaatttaaagacaggaaagtatgca  
aaaatgaaatctgcccatactaatgatataaaacagttaactgaagtagtacaaaaggtagcaacagaaaagtata  
gtaatttggggaaagactcctaagtttaaattaccmgtacaaaagggaagtgtggggaggcatgggtggactgagaat  
tggcaagcaacttggattccagagtgggaattcgttaacactcctccccttgtaaaattatgggtatcagttagaa  
acagagccaattagtggggcagaaacatactatgtagatggagcagctaataaagaacaaaaattgggaaaagca  
ggttttgtgacagatagaggaagacagaaaagtgggtctctcttgaaaacaccaccaatcaaaagactgagttacaa  
gctatccttatggccttacaagatkaggacaggaagtaaacatagtcactgattctcagtatgctatgggaata  
attcactcacaaccagataagagtgaaatcagaattgggtgagccaaataatagaagaactcataaaaaaggaaaga  
gtctatctctcttgggtrcctgcacataaaggatttggaggaaatgagcaggtagacaaaattagttagctcagga  
attagaaaaagtattattttctagatgggtatagaaaaagcccaagaagagcatgaaagatatcacagtaactggaaa  
gcaatggccagtgatttttaacttggcccccatagtgggcaaaaagaaatagtagccagctgtgacaaaatgccagcta  
aaaggggaagccatgcatggacaggtcaattgtagtcaggagtggtggcagtttagattgtacacacttagaagga  
aaaatcattcttgtagcgggtccatgtggccagtggtacttagaagcagaagttattcctgcagaaacaggacak  
gaaacagcatattttatttttaaagttagctggaagatggccagtaaaaagttatacacactgataatggaccaat  
ttcactagtggcactgtaaaagcagcctgttgggtgggcaagtatcaaacaggaatttgggataccctacaatcct  
caaagtccaggagcagtagagtcctgaataaagaattaaagaaaaattataggacaaatcagagatcaagcagaa  
catctgaaaacagcagtagacaaatggcggtcttcattcacaatttttaaagaaaaggggggattggggggtacact  
gcagggggaagaataatagacataatagcaacagacatacagacaacaaaattacaaacacaaaattttaaaagtt  
caaaattttcgggtttattacagagacagcagagatcccatttggaaaggaccagccaaactgctgtggaaggga  
gaagggggcagtggtaatccaagataacggggatataaaaagtagtcccacgtaggaaagcaaaaataattagagat  
ttagtaaaaacatcatatgcatgtgtcaaaaaaggcaaaaggatgggtattatagacatcattatgaatcaaggcat  
ccaaaaacaagttcagaagtacatatccagtaggtcaggcaacattagtgatagtcacttattggggattaaca  
acaggagaacagccttggcatctaggacatggagtatccatagaatggagactaagaaaaatacaagacacaggtt  
gatcctgaaatggcagacaagctaatacatctttattattttgattgttttacagattctgccataaggcaagcg  
gtcttagggagacaagtatcttctaggtgtgaatatcctgcaggggcacaaccaggtagataccttacaatatcta  
gcattaacagccttgggtgggaataaagaagagaaagccacccttacctagtgtggccaagttaacagaagattta  
ttagaagacttaaaaaatgaagctgtgcccattttccaaggatttgggtacatgggttagggcaacacatctat  
gacacttatggagacacctgggagggagtagaggcaattatcaggatgytacaacaattactgtttatccattat  
aggattgggtgccagcacagcagaatagggtactcctcaaaggagaagattagagccctggaatcatccagga  
agtcaaccccaaacagcttgcaataagtgtattgtaaaaattgctgctatcattgtgtgggttgcctcacaaag  
aaaggcttaggcattctcacaacattgggttaacagtgtactatgggggtgccagtatggagagacacagagacagtt  
cttttctgtgcttcagatgctaaagcccatagtacagagggtcacaacatctgggccacacaagcatgtgttccc  
actgatcccaatccacaagaagtgccattaatcaatgtgactgaacattttgatatgtggaaaaataacatggca  
gaacaaatgcaagaggacattatcagtttatgggaacagagcttaagccctgtgttmaattaaccccattatgt  
gtaactatgcattgtwacaatagcaatgggkttaatgrgacagttgacaatggggaattagatataggatacaaa  
caaatgaaaaattgttcattcaatgtaaccactgagagaaaaagataaaaaagaagctagcttactctctgtttat  
gcagaagatgtagtgcaactcaatgagagtgcagtagcaatcaaacatataggctaataagttgtaaaaccaca  
tctgtaacacaagcctgtcctaagaccacctttgagccaattccaatacattactgtgcaccaccaggctttgcc  
attatgaratgtaatgaaggaaaacttttagtggaagggggaatgtaaaaatgtgagtactgtacaatgcacacat  
ggaataaagccaacgatattctactcagttaatcmtaaatgggagcctagatacagatgatattgttmttagayrt  
sataawgataatatgttgggtgcaatggaatmagacagtggtcaataaattgtacaaggccagggaataatayagga  
ggacaggtgcagataggacctgctatgacattttataacatagagaaaaataataggggacattagacaagcacac  
tgtaatgtctctgaagaatggaaatcaatgtgggatagaaacaaaagagaaaaataaagggcctcctgggaaacaac  
acaacctttaagtctcgggtgaacattggaggagaccagaagtaagacacttcattgttcaattgtggaggagag  
tttttcccttgaacacttccagattatttgatgagaacgggactgtaaatgggactattattctgccctgtaga

ataaaacaaattgttaaatttgtggacaagagtaggaaaaggaatttatgcaccaccaatttcggggaaatattacc  
tgtaactccagtattactggactaattctagaagtttagtggaatagtagtatatccttcaggaggaaacatg  
gttaatctctggagacaagagttgtacaagtacaaagtagttagcatagaacccataggagtagcaccaggtaaa  
gctaaaagacgcacagtgaatagagaaaaagagagcaagtcctatggggctgctcaggaaaaactatatgctatacc  
actgtgccttggaaatgagacttggagcaatcacctcctatgattcaatctggggaaatttaacctggcaaca  
tgggatgagaaagtaagaaactattcaggtgtcatttttgaccttatagagcaggcacaagagcagcagaacaca  
aatgagaaatcactcttgggaattggatcaatggacaagtcctgtggaactggtttgatatttcaaactggctgtgg  
tacataaaaaatagctataatggtagtagcaggcatttataggcataagaatcataagtgtataataactataata  
gcaagagttaggcagggatattctcccctctcgttgcagctcagaaaacgcttgtggggaataactagcatattgg  
ggaaaagagttaaaagatagtgtctatcagcttgcttaatacaacagctattgcagtagcagggggracagatagg  
cttatagaattagcacaaagaataggaaggggaatattacacatacctagaagaatcagacagggcctagaaaga  
acacttttataaatggggaagagttggtcaaagagcagtgtagtaggatggccagaaatcagagaaagaatgaga  
agacaaagacaaaactcaagcagcagcagcagcagtaggagtaggagcagcttctcaagacctagctaatacgaggg  
gccatcaccacaagcaataactagagataataatgaaactgtagcttgggtagaagcacagaagaagaagaggaa  
gtaggctttccagtagccctcaagtaccattgaggccaatgacctttaaagcagcttttgatctttccttcttt  
ttaaagaaaaggggggactggaagggtagtttgggtccagaaaaggcaagagattctagacctctggatttat  
aacacacaaggctacttccctgactggcagaactacacaccagggccaggagtcaggtatcccctgacatttggg  
tggtgcttcaaactagtaccattgtcagctgaagcagtagaagaagctaataaggagacacaatgccctctta  
catcccatatgtcaacatggagtagatgatgatcacaagaagtgctggtgtggcggtttgacagctccctggca  
agaagacacatagcaagagagctgcatccggacttctacaagaactgctga

>#74 AY532635 7434 nt

atgggtgcgagagcgtcagtggttaacagggggaaaatttagatcaatgggaagcaattttatttgagaccaggggga  
aagaaaaatacagaatgaaacatttagtatgggcaagcaggagctggaaagattcgcttgtaaccagggtctc  
atggacacagcagcgagcggtgtgcccagttactaaaccaattagaaccagctctcgcaacaggggtcagaaggactg  
cgctccttatataacgccctagcagttctttattgtgtccatagtaacatacagggtacacaatacacaaaggcg  
ttggacaagataaaaagagataaaaagagaaaaaggaacggcacaaagtccgagccaaaaaaccagaaagcaggggca  
gcggcagcagctgataacaatatcagtaggaattatcctctagtcagaatgctcaaggacaaatgatacatcag  
ccgctgacaccagaactttaaatgcttgggtaaaagtgatagaggagaaggcctttaatccagaagtaatacca  
atgtttatggccttgtcagaaggggcaacaccgcagatctaaatactatgttaaatacagtaggaggacatcag  
gcagctatgcagatgctaaaggaagtcacatgaggaagcagcagaatgggacaggacgcacartccctgyg  
ggaccattacccccaggacaactgagagaacctagaggaagtgatatagcagggacaactagtactctgmtggaa  
caggtgacctggatgacttctaactcctcctgttccagtaggagaaatctataaaaaatggatagttctggggtta  
aatagaattgtgagaatgtatagtcctgtcagcattctagagatcaaacaaggacaaaaagaaccttttagagat  
tatgtagacaggttctacaaaactttaagagcagagcaggcatcacaggatgtaaagaattggatgacagaaaca  
ctcttagtacaaaatgcaaatccagattgtaaacagatactaaaagcattagggccagcagctacctagaagaa  
atgatgacggcctgtcagggagtggggggaccagcgcataaggcaagagtgctagcagaggctatgtcacaggta  
cagacagcaactagtgtctttgcacaagggagaaactttaaaggcataaggagaaccattagatgtttcaattgt  
ggcaaaagagggccatttggcaagaaaactgtaaggcccctagaagagggggctgttggaaatgtgggcaagaagga  
catcaaatgaaagattgtaaaaatgaaggaagacaggctataggaaaagaagtaagagaagctcttctagataca  
ggagctgatgatacagtgatagaagagatacaattagaaggaaaatggaagccaaaaatgataggaggaattgga  
ggatttatcaaagtaagacaatatgataatgtaacaatagacatacaaggaaggaaagcagttgggtacagtgta  
gtaggaccaacacctgttaatatattataggaagaaactttttaacacagattggctgtactttaaattttccaata  
agtcctattgaaactgtaccagtaaaaattaaaaccagggatggatggccaagagtaaaacaatggcctttgaca  
gcagaaaaaatagaggcatttaagacaaaatttgtgcagaaatggaacaggaaggaaaaatttctagaatagggcct  
gaaaatccatacaacactccaatctttgctataaaaaagaaagatagcactaaatggagaaaaattagtagatttc  
agggaaattaaataaaaggacccaagatttttgggaagtacagctaggaattccacatccagcaggattacagaag  
aaaaaatcagtaacagttctagatgtaggagatgcttatttttcatgtcccttagatgaagatttttagaaagtat  
acagccttcaccatacctagtacaaataatgagacacctggattagataaccagtataatgtgttgccacaggga  
tggaaggggtcaccagcaatttttcaaagttcaatgacaaaaattttagaaccattttagaaagaaacatccagag  
ataatcatttatcagtagatggatgacctctatgtgggatctgactcagaactagcacacaatagagagacagtg  
gaagaacttagaagtcatttttgaagtggggctttacgaccttgacaaaaaacatcaaaaggagccaccgttc  
ctctggatgggatatgagctccatccagataaatggacgggtccagacaataaagttaccagaacaggatgtatgg  
actgtcaatgatatacaaaaaatttagtaggaaagttaaattgggcaagtcagatctatccaggaatcaaagtaaaa  
cagctttgtagattaatcagaggaaccaaagctttgacagaagtagtcaactttacaaaagaagcagaattagaa  
ttagcagaaaaacagggagatattaagagaacctctacatggagcttactatgaccaggaaaagaactaatagca

gaaattcaaaaacaaggacaagatcagtggacatatcagatttatcaggagccatataaaaaatttaaaaacagga  
aaatatgcaaaaaggagatctgccatactaatgatataaaacagttagttgaagtgggtacaaaaagtagcaaca  
gaaggtatagtaatttggggaaagattcctaagtttaattaccagtacaaaaggaagtgtgggagggcatgggtgg  
actgacaattggcaagcaacctggattcctgagtgggaattcgtcaacactcctccccttgtaaaattatgggtat  
cagttagaaacagagccaatcactggggcagaaacatactatgtagatggagcagctaataaagaaacaaaattg  
ggaaaagcaggttttgtgacagatagaggaaaacagaaagtgggtctctattgaagacaccaccaatcaaagact  
gagttacaagctatccttctggccttacaagattcaggacaggaagtaaacatagtcactgattctcagtatgct  
ctgggaataattcactcacaccagataaaaagtgaatcagaattgggtgagccaaataatagaagagctcataaaa  
aaggaaagagtttatctctcttgggtacctgcacataaagggtattggaggaaatgagcaggtagacaaattagtt  
agctcaggaattagaaaagtattattcctagatgggtatagaaaaagcccaagaagatcatgaragatatcacagt  
aactggagagcaatggccagtgattttaacttacctctgtagtggcaaaagaaatagtagccagctgtgacaaa  
tgccagctaaaaggggaagccatacatggacaggtcaattgtagtccaggagtgtggcagctagattgtacacat  
ttagaaggaaaaatcattcttgtagcgtccatgtggccagtggtcacttagaagcagaagttattcctgcagaa  
acaggacaggaacagcatattttattttaaaattagctggaagatggccagtaaaagttatacacactgataat  
ggaccaatttcactagtgccactgtaaaagcagcctgttgggtgggcaaatatcacacaggaattcgggatacc  
tacaatcctcaaagtcagggagtagtagaatccatgaataaagaattaaagaaaattataggacaaatcagagat  
caagcagaacatctaaaaacagcagtgcaaatggcgggtgttcattcacaatttttaaaagaaaaggggggattggg  
gagtacactgcaggggaaagaataatagacataatagcaacagacatacaacaacaaaattacaaacacaaatt  
ttaagattcaaaattttcgggtttattacagagacagcagagatcccatttggaaaggaccagccaaacttctg  
tggaagggagaaggggcagtggttaatccaagataacggagatataaaagttagtcccacgtaggaaagcaaaaata  
attagggatttagtaaagcatcatatgtatgtgtcaagaaaggcagaaggggtgtattatagacatcattatgaa  
acaaatcatccaaaaataagttcagaagtacatatcccagtaggtctggcaagggttagtgataaccacttattgg  
ggactaacaacaggagaaaaggtcttggcatctaggacatggagtagtccatagaatggaaactaggaaaaatacaag  
acacaagttgatcctgaaatggcagacaagctaatacatctttattatttttaattgttttacagcctctgccata  
aggcaagcgggtcttagggagaccagtagttccctaggtgtgaatatccggcagggcacaaatcaggtaggcactttg  
caacatctagcactcacagcctgggtgggagtaagaagagaaaagccacccttacctagtgtgactaagttaaca  
gaagatttattagaagaattaaaaaatgaagctgtgcgccattttccaaggacttgggtacatgggttagggcaa  
cacatctataacacatatggagacacctgggaggggtagaggcaattattaggatactacaacaattactgttt  
atccattataggattggctgccagcatagcagaatagggtactcctcgggggagaagggttagagccctggaat  
catccaggaagccaaccaagacagcttgcaatggatgctattgtaaaatttgctgctatcactgtatgtgttgc  
ttcacaagaaaggcttaggcatatcaaaatattgggcaacagtgtagtactatggagtaccagtagtgagagatgta  
gaaacagttcttttctgcgccctcagatgctaaagcccatagtacagaggctcacaacatctggggccacacaagca  
tgtgtccccactgatcccaatccacaagaagtaccactagacaatgtgactgaaccttttaatatgtgggaaaat  
aaaatggcagaacaagtgaagaggacattattagtttatgggaacagagcttaaagccctgtgttaaattaacc  
ccattatgtgtaactatgaattgttagcaatagcaatggaaatcggacaacagatgagaaagaaaaaccaggaat  
gggacagacctagaagcaagacacatgaaaaattgtctcattcaatataaccactgaaatacatgacaaaaagaag  
caagcttactctctgttttatgtagaagatgtagtccactcaatgatgggaataatagtacatacaggctaata  
aattgtaataaccacagctgtaacacaagcttgtcctaagactacctttgagccaattccaatacattactgtgca  
ccaccaggctttgccattatgaaatgtaatgaagcaaattttaatggaacaggggaatgtaaaaatgtgagtact  
gtacaatgcacacatggaataaagccagtgatatccactcagttaatcctaattgggagcttagataaagatatt  
gttattagaataatagtgggtggaaatctgttgggtgcaatggaatgagatagtgacaatgaattgtacaaggcca  
gggaataatacaggaggacaggtacaaaataggacctgctatgacattttataacatagaaaaaatagtaggagac  
attagacaagcacactgtaatgtctctaacgaatggagatcaatgtggaataaaaacaaaagagaaaaataaagagc  
ctcctgggaaacaacataacattcaaggctcaggaaaagaatggaggagaccagaagtaacacacttaattgttc  
aattgtggaggagagtttatctattgtaatacttccagattattcaatgagagcatgaatacaaatgggactaat  
gggactattactctgccctgtagaataagacaaattgtaaatttgtggacaagagtaggaaaaaggaatttatgca  
ccgccaattcggggaaatcttacctgtaactccactattactggactgattctagaacatagtgggtggcagtaat  
ggcacagtatatccacaggaggaaacatggtcaatctctggagacaagagttgtataagtaaaaaacagtcagt  
atagaacccataggagtagcaccaggtaaagctaaaagacgcacagtgagttagagaaaaaagagcaagtcctatgg  
ggctgctcaggaaaaactatatgtctataccactgtgccttgggaatgagacttggagcaataatacctcttatgat  
acwatctggggtaatttaacctggcagcaatgggataggaaagtaagaaactattcaggtgtcatttttgagctt  
atagaraaggcacaagaacaacagaacacaaatgagaaatcactcttgggaattggatcagtgggcaagtcgtgg  
aactggtttagtatcaciaactggctgtgtgtacatcaagatagctataatggtagtagcaggcattataggcata  
agaatcataagtgtataataactataatagcaagagttaggcagggatattctcccctctcgttgcagctcaga  
acacgcttgtggggaataatagcatattggggaaaagagttaaaggatagtgctatcagcttgccttaacacaata

gctattgtagtagcagaggggaacagacaggcttatagaattagcacaaagaataggaaggggaatattacacata  
cctagaagaatcagacagggcctagaaagagcacttctataaatgggaaaaatttgggtcaaagagcagcatagta  
ggatggccagaaatcagagaaagaatgagaagacaacgacctcacgagccagcagtagagccagcagtaggagta  
ggagcagcttctcaagatctagccaatcgaggggcccctcaccacaagcaataactagaaccaataatccaactgta  
gcttgggtagaagcacagaagaagaaggggaagtaggctttccagtagccctcaggtaccattgaggccaatg  
acctataaagcggctgttgatctttccttctttttaaaagaaaaggggggactggaagggctaatttgggtccaga  
aaaaggcaagacgttttagatctctgggtttatcacacacaaggcttcttccctgactggcagaactacacacca  
gggcccaggaactagattccccctgacctttggatgggtgtttcaaactagtaccattgtcagctgaagcagtagaa  
gaggctaataagaggagacaacaatgccctcttacatcccctatgccaaatggagtagatgatggacacaaaagaa  
gtgctgcagtgggcagtttgacagctccctggcaagaagacacatagcaagagagctgcatccggacttttacaag  
aactgctga

>#75 AJ006022 7428 nt

atgggtgcgagagcgtcagtggttaacagggggaaaatttagatcaatgggaatcaatttattttagagaccaggggga  
aagaaaaatacagaatgaaacatttagtatgggcaagcagggagctggaaagattcgcttgtaaccaggtctc  
atggacacagcggacggctgtgccaaagtactaaatcaattagaaccagctctcaagacaggggtcagaagaactg  
cgctctttatataacgctctagcagttctttattgtgtccatagtaggatacagatacacacacaggaagct  
ttggacaagataaaaagagaaacaggaacagcacaaagcccagccaaaaaaccagaagcagggggcagcggcagca  
actgatagcaatatcagtaggaattatcctctagtcagactgctcaaggacaaatgggtacatcagccgctgaca  
cccagaaccttaaatgcttgggtgaaagtgatagaggagaaggcctttagtccagaagtaataccaatgtttatg  
gccttgtcagaaggggcaacgccctcagatctaaatactatgttaaatacagtagggggacatcaggcagcaatg  
cagatgctgaaggaagtcataatgaggaagcagcagactgggataggacacatccagtcctctgtgggaccacta  
ccccagggcaactgagagaccctagaggaagtgatatagcaggaacaactagcacccctggcagaacaggtggct  
tggatgactgctaattcctcctgttccagtaggagatatttatagaagatggatagtcctgggggttaaacagaatt  
gtgagaatgtatagtcctgtcagcattctagagatcaaacaaggaccaaaagaacccttcagagactatgtagac  
aggttctacaaaactctaagagcagagcaggcaacacaggaagtaagaattggatgacagaaacactcttagta  
caaatgcaaaccagattgtaaacagctcctaaaagcattagggccaggagctaccttagaagagatgatgacg  
gcctgccagggagtggggggaccagcacataaggcaagagtgctagcagaggctatgtcacaggtgcagcagcca  
acaactagtgtctttgcacaaaggggaaactttaaggcataaggaaaccattaaatgtttcaattgtggcaaa  
gagggccatttggaagaaactgtaaggcccctagaagaggaggtgttggaagtgtgggcaagaaggacatcaa  
atgaaagattgtaaaaaatgaaggaagaatagggaagaagtaagagaagctcttttagatacaggagctgatgat  
acagtaatagaagagctacaattagagggaaaatggaaacaaaaaatgataggaggaattggaggatttatcaa  
gtgagacaatatgataatataacagtagacatacagggaaagaaaagcagttggtacagtattagtaggaccaaca  
cctgttaatatataggaagaaatcttttaaccagattggctgtactttaaatlttccaataagtcctattgaa  
actgtaccagtaaaattaaaaccaggaatggatggccaaaggtaaaacaatggcctttgacaacagaaaaaata  
gaggcattaagagaaatttgtacagaaatggaaaaggaaggaaaaatttctagaatagggcctgagaatccatat  
aacactccaatttttgcataaaaaagaaagatagcactaaatggagaaaatttagtagatttcagggaattaaat  
aaaaggaccaagatttttgggaagtgcagctaggaattccacatccagcaggattaaagcagaaaaaatcagtg  
acagttttggatgtaggagatgcttattttcatgtcccttggacaaagatttttagaaagtatacagcttttacc  
atacctagtataaacaatgagacacctggtattagataaccagtataatgtgctgccacaaggctggaaagggctca  
ccagcaatttttcagagtacaatgacaaaaattctagaaccattcagagagaaacatccagagataatcatttac  
cagtacatggatgacctctatgtgggatctgacttagaactagcacacaatagagaggcagtagaagaccttaga  
gatcatcttttgaagtggggctttacgaccttgacaaaaaacatcagaaggaacccccgttccctctggatggga  
tatgaactccatccagacaaatggacagtcagccaataaaagttaccagaaaaggatgtatggactgtcaatgat  
atacagaaaattagtaggaaggttaaattgggcaagtcagatctatccaggaatcagagtaaaacagctctgtaaa  
ttaatcagaggaaccaagctttgacagaagtagtcaactttacagaagaagcagaattagaactagcagaaaac  
aggagatattaaaagaacccctgcatggagtctattatgaccaggaaaagaattagtagcagaaattcaaaag  
caaggacaaggtcagtggaacatatcagatttatcaggagttacataaaaaatttaaaaacaggaaagtatgcaaaa  
atgagatctgcccataactaatgatataaaacagttagttgaagtggtaaggaaagtggcaacagaaagtatagta  
atttggggaaagactcctaaatttagattaccagtacaaaaggaagtgtgggaggcatggtggaccgatcattgg  
caagcaacttgattcctgagtgggaatttgtcaacactcctccccttgtaaaattatggtatcagttagaaca  
gagccaatcagtggggcagaaactttctatgtagatggagcagctaatagggaaacaaaattgggaaaagcaggt  
tttgtgacagataggggaagacagaaagtggctctatttgcagacaccaccaatcaaaaggctgagttacaagct  
atccttatggccttacaagagtcaggacgggatgtaaacatagtcactgactctcagtatgctatgggaataatt  
cattcacagccagataaaaagtgaatcagaattgggtgagccaaataatagaagagctcataaaaaaggaaagagtt  
tatctctcttgggtacctgcacataaaggatttggaggaaatgagcaggtagacaaattagtttagctcaggaatt



agaaaaatattattcctagatggtatagaaaaagcccaagaagatcatgacagatatcacagcaattggaagca  
atggccagtgattttaacttaccatagtggtgcaaaagaaatagtagccagctgtgacaaatgccagctaaaa  
ggggaagccatgcatggacaggtcaattgtagtcaggagtggtggcaattagattgtacacacttagagggaaaa  
atcatccttgtggcggtccatgtggccagtggtacttagaagcagaagttattcctgcagagacaggacaggaa  
acagcataattttattttaagtttagctggaagatggccagtaaaagttatacacactgataatggatccaatttc  
actagtgccactgtaaaagcagcctgttgggtgggcaaatatcaaacaggaatttgggataccctacaatcctcaa  
agtcagggagcagtagagtccatgaataaagaattaaagaaaattataggacaaatcagagatcaagcagaacat  
ctaaagacagcagtgcaaatggcggttttcattcacaattttaaaagaaaaggggggattggggggtacactgca  
ggggaagaataatagacataatagcaacagacatacagacaacaaatttacaacacaaaattttaaaagttcaa  
aattttcgggtttattacagagacagcagagatcccatttggaaaggaccagccaaacttctgtggaaaggagaa  
ggggcagtggttaattcaagataacggggatataaaagtagtcccacgtaggaaagcaaaaaataattagggatta  
gtaaaacatcatatgtatgtgtcaaaaaaggcaaaaggatggtattatagacatcattatgaaacacatcaccca  
aaaataagttcagaagtacatatcccagtaggtcaggcaagatttagtgacagtcacttattgggggctaacaaca  
ggagaacagtccttggcatctaggacatggagtatccatagaatggagactaagaaaatacaagacacaagttgat  
cctgaaatggcagacaagctaatacatcttcattattttgattgttttacagcctctgccataaggcaagcggtc  
ttagggagaccagattacctaggtgtgaatatccagcagggcacaaacaggtaggcaccctacaatatctagca  
ctaacagcctgggtgggagcaaaagaagagaaaagccacccttacctagtgtgactaagctaacagaagatttatta  
gaagaattaaaaaatgaagctgtgcgccattttccaaggatttgggtacatgggttaggacaacacatctataac  
acatatggagacacctgggagggggtagaggcaattatcaggatactacaacaattactgtttatccattatagg  
attggctgccagcacagcagaatagggatcactcctcaaaggagaaggttagagccctggaatcatccaggaagc  
caacctaaaacagcttgcaataattgctattgtaaaagatggtgctatcactgcttatattgcttcacaaagaaa  
ggcttaggcatctcacaacattgggtaacagtgtactatggggtagcagtatggagagaagcagagacaactctt  
ttctgtgcttcagatgctaaagcccatagtagcagaggctcacaacatctgggccacacaagcatgtgttcctact  
gatcccaatccacaagaagtgtattacccaatgtaactgaaaaatttaatatgtgggaaaaataaaatggcagac  
caaatgcaagaggatattatcagtcctgtgggaacagagcttaaagccctgtgttaaattaacccattatgtgta  
actatgctttgtaacgatagctatggggaggaaggaacaatacaaatatgacaacaagagaaccagacatagga  
tacaacaaaatgaaaaattgctcattcaatgcaaccactgagctaacagataaaaaagaagcaagtttactctctg  
ttttatgtagaagatgtagtaccaatcaatgcctataataaaacatataggctaataaattgtaataccacagct  
gtgacacaagcttgtcctaagacttcctttgagccaattccaatacattactgtgcaccaccaggttttgccatt  
atgaaatgtaatgaaggaaacttttagtggaatggaagctgtacaaatgtgagtactgtacaatgcacacatgga  
ataaagccagtgatatccactcagttaatcctaattggaagcttaatacagatggaattgttattagaaatgat  
agtcacagtaatctgttgggtgcaatggaatgagacagtgccaataaattgtacaaggccaggaaataatacagga  
ggacaggtgcagataggacctgctatgacattttataacatagaaaaaatagtaggagacattagacaagcatac  
tgtaatgtctctaagaactatgggaaccaatgtggaatagaacaagagaggaaataaagaaaatcctggggaaa  
aacaacataaccttcagggtcgcagagaggaatgaaggagacctagaagtgcacacacttaattgttcaattgtaga  
ggagagtttttctattgtaacacttccaaattatttaatgaggaattacttaacgagacaggtgagcctattact  
ctgccttgtagaataagacagattgtaaatttgtggacaagggtaggaaaaggaatttatgcaccaccaattcgg  
ggagttcttaactgtacctccaatattactggactggttctagaatatagtgggtgggcctgcaccaaggaaaca  
atagtatatccctcaggaggaacatggttaatctctggagacaagagttgtataagtacaaagtagttagcata  
gaacccataggagtagcaccaggtaaaagctaaaagacgcacagtgagtagagaaaaagagcaagtcctatggggc  
tgctcaggaaaaacaatatgctataccactgtgccttgggaatgagacttgagcaacaatacctccttatgataca  
atctggaataatttaacctggcaacaatgggatgagaaagtaagaaactattcaggtgtcatttttggacttata  
gaacaggcacaagaacaacagaacacaaaatgagaaatcactccttgggaattggatcaatgggacagtcctgtggagc  
tggtttggtattacaaaatggctgtggtatataaaaatagctataatgatagtagcaggcattgttaggcataaga  
atcataagtatagtaataactataatagcaagagtttaggcagggatattctccctttcgttgcagctcagaaca  
cacttgtggggaataacttgcataattggggaaaagagtttaagggatagtgctatcagcttgccttaatacaacagct  
attgtagtagcagaaggaacagataggattatagaatttagcacaaagaataggaaggggaatattacacatacct  
agaagaatcagacaaggcctagaaagagcactgatataaatgggaaagatttgggtcaaagagcagcctagtagga  
tgggcagaaatcagagaaagaatgagaagacaaacgcaagaaccagcagtagagccagcagtaggagcaggagca  
gcttctcaagatctagctaatcgaggggccatcaccataagaaatactagagacaataatgaaagtatagcttgg  
ctagaagcacaagaagaagaagaggaagtaggctttccagtagcgcctcaggtaccattaaggccaataacctat  
aaacaggcttttgatctttccttctttttaaaagataaggggggactggaagggctagtttgggtccagaaaaagg  
caagatatcttagacctctggatgtatcacacacaaggcatcctccctgactggcataactacacaccaggggcca  
ggaattagataccccgtaacctttggatggtgcttcaaactagtagcattgtcagctgaagaagtagaagaggct  
aatgaaggagacaacaatgcctcttacaccccatatgtcaacatggagcagatgatgatcataaagaagtgttg

gtgtggcgatttgacagctccctagcaagaagacatgttagcaagagagctgcatccggagttttacaagaactgc  
tga

>#76 MF7672 7425 nt

atgggtgcgaaagcgtcagtggttaacagggggaaaattaaataaatgggaagcaattttatttgaaaccaggggga  
aaaaaaaaatataaaaggaacatttagtatgggcaagcaggagctggaaagattcgcttgtaaccaggtctc  
agggacacagcgagtggtgtgccaggttaataaaccagttaaaaccacctctcaagacaggggtcaaaaggactg  
cgctctttatataaacacctggcagttctttattgtgtccatagtaacatatcggtacacaatacacaaagggt  
ttggacaagataaaagagaaacaggaacagcacaaagtctgagccaaagcaaccagaagcaggggagcagcggtca  
gctgataacaatgtcagtaggaactatcctctaattccagaatgctcaaggacaaatgggtacatcaggcgctgtca  
cctagaacttttaaatgcttgggtaaaagtaatagaggaaaaggcctttaatccagaagtaataccaatgtttatg  
gccttgtcagaaggggcaacgcctcagatctaaattctatgttaaatacagtagggggacatcaggcggtatg  
cagatgctaaggaagtcataatgaggaagcagcagaatgggacaggacgcatccagccctgtggggccacta  
ccccaggacaattgagagaccctagagggaagtgatatagcagggacaactagtactctggcagaacaggtggca  
tggatgactgctaaccctcctattccagtaggagatatttatagaagatggatagttctgggggttaaacagaatt  
gtgagaatgtatagtcctgtcagcattctagaratcaagcaaggaccaaagaaccctttagagattatgtagac  
agattctacaaaactttaagagcagagcaggcaacacaggatgtaaagaattggatgacagaaacactcttagtr  
caaatgcaayccagattgtaaacagatyctaaaagcattagggccaggagctaccttagaagagatgatgacg  
gcctgccaggagtggtgggggaccagcacacaaggcaagggtcctagcagaggctatgtcacaggcacaggcagca  
actagtgtctttgcacaaggaggaaaactttaaggcacaagaaaaaccattaaatgttttaattgtggcaagag  
ggccatttggcaagaaactgtaaggcccttagaagaggaggggtgttggaaagtgtgggaaagaaggacatcaaatg  
aaagattgcaaaagtgaaggaagacaggctataggaaaggaagtgaagagaagctcttttagatacaggagctgat  
gacacagtaatagaagaatacaattagaaggaaaatggaagccaaaaatgataggaggaattggaggatttatc  
aaagtaagacaatatgataatataacaatagacatacaaggaaggaaagcagttggtacagtattagtaggacca  
acacctgtcaatattataggaagaaaactttttaacacagattggctgtactttaaattttccaatcagttctatt  
gaaactgtaccagtaaaaattaaaaccaggaatggatggcccaagggtaaaacaatggccattgacagaagaaaaa  
atagaggcattaagagaaaatttgcacagagatggaaaaggaaggaaaaatttctagaatagggcctgaaaatcca  
tataacaccccaatttttgcataaaaaaagaaagatagcactaaatggagaaaattagtagatttcagagagtta  
aataaaaggactcaagatttttgggaagtgcagctaggaattccacatccagcaggattaaagcagaaaaaatca  
gtgacagtttttagatgtaggagatgcttatttttcatgtcccttagataaagagtttagaaagtatacagctttt  
accatacctagtgtgaataatgagacacctggtattagataaccagtataatgtgttgccacagggtatggaaggga  
tcaccagcaatttttcaaagttcaatgacaaaaattttagaaccattcaggaagagacacccagagatagtcctt  
tatcartacatggatgacctctatgtgggatcagacttagaaaatagcacacaatagagagacagtagaagaactt  
agaggatcatcttttgaagtggggctttacaacccctgacaagaaacatcaaaaggagcctccattcctctggatg  
ggatatgagctccatccagataaatggacggtccagccaataaagttaccagaaaaggaggtatggactgtcaat  
gatatacagaaattagtaggaaaattaaattgggcaagtcagatctatccaggaatcaaagtaaaacatctttgt  
agattaatcagaggagccaaggctttgacagaagtagtcacttttacacaagaagcagaattagaactagcagaa  
aacaggggagatattaaaagaaaccctgcatggagtctactatgacccagaaaaagaattaacagcagaaattcaa  
aaacaaggacaaggtcagtggaacttatcagatttatcaggagcaatataaaaaatttaaaaacaggaaagtatgca  
aaaatgaaatctgctcactaatgatataaaacagtttagctgcagtggtacaaaaagtggcgacagaaagcata  
gtaatttggggaaaaattcctaagtttaattaccagtacaaaaggaagtgtgggaggcatgggtggactgataat  
tggcaagcaacttggattcctgagtgggaatttgtcaacacccctcccctwgtaaaattatgggtatcagttagag  
acagagccaattattggggtagaaacatactatgtagatggagcagctaataagagaaacaaaattggggaaagca  
ggttttgtgacagacagaggaagacagaaagtgggtctctattgaaaacaccaccaatcagaaggctgagttacat  
gctatccttatggctttacaagagtcaggacaggaagtaaacatagtcactgactctcagtatgctatgggaata  
attcactcacaaccagatacaagtgaatcagacttgggtgggtcaaataatagaagaactcataagaaaggaaaga  
gtctatctctcttgggtacctgcacataaaggcattggaggaaatgagcaggtagataaattagtttagctcagga  
attagaaaagtattattcctagatggtatagaaaaagcccaagaagagcatgaaagatatcacagtaattggaaa  
gcaatggccagtgatttttaacttaccctctgtagtagcaaaagaaatagtagccagttgtgacaaatgccaaata  
aaaggggaagccatgcatggacaggtcaattgtagtccaggagtggtggaattagattgtacctacttagaagga  
aaaatcattctggtagcgggtccatgtggccagtggtacttagaagcagaagttattcctgcagaaacaggacag  
gaaacagcataattttatttttaaagttagctggaagaaggccagtaaaagtcatacacactgataatggaaccaat  
ttcactagtaaacactgtaaaagcagcctgttgggtgggcaagtatcaaacaggaattcgggataccctacaatcct  
caaagtccaggagcagtagaatccatgaataaagaattaaagaagattataggacaaatcagagatcaagcagaa  
catctaaaaacagcagtgcaaatggcagtccttcattcacaatttttaaaagaaaaggggggattggggggtacact  
gcaggggaaagaataatagacataatagcaacagacatacaaaacaacaaaatttacaacacaaatttttaaaagtt

[illegible]

ttgtcagaaggggcaacacccggagatctaaatactatgttaaatacagtaggaggacatcaggcagctatgcag  
atgctgaaggaagtcacatcaatgaggaagcagcagaatgggacaggctgcatccagtcctctgtgggaccactgccc  
ccaggacaactgagagaccctagaggaagtgatatagcaggaacaactagtactctgcaagaacagggtggcatgg  
atgactgctaatacctcctgtcccagtaggagatatttatagaagatggatagtcctgggggttaaacagaattgtg  
agaatgtatagtcctgtcagcattctagagatcaaacaaggaccaaaagaacccttttagagactatgtagacagg  
ttctacaaaactttaagagcagagcaggcaacacaggaagtaaaagcagtggtgacagaaacactcttagtaciaa  
aatgcaaaccagattgtaaacagctcctaaaagcattagggccaggagctaccttagaagagatgatgacrgcc  
tgccaggggagtggggggaccagggcataaggcaagagtactagcagaggctatgtcacagatacagccaacaact  
agtatcctttgcacaaagaggaaactttaaaggcataaggagaaccattaaatgtttcaattgtggcaagagggc  
catttggaagaaactgtaaggcccttagaagaaagggctgttggaatgtgggaagaaggacatcaaatgaaa  
gattgcaacaatgaaggagagacaggctatagggaagaagtaagggaagctcttttagatacaggagctgatgat  
acagtaatagaagaactacaattagagggaaaatggaaccaaaaatgatagggggaattggaggatttatcaaa  
gtaagacaatatgataatgtaacagtagatatacagggaagaaaagcagttggtacagtattagtaggaccaaca  
cctgttaatatattaggaagaaatcttttaacacagattggctgtactttaaatttccaataagtcctattgaa  
actgtaccagtaaaattaaaaccaggaatggatggcccaaaggtaaaacaatggcctttgacagcagaaaaata  
gaggcattgagagaaattttgtacagaaatggaaaaggarggaaaaatttctaaaatagggcctgagaatccatat  
aacactccaatttttggctataaaaaagaaagatggcactaaatggagaaaatttagtagatttcagagaattaaat  
aaaaggaccaagatttttgggaagtgcagtttaggaattccacatccagcaggattaaagcagaaaaaatcagtg  
acagttttggatgtaggagatgcttatttttcatgtcctttggatgaagatttcaggaagtatacagcttttacc  
atacctagtataaacaatgagacacctgggtattagataaccagtataatgtgttgccacagggtggaaaggggtca  
ccagcaatttttcaaagttcaatgacaaagattctagaccatttagaaagaaacatccagagataatcatttat  
cagtacatggatgacctctatgtgggatctgacttagaactagcacaacatagagaggtagtagaagaacttaga  
aggcatcttttgattggggctttacgaccctgacaaaaaacatcaaaaggagccaccgtttctctggatggga  
tatgagctccatccagataaatggacggtccagccaataaaagttgccagaaaaagagatatggactgtcaatgat  
atacaaaaatttagtagggaaattaaattgggcaagtcagatctatccaggaatcaaagtaaaacagctgtgtaga  
ttaatcagaggaaccaagctttgacagaagtagttgactttacaaaagaagcagaattagaactagcagaaaac  
agggagatattaaaagaacccatgcatggagtctactatgaccaggaaaagaattaatagcagacattcagaaa  
caaggacaaggtcaatggacatatcagatctatcaagagccatataaaaacctgaaaacaggggaaatatgcaaaa  
atgagatctgcccataactaatgatataaaacagttagttgaagtagtacagaaggtggcaacagaaagtatagta  
atgtggggaaggactcctaaatttagattaccagtacaaaagggaagtgtgggagacatggtggactgatcattgg  
caagcaacttgattcctgagtgggaatttgtcaatacyccctcccctgtaaaattatggtatcagttagaaca  
gagccaatcagtggggtagaacatactatgtggatggagcagctaatagagaaacaaaattgggaaaagcagggt  
tttgtgacagatagaggaagacagaaagtgttttctcttgacagacaccaccaatcaaaaggctgaattacaagct  
atccttatggccttacaagagtcaggacaggcagtaaacatagttactgactcccagtatgctatgggaataata  
catgcacaaccagataaragtgaatcagaatttgtaagccaaataatagaagaactcataaaaaaggagaaagtt  
tatctctcatgggtacctgcacataaaaggtattggaggaaatgagcagatagacaaatttagtcagctcaggaatt  
aggaaagtattattccttgatggcatagacaaagcccaaggagatcatgaaagatatcacagtaattggagagca  
atggctagtgattttaacctacccccctgagtggcaaaagaaatagtagccagctgtgacaaatgccagctaaaa  
ggggaagccatacatggacaggtcaattgtagtccaggagtatggcagttagactgtacacacttagaagggaaa  
atcattctttagcagtcctatgtggccagtggtacttagaagcagaagttattcctgcagaaactggacaggaa  
acagcataattttattttaagtttagctggaagatggccagtaaaagttatacacactgataatggacccaatttc  
actagtgccactgtaaaagcagcttgttggtgggcaaacatcaaacaggaatttgggataccctacaatcctcaa  
agtcaggggagcagtagagtccatgaataaagaattaaagaaaattataggacaaatcagagatcaagcagaacat  
ctaaaaacagcagtgcaaatggcggttttcattcacaaattttaaaagaaaaggggggattgggggtacactgca  
ggggaagaataatagatataatagcaacagacatacagacacaaaaattacaacacaaaattttaaaagttcaa  
aattttcggggtttattacagagacagcagagatcccatttggaaaggaccagccaaacttctgtggaaaggagaa  
ggggcagtggtaatccaagataacggggatataaaagtgggtgccacgtaggaaagcaaaaaataattagggttta  
gtaaaagcatcatatgtatgtgtcaaaaaaggcaaaagggtggtattatagacatcattatgaaacaactcatcca  
aaaataagttcagaagtacatatcccagtaggtcaggcaagattagtgataaccacttattggggactgacaaca  
ggagaacagccttggcatctaggacatggagtatccatagaatggagactaagaaaatacaggacacaagttgat  
cctgaaatggcagatcagctaatacatttttatttttaattgttttacagcttctgccatcaggcaagcgatc  
ttagggagaccagtatcacctaggtgtgaatatccagcagggcataaacagggtaggcaccttacaatatctagca  
ctaacagcctgggtggaagtaaaagaagagaaaagccacccttacctagtgtgactaagttaacagaagatttatta  
gaggaaattaaaaaatgaagctgtgcgccaytttccaaggatttggctacatgggttaggacaatacatctacaac  
acttatggagacacatgggaggggtagaggcaattattaggatgctacaacaattactgtttatccattatagg

attggctgtcagcacagcagaatagggatcactcctcaaaggagaaggatagagccctggaatcatccaggaagc  
cgaccaagacagcttgcaataattgctatttgtaaaaaatgttgctatcactgtgtgggttgcttcacaaagaaa  
ggcttaggcatctcacaacattgggtaacagtgactatggggtagcagtatggagagacgcagagacagttctt  
ttctgcgctcagatgctaaagcccatagtagagaggtccacaacatctgggccacacaagcatgtgttcccact  
gatcccaacccacaggaagtgtattaccaatgtaactgaaaattttaatatgtggaaaaataacatggcagaa  
caaatgcaagaagacatcatcagtcctatgggaacagagcttaaagccctgtgttaaattaacccattatgtgta  
actatgctttgcaacaatagcaatggaaatatgtcagttgagggtagccaccagaggactacaacaagtagtaca  
ggtataggaaataagctaattgaaaaattgctcatttaattgcaaccactgagagaaaagataaaaaagaagacagtt  
tactctctgttttatgcagaagatgtagtaaaaaatctcaaatgatagtacttataggctaataagttgtaatact  
acagttgtgacacagggtgtcctaagatctcttttgaaaccaattccaatacattactgtgcaccaccagggttt  
gccattataaaatgtaatgaaggaaatttttagtggaatggaactgttaaaatgtgagtagtactgtacaatgtaca  
catggaataaagccagtgatatctactcagttaatcctaattggaagttaagcacaggtgacattgttattaga  
aatagcagtcgcggtactctgttggtgcaatggaatgagacagtgcaataaattgtacaaggccaggaaataat  
acaagtggacaggtgcagataggacctgctatgacattttataacatagagaaaatagtaggagacattagacaa  
gcgcactgtaattgtctcctgggaaagtggggaaaaatgtggaatagaacaaaagacaaaataaacaggggaggtc  
aactggaccaactggatctaccgggatagggagaagaaggagagatccagaagtaaccaattcatgttcaat  
tgtagaggagaatttttctattgtaaacacttctaattgtttaaggagagtaaatacgtctaacaggacaggggagt  
attactctgccctgtagaataaaacaatttgtaaaccttggtggacaagggtaggaaaaggaatttatgcaccacca  
gttaggggaaatcttacttgtaattccagttacttgactgrtitytagaatatagtrakgyagataatggtact  
aatgttacagtatatccctcaggaggaaacatgattgatctttggagacaagagttgcatagatacaaagtagtt  
agtatagaacccataggagtagcaccaggtaaagctaaaagacgcacagtgagtagagaaaagagagcagtcctt  
ggactgggtgcgctgtttcttgggttcttggagcagcagggagcactatgggcgagcgtcaataacgctgacg  
gtacaggcccgacattactatctgggatagtgcacacagcagaacaatctgttgagagctatagaggcgcaacaa  
catttggtgcaactctcaatttggggcattaaacagctccaagcaaaagtccttgctatagaaaagataccttagg  
gatcagcaaatcctaagtctatggggctgctcaggaagagctatatgttataccactgtgccttggaatgagact  
tggagcagtaatacctcctatgagacaatctggaataatttaacctggcaagaatgggataagaaagtaagaaac  
tattcaggtgtcatttttgaccttatagagcaggcacaagaacaacagaaacacaaatgaaaaatcactcttgga  
ttggatcagtgggcaagtctgtgggactggttagtattacaaactggctgtggtatataaaaaatagctataatg  
atagtagcaggcatcataggcataagaatcataagtgtataataaactataatagcaagagttaggcagggatat  
tcacctcccctctcgttgagctcagaatatacttgtggggaataatagcatattggggaaaagagttaaaagat  
agtgtatcagcttgcttaataacaacagctattgtagtagcagaaggaacagataggcttatagaattagcacia  
agaataggaaggggaatattacacatccctagaagactcagacaaggcctagagagagtagtctgtataaatggga  
aagagttggtcaaaaagcagcatagtaggatggccagaaatcagagaaaagatgagaagacaaccagcagagcca  
gcaataggagtaggagcagcttctcaagacctagctaattcgaggggcaatcaccacaagtaataactgcaagcaat  
aatgaaactgtagcttggttagaagcacaagaagaagaggaagaagtaggctttccagtagcgcctcaggtgcca  
ttaaggccaatgaccatgaaagcggtgttgacctttccttcttttaaaagaaaaggggggactggaagggcta  
ccttggtcccagagaaggcaagacattctagacctctgggtttataacacacaaggcttcttccctgattggcag  
aactacacaccaggggccaggagttagataccccctgaccttggatggtgcttcaaattagtgccaatgtcaact  
gaagaagtagaagaagctaataaaggagaaaacaatgccttattgcatcccatatgtcaacatggagtagatgat  
gtcacaaaagaagtgtgtgtggcagtttgacagctccctggcaagaagacacgtagcaagagagctgcatccg  
gagttctacaaggactgctga

>#78 DQ017383 7434 nt

atgggtgcgagagcgtcagtggttaacaggggggaaaattagataaatgggaagcaattttatttgagaccaggggga  
aagaaaaaatatagaatgaaacatttagtatgggcaagcaggagctggaaagattcgcttgtaaccagggtctc  
atggacacagcgaagggctgtgcccagttactaaaccagttagaaccagctctcaatacaggggtcagaaggactg  
cgctccttatataacaccttagcagttctttattgtgtccatagtacaataaccggtacttaatacacaaagaggct  
ttggacaaaaataaaaagagaaaaaggaacagcacaagcctgaggcaaaaaatccagaagcaggggcagcggcagca  
gctgataacaacatcagtaggaattatcctctagttcagaatgctcaaggacaaatgatacatcagccgctgaca  
cccagaactttaatgcttggtgtaaagtgtatagaggagaaggcctttaatccagaagtaataccaatgtttatg  
gccttgctcagaaggggcaacacctcagatctaaattctatgttaatacagtaggaggacatcaggcagctatg  
caaatgctaaaggaggtcatcaatgaggaagcagcagaatgggacaggacgcatccagtcctgtgggaccacta  
ccccaggggcaactgagagagcctagaggcagtgatatagcagggacaactagtactctgccagaacagataaca  
tggatgacttctaaccctcctattccagtaggagatatattatagaagatggatagttttgggggttaacagaatt  
gtgagaatgtatagtctgtcagcattctagagatcgagcaaggaccaaagaacccttttagagattatgtagac  
aggttctacaaagttttaagagcagagcaggcaacacaggatgtaaagaattggatgacagaaacactcttagta

caaaatgcaaaccagattgtaaacagatcctaaaagcattagggccaggatcctccttagaagagatgatgacg  
gcctgccagggagtggtgggggaccagggcataaggcaagagtgctagcagaagctacggcacaggcacaggcagca  
accagtgtctttgtacaaaggggaaacttttaaggcacaaggagaaccattaaatgtttcaattgtggcaaagag  
ggccatttggcaaggaactgtaaggcccctaggagaggaggctgttggaatgtgggcaggaaggacatcaaagt  
aaagattgtaaaaatgaaggaagacaggctataggaaatgaagtaagagaagctcttttagacacaggagctgat  
gatacagtaatagaagaaatacaattagaaggagatggaaacccaaaatgatagggggaattggaggatttatc  
aaagtaagacaatatgataatataacaatagacatacaaggaaggaaagcagttggtacagtgttagtaggacca  
acacctgttaatatattataggaagaaactttttaacacagattggctgtactctaaattttccattaagtcctatt  
aaaactgtaccagtaaaaattaaaaccaggaatggatggcccagaagtaaaacaatggcctttgacagcagaaaaa  
atagaggcggttaagagaaatttgtacagaaatggaaaaggaaggaaaaatttctagaatagggcctgaaaatcca  
tataacactccaatttttgcataaaaaagaaagatagcactaaatggagaaaattagtagatttcagagaatta  
aataaaaggaccaagacttttgggaagtgcagctgggaatcccatccagcaggattaaagcagaaaaagtc  
gtaacagtcttggtatgtaggagatgcttatttttcatgtcccttagatgaagatttttagaaagtatacagttttt  
accatacctagtgtaaacaatgagacacctggtattagataccagtataatgtgttaccacaggggatgggaggga  
tcaccagcaatttttcaaagttcaatgacaacaattctagaaccatttagaaagaagcatccagagataatcatt  
tatcagtacatggatgacctctatgtgggatctgacttagaaatagcaaaacatagagagacagtagaagaactt  
agaggccatctgttgaagtggggctttacaacccctgacaaaaacatcaaaaggagccaccattcctctggatg  
ggatatgagctccatccagataaaatggacagtccggccaataaagttaccagaaaaggatacatggactgtcaat  
gatatacagaaattagtaggggaaattaaattgggcaagtcagatttatccaggaattaaagtaagacagccttgc  
aaattaatcagaggaaccaaggctttgacagaagtagttacctttacagaagaagcaggattagaactagcagaa  
aacagggagatattaaaagaacccctacatggagtctattatgaccacagaaaaggaattaatagcggaaattcaa  
aaacaaggacaaagtgcagtgacatatcagatttatcaggagtcacataaaaaatttaagacaggaaagtatgca  
aaaatgagatctgccataactaatgatataaagcagtttaactgaagtagtacaaaagatagcaacagaaagtata  
gtaatttggggaaagactcctaagtttaattaccagtacaaaaggaagtgtgggaggcatggtggactgagaat  
tggcaagcaacttggattcctgagtgggaattcgtcaacacccctccccctgtaaaattatggtatcagttagaa  
acagagccaattagtggggcagaaacatactatgtagatggagcagctaatagagaaacaaaaattgggaaaagca  
ggttttgtgacagatagaggaagacagaaagtgggtctctattaaagataccaccaatcaaaaaactgagttacat  
gctatcctcatggccttacaagagtcaggacaggaagtaaacatagtcactgactctcagtatgctatgggaata  
attcactcacagccagataaaagtgaatcagaattgggtgagccaaataatagaagaactcataaaaaaggaaaga  
gtctatctctcttgggtacctgcacataaaggtatttgaggaaatgagcaggtagacaaattagttagctcagga  
attagaaaagtattattcctagatggtatagaaaaagcccaagaagagcatgaaagatatcacagtaactggaga  
gcaatggccagtgtattttaacttrccccccatagtggaagaaatagtagccagctgtgacaaatgccagcta  
aaaggggaagccatgcatggacaggtcaattgtagtccaggagtggtggcagtttagattgtacacacttagaagga  
aaaatcattcttgtagcagtcctatgtggccagtggctacttagaagcagaagttattcctgcagaaacaggacag  
gaaacagcatattttatttttaaagttagctggaagatggccagtaaaagttatacacactgataatggaccaat  
ttcactagtggcactgtaaaagcagcctgttgggtgggcaagtatcaaacaggaattcgggataccctacaatcct  
caaagtccaggagcagtagagtcctgaataaagaattaaagaaaaattataggacaaatcagagatcaagcagaa  
catctaaaaacagcagtgcaaatggcagtcctcattcacaaattttaaaagaaaaggggggattggggggtacact  
gcaggggagagaataatagacataatagcaacagacatacagacaacaaattacaaacacaaattttaaaagtt  
caaaattttcgggtttattacagagacagcagagatcccatttggaaaggaccagccaaacttctgtggaaagga  
gaaggggcagtggttaatccaagataacggggatataaaagtagtcccacgtaggaaagcaaaaataattagagat  
ttagtaaaacatcatatgcatgtgtcaaaaaaggcaaaaggatggtattatagacatcattatgaaacaaggcat  
ccaaaaataagttcagaagtacatatccagtaggtcaggcaagattagtgatagtcacttattggggactaaca  
acaggagaacagccttggcatctaggacatggagtatccatagaatggagactaagaaaatacaagacacaggtt  
gatcctgaaatggcagacaagctaatacatctttattattttgattgttttacagcgtctgccataagacaagca  
atcttagggagacaagtatttcctaggtgtgaatatcctgcagggcacaatcaggtaggcaccttacaatatcta  
gcattaacagccttgggtgggaataaagaagagaaaaccacccttacctagtgtggctaagtttaacagaagattta  
ttagaagacttaaaaaatgaagctgtgcccattttccaaggatttggctacatggattagggcaacacatctat  
gacacatatggagacacatgggaaggagtagaggcaattatcaggatgtacaacaattactgtttatccattat  
aggattggttgcagcacagcagaatagggtactcctcaaaggagaagattagagccctggaatcatccagga  
agccaacccaaaacagcttgcaataattgctattgtaaaaaatgctgctatcattgtgtggtttgcttcacaaag  
aaaggcttaggcattctcacaacattgggttaacagtgtactatggggtaccagtatggagagaaacagatacagtt  
cttttctgtgcttcagatgctaaagcccatagtacagaggctcacaacatctgggccacacaagcatgtgttccc  
actgatcccaaccacagaagtagatttaataatgtgactgaaaaatttgatattgtggaaaaataacatggca  
gaacaaatgcaagaggacattattagtttatgggaacagagcttaaaacccctgtgttaatttaaccccattatgt

gtaactatgcattgtaacgatagcaatgggtttaatgagacagttgggaatgggacattagacataggatacaaa  
caaataaaaaattgctcattcaatgtaaccactgagagagaagatagaaagaagaaagcttactctctgttttat  
acagaagatgtagtgcaactcaatgacagtgacagtgacagtaatacatatactctaataaattgtaagaccaca  
gttgtaagacaagcttgctcctaagaccacctttgagccaattccaatacattactgtgcaccaccaggctttgcc  
attatgagatgtaatgaaggaaacttttagtggaagggaatgtaaaaatgtgagtactgtacaatgcacacat  
ggaataaagccagtgatatccactcagttaatcatgaatgggagcctagatgagacagatattgttattagaat  
gtagtggtactatattgggtaatatattgggtgcaatggaataagacagtattaataaattgtacaaggccaggg  
aataatacaggaggacaggtgcagataggacctgctatgacattttataacatagagaaaaataataggggacatt  
agacaagcacactgtaatgtctctgaagaagaatggaaatcaatgtggaatagaacaaaagaaaaataaaggac  
attctgggaacaaaacaacctttgaggctcgggggaacgatggaagtgaccagaagtaacacacttaattgttc  
aattgtggaggagaggttttcccttgtaacacttccagattatttaatatgagagcaagaacgagactacaaatggg  
actattattctgccctgtagaataaaaacaaattgtaaatttatggacaagagtaggaaaaggaatttatgcacca  
ccaattcggggaaatattacctgtaactccaatattactggactgattctagaatatagtaatatgcacaaatggt  
acagtagtatatccttcaggaggaaacatggttaattctctggagacaagagttgtataatacaaaagtagtgagt  
atagaacccataggagtagcaccaggtaaaagctaaaagacgcacagtgagtagagaaaagagagcargtctatgg  
ggctgctcaggaaaaactatatgctataccactgtgccttggaatgagacttgagagcartmatacctcytatgak  
rcaatctggggwaattttaacctggcarmaatgggatragsaaagtaagaaactattcaggtrytatttttgamctt  
mtagagcaggcacaagaacaacaraacacaaatgagaaatcactcttggaattggatcaatgggcaartctgtgg  
aactggtttgatattacaagctggctgtggtacataaaaaatagctataatggtagtagcaggcattataggcata  
agaatcataagtgtataataaactataatagcaagagttaggcagggatattctcccctctcgttgacagctcagr  
awacgcytgtggggartactagcatattggggaaaagagttaaaagatagtgtctatcagcttgcttratacaaya  
gctattgcagtagcagaggggaacagataggmtyatagaattagcacaagaataggaaggggaatattacacgtc  
cctagaagaattagacagggcctagaaaggacacttgataaatggggaaaattttgtcaaagaacagagtagca  
ggatgggtcagaaatcagagaaagaatgagaaggcaaaccaagagccagctcaagagccagcagcagtaggagta  
ggagcagcttctcaagacctagctaatacgaggggccatcaccacaagcaatactagagataataatgaaactgta  
acttggttagaagcacaggaagaggaagaggaagtaggctttccagtagcgcctcaagtaccaataaggccaatg  
acctataaagcagctttttgatctttccttcttttttaaaagaaaaggggggactggaaggggctagtttgggtccaga  
aagaggcaagagattctagacctctgggtttatcacacacaaggcttcttccctgactggcagaactacacacca  
gggccaggagtttagataccccctgacctttggatgggtgcttcaaactagtaccattgtcagctgaagcagtagaa  
gaagccaatgaaggagacaacaatgccctcctgcaccccatatgtcaacatggagtagatgatgagcacaaaagaa  
gtgctgggtgtggcggtttgacagctccctggcaagaagacacttagcaagagagctgcatccggacttttacaag  
aactgctga

>#79 AJ271370 7404 nt

atgggtgcgagagcgtcagtggttaacagggggaaaattagatcaatgggaagcaattttatttgaggccaggggga  
aagaaaaatacagattgaaacatttagtatgggcaagcaggagctggaagattcgcttgtaaccaggtctc  
atggcacacgcgaatggctgtgcccagtttaataaaaccaattagaaccagctctcaagacaggggtcagaaggactg  
cgctctttgtwtaacaccttggcagttctttattgtgtccatagtaacataaccggtacacaatacacaaagggt  
ttagacaagataaaaagagaaacaggaacagcacaaagtcagagccaaagaaaccagaagcagggacagcgggca  
gctgacagcagtatcagtaggaattatcctctagtccagaatgctcaaggacaaatggtacatcagccgctgaca  
cctagaactttaaatgcttggttaaaagtaatagaggaaaaggcctttaatccagaaataataccaatgtttatg  
gccttgctcagaaggggcaacgcctcagatctaaatagtatgttaatacagtaggaggacatcaggcagctatg  
cagatgctaaaggaagtcataatgaggaagcggcgagtgaggacagcagcagccctgtgggaccacta  
ccccaggggcaaatgagagaccctagaggaagtgatatagcagggacaactagtactctggcagaacaggtggca  
tgatgacttctaactcctcctattccagtaggagatatttatagaagatggatagttctgggggttaaacagaatt  
gtgagaatgtatagtctgtcagcattctagagatcaagcaaggaccaaagagccctttagagattatgtagac  
aggttctacaaaactttaagagcagagcaggcaacacaggatgtaaagaattggatgacagaaacactcttagta  
caaatgcaaaccagattgtaaacagatcctaaaagcattaggaccaggagctaccttagaagagatgatgacg  
gctgccaggggagtagggggaccagcacataaggcaagagtgttagcagaggctatggcacaggcacaacagca  
actagtgtctttgtacaaaggggaaactttaagggcataagaaaaaccattaaatgttttaattgtggcaaagag  
ggccatttggaagaaactgtgaaggcccttagaagaaggggctgttggaagtgtgggcaagaaggacatcaaatg  
aaagattgtaaaaatgaggggaagmcaggctaataataggaaaggaaataagagaagctcttttagatacaggagct  
gatgatacagtaatagaagaaatacaattagaaggaaaatggaaacaaaaatgataggaggaattggaggattt  
atcaaagtaagacaatatgataatataacaatagacatacaagggaagaaaagcagttgggtacagtgttagtagga  
ccaacacctgttaatatattataggaagaaactttttaacacagattggctgtactttaaattttccaatcagtcct  
attgaaactgtaccagtaaaaattaaaaccagggatggatggccaagggtaaaacaatggcctttgacagcagaa

aaaatagaggcattaagagaaaatttgtacagaaatggaaaaagaaggaaaaatttctagaatagggcctgaaaat  
ccatataacactccaatttttggctataaaaaagaagatagcactaaatggagaaaatttagtagatttcagggaa  
ttaataaaaaggacccaagaattttgggaagtgcactaggaattccacatccagcaggattaaagcagaaaaaa  
tcagtaacagttmtagatgtaggagatgcttatttttcatgtcccttagataaaagatttttagaaagtatacagct  
tttaccatacctagatataaataatgagacacctggatttagataccagttataatgtgttaccacagggatggaag  
ggatcaccagcaatttttcaaagttcaatgacaaaaatttctagaaccatttaggaagaacatccagagataatt  
atztatcagtacatggatgacctctatgtgggatctgacttagaaatagcacaacatagagagacagtagaagaa  
cttagaggtcatcttttgaagtggggctttacgacccctgacaaaaaacatcaaaaggagccaccgttcctctgg  
atgggatatgagctccatccagataaatggacgggtccagccaataaagttaccagaaaaggaggtatggactgtc  
aatgatatacaaaaatttagtaggaaagttaaattgggcaagtcagatctatccaggaatcaaagtaaacagctt  
tgtaaattaatcagaggaaccaaggctttgacagaagtagtcacttttacacaagaagcagaattagaactagca  
gaaaacagggagatattaaaagaacccctacatggagtctattatgaccagggaaaagaattaatagcagaaatt  
caaaaacaaggacaaggtcagtgacatatcagatttatcaggagccatataaaaaatttaaaaacaggaaagtat  
gcaaaaaygagatctgctcatactaatgatataaaaagagttagctgcagtggtacaaaagggtggcaacagaaagt  
atagtaatttggggaagactcctaagtttaaattaccagtacaaaagggaagtggtgggagacatggtggactgag  
cattggcaagcaacttggattcctgagtggaattcgtcaacactcctccccttgtaaaattatggtatcagtta  
gaaacagagccaatttagtggggcagaaacatactatgtagatggagcagctaataaagaacaaaaattagggaaa  
gcaggttttgtgacagatagaggaagacagaaagtggtctctattgagaacaccaccaatcaaaaggctgagtta  
caagctatccttttggccttacaagagtcaggacaggaagcaaacatagtcactgactctcagtatgctatggga  
ataattcactcacaaccagataaaaagtgaatcagacttgggtgggccaataatagaagaactcataaaaaaggaa  
agagttctatctctcttgggtacctgcacataaaaggtattggaggaaatgagcaggtagataawtttagttagctca  
ggaattagaaragtattattcctagatggtatagaaaaagcccaagaagaacatgaaagatatcacagtaattgg  
aaagcaatggccagtgattttaacttaccctccatagtagcaaaaagaatatagtagccagctgtgacaaatgccag  
ctaaaagggggaagccatgcatgggcagatcaattgtagtccaggagtggtggcagtttagattgtacacacttagaa  
ggaaaaatcattctttagcagtgccatgtggccagtggtacttagaagcagaagttattcctgcagaaacagga  
caggaaacagcatatttttatttttaaagttagctggaagatggccagtaaaaagttatacacactgataatggacc  
aattttatttagtgccactgtaaaagcagcctgttgggtgggcaggtatcaaacaggaattcgggataccctacaat  
cctcaaagtccaggagcagtagagtgccatgaataaagaattaaagaaaattataggacaaatcagggatcaagca  
gaacatctaaaaacagcagtgcaaatggcggttttcattcacaaattttaaaagaaaaggggggattggggggtam  
acggcaggggaaagaataatagacataatagcaacagacatacaaaacaacaaattacaaacacaaattttaaaa  
gttcaaaattttcrggtttattacagagacagcagagatcctatttggaaaggaccagccaaacttctgtggaaa  
ggagaaggggcagtggttaatccaagataacggggatataaaaggtagtcacacgtaggaaagcaaaaaataattaga  
gatttagtaaaacaccatatgtatgtgtcaaaaaaggcaaaagggtggtattatagacatcattatgaaacaaag  
catccaaagacaagttcagaagtrcatatcccagtaggtcmggcaarattagtgatagtcacttattggggacta  
acaacaggagaacagccttggcatctaggacatrgagtatccatagaatggagacaaggaaaaatacaagacacaa  
gttgatcctgaaatggcagacaagctaatacattgttattattttaattgttttacagcttctgccataaggcaa  
gcggtcttagggagaccagtggttacctagggtgtgamtatccggcagggcacaamcaggtaggcactctacaatat  
ctagcamtaacagcctrrgtgggagtaaagaagagaaggccacccttacctagtgtgactaagttaacagaagat  
ttattagaagaattaaaaaatgaagctgtgcgccattttccaaggatttggctacatgggttaggacaacacatc  
tataacacatatggagacacctgggagggggtagaggcaattatcaggatactacaacaattactgtttatccat  
tataggattggctgccagcacagcagaatagggtactcccaaaaggagaaggttagagccctggaatcatcca  
ggaagccaaccaagacagcttgcaataagtgtctattgtaaaaaatgctgtctatcactgtatgtgttgcttcaca  
aagaaaggcttaggcattctcaccacattgggtaacagtgactatggagtaccagtatggagagacgcagagaca  
gttcttttctgcgcttcagatgctaaagcccatagtacagaggtcacaacatctgggccacacaagcatgtgtc  
cccactgatcccaatccacaagaagtgtatttaaccaatgtgactgaatatttttaatatgtgggaaaaataaaatg  
gcagaacaaatgcaagaggacattatcagtttatgggaacagagcttaaagccctgtgttaaattaacccatta  
tgtgtaactatgctttgtaacaatagcaatgggaatagtgacaggaatagtactaccaataggacagaggatcta  
gaagacagacaaatgaaaaattgctcattcaatataaccactgagataagagatagaaagaagcaagtttactct  
ctgttttatgtagaagatgtagtgccaatcaaagatgggactgacaataatacatataggctaataaattgtaat  
accacagctgtgacacaagcttgtcctaagactacctttgagccaattccaatacattactgtgcaccaccaggc  
tttgccattatgaaatgtaatgaaggaaatttttagtggaatggaagctgtacaaatgtgagtactgtacaatgc  
acacatggaataaagccagtgatatccactcagttaatcctaaatggaagcttagatacagatgatattgttatt  
agacatcatggggtaattctgttgggtgcaatggaatgagacagtggtcaataaattgtacaaggccaggaaataat  
acaggaggacaggtgcagataggacctgctatgacattttataatatagaaaaaatagtaggagacgttagacaa  
gcatactgtaatgtctctgaagaatggggatcaatgtggaataaaaacaaaaagaagataaaaagactcctggga



aacaacacaacttttcaaagctcaggataaaaaatggaggagacctagaagtaacacacttaatgttcaattgtrra  
ggagagttttttctatttgcaacacttccagattattttaattgagagcgagaacaagactaataagactattattctg  
ccctgtagaataaaaacaaattgtaratttgtggacaagagtagkaaaaggaatttatgcaccaccaattcgggga  
aatcttagctgtarctccagtatcactggactgattctagaacatagtggtgaaaacggtaacaagacagtatat  
ccctcaggaggaaacatgggttaatctctggagacaagaactgtataagtacaaagtagttagtatagaaccata  
ggagtagcaccaggtaaagccaaaagacgcacagtgagtagagaaaagagagcaagtctatggggctgctcagga  
aaaactatatgctataccactgtgccttgggaatgatacytggagcagtaatacctcctatgatacaaatctgggrgt  
aatctcacctggcaacaatgggatcggaagtaaggaactattcaggtgtcatttttgatcttatagagcaagca  
caagaacaacaaaacacaaatgagaaagcactcttgggaattggatcaatgggcaagtctgtggaactggtttgat  
attacaaaatggctgtgtgtacataaaaaatagctataatggtagtagcaggcattataggcataagaattataagt  
gcaataaataactataatagcaagagttaggcagggatattctcccctctcgttgcagctcagaatacgcctgtgg  
ggaataatagcatattgggggaaaagaggttaaagatagtgctatcagcttgcttaatacaacagctattgtagta  
gcagaggggaacagataggtttatagaattagcacaagaataggaaggggaatattacacatacctagaagaatc  
agacagggcctagaaagagcacttttataaatgggaaaaatttgggtcaaagagcagcctagtaggatggccagaa  
atcagagaaagaataagaagacaaaactccagagccagcagtaggagtaggagcagtttctcaagacctagcta  
cgagggggccatcaccacaagcaataactaaagataataatcaaactgtagcttggctagaagcacaagaagaasag  
gaggtaggctttccagtacgccctcaagtaccgctgagggccaatgacctataaagcggcttttgatctttccttc  
tttttaaaagaaaaggggggactggaagggctagtttgggtccagaaaaaggcaagaaattctagacctctgggtt  
tatcacacacaaggtttcttccctgactggcagaactacacaccagggccaggagtttagatacccccgtgtgcttt  
ggatgggtgcttcaaactagtagcattgtcagaggaagcagtagaagaagctaatagaaggagacaataatgccctc  
ctgcatcccataatgtcaacatggagtagatgatgatacacaacaagtgtggtgtggcgggttgacagctccctg  
gcaagaagacacgtagcaaaagagctgcatccggacttctacaagaactgctga

>#80 DQ314732 7407 nt

atgggtgcgagagcgctcagtatattaagtgggggaaaatttagatgcatgggaaaaaattcgggttacggccaggggga  
aggaaaaaatataagatgaaacatctaatatgggcaagcagagagttggaaagatttgcaattaacctggcctt  
ttagaaacagcagagggatgtcaacaaataatagaacagttacagtcaactctcaagacaggatcagaagaactt  
aaatcattatataatacagtagcaacctctggtgctgacaccagaggatagaggtaaaagacaccaaaagaagct  
ttagacaaaatagaggaagcacaaaataagagtcagcaaaaagaaacagcaagcagctgctggcacaggaagcagc  
agcaaaagtcagccaaaattaccctatagtgcaaaacgcacaagggcaattgggtgcatcagcctttatcacctaga  
actttgaaatgcatgggtgaaagtagtagaagaaaaggggttttaaccacagaggttaatacccatgttctcagcatta  
tcagaggggagccgccccacaagatttaaatatgatgctaaatatagtggggggacaccaggcagcaatgcaaatg  
ttaaagaaaccatcaatgaggaagctgcagaatgggatagggtagacaccagtagcatgcagggcctattccacca  
ggccagatgagggaaaccaaggggaagtgcacatagcaggaactactagtagccttcaagaacaaataggatggatg  
accaacaatccaccgatcccggtgggagacatctataaaagatggataatcctgggattaaataagatagtaaga  
atgtatagccctactagcattttggacataagacaagggccaaaagagcccttcagagactatatagataggttc  
tataaaaactctcagagcagaacaagctacacaggaggtgaaaaactggatgacagaaaccttgctagtccaaaat  
gcgaatccagactgtaggtccatttttaaaagcattaggaagaggcgctacattagaagaaatgatgacagcatgc  
cagggagtgaggagcctagccataaagcaaggggttttgccgaggcaatgagccatgtacaacaagcaaatata  
atgatgcagagaggcaatttttaaggggccagaaaagaattaagtgttcaactgtggcaagaaggacacctagcc  
agaaattgcagggcccctagaaaaaagggttgttggaaatgtgggaaggaaggacatcaataaaaagactgcact  
gagagacaggctataggaggacagctgaaagaagctctattagatacaggagcagatgatacagtagtagaagat  
ataaatttgccaggaaaaatggaaaccaaataatgataggggggaattggaggttttatcaaggtaaggcagtagat  
caaatacctatagaaatttgtggaaaaaaggctataggcacagtagtagtaggacctacacctgtcaacataatt  
ggacgaaatattgtgactcagcttgggtgtacttttaatttcccaattagtcctattgacactgtaccagtaaca  
ttaagccaggaatggatggaccaaaagggttaaacagtgggcattaacagaagaaaagataaaaagcattaacagaa  
atttgtaaagagatggaagaggaaggaaaaatctcaaaaattgggcctgaaaatccatacaatactccagtagttt  
gctataaaagaaaaaggacagcaccaaattggagaaaattagtagatttcagagagctcaataaaaagaactcaggac  
ttttgggaagttcaattaggaataccgcatccagcaggttttaaaaaggcaaatcagtaacagtagtagatgtg  
ggagatgcatatttttcagttccttttagatgaaagcttttagaaagtatactgcattttaccatacctagtagtaaac  
aatgagacaccaggaatcagatatcaatacaatgtgctgccacagggatggaaaggatcaccggcaatattccag  
tgtagcatgacaaaaatcttagagccctttagaataaaaaatccagaaatggttatctatcaatacatggatgac  
ttgtatgtaggatctgacttagaaatagggcagcacagagcaaaaatagaggagctaagagctcatctattgagc  
tggggatttactacaccagacaaaaagcatcagaaggaacctccgttcctttggatgggatatgaactccatcct  
gacagatggacagtagcagcctatagaactgccagaaaaagacagctggactgtcaatgatatacagaaattagtg  
ggaaaaactaaattgggcaagtcaaatttatgcagggttaaggtaaggaactgtgtaaactcctcaggggagct

aaagcactaacagacatagtagtaccactgactgaagaagcagaattagagttggcagagaacagggagatttctaaaa  
caccctgtgcatggagtagtattatgacccgtcaaaagacttagtagcagaagtagacagaaacaagggcaggacca  
tgacatatcaaatttatcaagagccatttaaaaatctgaaaacagggaaatatgccagaaaaaggtctgtcac  
actaatgatgtaagacaattaacagaagtgggtgcaaaaaatagccacagaaggcatagtaatatggggaaagacc  
cctaaatttagactaccatacaaggagaaacatgggaaacatgggtgatggagtattggcaggctacctggatt  
cctgaatgggagtttgtcaataccctcctctagtaaaattatggtagcaattagaaaaagaccctatagtagga  
gcagagactttctatgtagatggggcagccagtagggagactaagctaggaaaagcagggtatgtcactaataga  
ggaagacaaaaggtagtttccctaactgagacaaccaatcaaaagactgagttacatgcaatccatttagccttg  
caggattcagaaccagaagtaaatatagtaacagactcacaatacgcattaggaatcattcaggcacaccagac  
aggagtgaatcagaagtagtcaaccaataatagaggagctgataaaaaaggaaaaggtctacctgtcatgggta  
ccagcacacaaggggattggaggaaatgaacaagtagataaattagtcagttcaggaatcaggaaggtgctat  
ttagatgggtagataaggctcaagaagaacatgaaagatatcacagcaattggagaacaatggctagtgtat  
aatttggccacctatagtagcaaaggaaatagtagccaactgtgataaatgtcaactaaaaggggaagctatgcat  
ggacaagtagactgtagtccagggatatggcaattagattgcacacatctagaaggaaaagtcacctggttagca  
gtccacgtggccagtggtatatagaagcagaagttattccagcagaaacaggacaggaacagcactacttctg  
ctaaaattagcaggaagatggccagtaaaagtaatacacacagacaacggttagcaatttcaccagcgtgtagt  
aaagcagcctgttgggtgggccaatgtccgacaggaattcgggatcccctacaatcccaaagtcaggagtagta  
gaatctatgaataaagaattaaagaaaatcatagggcaggtaagagagcaagctgaacaccttaagacagcagta  
caaattggcagttatcatacacaatttttaaaggaaaaggggggattggggagtacagtgcaggggaaagaataata  
gacataatagcaacagacatgcaaactaaagaattacaaaaacaaattacaaaaattcaaaattttcgggtttat  
tacaggggacagcagagacccaatttggaaaaggaccagcaaaactactctggaaaggtgaaggggcagtagtaata  
caagacaatagtgatataaaaggttagtagccaagaagaaaagcaaaagatcattagggatctagtaaaacatcatatg  
tatatctcaaagaaagctaaaaagtggttttatagacatcattatgaaagtcagcatccaaaggtaagttcagaa  
gtacatatcccactaggagaggctacattagtaataagaacatattggggtctgcagacaggagaaaaggactgg  
caattgggtcatggagtctccatagaatggaggcaagaaaatatagcacacagatagatcctgacctagcagac  
caactgattcatctacattattttgactgttttccagaatctgccataaggaaagccatattaggacaagtagtt  
agacgtagggtgtgaatacccatcaggacataacaaggtaggatccctacaatatttggcactgaaagcattaaca  
acaccaaaaaggataaagccacctctgcctagtgttaagaaattaacagaagatctgttagaggagcttaaaaac  
gaagctgttagacattttcctaggccttggcttcatggcctaggacagcacatctatgacacttatggggatact  
tgggaaggggttgaagctataataagaattttgcaacaactactgtttgttcatttcagaattgggtgtcaacat  
agcagaataggcattatacagagggagaagaggcaggctagagccctggaatcatccgggaagtcagcctacaact  
gcttgtagcacgtgttactgtaaaatatgttgcctggcattgccaaactatgctttctaaaaaaaaggcttaggcac  
tccgcctcaaacaacttgtgggttacagttcattatgggggttccctgtgtggagagatgcagataccaccctattt  
tgtgcatcggatgccaaggcacatgaaaacagaagtgcacaatgtctgggccacacatgcctgtgtacccacagac  
cccaaccacaagaaatatacatggaaaatgtaacagaaaattttaacatgtggaaaaataacatggtagagcag  
atgcaggaggatgtaataagtttatgggatcaaagtataaaacatgtgtaaagttaactcctctctgcgttact  
ttaaattgtaccaataaggttcgggcatcaatgtcacatcaagctctagcataggaaatataacagatgaatta  
agaaactgttcttttaataataaccacagaactaagagataagaaacagaaggtccatgcactttttataagctt  
gatatagtacctattgaaaaataacaatagtagtaacaatagtagtgagtataggttaataaaattgtaatacttca  
gtcattaagcaggcttgtccaaagatatcctttgatccaattcctatacattattgtactccagctgggtatgag  
attttaaagtgtaatgataagaatttcaatgggacagggccatgtaaaaatgtcagctcagtacaatgcacacat  
ggaattaagccagtggtatcaactcaattgctgttaaatggcagctctagcagaagaagagatagtaatcagatct  
gaaaatctcacaacaatgtcaaaaccataatagtacatcttaataaatctgtagaaatcaattgtaccagaccc  
tccaacaatacaagaaaaagtataactataggaccaggacaaatgttttacagaacaggagaaataataggagat  
ataagaaaagcatattgtgagattaatggaacagaatggaatgaaactttaagacaggtagctgtaaaattaaaa  
gagcactttaataagacaataatatttaaaccaccctcagggggagatctagaaattacaatgcatcattttaat  
tgtaaaggggaatttttctatttgcaatacaacacaactgtttaatagtacttgggtaggaaatgaaacccaaaag  
ggggataatggcactataagaaatgaaacccaaaagggggataatggcactatcatacttccatgcaggataaag  
caaattataaacatgtggcaggaaacaggacaagcaatgtatgtcctcccatcagtggaaacaattaattgtgta  
tcaaatattacaggactactattgacaagagatgggtggaggttaataatgactcgagtcagaacgagaccttcagg  
cctggagggggaaatataaaggacaattggagaagtgaattatataaaatataaagtagtagaaattgaaccacta  
ggaatagcaccaccaggggcaaagagaagagtgggtggagagagaaaaagaggactttggggctgctctggaaaa  
atcatctgcaccactgctgtgcccctggaaactccacttggagtaataaatcttatgaagagatttggggagaacatg  
acatggatagaatgggagagagaaattagcaattacacaaaacaaatatatgagatacttacagaatcgaaaac  
cagcaggataagaatgaaaaggatttgttagaactggataaatgggcaagctctgtggacttgggttgacataacc

cattggctgtggtatataagaatatttataatgatagtaggaggtttaatagggttaagaataatTTTTGctgtg  
cttgctatagtagcatagaggttaggcagggtactcacctttgtctttccaggctatttctttgtttgatgcttca  
gcaatagcagtagcgggtggacagatagggttatagaagtagcacaggagtttgagagctattctccacata  
cctaggagactcagacagggttgaaagggtttgtctataaatgggaggcaagtgggtcaaaaagtagcatagt  
ggatggcctcagatcaggggagaaaataaagcaaactcctccagcagcagaaggagtaggtgcagtatctcaagat  
ctagataaacatggagcagtaacaagtagtaatatgaataatgctgattgggactgggtgaaagcacaaaggaa  
gaggaggtaggctttccagtcaggccacagggtacctctaagaccaatgacatttaaggaggctttcgatctaagc  
ttcttttttaaagaaaaggggggactggaggggctaatttactccaagagaagacaagagatccttgacttgtgg  
gtctatcacacacaagggtttcttccctgattggcacaaactacacaccagggtccagggtcagatatccactatgt  
tttgatggtgtctcaagctagtaccagttgacccaagagaagtagaggaggacaacaaaggagaaaacagcagc  
ctgttacaccccataagccagcatggaatagaggacgaagaaagagaagtgtgctgatgtggaagtttgatagtgc  
ctagcacgaagacacatagcccagaaaatgcaccagaggttctataaaaactgctga

>#81 AF377956 7374 nt

gcaagagcgtcactattaagcgggggaaaattagatgatttggaaaaattcgggttaaggccaggggggaagaaa  
aaatataggctgaacatatagtatgggcaagcagggttagaaagatttgcacttaatcctggccttttagag  
acaaggaaggctgtaacaaataataggacaactacaaccatcccttcagacaggatcagaagagcttaaatca  
ttattcaacacaatagtagtcctctattatgtacatcaaaggataaaaataggagacaccaaggaagcttttagat  
aagctacaggaagaacaagacaaaagtcagcaaaaaacacaaccagcagcgggtgacaaaggggtcagtcaaaat  
taccctatagtagagaatcttcaggggacaaatggtacaccaggtctctatcacctagaactttaaatgcatgggt  
aaagtaatagaagagaaggctttcagcccagaagtaatacccatgttttcagcattatcagaaggagccaccca  
caagattttaaacaccatgctaaacacagtggtgggggacatcaagcagccatgcaaatgtttaaagataccatcaat  
gaggaagctgcagaatgggacagattacatccagtgaggcaggacccatcccaccagggtcagataagagaacct  
aggggaagtgtatagcaggaactactagcaacctacaggaacaaatagcatggatgacaagcaaccacctgtc  
ccagtaggagaaatctataaaagatggataatcctaggattaaataaaaatagtaagaatgtatagccctgtcagc  
atTTTtgacataaaaacaagggtccaaaagaaccttttagagactatgtagacaggttcttttaaaactctaagagct  
gagcaagcttcacaggaagtaaaaggctggatgacagacacctgttggtccaaaatgcgaaccagattgtgaag  
atcatttttaaaggatttaggaacaggggtacactagaagaaatgatgacagcatgtcaggggtggggggacct  
ggccataaggcaagaatTTTtggtgaggcaatgagccaagtaacatctacatccatattgatgcagaaaagcaac  
TTtaagggtccaaagaagaaatgttaagtgtttcaactgtggcaagaaggacatatagctaaaaattgcagggtcc  
cctagaaaaaggggtgttggaaatgtggaaaggaaggacaccaaataaaagactgcactgagagacagggtaca  
ataaaagtagaggggcaactaagggtgaggcactattagatacaggggcagatgatacagttatagaagatataaat  
ttgtcaggaaaatggaaaccaaggatgataggggaattggaggttttatcaaagtaagacagtatgaccaaata  
cccatagaaatttgcggacaaaaggctataggtactgtattagtaggacctacgcctgtcaacataattggaaga  
aatatgttgactcagattggttgacttttaattttccaattagttctattgaaactgtaccagtaaaatttaaag  
ccaggaatggatggccaaagggttaaacaatggccattgacagaagaaaaataaaagcatttaacagaaatctgt  
acagagatggaaaaagaaggaaaaatttcaaaaattggggccagaaaaatccatacaatactccagtatTTgccata  
aagaaaaaggacagtactaaatggagaaaatttagtagatttcagagaaacttaataaaagaactcaagattTTTgg  
gaggttcaattaggaataccacacctgcagggttaaaaaagaaaaaatcagtaacagtactagatgtgggggat  
gcataTTTTcagttcccttagataaggagttcaggaagtacactgcattcaccatacctagtatcaacaatgag  
acgccaggaattagatatcagtacaatgtgcttccacagggttggaagggtcaccagcaatattccaaagtagc  
atgacaaaaatcttagagcccttttagagtaaaaaatccagaaatagttatttaccaatacatggatgatttgtat  
gtagggtctgacttagaaataggacagcataggacaaaaatagaagagtttaagagaacatctattgagatgggga  
TTtactacaccagataaaaaaacatcagaaggaacccccatttctttggatggggtatgaaactccatcctgacaaa  
tggaacagtacaggctatacaattgccagacaagagcagctggactgtcaatgatatacagaagtttagtgggaaa  
ctaaattgggcaagtgcagtttatccagggttagagtaaaagcacctatgcaaacctcttagaggagccaaagcg  
ctaacagacgtagtgccactaacagtagaagcagaattagaaatggcagagaacagggaattctaaaagaacca  
gtacatggggtatattatgacccatcaaaaagatctaatagcagaagtacagaaacaagggtcacgaccaatggaca  
tatcaaatTTatcaagagccacataaaaaatctgaaaacaggaaagtatgcaagaaggaggtctgccacactaat  
gatgtaaaacaatttaacagaagtagtgcaaaaaatagccacagaaggcatagtaatatggggaaaagttcctaaa  
TTtaggtacccatacaaaaagaacatgggaacatggtggacagagtattggcagggtccacctggattcctgaa  
tgggagtttgtcaatacccctcctctagtaaaattatggtatcaattagaaacagagcccataattaggagcagaa  
actttctatgtagatggggcagctaatagagagacaaaaataggaaaagcaggatattgttactgacagaggaaga  
caaaaagttgtccccctaactgagacaacaaatcagaagactgaattacaagcaattcatttagctttgcaggac  
tcaggatcagaagtaaacatagtaacagactcacagtatgcattaggaatcattcaagcacaccagataagagt  
gaatcagagtttagtcaaccaataatagagcaatttaatacaaaaagaaagggtctacctgtcatgggtaccagca

cataaaggaattggaggaaatgaacaagtagataaattagtcagtgctggcatcaggaaagtactgtttttggat  
gggtagataaggctcaagaagaacatgaaaaatatcacagcaattggagagcaatggctagtgattttaatttg  
ccacctgtagtagccaaagaaatagtagccagctgtgataaatgtcagctaaaaggggaagccatgcatggacaa  
gtagactgcagtcaggatgatggcaactagattgtacacatttagaaggaaaaattatcttggtagcagtcctat  
gtggctagtggttatatagaagcagaagttatcccagcagaaaacgggacaggaaacagcctacttcctactaaag  
ttagcaggaagatggccagtaaaaaataatacatacagataatggcagcaatttcaccagtagctgtggttaaggca  
gcctgttggtggcaggtatccagcaggaatttggaattccctacaatcctcaaagtcaaggagtagtagaatct  
atgaataaagaattaaagaaaattataggacaggttaagagatcaagctgaacatcttaagacagcagtagacaaatg  
gcagtattcattcacaaattttaaaagaaaaggggggattggggggtacagtgagggggaaagaataatagacata  
atagcaacagacatacaaaactaaagaattacaaaaacaaattacaaaaattcaaaactttcggggttatttcagg  
gacagcagagaccaattttggaaaggaccagcaaagctactctggaaagggtgaaggggcagtagtcatacaagac  
aataatgaaataaaaagtagtaccagaagaaaagcaaaaatcattagggatcatggaacagtttagtaaaacat  
catatgtatgtttcaaggagagctaaaggatggttttatagacatcactatgaaagcaggcatccaagagtaagc  
tcagaagtacacatcccactaaaggatgattctaaattagtaatagtaagctattgggggtctacatacaggagaa  
agagattggcattttgggtcaaggagctctccatagaatggaggcagaaaagatataggacacaagtagaccctggc  
ttggcagaccaattaattcatttgtattactttgattgttttcagaatctgccataaggaaagccatattagga  
cagagagttagtcctaggtgtaactatcaagcaggacataacaaggtaggatccctacaatatttggcactaaca  
gcattaataaccccaaagaagataaaagccgcctttgcctagtggtcaggaaactagtagaggatcttttagaggag  
cttaagcatgaagctgttagacatttccttagggagtggtccatggcttaggacagcatatctacaacacctat  
ggggatacttgggagggagttcaagctataataagaacactgcaacaactactattttatccatttcagaattggg  
tgtcatcatagcagaataggcattattcgacaaagaagactaagactagagccctggaatcatccaggaagtacag  
cctgagactccttgtaataaatgttactgtaaaaagtgttgctttcattgccaatgtgtgctttacaaggaagggc  
ttaggcacatctccgctgcagataacttgtgggtcacagctctattatggagtacctgtgtggaaagaagcaaccact  
actctattttgtgcatcagatgctaaagcatatgaaagagagatacataatgtctgggctacatatgcctgtgta  
cctacagaccccaaccacagaattagttctgggaaatgtaacagaaaaattttaacatgtggaaaaataacatg  
gtagaccagatgcatgaagatataatcagtttatgggatcaaagccctaaagccatgtgtacagataaccccactc  
tgtgtaaccttaattgtactgatgttcctgttaacatcactaatgggaacagcacccctggataacatcacccctg  
gaagaacaaggggaaataaaaaaactgttctttcaatatcaccacagagataaacgatattaagaaaaaagaatct  
gcaattttttataggcttgatgtagtaccaatcaataatagtactagtgaatataggctactaagttgtaatacc  
tcaaccgttacacaggcttgtccaaagggtgtcctttgatccaattccaatacattattgtgtcctgctggtttt  
gcgattctaaagtgtaatgataaaagagttcaatgggacaggggttatgtaggaatgtcagcacagtagcaatgtaca  
catggaattaaaccagtagtgtcaactcaactactgtttaatggcagcctagcagaaggagatatagtaattaga  
tctgaaaaatatctcagataatgcaaaaaccataatagtacagtttaatatagatctgtagcaattaaactgtacaaga  
cccaccaacattacaagaagaagtatgcttataggaccaggacagtagtattttatgcaacagggtaccgtactagga  
gatataagaaaggcatattgtaccattaatggaacactgtggaataaaaactttagaaggagtagctaaagaggtc  
caaagccaccttaataaatcaataacatttgcgccatcatcaggaggggacctagaagttacaacacatagtttt  
aattgtagaggagagttttttctactgcaacacagtagctctgtttaatgcaactaactgactaatgcaatgaac  
agggtccaatggcattatcactcttccatgtagaataagacaaaattgtaaacatgtggcaaaagagtaggacgagca  
atgtatgccgctcccatgtctggacaaattcagtgttaactcaagcatcacaggtctaataattgacaagagatggg  
gggaaaaataataccaataatgacaccctcagacctggagggggagatatgagagacaattgggagaagtgaactg  
tataaatataaggtagtaaaaattgaaccactaggagtagcacccaccaaggcaaaaagacaagtgggtgaagaga  
gaaagagaaaaaagagggttttggggatgctctggaaaactcatctgcaccactaatgtgacctggaattctagt  
tggagtaataaatctcagaatgaaatttgggagaacatgacctggatgcagtgggaaaaagagatcagtaattac  
acaggcacaatatacaaattaatagaaaaatgcacaaaaccagcaggaaaaagaatgaacaggacttattggcattg  
gacaaatgggacaatctgtggagttgggttactataacaaattgggtgtgtgtacataaaattattcataatgata  
gtaggaggcttgataggattaagaatagtttttgcctgtgctgtgtaataaatagggttaggcagggatactca  
cctttgtcgttacaggctattgatctgcttaataccacagcaatagtggttagctgaagggaacagatagaatcata  
gaagttctgcaaagagctggttagagctattctccacatacctagaagaataagacagggtgcagaaagggctttg  
ctataaatgggtggcaagtgggtcaaaaagtagtaaaagtggatggcctactataagggaagaataagacaaacc  
cctgcagcagcaccaggggtgggagcagtgctcgaagacttagataaacatggggcaattacaagcagccagact  
agggatactaatagtgacttggcatggctagaagcgcaagaggatgaggaggttaggtttccagtcagacctcag  
gtacctttaagaccaatgacttataaggagcttttcgatctcagtttctttttaaaagaaaaggggggactggaa  
gggttaatttactccaagagaagacaagaaatccttgatctgtgggtctaccacacacaaggctacttccttgat  
tggcagaactacacaccagggccagggactagatatccactgaccttttgatgggtgcttcaagctagtaccagtt  
gagccagaggaggtagaaaaggccaatgaaggagagaacaactgtttattgcacctatgagccaacatggaatg

gaggacgaagacaggggaagtgttaaagtgggaagtttgacagctccctagcacggagacacagagccagagagatg  
catccggagtactacaaagactga

>#82 AB254156 7467 nt

atgggtgcgagagcgtcaatattaagaggcggaaaatttagatgcatgggaaaaaattaagttaaggccaggagga  
aagaaacattatatgctaaaacacttagtatgggcaagcagggagctggaaagatttgcacttaacctggcctt  
ttagagacagcagaaggctgtaaacaaataatacaacagctaactccagctcttaagacaggaacagaggaactt  
agatcattattttaacacagtagcaactctctattgtgtacataaaaaatatagaggtacgagacaccaaggaagcc  
ttagacaaaatagaggaagaacaaaagaaatgtcagcaaaaaccacagcaagcagaagcagctgacaaaggaaaa  
gtcagtcaaaattaccctatagtgcagaatctccaagggcaaatgggtacaccaaagcctatcaccgagaacttta  
aatgcatgggtaaaagtaatagaggagaaggctttcagcccagaggtgatacccatgtttacagcattgtcagaa  
ggagccaccccacaagatttaaacacccatgttaaatacagtggggggacatcaggcagccatgcaaagttaaag  
gataccatcaatgaggaggctgcagaatgggatagggtagcatccagtgcatgcagggccagttgcaccaggccaa  
atgagagaaccgaggggaagtgcatagcaggaaccactagtacccttcaagaacagatagcatggatgacaagt  
aaccacctattccagtaggagacatctataaaagatggataattctgggggttaaataaaaatagtaagaatgtat  
agccctgtcagcattttggacataaaaacaggggccaaaggaacccttttagagactatgtagaccgggtcttttaa  
actttaagagctgaacaatctacacaagaagtaaaaaattggatgacagacaccttggttggtccaaaatgcgaac  
ccagattgcaagaccatttttaagagcattaggaccaggggcttcattagaagaaatgatgacagcatgtcagggga  
gtgggaggacctagccacaaagcaagagtgttggtgagggcaatgagccaagcaggcaatgcaaacataatgatg  
cagagaggcaattttaagggccctagaaaaattgttaaattgtttcaactgtggcaaggaaggggcacatagccaga  
aattgcagggcccttaggaaaaggggctgttggaatgtggaaaggaaggacaccaaataagaaactgtactgaa  
agacaggctgtagggggccagataaaaggaagctctcttagatacaggagcagatgatacagattagaagaaata  
aatttgccaggaaaatggaacccaaaaatgataggagggattggaggttttatcaaagtaagacagtatgatcaa  
ataactatagaaatttgtggaaaaagggctgtaggttcagttatttagtagggcctacacctgtcaacataattgga  
agaaatatgttgactcagcttggtatgtacactaaattttccaatagtcctattgagactgtaccagtgaaatta  
aagccaggaatggatggggccaaaaggttaaacaatggccattgacagaagaaaaataaaagcattaacagcaatt  
tgtgaggaaatggagaaggaaggaaaaattacaaaaattgggcctgaaaaatccatataataactccagttacttgc  
ataaaaaagaaggacagtactaagtggagaaaaattagtagatttcagggaactcaataaaaagaactcaagacttt  
tgggaagttcaattaggaataccacacccagcaggggttaaaaaaggagaaatcagtgacagtgctagatgtggg  
gatgcatatttttcagttccttttagatgagaacttcaggaaatatactgcattcaccatacctagtataacaat  
gaaacaccagggattagatatcaatataatgtgcttcacagggatggaaaggatcaccagcaatattccagagt  
agcatgacaaaaatcttagagcccttttaggacaaaaaacccagaaatagttatctatcaatatatggatgacttg  
tatgtaggatctgacttagaaatagggcaacatagagcaaaaatagaggagttaagagaacattttattgaaatgg  
ggatttaccactccagacaaaaaacatcagaaagaacccccatttctgtggatgggggtatgaactacatcctgac  
aaatggacagttacagcctatacagctgccagaaaaagaaagctggactgtcaatgatatacagaagttagtggga  
aaattaaactgggcaagtcagatttatccaggaattaaagtaaaagcaactgtgtaagctccttagggggagccaaa  
gcactaacagacatagttaccactgactgaagaagcagaattagaattggcagagaacaggggaaattctaagagaa  
ccagttacatggagtatattatgacccatcaaaagacttaatatagctgaaatacagaaacaggggacatgaccaatgg  
acatatcaaatttaccaagaccattcaaaaatctgaaaaacaggggaagtatgcaaaaatgaggactgccacact  
aatgatgtaagacagtttagtagaggcagtgcaagaataactatggaaagtatagtaatatggggaaagactcct  
aaatttagactacccatccaaaaagacacatgggagacatgggtggacagactattggcaagccacctggattcct  
gaatgggagtttgttaatacccctcccctagtataaattatgggtaccagctagagaaagaacccatagtaggagca  
gaaactttctatgtagatggagcagctaatagggaaactaaaataggaaagcaggatatgtttacagatagagga  
agacagaaaaattgtttctctaactgaaacaacaaatcagaagactgaattacaagcaattcagctagctttgcag  
gattcaggatcagaagtaacatagtaacagactcacagttatgcattaggaataattcaagcccaaccagataag  
agtgaatcagagttagttaatacaataatagaacagtttaataaacaaggaaaaagtcctacctgtcatgggtacca  
gcacataaaggaattggagggaatgaacaagtagacaaattagtaagtagtggaatcaggagagtgctgtttcta  
gatggaatagataaggctcaagaagagcatgaaaaatatcagcaattggagagcaatggctagtgaattcaat  
ctgccacccatagtagcaaaaagaaatagtagctagctgtgataaatgtcagctaaaagggggaagccatacatgga  
caagtggactgtagtccagggtatggcaattagattgtacacatttagaaggaaaaatcatccttagtagcagtc  
catgtagccagtggtacatagaagcagaggttattccagcagaaacaggacaggaaacagcatacttcatacta  
aaattagcaggaagatggccagtc aaagtaatacacacagacaatggcagtaatttcaccagtgctgcagttaag  
gcagcctgttggtgggcaggtatccaacaagaatttgggaattccctacaatccccaaagtcagggagtagtagaa  
tccatgaataaagaattaaagaaaaatcatagggcaagtaagagagcaagctgagcaccttaagacagcagtagaa  
atggcagttatccacaaatttttaaaagaaaaggggggattggggggtacagtgccaggggaaagaataatagac  
ataatagcaacagatatacaaactaaagaactacaaaaacgaattatacaaatttcaaaattttcgggtttattac

agagacagcagagaccctatTTTggaaaggaccagccaaactactctggaaaggtgaaggggcagtagtaatacaa  
gataatagtgcataaaggtagtaccaaggaggaaagtaaaaatcattaaagacacatggaatagtttagtaaag  
caccatatgtatgtttcaaagagagctaagggatgggttctacagacatcattttgaaagcagacatccaagagta  
agttcagaagtacacatcccattaggggatgctagattaatagtaaagacatattgggggttgacagacaggagaa  
agagattggcatttgggtcatggagtctccatagaatggagattgagaaggtatagcacacaagtagaccctagc  
ctggcagaccaactaattcatatgcattatTTTgattgttttgacagactctgccataaggaaagccatattagga  
catatagtttagccctagatgtgactatcaagcaggacataacaaggtaggatctttacaatacttggcactgaca  
gcattgataaaacccaaaaaagagaaagccacctctgcctagtgttagcaaattggtagaggatcttttagaagag  
ctcaagcaggaagctgtcagacactttcctagaccatggcttcatggcttaggacagcatatctatgagacctat  
ggggatacatggacgggagtttagagtgcataaagaatcctgcaacaattactgtttactcatttcaggattggg  
tgccagcatagcagaataggcattttgcaacagagaagagcaagactagagccctggaagcatccagggaagtcag  
cctagaaccgcttgtaattcatgttactgcaaacgctgcagctatcattgtccagtttgctttctgacaaaaggc  
ttaggcatttccatggagggtgtgtgggtcactgtacactatggggtacctgtgtggaagaagcaagactact  
ctatTTTgtgcatcagatgctaaagcatatgagacagaagtgcataatgtctgggtacacatgcctgtgtaccc  
acagaccccagcccacaagaagtgtatttaaaaaatgtaacagaaaattttaatatgtgggaaaaataacatgggtg  
gatcagatgcatgaggatataatcagtttgtgggatcaaagcctaaaaccatgtgtaaagttaaccccactctgt  
gtcacttttagactgtagtgcataatattaccattaggaatagtacctccagtgcagaataatagtacctccagtacc  
aacagtacaatcttgagtgaataatgagaaattgtactttcaatgtaaccacagaactaaggggataagcagaca  
aaagaatatgcactTTTTTataaacttgatatagtaaaacttgagaagaactctagtgaatatagattaataaat  
tgtaattcatcaaccgtaacacaggcctgtccaaaagtctctTTTgacccaattcctatacattattgtgtctcca  
gctgggttatgcgattctaaagtgtataataattatacattcaatggaacaggaccatgtaataatgtcagcaca  
gtacaatgtacacatggaattaaaccagtgggtgtcaactcaactactgttaaatggtagcctagcagagggaggg  
atagtaatttagatctaaaaatctgacagacaatgccaaaacaataatagtacatcttaatgaatctgtaagaatt  
gtgtgtacaagacctggcaataatacaagaaaaagtgtgaaggataggaccaggacaagcattctttgcaacagga  
gaagtaataggagatataagaaaggcacattgtaacattactgagaggacatggaataacactttacaaaagata  
agtagaaaaattagaaaaacactttccgaacaaaactataaaatttgaccatcctcaggagggggacccagaaatt  
acaacacatagctttaattgtagaggagaatttttctattgcgacacatcaaacctgtttaacagcacattta  
gttaacagcacatttaattggtagagataatgcaaatagcacacagaacatcacactccaatgcagaataaaaaca  
attataaacatgtggcaggaggtaggacgagcaatgtatgccccctccattgcaggaaacataacatgtatttca  
aatatcacaggaatactattaacacgtgatggaaatgataattacacagagacattcagacctataggaggaat  
atgaaggacaattggagaagtgaattatacaaatataaagtggtagaaattaagccattaggagtagcacccacc  
aaggcaaaaaggagagtgggtggagagacaaaaaagagggtttggggctgctctggaagctcatctgcaccact  
gctgtgccttggaactctagttggagtaataaaacatataatgagatttgggataatatgacctggatgcagtgg  
gatagagaaatcaataattacacagatacaatatactgggttgcttgagaaatcacaaaaccagcaggaacaaaat  
gaaaaagatttactagaattggacagttgggatagcctgtggagttgggttaagcataacaaattggctgtggtat  
ataagaatattcataatgatagtaggaggtttgatagggttaagaataatttttgctgtgctttctatagtaaag  
agagttaggcagggatactcacctttgtcgtttcagtatttgggaagccttgtgcagtattgggggtccggaacta  
aaaaagagtgtatttagcctgcttgataccatagcaatatcagtagctgagggaaacagataggattatagaattg  
ctaagaagaattttagagctatctgtagcatacctagaagaataagacagggtttgaagcagcattgcaataa  
atggggaaacaagtgggtcaaaaggcagtatagttggatggcctgctgtaagagaaagattaagacgagccagacca  
gcagcagaggggagtaggaacagcagcagagggagtaggaacagcatctcaagacttagataaacatggggcactt  
acaaccagcaacacagccaccaacaatgctgattgtgcctggctggaagcacaagaggaagaagaagtaggcttt  
ccagtcagacctcaggtacctttaagaccaataacttataaggcagcattcgatctcagcttctttttaaagaa  
aaggggggactggaaggggttaatttactccaagaaaaggcatgagatccttgatttatgggtctatcacacaca  
ggcttcttccctgattggcaaaactacacaccgggaccaggggtcagatatccactgacctttggatgggtgcttc  
aagctagtgccagttgacccaagtgaagtagaagaggccaatgaaggagagaacaactgtttgctacatcctata  
agccagcatggaatagaggatgaagacagagaagtcttaagtggcagtttgacagcagcctagcacgcagacac  
ctggcccgcgagctacatccggagtactacaaaaactgctga

>#83 MF373132 7482 nt

atgggtgagagcgtcaatatTTTtagaaggacggaattggatacttggaaaaaattaagttaaagccaggggga  
aagaaaaagtatatgatgaaacatctagtatgggcaagcagagagctggaagatttgcacttgaccctggcctt  
ttagaaacatcagaaggctgtaaacgaataatacaacagctacagccatctcttcagacaggaacaaaagaactc  
atatccttgataatacagtagtagttctatattgtgtacataacaatatagcggtaaatgacactaaggaagcc  
ttagacaaaagtaaaggaagaacaaaacaaaagtcagcaaaaaacacagcaggcagcaacggctggcaacaaacag  
gtcagtcaaaattatcctatagtgcagaaccttcaagggcaaatggtacatcaaaacatatccaagaaccttg

aatgcatgggtgaaagtaatagaggagaaggctttcagcccagaggtaatacccatggtttacagcattatcagaa  
ggagccactccacaagatttaaacaccatgtttaatacagtggggggacatcaagcagccatgcaaagttaaaa  
gacaccatcaatgaggaggctgcagaatgggataggttacatccagtgcaagcagggcctgtcgaccaggccaa  
ataagagatccaaggggaagtgcatagcaggaactactagtacccttcaggaacaaataacatggatgacaagt  
aaccacctatcccagtaggagacatctataaaagatggataattctagggttaataaaaatagtaagaatgtat  
agccctgttagcatttttgacataaaacaagggccaaaggaacccttttagagactatgtagaccgggtcttttaa  
accttaagagctgaacaagctacacaagatgtgaaaaattggatgacagacaccttgttgggtccaaaatgccaac  
ccagactgtaagaccatttttaagggcattagggccaggagctacattagaagaaatgatgacagcatgtcaggga  
gtgggaggacctggccacaaagcaagagtattggctgaggcaatgagccaagcaacaatgtaaacataatgatg  
cagagaaacaattttaagggcccaaaaagaattattaaatgtttcaactgtggcaaggaggggacatagccaga  
aattgcagggcccctaggaaaaagggctgttggaatgtggaaaggaaggacaccaaatgaaagactgtactaat  
gaaaggcaggctgtagggggacagataaaggaggctctcttagacacaggagcagatgatacagtattagaagaa  
ataaaattaccaggaatttggaaccaaaaatgatagggggaattggagggttttatcaaagtaagacagtatgat  
caaatacttatagaaatttgtggaaaaaaggctataggttcagtattagtaggacctacacctgtcaacataatt  
ggaagaaatatgttgactcaacttgatgcacactaaattttccaattagtcctattgaaactgtgccagtaaaa  
ttaagccaggaatggatggcccaaaggtcaaacaatggccattgacagaagagaaaaataaagcattaatagaa  
atgtgtgaagaaatggaaaaggaaggaataattacaaaaattgggcctgaaaatccatataacactccagtattt  
gccataaaaaagaagaacagtactaagtggagaaaatttagtagatttttagggaactcaataaaagaactcaagac  
ttttgggaagtgaatttagggataccacaccaggagggttaaaaaagaacaaatcagtgcagtagtagatgta  
ggggatgcataatttttcagttccttttagatgaagggtttcaggaaatatactgcattcaccatacctagtctaaac  
aatgagacaccagggttagatatcaatataatgtgcttccacagggttggaaggatcaccagcaatatttcag  
agtagcatgacaaaaatcttagaaccttttagggcacaaaatccagaaatagtcattctaccaatacatggatgac  
ttgtatgtagcatctgatttagagatagggaaacatagagcaaaaaatagaggaattaagagaacatctatggagg  
tggggattttacacaccagataaagaaacaccagaaagaaccaccatttctttggatgggggtatgaactccatcct  
gacaagtggacagtacagcctatacagctgccagaaaaggatagctggactgtcaatgatatacagaagttagtg  
ggaaaattaaactgggcaagtcaaatttatccagggttaaagttaaagcaactatgtaaactccttaggggaacc  
aaagcattaacagacatagtaggactgactgaagaagcagaattagaattggcagagaacagggaatttctaaaa  
gaaccagtacatggagtattatgacccatcaaaagacttaataactgaaatacagaaacagggaattgatcaa  
tgacatatacaatttaccaagaaccattcaaaaacctgaaaacagggaatatgcaaaaatgaggactgccac  
actaatgatgtaaagcagttaacagaggtagtgcaaaaagtagccatggaaagcatagtaatatggggaaaaact  
cctaaatttagattacctatccagaaagaacatgggaggcatggtggacagattattggcaagccacctggatt  
cctgagtgggagtttgtcaatacccctcccctagtaaaagttaggtaccagctggagaaagaacctatagcagga  
gtagaaactttctatgtagatggagcagctaatagggaaactaaaatgggaaaagcaggatatgttactgacagg  
ggaaggcagaaaattgtttcttaactgaaacaacaaatcagaaaactgaattacaagcaattcagctagcttta  
caggactcaggatcagaagtgaacatagtaacagactcacagtatgcattaggaattattcaagcacagccagat  
aagagtgaatcagagttagtcaatcaataatagaacagttgataaaaaaggaaaggtctacctatcatgggta  
ccagcacataaagggttgagggaatgagcaaatagataaaactagtaagtactggaatcaggaaagtgtgttt  
ctggatggaatagataaggctcaagaagagcatgaaagatatcacaacaattggagagcaatggctgatgagttt  
aatctgccaccatagtagcaaaagaaatagtagccagctgtgataaatgtcagctaaaagggggaagccatgcat  
ggacaagtagactgtagtccaggaatatggcaattagattgtacacatctagaaggaaaaatcatcctggttagca  
gtccatgtagccagtggctacatagaagcagaggttattccagcagaaacaggacaagagacagcactacata  
ttaaaattagcaggaagatggccagtc aaagtaatacatacagacaatggcagtaattttcaccagtagtgagtt  
aaggcagcctgttgggtgggcagggtatccaacaagaatttggaaattccctacaatcccaaaagtcaggagtagta  
gaatccatgaataaagaattaaagaaaaatcatagggcaggtaagagatcaagctgagcaccttaagacagcagta  
caaatggcagtatctcattcacaatttttaaagaaaaggggggattgggggtacagtgcaggggaaagaataata  
gacatgatagcaacagatatacaaaactaaagaactacaaaaacaaatcacaaaaattcaaaattttcggtttat  
tacagagacagcagagacctattttgaaaggaccagccaaactactctggaaaggtgaaggggcagtagtaata  
caagataacagtgacataaaggtagtaccagaaggaaagtaaaaaatcattaaggacacatggaatagtttagta  
aagcaccacatgtatatctcaaagagaaccaggggatggttttatagacatcattttgaaagcagacatccaaaa  
ataagttcagaagtacacatccattaggggaggctaaattagtaataataacatattgggggttgcaaacagga  
gaaagagattggcacttgggtcatggagtctccatagaatggagactgagaagatatagcacacaagtagacct  
agcctggcagaccaactaattcatatgcactattttgattgttttgagactctgccataaggaaagccatatta  
ggacatatagttagccctagggtgtgactatcaagcaggacataataaggtaggatctctacaatatctggcactg  
acagcattgataaaacaaaaaggattaagccacctctgcctagtgttaagaaattagtagaggatcttttagag  
gaactcaagcaggaagctgtcagacactttcctagaccatggctccatagcttaggacaacatatctatgaaact

tatggggatacttggatgggagttgaagccataataagaatTTTTGcaacaattactgtttatccatttcagaatt  
gggtgtatgcatagccgaataggcattatgCGcacaagaagaacaagactagagccctggaaccatccaggaagt  
cagcctaaaactccttgcaataattgctattgtaaatactgtagctatcattgtctagtttgctttcagacaaaa  
ggcttaggcatttccgggaagggggacaaggaggacttgtgggtcacagtatattatgggggtacctgtgtggaga  
gatgcacaaacctctctgttttgtgcatcagatgctaaagcatatgatacagaggtgcataatgtctgggtaca  
catgcctgtgtacccacagaccccaaccacagaagaatgggttttaaaaaatgtaacagaaaatTTTgacatgtgg  
aaaaataacatgggtggatcagatgcatcaggatataatcagtttatgggatcaaagcctaagccatgtgtaaag  
atgaccccactctgtgttactttaaactgtacaaatgctacaactgctatgaatgctacaattgataataacatg  
caggagaaaataaaaaattgtactttcaatgtaaccacagaaaataagagataaggtaaagaaggtagcatgcactt  
ttttataaacttgatatagcaccacttggtaacagtgtagtagtgataacagttctagtgggtggtaaaggtagt  
aggaataatgagtataatgattatataattaataaattgtaatacctcagccatagctcaagcctgtccaaagggtc  
tcttttgacccaattcctatacattattgtgctccagcgggttatgCGattctaaagtgtaatgataagacattc  
aatggaacaggaccatgcaataatgtcagcacagtacaatgtacacatggaattaagccagtggtatcaactcaa  
ttactgttaaattggtagcctagcagaaggagacataataattagatctgagaatatgacaagcaataactaaaaca  
ataatagtagcatcttaataatctgtatcaattaattgtacaagacccaacaataatacaagagaaaagttaaagg  
ataggaccaggacaagcattatatgcaacaggagatataataggagatataagacaagcacattgtaataattagt  
aaagaaaagtggataaaaacttttagaaagagtaaagaaaagattagcagagtagtctccctaatacaacaatactc  
tttgaccacccccaggagggggacctagaagttacaacacatagctttaattgtagaggagaatTTTTtctattgc  
aatacatcaaactgttttaatatgtagtaaaactaatataacagcaaatgaaaatggaaccatcacactcccatgc  
agaataaaaaccaattgaaaccttggggcagggggtaggaaaagcaattattgccccctccattaaaggaaaatta  
cctggtacttccaaattcccaggcttaccactggccccgagtaggggtgaaaaaataggaacctatggaaatttg  
gcaaaaagagaatTTTTccccgggggggggagatatgagtgacaattggagaagtgaattatataataataaagtg  
gtagaaattaatccattaggagtagcaccactaaggcaaaaaggagagtggtggagagagaaaaaaggaggatt  
tggggctgctctggaaaactcatctgcaccactgctgtgccttggaaatgaaagttggagtaataagtctcaaat  
gagatttgggataacatgacctggatgcagtgggatagggaatcaataattacacaaatgaaatatacagattg  
cttggggaatcgcaaatccagcaggagaaaaatgaacaggatttactagcgtggacaagtggcaaaaatctgtgg  
agttgggttgacataacaaactggctgtggtatataaaaaatgttcataatgatagtaggaggcttgataggttta  
agaatagtttttgcctgtgctttctatagtaaatagaattaggcagggatactcacccttatcggtgcagtatctg  
ggaagtcttgtgcagatttgggggtctgagctaaaaaggagtgctattagtcctgcttgataccacagcaatagca  
gtaggtgaaggaacagataggattgtagaatttatactacgagttttagtagctatctacaacatacctcgaaga  
ataagacagggtttgaaagcagctttgcaataaatggggggcaaatggtcaaatgtagtccagtaggatggctct  
gagataagagacagaataaaaaagaactccccggcagcagagggagtaggagcagcatcccgagacttagagaga  
catggggcactgacaaccagcaacacaccagcaataatgctacttgtgcttggctggaagcgcaagaggaggaa  
ggagatgtaggctttccagtcagacctcaggtacctttaagaccaatgacttataaggcagcattcgatctcagc  
ttcttttttaaagaaaaggggggactggaagggttaatttactctaagcaaaggcaagacatccttgatttgtgg  
gtctatcacacacaaggtttcttccctgattggcaaaactacacaccaggaccaggggtcagatatccactgacc  
tttggtatggtgcttcaagctagtgccagttgacccaaaggaagtgggaagaagacaataaagatgagaacaacagc  
ttgctacacctgtgagcctgcatggagtgaggatgaagacaaagaagtactaatgtggaagtttgacagtcac  
ctagcacgcagacacatggccccgcgagctacatccggagtattacaaagactgctga

>#84 KP109483 7476 nt

atgggtgcgagagcgtcaatattaagaggggggaaaattagataaatgggaaaaaattagggttaaggccaggggga  
aagaaacattatatgtttaaaccacttagtatgggcaagcaggagctggaaagatttgcacttaaccctggcctt  
ttagagacagcagaaggctgtaaacaaataataaagcagctacaccagctctccagacaggaacagaggaactt  
aatcattattcaacacagtagcaactctctattgtgtacatgcagggatagaggtacgggacaccaaggatgcc  
ttagacaaaatagaggaagaacaaaacaaaagtcagcaaaaaacacagcaggcaaaagaggctggcggggaaggtc  
agtcaaaaattatcctatagtgcagaatctccaagggcaaatggtacaccaggccatatcacctagaactttgaat  
gcatgggtaaaagtagtagaggagaaggcttttagccccggaggtaatacccatgtttacagcattatcagaagga  
gccaccccacaagattttaaacaccatgttaatacagtggggggacatcaagcagccatgcagatgttaaaagat  
accatcaatgaagaggctgcagaatgggatagaacacatccaatacatgcagggcctattgcaccaggccaaatg  
agagaaccaaggggaagtgcatagcaggaactactagtacccttcaggaacaaatagcatggatgacaagtaac  
ccacctgttccagtgggagacatctataaaagatggataattctgggggttaataaaaatagtaagaatgtatagc  
cctgttagcatttttgacataaaaacaaagggccaaaggaaccctttaggggactatgtagatcggttctttaaaact  
ctaagagctgaacaagctacacaagatgtaaaaaattggatgcagacaccttgttgatccaaaatgcgaatcca  
gattgtaaagaccattttaagagcattaggaccaggggcttcaatagaagagatgatgcagcatgtcaaggagtg  
ggaggacctagccacaaagcaagagtggtggctgaggcaatgagccaaacaaacaatgccataatgatgcaaaga



agcaattttaaaggctctaaaagaactattaaatgtttcaactgtggcaaggaagggcacttagccagaaattgc  
agggcccctaggaaaaaagggctgttggaatgtggaaaggaaggacaccaaataagaaactgtactgaaagacag  
gctgtagggggtcagataaaaagaggctctcttagacacgggagcagatgatacagtgttaggagaaataaatttg  
ccaggaaaatggaacccaaaatgataggaggaattggagggttttatcaaagtaagacaatatgatcaaatacct  
atagaaatttgtggaaaaaaggctataggctcagatttagtaggacccacacctgtcaacataattggaagaaat  
atgttgactcagcttggtgacacactaaattttccaatcagtcacattgaaactataaccagtaaaattaaagcca  
ggaatggatggcccaaagggttaacaatggccattgacagaagagaaaaataaaggcattaacagcaattttgtgat  
gaaatggaaaaggaaggaaaaattacaaaaattgggcctgaaaaatccatataacactccaatatttgccataaaa  
aagaaggacagtactaagtggagaaaaattagtagacttcagggaaactcaataaaaagaactcaagatttttgggaa  
gttcaattaggaataccacacccagcagggttaaaaaaaaaaaaaaatcagtgacagtagtggtgtgggggatgca  
tatttttcagttcctttatatgaagacttcaggaaatatactgcattcaccatacctagtataaacaatgaaaca  
ccagggttaggtatcaatataatgtgcttcacagggatggaaaggatcaccagcaatattccagagtagcatg  
acaagaatattagagccctttagggcacaaaatccagaaatagtcattctatcaatataatggatgacttatatgta  
ggatctgacttagagatagggcaacatagagcaaaaatagaggagttaagagaacatctgttaaagtggggattt  
accacaccagacaagaacatcagaaagaacctccatttctttggatggggatgaactccatcctgacaaatgg  
acagtacagcctatacagctgccagaaaaggatagctggactgtcaatgatatacagaagttggtgggaaaaatta  
aactgggcaagtcagattttaccaggaattaaagtaaggcaactttgtagactccttaggggggctaaagcacta  
acagacatagtagcactaactggagaagcagaattagagttggcagaaaacagggaatttctaaaggaaccagta  
catggagtataattatgacccatcaaaaagacttgatagctgaaatacagaaacaggggcaggaccaatggacatat  
caaattttaccaagaaccatttcaaaaatctgaaaacaggggaagtatgcaaaaatgaggactgccacactaatgat  
gtaaaacagttaacagaggctgtgacagaaaatagccatggaaagcatagtaatatgggaaaagactcctaaattt  
agattacccatccaaaaagaaacatgggagctatggtggacagactattggcaagccacctggattcctgagtgg  
gaatttgttaatacccctcccctagtaaaattatggtatcggtggaacagaaacctatagcaggagcagaaact  
ttctatgtagatggagcagctaatagggaaactaaaacaggaaaagcagggtatgttactgacagaggaagaaat  
aaagttgtttctctaactgaaacaacaaatcagaagactgaattgcaagcaatttgtctagctttgcaagattca  
ggatcagaagtaacatagtaacagattcacagtatgcattagggatcattcaagcacaaccagataagagtga  
tcagagttagttaaccaataatagaacagttaataaagaaggaaagggctctacctgtcatgggtaccagcacat  
aaaggaattggaggaaatgaacaagtagataaattagtaagtaatggaatcaggaaagtgtatttctagatgga  
atagataaagctcaagaagagcatgaaaaatatcacagcaattggagagcaatggctagtgtactttaatctrcca  
cccatagtagcaaaagaaatagtagccagctgtgatcaatgtcagctaaaaggggaagccatgcatggacaagta  
gactgtagtccagggtatggcaattagattgtacacatttagaaggaaaaatcatcctggtagcagtcctatgta  
gccagtggctacttagaagcagaggttattccagcagaaacaggacaagaacagcatactatatactaaaatta  
gcagcaagatggccagtcaaagcaatacacacagacaatggtagtaatttcaccagygtgcagttaaggcagcc  
tgtttggtgggcaggcatccaacaggaatttgaattccctacaatcccaaagtcaggagtagtagaatccatg  
aataaagaattaaagaaaaattatagggcagataagagatcaagctgagcaccttaagacagcagtagcaaatggca  
gtattcattcacaatttttaaaagaaaaaggggggattggggggtacagtgcaggggaaagaatagtagacatgata  
gcaacagacatacaaaactaaagaattacaaaaacaaattataaaaaattcaaaattttcgggtttattacagagac  
agcagagacccccatttggaaaggaccagccaaactactctggaaagggtgaaggggcagtagtgatacaagataat  
aatgacataaaggtagtagccaaggaggaaagcaaaaataattaaagacacatggaatagtttagtaaaacaccat  
atgtatatttcaaagagagctaagggtatggttttacagacatcattatgacagcagacatccaaaagtaagttca  
gaagtacacatccccttaggggatgctagactagtaataaaaaacatatggggggttgcaaacaggagaaagagat  
tggcacttgggccatggagtatccatagaatggagattgagaggatatagtacacaagtagaacctggcctggca  
gaccagctaattcatatgcattattttgattgttttgcagactctgccataagaaaagccatattaggacacata  
gttattccttaggtgtgactatccagcaggacataataaggtaggatctctacaatacttggcactgacagcactg  
ataaaacccaaaaagataaggccacctctgcctagtattaggaaatagtagaggatcttctagaggaaactcaag  
caggaaagctgtcagacactttcctagaccatggcctcatggcttaggacaatatgtctatgagacctatggggat  
acttggacaggagttgaaactatggtgagactactgcaacaattactgtttattcattttcagaattgggtgccag  
catagcagaataggcatttttgcgacagagaagagcaagacttagagccctggaaccatccagggaagtgcgcctaaa  
actgcttgcaataactgtttattgtaaaaaatgtagctaccactgtctagtttgctttcagaaaaaaggcttaggc  
atttccgtgggaggaaacttgtgggtcacagttttattatggggtacctgtgtggagagaagcaaaaactactcta  
ttctgtgcatcagatgctaagcatatgagaaagaagtgcataatgtctgggctacacatgacctgtgtaccaca  
gacccaacccacaagaaatagatttgaatgtaacagaaaattttaacatgtggaaaaatgacatggtggagcag  
atgcatgaggatgtaatcagtttatgggatcaaagcctaaagccatgtgtaaagttgaccccaattttgtgtcact  
ttagaatgtacagatgctaattacctgcaatagtactactagcagtaataattgtaccagctatgagatcaac  
aaggaggacatgggggaaataaaaaattgctctttcaatacaaccacagaattaatagataagcagaagaaagtg

catgcactcttttatagacttgatatagtatcactagaaaaggacaactctagtaagaagaacgactctaattgag  
tattatagattaataaattgtaatacctcagccataacacaagcctgtccaaagggtcacttttgacccaattcct  
atacactattgtgctccggctgggttatgcgattctaaagtgtaaaaataagacattcaatgggacgggacatgc  
aataatgttagcacagtacaatgtacacatggaatttaagccagtggtatcaactcaactactgttaaatggtagc  
ctagcagaagaagagataataattagatctgaaaatctgacaaacaatgccaaaataataatagtacatcttaat  
caagctgtagaaattgtatgtacaagacctggcaataatacaagaaaaagtataaggatagggccaggacaaaaca  
ttctatgcaacaggagacataataggagacataagacaagcacattgtaacattagtgaagctaagtggataaaa  
accttgcgagaggtaagtaaaaaattagcagaacacttcctaataaaaacaataatatttaactcatcctcagga  
ggggacctagaaattacaacacatagctttaattgtggaggagaatttttctattgtaatacatcaagcctgttt  
aatagtacatttaatagtacatacatgactaatgatacagacatgaattcaaactcaaccatctcaatcccagtc  
cgcataaaacaaattataaacatgtggcaggaggtaggacgagcaatgtatgcccctcccattgcaggaaacata  
acatgtaaatcaaatatcacaggactactattggtagcagatggaggaaactcaaatacacaatgagccagag  
atattccgacctcaaggaggagatatgagggacaattggagaagtgaattatataaatataaagtggtagaaatt  
aagccattgggagtagcaccactgcagcaaaaaggagagtggtgggaagagaaaaagagggatttggggctgc  
tctggaaaactcatctgcactactgctgtaccttggaaactccagttggagtaacaaatctcaagaccagatttgg  
aatgatacgacctggatgcagtgaggataaagaaattagtaattacacagacataatatacacgttgcttgaaaaa  
tcgcaaaaccagcaggaaataaatgaaaaggatttattagcattggacagttggaacagttctatggaattgggtt  
gacataacaaagtggctgtggtatataaaaaatattcataatgatagtaggaggttgataggtttaagaataatt  
tttgcctgtgctttctatagtgaatagagtttaggcagggatactcacctttgtcgtttcagacctatctaggaagt  
cttgtgcagttattgggtctggaactgaaaaagagtgtctattagtctgtttgataccatagcaatagcagtagct  
gaaggaacagataggcttatagaattcatacaaagaactggtagagctatctgcaacatacctagaagaataaga  
caggggttttgaagcagcttttgcaataaatggggggcaagtggtcaaaacgcagcatagttggatggcctaata  
agagagagaatgagacgagctgagccagcagcagaaggagtaggagcagcatctcaagacttagataaacatgga  
gcgcttaccagcagcaacacagacaccaataatgctgattgtgcttggctgagagcgcaagaggaggaagaagat  
gtaggctttccagtcagacctcaggtgcctttaagaccaatgacttttaaggagcatttgatctcagcttcttt  
ttaaagaaaaaggggggactggaaggggttaatttactctaagaaaaggcaagagatccttgatttgtgggtctat  
cacacacaaggctacttccctgactggcaaaactacacaccaggaccaggggtcagatacccactgacctttggg  
tggtgcttcaagctgctaccaattgaccaaggggaagtagaagaggccaacaaagaagaagacaaccgcttgcta  
caccctatgtgccagcatggaatggaggatgaacacagagaagtattaaagtggaagtttgacagtcactagca  
cttaaacacagggcccgcgagctacatccggagttttacaaagactgctga

>#85 KY658708 7443 nt

atgggtgcgagagcgtcaatatattaagaggcgaaaaattagataaatgggaaaaaattagggttaaggccaggggga  
aagaaacattatatgctaaaaacatctagtatgggcaagcagggagctggaaggatttgcacttaaccctggcctt  
ttagaaacagcagaaggctgtaaacaaataatgaaacagctacaaccagctcttcaaacaggaacagaggaactt  
aggtcattatacaacacagtagcaactctctattgtgtacatgcagggatagaggtaagagacaccaaggaagcc  
ttagacaagatagaggaagaacaaaaacaaaagtcagcaaaaaacacagcaggcaaaaagaggctgatgggaaggtc  
agtcaaaaattatcctatagtacagaatctacaaggggcaaatggtacaccaggccatatcaccwagaactttgaat  
gcatgggtaaaagtaatagaggagaaggcctttagcccagaagtaatacccatgtttacagcattatcagaagga  
gccaccccacaagatctaaacaccatgttaataacagtggggggacatcaagcagccatgcaaatgttaaaagat  
accatcaatgaggaggctgcagaatgggatagattacatccagtacatgcagggcctgttgcaccaggccaaatg  
agagacccaaggggaagtgcataagcaggaactactagtacccttcaggaacaaatagcatggatgacaagtaac  
ccacctgttccagtgaggagacatctataaaagatggataattctgggggttaataaaaatagtaagaatgtatagt  
cctgtcagcatttttgacatcagacaagggccaaaggaaccctttagagactatgtagatcggttctttaaaact  
ttaagagctgaacaagctacacaagatgtaaagaattggatgcagaaaaccttgttgggtccaaaatgcaaacc  
gattgtaagaccattttaagagcattaggaccaggggctacattagaagaatgatgcagcagatgtcagggagt  
ggaggacctggccacaaagcaagagtgttggctgaggcaatgagccaggcaaacagtgtaaacataatgatgcag  
aaaagcaatttttaaaggccctagaagaattgttaaatgtttcaactgtggcaaggaagggcatatagccaaaaat  
tgcagggcccctaggaaaaaaggctgttggaaatgtggaaaagaaggacaccaaatgaaagactgtactgagaga  
caggtgtagggggccagataaaggaggctctcttagacacaggagcagatgatacagttattagaagaataaat  
ttgccaggaaaatggaaacccaaaaatgataggaggaattggaggttttatcaaagtaagacagtatgatcaata  
gttatagaaatttgtggaaaaaaggctataggtacagttattagtaggacctacacctgtcaacataattggaaga  
aatatgttgactcagcttggatgtacactaaattttccaattagtccattgaaactgtaccagtaaaattaaag  
ccaggaatggatggcccaaagggttaaacaatggccattgacagaagagaaaaataaaagcatttaacagaaaattgt  
gaagaaatggagaaggaaggaaaaaattacaaaaattgggcctgaaaatccatataacactccagttattgccata  
aaaaagaaggacagtactaagtggagaaaaattagtagatttttagggagcttaataaaagaactcaagacttttgg

gaagttcaattaggaataccacacccagcaggggttaaaaaagaagaaatcagtgacagtactggatgtgggggat  
gcataatTTTTcagttccttttagatgaaggcttcaggaaatatactgcattcaccatacctagatataaacaatgaa  
acaccagggattagatatcaatataatgtgcttccacagggatggaaaggatcaccagcaatattccagagtagc  
atgacaagaatTTTtagagccctTTtagagcacaaaatccagaaatagtcattctatcaatatatggatgacttgtat  
gtaggatctgacttagaaatagggcaacatagagcaaaaatagaagaattaagagaacatctgttaaagtgggga  
TTTaccacaccagacaaaaaacatcagaaagaacccccatttctttggatgggggatgaactccatcctgacaaa  
tggacagtacagcctataaagctgccagacaaggatagctggactgtcaatgatatacagaagttagtgggaaaa  
TTaaactgggcaagtcagatttaccacagggatcaaagtaaggcaactttgtaaactccttaggggggccaagca  
ctaacagatgtagtaccactaactgaagaagcagaattagaattggcagagaacaggggaaattctaaaagaacca  
gtacatgggggatattatgacccatcaaaagacttaatagctgaaatacagaaacagggggcatgaccaatggaca  
tatcaaatTTTaccagaaccattcaaaaatctgaaaacaggaaagtatgcaaaaatgaggactgccacactaat  
gatgtaaaacagttaacagagggcagtgcaaaaatagcccaggaaagcatagtaatatggggaaagactcctaaa  
TTtagactacccatccaaaaggaaacgtgggagacatggtggacagactattggcaagccacctggattcctgaa  
tgggagtttgTTaatactcctcccctagtaaaattatggtaccagttggagaaagaacccataccaggagtagaa  
actttctatgtagatggagcagctaatagggaaactaaactaggaaaagcaggggtatgttactgacagaggaagg  
cagaaaattgtttcttaactgaaacaacaaatcagaagactgaattgcaagcaattcagctagctttgcaagat  
tcaggatcagaagtaaacatagtaacagactcacagtatgcatttaggaatcattcaagcacaaccagataagagt  
gaatcagagttagtcaaccaaataatagaacaattaatacaaaaaggaaagggtctacctgtcatgggtacctgca  
cataaaggaattggaggaaatgagcaagtagataaattagtaagtcagggaatcaggaaagtgctgtttctagat  
ggaatagataagggtcaagaagagcatgaaaaatatcacaacaattggagagcaatggctgatgagtttaatctg  
ccacccatagtagcaaaaggaaatagtagctagctgtgataaatgtcaactaaaaggggaagccatacatggacaa  
gtagactgtagtccagggatattggcaattagattgtacacatttagaaggaaaagttatcctggtagcagtcctat  
gtagccagtggtacatagaagcagaggttatcccagcagaaacaggacaagaacagcatactacatactaaaa  
Ttagcaggaagatggccagtcagagtaatacatacagacaatgggtactaatttccaccagtgctgcagtttaaggca  
gcctgttggtgggcaggtatccaacaggaatttggaaattccctacaatcccaaagtcaggagtagtagaatcc  
atgaataaagaattaaagaaaattatagggcaggttaagagatcaagctgagcaccttaagacagcagtagacaaatg  
gcagtatcattcacaaatTTTaaaagaaaaggggggattgggggggtacagtgcaggggaaagaataatagacata  
atagcaacagacatacaaaactaaagaactacaaaacaaattataaaaattcaaaatTTTcggggtttattacaga  
gacagcagagaccctatTTTggaaaggaccagccaaactactctggaaagggtgaaggggcggtagtaatacaagat  
aacagtgacataaaggtagtagcaaggaggaaagtaaaaaatcattaaggacacatggaatagtttagtaaagcac  
catatgcatatTTTcaaaaagagctaagggtatggttttacagacatcattatgaaagcagacatccaaaagtaagt  
tcagaagtacacatcccattaggggaggctagattagtaataaaaaacatattgggggttgcaaacaggagaaaga  
gattggcatttggtcatggagtctccatagaatggagattgagaaaaatatagcacacaagtagaacctggcctg  
gcagaccagctaattccatattgcactatTTTgattgttttgagactctgccataagaaaagccatattaggagaa  
atagttattcctaggtgtgactatcaagcaggacataatcaggtaggatctctacaatacttggcactgacagca  
ttgataaaacaaaacagagaaagccacctctgcctagtgttaggaaattagtagaggatcttctagaggaaatc  
aagcaggaagctgtcagacactTTTcctagaccatggcttcatggcttaggacaatatgtctatgaaacctatggg  
gatacttggacaggagtagaaactctaataagaatactgcaacaactactgtttattcatttcagaattgggtgc  
caacatagcagaataggcattTTTgcgacagagaagagcaagaatggagccagtagatcctaacctagagccctgg  
aaccatccaggaagtcagcctagaactgcttgtactaaatgctattgtaaatactgttgctaccattgcctagtt  
tgctttcagacaaaaggcttaggcatttccagtggtgggaaacttggtgggtcacagtttattatggggtagctt  
gtgtggaaagatgcaaaaactactctatttctgtgcatcagatgctaaagcatatgaaaaagaagtgcataatgtc  
tgggctacacatgcctgtgtacccacagaccccaacccacaagaaatagttttggaaaatgtaacagaaaaatTTT  
aacatgtggaaaaatgacatggtggatcagatgcatgaggatataatcagtttatgggaccaaagcctaaagcca  
tgtgtaaagttgacccactctgtgtcactTTTaaatgtgtaaatgttagtaataaaatTTTaaacctacaaaatagc  
atgaatgaagatccgaaggagaagaataagaattgtctTTTcaatgcaaccacagaattaagagataagaacag  
aaagtgcatgcactcTTTtataaacttgatatagtaccacttcatggcaacaactctagttagtatagatttaata  
aattgtaataacctcaaccataacacaagcctgtccaaagggtctcTTTgatccaattcctatacattattgtact  
ccagctggttatgcatTTTtaaagtgtataatcagacattcaatgggacaggacctgcaataatgtcagctca  
gtacaatgtacacatggaattaggccagtagtatcaactcagttactgttaaatggtagcctagcaaaaggagag  
ataataattagatctgaaaatctgacaaacaatgccaataataatagtagatcttaataaacctgtaaaaatt  
gtgtgtgtgaaggcccaacaataatacaagaaaaagtgtgaaggataggaccaggacaaacattcctatgcaacaggt  
gaaataataggagacataagacaagcatattgtatcatttaataaaaactgaatggaataaacctttacaaggggt  
agtaaaaaattaggagaacacttctctaataaaaacaataaaaatttgaaccgtcatcaggaggggacctagaaatt  
acaacacatagctTTTaattgttagaggagaatttttctattgcaacacatcacaactgtTTTaattagtagacatacagt

cccagttttaatggtacagaaggttaaattaaatgggaccatcacaaatcccatgtagaataaaaacaaattataaac  
atgtggcagaaagtaggacaagcaatgtatgccctcccattgcaggaaacctaacatgtgaatcaaatacaca  
ggattactattgacacgtgatggaggaaaaacaggttcaaatacaccagagatattcagacctggaggaggggat  
atgagggataactggagaagtgaattatataaaatataaagtggtagaaattaagccattgggagtagcaccact  
gaggcaaaaaggagagtgggtggagagagaaaaaagagggtttggggctgctctggaaaactcatctgcaccact  
gccgtgccttggaaactccagttggagtaatagatctcatgatgagatttgggataacatgacctggatgcagtgg  
gatagagaaattaataattacacagacacaaatatacaggttgcttgaagaatcacaaaaccagcaggagaaaaat  
gaaaaggattttattagcattggacagttggcaaaatctgtggaattggtttagcataacaaattggctgtggtat  
ataaaaatattcataatgatagtaggaggcttgataggtttaagaataatttttgctgtgctttctatagtgaat  
agagttaggcagggatactcacctctgtcgtttcagtatctgggaagccttgtgcagatttggggcttagagcta  
aaaaagagtgtctattagtctgtttgataccatagcaatagcagtagctgaaggaaacagataggattatagaatta  
atacaagaattttgtagagctattcgcaacatacctagaagaataagacagggctttgaagcagctttgcaataa  
atggggggcaagtgggtcaaaatgcagtggtggcctgctgtaagagaaagaatgagaagaactgagccagcagca  
gaggagtaggagcagcatctcaagacttagataaatatggagcacttacaagcagcaacacaagcaccaataat  
gctgattgtgcctggctggaagcgcaagaggaggaaggagatgtaggctttccagtcagacctcaggtgccttta  
agaccaatgacttataaaggagcattcgatctaggcttcttttaaaagaaaaggggggactggaagggttagtt  
tactccaagaaaagacaggaaatccttgattttgtgggtctatcacacacaaggcttcttccctgactggcaaac  
tacacaccgggaccaggggtcagatatccactgacctttggatgggtgcttcaagctgggtgccagttgaccaggg  
gaagtggaagaggccaacaagggagaagacaactgtttgctacaccctatgagccagcatggaatggaggatgaa  
cacggagaagtattaaagtgggaagtttgacagtcacctagcacgcagacacatggcccgcgagctgtatccggag  
tattacaaagactgctga

>#86 KC156114 7422 nt

atgggtgcgagagcgtcagatttgaaaggcggaaaaattagatgcatgggaaaaaattagggttaaggccaggggga  
aagaaaaaatataggctaaaacacttagtatgggcaagcagggagctggaaaaatttgcaacttaacctggcctt  
ttagaaacatcagaaggctgtaagcaaaatactgacacagctacaaccagctcttcaaacaggaacagaggaactt  
aaatcattattcaacacagtagcaactctctattgtgtacataaaaaggatagaggtacatgacaccaaggaagcc  
ttagacaaggtagaggaagaacaaaaacaaaagtcagcaaaaaacacagcaggcagaagcggctgacaaaggaaaa  
gtcagtcagaattatcctatagtgcagaatctccaagggcaaatggtacaccaggccttatcaccaagaactttg  
aatgcatgggtaaaagttaatagaggagaaaagctttcagcccagaggtgatacctatgtttacagcattatcagaa  
ggagccaccccacaagattttaaacaccatgctaaatacagtggggggacatcaagcagccatgcagatgttaaaa  
gataccatcaatgaggaggtgcagaatgggataggatgcatccagtgcatgcagggcctgctgcaccaggccag  
atgagagagccaaggggaagtgcatagcaggaaccactagtaaccttcaggaacaaatagcatggatgacaagt  
aaccacactattccagtgaggagacatctataaaagatggataaattctggggttaaataaaaatagtaagaatgtac  
agccccgtcagcatttttgacataaaaacaaggacaaaaagaaccttttagagattatgtagatcgggttctttaa  
accttaagagctgaacaatcctcacaaagaggtaaaaaattggatgacagacaccttggtgatccaaaatgccaac  
ccagattgtaaaaccatttttaaaagcattaggatcaggggcttcattagaagaaatgatgacagcatgtcaggga  
gtgggaggacctggccacaaagcaagagttttggctgaggcaatgagccaagtaacaataaccagtataatgatg  
cagaaaagcaactttaaggctctagaaaaattgttaaatgtttcaactgtggcaaggaagggcatatagccaga  
aattgcagggccccaggaagagaggtgttggaatgtggaaaggaaggacaccaaataagaaactgtactgag  
aggcaggctgtagggggacagataaaggaggtctctcttagacacaggagcagatgatacagattagaagacata  
aatttgccagggaatggaaaccaagaatgataggaggaattggaggttttatcaaagtaagacaatatgaacaa  
atacctatagaaatttgtgggaaaaaggctataggtacagtggttagtaggacctacgcctgttaacataattgga  
agaaatatgttgacacagcttggtgtacactaaattttccaattagtcctattgaaactgtaccagtaaaaatta  
aagccagggttggtggcccaagggttaaacaatggccattgacagaagagaaaaataaaagcattaacagcaatt  
tgtgaagaaatggagaaggaggggaaaaattacaaaaattgggcctgaaaatccatataacactccaatatttgcc  
ataaagaagaaggacagtactaagtggagaaaattagtagatttcagggaactcaataaaaagaactcaagatttt  
tgaggaggttcaattaggaataccacacccagcaggggttaaaaaagaaaaaatcagtgacagtgctagatgtggg  
gatgcataatttttcagttccttttagatgaaagcttttaggaatatatactgcattcaccatacctagtataaacaat  
gcaacaccaggaattagatatcaatataatgtgctaccacagggttggaaggatcaccagcaatattccagagt  
agcatgacaaaaatcttagagcccttcaggacacaaaatccagatatagttatctatcaatatatggatgacttg  
tatgtgggatctgacttagaaatagggcaacatagagcaaaagatagagcaattaagagaacatttactgcaatgg  
ggacttaccacaccagataaaaaacatcaaaaggaacccccatttcttttgatgggggtatgaactccatcctgac  
aaatggacagtacagcctatacagctaccagacaaggatagctggactgtcaatgatatacagaagttagtggga  
aaattgaactgggcaagtcagatttacccagggttaaagtaaggcaactttgtaaactccttaggggaaccaa  
gcactaacggacatagtaccactaactgaagaagcagaattagaattggcagagaacagggaattctaaaagaa

ccagtacatggggtatattatgacccatcaaaagacttgatagctgaaatacagaaacaagggcatgaccagtgg  
acatatcaaattttaccaagaaccattcaaaaatctgaagacaggaaagtatgcaaaaatgaggactgccacact  
aatgatgtaaaacagctaacagaggcagtgcaaaaaatagcccagggaatgcatagtaatatggggaaagactcct  
aaatttaggttaccattcaaaaagacatatgggaaacatggtggacagactattggcaagccacctggattcct  
gaatgggaatttagtaatacccctcccctagtaaaattatggtatcagcttgagaaagatcccatagcaggagca  
gaaactttctatgtagatggagcagctaatagggaaactaaactggggaaagcaggggtatgtaactgataaagga  
aggcagaaaaatcattactctaactgaaacaacaaatcagaaggctgaattacaagcaattcagcttgccttgag  
gattcaggatcagaagtaacatagtaaacagactcacagtatgcattaggaatcattcaggcacaaccagataag  
agtgaatcagagttagtcactcaaataatagagcagttaataggaaaggaaaggatctacctgtcatgggtacca  
gcacataaaggaattggaggaaatgaacaagtagataaattagtaagtagtggaatcaggaaagtagtgtttcta  
gatggaatagacaaggcccaagaagagcatgaaaaatatcacagcaattggagagcaatggctagttagttaa  
ctgccacccatagtagcaaaaagaaatagtagctagctgtgataaatgtcaacaaaaaggggaagccatgcatggg  
caagtagactgtagtcagggtatctggcaattagattgtacacatttagaaggaaaaatcatcctggtagcagtc  
catgtagccagtggtacatagaagcagaggttatcccagcagaaacaggacaagaaacagcatactacatacta  
aaattagcaggaagatggccagtcaggtaatacatacagacaatggcagtaatttcaccagtaatgcagttaag  
gcagcctgttgggtgggcaggtatccaacaggaatttgggaattccctacaatcccaaagtcagggagtagtagag  
tccatgaataaagaattaaagaaaaatcataggacaggtgaagagatcaagctgagcacctaaagacagcagtaca  
atggcagttattcattcacaatttttaaagaaaaggggggattggggggtacagtgccaggggagagaataatagac  
atgatagcaacagacatacaaaactaaagaattacaaaaacaaattataaaaattcaaaattttcgggtttattac  
agagacagcagagaccctatttggaaaggaccagccaaactactctggaaaggtgaaggggcagtagtaatacaa  
gataacagtgacataaaggtagtaccaggaggaaagcaaaaatcattaaggacacatggaatagtttagtaaaag  
caccatatatgggcctcaaagaaagctagtggatgggttttacagacatcattatgaaagcagacatccaaaagta  
agttcagaagtacacatcccattaggggatgctagattaataataacaacatattgggggttgcaaacaggagaa  
agagattggcatttgggtcatggagtctccatagaatggagattgaaaagatatagcacacaagtagaccctggc  
ctggcagaccagctaattcatatgcattattttgattgttttgagactctgccataagaaatgccatattagga  
cacatagttttcctaggtgtgactatcaagcaggacataataaggtaggatctctacaatatttggcactgata  
gcattgataaaacaaaaaggataaaagcctcctctgcctagtgttaggaaatttagtagaggatcttttagaggaa  
ctcaagcaggaagctgtcagacactttcctagaccatggctccataacttaggacaacatatctatgaaacctat  
ggggatacttggacaggagtcgaagtgaataaagaattctgcaacaactactgtttatccatttcagaattggg  
tgccagcatagcagaataggcatcttgagacagagaagagcaagactagatccctggaacctccaggaagtcag  
cctaagactgcttgaataattgttattgtaaaggctgcagctatcattgtctagtttgccttcagaaaaaaggc  
ttaggcatttccgggatggggcaattgtgggtcacagctctattatggggtacctgtatggaaggaagcaaaaact  
actctattttgtgcatcagatgctaaagcatattcccaagaagcacataatatctgggctacacatgcctgcgta  
cctacagaccccaaccacaagaaatggttttagaaaatgtaacagaaaattttaacatgtggaaaaatgacatg  
gtagatcagatgcatgaggatataatcagtttatgggatcaaagcctaaagccatgtgtaaagttgaccccactc  
tgtgtcactttaactgtactactgttaatataccaggaaaaataatccccttaatgatagtgtatagtaattac  
atgaaaaactgctctttcaatatgaccacagaactaaaagataaaaaagaaggaagagagggcattgtttcataga  
cttgatctagtaccacttaatgagaatagtagcaagtatgagaatagtaacaagtatatattaacaaattgtagg  
acctcaaccatagcacaggcctgtccaaagatctcgtttgatccgattcctatacattattgtgctccagctgg  
tatgcgattctaaaatgtaataataaggcattcaatggatcaggaccatgcactaatgtcagcacagtaaatgt  
acacatggaattaagccagtggtatcaactcagctactgttaaattggtagccttagcagaagagataataatcaga  
tttgaaaaatctgacaaacaatgtcaaaaacaataatagtacaccttaatgaatctgtagaaatttcgtgtacaaga  
cccaacaataatacaagaaaaagtgtaggtaggaccaggacaaacattctatgcaacaggagaaataatagga  
gatataagacaagcatattgtaccattaatgaaggaaaatggaataaaaactttagaaaggataaggaacaaatta  
gcagagtacttcctaataaaaacaatacaatttcaaagcgccctcaggaggggacctagaaattacaacacatagc  
tttaattgtggaggagaatttttctattgcaacacatcaagattgtttaatcatacatttaattgagacatcagac  
gaagacatcacactccaatgtaggataaaaacaattataaacatgtggcagggggtaggacgagcaatatatgcc  
cctccattgcaggaaacataacatgtaactcaaatatcacaggactactattgacacgtgatggagggaagagt  
aatagtagtaatcagacagagatattcagacctgcaggaggaaatagagggacaattggagaagtgaattatat  
aaatataaagtggtagaaattaaaccattaggaatagcaccactaaggcgaaaaggagagtggtggagagagaa  
aaaggaatttggggctgctctggaaaactcatctgcaccactaatgtgccttggaaactctagttggagtaataaa  
cctgaagaagaaatttgggggaacatgacctggtgcaatgggagagagaaattgataattatacagacacaata  
tacagtttgcttgaaaaatcgcaaaaccagcaggaacaaaatgaacaagatttactagcattggacagttggaaa  
aacctgtggaattgggttagcataacaaaatgggtgtggtatataaaaatattcataatgatagtaggaggctta  
ataggtttaagaataatttttgcctgtgctttctatagtgaatagagttaggcagggatactcacctttatcgttc

cagtatctaggaagtcttgcgcagttattggggctctggaactaaaacaaagtgcatttaacctgcttgataccata  
gcaatagcagtagctgaaggaacagataggatcatagaagtaatacaagaattttagtagagctatctgcaatata  
cctacaagaataagacaggggcttgaagcagcttgcataaatggggggcaagtgggtcaaaaagcagtatagtt  
ggatggcctgctgtaagagaaagaataagacaagctaggccagagccagcagcagagggagtaggagcagcgtct  
caagacctagataaacatggggcacttacaaccagcaacacagtttataacaatgctgcttgctgctggatagaa  
gcgcaagaggaggagagaagaggtaggctttccagtcacacccaggtgcctttaagaccaatgacttataaagga  
gcattcgatctcagcttcttttttaaagaaaaggggggactggatgggttaatttactcccagcaaaagacaggat  
atccttgatttgtgggtctataacacacaaggctacttccctgattggcaaaactacacaccaggaccagggtatc  
agatatccactgaccttggatgggtgctacaagttagtgccagttgaccaaggacagtagaagaggccaacagt  
ggagaaaacagctgcttgctccaccctatgagccagcatggaatggaggatgcagacagagaagtattaatatgg  
aagtttgacagcagcctagcacgcagacacctggcccgagctacatccggagtattacaaagattgctga

>#87 AF005496 7386 nt

atgggtgagagagcgtcagttattaagcggcggaatttagatgcttgggagaaaattcgggctaaggccaggggga  
aagaaaaatataggctaaaacatctagtatgggcaagcagggagctggaaagatttgcacttaaccccgccctt  
ttagaacaccagaaggctgtctacagataatagaacagatacagccagctattaagacaggaacagaagaactt  
aatcattatttaattctagtagcagtcctctattgcgtacatcgaaaaatagatgtgaaagacaccaaggaggct  
ttagataagatagaggaaatacaaaaacaaagtcagcaaaaaacacagcaagcagcagctgataaggaaaaagac  
aacaaggtcagtcaaaattatcctatagtagacaatgctcaagggcagatggtacaccaggccatatcacctagg  
accttaaatgcatgggtaaaagtagtagaagaaaaggcttttagcccagaagtaatacccatgttttcagcatta  
tcagaaggagccaccccaagacttaaatgctatgctaaatacagtggggggacatcaagcagccatgcagatg  
ttaaagatacaatcaatgaggaagctgcagaatgggacaggggtacatccagtgcaggggcctattccacca  
ggccaaatgagagaaccaaggggaagcgatatagcaggaactactagtaccctgcaggaacaaatagcatggatg  
acaggcaatccagctatcccagtgaggagacatctataaaagatggataatcctgggattaaataagatagtaaga  
atgtatagtcctgtcagcattctggacataaaaacaaagggccaaaagaacccctttagagactatgtagacaggtt  
tttaaaactttaagagctgagcaagccacacaggatgtgaagaattggatgacagaaaccttgttggtccaaat  
gcaaatccagattgcaagactatattaagagcattaggacaaggggcttcaatagaagaaatgatgacagcatgt  
cagggagtgaggagcctagtcataaagcaagagttttggctgaggcaatgagccaagtaacaaatacaaataca  
gccataatgatgcagaaaggcaactttaagggccaaagaaaatttgttaaatgcttcaactgtggcaaaagaggga  
cacatagccagaaattgcagggcccttaggaaaaagggctgttggaatgtggaagagaaggacatcagatgaaa  
gactgcacagagagacaggctatagaggacagtttaaggggaagctctattagatacaggagcagatgatacagta  
ttagaagagataaaatttgcggggaaaatggaaacaaaaaatgatagggggaattggagggtttatcaaagtaaga  
cagtatgagcaagtagccatagaaatctgtggaaaaaaggctataggtacagtattagtaggacctacacctgtc  
aatataattggaaggaatatattgactcaaattgggtgcaccttaaattttccaattagtcctattgaaactgta  
ccagtaaaattaaagccaggaatggatggccaaagggttaacaatggccattgacagaagaaaaataaaagca  
ttaacggaaatttgtacagagatggaaaaagaaggaataatctcaagaatagggcctgagaatccatacagcact  
ccaatatttgcataaaaaagaaggatagtagtaaatggagaaaattagtggtttcagagaactcaataaaaga  
actcaagacttctgggaagttcagttaggaataccacaccagcaggggttaaaaaagaaaaaatcagtatcagta  
ctggatgtgggggatgcataattttcagtccttttagataaagaattcagaaagtatactgcattcaccatacct  
agtataaacaatgagacaccagggttagatatcagttataatgtgcttccacagggtggaaaggatcaccagca  
atattccagagtagcatgacaaaaatcttagcgcccttttagagaacaaaatcctgaaatgggtatttaccatac  
atggatgatttgtatgtaggatctgacttagaaatagggaacatagagcaaaaatagaggaggttaagagctcat  
ttgttgaaatggggatttaccacaccagacaaaaaacatcagaaagaacccccatttctttggatgggatatgaa  
ctccatcctgacaaatggacagtacagactgtaaaactgccagaaaaagacagctggactgtcaatgatatacag  
aagttagtgggaaaactaaattgggcaagtcagatttatccaaatattaaagtaagcaactatgtaaactcctt  
agggggggccaaagcattaacagacataataccactgacaaaagaggcagaattggaattggcagaaaacaggggag  
attctgagagaaccaatacatggagtatattatgatccatcaaaagacttaatagcagaaatacggaaagcaagg  
caaggccaatggacatatcaaatttatcaggagccatttaaaaaatctgaagacaggaaaatatgcaaaaatgaga  
actgcccacactaatgatataaaacaattaacagaagcagtgcaaaagatatctacagaaagcatagtaatatgg  
ggaaaaattcctaatttagactacctatacaaaaagaacatgggagacctgggtggacagagatttggaagcc  
acatggattcctgaatgggagtttgttaacaccctcatctagtaaaattatgggtatcagttagaacagagccc  
atagcaggagcagaaacttactatatagatggggcagctaatagggaaaactaaattaggaaaagcaggatattgtc  
actgatagaggaaagcaaaaagtgtgtctccctaacggaaacaacaaatcagaagactgaattacaagcaatttat  
ctagctttgcaagattcaggggttagaagtgaacatagtgacagattcacagtatgcactaggaatcattcaagca  
caaccgataagagtgaatcagagttagttaatcaataatagagggaattaataaagaaggaaaagggtctacctg  
tcatgggtaccagcacacaaaggaattggaggaaatgaacaagtagataaattagtttagttctggagtcagaaaa

gtgctat t t t t c t a g a t g g g g a t a g a t a a a g c t c a a g a a g a a c a t g a a a g g t a t c a t a a c a a t t g g a g a g c a g t g g c t  
a g t g a t t t t a a t c t a c c a c c t a t a g t a g c a a a a g a a a t a g t a g c t a g c t g t g a t a a a t g t c a g c t a a a a g g g g a a  
g c c a t g c a t g g a c a a g t a g a c t g t a g c c c a g g a a t a t g g c a a t t a g a t t g c a c a c a t t t g g a a g g a c a a g t t a t t  
c t g g t a g c a g t c c a t g t a g c c a g t g g c t a t a t a g a a g c a g a a g t c a t c c c a g c a g a a a c a g g a a g g a a c a g c a  
t a c t t c c t g t t g a a a c t a g c a a g c a g a t g g c c a g t a a a a g t a a t a c a t a c a g a c a a t g g c a g c a a t t t c a c g a g t  
g c t g c g g t t a a g g c a g c c t g t t g g t g g g c a g a t a t c c a a c a g g a a t t t g g g a t t c c c t a c a a t c c c c a a a g t c a g  
g g a g t a g t a g a a t c t a t g a a t a a a g a a t t a a a g a a g a t c a t a g g g c a g g t a a g a g a c c a a g c a g a a c a c c t t a a g  
a c a g c a g t a c a a a t g g c a g t a t t c a t t c a c a a t t t t a a a a g a a a a g g g g g a t t g g g g g g t a c a g t g c a g g g g a a  
a g a a t a a t a g a c a t a a t a g c a a c a g a c a t a c a a a c t a a a g a a t t a c a a a a c a a a t t t c a a a c a t t c a a a a t t t  
c g g g t t t a t t a c a g g g a c a g c a g a g a c c c a a t t t g g a a a g g a c c a g c a a a a c t c c t c t g g a a a g g t g a a g g g g c a  
g t a g t a a t a c a a g a c a a t a g t g a a t a a a a g t a g t a c c a a g a a g a g a g g c a a a a t c a t t a g g g a t a c a t g g a a a  
a g c t t a g t a a a g t a c c a t a t g c a t a t t t c a a g g a a g c t a g a g g a t g g t t t t a t a g a c a t c a t t t t g a a a g c a c t  
c a t c c a a g g a t a a g t t c a g a a g t a c a c a t c c c a t t a g g a g a a g c t a g g t t a g t c a t a a c c a c a t a c t g g g g t c t g  
a a t a c a g g a g a a a g a g a a t g g c a t t t a g g c c a g g g a g t c t c c a t a g a a t g g a g a c t g a a a a g g t a t a g c a c a c a a  
g t a g a g c c t g g c c t g g c a g a c c a a c t a a t t c a t a t g c a t t a t t t t g a t t g t t t t c a g a a t c t g c c a t a a g g a a a  
g c c a t a t t a g g a c g t g t a g t t a g a c c t a g g t g t a a c t a t c c a g c a g g a c a t a a a c a g g t a g g a a c t c t a c a a t a c  
t t g g c a t t a a c a g c a t t a g t g g c a c c a a a a a g a t a a a g c c a c c t t t g c c t a g t g t t a g a a a g c t a g t a g a g g a t  
c t t t t a g a g g a g a t t a a g a a t g a g g c t g t t a g g c a t t t t c c t a g a g t a t g g c t c c a t c a a t t a g g a c a g c a t a t c  
t a t a a c a c c t a t g g a g a t a c t t g g g t a g g a g t t g a a g c t t t a a t a a g a a c g c t g c a a c a a c t a c t g t t t a t t c a t  
t t c a g a a t t g g g t g c c a a c a t a g c a g a a t a g g a a t t a c t c g a c a g a g a a g a g t a a g a c t a g a g c c c t g g a a c c a t  
c c a g g a a g t c a g c c t c a a a c t g c t t g t a a c a a t t g t t a t t g t a a a a g t g c t g c t a t c a t t g c c a a a t g t g c t t t  
t t a a g a a a a g g c t t a g g a a t t t c c g c t g c a c a a a c t t g t g g g t t a c a g t a t a t t a t g g g g t a c c t g t g t g g a a a  
g a g g c a a a a c c a c t c t a t t c t g t g c a t c a g a t g c t a a g g c a t a t g a g a c a g a a a a g c a t a a t g t c t g g g c t a c a  
c a t g c a t g t g t a c c c a c a g a c c c c a a c c c a c a a g a g a t g g t c a t g g a g a a t g t a a c a g a g a g c t t t a a t a t g t g g  
g a a a t a a c a t g g t g g a g c a g a t g c a t a c a g a c a t a a t c a g t t t a t g g g a t c a a a g c t t g a a a c c a t g t g t a a a a  
t t a a c c c c a c t c t g t g t t a c t c t a a a c t g t a c t a a t g t c a g a a a c a a t a c c t c t a a c a g c a c t a g c a g t a t g g a g  
g c a g g a g g g g a a c t a a c a a a t t g c t c t t c a a t g t a a c t a c a g t a c t a a g a g a t a a g c a g c a g a a a g t a c a t g c a  
c t c t t t t a t a g a c t t g a t g t a g t a c c a a t t g a t a a c a a t a g t a c t c a g t a t a g g c t a a t a a a t t g t a a t a c c t c a  
g t c a t t a c a c a g g c t t g c c c a a a g g t g t c c t t t g a a c c t a t t c c c a t a c a t t a t t g t g c t c c a g c t g g c t t t g c g  
a t t c t a a a g t g t a a c a a t a a a a c a t t c a a t g g a a c a g g a t t a t g t a c a a a t g t c a g t a c a g t a c a a t g t a c a c a t  
g g a a t t a g a c c a g t g g t a t c a a c t c a a c t g c t a t t a a a t g g a a g c c t a g c a g a a a c a g a t c a t a a t t a g a a c t  
a a a a t a t c t c a g a c a a t a c c a a a a c a t a a t a g t a c a g c t t a a g a c a c c a g t a a a c a t t a c a t g t a c c a g g c c t  
a a c a a t a a t a c g a g a c a a g t a t a c a t t t a g g g c c a g g a c g a g c a t t c t a t g c a a c a g g t g a c a t c a t a g g a g a t  
a t a a g a c a a g c a c a t t g t a a t a t t a g t a g a a c a g a c t g g a a t a a g a c t t t a c a c c a g g t a g t t a c a c a a t t a g g a  
a t a c a c t t g a a c a t a g a a c a a t a a g c t t t a a g c c a a a c t c a g g a g g g a c a t g g a a g t t a g a a c a c a t a g t t t t  
a a t t g t a g a g g a g a a t t t t t c t a t t g c a a t a c a t c a g g g c t g t t t a a t a g t a g t t g g g a a a t g c a t a c t a a t t a c  
a c a t c a a a t g a c a c a a a g g g a a a c g a a a a c a t t a c a c t g c c a t g c a g a a t a a a a c a a a t t g t a a a c a t g t g g c a g  
a g a g t a g g a c g a g c a a t g t a t g c c c c t c c c a t c c a a g g a a a c a t t a t g t g t g t a t c a a a t a t t a c a g g a c t a a t a  
t t g a c a a t t g a c g a g g g t a a c g c g t c t g c a g a a a t t a t a c c t t c a g a c c t g g a g g a g a g a t a t g a g g g a c a a t  
t g g a g a a g t g a a t t g t a t a a a t a t a a a g t a g t a a a a t t g a a c c a c t g g g a a t a g c a c c c a c c a a g a c a a g g a g a  
a g a g t g g t g g a g a g a g a a a a a g a g g g a t t t g g g g c t g c t c t g g a a a a c t c a t c t g c a c c a c t a a t g t g c c t t g g  
a a c t c t a g t t g g a g t a a t a a a t c a c a g a g t g a a a t c t g g g a c a a c a t g a c t t g g a t g g a a t g g g a t a a a c a a a t t  
a g c a a t t a c a c a g a g g a a a t a t a c a g g t t g c t t g a a g t c t c g a a a c c c a g c a g g a a a a g a a t g a a c a g g a c t t a  
t t a g c a t t g g a c a a a t g g g c a a g t c t g t g g a c t t g g t t t g a c a t a t c a c a t t g g c t g t g g t a t a t a a a a a t a t t c  
a t a a t g a t a g t a g g a g g t t t a a t a g g t t t a a g a a t a a t t t t t g c t g t g c t t t c t a t a g t a a a t a g a g t t a g g c a g  
g g a t a c t c a c c t t t g t c t t t t c a g g c t a t t g a t t t g c t t a a c a c c a c a g c a a t a g c a g t a g c t g a g g g a a c a g a t  
g g g a t t a t a g t a a t a g t g c a a a g a g c t t g g a g a g c t a t t c t c c a c a t a c c t a g a a g a a t a a g a c a g g g c t t t g a a  
a g a a g c t t g c t a t a a a t g g g a g g c a a a t g g t c a a a a a g t a g g a t g g g t g g g t g g t c t a c t a t a a g g g a a a g a a t g  
a g g c g a g c t g a a c c a g t a g c a g a a g g g t a g g a g c a g t g t c t c g a g a t t t g g a t a g a c g c g g g g c a g t c a c a a t t  
a a t a a t a c a g c a t c t a c t a a t c g t g a t g c c g c c t g g c t g g a a g c a c a a g a g g a c g g g g a g g a a g t a g g c t t t c c a  
g t c a g g c c t c a g g t a c c t t t a a g a c c a a t g a c c t a t a a g g g a g c t t t t g a t c t c a g c c a t t t t t t a a a a g a a a a g  
g g g g g a c t g g a t g g g t t a a t t t a c t c c a a g c a a a g a c a g g a c a t c c t t g a t t t a t g g g t c t a t a a c a c a c a a g g c  
t a c t t c c c t g a c t g g c a g a a c t a c a c a c c a g g g c c a g g g g a g a g a t t t c c c t g a c c t t t g g g t g g t g c t t c a a g  
c t a g t a c c a g t a a a t c c a c a g g a g g t a g a a c a g g c c a a t g a a g g a g a g a a c a a c a g c t t g c t a c a c c c c a t g a g c

ctgcatggaatggaggatgacgggagagaagtgctgatgtggaaatttgacagtcgactagcattgacacacttg  
gcccagagtaaagcatccggagtacaaagactgctga

>#88 FJ389367 7413 nt

atgggtgcgagagcgtcagtattaagtgggggaaaatttagatgcatgggaaaaaattcggttgaggccaggggga  
aagaaaaaatatagaataaaacatctagtatgggcaagcagggagctggaaagatttgactcaacctggcctt  
ttagaacaacagaaggttgtcaacaatatattggaacagttgcaaccaactcttaggacaggaacagaggagatt  
aatcattatataatgcartagcaactctctattgtgtacatcaaaggatagaggtaaaagacaccaaaagaagct  
ctagaagaagtggaaaagatacaaaaagaaaagtcagaaaaagacacagcaggcagcaatgggtgaaggaaacagc  
agccaagtcagccaaaattatcctatagtgcaaaatgcacaagggcaaatggtacatcagcccctatcacctaga  
actttaaatgcatgggtaaaagtagtagaagagaaggcattcaatccagaagtaatacccatgttttcagcacta  
tcagaaggagccaccccacaagatttaaataccatgctaaacacagtggggggacatcaagcagctatgcaaatg  
ctaaaagatactattaatgaggaagctgcagagtgggacaggacacatccaccacaggcagggcctatcccacca  
ggccagataaggggaaccaaggggaagtgatatagcaggaactactagtaacctgcaggaacaaataagatggatg  
accagcaatccacctatcccagtgaggagaaatytataaaagatggataatcctgggattaaataagatagtaaga  
atgtatagccctgtcagcatttttgatataagacaagggccaaaagarccttttagagattatgtagataggttc  
tttaaaactttaagagctgaacaagctacacaggaagtaaaaaactggatgacagacaccttggttggtccaacat  
gcaaacccagattgtaagaccatcttaagagcattagggccaggagctacactagaagaaatgatgacagcatgt  
cagggagtgaggagccggccataaagcaagggtttttagctgaagcaatgagccaggcatcaaattcagcagca  
gctataatgatgcaaaaaggcaattttaagggcccaagaagaattaagtgttcaactgtggcaaggaaggacat  
ctagccagaaattgcagggccccctagaaaaagggtggttggaatgtggaaaagagggacatcaaattgaaagac  
tgcacagaaagacaggctacagtaagagttaggggacagctaataagaagccctattagacacaggagcagatgat  
acagtattagaagatataaaatttacaaggaaaatggaaacccaaaatgataggggaattgggtggttttattaaa  
gtaaaacagtatgatcaaatacttatggaaatttgtggaaaaaaggctatagggacagtggttagtaggacctaca  
cctatcaacataattggaagaaatatgttgactcagattgggtgtactttaaatcccccaatttagtcctattgaa  
actgtaccagtaaaattaaagccaggaatggatggcccaaagggttaaacaatggccattgacagaagagaaaaata  
aaagcattaacagaaatttgtacagaaatggaaaaagaaggaaaaatttcaaaaattgggcctgaaaatccatac  
aacactccaatatttggcataaagaaaaaagacagtaccaagtgagaaaaattggtagatttcagagagctcaat  
aaaagaactcaagacttctgggaggtccaattaggaatacctcatcccgcgggttaaaaaagaaaaaatcagta  
acagtactagatgtgggggatgcataatttttcagtgcccttatatgaagactttagaaaagtatactgcattcacc  
atacctagtgtaaataatgagacaccagggttagatatcagtaacaatgtgcttccacagggatggaaaggatca  
ccagcaatatttcagartagcatgacaaaaatcttagagccctttagaataaaaaatccagaaatagaaatctac  
caatatatggatgatttatatgtaggatctgacttagaaatagggcagcatagarcaaaaatagaggagtttaaga  
gaacatctgttaaaatgggggtttaccacaccagataaaaaacatcagaaagaacctccattccttttgatggga  
tatgagctccatcctgacaaatggacagtacaacctatacagctgccaaataaagaaagctggactgtcaatgat  
atacaaaagtttagtgggaaaactaaattgggcaagtcagatttatccaggaatyaaagtaaaacaactatgtaaa  
ctccttagggggggccaaagcactaacagacatagtaccactgactgcagaagcagaattggaaactggcagagaac  
agggaaaattctgaaagaacctgtacatggagtctattatgacccatcaaaagacytaatagcagaagtacagaaa  
caagggttagaccaatggacatatcaaatctatcaggagccatacaaaaatctgaaaacaggaaaaatatgcaaaa  
agggggtctactcacactaatgatgtaaaacaattaacagaagtagtgcaaaaaatagccacagagagcatagta  
atatgggggaaagactcctaaatttaaactaccatacgaaaaagaaacatgggaagtatggtggacagaatattgg  
caggccacctggattcctgactgggagtttatcaatactcctcctctagtaaaattatggtatcagttagaaca  
gaacccatmgcaggagtagaaacttattatgtagatggggcagctaatagggaaacaaagttaggaaaggcagga  
tatgtcactgacagaggaaaaacaaaaattattaccctaactggaacaacaaaccaaagactgaattacaagca  
attcagctagctttgcaggactcaggatcagaagtaaacatagtaacagactcacagtatgcattaggaattatt  
caagcacaaccagataggagtgaatcagaattagtcaatcaaataatagagcagctaataaaaaaggaaagggtc  
tacctgtcatgggtaccagcacacaaagggttgagggaatgaacaagtagataaattagtyagtaattggaatc  
aggaaagtgttatttttagatggcatagataaagcccaagaagagcatgaaagatatcacagcaattggagagca  
atggctagtgttttaatctgccacctatagtagcaaaagaaatagtggccagctgtgataaatgtcagctaaaa  
ggggaagccatgcatggccaagtagactgtagtccaggaatatggcaattagattgtactcatttagaaggaaaa  
attatcctggtagcagtcctatgtggccagtggttatatagaagcagaagttatcccagcagaaacaggacaggaa  
acagcattctcatattaaaattggcaggcaggtggccagtgaaaatgatcacacagacaatggcagcaatttc  
accagtgtgcagtaaaaggcagcatgttggtgggcagatatcacacaagaatttggaattccctacaatccccaa  
agccaaggggtagtggagtctatgaataaagaattaaagaaaatcattgggcaggtcagggatcaagctgaacac  
cttaagacagcagtagatggcagtatcattcacaaattttaaaagaaaaggggggattggggggtacagtgca  
ggggaagaataatagacataatagcatcagacatacaaaactaaagaactacaaaaacaaattacaaaagttcaa



aat t t t t c g g g t t t a t t a c a g g g a c a g c a g a g a c c c a a t t t t g g a a g g a c c a g c a a a a c t a c t c t g g a a g g t g a a  
g g g g c a g t a g t a a t a c a a g a c a a t a a c g a a a t a a g g t a g t a c c a a g g a g a a a g c a a a g a t c a t t a g g g a t a c a  
t g g a a c a g y t t a g t r a a a c a t c a t a t g t a t g t c t c a a g a a a g c t a a a g g c t g g t t t t a t a g a c a t c a c t a t g a a  
a g c a g g c a t c c a a a a g t a a g t t c a g a a g t a c a c a t c c c a a t a g g a g a t g c t a a a a t a g t a g t a a g a c a t a t t g g  
g g t c t g c a t a c a g g a g a a a a a g a t t g g c a c c t a g g t a a t g g g g t c t c c a t a g a a t g g a g g c a g a g a a g a t a t a g c  
a c a c a g a t a g a t c c t g a c c t a g c a g a c c a a c t g a t t c a t c t a c a t t a t t t t a a c t g t t t t c a g a c t c t g c c a t a  
a g g a a g c c a t a t t a g g a g a a a t a g t t a g a c c t a g g t g t g a a t a t c a a g c a g g a c a t a a t a a g g t a g g a t c c c t a  
c a a t a t t t g g c a c t g a a a g c a t t a g t a a c c t c a c c a a g g g c g a a g c c a c c t t t g c c t a g t g t t a g g a a t t a a c a  
g a a g a t c t g t t a g a a g a a c t t a a g g c t g a a g c t g t t a g a c a t t t t c c t a g g c c c t g g c t t c a t g g c t t a g g a c a g  
c a t a t c t a t a a c a c t t a t g g g g a t a c t t g g g a a g g a g t t g a a g c c a t a a t a a g a a t a c t g c a a c a c t a t t g t t t  
g t c c a t t t c a g a a t t g g g t g c c a a c a t a g c a g a a t a g g c a t t g t t c c a c a a g a c a a g a a g a g t a a g g c t a g a g  
c c c t g g a a t c a t c c g g g g a g t c a g c c t a a a a c t g c t t g t a c c a a a t g c t a t t g t a a a g c g t g t t g c t g g c a t t g c  
c a a g t t t g c t t t c t g a a c a a a g g c t t a g g c a t c t c c g c c t c a a a t a c c t t g t g g g t c a c a g t c t a t t a t g g a g t a  
c c t g t g t g g g a a g a t g c a g a t a c c a c c c t a t t t t g t g c a t c t g a t g c t a a a t c a t a t a g t a c t g a a g g c c a t a a t  
g t c t g g g c t a c a c a t g c c t g t g t a c c c a c a g a c c c a a c c c a c a a g a g a t a t c t c t g a t a a a t g t a a c a g a a a t  
t t t a a c a t g t g g a a a a t a a c a t g g t a g a a c a g a t g c a t g a g g a t a t a a t c a g t t t a t g g g a c g a a a g c c t a a a g  
c c a t g t g t a c a g c t a a c c c c t c t c t g t g t t a c t t t a a a c t g t g t g c c a g c a a a t g g c a c t a a c a t a a c t g g c t c t  
g g c a c t g t g a a t a t a a c c g a a c a g a t g a a a a a c t g c t c g t t c a a t a t a a c c a c a g a a a t a a g g g a t a g g a a g a a g  
c a r g a a t a c g c g c t t t t t t a t a a a c t t g a t a t a g t a c c a a t a g a g g a t a a t a g t a a t a g t a a t a a t a g t t a t  
a g g a t g a t a a a t t g t a a t g t c t c a a c c a t t a a c a a g c t t g t c c a a a g a t g t c c t t t g a c c c a a t t c c c a t a c a t  
t a t t g t g c t c c a g c t g g t t t t g c g a t t t t a a a g t g t a g g g a c g a g g a g t t c a a t g g a a c a g g a a c a t g t a a a a t  
g t c a g t a c a g t a c a a t g t a c a c a t g g a a t t a a g c c a g t g g t a t c a a c t c a a t t a c t g c t g a a t g g c a g t t t g g c a  
g a a g g a g a c a t a a t g a t t a g a t c t a a a a c a t c a c a g a c a a t g c c a a a t c a t a a t a g t g c a g c t t a a t a a t c t  
a t a g a a a t t a a t t g t a c c a g a c c t g g c a a t a t a c a a g a a a a g t g t a a g a a t c g g a c c a g g a c a a g t g t t c t a t  
a c a a c a g g t g a a a t a a t a g g a g a t a t a a g a c a a g c a t a c t g t a a t a t t g c a a a a a a g a c t g g g a t a a t a t g c t a  
a g g g a a g t g g c t a t a a a a c t a a g g a a a g c c t t a a c a g c a a c a a g a c c a t a a c c t t t a a c t c a t c t g c a g g a g g g  
g a c c t a g a a a t t g c a a c a c a t a g t t t t a a t t g t a g a g g a g a a t t t t t c t a t t g t a a t a c a t c a g g c c t g t t t a a t  
a t a t c a t a t a a t a g t a c a g a g a a t a g t a c t t a a t g a a g g g a a t g a g a c t t a t a c a c t c c c a t g t a a a a t a a a a  
c a a a t t g t g a a a t g t g g c a a a g a g t g g g a c a a g c a a t g t a t g c c c c t c c c a t c a a a g g a a c a t t a c a t g t a g a  
t c a a a c a t t a c a g g a c t a c t a t t a a c a a g a g a t g g t g g g g a g a a t g a t a a t a a a c a g t a g t g a g g t c t t c a g a  
c c t g c a g g a g g a c a t g a g g g a c a a t t g g a g a a g t g a a t t a t a t a a g t a t a a a a t a g t a a a a t a a a a c c a t t a  
g g a g t a g c a c c c a c c a a g g c a a g g a g a a g a g t g g t g g g g a g a g a a a a g a g c a g g g a t c t g g g g c t g c t c t g g a  
a a a c t c a t c t g c a c c a c t a a t g t g c c c t g g a a t g c t a g t t g g a g t a a t a a t c t t a t a g a g g c a t t t g g g a g a a c  
a t g a c c t g g a t a g a a t g g g a a a g g g a a t t a a c a a t t a t a c t c a c a a a t a t a c a g c c t a a t t g a a g a a t c g c a g  
a a c c a g c a g g a a a g a a t g a a c a a g a c t t a t t a g c a t t a g a c c a a t g g g c a a g t t t g t g g a a t t g g t t g a c a t a  
t c a a g a t g g c t a t g g t a t a t a a a a a t a t t t a t a a t g a t a a t a g g a g g t t a a t a g g t t t a g a a t a g t t t t t g c t  
g t g c t t g c t a t a a a a t a g a g t t a g g c a g g g a t a c t c a c c c t t g t t g t t c a g g c t a t t a a t t t g c t t g a t a c g  
g t a g c a a t a g c a g t a g c t a a t t g g a c a g a t a g g g t t a t a g a a g t a g t a c a a a g a g c t t g t a g g g c t t t t c t c a a c  
a t a c c t a g a a g g a t a a g a c a a g g c g t a g a a a g a g c a t t g c c a t a a a t g g g a g g c a a g t g g t c a a a a g g a t g c a t g  
g c c g g a t g g c c t g a g g t a a g g g a a g a a t g a g a c a a c c a c t c c a g c a g a a g g a g t a g g a g c a g c a t c t c a a g a t  
t t a g c t a g g c a t g g a g c g a t c a c a a g t a g c a a t a c a c c a t c c a c t a a t g c t g c t t g t g c c t g g c t a g a a g c a c a a  
g a g g a a g a c t c a g a g g t a g g c t t t c c a g t c a g a c c a c a g g t a c c t c t g a g a c c a t g a c t t t t a a g g g c g c t t t t  
g a t c t c a g c t t c t t t t t t a a a a g a a a a g g g g g a c t g g a t g g g c t a a t t t a c t c c a a g a a a a g a c a a g a t a t c c t t  
g a c c t g t g g g t c t a t a a t a c a c a a g a t t c t t c c c a g a t t g g c a g g a c t a c a c a c a g g g c c a g g g a c t a g a c t c  
c c a c t g a c c t t t g g g t g g t g c t t c a a a c t a g t a c c a c t g g a a c c a c a g a g a t a g a g g a a g c c a a t a a a g g a g a g  
a a c a a c a g t t t a t t a c a c c c c a t c t g c c a g c a t g g a a t g g a g g a c g a g g a c a g a g a a g t g c t a g t a t g g a g a t t  
g a c a g t a g c c t a g c a g g a g a c a c t t g g c c g a g a g c t g c a t c c g g a c t t c t a c a a a g a c t g a

>#89 FJ389365 7344 nt

a t t c g g c t g a g g c c m g g g g a a r g a a m m r t a y a r a c t a a a a c a t w t a g t a t g g g c a a g c a g g g a g c t g g a y a g a  
t t t g c a c t t a a c c c c g g c c t c t t a g a a a c a g g a g a a g g w t g t c a g c a g a t a m t g r m a m a g t t g s a a c c a k c t c t c  
m a g a c a g g a a c a g a g g a r a t t a a t c a t t a t a t a a t a c a g t a g c a a c y c t c t a t t g t g t a c a t c a c a g g a t a g a r  
a t a a r a g a c a c c a a a g a a g c t c t a g a t g t a r t r g a a a a m t a c a a a g a a m a g t c a g c a a g a a a c a c a g c a g g c a  
g c a a g g a g t a c a g g a a t a a c a g c c a a g t t a g c c a a a a c t a t c c t a t a g t g c a g a a t g c a c a a g g g c a a a t g g t a  
c a y c a g g c c a t a t c a c c y a g g a c t t t a a t g c a t g g g t a a a a g t a a t a g a a g a a a g g c c t t c a g c c c a g a a g t a  
a t a c c c a t g t t t a c a g c a t t a t c a g a a g g a g c c a c c c c a c a a g a t t t g a a t a c c a t g c t a a a c a c c g t g g g g g g

catcaagcagctatgcagatgctaaaggataactattaatgaagaagctgcagagtgggataggatgcatccacca  
caggcagggcctcttccaccagggccagmtaagagaacccaggggaagtgatatagcaggaactaccagtaccctg  
caggaacaaataacatggatgaccagcaacccacctatycagtgaggagaactatataaaaagatggataatcctg  
gggttaaataaaaatagtaagaatgtatagccctgtcagcattttggacataaaacaagggccaaaagaacccyttc  
agagattatgtagatagrttttttaaaactttgagagctgarcaagccaccaggatgtaaaaaattggatgaca  
gacaccttgttgggtccaaaatgcgaatccagattgtaaaaccatcttaagagcattaggaccaggagctacatta  
gaagaaatgatgacagcatgtcaaggagtgggaggaccagccacaaagcaagagtgttagctgaggcaatgagc  
caggcaacargtgacagcagcaaacrtaatgatgcagaaaagcaattttaagggcccgcagaagaaatattaagtgt  
ttcaactgtggcaggggaaggacatctagccagaaattgcagggcccctaggaaaaagggctgttggaatgtgga  
caggagggacatcaaataaaagactgcacagaragacaggctgtggggggacagctaataagaagccctrttagac  
acaggrgcagatgatacagatattagaacaaataaaatccaccaggaaaatggaagccaaaatgatagggggaatt  
ggaggatttatcaaagtaaaacagtatgatgatatacatatagaatgarggraaaaaggtatagggacagta  
ttagtaggacctacacctgtcaacataattggaagaaatatgttgactcagattggytgtactttaaatttcca  
attagtcctattgaaactgtaccagtaaaaattaaagccagggaatggatggcccaaggggttaaacaatggccattg  
acagaagagaaaaataaaagcattaacagaaatttgtaatgaaatggaaaaggaagggaaaatttcaaagattggg  
cctgaaaatccatacaacactccaatatttgccataargaaaaargacagtactaaatggagaaagttggtagat  
ttcagagagctcaataaaaagaactcaagatttctgggaagtccaaytaggtatacctcatccckcgggggttaaaa  
aagaaraaatcagtaacagtagctggatgtgggagatgcatatttttcagttcccytacatgaagactttagaag  
tatactgcattcactataccagtagyaaataatgagacaccagggaytagatatcagtayaatgtgctycmcag  
ggatggaaaggatcaccagcaatatttcagagtagtatgaccargatcttagagccctttaggayaaraaatcca  
gaactggtgatctaycaatacatggatgatttatatgtaggatctgacttagaaatagggcagcatagagcaaaa  
atagaggagttaagarakcatctrytgarrtggggattyaccacaccagataaraaacatcagaaagaacctcca  
ttcctttggatgggataygagctccatcctgacaaatggacggtacaacctatacagctgccagacaaggaaagc  
tggactgtcaatgatatacaraaattagtgggaaaactaaattgggcaagycagatytatcaagggattaaagta  
aggcagctatgtaaactccttagggggggccaaagcactaacagacatagtaccactgactgargaagcagaatta  
gaattggcagagaacaggggagattctaaaagaacctgtacatggagtctactatgacccatcaaaagatttaata  
gcagaagtacagaaacaagggctygaccaatggacatatcaaatttatcaagagccatataaaaaatctgaaaaca  
ggaaagtatgcaaaaaggggggtctgcccacactaatgatgtaagacaattaacagaggcagtgcaaaaaatagcc  
acagaragcatagtaatatggggaaaagttcctaaatttaaactacctataaggaaaagagacatgggaattatgg  
tggacagaatattggcagggccacctggattcctgattgggagtttgtcaatacyccctcctctagtaaaatrtgg  
taycagtttagagacagarcccatakyaggagcagaaacttactatgtagatggggcagctaataagggaacaaaa  
ttaggaaragcaggatattgttactgacaaaggaaagcaaaargttatyaccatacaggaacacaacaaacaaaag  
gctgaattacatgcaattcagctagccttacargactcagggtcagaggtaaacatagtaacagaytcacaatat  
gcattaggaatcattcaagcacaaccagatagragtgaaatcagaattagtcfaatcaataatagarcagctrata  
aamaaggaaaggrtctacttarcatgggtaccagcacacaaaagggttggrgaaatgaacaagtagataaatta  
gtcagtagtggaatcagaaaagtactatttttagatggcatagataaaagcccaagaagaacatgaaagatatcac  
agcaattggaaagcaatggctagtgttttaatctgccaccggtagtagcaaaagagatagtggccagctgtgat  
aatgtcagctaaaaggagaagccatgcatggacaggttagactgtagtccaggaatatggcaattagattgtaca  
catttagaaggaaagattatcctggtagcagtccatgttagccagtggtatatagaagcagaggttatcccagca  
gaaacaggacaggaacagcatactttatattaaaatttagcaggaaggtggccagtaaaagtaatacatagac  
aatggcagcaattttaccagtaatgcagtaaaaggcagcttgttggtgggcaagtatcacacaagaatttggaatt  
ccctacaatcccaaagccaaggagtagtggaatctatgaataaagaattaaagaaaattattgggcaggtcaga  
gatcaagctgaacatcttaagacagcagtagatggcagtagttcattcacatttttaaaagaaaaggggggatt  
ggggggtacagtgcaggggaaaggataatagacataatagcatcagatctacaaactaaagaactacaaaaacaa  
attacaaaaattcaaaattttcggtttattacagggacagcagagaccaattttggaaaggaccagcaaaaacta  
ctctggaaaggtgaagggcggttagtaataacaagacaataacgaaataaaagtagtaccagaagaaaagcaaag  
atcattagggatrcatggaacagttttartaaaacatcatatryatatctcaaagaargctaaagrytggtcttat  
agacaccactatgaaagcaggcatccaagagtaagttcagaagtacacattccactaggagaagctaaaaatagta  
gtaagaacatatattggggctctgcatacaggagaaaaagactggcarttgggtcatggggtctccatagaatggagg  
cagggaaggtatagcacacaaatagatcctgacctagcagaccaaytgattcatctgcagtattttgattgtttt  
acagactctgcmataagacaagccatattaggacaaagagtttagacctagggtgtgaatatcaagcaggacataat  
aaggtaggatctytacaatatytggcactgcaagcatttagtaaaaycaaraaagagaaggccacctttgcctagt  
gttaggaaattaacagaagatgaacttaaaaatgaagctgttagacattttcctagaccttggtccatggctta  
ggacaatatatctataacacttatggagatacttgggaaggagttgaagccataataagaatgctacaacacttg  
ctgtttatccatttcagaattgggtgccaacatagcagaataggcatttagtcctctacggagaagagtaaggcta

gagccctggaatcatccrgggagtcagcctaaaactgcttgtaacaactgctattgtaaagtgtgctgctggcat  
tgtcaagtttgctttctgaacaaaggcttaggcattctccgcttcctcagacttggtgggtcacagtctattatggg  
gtaccagtggtggaagatgcagatactcctctatgttgatctgctcaagcacatagtagtgaagccat  
aatgtctgggcccacacatgcctgtgtacccacagatcccaaccacaagaaatgcttctgaaaaacgtaacagaa  
ccttttaacatgtggaaaaataacatggtagaacagatgaatgatgataatcagtttatgggatgaaagccta  
aagccatgtgtacagctaaccctctctgtgttactttaaactgtgctgatgtttgtcttaagaacagcactgct  
actaatgattgtcctaagaacagcactgggaataaacactgtgagtaatagtagtattacaaaagaaatgacaaactgc  
tctttcaatataaccacagaaataaaagataagcagaagaaagaatacgcgcttttttataaaacttgatatggtg  
caactggatggtagaatgactccttatgggttaataaaactgtaatgtctcagccattaaacaagcttgccaaag  
gtgtccttttgacccaattcccatacattattgtgctccagctgggtttgctgattttaaagtgaaggataagaat  
ttcaatggaacaggaacatgtaaaaatgttagttcagtacaatgcacacatggaattaagccagtggtatcaact  
caattactactgaatggtagtctagcagaagaagaatagtaattagaactgaaaacatctcagacaatgccaaa  
atcataatagtgcagcttaataaatccatagaaattaattgtaccagaccagtaacaatacaagaagaagtata  
agtcttgacctggacgggcttctatgcaacaggtgatgtagtaggagatataagacaagcacactgtaatgta  
agtagacaacaatggaatgacacgggtacagaaagtaactgcatcactacaaaagatctttaaaaaaggcaatata  
acctttaagccaccacaggaggggacctagaaatgacaacacatagttttaattgtagaggggaatttttctat  
tgtaatacatcagacttgtttaatatcagtacaacaaatagtagtaataatgatactatcacactcccatgtaagata  
aaacaaattgtgagaatgtggcagagagtgaggacaagcaatgtatgcccctcccattgcaggagaaattacatgc  
aggtcaaataattacaggactactattaacaagagatgggtgggggtggaggtaatcaaacaaatgaaaccttcaga  
cttgacaggagaaatatgagggacaattggagaagtgaattatataaagtataaagtagtaagattaaaccacta  
ggaatagcaccaccaaagtcaaggagaagagtggtggagagagaaaaaaggaggtttggggctgctctgga  
ctcatctgcaccactaatgtgcgctggaacactagttggagtaataratcttttrtagagatttgaggataacatg  
acctggatacaatgggaaagggaagtgcagcaattacacacaagaaatatacagactaattgaagaatcgcaaac  
cagcaggaaaagaatgaacaagacttattagcactggaccagtgaggcaagcttggtggaattgggttgacatatca  
aggtggctgtggtatataagaatattcataatgatagtaggaggggttaataggtttaagaatagttttgctgtg  
ctttctatagtaaatagagtttaggcagggatactcacctttatctttccagttgcttgatacaattgcaatagca  
gtagctaaactggacagataggggtatagaagtagcacaaagcagctggtagagcttttcttcacataacctagaagg  
ataagacaaggctttgaaagagctttgctataaatgggatgcaagatgtcaaaagaatggtccagagtaaggga  
aggatgagacgaaccccccaacacagcagatggagtaggagcagaagcagcagcagatggagtaggagcagcatct  
caggatttagctaggcatggagcactcacaaagcagcaatacagcatccaccaatgctgcttgctgctggctagaa  
gcacaacaggaggactcagaggtaggctttccagtcagaccacaggtacctttgagaccaatgacctttaagggt  
gcttttgatctcagcttcttttttaaaagaaaaggggggactggatgggctaatttactccaagcaaaagacaagat  
atccttgacctgtgggtctataatacacaaaggatacttcccagattggcagaattacacttcaggggccaggaatt  
aggtacccactgacctttgggtggtgcttcaaactagtagcaatggatccagcagaggttagaggaagccaataga  
ggagagaacaacagtctattacaccccatctgccagcatggaatggaagatgaagacagaaccgtgctggtatgg  
aagtttgacagtgccctagcacggagacacttagcccagagagctgcatccggagtagtattataaagactga

>#90 MH705151 7563 nt

atgggtgagagcgtcagtagtattaagcgggggaaaatttagatgcatgggagaaaattcggttaaggccaggggga  
aagaaacattataaaactgaaacatctagtagtgggcaagcagggagctggaaagattcgagtttaacctggcctt  
ttagactcagcagaaggctgtcaacaaataatggaacagttacaaccagctctcaagacaggatcagaagaactt  
acatcattatttaatacagtagcaaccctctattgtgtacatcaaaggatagatgtaagagacaccaaggaagct  
ttagataaaatagaagaaataaagagcaagcaaaagacacagcaggtagcagctgacacaggaaacagcaacaag  
gtcagtagcaaaattaccccataatacaaaaatacacaaagggcaaatggtatatcagagcttatcacctaggactttg  
aatgcatgggtaaaagcaatagaagaaaaggctttcagcccagaagtaatacccatgtttcacagcattatcagag  
ggagccgccccacaagatttaaatatgatgctgaacatagtggggggacaccaggcagctatgcaaatgttaaaa  
gataccattaatgaagaagctgcagaatgggatagggtagcatccagtagcatgagggcctattcaaccaggccag  
atgagagaaccaaggggaagtgcagatagcaggaactactagtagccctcaagaacaaataggatggatgacaagc  
aatccacctatcccagtgaggagaaatctataaaagatggataatcctgggattaaataaaaatagtaagaatgtat  
agccctgttagcatttttgacataagacaagggccaaaagaacccttcagagactatgtagataggttctttaaa  
actctcagagctgagcaagctacacaagaggtaaaagggttgatgacagaaaccttgctggtccaaaatgcgaat  
ccagactgtaagaccatttttaagagcattaggagcaggggctacattagaagaaatgatgacagcatgtcaggga  
gtgggaggaccggccataaagcaagggttttggtgaggcaatgagtcaagtacaacatacaaacataatgatg  
cagagaggcaatttttaggggcccagaaaagaatgattaaatgtttcaactgtggcaagaaggacacctagccaga  
aattgcagggcccctaggaaaaagggtgttggaatgtgggaagggaagacatcaaatgaaagaatgcacagaa  
agacaggctataggaggacagctaaaagaagctctattagatacaggagcagatgatacagtagtattagaagacata

aatttgtcaggaaaatggaaaccaagaatgatagggggaattggagggttttatcaaagtaaggcagtatgatcag  
atacttatagaaatttgtggaaaaaaggctataggtacagtatgtgtaggacctacacctgtcaacataattgga  
agaaatatgttgactcagattgggtgtacttttaattttccaattagtcctattgaaactgtaccagtaaaatta  
aagccaggaatggatgggtccaaagggttaacaatggccattgacagagaagagaaaaataaaagcattaacagaaatt  
tgtaaagaaatggaaaaggaaggaaaaatttcaaaaattgggcctgaaaatccatacaatactccagtatttgct  
ataaagaaaaaggacagcactaaatggaggaaattagtagatttcagagagctcaataaaaagaaccaggacttc  
tggaagttcaattagggataccacatccagcgggtttaaaaaagaaaaatcagtaacagtagatgtgggg  
gatgcataattttccagttcctttacatgaagacttcagaaagtatactgcattcaccatacctagatataacaat  
gagacaccaggaatcaggtatcagtacaatgtgcttccacagggatggaaaggatcaccagcaatatccaaagt  
agcatgacaaaaatcttagagcccttttagattaaaaaatccagaattagttatctatcaatacatggatgacttg  
tatgtaggatctgatttagaaataggacagcatagaacaaaaatagaggagttaagagatcatctattgagatgg  
gggtttactacaccagacaaaaagcatcagaaagaacctccatttcttggatgggatatgaactccatcctgac  
aaatggacagtccagcctatacagctgccaaacaagacagctggactgtcaatgatatacagaaattagtggga  
aaactaaattgggcaagtcaaatttatccagggttaaagtaagacaactgtgtaaactcctcaggggagccaaa  
gcactaacagatatagtaacactgactgaggaagcagaattagaactggcagagaacaggggagattctaaaagaa  
cctgtgcatggagtatattatgacccatcaaaagacttagtagcagaaatacagaaacaagggcaagaccaatgg  
acatatcaagtttatcaagagccattcaaaaatctgaaaacaggaaaaatatgcaagaaaaaggctctgctcacact  
aatgatgtaaggcaatttagcagaagtgggtgcaaaaagtgtccacagaaagcatagtaatatggggaaaaaccct  
aaattcagattaccatacaaaagagaaacatgggaagcatgggtggatggagtattggcagggtacctggattcct  
gaatgggagtttgtcaataccccctcctctagtaaaattatgggtaccagttagaaaaggaccccatattaggagca  
gagactttttatgtagatggggcagctaatagagagactaagctaggaaaagcaggggtatgtcactgacagagga  
agacaaaagggttgtttccctaactgagacaacaaatcaaaagactgaattgcatgcaatctacctagccttgacag  
gattcagggtcagaagtaaatatagtaaacagattcacagtatgcattaggaatcattcaggcacaaccagacaag  
agtgaatcagagctagttaatcaaatgatagagaagctaatagaaaaggaaaaagtctacctgtcatgggtacca  
gcgcaacaaggggaattggaggaaatgaacaagtagataaaactagttagtcttggtatcaggaagggtactgttttta  
gatgggatagataaagctcaagaagaacatgaaagatatcacagcaactggagagcaatggctagtgtttta  
ctgccacctatagtagcaaaggaaatagtagccagctgtgtataaatgtcaactaaaaggggaagccatgcatgga  
caagtagactgcagtcagggtatggcaattagattgcacacatctagaaggaaaaataatcatagtagcagtc  
catgtagccagtggttatatagaagcagaagttatcccagcagaaacaggacaggagacagcatactttctgcta  
aaattagcaggaagatggccagtaaaagtaatacacacagacaatggcagcaatttcaccagcgctgcagttaaa  
gcagcctgttgggtgggcaaatatccaacaggaatttgggaattccctacaatcccaaagtcaaggagtagtgga  
tctatgaataaagaattaaagaagatcatagagcaagtaagagagcaagctgaacaccttaagacagcagtaaaa  
atggcagttattcattcacaatttttaaaagaaaaggggggattggggggtacagtgagggggaaagaataatagac  
ataatagcaacagacatacaaaactaaagaattacaaaaacagattacaaaaattcaaaattttcggggtttattac  
agggacagcagagacccaatttggaaaggaccagcaaaactactctggaaagggtgaaggggcagtagtaatacag  
gacaatagtgcataaaaggtagtaccaagaagaaaagcaaaagatcattagggatacatggaacagtttagtaaaa  
catcatatgtatgtttcaaagaaagctcaaggttgggttttatagacatcactatgaaagcaggcatccaaaaata  
agttcagaagtacacatcccactaggtgatgctaggatagtggtgaagaacatattgggggtctgcatacaggagaa  
agagactggcacttgggtcatggggcctccatagaatggaggcagagaagatatagcacacaaatagatcctgac  
ctagcagaccaatttaattcatctgcattattttgactgttttgcagactctgccataagaaaagccatcttagga  
gaaatagttagacctaggtgtgaatatcaagcaggacataaccaggtaggatctctacaatatttggcactgaaa  
gcattagtaaaacaaaaaaggggcaaaagccactttgcctagtgttaagaaattaacagaagatctgttagaagag  
ctgaagcatgaagctgttagacatttccctaggccgtgggtccatggattaggacaacatatctataaacacctat  
ggggatacttgggaaggggttgaagctataataagaatgttgcaacaactactgtttgttcatttcagaattggg  
tgccaacatagcagaataggcattgttcgaggggagaagagtcaggctagagccctggaatcatccgggaagttag  
cctaaaactgcttgaataaatgtcattgtaaaaagtgttgctatcattgccaagcttgctttctcaagaaaggc  
ttaggcattctcctatggcaggaagaagcgggagaccccgacgaagaactcctcagggcagtaaggatcatcaaat  
cctatacaaaaaggctacaggaaacttgtgggtcacggtatattatggggtagctgtgtggaagacgcagagacc  
accctattttgtgctcagatgctaaagcatatgatacagaagtgcataatgtctgggctacacatgcctgtgta  
cccacagaccccagcccacaagaaatagacctggaaaatgtaacagaaaaagtttaacatgtggaaaaataacatg  
gtagagcagatgcataatggatataattagtctatgggatcaaagccataagccatgtgttaaagttaaccctctc  
tgtgttacttttagattgtagccatagcatcaccaccatcaatagcaccaccatcaatagcaacagcacaagtgat  
atatcaggagaaataaaaaactgctctttcaatatgaccacagaactaagagataagacaaagaaagtatattca  
cttttttatagacttgatgtggtacaaattgatgaaaaataatggtagtaataacagtgagtatagactaataaat  
tgtaataacctcagccattacacaggcttgtccaaaggtaacctttgagccaattcccatacattattgtgcccc

gctgggttttgcgattctaaagtgtgaaggaggagaattttcaatggaacagggatatgcaggaatgtcagcacagta  
caatgcacacatggaattaagccagtagtatcaactcaactgctgttaaattggcagcctagcagaaggagaggtta  
gtgattagatctgaaaacttcacaaacaatgccaaaatcataatagtagttaaattgagtcgtacaaaattaat  
tgtaccagacctaacaacaatataagaagaagtttccgtataggaccaggacagacatttctatgcaacaggtgaa  
ataataggaaatataagacaagcacattgtaatgtcagtaaaacagactgggagagcactttacaaaaggtagct  
gcacaattaggcaaagaattttaaaccacacacaatctttgctaactcctcaggaggggatatagaaattaca  
acacatagtttttaattgtagaggggaatttttctattgcaatacatcagacctgtttaatagcacttggcggaaa  
ctggcaaattggcacttggagcaacataaataatgcaacgtcaaattgacactataactctccaatgcaaaaataaag  
caaattgtaaacatgtggcagagagtaggacaagcaatgtatgccctcccatccaaggagtaatacagtggtgta  
tcaaacattacaggactactcttaacaagagatgggtgggagtagtaacagggcaaattgagaccttcagacctgga  
ggagagagatatgagggacaattggagaagtgaattatataagtagtaaaaattgaaccactaggagta  
gcacccaccagggcaaggagaagagtggtggagagagaaaaagaggaatttgggggtgctctggaaaaactcatc  
tgcaccactactgtgccctggaactctagttggagtaatagatctcaggaggaatatggaacaacatgacctgg  
ctgcaatgggaaaaagaatttagcaattacacagacataatatatagcttacttgaagaatcacagaaccagcag  
gaaaagaatgaacaagacttattggcattggacaagtggtggcaagtctgtggaattgggttgacataacaaattgg  
ctatgggtatataaaaaatatttataatgatagtaggaggttaataggattaagaatagtagtttctgtgtgctttct  
ataataaatagagtttaggcagggatactcacctctctcgtttcagtacctgtggaaccttctgttatattgggtt  
cgggaactgaaaatttagtgctattaatttggcttgataccacagcagtagcagtagctgagtgagacagataggatt  
atagaaataggacaaagacttggctagagctattctcaacatacctagaagaatcagacaggggttagaaagggtt  
ttgctataaatgggtggcaagtgggtcaaaaagcagcatagtaggatggcctgatgttagggaaagaatgagacga  
tgtcctgaagttagggaaagaatgagacgagctcctccagcagcagaaggagtaggagcagtgctctcaagattta  
gataagcatggagcaatcacaagcaggaatacagcaactaccaatgctagtgtgcctgggtggaagcacaagag  
gaagaaggggaggttaggctttccagtcaggccacaggtacctttaagaccaatgacttataaggcagctgtggat  
ctcagccacttttttaaaagaaaaggggggactggatgggttaatttgggtcccagaaaagacaagacatccttgat  
ctgtgggtctacaacacacaaggcttcttcccagattggcagaattacacaccagggccagggccttagattccca  
ataacatttggatgggtgctttaagctggtaccagttgatccagctgaagttagaaggaggtactgaaggagagaac  
aacagcttattacaccctatatgccaacatggagcggaggacactgagagagaagtattaaagtgggaagtttgac  
agtcgcctggcattaaaacacagagctcaagagctgcatccggagttctacaaagactgctga

>#91 KF716478 7446 nt

atgggtgagagcgtcagtagtattgagtggtggacaattagataggtgggagaaaattcgggctaaggccaggggga  
aagaaaaatatagactaaaacatctagtagtgggcaagcagggagctggatagattcgcacttaaccctagcctt  
ttagaaacaacagaaggatgtcaacaaatattagaacagttacaaccagctattaagacaggaacagaagaactt  
agatcattatataatacagtagcaacctctattgcgtacatcgaaaagatagaggtaaaagacaccaaggaagct  
ctagataaaatagaggaactacaaaagaaaagcaagcaaaaagacacaaacaggcagcggctgacacaggaagtaac  
agcagcacggtcagccaaaattaccctatagtgcaaaatgtacaagggcaaattgatacaccagcccttgtcacct  
aggactttgaatgcatgggtaaaagtaatagaagaaaagggtttcaatccagaagtaatacccatgttctcagca  
ctatcagaaggagccaccccacaagatttaaatatgatgctaacaatagtggtgggggacaccagggcagctatgcaa  
atgctaaaagataccatcaatgaggaagctgcagaatgggacaggttacatccagtagatgcagggcctgttgca  
ccaggccagatgagagaaccaaggggaagtgatatagcaggaactactagtaacactcaagaacaaatagcatgg  
atgacaggcaatccacctatcccagtgaggagacatctataaaagatggataatcctgggattaaacaaaatagta  
agaatgtatagtcctgttagcatttttgatataaaacaaggggccaaaagaaccttcagagactatgtagatagg  
ttctttaaagctctcagagctgaacaagctacacaggaggtaaaagggttgatgacagaaacattactggtccaa  
aatgcaaatccagattgtaagtctattttaagagcattaggatcaggggctacattagaagaaatgatgacagca  
tgccaggagtggtggaggacccagccataaagcaagggttttggtgaggcaatgagtcaagtccaacagccaaac  
ataatgatacagagaggcaatttttagaggccagaaaaagattaagtgtttcaactgtggcaaagaaggacaccta  
gccagaaattgcagggcccctagaaaacagggctgttggaatgtgggaagggaaggacaccaaataaagactgc  
actgagagacaggctatagggggccagctaaagagaagctctattagatacaggagcagatgatacagtattagaa  
gacataaatttgccaggaaaatggaaacccaaaatgatagggggaattggaggttttatcaaagtaagacagtat  
gatcagatactcatagaaatttgtggaaaaaaggctataggtacagtggttgtaggacctacacctgtcaacata  
attggaagaaatagttgacctcagattggctgtacttttaattttccaattagtcctattgaaactgtaccagta  
acattaaagccaggaatggatggcccaagaatttaacaatggccactgacagaagaaaaataaaagcatttaaca  
gaaatttgtacagaaatggaaaagggaaggaaaaatttcaaaaattgggcctgaaaatccatacaatactccagta  
tttgctataaagaaaaaagacagcactaaatggagaaaattagtagatttcagagaacttaataaaaagaactcaa  
gacttttgggaagttcaattaggaataccgcacccagcgggttaaaaaagaaaaaatcagtaacagtagtagat  
gtgggggacgcataatttttcagttcccttagataaaaaatttttagaaagtatactgcattcaccatacctagtagta

aacaatgagacaccaggaatcaggtatcagtacaatgtgcttccacagggatggaaaggatcacccggcaatattc  
cagagtagcatgataaaaatccttagagcccttttagagcaaaaaatccagaaataattatctatcaatacatggat  
gacttgtagtgaggatctgatttggagatagggcagcatagagcaaaagtagaagaattaagagatcatctatta  
agttgggggatttaccacaccagacaaaaagcatcagaaggaacctccatttctttggatgggatatgaactccat  
cctgacaaatggacagtagcagcctatacagctgccagaaaaagaaagttggactgtcaatgatatacagaaatta  
gtgggaaaaactaaatttgggcaagtcaaatttatgcagggattaaggtaaagcaactgtgtgaagctcctcagagga  
gccaaagcactaacagatatagtagcactgactgaggaagcagaattagaattggcagagaatagggaaattcta  
aaagaccctgtgcatggagcatattatgacccctcaaaagaattaatagcagaaatccaaaaacaagggcaggat  
caatggacatatcaaatttatcaagagccatttaaaaaacctaataaacaggaaaatatgcaagaaaaaggtctgct  
catactaatgatgtaaaaacaattaacagaagtgggtgcaaaaagtggtccaggaaagtatatgtcatatggggaaag  
acccttagatttaaaactaccatacaaaaagagacatgggaaacatggtggatggactattggcaggctacctgg  
attcctgaatgggagtttgtcaataccctcccttagtaaaattatggtaccagttagagaaagaccccataata  
ggagcagagactttctatgtatagatggggcagccaataggggagactaagctaggaaaagcagggtatatcactgat  
aaaggaagacaaaaggttgtttccctaactgagacaacaaatcaaaagactgaactacatgcaatcaatctagcc  
ttgcaggattcaggatcagaagtaaatatagtaacagactcacaatatgcattaggaatcattcaggcacaacca  
gacagaagttagtcagagtttagtcaatcaaataatagaaaagctaataaggaaaggacaaagtctatctgtcatgg  
gtaccagcacacaaggggatttggaggaaatgaacaagtagataaattagtcagctctggaatcaggaaggtacta  
tttttagatgggatagataagggtcaagaagaacatgaaagatatcacagcaattggagagcaatggctagtgat  
tttaatctgccacccatagtagcaaaaggaaatagtagccagctgtgtataaatgtcagctaaaagggggaagccatg  
catggacaagtagactgcagtcacagggtatgtggcaatttagattgcacacatctagaaggaaaagtaattctggta  
gcagtcacatgtagccagtggttatatagaagcagaagttatcccagcagaaacaggacaggagacagcatacttt  
ctgctaaagctagcaggaagatggccagtaaaagtagtacacacagacaatggtagcaacttcaccagcgctgca  
tttaaagcagcctgttgggtgggcaaatgtccaacaggaatatgggattccctacaatccccaaagtcaaggagta  
gtagaatctatgaataaggaattaaagaaaaatcataggacaggtaagagatcaagctgaacaccttaagacagca  
gtacaaatggcagtatctcattcacaattttaaaagaaaaggggggattggggactacagtgccaggggaaagaata  
atagacataatagcaacagacatacaaaactagagaactacaaaaacaaattacaaaaattcaaaattttcgggtt  
tattacagggacagcagagagccactttggaaaggaccagcaaaaactactctggaaaggagaaggggagcagtggt  
atacaggacaataatgatataaaaggtagtgccaaggagaaaagtaaaagatcattaaggatacatggcacagttta  
gtaaaacatcatatgtatgtctcaagaaaagctaagattggcattatagacatcactatgaaagtaggcatcca  
aaagtaagttcagaagtgcacatcccactaggggaggctagaatagtagtaagaacatatattgggggtctgcataca  
ggagaaaaggactggcaatttgggcatgggtctccatagaatgggagactaaaaagatatagcacacaaatagat  
cctgacctggcagatcaactaatctcatctgcattatttttaactgtttttcagaatctgccataaggagagccata  
ttaggacaagtagtttagccctagttgtgaataccaagcaggacataacaaggtaggatccctgcaatatattggca  
ctgaaagcactagtaacaccaacaaggacaaaagccacctttgcctagtgttaagaaactaacagaagatctgtta  
gaagagcttaagcatgaagctgttagacattttccttaggccatgggtccatggactaggacaacatatctatgaa  
acctatggggacacttgggaaggagttgaagctataataagaattttacaacaattactgtttgttcatttcaga  
atcgggtgccacatagcagaataggcattaacattcgcaggagacgaggcaggctagagccctggaaccatcca  
ggaagtgcagcctgcaaccgcttgttaataagtgttactgtaaaaagtggtgtttcactgtcaagcgtgctttctg  
aacaaggtcttaggcatctccgctacagacaaattgtgggttactgtctactatggggtacctgtatggaaagac  
gcagagaccaccttattttgtgcatcagatgcgaaagcatatgagaaagaatgcacaatgtctgggtacacat  
gcctgtgtacctacagaccccaaccacagaagtagctttggaaaatgtgacagaagagtttaatatgtggaaa  
aataacatggtagaacagatgcagacagatataatcagtcctatgggaccaaaagcctaagccatgtgtagagtta  
accctctctgcgtcactttggagtgtagcaatatcaacagcaccaataacaccgccaccaatttcaccaatttc  
atgggagaagacataaaaaactgctctttcaatatgaccacagaattaagggtataaggagaagaaagtatatcca  
cttttctataaaagtggatataacaccattggaaaacagcaacgaaactaagtatagggttaataaattgtaatacc  
tcagccattaaacaagcctgtccaaaggatccctttgagccaattcccatacattattgtgctccagctggtttt  
gcgatccataaagtgtagagatgaggagttcaatggaacaggggccatgcaaaaatgtcagcacagtagcaatgcaca  
catggaatcaagccagtagtatcaactcaactactattaaatggcagtcagcagaaaagaaggtaatgattaga  
tctgaaaatttcacaaacaatgctaaaaacatcatagtacaatttaataagtcagtagaaattaattgtaccaga  
cctaacaacaacaccagaaaaagtgtagatataggaccaggacgagcattctatgcaacagatatataatggggac  
ataagatgggcatattgtaatgtcagtagatcagaatggaaggaaactttacaacaggtagtcaaacaattagga  
aaccattggaataaaacaatacactttaataattctgcaggaggggatttagaaattacaacacatagttttaat  
tgtggaggagaattttttctattgtatacatcaagcctgtttaatagtagtacttgggtatatggtaatggaagctgg  
gggtcaaatagcacgggggttaaatagtagcaatgataaataatactattttcagtgataccataattcttcaatgc  
agaataaagcaaatataaatatgtggcagagagcaggacaagcaatatatgccctcccatcaaaggagtaata

agctgtagatcaaacatcacaggactaatattaacaagagatgggtgggagtaacagcaatgcaagtacaaatgga  
agtgaaccttcagacctggaggaggagatatgagggacaattggagaagtgaattatataagtataaagtagta  
aaagttgaaccactaggaatagcaccctccaaggcaaggagaagagtggtggcgagagaaaaaagaggaatttgg  
ggctgctctggaaaactcatctgccccactactgtgccttggaaactctagtgtggagtaataaaagttacagtga  
atatgggataacatgacctggctgcagtgggataaagaaattagcaattacacagacctaatatatgggctaatt  
gaagaatcgcaaaaccagcaggaaaagaatgaactagacttatttagcattaaacaagtgggcagagctgtggaat  
tggtttgacttatcaaactggctgtggtatataagaatatattataatgatagtaggaggcttaataggattaaga  
atagtttttggctgtgctttctataataaatagagtttaggcagggatactcacctttgtcgttccaggctattagt  
ttgcttgataccatagcaatagtagtagctggctggacagatagggctatagaaataggacaaggaattggtaga  
gctatcctcaacatacctagaagaatcaggcagggcttagaaagggctttgtgtgaaatgggtagcaagtgggtca  
aaaagcagcatagtgggatggcctcaggttagggaaagaatgagacgagctcctccacaagctcctccaactcct  
ccagcagcaaaaggagtaggagcagtatctcaagatctagagaaacatggagcaatcacaagcagtaataataat  
caccgcagttgcacctggctggaagcgcaagaggaagaggaggaggtaggctttccagtcaggccacaagtacct  
ttaaggccaatgacttacaagggagctcttgacctcagccactttttaaaagaaaaggggggactggatgggcta  
gtttactccaagaagagacaagagatccttgatctgtgtgggtatacacacacaaggctatttccctgattggcag  
aattacacaccagggccaggggtcagatacccaactaacatttggatgggtgttcaagctagtaccagtagatcca  
gaggaagtagagaaggctaattgagggagagaacaatagcctgttacaccctgtgtgccaaacatggaatggatgat  
gaagagagagaaacattgatattggagatttgacagccacctggcttttaaacacagagcccaagagttacatccg  
gagtactacaagaactgctga

>#92 AJ320484 7419 nt

atgggtgcgagagcgtcagtatattaagcgggggaaaatttagatgcatgggaaaaaattcggttacggccaggagga  
aagaaaaatatagactgaaacatatagtatgggcaagcagggagttagaacgattcgcacttaatcctggcctt  
ttagagacatcagaaggctgtaacaaataataggacagctacaaccagctgttcagacaggatcagaagaactt  
aatcattattttaatacagtagcaaccctctattgtgtacatgagaggatagaggtaaaggacaccaaggaagct  
ttagaaaaaatagaggaagaacaagccaaaaagtaagaaaaaagcacagcaagcaacagctgacacaagaacagc  
agccaggtcagccaaaattatccttatagtgcaaaacctacagggacaaatgatacaccaggccatatcacctaga  
actttgaatgcatgggtaaaagtaatagaagagaaggctttcagcccagaagtaatacccatgtttacagcatta  
tcagaaggagccaccccgcaagacttaaacaccatgctgaacacagtaggggggcatcaagcagccatgcagatg  
ttaaagagagaccatcaatgaggaagctgcagaatgggataggtacatccaccgcaggcagggcctgttgcacca  
ggccagatgagggaaaccaaggggaagtgatatagcaggaactactagcaccttcaggaacaaatagggtggatg  
acaagcaatccgctgtcccagtaggagagatctataaaagatggataatcctgggggttaataaaaatagtaaga  
atgtatagtccctgtcagcatttttgacataagacaaggtccaaaggaaaccttttagagattatgtagatcggttc  
tataaaactctaagagccgagcaagcttcacaagatgtaaaaaattggatgaccgaaaccttgttgggtccaaaat  
gcaaacccagattgtaaaactatcttaaaagcactgggaccaggggctacattagaagaaatgatgacagcatgt  
cagggagtagggggaccagtcataaagcaagagttttggctgaggcaatgagccaagcaacaaatttgaatgggt  
gccgcaatgatgcagagaagcaattttaagggcccaaggaaaattgttaagtgtttcaactgtggcaaaagaagg  
cacatagcaagaaattgcaaggctcctaggaaaaagggtgttggaaatgtggcagtgaaggacaccaaatgaaa  
gattgcaactgaaagacaggctatagggggacagctaaaggaaagctctattagatacaggagcagatgatacagt  
ttagaagacataaatttgccaggaaaaatggaacccaaaaatgatagggggaattggagggttttatcaaagtaaga  
cagtatgatcaaataccatagaaatctgcggatataaagctataggtacagtattaataggacctacacctgtc  
aacataattggaagaaatttgttgactcagattggctgcactttaaattttccaattagtcctattgaaactgta  
ccagtaaaaattaaagccagggtggtggccaaaagttaaacaatggccattgacagaagaaaaaataaaagca  
ctaacagaaatttgtgcagacatggaaaaagaaggaaaaatttcaagaattgggcctgaaaatccatacaatact  
ccagtatttgccataaagaaaaaagacagtactaagtggagaaaaattagtagatttcagagaacttaataagaga  
actcaagatttctgggaagttcaactaggaataccacatcctgcagggttaagaagaaaaaatcagtaacagta  
ctggatgtgggtgatgcatatttttcagttcccttagatatagacttttagaaagtatacagcattcaccatacct  
agtacaaacaatgagggcaccaggaattagatatcagtacaatgtgcttccacagggtggaaggatcaccagca  
atattccaatgtagcatgacaaaaatcttagaaccttttagaaaacaaaaatccagaaatagttatctatcaatac  
atggatgatttgtatgtaggatctgacttagaaatagggcagcatagaacaaaaatagatgaattaagggaacat  
ctattgaggtggggacttatcacaccagacaaaaaacatcagaaagaacctccatttctttggatgggttatgaa  
ctccatcctgataaatggacagtgcagcctataaagctgccagaaaaagaaagctggactgtcaatgatatacag  
aagttagtgggaaaaattaaattgggcaagccagatttatccaggaattagagtaaaaacacttatgtaaactcctt  
aggggagccaaagcactgacagaagtaataccactgacaaaagaagcagaattagaactggcagaaaaacaaggaa  
attctaaaagaaccagtacatggagtgattatgacccatcaaaagacttaatagcagaagtacagaaacaaggg  
caagaccaatggacatatcaaatttatcaagagccatttaaaaaatctgaaaacaggaaagttatgcaaaaatgagg

agtgccacactaatgatgtaaaacaattaacagagggcagtgcaaaaaatagcccaagaatgcatagtaatatgg  
ggaaagactcctaatttagactacccatacaaaaggaaacatgggaagcatggtggaaagaatattggcaggcc  
acctggattcctgagtgaggagttgtcaatacccccccttagttaaattatggtaccagttagagaaggaaacc  
atactaggagcagaaactttctatgtagatggggcagctaatagagagaccaaattaggaaaagcaggatatgtt  
actaacaagggaagacagaaagttgtctctctaactgacacaacaaatcagaagactgagttacaagccattaat  
ctagctttgaggattcgggattagaagtaaacatagtaacagattcacaaatgcattaggaatcattcaggca  
caaccagataaaagtgaatcagagttagtcagtcacaataatagagcagttataaaaaaggaaaaggtctaccta  
gcatgggtaccagcacacaaggggattggaggaaatgagcaagtagataaattgggtcagtaattggaatcaggaaa  
gtattatttttggatggaatagataaggctcaagaagaacatgagaaataccacaacaattgggagagcaatggct  
agtgattttaacctgccacctgtggtagcgaaagaatagtagctagctgtgataaatgtcagctaaaaggagaa  
gccatgcatggacaagtagactgtagtccaggaatatggcaattagattgtacacatctagaaggaaaagttatc  
ctggtagcagttcatgtagccagtggtatatagaaagcagaagtgatcccagcagaaacaggggcaggaaacagcc  
tactttatctaaaatttagcaggaagatggccagtaaaagtagtacatacagacaatggcagcaatttcaccagt  
tctgcagttaaggctgcctgttgggtgggcaggcattaagcaggaatttgggaattccccacaatccccaaagtcaa  
ggagtagtggaatctatgaataaagaattaaagaaaattataggacaggtgaagagatcaagctgaacatcttaag  
acagcagtacaaatggcagtatcattcacaaattttaaaagaaaaggggggattggggagtagcagtgaggggaa  
agaataatagacataatagcaacagacatacaaaactacaaaattacaaaaacaaatcataaaaattcaaaatttt  
cgggtttattacagggacagcagagatccaatttggaaaggaccagcaaaagcttctctggaaaggtgaaggggca  
gtagtactacaagataatagtgacataaaggtagtaccagaagaaaagtaaaagatcattaggggatacttggaaa  
agtttagtaaaacaccatatgtatgtttcaaagaaagctcaaggatggttgtatagacatcactatgacagccct  
caccacaaaataagttcagaagtagacatcccattaggagacgctagactggtagtaaaaaacatatggggcctg  
catacaggagaaaagagaatggcatctgggtcaaggagtctccatagaatggagaaaaaggagatatagcacacaa  
gtagaccctggcctagcagaccaactaattcatatgtattattttgattgttttgcagaatctgctataagaaaa  
gccatattaggacaattagtttagtcctagggtgtgaatatcaagcaggacataacaaggtaggatccttacagtat  
ttggcactaacagcattaataaaaaccagaaaaaacaagccacctttgcctagtgttaggaagctaacagaagat  
cttttagaggaacttaagagttaggctgttagacattttcctaggatatggctccatggattagggcaatatatc  
tatgaaacttatggggatacatgggcaggagttagaagctctaataagaaccctgcaacaactactgtttattcat  
ttcagaattgggtgtcaacatagcagaataggcattattcaacagagaagaccaagattagagccctggaaccat  
ccaggatgtcagcctaggacttcttgaacaattgctattgtaaaaagtgttgctatcattgccaaaaatgcttc  
ttaacgaaaaggcttaggcattctcagttgcagagaagaagtgggtcacagtgatttatggggtacctgtgtgaaa  
gaagcaacaaccactctattttgtgcatcagatgctaaatcatataaaacagaggtagcataatatctgggctaca  
catgcctgtgtaccaacagacccccacccagagaaatagaactggaaaatgtcacagaaaaactttaacatgtgg  
aaaaataacatggtggagcagatgcatgaggatatcatcagtttatgggatcaaagcctaaaacatgtgtaaaa  
ttaacccactctgtgtcactttaactgcactgatgcaaggaggaatgagactaggaataattacaggaatg  
gaaacaatgatcaaatagaaatgaaaaactgctctttcaatataaccacaaaattaatagataagaagaagcaa  
gtacatgcacttttttatagacttgatgtggtacaaatagataatgatactagtaaatagcaactatagcaactat  
agattaataaattgcaatacctcagccattacacaggcttgtccaaaggtaacttttgagccaattcccatacat  
tattgtgccccagctggttttgcaattctaagtgtagagataagaagttcaatggaacaggaccatgcaaaaat  
gtcagcacagtagaatgcacacatggaattaggccagtagtgtcaacccaactgctgttggaatggcagtagca  
gaagaagagataataattagatctgaaaatctcacaaacaatgctaaaacctaatagtacagcttaatgagctc  
gtagaaatcaattgtacaaggccctactacaaccagataagacaaagaacatctataggacaagggcaagcactc  
tatacaacaagagtaacgggagatataagaaaagcatattgcaatattagtaaaagcaggatggaataaaaacttta  
cagcaggtagcaaaaaaattaggagacctttaaaccagacaacaataatttttaaacctcctcgggaggagac  
ccagaaattacaacacacagctttaattgtggagggggaatttttctactgcaatacatcaaaactgtttaacagt  
gcatggaatgacagtacatggaatatagggaataataacagggtcagataatgagacaatcattatcccatgc  
agaataaaaacaattataaacatgtggcaggggagtaggaaaagcaatgtatgcccctcccatcgaggatggatc  
aattgtgcatcaaatattacagggctcttactggtaagggatgggtggtggtgcaaatgatagtcagaacgagacc  
ttcagacctcaaggaggagatatgagagacaattgggagaagtgaattatacaagtataaagtagtaaaaaattgaa  
ccactaggaatagcaccaccaaggcaagagaagagtgggtggaaagagaaaaagagggaagttgggggtgctct  
ggaagacacatttgcaccactactgtgccctggaactctagtggagtaataaatctatagatgacatttgggaat  
aacatgacctggatggagtgggaaaaagaattgacaattacacaggtgtaatatagattaattgaggaatcg  
caaaccagcaagaaaaagaatgaacaagaactattgcaattggacaaatgggcaagtttgtggaattggttagc  
atacaaaaatggctgtggtatataaaaaatattcataatgatagtaggaggcttaataggggttaagaatagtttt  
actgtgctttcttagtaaatagagttaggcagggatactcacctctatcgtttcagggtatttagcttgtttaac  
gctacagcagtagcagtagctgaggggacagatagggttatagaagtagtacaaagatttttttagaggtattctt



aacgtacccacacgaataagacagggccttggaaggcggttactataaatgggtggcaaatgggtcaaaaagtaaa  
attgggtggcctgctgtaagggacagaatacaaagaactagtccagcagcagaaggggtgggagcagcatctcga  
gacctggaaaaacatggggcaatcacaagtagcaatacagcagagactaatcctgactgtgcctggctagaagca  
caagaagaggaagaggaggtgggttttccagttagacctcaggtaccgttaagaccaatggcttacaaggcagct  
tttgatctaagccactttttaaaagaaaaggggggactggaagggttaatttactccaagaaaagacaagaaatc  
cttgatctttgggtctaccacacacaaggctatttccctgattggcaaaactacacaccagggccagggttaga  
taccactgacctttgggttggtgcttcgagctagtaccagtggtccagaggaggtagaagaggccaataaagga  
gagaacaactgcttggttacaccctatgagccagcatggaatggaggaccggagagagaggtgttagtgtggaga  
tttaacagcagactagcatttgaacacaaggcccgaatacagcatccggagttctacaagactgctga

>#93 KT200357 7392 nt

atgggtgcgagagcgtcagtatattaagcgggggagaattagatagatgggagaaaattcgggttaaggccaggggga  
aagaaaaaatataggttaaaacatatagtatgggcaagcaggggagctagaacgattcgcagtcaatcctggcctt  
ttggagacatcagaaggctgcagacaaatactgggacagttacaaccgtcccttcagacaggatcagaagaactt  
agatcactatataatacagtagcaaccctctattgtgtacatcaaaagatagatgtaaaagacaccaagggaagct  
ttagacaaggtagaggaagagcaaaaacaaaagcaagaaaagggcacagcaagctgcagctggcacaggaaacagc  
aaccaggtcagcgtcagccaaaattaccctatagtgacagaccttcaggggcaaatggtacatcaggccatatca  
cctagaactttaaatgcatgggtaaaagtggtagaggagaaggctttcagcccagaagtaatacccatgttttca  
gcattatcagaaggagctaccccacaagacttaaacaccatggttaaacacagtggggggacatcaagcagccatg  
caaatgctaaaagagaccatcaatgaggaagctgcagaatgggatagattgcatccagtacaggcagggcctgtc  
gcaccaggccagataagagaaccaaggggaagtgcataagcaggaactactagtacccttcaagaacaaatagca  
tggtatgacacataatccacctatcccgttagggagaaatttataaaagatggataatccttgggattaaataaaata  
gtaagaatgtatagccctgtcagcattctggacataagacaaggaccaaaggaaaccttttagagactatgtagat  
cggttctataaaaactctaagagctgaacaagcttcacaggatgtaaaaaattggatgacagagaccttgtagtc  
caaaatgccaaccagattgcaagactattttgaaagcactgggaccagcagctacactagaagagatgatgtca  
gcatgccaaaggagtgggggggcccgccataaagcaagagttttggctgaagcaatgggccaataacaaatata  
gctaccataatgatgcagaggggcaattttaagaacccaaaaaggactgttaagtgtttcaattgtggcaaggaa  
ggacacatagccagaaattgcagggcccctaggaaaaaaggctgttggaatgtggaagggaaggacaccaaatg  
aaagattgcactgagagacaggctgtaggggggcaactaaagggaagctctattagatacaggagcagatgataca  
gtactagaagaataaatttgccaggggaaatggaaacccaaaatgatagggggaattggagggttttatcaaagt  
agacagtatgatcaggtacccatagaaatttagtgggcataaaagccataggtacagtatttagtaggacctacacct  
gtcaacataattggaagaaatctgttgacacagattggatgcactttaattttccattagtcctattgaaact  
gtaccagtaaaattaaagccagggtggtggcccaaaagttaaacaatggccattgacagaagaaaaattaaat  
gcattaatagaaatttgtgcagaaatggaaaaggaaggaaaaatttcaaaaattgggcctgaaaaatccatacaat  
actccaatatttgccataaagaaaaaagacagtactaaatggagaaaaattggtagatttcagagaacttaataag  
agaactcaagacttctgggaaattcaattaggaataccacatccttcagggttaaaacagaaaaaatcagtaaca  
gtattggatgtgggtgatgcataatttttcagttcccttagataaaagacttttaggaagtatactgcatttaccata  
cctagtgtgaacaatgagaaaccagcaattagatatcagtacaatgtgcttcacagggatggaaaggatcacca  
gcaatattccaaagtagcatgacaaaaatcttagagccttttagaaaaacaaaatccagacatggttatctatcaa  
tacatggatgatttgtatgtcggatctgacctagaaatagagcaacatagaacaaaaatagaggaactgagacaa  
catctgttgaggtgggggtttacaacaccagataaaaaacatcagaaagaacctccattccttggatgggttat  
gaactccatcctgataaatggacagtagcctataaagctgccagaaaaggacagctggactgtcaatgacata  
caaaaattagtgggaaaattaaactgggcaagtcagatttatccagggttaaagtaaggcaattatgtaaactc  
cttaggggaaccaaaagcactaacagaagtagtatcgctaacaagagaagcagaactagaattggcagaaaacagg  
gagattctcaaagaaccagtagcatggagtgtactatgacctcaaaaagacttaatagcagaaatacagaagcag  
gggcaaggccaatggacatatcaaatttatcaagagccattttaaataatctgaaaacaggaaagtatgcaagaacg  
aggggtgccacactaatgatgtaaaacaattaacagaggcagtgcaaaaaatagccacagaaggcatagtata  
tggggaaagattcctaaattcaaattacccatacaaaaagaaacatgggaaacatggtggacagagtattggcaa  
gccacctggattcctgagtgggagtttgtcaatacccctcccttggtgaaattatggtatcagtttagagaaagaa  
cctatagtaggagcagaaactttctatgtagatggagcagctaatagggaaactaaaataggaaaagcaggatat  
gttacagacagaggaagacaaaaagttgtccctctaacggacacaacaaatcagaagactgagttacagggaatt  
catttagctttgcaggattcaggattagaagtaaatatagtaacagactcccaatatgcattaggaatcatccaa  
gcacaaccagatcagagtgaaatcagagatagtcagtcacaataatagaacagtttaataaaaaaggaaaaggctac  
ctggcatgggtaccagcacacaaaggaattggaggaaatgagcaagtagataaattgggtcagtagtggaatcagg  
aaagtgtatttttagatggaatagataaggcccaggaagagcatgagaaatatcacaataattggagagcaatg  
gctagtgattttgacctgccccctgtagtagcaaaagaaatagtagccagctgtgataaatgtcagctaaaagga

gaagccatgcatggacaagtagactgtagtccaggaatatggcagctagattgtacacacttagaaggaaaagtt  
atcctagtagcagttcatgtagccagtggttatatagaagcagaagttattccagcagagacagggcaagaaaca  
gcatactttattttaaaattagcaggaagatggccagtaaaaacaatacacagacaatggccccaatttcac  
agtaatacagtttaaggccgcctggttggtgggcggggatcaagcaagaatttggcattccctacaatcccaaagt  
caaggagtagtagaatctatgaataaagaattaaagaaaatttatagggcaggttaagagatcaggctgaacatctt  
aagacagcagtgcaaatggcagttatcatccacaatttttaaaagaaaaggggggattggggggtacagtgagg  
gaaagaataatagacatgatagcatcagacatacaaaactaaagcattacaaaaacaaattacaaaaattcaaat  
tttcgggtttattacagggacagcagagatccacttttgaaaggaccagcaaaacttcttttgaaagggtgaagg  
gcagtagtaatccaagataatagtgaataaaaagtagtgccaagaagaaaagtaaaaatcattagggtacatgg  
aaaagtttagtaaaacaccatatacatgtttcaagaaagctaagaaatgggtttatagacatcactatgaaagc  
attaatccaaaaataagttcagaagtacacatcccactaggggatgatacattagtagtaacaacatatgtgggt  
ctgaacacaggagaaagagaatggcatttgggcccaggagctctccatagagtggaggaaaaggagatatagaaca  
caagtagaccctgacctagcagaccaactaattcatctgtattattttgattgttttcagaatctgctataaga  
catgccatattaggatatagagttagccctaggtgtgaatttcaagcaggacataataaggtaggatccttacag  
tacttggcactagtagcattaataacacccaaaaaggacaaaaccacctgtgcccagtggttagcaaaactaacagag  
gatcttttagaagaacttaagagagaagctgttagacattttcctaggacatggctccatgacttaggacaatat  
atctatgaaacttatggggatacctggactggagtggagccataataagaatattacaacaactactgtttatt  
catttcagaattggatgtcatcatagcagaataggcattattcgacagagaagagcaaggctagagccctggaaa  
catccaggaagtcagcctaagactccttgtaccaaatgctattgtaaaaagtggttgcctttcattgccaagtttgt  
ttcataacaaaaggcttaggcatctccgctacagaacaattgtgggtcacagtctattatggggtagctgtgtg  
aaggaggctaccaccactctattctgtgcatcagatgctaaagcctataaaaacagaggcacataatgtttgggcc  
acacatgctgtgtacccacagaccctaaccacacaagaagtagaattggtaaatgtaacagaaaaattttaacatg  
tggaaaaaataacatggtagaacagatgcatgaggatataaattagtttatgggatgaaagcctaaaaccatgtgtg  
aaattaaccccactctgtgttactttaaattgcagtaatgctaatttcaattgcaataataactaataacgctagt  
tgtctagagatgcaggcagaagtaaaaaattgctctttcaatatctccacaagcataaaaaacaaagaaaaagaaa  
gaacatgcacttttttatagtcttgatgtaatgtcaatagataatacaagctatgcattgagacagtgtaacacc  
tcagtcattaaacaggcctgtccaaagggtatcctttacaccaattcccatacattattgtgccccagctggtttt  
gcgattctaaaatgtaaggataagaaattcaatggaacaggaccatgtaaaaatgtcagcacagtacaatgtaca  
catggaattaagccagtagtgtcaactcaactgctgtttaaattggcagtcctagcagaagaagaggtagtgattaga  
tctgaaaaatctcacagacaatgctaaaaccataatagtgcagctgaatgaaactgtaaaaattaattgtacaaga  
cccagtaacaacacaagaaaaagggtatacacataggaccggggagtgcattttatgcaacaggagaaaataatagga  
gatataagacaagcacattgtaacgttagtagaacagaatggaacaaaactttaggatacatagttgaaaaatta  
agagaacaatttaagaataacaacaataatctttaaccagtcctcaggaggggaccagaaaattgaaatgcacagt  
tttaattgtggaggggaatttttctactgtaatacacacagctgttcaatagtacttgggagccagggaagaat  
actactacagagggaaatgacactatcacgctcccagcagaataaaaacagattataaacagggtggcaggaagta  
ggaaaagcaatgtatgcccctcccatcagaggacgaattaattgtacatcaaatattacagggtgttattaaca  
agagatggtggttaacaataataaaccagacaaataggacagagaccttttagacctcaaggaggggaatatgaaggac  
aattggagaagtgaattatataataataaagtagtacaagttgagccattaggaatagcaccaccaaggcaagg  
agaagagtgggtgcagagagaaaaaagaggcatttgggggttgcctctggaaaactcatttgcaccactaatgtgcct  
tggaatgctagttggagtaacaaaacccgtagtgtgatttgggaaaacatgacctggatgcagtgaggaaagagaa  
attagcaattacacagcaacaatatactccttaattgaagaatcgcaaatccaacaagaaaagaatgaacaagaa  
ttattagaattagataagtgggcaagtttgtggaattgggttgacataacaaaatggctgtggtatgtaaaaata  
ttcataatgatagtagcaggccttagtaggttaagaatagcatttactatattttcttttagtaaatagagttagg  
cagggatactcaccattatcattccaggcagttagtttatttaatgccacagctataacagtagccgaagggaaca  
gatagggtatagaattacttcaaagcattggttagagctattctccacatacctagaagaataagacagggcctta  
gaaagggtttgcaataaatgggtggcaagtggtcaaaacttagtaggggatgggaggttgtaagggaaagaatg  
agacgaaccacaccagtagaaccagcagcaagaggggtgggagcagtatctcaagatttggaaaggcatggagca  
atcacaagtagcaatacagcagctactaatcctgattgtgcctggctagaagcacaggaggaagaggacgtgggt  
ttccagtcagacctcaggtacctttaagaccaatgacttacaaaggagcacttgatcttagccacttttttaaaa  
gaaaaggggggactggaagggttaattcactcccagagaagacaagatatccttgatctgtggatctaccacaca  
caaggctacttcctgattggcaaaactacacaccaggggccaggggtcagatttccactgacctttggatgggtgt  
ttcaagctagtaccagttgatccagatcaggtagaaaaggccaatgaaggagagaacagctgcctcttacacccc  
atgggcctgcatggaatggatgacccagagaaagaagtgttaatgtggagggttgacagccgcctagcatttcac  
catgtggcccgagagctgcatccggagtactttaaaaactga

>#94 AY331292 7425 nt

atgggtgcgagagcgtcagtattaagcgggggaaaattagataaatgggaaaaaattcggttaaggccaggaggg  
aaraaaaagtataaattaaaacatatagtatgggcaagcaggggaactagaacgcttcgcagtcaatcctggcctg  
ttagaaacaacagaaggctgcagacaaatactgggacagctacaaccatcccttcagacaggaacagaagaactt  
agatcattatataataacaatagcagtcctctatttgtgtacatcaaaggatagatataaaagacaccaaggaagct  
ttagataagatagaggaagagcaagacaaaagtaagcaaaaggcacagcaagcagcagctgacacaggaaacagc  
aacaaccaggtcagccaaaattaccctatagtgcagaacctccaggggcaaattggtacatcaggccatatcacct  
agaactttaaatgcatgggtaaaagtagtagaagagaaggctttcagcccagaagtaatacccatgttttcagca  
ttatcagaaggagccaccccacaagattttaaacaccatgctaaacacagtggggggacatcaagcagccatgcaa  
atgttaaaagagaccatcaatgaggaagctgcagaatgggatagattgcatccagtgcatgcagggcctattgca  
ccaggccagatgagagaaccaaggggaagtgcatagcaggaactactwgtacccttcaggaacaagtaggatgg  
atgacaagtaatccacctatcccagtaggagaaatttataaaagatggataatcctgggattaaataaaaatagta  
aggatgtatagccctaccagcattctggacataagacaaggaccaaaagagcccttttagagactatgtagaccgg  
ttttataaaactctaagagctgagcaagcttcacaggaggtaaagaattggatgacagaaacctgttggtccaa  
aatgCGAACCCagattgtaagactattttaaaagcattgggaccagcagctacactagaagaaatgatgacagca  
tgtcaggagtgaggagaccggccataaagcaagagttttggccgaagcaatgagccgagtaacaaattcaa  
gccataatgatgcagagaggcaattttaagaaccaagaagagactgttaagtgtttcaattgtggcaagaagg  
catatagccagaaattgcagggtccttaggaaaaagggtgttggaatgtggcaggggaagggcaccaaatgaaa  
gattgtactgagagacaggctataggggggcaactaaaggaagctctattagatacaggagcagatgatacagta  
ttagaagaaatgaattttaccaggaagatggaaacccaaaatgatagggggaattggagggtttatcaaagtaaaa  
cagtatgatcagatactttatagaaatctgtggacataaggctataggtacagtattagtaggacctacacctgtc  
aacataattggaagaaacctgttgactcagattgggtgcaccttaaattttcccattagtcctattgaaactgta  
ccagtaaaatttaaagccaggaatggatggccaaaagttaaacaatggccattgacagaagagaaaaataaaagca  
ttagtagaaatttgtacagaaatggaaaaggaagggaatttcaaaaattgggcctgaaaatccatacaatact  
ccagtatgttgcataaagaaaaagacagtactaaatggagaaaaattagtagatttcagagagcttaataagaga  
acacaagacttttgggaagttcagttaggaataccacatcccgcaggattaaaaaagaaaaaatcagtaacagta  
ttggatgtgggtgatgcatatttttcagttcccttagataaagaatttaggaagtacactgcattttaccatacct  
agtataaacaatgaaacaccagggttagatatcagtataatgtgcttcacagggtatggaaaggatcaccagca  
atattccaaagtagcatgacaaaaatcttagagccttttagaaaaacaaaatccagacatagttatctatcaatac  
atggatgatttgtatgtaggatctgacttagaaatagggcagcatagaacaagaatagaggaactgagacaacat  
ttgctgaagtgggtgatgcatatttttcagttcccttagataaagaatttaggaagtacactgcattttaccatacct  
agtataaacaatgaaacaccagggttagatatcagtataatgtgcttcacagggtatggaaaggatcaccagca  
atattccaaagtagcatgacaaaaatcttagagccttttagaaaaacaaaatccagacatagttatctatcaatac  
atggatgatttgtatgtaggatctgacttagaaatagggcagcatagaacaagaatagaggaactgagacaacat  
ttgctgaagtgggtgatgcatatttttcagttcccttagataaagaatttaggaagtacactgcattttaccatacct  
ctccaccctgacaaatggacagtacagcctatagtgtgccagaaaaagacagctatactgtcaatgatatacag  
aagttagtgggaaaaattaaattgggcaagtgcagtttacgcagggtataaagtaagacaattgtgtaarctcctt  
aggggagccaaagcactaacagaagtaataccactaacaaaagaggcagagctagaactggcagaaaaacagggag  
attctaaaaagaaccagtacatggagtgattatgacccatcaaaagacttaatagcagaaatacagaaacagggg  
caaggTcaatggacatatcaaatTTatcaggagccatttaagaatctgaaaacaggaaagtatgcaagaatgagg  
ggTgccacactaatgatgtaaaaacaattaacagaggcagtgcaaaaaataaccacagaaagcatagtaatatgg  
ggaaagattcctaaatttagactccccatacaaaaagaaacatgggaaatatggtggacagaatatggcaagcc  
acctggattcctgagtgagggtttgtcaatacccctcccctagtgaattatggtaccaattagagaaagaacct  
ataataggagcagaaactttctatgtagatggggcatctaacaggggaaactaaattaggaaaagcaggatattgtc  
actaacagaggaagacaaaaagtgtgtctcctaactgacacaacaaatcagaaaactgagttacaagcaatttat  
ctagctttgcaggattcgggatcagaagtaaacatagtaaacagactcacaatatgcattaggaatcattcaagca  
caaccagataagagtgaatcagagctagtcaatcaataatagagcagtttaataaataaggaaaaagggtctacctg  
gcatgggtaccagcacacaaaaggaattggaggaaatgaacaagtagataaatttagtcagtgctggaatcaggaaa  
gtactatttttagatggaatagataaggcccaagaagaacatgagaaatatcacagtaattggagagcaatggct  
agtgattttaacctgccacctgtagtagcaaaagaaatagtggccagctgtgataaatgtcagctaaaaggagaa  
gccatgcatggacaagtagactgtagtccaggaatatggcaactagattgtacacattttagaaggaaaaagttatc  
ctggtagcagttcatgtagccagtggtacatagaagcagaagttattccagcagagacagggcaggaaacagca  
tattttcttttaaagtttagcaggaagatggccagtaacaacaatacatacagacaatggcagcaatttcacagc  
actacagttaaggccgctgttggtgggCGgggataaagcaggaatttggcattccctacaacctcaaagtcaa  
ggagtagtagaatctatgaataaagagttaaagaaaattataggacaggtaagagatcaggctgaacatcttaag  
acagcagtgcaaatggcagttatccacaatttttaaagaaaagggggattgggggatacagtgacaggggaa  
agaatagtagacataatagcaacagacatacagactaaagaactacaaaaacaaattacaaaaattcaaaatttt  
cgggtttattacagggacagcagagatccactttggaaaggaccagcaaaagctcctctggaaagggtgaaggggca  
gtagtaatacaagataatagtgcataaaagtagtgccaagaagaaaagcaaaaatcatcagggatacatggaaa  
agtttagtaaaataccatatgtatagatcaaagaagctaggggatggttttatagacatcattatgcagcact

>#95 KP109514 7356 nt

atgggtgcgagagcgtcagtattaaagcgggggagaattagatagatgggaagaattcggttaaggccaggagga  
aggaaaaaatatcaattaaaacatatattatgggcaagcaggagctagaacgatacgacttaatcctggcctg  
ttagaacatcagatggctgtaaacaaatattggcacaaactacaaccagcccttcagacaggatcagaaggattt  
agatcattattcaacacagtagcagtactctattgtgtgcatcaaaagatagagataaaagacaccaagaagct  
ttagataagatagaggaagagcaaaacaaatttaagaaaaggcacacaagcagcagctgacacaggaaacagc  
agccagggtcagccaaaattaccctatagtgcagaacatgcaggggcaaattggtacatcagcccatatcaccaaga  
actttgaatgcatgggtaaaagtagtagaagagaaggctttcagcccagaagtaatacccatgttttcagcattg  
tcagaaggagccaccccacaagatttaaacacaatgctaaacacagtggggggacatcaagcagccatgcaaag  
ttaaagagaccatcaatgaggaagctgcagaatgggatagattacatccagtggtgagggcctgttgacca  
ggccagctgagagacccaagggggaagtgcatagcaggaactactagtacccttcaggaacaaataggatggatg

acacataatccacctatcccagtaggagagatctataaaagatggataatcctgggattaaataaaaatagtaagg  
atgtatagtccctaccagcattctggacataaaacaaggacccaaaagaacccttttagagactatgtggaccggttc  
tataaagttctaagagccgagcaagcatcacaggatgtgaaaaattggatgacagaaaccttgttgggtccaaaat  
gcaaaccagattgtaaaactattttaaaagcattaggaccagcagctaccctagaagaaatgatgacagcatgt  
cagggagtgggaggaccagccataaggcaagaattttggcagaagcaatgagccaagtaacaaacccaactacc  
atactgatgacagagaggcaatttttaagaacccaaaaagaattgttaagtgtttcaattgttggcagaagggtcat  
atagccaaaaattgcagggccccctagaaaaaggggctgctggaaatgtggaaaggaggacaccaaatgaaggac  
tgcactgagagacaggctataggggggcaactaaaggaagctctcttagatacaggggacagatgatacagtatta  
gaggaaatgaatttaccaggaagatggaaacccaaaatgatagggggaattggaggttttatcaaagtaagacag  
tatgatcagatatccatagaaatctgtgggcataaaagctataggtacagtgttagtaggacctacacctgtcaac  
ataattggaagaaacttgttgactcagattgggtgcactttaaattttccattagtcctattgaaactgtacca  
gtaaaattaaaaccaggaatggatggcccaaaaggttaacaatggccattgacagaagaaaaataaaaagcacta  
acagaaatttgtgcagagatggaaaaggaagggaatttcaaaaattgggcctgaaaatccatataatactcca  
atatttgccataaagaaaaaagacagtactaaatggagaaaatttagtagatttcagagaactcaataagagaact  
caagacttctgggaagtgcagtttaggaataccacatcctgcaggggttaaaaaagaaaaaatcagtaacagtactg  
gatgtgggtgatgcatatttttcagttcccttagataaagaattcagaaagtatactgcatttaccatacctagt  
ataacaatgagacaccaggggttagatatcagtacaatgtgctcccacagggatggaaaggatcaccagcaata  
ttccaaagtagtatgacaaaaatttttagatccttttagaaaaacaaaatccagacctagtattctatcaatatatg  
gatgatttgtatgtaggatctgacttagaaataggacagcatagaacaaaaatagaggaactaagacaacatctg  
ttgaggtggggacttaccaccccagacaaaaaacatcagaaagaacctcatttctttggatgggttatgaactc  
catcctgataaatggacagttacagcctatagtgtgctgcagaaaaagacagttggactgtcaatgacatacagaag  
ttagtgggaaaaattaaattgggcaagtgcagatctactcagggattaaagttaaacagttatgtaaactccttagg  
ggaactaaatcactaacagaaataataccactaacagaagaagcagagttagaactggcagaaaaacagggagatt  
ctaaaaacaccagttacatggagcgtattatgacctatcaaaagacttaatagcagaaatacagaagcaaggggaa  
ggccaatggacatatcaaatttatcaggaaccttttaaaaatctgaaaaacaggaaaaatatgcaagaatgaggggt  
gcccacactaatgatgtaaaactattaacagaggcagtgcaaaagatagccacagaaagcatagtaatatgggga  
aagactcctaaatttagactaccatacaaaaaagaacatgggaaacatggtggacagagtattggcaagccacc  
tggattcctgagtgggagtttgtcaataccctcccttagtgaaattatggtaccagtttagagaaagaaccata  
gtaggagcagaaactttctatgtagatggggcagctaacagggaaactaaattaggaagagcaggatatgtact  
gacaaaggaagacaaaagggttgtctccctaaatgacacaacaaatcagaagactgagttacaggcaattcatcta  
gctttgcaggattcaggattagaagtaaacatagtaacagattcccaatatgcattgggaatcattcaagcaca  
ccagataaaagtgaatcagagtttagtcaatcaataatagagcagttataaaaaaggaaaagggtctacctagca  
tgggtgcccagcacacaaaggaattggaggaatgaacaagtagataaattagtgcagtgtggaattaggaaaata  
ctatttttagatggaatagataaggcccaagaagaacatgagaaatatcacaataattggagagcaatggctagt  
gattttaacataccacctgtagtagccaaagaaatagtagccagctgtgataaatgtcagctaaaaggagaagcc  
atgcatggacaagtagactgtagtccagaaatatggcaactagattgtacacacttagaaggaaaagttatcctg  
gtagcagttcatgtagccagtggtatatagaagcagaagttatcccagcagagacagggcaagaaacagcatac  
ttcatcttaaaattagcaggaagatggccagtaaaaaacaatacatacagataatggcagcaatttcaccagtgtc  
gcggttaaggccgcctgttgggtgggagggatcaaacaggaatttggcattccctacaatccccaaagtcaaggg  
gtagtagaatctctaacaagaattaaagaaaattgtaggacaagtaagagatcagggtgaacatcttaagaca  
gcagtacaaatggcagttatccatccacaatttttaagagaaaaggggggattgggggatacagtgcaggggaaaga  
atagtagacataatagcaacagacatacagactaaagaattacaaaaacaaattacaaaaattcaaaaatttcgg  
gtttattacagggacagcagagatccactttggaaaggaccagcaagcttctctggaaagggtgaaggggacagta  
gtaatacaagataatagtgcataaaagtagtgccaagaaggaaagcgaaaatcattagggatacatggcacagt  
ttagtaaaacaccatatacatgtttcaaagaaagctcagggatggatttatagacatcattatgaaaacactcat  
ccaaaaataagttcagaagtacacattccaataggggaagctaaattggtgataaagacatatgggggtctgcat  
acaggagaaagagactggcatttgggtcagggagtctccatagaatggaggaaaaggagatataacacacaagta  
gacctggttttagcagaccaactaattcatctgtatcactttgattgtttttcagaatctgctataagaaatgcc  
atattaggaaatagagttagtccctaggtgtgaatatcaagcaggacataacaaggtaggatctctacaatatttg  
gcactaacagcattaataacaccaaagaagacaaagccacctttgcctagcggttacaaaactgacagaggatctt  
ttagaggagcttaagcatgaagctgttaggcattttcctagaccatggcttcatggcctagggcaacatatctat  
gaaacttatgggaatacttgggcaggagtggaggctataataagaatactgcaacaactgctgtttattcatttc  
agaattgggtgtcaacatagcagaataggcattattccacagagaagagcaagactagagccttggaagcatcca  
ggaagtgcgctaaaactgcttgtacaattgctattgttaaaaagtgttgctttcactgccaagtttgtttcaca  
aaaaaaggcttaggcattctccgctgaggaattgtgggtcacagctctattatgggggtacctgtgtggaaagaagca

gtcaccactctatTTTTgtgcatcagatgctaaagcatatgacaaagagggtacataatgtttggggccacacatgcc  
tgtgtacccacagaccccccaagaaatagaattggaaaatgtgacagaaaatTTTgacatgtggaacaat  
aacatggtagaccagatgcatgaggatataattagttttatgggatcaaagcctaaaaccatgtgtaaaattaacc  
ccagtctgtgttacttttacattgctgtgaagttgaatgatactaagtgccatgatttgaatgtcactaatagtact  
accctgaaggtaacaataaccactaatattactaacaatgggtgggtgatgatttaagaaattgctctttcaatatg  
accacaataatgacagagaagatgcagaaaaattatgcacttttctatacatctgatatagtacctatagataat  
acagataatactagtactataggttgataagttgtaacacctcaatccttacacaagcctgtccaaagggtatcc  
tttgagccaattccaatacattattgtgccccggctgggttttgcaatcttaaagtgtaaagacaagacattcaat  
ggaacaggaccatgtacaaatgtcagcacagtacaatgtacacatggaattaggccagtagtatcaactcaattg  
ttgttaaattggcagctctagcagaggaagacatagtaattagatctaaaaatttctcggacaatgctaaaaccata  
atagtacagctgaatgaatctataccaattgtgtgtgtgaagacccaacaacaatacaagaaaaagtatatctata  
ggaccagggagaacatggtatgcaacaggagacataataggagacataagacaagcatattgtaacattactgtt  
gggaattggagtaacactttacaacggatagataaaaaattaaaagaacaatttagaaataaaacaataaacttt  
aatcaatcctcaggaggggacccagaaattgtaatgcacagctttaattgtggaggggaatttttctactgtaat  
acaacacagctatTTTaataatacttggcttacttgggaaggccaatgcaagtgatcctgaaaaaaaataacacaaaa  
aatatcacactcccatgcagaataaaacaaattataaacatgtggcaggaagtaggaaaagcaatgtatgccct  
cccatcgcaggacaaattaaatgtgtatcaaataattacaggggttactattaacaagagatgggggtcaggacaat  
aacactaacggtaacgagaccttcagacctggaggaggagatatgaggggacaattggaggagtgaattatataaaa  
tataaagtagtaaaaattgaaccattaggaatagcaccactaaggcaaagagaagagtgggtgcagagagaaaaa  
gggatttgggggtgctctggaaaactcatttgcaccactactgtgccttggaatgctagttggagtaataaatct  
ctggataccatttgggaataacatgacctggatgcagtggttagagaaaattaacaattacacaagcttaataat  
accttacttgaaaaatcgcagaaccagcaagaaaagaatgaacaagaattattggaattggataagtgggcaaat  
ctgtggaattgggttgacataacaaattggctgtggtatataaaaaatattcataatgatagtaggagggttgata  
ggtttaagaatagtttttactgtactttctataataaatggagttaggcagggatactcaccattatcgtttcag  
gcaattagcttgatcaacgccgcagcagtagcagtagctgagggggacaggtaggccacgcacctagatgggtagc  
aagtgggtcaaaattgggtggatggcctactgtaagagagagaatgagacgagctcaaccagctcaaccagcagca  
gatgggggtgggagcagcatcgcgagacctggaaaaacatggagcaataacaagtagtaatacagcagctacaat  
cctgacagtgcttggttagaagcacaagaggaagagcaggaggtgggctttccagtcagacctcaggtaccatta  
agaccaatgacttacaaggagcttttagatcttagccactttttaagagaaaaggggggactggaagggtcaatt  
tactcccagaaaagaagagacatccttgatctgtgggtctacaacacacaaggctacttccctgattggcagaac  
tacacaccagggccagggactaggtggccattaacctttggatggtgcttcaagttagtaccagtggagccagag  
aacagtgaaggagagaccaacagtttgtacacctgcaagcctgcatgggatggaggaccagaggggagaagta  
ttagtgtggaagtttgacagccgcctagccttccatcacatggcccgagctgcatccggagtagtacaaggac  
tgctga

>#96 AF146728 7425 nt

atgggtgcgagagcgtcagtatTAAGCGGGGGagaattggatagatgggagaaaattcgggttaaggccaggggga  
aagaaaacatataaattaaaacatatagtatgggcaagcaggggaactagaacgattcgcagttaatcctggcctg  
ttagaaacatcagaaggctgtagacaaatactggtacagctacaaccatcccttccgacaggatcagaagaactt  
aatcattatTTaatacagtagcaacctctattgtgtgcatcaaaagatagagataagagacaccaaggaagct  
ttagaaaagatagaggaagagcaaaaacaaaagtaagaaaaaggcacagcaagcagcagctgacgcagcagcagct  
gatgcaggaaatagcagcaagggtcagccaaaattaccctatagtgcagaacctccaggggcaaatggtacatcaa  
cccatatcacctagaactTTaaatgcatgggtaaaagtagtagaagagaaggcttttcagcccagaagtaataccc  
atgttttcagcattatcagaaggagccaccccacaagattTaaataccatgctaaacacagtagggggacatcaa  
gcagcagccatgcaaatgtTaaaagagaccatcaatgaggaagctgcagactgggatagattacatccagtacat  
gcagggcctattgcaccaggccagatgagagaaccaaggggaagtgcatagctggaactactagtaccttccag  
gaacaaataggatggatgacaaataatccacctatcccagtgaggagaaatctataaaagatggataattctggga  
Taaataagatagtaagaatgtatagccctaccagcattctggacataaaacaaggaccaaaggaaccttttaga  
gattatgtagaccggttctatagaactctaagagccgagcaggttctgcaggaggtaaaaaattggatgacagaa  
accttgttgggtccaaaatgcgaaccagattgtaggactatTTTaaaagcattgggaccagcagctacactagaa  
gaaatgatgacagcatgtcagggagtagggggacccggccataaagcaagagttttggccgaagcaatgagccaa  
gtacaaaattcagctaccataatgatgcagagaggcaatttttaggaaccaagaaagactgtcaagtgtttcaat  
tgtggcaaaagaggggccacatagccagaaattgcagggcccgaggaaaaggggctgttggaaatgtggaaaggaa  
ggacaccaaattgaaagattgtactgagagacaggctataggggggcaactaaaggaagctctattagatacagga  
gcagatgatacagtattagaagaaatgtgtttaccaggaagatggaaacccaaaatgataggggggaattggaggt  
tttatcaaagtaagacagtatgatcaggtatttagtagaaatttgtggacataaagctataggtacagtattagta

ggacctacacctgtcaacataattggaagaaatctgttgactcagcttgatgtacttttaaattttcccattagtcctattgagactgtaccagtaaaattaaagccaggaatggatggcccaaaagttaaacaatggccattgacagaa gaaaaaataaaagcatttagtagaaatttgtacagaaatggaaaaggaagaaaaatttcaaaaattgggcctgaa aatccatacaatactccagtatgttgcataaagaaaaagacagtactaaatggagaaaaattagtagatttcaga gaacttaataagagaactcaagacttctgggaagttcaattaggaataccacatcccgcagggttaaaaaagaaa aaatcagtaacagtagtgatgtgggcgatgcatatttttcagttcccttagataaagacttcagaaagtatacc gcattcaccataccttagtataaacaatgagacaccagggattagatatcagtacaatgtgcttccacagggatgg aaaggatcaccagcgatattccaaagtagcatgacaaaaatcttagagccttttagaaaaacaaaatccagacgta gttatctatcaatacatggatgatttgtatgtaggatctgacttagaaatagggcagcacagaacaaaaatagag gaactgagacaacatctgttgagggtgggggtttaccacaccagacaaaaaacatcagaaagaacctccattcctt tggatgggttatgaactccatcctgataaatggacagtacagcctatagtgtgctgccagaaaaagacagctggact gtcaatgacatacagaaattagtgggaaaaattaaattgggcaagtcagatttattcagggttaaagtaagacaa ttatgtaaaacttcttaggggaaccaaggcactaacagaagtaataccactaacagaagaggcagagctagaatta gcagaaaaacaggggagattctaaaagaaccagtacatggagtgtattatgacccatcaaaagatttaatagcagag gtacagaagcaggagcaaggccaatggacatatcaaatttatcaagaaccatttaaaaaatctgaaaacaggaaag tatgcaagaatgaagggtgccacactaatgatgtaaaacagttaacagaggcagtgcaaaaaatagccacagaa agcatagtaatatggggaaagactcctaaatttaagctaccatacaaaaggagacatgggaagcatggtggatg gagtattggcaggccacctggattcctgagtgagggttgtcaatacccctcccttagtgaaattatggtaccag ttagagaaaaagaacccatagtaggagcagaaactttctatgtagatggagcagctaataggggagaccaaattagga aaagcaggatattgttactgacagaggaagacaaaaaggttgtccccctaagtgcacacaaaatcagaagactgag ttacaagcaattcagctagcgttgcaggattcgggattagaagtaaacatagtaacagactcacaatatgcatta ggaatcattcaagcacaccagataagagtgaaatcagagtttagtcaatcaataatagagcagctaataaaaaag gaaaagatctatttggcatgggtaccagcacacaaaaggaattgggtggaatgataaggtagatagtttggtcagt gctgggatcaggaaagtactattcttggatggaatagataaggcccaagatgatcatgagatatatcacagtaat tggagggcaatggctaattgatttttacctgccacctatagtagcaaaagatatagtagccagctgtgataagtg cagcaaaaaggagaagccatgcatggccaagtagactgtagtccagggttatggcaactagattgtacacattta gaaggaaaagtattcctggtagcagtcocatgtagccagtggttatatagaagcagaagtcattccagcagagaca gggcaggaaacagcatattttctattaaaatttagcaggacgatggccagtaaaaaacagtacatacagacaatggc cccattttcatcagtagtgcgggttaaggccgcctgttgggtgggcagggttaagcaggaatttggcattccctac aatccccaacgtcaaggagtggttagactctatgaataacgacttaacgacaattataggacaggtaagagatcag gctgaacatcttaagacagcagtagcaaatggcagtagttcatccacaattttaaaagaaaaggggggattgggggg tacagtgcaggggaaagaataatagacataatagcatcagacatacaaaccaagaattacaaaaacaaattaca aaagttcaaaattttcgggtttattacagggacagcagagatccactttggaaaggaccagcaaaagctcctctgg aaaggtgaaggggcagtagtaatacaagataatagtgcataaaagtagtgccaagaagaaaagcaaaagattatt agggatacatggaaaagtttagtaaaacaccatctatataagtcagggaagctaggagatgggtttatagacat cactatgaaagcactcatccaagaataagttcagaagtacacatccctctagggggaagctagattggtaataaca acatatggggctctgcatacaggagaaaagagactggcatttaggccaggagtgctccatagaatggagaaaaaga agatatagcacacaagtagaccctggcctagcagaccaactaattcatatgtattattttgattgtttttcagaa tctgctataagaaatgccatattagaacgtatagtttagtcctagttgtgaacatcaagcaggacataacaaggta ggatctttacagtacttagcactagcagcattaataacaccaagacagacaaaagccacctttgcctagtgtcacg aaactgacagaggatcttttagaggaactcaagagtgaagctgtcagacattttcctaggatatggctacatggc ctagggcagcatatctataacacctatggggatacttgggcaggagtggaagccttaataagaagctctgcaacaa ctgctgtttattcattttcagaattgggtgtcgacacagcagaataggcattaatcctcagaggagagcaagacta gagccctggaagcatccaggaagtcagcctaagactgcttgtaaccaattgctattgtaaacaatgttgctttcat tgccaagtttgcttcatacgaaaaggcttaggcattctccgcaacagaaaaattgtgggtcacagtctattatggg gtacctgtgtggaagaagcaaccaccactctattttgtgcatcagatgctaaagcatatgataaagaggtacat aatgtttgggccacacatgcttgtgtacccacagaccccaaccacaagaatatattactagaaaaatgtgacagaa gagtttaacatgtggaaaaaataacatggtagaacagatgcatgaggatataatcagtttatgggatcaaaagccta aagccatgtgtacaattaacccactctgtgttacttttaattgcactgatgagttgacgaatgttacttttact aatagtaggcatgtgactaatagtagttatgtgggaagtatggaaaaaggagaaatgaaaaactgctctttcaac atcaccacaagcataagagataagaggcacaaaagaatttgcacttttttataaacttgatgtagtacaaaatagat ggtagtaatactagctatagattaataaattgttaatacctcagtcattacacaggcctgtccaaagggtatccttt gagccaattcccatacattattgtgccccggctgggttttgcgattctaaagtgtaaacaataagacgttcaatgga aaaggacatgtgcaaatatcagcacagtacaatgtacacatggaattaggccagtagtgtaactcaactggttg ttaaattggcagcttagcagaaaaagagatagtaatttagatctgacaatttcacggacaatgctaaaagcataata

gtacagctgaatgaatctgtagaaattcattgtatgagacccaacaacaataacaagaaaagggatatatgtagga  
ccaggggagacacatctatgcaacagagaaaaatagtaggagatatagacaagcacattgtaacatcagtagaaca  
aactggactagcgtgctaagacagatagctgtaaaattaagagaacgatttaagaataaaaacaatagtctttaat  
cactcctctggaggggacccagaaattgtaaggcacagttttaattgtggaggggaatTTTTCTactgtaattca  
acacaactgtttaatagtacttggtttaatagtactgggaatgatactgaaagggcaactaacaatacagaaaaat  
atcacactcccatgtagaataaaaacaaattataaacatgtggcagaaagtaggaaaagcaatgtatgccctccc  
atcaacggacagattagatgttcatcaaataattacagggctgatactaacaagagatgggtggtaatcaagagaac  
aagaccgagatcttcagacctggaggaggagatatgagggacaattggagaagtgaattatataaatataaaagta  
gtaagaattgaaccattaggagtagcaccaccaaaggcaaagagaagagtggtgcagagagaaaaaagagcaggg  
atttgggggttgctctggaaaactcatttgcaccacttctgtgccttggaaatgctagttggagtaataaatctcta  
agtgcatttgggataacatgacctggatgcagtgggaaagagaaattggcaattacacaggcttaatatatcat  
ttacttgaagaatcgcagaaccaacaagaaaagaatgaacaagaattattggcattagataagtgggcaagtttg  
tggaattggtttagcataacaaaatggctgtggtatatataaaaatattcataatgatagtaggaggcttagtaggt  
ttaagaatagtttttgctgtactttctctagtgaagaaagtttagggagggatactcaccattgtcattgcaggct  
attagcttgctcaacgccacagctatagcagtagctgagggacagatagggttatagaagtagtacaaagagct  
tgtagagctattctccacatacctagaagaatcagacagggcttggaaggcttttactataaatgggtggcaag  
gggtcaaaacgtattaggtctgaatggcctactgtaagggaaagaataatacaagctgagccagcagcagctggg  
gtgggagcagcatctcgagacctggaaaaacatggagcaatcacaagcagcaatattaataacgctgattgtgtt  
tggctacaagcacaggaggaggaggaggtgggttttccagtcagacctcaggtacccttaagaccaatgactttc  
aaggcagctcacgatcttagcttctttttaaagaacaggggggactggaagggttaatttactcccaaagaaga  
caagatatccttgatctatggatctatcacacacaaggctacttccctgattggcagaattacacaccagggcca  
gggacccgatatccactgacctttggatggtgcttcaagtttagtaccagttgagccagatcaggtagaaaaggcc  
aatgaaggagagaacatcagtttgttacaccctatgagcctgcacgggatggaggacaaagagaaagaagtgtta  
atgtggaaatttgacagccgcctagcagttcatcatggtggccgagagctgcatccggagtattacaaaaactga



**Supplementary File S3.** Dataset of 96 nucleotide sequences of the gene *gag* from primate lentiviruses: 37 sequences from SIV infecting Old-World monkeys (#1 - #37), 4 from HIV-2 (#38 - #41), 20 from SIV infecting African apes (7 from SIVgor, #42 - #48, 13 from SIVcpz, #49 - #61), and 35 from HIV-1 (9 from group O, #62 - #70, 2 from group P, #71 and #72, 7 from group N, #73 - #79, and 17 from the pandemic group M, #80 - #96). From each genome sequence we selected the non-overlapping region that encodes the Gag protein. Each nucleotide sequence contains the NCBI ac. number and the length of the coding region.

>#1 AF468658 1326 nt

```
atgggagcgaggcactcggcgatgctgacgggtactaagttggataggtatgagaaagtgagtcctcagaccgaga
ggaaagaagaagtacgcatcaagcacttagtatgggcctccaaggagcttgagagatacgcgctatcaggcagt
cttcttgaatctaagaagggtgtcaacaggtattggaagtcacctccccattagaaccaaattgggtccgaatct
ctcaaaagcctctatggaatcgtgtcagtgctctattgtatccatgcagacatatgggtagaagatacagagcag
gctaagaagcaagttcagataaggtgtcatctagtaggaacaaaagagaaagaaacacagaacaaagacccccca
ggggccgcagggggacaggcggttagttagtcagaactaccccatagttagaaatgctcagggacagtttcaacac
caggccctcaacagcagagtccttaagacttgggtaagcatagtggaagaaaagaagtttgctccagagacagtc
gctctgtttcaggctctaacagaaggctgtataccttatgatatgaaccaaattgctcaacgctgttgagactat
caaggagcagtagcagattattaaagatgtcatcaatgaacaggcagcagagtgaggatctcttacatccgcagccc
gcggcaccccaaccagtagcagggcttagagaccctagcggagcagacatagcaggagtaacatcaactcctaatt
gagcagatagagtggattacaaggcagaacaatccagttaatgtggcagatatatatagaaaatggatcatcttg
ggcttgacagcgatgtgtaaaaatgtataacccctgtcaatattttgggcatcaaacagggccctaaaggaaccattt
aaggaatatgtagacagattctttaaatgcttaagggctgaacaggcagatcaggcagtaagaattggatgaca
caattgctgctggttcaaaatgctaattccagaatgcaagctgatcttgaaggccatgccaggagccagcttgga
gaaatgcttacagcatgccaaagggtagggggaccaactcataaatctagactcttggcagaggccatggcaaca
gcactcaaaggcagctcatacaatatggtgcaaagaggccccccaggaaggcaaggaaaaacccccaaaatgttac
aattgtggaaagtttgacatatcgcaagagactgtcccaaacccaaggaaagaaagtgttttaaatgtggcaag
gcaggacacttagctaggcaatgcaaaacaggaacaccagccaaggagctt
```

>#2 AF468659 1329 nt

```
atgggagcgaggcactcggcgatgctgacaggtactaagttggataggtatgagaaagtgcgtctcagaccaaag
ggaaagaaaaagtacatgatcaagcacttagtatgggcctccaagagcttgagagatatgcgctgtccgacgct
cttcttgaaaatcaagaggggtgtcgacggatattagaaattgtcttccccctagaaccaacagggtcagaagct
ctcaaatctctctttggaatcgtgtcagtgctctattgtatccatgcagacatacaggtggaggatacagagcag
gctaagcagcaagtcaggataagatgtcatctagaggagaccaagggtaaagaaaagcagaataaagaccccccg
ggggccgcagggggacaggcggttagttagtcaaaactacccctgtgattaggaatgcccaaggacagtatcaacat
caggccctcaatagtagaattcttaagacttgggtaagcatagtgaggagaaaaagtttgctccagagacagtt
gccttggtttcaggctttatcagaaggctgtataccctatgatatgaaccaaattgctcaatgctataggagattat
caaggggcagtagcagattattaaagatgtcatcaatgaacaggcagcagagtgggaccttttacatccggtacca
gcagcacctcaaccggtggcagggcttagagaccctagcggagcagacatagcaggagttacttcaactcccaat
gagcagatagagtggatcacaaggcagaaccaacctgtcaatgtgtcagatatatatagaaagtggatcattttg
ggcctgcagcgatgtgtaaaaatgtataacccctgtcaatattttggacatcaaacaaggccctaaagagcccttt
aaggaatatgtagacagattctttaagtgttaagggccgaacaagcagatcaggccgtgaaaaatttgatgaca
caatcgctgctggttcaaaatgtaaccagaatgcaagctgatcttgaagccatgccaggagccaacttgga
gaaatgcttacagcatgccaaagggtagggggaccaactcacaatatctaggctcttagcagaagccatggcaaca
gccctcaaaggcactagttcatacaacatggtgcagaaaggccccccctggaaggcaaggaaaaacccccaaaatgt
tataattgtggacaattcggacacctagcaagagattgtcctaaacccaaagaaagaaagtgttttaaatgtggc
agagcagggcacttagcaaacctgtagaacagggcacccaatcaaggagctt
```

>#3 EF070329 1335 nt

atgggggcgaggcactcggcgatgctgaaaggtactaagttgaataaatatgagaaggtcagattaaggcctaaa  
ggaaagaagaagtacctaataaagcatatagtagtgggcttcagagagcttgagcggttcgggtctctcagatacg  
ctcctagagagcaaggacggatgccaacgcctcctagaagtaatctgccccttggaagaaactgggagcgaggcg  
ctcaaactactctttggaatcgtgtcagtactctgggtgatccatgcagacgtaacagtgaaagacacagaggag  
gctaaaaagcaaattaggataaggtgccacctagcggagaaaaaagaagactcaaaaggagactcaggagcaaaa  
gccaccaccagtgggccagaattacccagtcataagaacagcacagggacagtatcagcatcagtcctcttagccct  
aggctattaaaaacctgggtatcaacagtagaggagaaaaaatttgcccagaagtagtgccctgttccaggcc  
ctatcagaaggatgcatcccctatgatgtaaatcagatgctcaacgccataggagaccaccagggggcaatacaa  
ctaataaaagatgtgggtcaatgagcaggcagcagacagagacgttttacatccccaaccaacacagccacaacca  
aatgcaggggctaaggtacccatcaggggctgatgtggcgaggatgcatcaacgccagcagaacaaatagaatgg  
atgactagacagcaagaccagtaaatgtagggaatatatatagaaaatggatcatcttgggcctacagagatgt  
gtcaaaatgtacaatccagtaaacatcttggtatattaacaagggccctaagaaccattcaaagattatgtggat  
cgggtcttttaaatgcttaagagctgaacagggtgaccaagcagtcaaaaattggatgacacagtcctctgtagtg  
caaaatgccaaacccgagtgcaaaactcgtcttgaaagccatgccagggggccacattaaaagagatgttacaggcc  
tgccaggggattgagggaccatgcacaagtcaaggctgatggcagaagccatgactaatgctttgaggcaaaac  
accattaacaccatcaacatggtacaaagacagagtcaccaggggagtaatgggaaaaaagaggggaaaacagcaca  
cgttgctacaactgtggacaatttgacatttggaagagattgcccgaagcctaagtcctaccagatgttttaag  
tgtggttaaggaaggacacttgggccagacagtgccgaaccgacacagggcaaaagcgctgtg

>#4 EF070330 1311 nt

atggggagcgaggcactcggcgatgctgacaggtaccaagttggataggtacgaaaaggtgagactaagacaaaa  
ggaaagaagaagtacctaataaagcatatagtagtgggcttcgaaggagcttgaaaggtttggactctcggactcc  
cttttgagacaaaagagggatgtcaaaagatcttagaagttctcataccattagaaccaacaggggtccgaatct  
ctcaaactactctttggaatcacgtcagtgctctgggtgatccatgcagaggtggaggtggaagacacagagcag  
gctaggaagcaaactcaggataaggtgtcatctggcggacaagcaaggggaagaaaagacagcacagaatcaaact  
agtgtcaattaccccatcataaggaacccacagggacaatttcaacaccagtcctttaatgctagaatcttaaaag  
acatgggtgtcaatagtggaagaaaagaaaatttgacagcagaagtagtggaatgtttcaagcactagcagaagga  
acaataaccctatgacatgaatcagttgctaaatgccataggggatcatcagggggctatacagatcataaaagat  
gtcataaatgagcaagcagcagaatgggatctgctacaccacagccctcagcagccgcagcccaatgcaggcctg  
cggagcccatcaggatcagacatagcaggggtaacatccacccccaatgaacaaatagaatggataactaggcaa  
aacgatcctataaatgtggcagacatctataagaaatggataatcatggggttacagaggtgtgtcaaaatgtat  
aacctgttagtatattggatatcaagcagggaccaaaagagccatttaaggattatgtggacaggttctacaaa  
tgcttaaggcgaggcaatcagatcaagcagttagaattggatgacctccactttgttagtgacagaatgctaac  
ccagagtgtaaagtcacctgaaaagcatgccaggagccaccttagaagaaatgttgaggcatgccaaggggta  
ggagggccagcacataagtccaggctaatggcagaggctatggcctcgcccttagacaaaacagtcagctgaac  
atgggtgcaaggagccagagggaaaggcagccagggaggtccaggggaaaccctaggtgttacaactgtgggcag  
tttgacacatggcaagaagctgcccgaagccaaaaactaggaaatgcttcaaatgtggaagggaggggacacttg  
gcaaaacagtgacaggtctgaaggtgccaaatcggct

>#5 AY340701 1323 nt

atgggggcgaggcactcggcgatgcttagtggtactaaattagacaagtatgagaaggtgcggcttagaccgcgc  
ggtaagaagaagtacctgattaagcatatagtagtgggctgccaaggagcttgatagattcgggtctctcggactcg  
ctcctggagacacaggacggctgtaagaagattttggaagttattcttctctacagccgacaggatccgagtcct  
atcaaactctctctttgggtatcgcttcgggtattgtattgcatacatgccggtatagaaattgaggacacagaacag  
gctaagcagcaagtaaaaaatcaggtgtcacttagcaggggaacagggagaaacagaaagctgcagccgcggccgct  
ccaccaacaggcggtacccagtggaactacccgtgctgtgagaacacaggggggaggttccaacatcaggca  
gtggagcctcggtcctcaagacatgggtacaggtcattgaggagaagaaatttgcccagaagtggtggccctc  
ttccaggctctatcagaaggcatgattccctatgacatcaatcagctactaaacgccataggtgatcatcagggg  
gcaactccaaattattaaggatgtcatcaatgaggaagcgccaattgggacttagtgacccacagccgccacaa  
ccgcaacccaatgcaggggtgggagacccaacgggggcccgatatagcaggagtctcgtccacaccccaacagcag  
atagagtggataaccaggggtaacaaccccggttcaggtctcagacatctacagaaaatgggtcatcttgggcctg  
cagcgatgctgcaaaatgtacaacccgtgtcaacattttggatatcaaacaggggacctaagaaccattcaaagat  
tatgtagacagattctacaaatgcctcagagcagaacaaacagatcaggcagtcaaaaattggatgacgcagacg  
ctgctggtccaaaatgccaaaccagattgcaaaactcatcctaaaggccatgccaggtgctagcttgaggacatg  
ctacaggcatgtcagggagtgaggaggtccaatgcacaaatctaggattctggcagaagctatggcaggggcaata  
gccaaatgcccatgaatatggtacaggccagaggaccaccccaagggaagggacaaccccaaatgcttcaattgt

ggaaaatttgggcacatggcgaaaaattgcaaagccccccaaaggaggaaatgttacaattgtggccaaccggga  
cacctcgccaaagactgccccgagcccccaaaaacaaaagggtg

>#6 KJ461716 1326 nt

atgggggcgaggcactcagcgatgcttactgggaaaaagcttgataagtatgagaagatcaggctaaggccgaaa  
ggcaaaaagaagtaccagataaagcatatagtttgggcatccaaagagttggaacgatttggactatcagactcc  
ttattggaaaataaggagggctgccccaaagatcttagaggtcattgttccattggaagaaacaggggtccgagtct  
ctaaaatccctctttggattagtttcagttttgtggtgtgtacatgcagatgttacagtagaagacacagaggaa  
gctaaaaaacagatcagaattaggtgccacatgagtggcaagaaggaggagacctccgcgggcgagggtgcctca  
ggacaaaactatccaattgttaggaatgcacagggacagcatcagcatcaggcctttgtccccaagaatcctcaag  
acatggataacaaccattgaggagaaaaaattttcagcagaagtagttgacctattccaggcactgtcagaaggc  
tgtataccctatgatataaatcagctcatgaatgccataggggaacatcaaggagcggtagacgttatcaaagat  
gtagttaatgaggaagcagccgcttgggatcagttgcacccacagccagcacagccgcagcccaacgcaggcttg  
agatacccatcagggagtgacattgcaggggtatcatcatccatacaagaacagctagaatggatgacaagagca  
gtagaccagtaaatgtaggagaaatatacagaaaaatggatagtaatgggtctgcagagatgtgtcaaaatgtac  
aaccagttaacattctggacataagacaagggccaaaagagagcttcaaagactatgtagaccgattctacaaa  
tgtctgagagcagaacaggctgatcaatcagtcaaaaaattggatgactacaaccctcttgggtccagaatgctaac  
ccagaatgcaaggccatcttaaaggccatgccaggagccagcttagaagaaatgcttacagcatgccaaggcgta  
ggagggccacactataagaccaagctgttagcagaagccatggcatcagctttccaaaagacaggaaattacaac  
atgggtgcagggcccacgagggccgaaaggggctcgagggggccaatgaaaaaccctaaccctaggtgtttcaat  
tgtggacagttcggacacatgtccaaacagtgcccacaccgaaaaagataaagtgttttaagtgtggcagagag  
ggccatatggcaagacagtgtcgagcctcagaaggtgcacaggggaggagca

>#7 KJ461714 1326 nt

atgggggcgaggcactcagcgatgcttactgggaaaaagcttgataagtatgagaaaatcaggctaaggccgaaa  
ggcaagaaaaggtaccagataaagcatatagtttgggcatccaaagagctggaacgatttggactatcagactcc  
ttattggaaaataaggagggctgccccaaagatcttagaggtcattgttccattggaagacacaggggtccgagtct  
ctaaaatccctctttggattagtttcggttttgtggtgtgtacatgcagatgttacagtagaggacacagaggaa  
gctaaaaaacagatcagaattaggtgccatagagtggcaagaaggaggaaacctccgcgggcgagggtgcctca  
gggcaaaaattatccaattgttaggaatgcacagggacagcatcagcatcaggcctttgtccccaagaatcctcaag  
acatggataacaaccattgaggagaaaaaattttcagcagaagtagttgctttgtttcaggcactatcagaaggc  
tgtataccctatgatataaatcagctcatgaatgccataggggaacatcaaggagcagtagacgttatcaaagat  
gtagttaatgaggaagcagccaattgggaccagctgcacccacagccagtagacccgcagcccaacgcaggctta  
agatacccatcagggagtgacatagcaggggtatcatcatccatacaggaacagctagaatggatgaccagaaca  
gtagaccaagtaaatgtgggagaaatatacagaaaaatggatagtaatgggtctgcagagatgtgtcaaaatgtac  
aatccagttaacattctggacataagacaagggccaaaagaaagcttcaaagactatgtagacagattctacaaa  
tgtctgagagcagaacaggctgatcagtcagtcaaaaaattggatgactacaaccctcttgggtccagaatgctaac  
ccagaatgcaaggccattctaaaggccatgccaggagccagcttagaagaaatgcttacagcatgccaaggcgta  
ggagggccacactataagaccaagctgttagcagaagccatggcatcagctttccaaaagacagggaattacaac  
atgggtgcaaggcccacgagggccgaaaggggctcgagggggaccaatgaaaaaccctaaccctaggtgtttcaat  
tgtgggcagttcggacacatgtccagacagtgcccacagccaagaaagataaagtgttttaagtgtggcagagag  
ggccatatggcaagacagtgtcgagcctctgaaggtgcacaggggaggagca

>#8 KJ461715 1326 nt

atgggggcgaggcactcagcgatgcttactgggaaaaagcttgataagtatgagaagatcaggctgaggccgaaa  
ggcaaaaagaagtaccagataaagcatatagtttgggcatccaaagagctggaacgatttggactatcagactcc  
ttattggaaagtaaggagggctgccccaaagatcttagaggtcattatccattggaagaaacaggggtccgagtct  
ctaaaatccctctttggattagtttcagtttatgggtgtgtacatgcagatgttacagtagaggacacagaggaa  
gctaaaaaacagatcagaattaggtgccacataagtgcacaaaaggaggagacctccgcgggcgagggtgcctca  
gggcaaaaattatccagttgttaggaatgcacagggacagcatcagcatcaggcctttgtccccaagaatcctcaag  
acatggataacaaccattgaggagaaaaaattttcagcagaggttagttgccttattccaggcactatcagaaggc  
tgtataccctatgacataaatcagctcatgaatgccataggggaacatcaaggagcggtagacgttattaaagat  
gtagttaatgaggaagcacacacttgggaccagttgcacccacagccagcacagccgcagcccaacgcaggcttg  
agatacccatcagggagtgacatagcaggggtatcatcatccatacaagaacagctagaatggatgacaagggca  
gtagaccaagtaaatgtgggagaaatatacagaaaaatggatagtaatgggtctgcagagatgtgtcaaaatgtac  
aaccagttaacattctggacataagacaagggccaaaagaaagcttcaaagactatgtagaccgattctacaaa  
tgtctgagagcagaacaggctgatcaatcagtcaaaaaattggatgacttcaacccttttgatccagaatgctaac  
ccagaatgcaaggccatcttaaaggccatgccaggagctagcttagaagagatgcttacagcatgccaaggcgta

ggagggccacactataagaccaagctgttagcagaagctatggcatcagctttccaaaggacagggaattacaac  
atggcgcaaggcccacaaggcccgaaaggggctcgaagggggcccatgaaaaaccctaatacctaggtgtttcaat  
tgtggacgatttggacacatgtccagacaatgcccacagccaaaaagatgaagtgccttaagtgtggcagagag  
ggccatatggcaagacagtgtcgagcctctgacagtgcacagggaggagca

>#9 JX860407 1302 nt

atgggcgcgagaagctccgtcttgtcagggaaaaaagcagatgaattagaaaaaggttaggttacggcccgcgga  
aagaaaaagtacatgttgaagcatgtatgtgtggcagcaaacgaattggacagattcggattggcagagagcctg  
ttggaaarcaaagaaggttgtcaaaaarattctttcagtttttagctccattaacaccaacagggtcagaaaattta  
aagagcctctacaatactgtctgcgtcatygtgtgcatttcacgcagaagagaaaagtgaacatacygaggaagca  
aaacaaatagtgcagagacatctagtgttagaaacaggaactgcagatcccatgccgaaaagyagtagaccaaca  
gcaccacctagtggcatgaagggaaattaccagtgagcaagtrggtggcaattatgttycacctaccattaagy  
cccaggacattaaacgcctgggtaaaattagtggargaaaagaaatttggggcagaggtagtgccagggtttcag  
gcactrtcagaaggctgtactccttatgatataatcagatgctaaattgtgtgggagaacaccargcagccatg  
cagatcataagggaaatcatcaatgaagaggcagctgattgggacctgcaacatccacaaccagggtccaatacca  
gcaggacagcttagggacccaagaggrtcagatatagcaggaaccaccagcacagtggaagaacaaattcagtg  
atgtacaggcagcagaatccgataccggtaggaacatctacaggagatggattcaacttgggttgcaaaaatgt  
gtgaggatgtataatccaacaaacatttctagatgtgaaacagggacccaaagagccatttcaatcttatgtagac  
aggttctacaaaagtttgagrgcagarcaaacagatccrgcagtwaagaattggatgactcagacactgctgatt  
caaaacgcccaaccagaytgtaaatgggttttaaagggctctgggaatgaacccccactctagaagaratgctaacr  
gcctgtcaagggtagggggaccaggacaaaaggctaggctaattggcagaagccctgaaagaagccctaaccacca  
ggggccactcccatttgcagcagcccagtttaagaggaggaccaaaaagaacagtc aaatgttggaattgtggaaaa  
gatggacacactgcaagacagtgtaaagctccaagaagacarggctgctggaaatgtggaaaaatgggccacgtc  
atggctaaatgcacagaaagacaggca

>#10 U79412 1383 nt

atgggcgcgagaaactccgtcttgtcagggaaagaaagcagatgaattagaaaaaattaggctacgaccggcggg  
aagaaaaagtacatgttgaagcatgtatgtgtggcagcaaatgaattagatagatttggattagcagacagcctg  
ttggagaacaaagaaggatgtcaaaaaatactttcggccttagctccattagtgcacacagggtcagaaaattta  
aagagcctttataatactgtctgcgtcatctggtgcatttcacgcagaagagaaaagtgaacacactgaggaagca  
aaacagatagtgcagagacacctagtgtgtggaacaggaacagcagaaactatgccaaaaacaagtagaccaaca  
gcaccatctagtggcaaaaagaggaaattaccagttacaacaaataggtggttaactataccacctaccattaagc  
ccgagaacattaaatgcctgggtaaaattgatagaggagaagaaatttggagcagaagtagtgccaggatttcag  
gcaactgtcagaaggctgcacccctatgacattaatcagatgtttaaattgtgtgggagaacatcaagcagctatg  
cagattatcagagaaattataaacgaggaggctgcagattgggacctgcagcaccacacaacaaagctccacaacaa  
ggacagcttagggagccgtcaggatcagacattgcaggaacaactagtacagtagatgaacaaatccagtggtatg  
tacagacaacagaaccccataaccagtaggcaacatttataggagatggatccaactggggttgcaaaaatgtgtc  
aaaatgtataacccaacaaacatttctagatataagacaagggccaaaaagagccatttcagagctatgtagacagg  
ttctacaaaagcttaagagcagaacaaacagatccagcagtaaaagaattggatgactcaaacactgctgattcaa  
aatgctaaccagattgcaagctgggtgctgaaggggctgggtatgaatcccaccctagaagaaatgctgacggct  
tgccaaggagtaggaggaccaggacaaaaggc aaaattaatggcagaagccctgaaagaggcccttgaccaggg  
ccactcccttttgcagcagcccacagaagggaccaagaaagccaattaagtgttggaattgtgggaaagaggga  
cactctgcaaggcaatgcagagccccaagaagacagggctgctggaaatgtggacaaatgggccatgttatggcc  
aaatgccagacagacaggcagggttttttaggcttttggcccatggggaaagaagccccgcaatttccccatggcc  
caaatgcatcaggggctgacaccaactgctccc

>#11 JQ864086 1299 nt

atgggcgcgagaaactccgtcttgtcagggaaagaaagcagatgaattagaaaaaattagggttacggcccaacgga  
aagaaaaagtatatgttgaagcatgtatgtgtggcagcaaatgaattggacagattcggattagcagaaagcctg  
ttggataacaaagaaggttgtcaaaaaattctttcgggttttagctccattagtccgacaggttcagaaaattta  
aagagcctttataatactgtctgcgtcatttgggtgcatttcacgcagaagagaaaagtgaacatactgaggaagca  
aaacaaatagtgcagagacatctagtgtggaacaggaacagcagacagaatgccagtaacaagcagaccaaca  
gcaccacctagtggcagaggaggaaattaccagtgagcaagtaggtggcaattatgtccacctacccttaagt  
ccaagaacattaaatgcttgggtaaaattggtagaagagaaaaaatttggggcagaggtagtgccaggatttcaa  
gcgctatcagaaggctgcactccctatgatataatcaaatgctaaattgtgtaggagaacatcaggcagccatg  
caaattattagagagattataaatgaagaagctgccgattgggatttacaacaccaccgcccagggtccaccacca  
gcagggcaacttagagagccaagaggatcagacattgcaggaactactagtacagtagatgaacaaatccaatgg  
atgtacaggcaacaaaaccctataaccagtaggcaacattttatagaaggtggatccaattagggtgcagaaatgt

gtaagaatgtataacccaacaaacatTTTTtagatgtgaaacaaggacccaaaagagccatttcaaagctacgtagat  
agattctataaaaagtctaagagcagagcaaacagatccggcagtaaagaattggatgacccaaacactgctgatt  
caaaatgctaaccagattgtaaattggtgctcaagggctctgggtatgaatcccacttttagaagaaatgctgaca  
gcctgtcaggggaataggagggccaggacaaaaagctagattaatggcagaagcattgaaagaggcactgagacca  
gaccaactcccatttgcagcagtcacaacagaaaggacaaaggaggacaatcaagtgttggaattgtggaaaggag  
ggacactctgcaagacaatgcagggcccctagaagacagggctgctgggggtgcggaaaaacgggtcatgttatg  
gccaaatgccctgaaagacagggcg

>#12 AF334679 1194 nt

atggggcgcgagaggctccgtcttgtcagggaaaaaagcagatgaattagaaaaagttaggttacggcccggcgga  
aggaaaaagtacatgcttaagcatattatatgggcagccagagaattagacagatttggatcggcagaaaagcctg  
ttggaaagcaaagaaggatgtcaaagaatattagcagtactagctccattaatgccaacagggtcggaaaattta  
aaaagcttgttttagtactgtctgcgtagttttgggtgctgcacgcagaaatgaaagtgaagacacagaggaagct  
aagaaaacagtacagagccatctagtggtagaaagtggaaactgcagaaaaattgccagctcaaagcagaccaaca  
gctccacctagtggaggaaactatccagtgcagcaagtaggaaataattatgtgcacactccactgtccccacgg  
acactcaatgcgtgggtcaaactggtagaagaaaagaaatttggagcagaagtagtgccaggatttcaggcacta  
tcagaaggctgtacaccctatgacattaatcagatgcttaattgtgttaggtgaacatcaggcagccatgcaaatt  
atcagagaaataattaatgaggaagcagcagactgggacctacaacacccaagaggacaacagccggcgcaaccg  
gctggaggggctaagggaaccatcaggatcagacatagcaggggacaactagcaccccaagtgaacagatagaatgg  
atgtatagggcacaaaaccagtcaccagtgaggacatctatagaaggtggatccagctgggactccaaaaatgc  
gtcaggatgtataacccaacaaacatcctggatgttaacaaggtccaaaggagccctttcaaagttatgtagat  
aggttctacaaaagtttgagagcagagcagacagatccggcagtgaaagaattggatgacacaaacactgctgatt  
cagaacgccaacctgattgcaaactagtattaaaaggggttgggcatgaatcccaccctagaagagatgctaaca  
gcctgtcaagggtaggagggccaggacagaaggcccgccctcatggcagaggccatgaaagacgccctcacgggg  
tcttttagtggcagcacagtttaggggagcagcgaaggccaagggaataagcctatcatcaggtgtttt

>#13 JX860414 1305 nt

atggggcgcgagaagctccgtcttgtcagggaaaaagacagatgaattagaaaaggttaggttacggcccaacgga  
aagaaaaagtacatgttgaagcatgtagtgtgggcagcgaacgaattggatagatttggattggcagaaaagcctg  
ttggagaacaaagaaggttgtcaaaaaattctctcggtcttagctccattagtagtaccacagggttcagaaaattta  
aagagcctttataatactgtctgcgtcatttgggtgcatccacgcagaaacagaaagtgaacatacagaggaagca  
aaacaaatagtgcagagacatctagtgggtggaacaggaactgcagatacaatgccagccacaagtagaccaaca  
gcaccacctagtggcagaggaggaaattaccctgtgcagcaaataggcggcaattatgtccacctacctttaagt  
ccaagaacactgaatgcatgggtaaaaattgggtggaagagaagaaatttggagcggaggttagtgccaggattccag  
gcaactatcagaaggctgtaccccatatgatattaatcaaatgttaaatgtgtgggggatcatcaggcagccatg  
caaattataagagaaatcataaatgaggaagcggctgattgggacctacaacaccacagccgatgggcccata  
ccagcagggcagctcagagacccgaggggatcagacattgcaggaactactagcacagtagaggagcagatagaa  
tggatgtataggcagcaaaatcctataaccagtaggtaacatctacagaagatggatccagcttgggctacaaaaa  
tgtgttagaatgtataatccaacaaacattctagatgtaaagcagggacccaaaagaaccttttcaggcctatgta  
gatagattctacaaaagcttaagggcagagcaaacagatccggcagtaaagaattggatgactcaaacgctgctg  
attcaaaatgcaaacccagattgtaaagtgatcttaaaagggtctgggtatgaacccaccctagaggaaatgatg  
tcagcctgtcaaggagtgggtggaccaggacaaaaggctagggttaatggcagaggccttaagagtgcttttagca  
ccaggagtacttccatttgcagcggcccaacagaaaggaggactgagacatacagtaaagtgttggaattgtgga  
aaggagggacactctgcaaaacaatgcagagcccctaggagacaaggctgctggaaatgtggaaaaatgggccat  
atcatggctaaatgtccagagagacaggtg

>#14 HM803689 1314 nt

atgggtgcgagagcgtcgggttttgtcagggaaaaaactagatgcctgggaacaaattcggcttcgtcccggtagc  
aagaaaaagtatatgctgaaacatctagtgtgggcaagtagggagctagagagatttggcctaagtgtacgttg  
ttagattcagcagtaggatgtcagaaaaatttaggagtcctgttgctctagtccgacaggggtcagaggggcta  
aaaagcctctttaatttatgtctgcgcactttgggtgcgtacattcggaagtgaagtgtgagagacacagaggaagct  
atacaatatgtaaagaaacagtgccatctagaggacagagaagatagtgcagcagaaaaagaaaaaggtgccaca  
gcgacatctagtggccaaaaaggaaattacccaataataacagtaaatcagcagccagagcaccagccatttca  
ccacggacacttaatgcttgggtgaaagtggtagaagagaaaaagtttggggctgaagtgggtgcccatgttttcg  
gcactttcagaaggatgcataccttatgatataaatcaaatgttaaatgcaataggagaacatcaaggagctttg  
caaatagtgtaaagaagtcatcaatgaggaagcagcagattgggatgctagacatcctaattctaggaccactacct  
gcagggcagcttagagagcctacaggaagcgatattgcaggaacaacaagcagtggttcagaaacagatagcttgg  
tcaacaagagctaaacacccaataatagtagggaacattttatagaaattggattattctgggggttgcacaaatgt

gtaaggatgtataaaccagtaaatgttctggatattaaacagggacccaaaagagccattcaaggactatgtagat  
aggttctataaagccttgagagcagagcaaacagatccagcagtaaaaaattggatgactcagacactgctgac  
cagaatgccaatcctgactgtaaaacagttctaaaaggtctagggcatgaaccctccttggaagaaatgttgcta  
gcatgccaaaggagttggaggaccccaacacaaggctagagtattggcagaagccatgcagcatgctaatagcatg  
atgatggctcaaattgagagggcaaggaaggtcagggccaccaagaagaggtggagaaagaccagtacccaaatgt  
tacaattgtggaaaaacaggacatatattccaggttttgaaggccctagaagaaaaggatgctggaagtgtgga  
gatgaggatcatcttatgaaggattgtaccaagcaggtt

>#15 HM803690 1314 nt

atgggtgcgagagcgtcaattttgacagggaaaaagctagatgcctgggagcagattcggcttcgccccgggagt  
aagaaaaaatatatgtttaaaccatctagcatgggcatgtagggaaactagagagatttggttaagtatacattg  
ttagattcagcagggggatgtgaaaaatccttaggagtccttttgctctggttccgacaggggtcagaggggctg  
aaaagcctctttaatttgtgctgcgacatttgggtgcgttcacaaggaagtgaagtgaagacacagaagaagca  
gtgcagtatgttaagaaacagtgccatctagtggagaaagaggatactgcaggagaaaaagaaaaaggtgccaca  
atgacatctagtgggtcaaagaggaaattaccccatagtaacaattaatcagcagccagaacaccagcctatttct  
cccaggacgttgaatgcctgggtgaaggtgggttgaggaaaagaagtttgagcagaagttagtgcccatgttttcg  
gcactttcagaggggtgcataccttatgatgtaaatcaaattgctaaatgccataggagaacatcaaggagcatta  
caaattagtgaagaagtaataaatgatgaagcagcagactgggatcttaggcacccaatccagggccactacca  
gcaggacagctaagagagccgacaggtagtgtatattgcaggaaccaccagcaatattgctgaacagatagcctgg  
acaaccagagcaaataacccaatagcagtaggaaacatttatagaaattggatagtactaggggttcaaaagtgt  
gtaaaaatgtataaaccagtaaacatcttggatataaagcagggacccaaaagaaccttttaagattatgtggat  
aggttttataaagcacttagagcagaacaggcagatccagcagtaaaaaattggatgactcaatcacttttgatt  
cagaatgcaaaccagactgcaagacagtgcgtgaaggggctaggaatgaatcccactctagaagaaatgctaaca  
gcctgtcaaggagtaggaggaccacagtataaagccaggggtcctagcagaagccatgcaacaagcgaatagcgct  
atcatggctcaaattgagaggtgggcaaagatcagggcccgccaagaggacaaggaggaaagacattcttgaaatgt  
tacaactgtggaaagtggggcacatttcaagatattgtaaagcccccagaagaaaaggatgctggaagtgtgga  
gaggaggatcacatccttaaggattgccctaagcaggtt

>#16 M58410 1242 nt

atgggcgggggtcactcagcactgtcagggagaagcctcgacacggttcgagaagattaggctacgtccgaacggg  
aaaaagaagtaccaaattaaacatttaatatgggcaggaaaaagaaatggaacgatttggttacatgagaaactt  
ttagaaacaaaagaaggctgtcaaaaaatcatagaagttttaaccccgttgaaccgacagggctccgaggggcta  
aaagctctgtttaatttgtgctgcgctcatttgggtgcatttcacgcagaacagaaagtgaagacacagaggaagct  
gtagtaacagtttaagcaacactaccatctagtggacaaaaatgagaaagcagctaaaaagaaaaatgagacaaca  
gcgccacctggtggcgaatcaagaaattaccagtagtaaatcagaataatgcctgggtacaccagcctttgtct  
ccgcgcacgttaaatgcgtgggtcaaattgcgtggaggaaaaaaggtggggagcagaagttagtccccatgttccaa  
gcactctcagagggatgtctctcctatgatgtaaatcagatgctcaatgtaataggagaccatcagggggcatta  
caaattcttaaggaagtcattaatgaagaagcagcagagtgggacaggacacacagaccaccagctggcccgtta  
ccagcagggcagctaagagacccgacagggtcagatatagcaggaactaccagctcaattcaggaacaaatagag  
tggaccttcaatgccaatccaagaatagacgtaggggcacaatacagaaaaatgggttattttgggcttacaagg  
gtagtgcagatgtacaatccccaaaaggtccttagacattcgacagggacctaagaacccttccaggactatgta  
gacagattctataaagccctgagagcagaacaagcaccacaggatgttaaaaattggatgacacaaactttgctt  
atccagaatgccaatccggattgtaaattgattctgaaaggattgggaatgaatccaaccttggaggaaatgcta  
atagcttgccagggagtaggagggccacaacataaggctaagctaattggtagaaatgatgagtaattggacagaat  
atggtccaagtgggacctcagaaaaagggcccccgagggccgctaaaaatgctttaattgtggcaaatattggacat  
atgcaaaagggaatgcaaggcaccaagacagatcaaattgcttt

>#17 LC114462 1314 nt

atgggtgcggttacctcagcattgtcagggagaaaaattagatgaatttgagaaaatacgacttcgcccgaacggt  
aagaaaaaataccgattaaaacatataatatgggcaggcaaagaaatggagcgcttcggcctccatgagaaactc  
ttagaaacagaggaaggatgtaaaaggataatagaagttctattacctttagaaccaacaggatcagaaggttg  
aaaagcttgtttaatctcgtgtgctgtgtattgcatttcaccgagaacagaaagtgaagacacagaggaagct  
gtagtaacagtaaaaacaacactgccaccttagaggaaaaacaaaaaagtgacgtgcgccacctggtggcgaaaag  
aaaaattacaacagtagagagacatctggtggccaaagtgcagaactaccagcgcacaacaggggaaatgcttgg  
gtacatgtgccgctctccccaggacgttaaatgcctgggtgaaagcagtagaagagaaaaaatttggggcagaa  
atagtgcccatgtttcaagccctctcggagggatgcaccccttatgacatcaatcaaattgctaaatgttttagga  
gaccatcagggggcactacagatagtaaaagaaatcatcaatgaggaagcagcaaattgggacttacaacatccc  
ccgccggttgacccctaccagcagggcaattgagagaccctaggggatcagacatagcaggtaccaccagcaat

gttcaagaacagctggagtggtatctataccgccaaaccctagagtagacgtagggggccattttataggagatggatc  
atcttgggggttacaaaaatgtgttaaaatgtacaacccagtcctcagtgctagacatcagacaagggcctaagag  
cccttcaaagattatgtagatagattctacaaagctataagagcagaacaaacatcaggagaagtaaaacaatgg  
atgacagagagctctgctcatccaaaacgccaaaccagaatgtaaagtaattctaaagggctctgggaatgcacca  
acattggaagaaatgctcacagcctgtcaaggggtaggaggacccagtcacaaagccaaattgatgggtggaatg  
atgcagcaaatgcagggacaaaacatggtgcagcaagggggcccaagaggaccaccgcgaggaaaccctcgctgc  
ttcaattgtggaatgttggccatttacaaagaaattgctgcagagccaagaaagatgaaatgctttaaatgtgga  
aaaataggacacatggccaaggactgcaaaggacaggtt

>#18 KR862336 1335 nt

atgggtgcggggttcctcagcattgtcagggagaaaattagaccgatttgaagaaatacgtttacgcccgaacgga  
agacaaaagtataaattgagacacttaatatgggcaggcaaggagatggagcgcttcggcctccacgagaagtta  
ctagaaacagaggaaggctgtgaagaaatcatagaagtactctccccctagaaccaacagggctcggaaggttta  
aaaagtctgtttaatctcgtatgtgtgctttactgcattcatcgagaacagaaagtgaagacacagaggaagct  
gtagtaacagtaaaacaacagtgccatctagtggagaaagaaaaaactgcagcagcgccacctgggtggcgaaaag  
aaaaatagcaacaccacagtgacatctagtggtcagagtcaaaattaccagtcacaacaacaagggaatgcctgg  
gtccataccccactctctccaaggaccctaaatgcttgggtaaaagcagtagaggaaaagaagtttgagcagag  
atagtccccatgttccaagcactctcggagggatgcactccgtacgatataaatcaaatgcttaatgtgcttggga  
gaccaccaaggggccttacaaatagtaaaagagatcattaatgaggaagcagccaattgggaccaaacacatcca  
ccaccagcaggtccattaccagcaggacagctgagagatccgagaggatcggacattgcaggaaccactagtagaca  
attcaggaacaaatagaatggatctacacagcaaatccaagaacagatgtgggagccatttacaggagatggata  
atcctagggctgcaaaagtgtgtaaagatgtacaatccagtcagtggttttgatattaggcaagggccaaaagaa  
gcctttaagactatgtagacagattttacaaagccataagagcagaacaggcctcaggagaggtgaaacaatgg  
atgacggaaactctcttaactcaaaatgccaaaccagaatgcaaagtcactcctgaaaggcctaggtatgcacccc  
acccttgaagaaatgttaacagcttgtcaaggagtaggaggacctcagtataaggctaaactgatggtagaaatg  
atgcagcaattacagtc aaatcaaaacatggtccagcagggggacagggagggcccaaggggacaaaaagggcctaga  
ggaccaccaagatgctttaattgtggaatgttggacacttgcagagaaattgtccagaaccaagaaagagcaag  
tgtttcaaatgcggaacacaggccacatggcaaaagattgcagggggacaggtgaat

>#19 KR862356 1332 nt

atgggtgcggggttcctcagcactgtcagggagacaattggaccaatttgagaaaatacgtttacgcccgaacgga  
aagaaaaattacaaattgaaacatttaatatgggcaggcaagagatggagcgctttggcctccatgagaagtta  
ctagaaacaaaggaaggctgtcagaagatcattgaggttctctttccttggaaaccaaccggatctgaaggacta  
aaaagtctctttaatttgggtgtgctgtattatattgtttgcacacagaacagaaagtgaagatacagaggaagcg  
gtggcagtagttagacaacactgccacctagtggaaaaagaaaaaagtacaacaacgccatctgggtggccaaact  
ggaaataacatgcagacagcgccacctggcggcaggagtcaaaactttccagtacaacaacaggggaaatgcatgg  
gtccatgtacccctctccccacgcaccttaaatgacctgggtaaaagcggtggaggagaaaaaatttgagcagaa  
atagtgcccatgtttcaggcattatcagaaggctgtacacctatgatataaaccagatgcttaatgtgcttagga  
gaccatcaaggggcattacaaatagtgaaggaaatcatcaatgaggaggccgcccagtgggacctgacacatcct  
ccacaagcaggaccaataaccagcaggacaattaagggacccacgaggctcggacattgcagggaccaccagctca  
ttacaggaacagatcgaatggatttatacggccaaccctaaagtagatgtaggagccatctatagaagatggatt  
atattaggcctacaaaaatgtgtaaaaatgtacaatccagtcagtgctcctagatatcagacaggggtcccaaagaa  
cctttcaaggattatgtagatagattctataaggcaataagagcagaacaggccttcaggagaagtaaaacaatgg  
atgactgagagtcctctgatacagaatgccaatccagagtgtaaaatcatcctcaagggattgggcatgcacccc  
accctggaagaaatgttgacagcatgtcaaggagtagggggcccgcaatacaaggccaaattaatgggtggaatg  
atgcaacaactgaatcaacagaatcaggtcatggtccaacaaggagggggaggaccagacgtggccccccaaaa  
ccaattaggtgctttaattgcggaatgttgggcataatccaaaagaattgtacagaaccaaggaaacttagatgt  
ctaaaatgtggcaaacaggccacatggcaaaagactgcagggggacaggtgaat

>#20 KR862363 1329 nt

atgggagcggttcctcagcattgtcaggtaggcaatttagaccaatttgaacaaatacgtttacgcccgaacgga  
aagaaaaagtataaattaaaacatataatatgggcaggcaaggagatggagcgcttcggcctccatgaaaagtta  
ttagaaacaaaagaaggctgtcaaaagatcatagaagtctttttcctctagaaccaacgggctcggaaggacta  
aaaagtctttttaatctgggtatgctgtactttactgcctgcatacagaacagaaagtgaagacacagaagaggca  
gtacaacagtaaggaaacagtgccacctagtggaaaaacaaaaaattgcaacagagacatctagtggccaaaaa  
gaaaatagcagctcaaaagagacacctagtggcagaagtggtaattaccagtgcaacaacaggggaaatgcatgg  
gtacacgttcctctatccccgcgcactctgaatgctgtgggtgaaagcagtgaggagaaaaagtttggggcagag  
atagtaccatgttccaagctctatcagaagggtgcacaccatgatgatcaatcagatgttgaaatgtgttagga

gatcaccaaggagccctgcagatagtaaaagaaatcattaatgaagaagcagcccagtgaggacttgacacatcca  
ccgccagcagggccattaccagcaggtcagctaagggatcccagaggatcagacatagcaggaacaactagtaca  
ttacaggaacaaattgaatggatctacactgctaatacctaaggtagatgtaggtgctatatataggagatggatt  
atthttggggctgcaaaaatgtgtaaaaatgtacaacccggtcagtgctctagacatcagacaaggaccaaagaa  
cctttcaagactatgtggacagattctataagggcattagagccgaacaagcctcaggggatgtaaaaatgtgg  
atgacagagaccctcctcggttcaaaatgccaacctgagtgtaaagtcattctgaaagggtaggcagcatccc  
actttggaggagatgctaactgctgccaagggtagggggaccccagttataaggcaaaattgatgggtggaatg  
atgtcccaaataaatcaacagcaacagatcatgggtacagcaggggaaccctagaaagggaccgccaagaccgtcc  
gcaaaatgttttaattgtggaaggtttggacatctgcaaagaaactgccagaaccagaaaaataaagtgcctt  
aaatgtggaagccaggacatatggcaaaagactgcagggggcaggtaaattht

>#21 M29975 1266 nt

atgggggcggtacctcagcactgaataggagacaattagatgaatthtgagcatatacgacttcgcccgaacgga  
aagaaaaagtatcaaatthaacatttaatatgggcaggcaagaagatggaccgcttcggcctccatgagaagtha  
ttggagacagaggaaggttgtaaaaagatcatagaagttctctctcccctagaaccaacaggggtcggaaggaatg  
aaaagtctgtataatctgggtgtgcgtattgctthtgcgtccaccaagaaaagaaagtgaagacacagaggaagct  
ttagcaatagtaagacaatgctgccacctagtggaacaaagaaaaaactgcagttacgccacctgggtggacagcag  
aaaaataacacaggaggaacagcgacacctgggtggcagccaaaatthtcccgcacaacagcaaggggaatgcatgg  
gtgcatgtaccactthtcacctcgccacctaaatgcatgggtaaaagcagtagaagagaaaaaattthggggcagaa  
atagtagcccatgttccaagccctctcagaaggctgcaccccatatgacatcaatcagatgcttaatgtcttagga  
gatcatcagggggcctthgcaaatagtgaaagaaataatthaatgaggaagcagcccagtgaggatgtaaacccacca  
ccgccgagcagggccctthgccagcgggacagctcagggatccggggggatcagatatagcagggaccactagtaca  
gtgcaagagcagctagagtggtatctatactgctaaccacagggtagatgtaggggcatctatcgaagatggatc  
atcctaggggttacaaaaatgtgtaaaaatgtacaatccagtgctctgtthtagatatcagacaagggcccaaagaa  
ccattcaaaagattatgtagacagattctataaagcaataagagcagaacaagcttcaggagaagtcaaacatgg  
atgacagaatctthtgcctcattcagaatgccaacccagattgcaaaagtaatthtgaagggcctagggatgcacccc  
actctthgaagaaatgctgacagcctgtcaaggggtgggaggcccaagttacaaagccaaagtcatggcagaaatg  
atgcagaacctgcagagtcagaacatggtacagcagggaggtggaaggggaagaccaagacccccgccaagtgt  
tacaactgtggaaaatthtggccacatgcagaggcagtgctcctgagccaagaaaaataaaatgtctt

>#22 AF301156 1308 nt

atggggcaacgagcagggactgttaggggaagaaaacattagaagacctacagaaagtcgggctgaagaaagggag  
aaaggatgttataagataaaaacatgttagatggatgtgcacagaggtaaagccgctgtgtthtaatatthtgagctg  
ttaaagtcagcaacaggagtggtcaaatattggaaaaggtgacgccattagtggaacacaggatcagaagtgttg  
aggtccctatatggatgtthtctgtgtgttactgcctgcacagaaaatggaatattgaggacactcaagaggcagaa  
aagaaagtagaagaagcttataaaaagcaggccatgatagaaatggccagcaaggaggagaaagcaaaaaag  
gaagcagagaaattggacatgccaatagtaacagggcctcaagggccagtgcatcaacccctgagccccaggacg  
ttaggagcctgggttaagtgtgtagagggaggaattgtctccttcctthggtcccatgtthcttagcttattctacg  
ggggcaatagctthtagatatgaactthgatgctcaataththtggatactcatcaaggattccctcaggtctthgaag  
gatgagattaataaaaaggcagaagagtatgacctactacatccgggtccagcagccacaacagcaaggagcatta  
aggcagcctacagcatcagatatcacaggcaacacaagctcagtagcagaacaagtggctthggggagagcccata  
gccaacatthtataggggtggatagtagacagagctgtgaaaaggtaatccagattgcaagaccatcctctgtacta  
gatattagacagggaagtaaaagaggattthtaaagctatgtagacagattthtattcagccctaagggcagaacct  
gcagcaggagaaatcaaggcctggatggctaataatthtgcataacagcatgccaacctgactgcaaaagaatt  
ctgaaaggactgcagaagccatctthtggagacatgctagcagcatgccaggagtgaggaggaccagaccacaag  
gcaaaagtgctagcagaggctatgcagcagttccagcaagagagaaccaacatgattgaagtaaaagacagcaaaa  
tgctthcaattgtcagggaaatagggcactthagccagaatgtgtcccaaaagaccaataggaggagccggtcgagga  
agaggccgaggacggggagggtthtagaggagctcccagaaggccagtgaggtgtthtacctgcaatcaggaagga  
cacatgcaaaagagattgtcccaacaagcaggca

>#23 AY159322 1311 nt

atgggcgcgagcgcgtcaggacttaggggagaaaaatthgatgaactggaaaagattaggttacggccctccgga  
aagaaaaagtagcagttaaaacatgttatatgggtaagcaaggaactagacagattthggcctacatgagaagttg  
ttagaaagtcaggaaggatgcgaaaaaattcttagcgtactctthtccactagttcctacaggggtcagaaaattht  
atthcgtgtacaacacctgtthgttgcatthtgggtgcgtacatgcgaaagtgaagtaacagatactgaggaagca  
aaagagaaaagtaaaaacaacgggtaccacctagtggtthgaagagagaatgcagcctcagaagaagaaaaaggagca  
acagcgacacctgctgtthcgtcaaaaaattacccattcaggtaataaatcaaacaccagtagatcaggggaatt  
tcaccaagaacctthaatgcatgggtaaaaatgtatagaggagaaaaagttcagcccagaatatgtgcctatgttht



attgccttgtcagaaggatgcatcccgtatgacctcaatggcatgctcaatgccattggagatcatcaggagct  
ctccaaatagtgaaggatgtcatcaatgaggaagctgcagactgggatcttagacacccccctgtgggacctatg  
ccccaaggagtgtctaagaaacccaacaggaaatgacattgcaggaacaacaagctccatagaagagcagatagaa  
tggaacaaccaggcagcaagaccaggtaaacgtaggaggtatatacaacaatggatagtactagggctgcaaaaa  
tgtgtaagcatgtataaccctgtaaatattttagacatcaaacaggggacccaaaagagccttttaaggactatgtg  
gatagattctacaaagctctgcgggcggagcgcacagatccacagggtcaaaacttggatgacgcagacattactc  
atccagaatgccaaaccagattgtaaagctaccctcaaagggttaggcatgaatcccacattggaagaaatgttg  
ctggcctgccaaaggggtaggaggacctaaatacaaggcacaatgatggcagaggccatgcagcaagcacaggca  
gctgtaatgatgcagaactcggggggaccgcccgggggtcccccagacacccccctagaaaccctagatgcccc  
aattgcggaaagtgttgacatgtactgagggtatgcagagccccaagaaagagaggctgttttaagtgtggagat  
ccaggacatctaattgaggaactgccccaaagatggtg

>#24 AF367411 1311 nt

atgggcgcgagcgcgtcaggtcttaggggagaaaaattggacgagctggaaaagattaggttacggccctccgga  
aaaaagaaataccagctgaaacacataatatgggtaagcaaggaaactagacagatttggccttcatgaaaagctg  
ttagaaagtaaggaaggatgcgagaaaaattcttagcgtactctttccactagttcctacaggggtcagaaaattta  
atctcgtgtacaacacctgctgctgctatggtgctgacatgcgaaagagaaagtaacagatacagaggaagcg  
aaagagaaagttaaaacaaaagctccatctagtggccgaaaaggaaaatgcagcatcagaaaaagaacaaagagca  
atagtgcacacctagtggccgctcaaaaaattacccaatacagataataaatcagaccccagtcctatcagggaatt  
tcaccgcgcacgctgaatgcgtgggttaaatgcatagaagagaagaagttagcccagaaatagtgcccatgttc  
atagccttgtctgaaggtgacctccccctatgatctcaatggcatgctcaatgctattggagaccatcaggagcg  
cttcaaatagtgaaggatgtcatcaatgaggaagctgcagactggaacttgagacaccacaaagtgggtcctatg  
ccccaagggtgtcttgagaaacccaacgggcagtgatattgctggaacaacaagctccatagaagagcagatagaa  
tggaactacaaggagcaagatgcagtaaatgtgggaggaatatataaacaatggatagtttttagggcttcagaag  
tgtgtaagcatgtataatccagtaaacatcctggacataaaagcaaggacccaaaggagccgttcaaggactatgtg  
gacagggttttacaagctctgcgggcggagcggactgatccacaagtcaaaacctggatgacacaaaactttgctc  
atccagaatgctaaccagattgtaaatccatccttaaagggttaggcatgaatccctctttagaagagatgccg  
ctagcctgccaaaggggtaggaggccctaaatataaagcacaatgatggcagaggctatgaaggaagcccagtc  
gctgtaatgatgcagaattcggggaggggccaccgccccggggccccccgagacaacctcctagaaacatcagatgcct  
aactgtggaaaatttgggtcatggggtgagggtgtataagccctcgaaaaaagggtgcttcaagtgtggagat  
ctaggacacataatgagaaattgccccaaagatggtg

>#25 AF328295 1311 nt

atgggcgcgagcgcgtcaggtcttaggggagagaaattggatgaaactggaacaattaggttacggccctccgga  
aagaagaaataccaggttaaaacatataatatgggtaagcaaggaaactagatcgatttggccttcatgaaaaacta  
ttagaaactcaggaaggatgcgagaaaaattcttagcgtactctttccactagttcctacaggggtcagagaatctt  
cttgcgctgtacaacacctgttgttgcatctggtgctgacatgcgaaagtgaagtaactgatacagaagaggca  
aaaaagaaagttagaacaatgcttccatctagcggccaaaggagaaagtgcagcctcagaaaaagaagagaaagca  
acagcgacacctagtggccgctcaaaaaattatcctattcagataataaatcaaacaccagtgcatcaaggaatt  
tcaccaagaacttttaaatgcctgggtcaaatgtattgaggaaaagaaattcagtcagaaatagtacctatgttc  
atagccctatcagaaggatgcctcccatatgacctcaatggtatgttaaattgctattggggaacatcaggagct  
ctccaaatagtgaaggatgtcatcaatgaggaagctgcagactgggatcttagacaccccccaagtaggacctttg  
cctcaaggggtgctgagaaacccaacagggaagtacattgcaggaacaacaagcagcatagaagaacagatagaa  
tggaactagacagcaggaacaggtaaatgtaggggcaatctataagcagtggtatgtcctaggggtgcaaaaa  
tgtgtgagcatgtacaaccagtgacattctggacataaaaacaagggccaaaagagcctttcaaggactatgtg  
gacagattttataaagctctgcgggcggagcgaacagatccacaagtcaaaacctggatgacacaaaactttgctc  
atccaaaatgccaaaccagattgtaaagacatcttgaaaggattgggcatgaacctctctttagaagaaatgtta  
ctagcatgtcaaggagtggggggaccacccgccccgagacaacccccctagaaaccccagatgtccc  
aactgtggaaggtatggacatgttctgagagactgtagactcccagaaagaagggtgctttaaagtgtggggac  
acaggacatatgatgagaaactgccccaaaatggtg

>#26 KM378564 1320 nt

atgggagcaagcgcgtcaggacttaggggagagaagcttgatgcttttgaaaagggttaggttacggccctccgga  
aaaaagaaatacagggtcaagcatcttgtctgggtagcgaaggaaactagatcgattcggcctacatgagagatta  
ttagaaagttaggaagggtgccaaaaaattttaggagtactctttcctctagttcctacaggggtcgagaaattta  
atttctctctttaataacctgctgctagtttgggtgcttccactcgaaagtgaagtatcagacacagaggaagct  
gttcaaaaaggtaagcaacactgccatctagtggacaaaaatgagaatgcagcttcaaaaaatgaaaatggggaa

acagcgacatctagcggcagggtcaagaaattaccccatcattcaagttgttaatcaacaggcagtgaccagggtatt  
tcaccaagaacttttaaatgcctgggtgaaggtgattgaggaaaagaagttcagtgacagaagtggtgcctatgttt  
ttggccctgtcagaagggtgcattagctatgacatcaatcaaagtgtgaatgctattggagatcaccaagggtgcc  
ctccaaatagtaaaagacatcatcaatgaggaagcagcggactgggataggagacatcctcaagtaggacctctc  
ccacaaggggtgcttaggaacccctcagggtcagacattgcagggaccaccagctctatagaagagcagatagaa  
tggaccaccagagcccaagatgccatcaatgtgggagcaatttataggcaatgggtggtcttaggggtgcaaaga  
tgtgtaacaatgtataatccagtcacatccttggtgtgtaaaacagggtcctaagaaccattcaaggactatgta  
gatagattttataaaagccctcagagcagaacacacagatgcagcagtaaaaaattggatgacacaaacgctgctg  
atacagaatgcaaattccagactgtaaagtgtattctcaaaggcctagggtgaacccagctctggaagagatgctg  
ctggcttgccaaggagtaggaggaccaggccataaggcaagggtcatggcagaagctatgaaagaacaacaagca  
gctataatgatgcagcagaattccctcagaggtccaccgcggggaccaggggacccccctccaagaaaccctaaa  
tgtccaaactgcgggcagttcggacataacctaaagacaatgtacaaagcctagaaaaaagggtgctttagggtg  
ggagcttttagatcatatgttaagaaattgcccaaacagggtgaat

>#27 KM378563 1320 nt

atggggagcaagcgcgctcaggacttaggggagagaagcttgatgcttttgaaaagggttaggttacggccctccgga  
aaaaagaagtataagctcaagcatcttgctggttagcgaaggaactagatcgattcggcctacatgagagatta  
ttagaaagttaggaagggtgccaaaaattttaggagtactcttctcctctagttcctacaggggtcagagaatcta  
atttctctctttaatacctgctgctgtagtttggtgctgttcactcgaaagtgaagtaacagacacagaggaagct  
gttcaaaaagttaaacagcactgccatctagtggaacaaaaatgagaatgcagcttcaaaaaatgaaaatggggaa  
acagcgacatctagcggcagggtcaagaaattaccccatcattcagggttggttaatcaacaggcagtgaccagggtatt  
tcaccaagaactttgaatgcctgggtgaaggttaattgaggaaaagaagttcagtgacagaagtggtgcctatgttt  
ttggccctgtcagaagggtgcattagctatgacatcaatcagatgttaaatgctattggagatcaccaagggtgct  
ctccaaatagtaaaagacatcattaatgaggaagcagctgactgggataggagacatcctcaagtaggacctctc  
ccgcaaggggtgcttaggaacccctcagggtcagacattgcaggaaccaccagctctatagaagagcagatagag  
tggaccaccagagcccaggactccatcaatgtgggagcaatttatagacaatgggtggtcttaggggtgcaaaga  
tgtgtgacaatgtacaatccagtcacatccttggtgtgaaagcaagggtcctaagaaccattcaaggactatgta  
gatagattctacaaagccctcagggcagaaacatacagatgcagcagtaaaaaattggatgacacaaacgcttgctg  
atacaaaatgcaaattccagactgtaaagtgtattctcaaaggcctagggtgaacccagctctggaagagatgctg  
ttagcttgccaagggtgtaggaggaccaggccataaggcaagggtcatggcagaagctatgagagaacaacagaca  
gctataatgatgcagcaaaaatccccccagggtccaccgcggggaccaggggacccccctccaagaaaccctaga  
tgtccaaactgcgggcagtatggacataacctaaagacaatgtacaaagcctagaaaaaagggtgcttttagatgt  
ggagcttttagatcatatgttaagaaattgcccaaacagggtgaat

>#28 M27470 1293 nt

atgggtaatgggaactctgccttggttagggactgatttgataaaatttgagaaaataagattaaagagaggtggt  
aaaaaatgttatagattgaaacacctctgttggtgtaaagggtgaattagatagattttggcttatcggataaaactc  
cttgaaacacagcaaggatgtgaaaaaatcctctcagtatgttggccattatatgaccaaggatcagataatcta  
aaagctttggttagggacagctctgtgttgtagcctgcatacacgcaggtatagaaattaagagcacacaagatgct  
ttaaaaaaattaaaagtcataacaagaaaggaagaaaagcaggaggatgaaagtaagaatttccctgtacaaagg  
gatgcagcaggacagtatcagtatactccaataagtcctaggattatacagacatgggtaaaaacagtggaagaa  
aagaagtggaaaccggagggtcatccctctattctcagcattgacagaaggagcaatcagtcattgattgaatatac  
atgctgaatgcagtaggagatcatcaggagcaatgcaagtcctaaaagatgtaattaatgagcaagcagcagaa  
tgggatctaacacatcctcaacaacaaccagcacaccaggaggaggattaaggaccccttcaggctctgatata  
gcaggaactacttctacagtggagaacaattggcatggatgaatatgcaacaaaatgcaatcaatgtaggaaca  
atctataagagttggattatactgggcatgaatagattggtaaaaagtcattgtccaataagtataacagatgta  
agacagggaccaaaaggaagcttttaaaagactatgtagatagattctacaatgtaatgagagcagaacaagcttca  
ggagaagttaaagatgtggatgcagcagcatctgcttatagaaaatgcaaaccagaatgcaagcagattttgaga  
agcttagggaaaggagcaacttttagaggaaatgttggaagcatgtcagggagtaggtggggccacaacataaagcc  
agattaatggcagaaatgatgagaacagtggtaggacaatcacaaaattttgtgcagcagagagggtcctcaaaga  
ggaccagttagacaacctactggaaggaaacctatctgcttcaactgtaataaagaagggtcatgtagcaagggttc  
ttcaaggccctagaaggaaagggtgctggaattgtggagcaatggatcatcagaaagctcaatgccttaagcca  
gctcagcagcagagggtt

>#29 AF131870 1290 nt

atgggagcgggaaactccacagtggatagggaagttgtgaggagctttgaaagagtagctctgaaacctggaggg  
aaaaagacctaccagggaagacatgtagtatgggcagggtaaagaattagataggtttggacttaacaaggaaactg  
ttaagaacagtggaaaggctgtcagaagattctgtcagctctgttgccctttgtatgcatctggttctaagaacctg

aaggccttagtaggtacagtatgtgtgcttgctgttgctcatcaaggcattccagtaaaagacacacaggaggct  
ctaaaaaagggtcagactagagccagcaaaaaatgaagaagcacaagcttctcaaaattttccagtgcagagagag  
ggacaaaattacattcatcagcctctctcgcttagaacagtgcaaacatgggtgaagatagtggagagaaggga  
tggaaccagaaaacagtggaatgtttgcagctttaatgacaggagcaattccagaagacatcaatgtgatgtg  
aatgccataggggagcatcaaggagctatgcagatgataaaagatcatatagtggaggaaagtgcagaatgggac  
agaatgcaccctcagcagcagcctgcacagccaggaggaggcctaaggactcctaattggtacagacatagcaggg  
gtaacatcaacagtagaagagcagatacagtggtatctatggccttaattggagcaacaagagttgcagtacaagac  
atctataaaggctgggtcatagagggtatggaaagagtagtttagactccatcagactacctcagtagtagaaatt  
agacaggggaccaaagagcctttcagagactatacagatagggttcttcaaggctttaagagcagaatcagggtca  
gaggaagtaaaagagtggtatgaaagagaaaatgctagtgcaaaatgcaaaccagattgtaaattggtaataaag  
gcaactgggagaaactccatcattagaggagatgatgagagcctgccaaggggttggggggccgagccataaagga  
aagatcctggcagaagcaatggcctctgcttttaggcagcaagtaggaagacaagctatggtgcagcaaaactta  
cccccagaaaacagccaggggaggtttgtgaagaataggaggaggaggacctaggaagcccagacttgtttta  
tgtggtaaaccaggacatctagcaaatcagtgacagagagccaaagaaaggaccacccggctcctgctggaaatgt  
ggaaagatgggacat

>#30 AF075269 1275 nt

atgggatcgggtaactctgtcctcagtagggcaaattgaaaaagattttttagtggtcaggctaagacctgggagt  
aaaaagacttatcaaaaaagacatgtagaatgggcaacgaaagaattagacagatttggattgggatacacaactc  
ttggaaacagcagaagggtgtaagaaaatcctatctgtctgctggcctttatatgcaactgggttctaagaacct  
aaggccttagtagggacagtatgtgtcatctgtctgtgtcacctaggagtaagaatatcagacactcaggaagcc  
atcagtaaaagtaaaaatagaaccagcaccagaagcagcaggggaagaaacaacagacaggggggaaattatcccctg  
ataagagaaaatcagagatgggtacatacacctttatcgcccagaacaatacaaacatgggtgaaaatagtggaa  
gacagaggttggaaaccagaaacagtagcaatgttttcagccttaacagaaaaagctttgctgatgatttaaat  
gttatgttaaatgcaattggagatcatcagggcgccatgcaataataaaagatcacatagtggaggaagggtgca  
gagtgggatagacagcaccgcgaacaacagccagctcaaccaggagggggtttaagaactcctaattgcaacagat  
gtggcaggggtcacctcaacagtagaagaacaactagcctggactacagcagacactcctgtagatgtaggaaaa  
atztataaagaatgggtcattcaggctatggaaaaagtagtcagaatccatcaaccagtaagtgtcatggacatc  
aaacaaggacccaaagagccttttaaagaatatgcagatagggttctttaagcactgagagcagaaggaggctct  
catgaagtaaaaggagtggatgaaggagaaaatgcttgtgcagaatgcaaaccctgactgcaggttagttataaaa  
gcaactaggagaaggggcatctctagaagagatgatgaaagcttgtcaggagtaggaggacctgctcataaagga  
aaaatattggcagaagcaatggcttcagccatacagcaacaagtaagacaaaacatgggtgcaggtcactccgctt  
agaaatgcgcaaggcaggtttgtgagaacaggaggaggaggtcccaggaaaccctcacttgccttcaattgtgga  
aagccaggtcacacagcaagaatgtgcagacagcccagacaggaagggtgttggaactgtggcagtaaaagagcat

>#31 AF188116 1251 nt

atgggatcggggaaactcgtcctcagtagggcaaattgagaaagatttttgtaatgtcaggctaagacctgggagt  
aaaaagacttatcagaaaagacatgtagactgggcaacgaaagaactagatagggttgggctaggagcaaacctt  
ctagaaacagcagagggctgtaagaagattttgggagtcggttggcctttatatcctacaggctctaaaaatctg  
aaagctctagttagggacagtggtgtgtcatctgttgtgtgtcacctagggaataagagtcattgatcacaggaagca  
attaataaagtgaaaattgagcagaacaacctgtgccagaaagtaaaaaattttccctttgattagagaaaatcaa  
agatgggtccatacccctctatcacccagaacaattcaaacatgggtgaaaatagtagaagataggggatggag  
ccagaaacagtggtatgttttcagctctgacagaaaaagccttgccagaagacttaaatgtcatgttaaatgct  
ataggagaccatcaaggggcaatgcagataataaaagatcatatagcggaagaaggagctgaatgggatagacag  
catccccagcagcaaccagcacaaccaggaggagggttaagaactccaaatgcaacagatgtggcagggatcaca  
tcaacagtagaagaacagcaagcctggacaacagcagacacacccatagatgtagggaaaatctataaagaatgg  
gtaatccaggctatggagaaagtggtaagaatacatcagccagtcagtgtaatggacataaaaacagggtccaaaa  
gaaccattcaaggactatgctgatagggttctttaaggccttaagagcagaaggaggttcacatgaagtgaagag  
tggtatgaaagagaaaatgctagtgcagaatgcaaaccctgactgcaaaaatggtaataaaggccttaggagaagg  
gccactttagaagaaatgatgaaagcatgtcaggagtaggaggacctgccataaaagaaaaatcttagcagag  
gcaatggcaacagccatgcaggggcagatgaaacatctcatggtgcagcaaacaccacctagaaatgcacaagg  
agatttgaagaacggggggaggtggccaagaagacctctcacttgtttcaattgtgggaagccaggacattca  
gcaaaaatgtgcaggcagcctagacaggaaggctgttggaactgtggtgct

>#32 AF188115 1290 nt

atgggatcggggaaactctgtcctaagtagggcaaattgaggggagaattctgcagtatcaggctaagacctggcagt  
aaaaagacgtatcagaaaagacatatattgtgtgggcaacaaaagaattagatagggttgggttaggagcacacttg  
ctggagacagcagatggctgcaagagaattcttgaggtctgttggccactatactccacaggctcaaagaattta

aaagcacttgtaggaactgtatgtgtgctgtgttgctgccatttagggataaaaaatagcaaacaccgcagaagct  
atgcaaaagataaaaaatagaaccaactcaggaagacaggcagcagaaaaagtggcaattatccactcatcagagaa  
aatcagagatgggtacacacgccattgtcacctagaacaatacaaaacttgggtaaaaatagtagaagatagagga  
tggaaccagaaaacagtggcaatgttttctgccctcacagaaaaagccttgccagatgacttaaatgtcatgtta  
aatgccataggagaccatcaagtggcaatgcagataattaaagatcatattgtggaagaaggggcagaatgggac  
aggacacatccgcaacaacaacctgcacaaccaggaggagggttagaaccctaatgcaacagatgttgcagga  
gtcacctcaacagtagaggagcagctagcctggaccactgcagacaccccagtggatgtaggaaaaatttataaa  
gaatgggtaattcaagctatggaaaaagtagttagaattcatcaaccagttagtgtaatggacatcaaacagggg  
ccaaaagaaccattcaagaatatgcagataggttctttaagcattaagagcagaaggagggtcacatgaggta  
aaagaatggatgaaagagaagatgctggtacaaaatgcaaacccagattgtaggatggtaataaaagccttagga  
gaaggggctagtttagaagacatgatgaaggcctgtcagggagtaggaggaccagccataaaggaaagattttg  
gcagaggcaatggcaacagccatgcaaaagtcaaatgagacagaatatggtacaagtgcaccaccaaggaatgag  
caggaaggtttgtaagaacaggaggaggagccctagaaagcctttaacttgctttaattgtggaagccaggt  
catacagcaagaatgtgtagacagcctagacaggagggtgctggaactgtggtagcaagaacataggtttgct  
caatgtccaaagcct

>#33 AY523867 1389 nt

atggggagcaggggatcggcgatcctaacaggtagaaagccttgataaatatgagaaaattcggcttcggccgaag  
gggaagaagcgctacctagttcgacatttagtttgggcaggaaaggagctggacagattcggcctctcagaccag  
cttcttgaaagtaaaagaaggttgtgaacaaatcataaaaaccatcttaccattagaaaaacatgggtcagaaaat  
ttaaaatcattatgttgccataacagcagtagtctgggcccgtccacgcagaaaaagacgtggaagatacggaaaca  
gcaaacagaaaagtgaagagggttgcaattgggaagatgaggaaacagtgcacatctagtggccaaaaagaaaat  
agcaacgacacagcgacatctagtggcagagaaggaaaaatgcagctgccagcagcaatgccatctagtggcggc  
tcaggaaattaccctctaattagaaacccacaaaatcaatggattcatgtaggggtcaacaccaggactttaaaa  
acctgggttagaggcagtgaacagcaaaaaatttgatgcctcactgggtcccactattccaaattttaacagaaggt  
tttataccttatgacctcaatgacatgcttaatgccattggagatcatcaaggagcaatgcaagtgatcaaagat  
gtgattaatgaggaaggtctgaatgggacctacaacaccacacacctcaacagcagcagcctgtagcagggcta  
agagatcctagtgcctcagacatagcaggaacaaccagtaccatccaagaacaaatagagtggataactagacag  
aacaacccaattcaggttgacagatctacaggcagtggtataattctaggattacaaaagtgtgtgcaagtctac  
aatcctgtcaatattttggacatcaggcaaggacctaagaaacatttaaggattatgttgatagattctatcat  
tgtcttagagcagaacaagcggacccggctgtaaaaaatttggtcacacagtcattactaattcagaatgcaaac  
cctgagtgcagaagcattctgaaagcaatggtcaaaccaaccttggaagaaatgcttcaagcttgccaaggggta  
ggaggaccacaatacaaaagcaaaaactattagcagaagcaatggtaatgacacaacacagcttgggcatgatcaa  
gggccaagacaaggaagcaatcccaggagaggggccaacaagatgctttaattgtgggcagttaggacatcttcaa  
aaagactgccctagggcaaaaaagccttaagtgtctttaactgtggaggaacgggacacatagcaaggcagtgtaga  
caaccaagaaaaggacaaggcaaccctcctccacagggc

>#34 AY655744 1374 nt

atggggggcacggcactcggcgatgctcaccggtagggccttagataaatatgagaaagtgcagactgaggccgaaa  
gggaaaaagaagtatatggtgaagcatattgtatgggcttccaaagagatggagagggttggcctgagtgcgcc  
ctgttagagaccaagaagggtgcgttaagatcatagaagccatttacatgttagaacgcaatgggtcagaaggg  
ataaagtctctctttggaatcgtgtgtgttctatactgcattcatgctggtatagacattgaggatacagagcag  
gccaaaggcagaagtaaggaaaacgctgccacctaggggagaaaaaggaaacaacagaggaggaaaaagtaagaaag  
gcaacagtgcacatctagtggccaaacaggaaattaccccataataagaaatgcacagcagcagtatcaacatcag  
gcaactgtcacctaggctgctaagacatggattgccactatagaggagaaaaaatttgcccctgaaacagtggcg  
ctcttctcggcactagcggaaagggtgcacccctatgacatcaatcaaatgcttaatgcagtaggagagcatcag  
ggggcaatgcagatcataaaggacatcattaatgagcaggcatcagagtgggatcagatgcacccagataggt  
ccactaccagcaggacagttaagggaaccagcagggagtgacatagcagggacaacaagcactcccgtgaacag  
gtggaatggaccaccagagcacagaaccccgtagatgtgggagcaatatacaaaagtgggtcatcatgggctta  
cagcgtgtgttaaaaatgtacaatccagttaacatactggatgtgaaacaaggccccaggggaaccattcaaagac  
tatgtagacaggttctacagatgtcttagggccgaacaaacagatcaggcagtaaaaaatttgatgacacagacg  
ctgttggtccagaatgctaaccagagtgcaaggccatcttaaaagccatgggcccaggagccaccttagaagaa  
atgctccaggcctgtcaaggggtaggaggacccagcataagagcaggcttatggcagaagctatggcagaagcc  
ttaaaacaaaacaccaacaagtcatagccatggtacaacagggggcaaggaggcccaaggggggagagggggacct  
agaaggaaacccccagggcagattaggtgttataactgtggaaaatttgccatatagcaaaagaaactgcccgcc  
ccgccgagacagaaggtgccgccaggcacttgctataagtgtggcaaacaggccacatagcaaaacaatgctcc  
tcagcacaggccaatttttttaggg

>#35 AY523865 1389 nt

atgggggcgggcggtcggcaccattaaccggggcggttttagacagatttgaaaaagtaagattgagaccaaaa  
ggcaaaaagaagtatatgataaagcacctcgtctgggcaggtaagggaactagacagatttggccttgagcagca  
ttattagaaaataaggaaggctgtcaggaaattttgactaggttacagcctttagaagcaacaggcagtgagaat  
ttgaaatctctatatggcatagctgtgtcatctgggcatgccatgccaacctctcggtggatgacaccgaggag  
gccaaaaaggcagtgtagcaggaggataaagcaggtggaacaggagggaagaattagaaatggccctaatacgaaga  
cagaaagagaaggaagtagaacagaaacaacaaaagcaacagggaacaaagacagcaggagcctcaggcagcacc  
cagacaacaccatcagttactaccctatcttaagacaggggcaacagtttgtgcatatgccattaagccccagg  
atagtaaaaacctggataaatgctgttagaggaaaagaaattttctccagagatagttcctctttttcaagtcttg  
gcagagggctgtacccccctatgacattaatgggtctacttaatgcaattggagatcttcagggggctatgcagatc  
attaaagatgtaattaatgaggaagcagcagagtgggatttacaacaccacaacaacagccgccacaggggagcag  
cttagggaaccatcaggagcagacatagcaggaacaaacagcacagtggaagaacagatagcatggatgaccaga  
ccagcaggtcaaggacaaggacccatagatgtaggacaaatatatagaagatgggtcatactagggtctgcaaga  
tgtgtgaaaatgtacaatccaaccaacatcttggtgttaaaacaagggcccaagggaaccattcaaagattatgtt  
gacaggttctataagaccttaagagctgaacaagcagatcaggcagtaaaaaattggatgaccaccaccctcatg  
attcaaaatgcaaacctgattgcaggatcatcctgaaaggattaggtcagaatcccaccttggaagagatgcta  
catgcatgccaaaggggtgggaggccacagcaaaaggccagacttatggcgagggtatggcctcagccttaaaa  
gaggcaggggtccctaggcatggtacaacaaaggagaggacccccctggttctagaagacagattagatgcttcaat  
tgtggacaaattggacatctccaaaaggactgcaaaagacctagaaagaccaaattgttttaaatgtgggcaggaa  
ggccacattgcaaaaaattgtggacagactccgagggca

>#36 AY523866 1380 nt

atgggggcgggcgatcggcgccattaaccggggcagcttttagacagatttgagaaaataagattgagaccaaaa  
ggcaagaaaaagtatattgataaagcacctcgtctgggcaagtaggggaactagacagatttggccttgagaggca  
ttattggaaaccaagaaggatgtcaagagatcttaactagattacaaccttttagaggcatcaggcagtgaggc  
cttaagtccctatacggcatagtatgtgtcgtttgggcatgccacgccaacctctcggtagaagataccgaggag  
gcaaaaaaggcagtggttagaaggataaagcaggcagagcaggagggaagagtttagagatggcattaattcagaag  
aaagcagaaaaaggagtttagagaaaaagcagaaaactcaggcagcagcagcagacacacagcaaaaaacaaacca  
ccagctaattttccaatcctgagacaaggacagcaatatgtacatatgcctttaagtcctaggattgtgaaaacc  
tgataaatgcagtgaggagaaaagaaattttcccagagatagtgcccctatttcaagtattggcagaaggggtgt  
actccctatgatattaatgggctgctaaatgccataggagatctacaaggggcaatgcaaattataaaagatgtg  
attaatgaggaagcagcagagtgggacttacaacaccacagcaacagccaccacaagggtcagcttagagagcca  
tcaggagctgacatagcaggaacaaacagcacagtggaagagcagatagcttggtatgaccaggccagcaggacaa  
ggagcaggcccaatagatgtaggacagatatagcaggagatgggtcatcctaggcttacagagatgtgtaaaaatg  
tacaatccaactaacattttggatgttaagcaggggtcctaaggaacccttcaaagactatgtagatagattctac  
aaaaccttgagggtgaacaagcagatcaggcagtcaaaaattggatgaccaccaccctaattgattcagaatgct  
aaccacagattgtagaataattctaaaaggggttaggacagaacccccactttagaagaaatgttgcatgcatgccag  
ggagtaggaggtccccaacagaaaagcccgtctgatggcgagggtatggcctcggccttaaaagaagcagggtcc  
ctggggatggtgcagcaaaagaggaggacaaggaggaggtcctagaagacagcttagatgctttaattgtggacag  
attgggcatgtgcaaaaggattgtaaaaagcctagaaaaggttaaatgcttcaaattgtggttaaggagggccacata  
gcaaaagaactgtggacaagtaccaagggca

>#37 FJ919724 1413 nt

atgggagcggggcgatcagcacccgttaacggggaaagcttttagacaaatttgaaaagggtgaggttaaggccaaaa  
ggtaaaaaagaagtatatgataaagcacctcgtctgggcagctagggaattagatagggttcggcctctcagaggca  
ttgttagaaaacaaggagggtatgtcaggagattctaaccagggttaacacctttggaagcaacaggcagtgagaat  
ctcaagtctctttatgggacatgttgtgtcatatgggcctgccatgcaggtctccaaatagaggacacagaagaa  
gcaaaagaaggcagtaaaacttagaattgctcaagtagaagcagaggaccaattagaaatgcaggtcctgcagaaa  
aaagcagaggcggaagcagcaaaagaaacaaggggcagtatcagctcaagcccaaccagcccaggttcaatcagca  
gccccacaacagggaacagtagtaaggggcaactaccaatcctcagacaagggggacagtatgtgcatatgcct  
ctaagtccaaggatagtaaaaacttgataaatgcagtagaggagaaaaagttctccccagagatagtcctctt  
ttccaagttctagcagagggtgtaccccatatgacatcaatgggttactcaatgccataggagatttacaaggg  
gcaatgcagataataaaggatgtaaatcaatgaggaagcggccgagtggttttacaacaccacaacagcagcca  
ccccaaaggacagttgagagaacctcaggagcagatatgtcagggaccaacagcacagtagaagaacaaattgca  
tggtatgacaagagcccaggagtgaggaggagcccatagatgtaggacaaatttatagaagatgggtaattttg  
ggtctacaaagatgtgtaaaaatgtataatcctaccaacatcttggtatgtgaaacaagggcccaaagagccattc  
aaggactacgtagacaggttctacaagaccttgagggcagaacaggcagaccaggcagtaaaaaattggatgacc

accacccttatgattcaaaatgctaaccagattgcaggacaatcttgaaggctttgggacctaactctactcta  
gaggagatgctgcatgcatgccaaagggtaggaggacccaacagaaagcaaggctcatggcggaggcaatggtc  
tcagccatgagggagggaggaggccttaccatggtacaacagaggggaccaggagggccaagacctgggaataga  
attagatgctataattgtggacaaattggccatgttcaaaaggactgtaggaagcccagaacagttagatgcttc  
aaatgtcaacagacagggcacatggcaaaaaactgcccaaaagcagctcctcagtcaaagaat

>#38 AF208027 1296 nt

atgggcgcgagaagctccgtcctgtcagggaaaaaagctgatgaattagaaaaagttaggttacggcccggcgga  
aagaaaaaatacatgtttaaaccatgttgtgtgggcagcgaacgaattggacagattcggattagcagagagcctg  
ttggaatcaaaagaaggttgccaaaaaattctttcagttattagctccattagtagtaccacaggttcagaaaattta  
aagagcctttataatactgtctgcgtcatttgggtgtttgcacgccgaacagaaagtaaaacatactgaagaagca  
aaacaagtagtgagagacatctagtgttagaaactggaactacagaaaaagtgctgccacaagcagaccaata  
gcaccacctagtggcagaggaggaaactacccagtgagcaagtaggcggcaactatgttcatctgccattaagt  
cctcgaactttaaatgcatgggtaaaattggtagaagaaaagaagttcggggcagaagtggtgccaggatttcag  
gcgctgtcagaaggctgcctaccatatgatataatcaaatgctaaattgtgttaggagaacatcaagcagccatg  
caaattattagagaaataaattaatgaggaggcagcagaktgggatcttcaacatccacaacaagggccgcccga  
gcaggacaamtacgggaaccgcagagatcagatatagcagggaccactagtagacaatagaagaacaaattcagtgg  
acacacagggcagcaaaaccctataccagtaggaaatatytatagaagatggatccarttaggacttcaaaaatgt  
gtcaggatgtayaatccaacaacatcctagatgtaaaacaagggccaaaagaaccctttcagttctatgtagat  
agattctacaagagtctragagcagaacaaactgatccagcagtaaaaaattggatgacacagacactactgatt  
caaaatgccaaaccagattgtaaattagtactaaaggggttgggaatgaatcctacttttagaggaaatgttgaca  
gcctgtcaagggrrtaggaggaccagggccaaaagccagggttatggctgaagcattaaaagaagccttaaaccct  
acagccctaccattttgcagctgctcaacaaaaaacaggaggaaaaaggagcacaataaaatgttggaattgtggc  
aaggaggacatacagttagacagtgagagccccagaagacaggggtgctggaagtgtgggaagccaggccac  
attatggccaaatgtccagag

>#39 M30502 1566 nt

atgggcgcgagaaactccgtccttgagagggaaaaaagcagacgaattagaaaaagttaggttacggcccggcgga  
aagaaaaagtacaggttaaaacatatattgtgtgggcagcgaatgaattggataaattcggattggcagagagcctg  
ttggagtcaaaagaaggttgccaaaagattctcagagtttttagatccattagtagtaccacaggggtcagaaaattta  
aaaagccttttttaatacctgtctgcgtcatttgggtgcttgcacgcagaagagaaagtgaagatactgaggaagca  
aagaaactagcacagagacatctagtggcagaaactggaactgcagagaaaaatgccaaatacaagtagaccaaca  
gcaccacctagtgggaaaaagaggaaactaccccggtgcaacaagcgggtggcaactatgtccatgtgccactgagc  
ccccgaactctaaatgcatgggtaaaattagtggaggaaaaagaagttcggggcagaagtagtgccaggatttcag  
gcaactctcagaaggctgcacgccttatgatattaatcaaatgcttaattgtgtgggcgatcaccaagcagctatg  
caaataatcagagagattattaatgaagaagcagcagactgggattcgcagcacccaataaccaggcccccttacca  
gcaggacagctcagagacccaagaggggtctgacatagcaggaacaacaagcacagtagatgaacagatccagtgg  
atgtataggccacaaaatcccgtagccgttagggaacatctacagaagatggatccaaataggggtgcaaaagtgt  
gtcagaaaagtacaaccaactaacatcttagacataaaaacagggaccaaagaaccgttccaaagctatgtagac  
aggttctacaaaagcttgagggcagaacaaacagacccagcagtaaaaaattggatgacccaaacgctgctaata  
cagaatgccaaaccagactgcaagttagtactaaaaggactggggatgaatcccaccctagaagagatgctaacc  
gcctgccagggggttaggaggaccaggccagaaagccagggtaatggctgaagccctaaaagagggtatgggacca  
agccctatcccattttgcagcagcccaacaaagaaggcaattagggtattggaactgtggaaaggaggggacactcg  
gcaagacagtgccgagcacctagaagacaggggtgctggaagtgtggcaagccaggacacatcatggcaaaactgc  
ccggaaaagacaggcaggttttttaggggtgggcccacggggaaagaagcctcgcaacttccccgtgacccaagcc  
cctcagggggtgataccaacagcacctccggcagatccagcagcggaactgttgagagatatatgcagcaaggg  
agaaagcagaggggagcagaggggagagaccatacaaagaggtgacggaggacttgctgcacctcgagcagagagag  
acacctcacagagaggagacagaggacttgctgcacctcaattctctcttttgaaaagaccagtag

>#40 AF082339 1221 nt

atgggcgcgagaaactccgtccttgagagggagaaaaagcagacgaattagaaagaattaggttacggcccggcgga  
aagaaaaaatatcagctaaaacatatattgtgtgggcagcgaatgaattggacagattcggattggcagaaagcctg  
ttggagtcaaaagaaggttgccaaagaattcttaaagttttagaaccattagtgccaacaggatcagaaaattta  
aaaagccttttttaatactgtctgcgtagtttgggtgcgtgcacgcagaagagaaagtgaagatactgaaggagca  
aaacaaataatacagagacatctagcggcagaaatagaacagcagagaaaaatgccaaagcacaagtagaccaaca  
gcaccacctagtgaacaggggggaaacttccccgtacaacaagtagccggcaactaccccatgtgccgctgagc  
ccccgaaccttagatgcttgggtaaaattagttagaagaaaagaagttcggggcagaagtagtgccaggatttcag  
gcaactctcagaaggctgcacgccttatgatattaatcaaatgcttaattgtgtgggcgaccatcaagcagccatg

caaataatcagggagattatcaatgaagaagcagcagactgggatgttgacatcccataaccaggccccttacca  
gcagggcagcttagagaaccaagaggggtctgacatagcaggaacaacaagcacagtagaagaacagatccagtgg  
atgttcagggcacggaatcctgtgccagtagggaacatctatagaagatggatccagataggggtacagaagtgt  
gtcaggatgtacaacccaaccaacatcctagacataaaacaaggaccaaaaggagccattccaaagctatgtagat  
agattctacaaaagcttaagggcagaacaaacagatccagcagtaaagaattggatgactcaaactgtctggta  
cagaatgccaaaccagactgcaaattagtgtgtaaaggattagggatgaatcctaccttagaagagatgctaacc  
gcctgtcagggagtagggggaccaggccagaaagccagattaatggcagaagccttaaaggaggccatgacacca  
gtcctatcccatttgcggcagcccaacaagaaggacaattaagtgtggaattgtggaaaggaagggcactcg  
gcaagacaatgccgagcacc

>#41 U27200 1224 nt

atgggcgagagggctccgtcttgtcagggagaagacagatgaattagaaaagggttaggttacggcccggcgga  
aagaaaagatacatgctaaaacatatagtatgggcagtgaatgaattagagagatttggattggcagagagccgg  
ttgggatcaaagaaggatgccggaatttcggaagtcttaggaccattagtagcaacaggttcagaaaattta  
aaaagtctttataataccgtctgcgtcatcttttgcctgcacgcagaagagaaagtgaagatactgaggaagca  
aaaaagatagcacagcgacatctagcagcggacacagaaaaaatgccagctatgagtaaaccaagtaaaccaact  
agccgcctagcttatccagtgcagcaaatagctggcaattattcccacctgccgctaagccccgaaccttaaat  
gcctgggtataaattagtagaagagaagaagttcggggcagaagtagtaccaggatttcaggcactatcagaaggg  
tgcaccccttatgatattaatcagatgttaaattgtgtaggagaacatcaggcagccatgcaaatattagggag  
ataattaatgaggaagcagcagactgggaccaacagcatccatcgccaggcccaatgccagcagggcaactcagg  
gaaccaagaggggtcagacatagcgggaaccaccagcacagtagaagaacagatacagtggtgtacagaccccaa  
aatcctgtcccagtggaacatctatagaaggtggattcagtttagggctacagaaatgtgtccggatgtacaat  
cctactaatatactggacataaaagcaagggccaaaagaacccttccaaagctatgtagatagattctacaaaagc  
ttacgggcagagcaaacagacccagcagtaaaaaattggatgacacaaactgtgtgattcagaatgctaacca  
gattgcaaattagtgcttaagggcttgggaatgaaccccacattagaagaaatgctaacagcctgccaggggata  
ggagggccagggcagaaggcaaggctaattggctgaggcttttaaagaagccttgacaccttccaccaatccgttt  
gccgccgtcaaccaagagcaggggaagaggacagtgcacatgctggaactgcggcaaggcgggacatacagccagg  
cagtgcgaaggcccctagaaggcag

>#42 KP004991 1308 nt

atgggtgagagcgtctgtgttgtcagggagtaaatggatgagtgggaaaaaatccgggttaaggccaggatct  
aaaaagaaatatctgctaaaacatttagtatgggcaagcagggagctggaaagatttgcttgtaatcctgagcta  
ttagaaacagcagaagggactgagaagctactgcagcagctagaaccagctctcaagacaggggtcagaaagcctg  
cagtcactctggaacacgatagtagtactctggtgtgttcacaacagattcaaagtggctgatacacagcaggca  
atacaaaaagttgaaggaagtgaaggggcataaaaacacaagtgcgcagcagacagatcaaaggagctcgagcag  
acaggacaaaattaccctatagtaccaaattgcacagggacaaatgacgcacagccctctccccagaaacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgagattattcctatgtttatggcattatcagaa  
ggagctatcccatatgacatcaatactatgctaaatgccataggaggacatcagggggccctacaagtgtgaag  
gargtcatcaatgaagaagcagcagattgggacagaactcaccgccagtggtgggaccattgccaccagggcaa  
ataagggaaccagcaggaagtgcattgtgggacaactagcaccagcaagagcaggtccactggactactagg  
gctaacaatcctatcccagtaggagatatctacagaaaatggatagtaatggggttaaaccaagatggtaaaaatg  
tacagtccagtgcacatcttagacataaaagcagggaccaaaagaaccatttagagattatgtagacaggttctay  
aaaactttaagagctgaacaagcaacccaagaagtaaaaaattggatgacagagacactgcttgttcagaatgcc  
aatccagattgcaaacagattctaaagtcattagggccaggggctaccttgagggaatgatgatagcctgtcaa  
ggggtaggaggaccaactcataaggctagagtactagcagaagcaatggcctctgtccaccaagatctaaaagga  
ggatacacagcagtagttcatgcaaagagggcaaaacccaaataagagagggcctataaaatgttttaactgtgga  
aaagaagggcatttagcaaaaaattgtcgagcacctagaagaaagggttgctggaaatgtggacaggaggggtcat  
caaatgaaagattgcaaaaatggaaggcaggca

>#43 FJ424866 1293 nt

atgggtgagagcgtcagtggtgacagggggacgattggatgcatgggaacgaattaggcttaagccaggaagt  
aagaaaaagtatatgctaaaacatgtagtatgggcaagcagggagctggaaagatttgcatgtaatcctgagctt  
atggaaacagccgagggctgtgaaaaattattagggcaactagaatcagctctcaaaacaggggtcagatggcttg  
cgatctctgtggaacactttggtagtgctgtggtgtgtccaccggagaattgatgtatcagacactcagcaagcc  
ttagaaaaatttaaggaagtcatgtcaaaaagaagtcagacagccgccctgaaacaagtcagaactatccagtg  
gtagcaaatgctcaagggcagatgggtccatcagccgctgtctcccaggactctaaatgcctgggtgaaagcggta  
gaagaaaaggccttcaatccagaaatcatccctatgttcatggcattatcagaagggtctatcccttatgatatt  
aatactatgctgaatgccattggaggacatcagggggcattacaggtattaaaggaagtcatcaatgaggaagca

gcagaatgggacaggatgcacccggcagtggtgggacctctgccagtgggacaactgagggagccgtcaggggga  
gatattgcagggacaacaagtactcaacaagaacaagtagcttgataacaaggaataacaaccctgtgccagt  
ggtgacatatataggaaatggatagtgctaggggttaacaaagtagtaaaaatgtactgtccagtcagtatccta  
gatattaagcaggggacctaaggaaccattccgagactatgtagacagattctacaaaaccctcagagcagaacag  
gcaagtcaagatgtaaaaaattggatgacagaaactttgttaattcagaatgctaactcctgattgtaagcaaatt  
ctaaaagccctaggcccaggggcaaccctagaagaaatgatgaatgcttgtcagggagtggggggacctactcac  
aaagcaagagtccttggcagaggcaatggcagcagcccactcagatttaaaaggaggatatacagcagtcctttatg  
caaaaggggggaaacaatcaagggattaagaagggaccagtaaaagtgccttcaattgtgggaaagtaggacatata  
gcaaaaaattgtagggcaccagaagaaagggatgctggaaatgtgggcaagatgggcaccaaatgaaagactgc  
agatcaggcagacaggcg

>#44 KP004990 1287 nt

atgggtgcgagagcgctcagtggttaacaggggggtcgattggatgcatgggaaagaattaggctcaagccaggaggt  
aagaaaacctatatgctaaaacatgtagtatgggcaagcagagagctggaaagattcgcttgtaatcctgagcct  
atggagacagcagaagggttgtagaaaattactaggacagcttgagccagctctcaaaacagggttcagaaggcctg  
cagtcgctttggaacaccctggtagttctatggtgtgttcacaagcgaatagacgtagccgacaccagcaggcc  
attacaaaatggaaggaggaaatgcaaaaacgaagaaaagagaaagaaagcagccccggaacaagtcaaaactat  
cctatagtgagaatgcgagggggcaaatgatacatcagccactgtctcccaggactttaaatgcttgggtgaag  
gcagtagaagagaaaagccttcaaccctgagattatccctatgtttatggccttatcagaaggatctataccttat  
gacattaatactatgcttaatgcaataggcgggcatcagggagcattacaggtggtgaaagatgtgattaatgag  
gaagctgcagaatgggacagggttacaccctgcccccgtagggccgttacccgcccagggcagataaggggaacctaca  
ggagggggacattgcaggaaccaccagtagctcagcaagagcagatagcatggataacaaaaaatcctcctatacca  
gtaggagacatctatagaaaatggatagtggtgggactcaataaagtggtaaaaatgtatagccctattagcatc  
ctggacataaaagcaggggacctaaggagccattcagagattatgtagataggttctataaaaaccctcagagcagaa  
caagccagtcaggatgtaaaaaattggatgacagataccttattagtacaaaatgctaatacccgattgcaagcag  
attctgaaaagccctaggaccagggggccaccttgaggaaaatgatgaatgcttgtcaaggagtaggggggaccaaca  
cataagggccagggtccttggcagaagctatggcagcagccaaccaagcyagccaagacttgaaagggggatacaca  
gcagtcctttatgcaaagaggacagagagggccagttaaagtgcctttaactgtggaaagctagggcatatagcaaag  
aactgtagagcaccgaggagaaaaggatgctggaaatgtggacaagagggtcatcagatgaaagactgcaaaata  
ggaaaacaggca

>#45 KP004989 1287 nt

atgggggcgagagcgctcagtggttaacagggggccgattggatgcatgggagagaattaggcttaagccaggaagt  
aagaaaacatatatgctaaaacatgtagtatgggcaagcaaagagctggaaagatttgcatgtaatcctgagcct  
atggaaacagcggatggctgtragaaaattattagggcagttagaaccagctcttaaaacagggtcccgatggcctg  
cagtcctcttggaaacaccctagtagttctgtggtgtgttcacagaagacaggaagtaagtgcacccagcaggct  
attgcaaaaatggaaggaggaaatgcagaagaggaaaaaggcacaagagggcagcactggaacaagtcaaaattat  
cctattgtgcagaatgcccaaggacaaaatggtccatcagccgctgtctcccaggacrtrraatgcctgggttaaag  
gcggttgaagaaaaagccttcaaccctgaaatcatccctatgtttatggccttatcagaagggtctataccttat  
gacatcaatactatgctcaatgcagtaggtgggcatcagggagcggttacaggtggtgaaagatgtaataatgag  
gaagctgcagaatgggatagaaacacatcccgcgccagtagggcctttaccaccaggggcaaattagagaaccaaca  
ggagggggatattgcaggaagcactagcactcagcaggaacaaaatagcatggataacaagagccaatcctatacca  
gtaggagacatctatagaaagtggatagtgctgggacttaataagggtggtaaaaatgtacagccccattagcatc  
ttggatataaaagcaggggacctaagaaccatttagagattatgtggatagattctacaaaaccctcagagcagaa  
caagccagccaggatgtaagaattggatgacagaaactttactaatrcaaaatgctaataccagattgtaagcaa  
atthttgaaagctctgggaccagggggccaccttggaagaaatgatgaatgcctgtcaaggagtaggggggaccaaca  
cataagggccagggtccttggcagaagctatggcagcagccaatcaagccagccaagacttgaaaggagggtataca  
gcagtggtcatgcaaagaggacagagagggccagttaaatgcctttaactgtggaaaggtcggacatatagcaaag  
aactgtaaggcacctaggagaaaagggtgctggaaatgtggacaggaagggtcaccaaatgaaagattgtaaatca  
gggagacaggcw

>#46 FJ424863 1293 nt

atgggtgcgagagcgctcagtatgtgacagggggacgattggatgcgtgggaacgaattcggttaagccaggaagt  
aagaaaaagtatatgctaaaacatgtagtatgtgcaagcaggagagctggaaaggtttgcatgtaatcctgagcct  
atggaaacagcggagggctgtgaaaaattattagggcaactagaaccagctctcaaaacagggtcagatggctta  
cgatctctgtggaacactttggtagtggtgtgtgtccaccggagaattgatgtatcagatactcagcaagcc  
ttagaaaaatttaaggaagccatgtcaaaaagaaagtcagacagccgcccctgagacaagtcagaactatccagtg  
gtagcaaatgctcaagggcagatggtccatcagccgctgtctccaaggactctaaatgcctgggtgaaagcagta



gaagaaaaggccttcaatccagaaatcatccctatgttcatggcattatcagaaggggtctatcccttatgatatt  
aatactatgctgaatgccattgggtggacatcaggggagcattacaggtattaaaggaagtcacatgaggaagca  
gcagaatgggacagggtgcacccggcagtagtaggacctctgccagtaggacagctgagggagccgtcaggggga  
gatattgcagggacaacaagtactcaacaagaacaagtagcttggataacaaggaataataaccctgtgccagt  
ggtagacatatacaggaaatggatagtgctaggggttaaacaagtagtaaaaatgtactgtccagtcagtatccta  
gatattaagcagggacctaaggaaccattccgagactatgtagacagattctacaaaaccctcagagcagaacag  
gcaagtcaagatgtgaaaaattggatgacagaaactttgctaattcagaatgctaatacctgattgtaagcaaatt  
ctaaaagccctagggccgggggcaaccctagaagaaatgatgaatgcttgtcagggagtgaggagacactactcac  
aaagcaagagtccttrgcagaggcaatggcagcagcccactcagatytaaaagggggatatacagcagtcctttatg  
caaaaggggggaarcaatcaagggattaagaagggaccagtaaaatgcttcaattgtgggaaagtaggacatata  
gcaaaaaattgtagggcacccagaagaaagggatgctggaaatgtgggcaagaggggcaccaaataagaaagactgc  
agatcaggcagacaggcg

>#47 FJ424864 1293 nt

atgggtgcgagagcgtcagtggttgacagggggacgattggatgcatgggaacgaattaggcttaagccaggaagt  
aagaaaaagtatatgctaaaacatgtagtatgggcaagcagggagctggaaagatttgcatgtaatcctgagcct  
atggaaacagccgagggctgtgaaaaattattagggcaactagaatcagctctcaaaacaggggtcagatggcttg  
cgatctctgtggaacactttggtagtgctgtggtgtgtccaccggagaattgatgtatcagacactcagcaagcc  
ttagaaaaatttaaggaagtcagtgcaaaaagaaagtcagacagccgccctgagacaagtcagaactatccagtg  
gtagcaaatgctcaagggcagatgggtccatcagccgctgtctcccaggactctaaatgcctgggtgaaagcggta  
gaagaaaaggccttcaatccagaaatcatccctatgttcatggcattatcagaaggggtctatcccttatgatatt  
aatactatgctgaatgccattggaggacatcagggggcattacaggtattaaaggaagtcacatgaggaagca  
gcagaatgggacaggatgcacccggcagtggtgggacctctgccagtgaggacaactgagggagccgtcaggggga  
gatattgcagggacaacaagtactcaacaagaacaagtagcttggataacaaggaataataaccctgtgccagt  
ggtagacatatacaggaaatggatagtgctagtggttaaacaagtagtaaaaatgtactgtccagtcagtatccta  
gatattaagcaggggacctaaggaaccattccgagactatgtagacagattctacaaaaccctcagagcagaacag  
gcaagtcaagatgtaaaaaattggatgacagaaactttgctaattcagaatgctaatacctgattgtaagcaaatt  
ctaaaagccctagggccagggggcaaccctagaagaaatgatgaatgcttgtcagggagtgaggagacactactcac  
aaagcaagagtccttggcagaggcaatggcagcagcccactcagatttaaaagggggatatacagcagtcctttatg  
caaaaggggggaacaatcaagggattaagaagggaccagtaaaatgcttcaattgtgggaaagtaggacatata  
gcaaaaaattgtagggcacccagaagaaagggatgctggaaatgtgggcaagatgggcaccaaataagaaagactgc  
agatcaggcagacaggcg

>#48 FJ424871 1293 nt

atgggtgcgagagcgtcagtggttgacagggggacgattggatgcatgggaacgaattaggcttaagccaggaagt  
aagaaaaagtatatgctaaaacatgtagtwtgggcaagcagggagctggagagatttgcatgtaatcctgagcct  
atggaaacagccgagggctgtgaaaaattattagggcaactagaaccagctctcaaaacaggggtcagatggcttg  
cgatctctgtggaacactttggtagtgctgtggtgtgtccaccggagaatagatgtctcagatactcagcaagcc  
ttagaaaaatttaaggaagccatgtcaaaaagaaagtcagacagccgccctgaaacaagtcagaactatccagtg  
gtaacaaatgcgcaagggcagatgggtccatcagccgctgtctccaaggactctaaatgcctgggtgaaagcggta  
gaagaaaaggccttcaaccagaaataattcctatgttcatggcattatcagaaggggtctatcccttatgatatt  
aatactatgctgaatgccattggaggacatcagggggcattacaggtcttaaaaggaagtcacatgaggaagca  
gcagaatgggacaggcagcaccagcagtggttaggacctctgccagtgaggacaactgaggggaaccatcaggggga  
gatattgcaggaacaacaagtactcaacaagaacaagtagcttggatgacaaggaataataatcctgtgccagt  
ggtagacatatacaggaaatggatagtgctaggggttaaacaagtagtaaaaatgtactgtccagtcagtatcctg  
gatattaagcagggacctaaggaaccattcagagactatgtagacagattctacaaaaccctcagagcggaacaa  
gcaagtcaagatgtaaaaaattggatgacagaaactttgctaattcagaatgccaatcctgattgtaagcaaatt  
ctaaaagccctagggccagggggcaaccctagaagaaatgatgaatgcctgtcagggagtgaggagacactactcac  
aaggcaagagtccttggcagaagcaatggcagcagcccactcagatctaaaagggggatatacagcagtcctttatg  
caaaaaggggggaacaatcaagggattaagaaggggccagtaaaatgcttcaattgtgggaaggtaggacatata  
gcaaaaaattgtagggcacccagaagaaagggatgctggaaatgtgggcaagatgggcaccaaataagaaagactgc  
agatcaggcagacaggcg

>#49 JN091690 1371 nt

atgggtgcgagagcgtcagtggttgcggggagagaagcttgatagatgggaagccataaagcttagacccggaggc  
aggaaaagatatttgttaaaacacctaataatggggccgggagtgagttacagcgcttcgcgatgaatcccggcctc  
atggagagcaaagaaggctgctggaaaatcatcctccagctacagccatctgtagacattgggttctccagaaata  
atctccttgtttaacaccatttgctgtcttattgctgacatgaaggagaaaaagtgcaaaatacgggaagaagca

gttaaaattgtgaaagtgaactaacaagcaagaaagtagctccgcagcgacatctagcggacagaataaaaaat  
acagaagagacacctagtggtagccaagagaatgcaggaagagcagcagcgccatctagtggcagactgtatcca  
gttatcacagacatgcagggagcagcaaggcatcagcctatatcaccagaactttaaatgcttgggtaaggaca  
gtggaagacaaaggggttcaatccagaagtataccaatcttttcagctttatctgagggggctaccccttatgat  
ttaatactatgcttaatgctattggggatcatcaagcagcaatgcaaatgctaaaggaagtaataatgaggag  
gcagcagactgggtagaacacacccagctcatgcaggaccccaacaagcggggatgctgcgagagccaacagga  
gctgatattgcaggaaccactagctcagtacaagagcaagtgcagtggatgacaaccctcaggcacaaggagga  
gtaccagtaggggacatctataaaagatggataattataggggttaaacaatttagttaggatgtacagccctgtt  
agtatttttagacattaaacagggaccaaaagaaccattcagagattatgtagacagggttctacaaatgcatcaga  
gcagaacaggcctctcaaccagtaaagacttggatgacagaaactctgttagtccagaatgcaaatccagactgt  
aaacacattttgaaggcactaggacaaggagcaaccttagaggaaatgcttacagcttgccagggagtaggagga  
ccttcccataaggcaaaaatactggcagaagcaatggcatcagcaaacagtgcagttgggggaataaataatgtta  
caaggaggaagaaaccctgaggaaaggccagctgcagtgttcaattgtgggaaccaggggcatacagccaga  
aactgcagagccccaaggaaaaagggtgctgtagggtgtggtcaggaaggacatcagatgaaagactgcacagga  
agaccaacaattcaggggtg

>#50 AF447763 1386 nt

atgggtgcgagagcgtcagtggtgaggggagataagctggatacatgggaatccataaggcttaaatccagaggc  
aggaaaaaatatttaataaaaacatctagtatgggcccgaagcgaactacagcgtttcgcatgaatcccgggtctc  
atgggagaacgtagaaggctgctggaaaatcatcctccagctgcagccttcggttagacattgggttctccagaaatc  
atttctttgtttaataccatctgtgtactctactgcgtacacgcaggagaaagagtccaagatacgggaagaagca  
gtcaaaattgtgaaaatgaaactaactgtacagaaaaataactccacagcgacatctagtggacaaaagacagaat  
gcaggtgaaaaagaggaacagtgccacctagtggcaatacaggaaacacagggagagcaacagagacacctagt  
gggagtagactataccagtgataactgatgcacagggagttgcaaggcatcagcctatttcacctagaactcta  
aatgcctgggtaagggtaatagaagaaaaaggggttaaatccagaagtaataccaatgttctcagcattgtctgag  
ggagcaacccttatgatctaataatagtatgctcaatgctgttggggaaacatcaagcagcaatgcaaatgttgaa  
gaagtcatcaatgaggaagcagcagagtgggacagagcacatcccgtcatgcaggacccagcaagcagggatg  
ctaagagagcccacaggggcagatattgcaggggaccactagtacgctacaagaacaagtactgtggatgacaacc  
ccacaggcacaaggaggagtgccagtaggagacatctataaaagggtggataatttttaggattaaataaattagtc  
agaatgtacagccctgttagcatttttgacataaaaacagggaccaaaagaaccattcagagattatgtagacaga  
ttctacaaaacaatcagagcagaacaagcatctcaaccagtaaaaaacttggatgacagaaactttactggtacaa  
aatgcaaaccagattgtaagcatatcttaaaagccttggggcaaggagcaacattagaagaaatgctcacagcc  
tgtcaaggagtgggaggaccctctcataaggcaaagattctgggtgaagcaatggcctcagcaacagcaggggga  
gtaaatatgctgcagggaggaagaaagaccaccttaaaaaaggggtcagctgcagtgttttaactgtgggaaagta  
ggccatacagcaagaaattgtaggggtccaagaaagaaagggtgctggaggtgtggacaagaggggacatcaaatg  
aaggactgcaccaccagaacaacagcactgggggtg

>#51 JQ768416 1389 nt

atgggtgcgagagcgtcagtattaaggggagaaaagccttgatacttgggaaagcattaggcttagacccggaggc  
aagaaaaagtacttaataaaaacatctagtatgggcccgaagcagagctcgaacgcttcgcatgaatcccgggtctt  
atggaaaaacaaagaaggctgctggaaaatcatcctccagctacagccctcaatagacattgggtctccagaaata  
gtctccttgtacaacactgtctgtacactattttgtgtacacgcaggagaaaaggtacgggacacgggaagaagcc  
gttaaaattgtgaaagtaaaactaactacagtaaaagatgatgccgcagcgacatctagcggacaaaggtcagaat  
gcaggaggaagagggacagcagtgacacctagtggtaaaagtgaaaatgccagtagagtaacagtgccacctagt  
gagggaggaaggttatatccaattgtgactgaccttcagggaacagcaagacatcagcctatttcacctagaact  
ttaaatgcttgggtaaaaacagtggaagaaaagggttttagtccagaagtcattccaatgttctctgctttatct  
gaaggggcaacccttatgatttaaattccatgcttaatgctattggagaacatcagggtgcgatgcaaatgtta  
aaggaaagtaataatgaggaggcagcagagtgggacagactacatcccgtcatgcagggccccagcagggcaggg  
atgctaaggagccaacaggagcagacattgcaggggaccactagtacaacacaagaacaaatacagtggaatgaca  
acacctccagcacaaggaggagtagcagtaggggatctataagagatggatcattctaggggttaataaattg  
gttagaatgtataacccagtgagtattctggacataaaagcaaggggccaaaggaggcatttagagattatgtagat  
agattctacaaaactatcagagcagaacaagcctctcagccagtgaaaacatggatgacagaaaccttgctgata  
caaatgcaaatccagattgcaagcatattctaaaagccttaggacagggagcaacattggaagaaatgctaaca  
gcctgtcagggggtaggaggccctaccataaggcaaaaatcctgggtgaagcaatggcaacagctactaataca  
gtaggagtaaatatgctgcagggaggtgaagaaaccattaagaaaggggcagcttcaatgttttaattgtggaaaa  
ttagggcatacggcaaaaaactgtagagccccaaggaaaaaagggtggtggaggtgtggacagggaggacatcaa  
atgaaagactgcacagccagaactaacaatactgggggtt

>#52 JQ866001 1377 nt

atgggtgcgagagcgctcagttattgaggggagagaagtttagatcgatgggaatcggttaaggcttcgcccaggagggc  
aagaaaaaatatcttataaagcatctagtggtggccggcaatgaattacagcgattcgctttgaatccggcgctg  
atggaaacagcagatgggttcagaaagatcattatgcaactctcaccatcagtagaaatagggtcaccagaaata  
atctccttatttaacaccattgcagtggttacattgcatacatgaaggagaaaaaattcaggacactgaagcagca  
gtaaaaattgtgaaagagaaactaaaaataacgagcagtgaaacaacaggaaatgaggaaccgcaaaagggaaa  
aaagagacagcagtgacatctagtggtcagacagaaaaaatctaccccacattgccatctagtggtcagacaggg  
agaaactaccctattgtttttgatgctgcgcaacagccaaggcatcagccaatttcaccacagaactcttaatgct  
tgggtaaaaacagtagaggagaaaaattttaagccagaagtaatcccaatgttctcagccttagcagaggggagcc  
atcccacatgatcttaatacaatgctaaatgcaattggggaccatcaaggggcaatgcaagtgcgaagggaagt  
atcaatgaagaagcagctgattgggacaggttacaccaactcatgcaggggcgctagtcccagggactctaaga  
gagcccacagggagtgacattgcaggaacaacaagtaccattgtggagcagatacaatgggtaactactcctcaa  
aatcaaggaggagttccagtaggagatatctataaaagatggatcatcctagggtgaataaattagtgaagt  
tacagccctgtaagcattctagatataagacagggaccaaagaaccattcagagattatgtagacaggttctac  
aaaactatcagagcagaacaagcttcccagccagtaaaaaattggatgacagaaactttactggtacaaaatgct  
aaccagattgtaagaccatactgaaagcattgggaccagggggcaaccttggaagaaatgctgactgcctgtcag  
ggagtagggggaccagcacataaggcaagggtcctagcagaagccatgcagcaaacacagcagaatgttaatatg  
gtacagggggagagcagcgctcaaggaaaaagagggggcaggaaacataaaatgttttaattgtggaaagatagg  
catacagcaagaaattgcagagccccaagaagaaagggatgttggaagtgtggacaggaaggtcatcagctgaag  
gactgcacacagtcaaaaagtgagta

>#53 DQ373065 1308 nt

atgggtgcgagagcgctcagttattaacaggaggaaaaatttagatcaatgggaaaaaattttatttgagaccaggggga  
aagaaaaaatatcatgatgaaacacttagtatgggcaagcagggagctggaaagattcgctgttaaccaggtctc  
atggacacagcagaagggttggtgcccaattactcagacaattagaaccagctctcaaaacaggggtcagaaggactg  
cgctctctatttaacaccctggcagtttcttactgtgttcataataacataaagggtacagaatacacaggaagct  
ttagaaaaattaagagagaaaaatgaaagcagaacaaaaagaacctgaaccagaacaagcagcagggggcagcgga  
gcacctgaaagcagtatcagtaggaactatcctctggtacaaaatgctcaagggcaaatggtacatcagccgctg  
tcaccacagaaccttaaatgcttgggtaaaaagtggtagaagaaaaggcctttaatccagaagtaataccaatgtt  
atggccttgtcagaaggggcaacgcccccaagacttaaacaccatgttaatacagtagggggacatcaggcagca  
atgcagatgctgaaggaagttatcaatgaggaagcagcagagtggtgacaggggacatccagtacatatggggcca  
ataccaccaggacaagtaaggggagccaagaggaagtgatatagcaggaacaactagtaccctggcgagcaagta  
gcatggatgactgccaatcctcctgttccagtaggagatatattatagaagatggatagtttgggattaaataag  
attgtaagaatgtatagtcctgccagcattctagacatcaaacagggaccaaaagagacttttagagattacgta  
gataggttttacaaaactctaagagcagagcagggccactcaggaagtaaaagaattggatgacagagacactctta  
gtacaaaatgcaaatcctgattgtaaaaatatacctgagagcattaggaccaggagcctccctggaggaaaatgatg  
acagcatgccaaaggggtgggaggaccagctcataaggcaagagtactagcagaagccatgacacaggcacaaca  
gcaactagtgtttttatgcaaagaggaaatttttaaaggcataagaaagaccatcaaatgctttaattgtggtaaa  
gagggccatctagcaagaaactgtaaggcacctagaaaaaagggctgctggaaatgtgggcaagagggacatcaa  
atgaaggactgcagaagtggagaaaggcagggc

>#54 AF103818 1305 nt

atgggtgcgagagcgctcagttctgacagggggacgattagatgcttgggaaaagattcggttagacctggggga  
aagaaaaagtatatgatgaaacatttagtttgggcaagcagggagctggaaagatttgcttgtaaccaggtcta  
atggaaacagcagacggctgtctccaattattaaaacagttagaaccagctctaaaaacaggatcggaaggcctg  
cgatcgctctttaaacaccttagcggctccttgggtgtgtccacagtaggggtgacagtggaggatacgcagcaggcc  
ttagtgaaaactgaaagaggtagtgcaattgcagaacaacagggaagaaaaagaacaacagcaacaggagggaagt  
ggcagtaacattggtagcagcaattacccagtaatacagaacgctcagggacagatggtacatcaggcaatgtct  
cccagaactttaaatgcttgggtaaaaagcggtagaagaaaaggcctttaaccgggaagtcatcccgatgttcag  
gccttatcagaaggggagactcccccaagatgtcaacactatgctcaatgctatagggggacatcagggagcaatg  
caagtttttaaggaagccatcaatgaggaagcagcagattgagatagaacacatcctctgcatgcaggccctata  
gcaccagggcagatgagagaaccagggggaagtgcattgcaggaaccaccagcaccttgcaagaacaagtgggc  
tggatgacagcaaacccaccattccagtaggagacatatatagaagatgggtgggtcctagggttaataaaagta  
gtaaaaatgtactgtccggttgggtatcttagatatcaagcagggacctaagagcccttttagagactatgtagac  
aggttctacaaaacattaagagcagaacaagcttctccagaagtaaaaacctggatgacagagacccttttggtta  
caaacgctaataccagattgtaaaactattttaagagccttgggacctggagccaccctagaagaaatggtgaca  
gcatgtcaaggagtgaggaggaccgctcataaggcaagggtcttagctgaagccatgtgccaatgaaaaacccc

tcaagcgtatcttacagaaaggaaacgctgggaagccagggagaaaaatcaaattgttttaattgtggcaaagag  
ggacatctagccagaaattgcagggtccaagaagaaaaggggtgctggaagtgtgggcaggaaggacatcaaattg  
aaagactgcacagcaggaacagacaggct

>#55 EF535993 1290 nt

atgggtgcgagagcgtcaatattaacggggggacgattagatgcttgggaaaaaattaggctaaggccaggggga  
aagaaaaaatatatgatgaaacatttagtctgggcaagcaggagctggaagattcgcttgtaacctgtgtcta  
atggaaacaggagagggatgtgaacagctattaaaacagttagaaccagctctcaaacaggatcagaaggcctg  
cgatcgctttttaacactctagcgggtacttttggtgtgttcataaaagaattccagtgggaagacacacagcaggct  
ttaactaaactgaaagaaacagcggcccggaacaggaagtggcccaaccacagccgcagcaagacagcaatgtc  
agtagaaacttcccagtagtacagaatgcacaagggcaattgatgcacagccatgtcacctagaactttaaat  
gcttgggttaaggtagtggaagaaaagaattttaatccagaagtataccaatgtttatggccctgtcagaggga  
gagactccccaggatgtcaatactatgcttaattgctataggagggcaccaggagctatgcaggtgttaaaggaa  
gtcatcaatgaggaagcactggaatgggacaggaccatcctgtgcatgcaggtccaatagcaccaggacaactg  
agagaggcacgaggaagtgcatactgctggaaccactagcactctagcagaacagattgcttggatgacagcaaat  
ccaccgttccagtaggagaaatctatagaagatgggtgggttctagggcttaacaaagtggtaagaatgtatagc  
ccagtcagtatcctagacattaagcagggacctaaggagcctttcagggactatgtagatagattctacaaaacc  
ctgagggcagaacaggcaacacaggaggtaaaaacctggatgactgataccctcytggtacaaaatgctaacc  
gactgtaaaaatattcttgagggccttaggaccaggagccaccttagaagagatgatgacagcatgccaaggagt  
ggaggaccagcccataaggctagggttttggctgaagctatgagccaagtacaaaactccacaagtgtgtttttg  
cagaggggcaataatgggagaccaactaggaaaatcaaattgctttaattgtggcaaagaagggcatttagcaaga  
aactgcagggccccaagaaggaaggggtgctggaattgtggacaagaggggcatcagataaaaagattgtacagct  
ggagacagacaggct

>#56 AY169968 1314 nt

atgggtgcgagagcgtcagtggttaacaggggggaaattggatcgctgggaaaaagttcggcttagaccggggga  
aggaaaaaatatatgatgaaacatttagtatgggcaagcagagagctggaagattcgcatgtaacccggggtcta  
atggaaagtgcagaaggatgtcttaaattgctacagcagtttagagccagctctgaaaaccgggtcggaagggtg  
cgatctttattttaacactctagcagtggttatgggtgtgttcacagtaaacatcgaggtagaagacacacagaaagca  
ttagaacagcttaagaaacacccatggagaacaagtaagaaaaaatgagaacacagaaaaacaatgaaagcagacag  
ggcgctagtgtcttctctggcactagtgggaattaccctatagtagacaatgctcaagggcagatggtacatact  
cccatctcccctagaaccttaaatgcatgggtaaaagttagtggaagagaaggcttttaacctgaggtaatacca  
atgtttttagctctgtcagaaggagctctacctttggatgttaacacaatgctgaatgctgtagggggacatcag  
ggagccatgcaagttctaagagaggtcatcaatgaagaagctgcagaatgggatcggatgcacacctgttcagcc  
ggccccatagctccaggacagctaagagaaccacggggtagtgtatagcagggactaccagcacattgcaggag  
caaattggatgggcaacagcaaacccacccatcccagtaggagacatctatagaagatgggtaattctagggcta  
aacagagtagtaaaaatgtattgtccagtaagcatccttgatataaaagcaaggaccaaagagccctttaagat  
tatgtagacaggtttttataaaacccatgagagctgagcaagcttctcaggaagtgaaaacttggatgacagacacc  
cttttggtgcaaaatgctaaccagattgcaagcaaatctaaaggccctgggtccgggggacctccctagaagaa  
atgatgacagcctgtcaaggggtaggaggaccagcccataaggcaagagctcttagctgaagctatgacaatggtc  
caaagtcaagcaagaacagacattttctttcagaaagggccaggggcaacccaagaagaaaaataaaatgctat  
aattgtggaaggaaggccatctggccagaaactgtaaggcaccaaggagaaagggctgctggaaatgtgggcag  
gagggacaccaaatgaaagactgttcaggagacaagta

>#57 AF382828 1305 nt

atgggtgcgagagcgtctatattaaccggcgggcgattagatgcctgggagaaaattaggctcagaccaggggga  
aggaaaagatacatgatgaaacatatagtatgggcaagcaggagctggaagattcgcttgtagccctgggtcta  
atggaaacaaaagaaggctgttatcagttattgaaacagctagaaccagctcttaaacaggatcagaaggatta  
cggtccttatttaataactttggctgtgttatgggtgtgttcagtagaataagaagtagaagatacacagcaagcc  
ttacaaaagttgaaagaatttgtgcaaaaggaaacagcaacagcaggaagcagcagcaaaagcaaaagtgtgtca  
aacaccactgagataagcagaaattacccagtggtgcagaatgcacagggacagatgatacatcaggccatgtca  
cccagaactttaagtgcctgggttaaagcagtagaagaaaaagccttttagcccagaagtcattccaatgttcag  
gctttatcagaaggggcaacacccaagatgtgaacacaatgctgaatgctataggaggacaccaaggagctatg  
cagggtactaaaagaggtaatcaatgaagaagcagcggagtggtatagattacaccattacatgcaggaccagt  
gcaccaggtcaaatgagagagccaagaggcagtgacattgcagggtactactagtaccttgcaagagcaagtagga  
tggtatgacatccaatccaccagtcctgtaggagagatttacagaagatgggtgggtatttagggcttaataagggt  
gtaagaatgtattgccctgttagcatcttgacataaaacaagggccgaaggagccttttagagactatgtagat  
agattctacaaagttttaagagcagaacaggcttcacaagatgtgaaaaactggatgacagagaccctcctggta

cagaatgccaaaccagattgtaagcaaataacttagggcactaggaccaggagctaccctagaggaaatgatgaca  
gcctgccaaaggagtagggagggcccgacataaggctagagttctagcagaagctatgagccaaatacaacagaca  
agctcaatattcatgcaaagagcagggggaagaactcctcctaggagagtcagtgttcaattgtggaaaggaa  
ggcatatagcaagaaattgtaaagcccctagaagaaagggatgttggaagtgtggaaaagaaggacatcagatg  
aaggactgccaaaatgaaggaagacaggtg

>#58 EF535994 1290 nt

atgggtgcgagagcgtcagtattaacgggaggaaagtttagatgattgggaaaaaatttatctccggccaggggga  
aagaaaaaatatatgatgaaacatttagtatgggcaagcaggagctggaaagattcgcttgtaaccccggccta  
atggacacacagaaggatgtgaacaattaattaaccagttgcagccagctctcacacaggatcagaaggacta  
agatctttatttaacaccctagcagtcctctggtgctacatcaaagaattagagtaaaagacacaaaaggagct  
ttagacaaactagaagaagtgcagcaaaaaagcaaagtgaagtaaaacaggaagccgcgggcgagaccccagc  
ggcgggcgagagcagaaacttcccgatagtaacaaatgctcagggacaaaatggtccatcagtcgctctcacccaga  
actttaaatgcatgggtaaaagttagtagaagaaaaggcatttagcccagaagtcatacccatgtttatggctcta  
tcagaaggagccaccctcaggatttaaacaccatgctaaatacaatagggggacatcaggcagcaatgcaaadc  
ttaaagaagtgatcaatgaggaagctgcagagtgggacaggacacaccctatacatgcagggccaattcctcca  
ggccaaatgagggaaaccaagaggaagtgcataagcagggacaactagcaccattcaggaacaagtgggatggatg  
accagtaaccctcctaccccggtaggagacatttacaagagatggatagttttagggcttaataaaatagtaaga  
atgtatagccctgtcagatattctagatataaagcaaggacccaaaagaaccatttagagattatgtggacagattt  
tacaaaactctaagagctgaacaagcaaccaagatgtaaaaaattggatgacagagaccttgctagtgcaaaat  
gccaaaccagattgtaagcaaattttaagagctctgggtccaggggcaaccttagaagaaatgatgacagcctgc  
cagggagtagggggccctctcataaagccagagatttggcagaagcaatgagtcaggcaaacaccactgttatg  
atgcaaagaggtaatgttaagattcagaaaagaattgtgaaatgctttaactgtggcaaggaagggtcacatagca  
agaaactgtagagcccctagaagaaaaggctgttggaatgtgggcaagaaggacaccaacagaaaaactgcccc  
gatatgcaacggcg

>#59 DQ373066 1269 nt

atgggtgcgagagcgtcaatattaaccgggggaagatttagatgcttgggaaaaaattaggctaagaccaggggga  
aagaaaaatacatgatgaaacatttagtatgggcaagcagagagctggaaagattcgcttgtaacccctggtcta  
atggaaaaatgcagaaggttgtgagaagttattgaaacagctagaaccagctcttaagacaggggtcagaaggactg  
cgctctttatttaacacttttggcagtcctttggtgtgtacataagagaatagaagtggaagacacacaacaggct  
ttacagaaaactgaaagctgccgtgaaccagaacaggggtgaaacaccatcagctagcgcgaacttccctgtagta  
cgaaacgctcagggaacagttgacgcataatccaatatcaccagaaccctaaatgcctgggtaaaagcagtagaa  
gaaaaagctttcaatccagaggtcataccaatgttcatggcattatcagaaggggcaacgcctcaagacctcaat  
actatgctaaatacaataggaggacatcaggcagccatgcaaatcttaaaagaagtaaatcaatgatgaggctgct  
gagtgggacaggacacaccctacccatgcagggcctatagctccaggacaaatgagggaaaccaagaggcagtgac  
atagcaggcactactagctccctagaggagcaagtaggggtggatgacagcaaacctcctattccagtaggagat  
atztatagaagatggatagtcctgggggttaataaaaatagttaaaatgtacagtcctgttagcattttgacatt  
aaacaaggacccaaaagagcctttcagggactatgtagacaggttctacaagaccttaagggtgaacaagcatca  
caggatgttaaaaattggatgacagacaccctgttgatacagaatgctaaccagactgtaaaaacatcttaaga  
gcattaggaccaggagccactctagaagaaatgatgacagcttgtcaaggggtaggaggaccctcacataaggct  
agagtgtggcagaagccatgagccaggttaacaaaaacagaaatctttatgcaaagagggggacaaaatagacct  
cctaataaaaagattaaatgctttaattgtggaaaagaaggacacctagcaaggaactgcaggggacccccgaaga  
aagggtgctggaagtgtggacaggaggacatcagatgaaagattgtaatcaaaataatggaaggatt

>#60 DQ373064 1293 nt

atgggtgcgagagcgtcaatcttaacaggcggaaagtttagatgattgggaaaaagttcgggctaaggccccggggga  
agaaaaagatatgatgaaacatttagtatgggcaagcaggagctggagagatttgcttgtaaccccgggctt  
atggaaacaacagaaggctgtgagcaattgattacacagttagaaccagctcttaagacaggggtcagaaaacctt  
aatctttatttaacaccatagtggctcctctggtgctgcatcagagaatcgcgataaaagacaccaaggaggct  
ttagatacactaacagcagtttagacagaaaacagcaaaaaggaaaaggagcagctgcagccgcggaagggacaat  
gacagtggtagcagaaactaccctatagtacaaatgcacaagggcagccggtacaccaggccctctcacctaga  
actttaaatgcctgggtcaaggtagtagaagaaaaggcatttagcccagaagtaatacccatgttcgcagcctta  
gcagaaggagccaccctcaagatttaaataccatgctaaatacagtagggggacaccaggcagccatgcagatc  
ttaaagaagggtcattaatgaggaagcacaagaatgggataggctgcatcctatccatattggggccaatagacca  
ggccaaatgagagaaccaaggggaagtgcataagcaggaaccactagtactgtacaagaacaaataggatggatg  
actagcaaccctcctataccagtaggagaaatttacaaaagatggataattatggggctgaataaggtagtcaga  
atgtacagccctgttagcatcctggacataaagcaaggggccaaaagaaccattcagagactatgtggacaggttt

tacaaaacattaagagcagaacaagccacacaggaagtaaaaaattggatgacagacaccttgcttgtagagaat  
gctaaccagattgcaaaagtatcctgagagcattgggtccaggagcctccttagaggaaatgatgacagcatgc  
cagggagtcgggggtccagcccataaagccagggctcttagcagaagctatgagtcaagcaaatgcagcaacagtc  
attatgatgcaaaggggaaatttttaaaggacaaaaagagttattaaatgtttcaattgtggcaaagaagggcac  
atagcaagaaattgtaaagccccagggagaaaaggctgttggaatgtgggcaggaaggacatcggatgcaagat  
tgtaacatggggaaggtt

>#61 KP861923 1278 nt

atgggtgagagcgtcagtattaaccggtagtaaaattggatgattgggagaaaattagggttaaggccaggggggt  
aagaaaaaatatatgatgaaacatttagtatgggcaagcagggagctggacagatttgcttgtaaccccgccctt  
atggaaacaggagaaggctgtgaacagtttaattaaacagctagaaccagctctcggaaacaggggtcagagggattt  
agatctctctttaatacttttagtagtcctctggtgtgtacatcagagaattcaggtaaaagacaccaaagaagcc  
ttagaccagctggcagaatggcaacaaaagcaaaagaaaaaggaagcagcagcgacagcagcagcagcagctcagtc  
agcagaaactaccctgtagtagcaaatgcacagggacagatgggtgcacagccattatcaccagaaccttaaat  
gcctgggtgaaagtggtagaagaaaaggcatttagcccagaagtaatacctatgttcatggcatttagcagaagga  
gccacccctcaagattttaaataccatgctgaatacagtagggggacatcaggcagccatgcaaatattaaaagaa  
gtaattaatgaggaagcatcagaatgggataggatacatccattcatatggggcctatagcaccaggccaaatg  
agagagccaaggggaagtgatatagcaggaactactagtaccatacaggagcagataggctggatgactagtaac  
cctcccatctcagtgaggagagatttataaaagatggatagttctgggggctaataaaaatagtaagaatgtatagc  
cctgtcagtttctagacataaagcagggacaaaaagaaccattcagagattatgtggacagattttataagacc  
ttaagggcagagcagggccacacaggaagtaaaaaacttgatgacagacaccttgcttgtagagaatgctaacca  
gattgtaagaacatcttgagagcactgggtccaggagccaccctagaggaaatgatgacagcatgccagggagtg  
gggggcccctgcccataaggctagagtactggcagaggccatgagtcaagcaaatgctacagtaaatgatgcagagg  
ggaaatttttaaaggccctaagagaactattaaatgctataactgtggcaaggaaggccacctagccaggaactgc  
aaagcccccagaaggaaaggctgttggaatgtggacaggaaggacacagaatgcaggattgtaaactaagcaag  
gtt

>#62 AJ302647 1305 nt

atgggtgagagcgtctgtgtgttcagggagcaaaattggatgacatgggaacaaattagggttaaagccaggatgt  
aaaaagaaatacagactaaaacatttagtatgggcaagcagggagctggaaagattcgcatgtaatcctgagcta  
ctagaaactgcagagggcaatgaggaactgttacagcagtttagagccagctctcaagacaggggtcagaaagcctg  
cagtcactctggaacacaatagcagtgctctggtgtgttcacaaaagattttaagttgaagatacacagcaggca  
atacagaaactaaaggaagtaatggggagcaggaagtctgcaggtgccgctaaggaagacacaagcgcaaggcag  
acgggtcaaaaactaccctgtagtagcaaatgcacagggacaaatggtacatcagtcacctctcccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgaaatcatccctatgttcatggcattgtcagag  
ggagctattccttatgatactaataccatgctaaatgccataggaggacatcaaggggctttacaagtgttaaaa  
gaagtaataatgaggaagcagcagaatgggatagaactcaccacaagcggcagggccattgcctccagggcag  
ataagggaaaccaacaggaagtgcacatcgctgggacaactagcaccagcaagagcaagttcactggattactagg  
cccaaccaacctatcccagtaggagacatctatagaaaatggatagtgtaggggttaaacaagtagtaaaaatg  
tacagcccagtgagcatcttagatattagacagggaccaaaggaaccatttagagattatgtagatcggttctac  
aaaacattaagagctgaacaggcaactcaagaagtaaaaaattggatgacagaaaccttgcttggttcaaaatgcc  
aaccagattgcaaacagattttgaaatcattagggccaggagctacctagaagaaatgatgatagcttgtag  
ggagtaggaggaccaactcataaggccagagtactagcagaagcaatgtctgcagcccaagatctgaaggaggga  
tactcagcagttttatgcaaagagggcaaaaccaggtaggaaaggccctataaaatgtttcaattgtggaaa  
gaaggacatctagcaagaaattgtcgagcacctagaaagaaagggtgctggaaatgtggacaggaagggtcaccaa  
atgaaagattgcagaaatggaaaacaggca

>#63 AJ302646 1305 nt

atgggtgagagcgtctgtgtgtgacagggagcaaaattggatgcatgggaacaaattagggttaaagccaggatgt  
aaaaagaaatacagactaaaacatttagtatgggcaagcagggagctggacagatccgcatgtaatcctgagcta  
ctagaaactgcagagggcaatgagaaactgttacagcagtttagagccagctctcaagacaggggtcagaaagcctg  
cagtcactctggaacactatagcagtgctctggtgtgttcacaaacagaattaaagttgaagatacgcagcaggca  
atacagaaactaaaggaagtaatggggagcaggaagtctgcaggtaccgctaaggaagacacaagcgcaaggcag  
acgggtcaaaaactaccctatagtaacaaatgcacagggacaaatggtacatcagtcacctctcccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgaaatcattcctatgttcatggcattgtcagag  
ggagccattccctatgatactaataccatgctaaatgccataggaggacatcaaggggctttacaagtgttaaaa  
gaagtaataatgaggaagcagcagaatgggatagaactcaccaccagcggcagggccattgcctgtagggcag  
ataagggaaaccaacaggaagtgcattgtggaacactagcaccagcaagagcaagttcactggattaccagg

cccaaccaacctatcccagtaggagacatctatagaaaatggatagtggttaggattaaacaaagtggtaaaaatg  
tacagcccagtgagcatcttagatattagacagggaccaaaagaaccatttagagactatgtagatcggttctac  
aaaacattaagagctgaacaggcaactcaagaagtaaaaaattggatgacagaaaccctgcttggtcaaaatgcc  
aaccagattgcaaacagatcttgaaatcattagggccaggagctaccttagaagaaatgatgatagcttggtcag  
ggagtaggaggaccaactcataaggccagggtattagcagaagcaatggctgcagcccaagatctgaaggaggga  
tacacagcagtatcttgcaaagagggcaaaacccaagtaggaaaggccctataaaatgtttcaattgtggaaa  
gagggacatctggcaagaaattgtcgagcacctagaaagaaagggttgctggaaatgtggacaggaaggtcaccaa  
atgaaagattgcaaaaatggaagacaggca

>#64 AY169812 1308 nt

atgggtgcgagtgcgctccgtggttgacagggagtaaatggatgcatgggaacgaattcggttgaagccaggatct  
aaaaagaaatatagactaaaacatttagtatgggcaagcagggagctggacagattcgcatgtaatcctgagcta  
ctagaaactgcagagggcaatgagaagttgttacaacagttagaaccagctctcaagacaggggtcagaaagcctg  
cagtcactctggaacacaatagcagtgctctggtgtgttcacaacagatataaagttgaagatacgcagcaggca  
atacaaaagttaaaggaagtaatggggagtaggaagtctgcaagtgccgctaaggaagaaacaagtgcagggcag  
acgggtcaaaattaccctgtagtaccaaatgcgagggacaaatgatacatcaggccctctccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgaaatcattcctatgttcatggcattgtcagag  
ggagctattccctatgatattaataccatgctaaatgccataggaggacatcaaggggccttacaagtgtctaaag  
gaagtaataatgatgaagcagcagattgggatagaagtcacccaccagtggttagggccggttgccaccagggcaa  
ataaggaaccaacaggaagtgcattgctgggacaactagctcccagcaagagcaagttcactggattactagg  
gccaccaccctatcccagtaggagacatctatagaaaatggatagtggtgggactaaacaaaatggtaaaaatg  
tacagtccagtgagcatcttagatattaacagggaccaaaagaaccatttagagattatgtagatcggttctac  
aaaacattaagagctgagcaagcatctcaagatgtaagaattggatgacagaaaccctgcttggtcagaatgcc  
aaccagattgcaaacagatcttgaaagcattagggccaggagctaccttagaagaaatgatggtagcctgtcag  
ggagtaggaggaccaactcataaggccaaattgctagctgaagcgatgggtaccgcccacatcaagatctaaaagga  
ggatacacatcagtatctcatgcaaagaggacaaaatccaatgaggaaggacctaataaaatgtttcaattgtgga  
aaagagggacatatagcaaaaaattgtcgagcacctagaaagaaagggttgctggaaatgtggacaggaaggtcac  
cagatgagagattgcagaaatggaaaacaggca

>#65 AY169816 1254 nt

atgggtgcgagtgcgctctgtggttgacaggaagtaaatggatgcatgggaagaattagggttaaagccaggatct  
aaaaagacatatagctaaaacatttagtatgggcaagcagggagctggacagattcgcatgtaatcctgggcta  
ctagaaactgcagagggtaatgagaagctgctacagcagtttagagccagctctcaagacaggggtcagaaagtctm  
cartcactctggaacacaataacagtgctctggtgtgttcacaacagatatcaagttatagacacgcaggaggca  
atacaaaagttaaaggaagtcaggggagcaggaartctgcgaggagccgctaagaaaaacaaaagcacaaagcag  
gaggggtcaaaattaccctatagtaacaaatgcgaggggcaagtaacgcacagcccatctccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaargcctttaaccctgaaatcattcctatgttcatggcattgtcagag  
ggagcaattccctatgatattaatactatgctaaatgccataggaggacatcaggagagctttacaagtgtctaaag  
gaagtaattaatgaggaagcagcagattgggatagaactcaccaccaccggtagggccggttgccaccagggcag  
ataaggaaccaacaggaagtgcattgctggaacaactagcaccagcaagagcaaatccaatggattaccagg  
cccaatcaacctatcccagtaggagacatctacagaaaatggatagtggttaggactaaacaaaatgggtgaaaatg  
tacagcccagtgagcatcttagatattaagcagggaccaaaagaaccatttagagactatgtagatcgattctac  
aaagtattaagagctgaacaagcatctcaagaagtaaaaaattggatgacagaaaccctgcttggtcaaaattcc  
aatccagattgcaaacagatcttgaaatcattaggrccaggagctaccttagaagagatgatggtagcctgtcaa  
ggagtaggaggaccaactcataaggccagagtactagcagaagcaatggctacagcccagcaagatttgagagga  
gggtgcacagcagtatctcatgcaaagagggcaaaatcaaggaaggaaaggacctaataaaatgtttcaactgtggg  
aaagagggacatatagcaaaaaattgtcgagcccctaggagaaagggttgctg

>#66 KU168282 1254 nt

atgggtgcgagagcgctctgtggttgacagggagtaaatggatgcggtgggaacaaattagggttaaagccaggatct  
aaaaagaaatataggctaaaacatttagtatgggcaagcagggagctggaaagattcgcatgtaatcctgggtcta  
ctagaatctgcagagggtaatgagcaactgttacagcaatttagagccagctctcaagacaggggtcagagagcctg  
caatctctctggaactcagtagcagtgctctggtgctgttcacaacagatttgatgttcaagatacacagcaggca  
ataaaaaagttaaaggaagtaatggcgagcaggaagcctgccactgccgctaaggaggaaacagggtcaaggcag  
acaagtcaaaattaccctgtagtaacaaatgcgagggacaaatggtacatcaagccctttccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgaaattattcctatgtttatggcattatcagaa  
ggagctatttcctatgatataataccatgatgaatgccataggagatcaccaaggggctttacaagtgtggaag  
gaagtaataatgaggaagcagcagaatgggatagaactcatccaccagcaatggggccggttaccaccagggcag

ataaggggaaccaacaggaagtgcattgctggaacaactagcacacagcaagagcaaattcactggattactaga  
gggaataaacctatcccagtaggagatatctatagaaaatggatagtgctaggattaaataaagtggtaaaaatg  
tacagtccagtgcagcatcttagatattaagcagggaccaaaagaaccattcagagactatgtagatcggttctac  
aaaacattaagagctgagcaagctactcaagaagtaaaaaattggatgcagaaaaccctgcttggttcagaattcc  
aaccagattgtaaacaaaattttgaaatcattaggaccaggagctactctagaagaaatgatggtagcctggcaa  
ggagtaggagggccatctcacaaggcgagagtactagcagaagcaatggtttctgcccacaagatctaaaagga  
ggatacacagcagtagttcatgcaaagagggcaaaatccaaaaagaaaagggcctataaaatgtttcaattgtgga  
aaagagggacatatagcaaaaaattgtcgagcacctagaagaaaaggggtgctgg

>#67 AY169809 1308 nt

atgggtgcgagagcgtctgtgttgaaagggagcaaattggatgcatgggaacaaattaagttgaagccaggatct  
aaaaaagcatataggctaaaacatttagtatgggcaagcagagagctggaaagattcgcatgtaatcctgagcta  
ttagaaactgcagagggtaattgagaaactgttacaacagtttagagccagctctcaagacaggggtcagaaagcctg  
cagtcactctggaacacagtagcagtgctctggtgtgttcacaacagatttaaagttgaagatacgcagcaggca  
atacaaaagttaaaggaagtaatggggaaaaggaagcctgtagatactgctaaggaagacacaaactcaaggcar  
acaggtcaaaattaccctgtagtaccaaatgcacagggacaaatgatacatcaggccctctccccaggactttg  
aatgcatgggtaaaagcagtagaagaaaaagcctttaaccctgaaattattccaatgttcatggcattgtcagag  
ggagctgttccctatgatataactatgctaaatgccataggagggcatcagggggctttacaagtgtgaag  
gaagtaataatgaggaagcatcagactgggatagaacgcacccaccagcgatggggccgttgccaccagggcaa  
ataaggggaaccaacaggaagtgcattgctggaacaactagcaccagcaagagcaagttcactggactaccagg  
cctaacaaccctatcccagttggagatatattatagaaaatggatagtgtaggattaaacaaaatggtaaaaatg  
tacagtccagtgcagcatcctagatattaggcagggaccaaaagagccatttagagactatgtagatcggttctac  
aaaacattaagagctgagcaagcaactcaagaagtaaaaaattggatgcagaaaaccctgcttggttcaaaatgcc  
aaccagattgcaaacagatttttaaaatcattagggccaggagctaccttagaagaaatgatgatagcctgtcaa  
ggagtaggagggccaacacataaggccaaaatactagcagaagcaatggctacagcccagcaagatctaaaagga  
ggatacacagcagtggtcatgcagagagggcaaggcccaattaggaaagggcctataaaatgtttcaactgtgga  
aaagagggacatatagcaaaaaattgtcgagcacctagaagaaaagggctgctggaaatgtggacaggaaggtcat  
caaatgaaagattgcagaaatggaaaaacaggca

>#68 KU168283 1254 nt

atgggtgcgagtgctgtgtgttgaaagggagcaaattggatgcatgggaacaaattaggttaaagccaggatct  
aaaaagaaatatagactaaaacatttagtatgggcaagcagggagctggaaagattcgcatgtaatcctgagcta  
ctagaaactgcagagggcaatgagaaactattacaacagtttagagccagctctcaagacaggggtcagacagcctg  
cagtcactctggaacacaatagcagtgctctggtgtgttcataacagatataaagttagaagatacacagcaggca  
acacaaaagctgaaggaagtaatggggagcagaaagtctgcagcgccgctaaggaagacacaagcgggaggcag  
acgggtcaaaattaccctgtagtaccaaatgcacaaggacagatgggtgcatcagcccatctccccaggacttta  
aatgcatgggtaaaggcagtagaggaaaagggcctttaaccctgaagtcacccctatgttcatggcattatcagag  
ggagctattccctatgatattaatactatgctaaatgccataggaggacatcaaggggccttacaagtgttaaaa  
gaagtaataatgaggaagcatcagattgggatagaactcatccaccagcgatgggaccgttaccaccagggcag  
ataaggggaaccaacaggaagtgcattgctggaacaactagcaccagcaagagcaagttcactgggttaccagg  
gccaacaaccctatcccagtaggagatatctatagaaaatggatagtgtaggattaaacaaaatggtaaaaatg  
tacagcccagtgcagcatcttagatattaacagggaccaaaagaaccatttagagactatgtagatcggttctat  
aaaacattaagagctgagcaagcaagtcaagacgtaaaaaattggatgcagaaaacattgcttggttcaaaatgcc  
aaccagattgcaaacagattttgaaatcattagggcaaggagctaccttagaagagatgatgryagcctgtcag  
ggagtgaggaggaacataaggccagagtgttagcagaagcaatggctacggcccagcaagatctgaagggga  
ggatgcacagcaatatttatgcaaagagggcaaaatccaattaggaaaggacctataaaatgtttcaattgtgga  
aaagagggacatctagcaagaaattgtcgagcgccctagaagaaaaggggtgctgg

>#69 AY169813 1308 nt

atgggtgcgagagcgtctgtgttgacagggagtaaattagatgattgggaacaaattaggttaaagccaggatct  
aaaaagaaatataggctaaaacatttagtatgggcaagcagggagctggaaagattcgcatgtaatcctgagctg  
ttagaaactgcagaaggtaatgagaaactgttacaacagtttagaaccagctctcaagacaggggtcagaagacctg  
aagtcactctggaacgcaatagcagtagctctggtgctgttcataacagatataaagttggagatacacagcaagca  
gtgcaaaaaattaaaagaagtaatgggaaacaggaagtctgcagataaccgctaagaaaccactagctcaaagcag  
acaagtcaaaattaccagtagtagcaaacatgcaagggcaaatgatacatcagccctctccccaggacttta  
aatgcatgggtaaaggcagtagaagaaaagggcctttaaccggaaattatccctatgtttatggcattgtcagaa  
ggagctattccctatgacattaatactatgctaaatgccataggaggacaccagggggctttacaagtgttgaag  
gaagtcatcaatgaggaagcagcagattgggatagaactcaccaccgggtggttagggccgttaccaccagggcaa



ataagggaaaccaacaggaagtgcattgctggaacaactagcaccagcaagagcaagtcactggattaccagg  
gctaacgcccctatcccagttggagatatctatagaaaatggatagtgctaggactaaataaaatggtaaaaatg  
tacagtcagtgagcatcttagatattaaacagggaccaaaagaaccatttagagattatgtggataggttctac  
aaaacattaagagctgaacaagcaaccaggaagtaaaaaattggatgacagaaaccctacttggtcagaatgcc  
aatccagattgcaaacagattttgaaatccttagggccaggagctaccttagaagaaatgatggtagcatgtcag  
ggagtaggaggggccaactcataaggcaaaaatactagcagaagcaatggcctcagtcacaacagatctaaaagga  
ggctacacagcagtatttatgcaaaggggacaaaatccaactaggggaagacctataaaatgtttcaattgtgga  
aaagatggacatctagcaaaaaattgtcgagcacctagaaaaaaagggtgctggaaatgtggacaggaaggtcac  
caaatgaaagattgcagaaatggaaaacaggca

>#70 AY169805 1308 nt

atgggtgcgagtgcgctcagtggtgacaggaagtaaatggatgcatgggaacaaattaggctaaagccaggatct  
aaaaagaaatataggctaaaacatttagtatgggcaagcagggagctggacagattcgcatgtaatcctgagcta  
ctagaaactgcagagggcaatgagcaactgttacagcaattagagccagctctcaagacaggggtcagaaagcctg  
cagtcactytggaacacaatagcagtgctctggtgtgttcacaacagatataaaattggagatacgcagcaggca  
atacaaaagttaaaggaagtcaggggaacaggaagtcctgcgagtgccgctaaggaagacacaagtgcaaagcag  
gcaggtcagaattaccctgtagtatcaaatgcgagggacaaatgatacatcagcccatctcccctaggacttta  
aatgcatgggtaaaggcagtagaagaaaaggcctttaaccctgaaatcattcctatgttcatggcattgtcagag  
ggagctattccctatgatattaatactatgctaaatgccataggaggacatcaaggggctttacaagtgtctaaag  
gaagtaatcaatgaggaagcatcggagtggtatagaactcaccaccaccgatagggccgttaccaccaggggcag  
ataagggacccaacaggaagtgcattgctgggacaactagcaccagcaagagcaagttcactgggttaccagg  
aaccccaaccctatcccagtaggagacatctatagaaaatggatagtggtgggactaaacaaaatggtaaaaatg  
tacagcccagtaagcatcttagatatttagacagggaccaaaagagccatttagagactatgtagatcgggttctac  
aaaacattaagagctgagcaagcaactcaagaagtaaaaaattggatgacagaaaccctgcttggtcaaaatgcc  
aaccacagattgcaaacagatttttaaaatcatttagggccaggagctaccttagaagagatgatggtagcctgtcag  
ggagtaggaggaccaactcataaggccaaaatattagcagaagcaatggctgcagcccatcaagatctgaaagga  
ggatacacatcagtatctcatgcaaagaggggcaaaacccaattaggaaagggcctataaaatgtttcaactgtgga  
aaagagggacatatagcaaaaaattgtcgagcacctagaaagcgaggttgctggaaatgtggacaggaaggtcat  
caaatgaaagattgcagaaatggaaarcaggca

>#71 HQ179987 1287 nt

atgggtgcgagagcgctcagtggtgacagggggccgattggatgcatgggaagaattaggcttagaccaggaggt  
aagaaaaaatataagctaaaacatgtagtatgggcaagcagagagctggaaagatttgcatgtaatcctgggctt  
atggaaacagcgggaaggctgcgaaaaattattagagcagttagaaccagctctcagaacagggtcygatggcctg  
cagtcctctttggaacaccctagtagttytatggtgtgttcacaaaagaatagagataagtgacacacagcaggcc  
attacaaaatggaaggaggaaatgcagaaaagaaagaaaacatcagagggcagcactggaacaagtcaaaactat  
cctatcgtgcagaatgccagggggcaaatgacccatatgccgctgtcccccaggacgctgaatgcctgggtgaag  
gcagtagaagaaaaagccttcaaccctgaaattatccctatgtttatggccttgtcagaaggggctatacctgat  
gacatcaataccatgcttaatgcagtaggcggacatcagggagcggtgcaggtgttgaaagaggttaattaatgaa  
gaggctgcagaatgggatagaacacatcccgttccagtaggaccattaccaccaggggcagcttagagaaccaaca  
ggagggggatattgcaggaaccactagtaccaaacaggaacagataacctggatgacaaggaacaatcctgtacca  
gtagggggacatctatagaaartggatagtggtggggctcaataaagtggtaaaaatgtactgccccgttagcatt  
ctggacataaagcagggacctaaggaaccatttagagattatgtagayagattctacaaaaccctcagagcagag  
caagccagtcaggaagtaaaaagttggatgacagacaccttactagtacaaaatgctaataccagattgyaagcag  
atthttgaaagctctgggaccaggtgccaccttagaagaaatgatgaatgcctgtcaaggagtagggggaccaaca  
cataaggccagggctcttggcagaagctatggcagcagctaatacagctagccaagaattaaaaggaggggtataca  
acagtttttatgcagagtggaacagagaaaagccagtttaagtgttttaactgtggaaaagtaggacacatagcaaag  
aactgcaaggcacctagaagaaggggrtggttggaagtgtggacaggaaggtcatcaaatgaaagactgcaaatca  
ggaagacaggca

>#72 GU111555 1296 nt

atgggtgcgagagcgctcagtggtgacagggggccgattggatgcatgggaagaattaggcttaagccagggaagt  
aagaaaaaatatagctaaaacatatagtatgggcaagcagagagctggaaagatttgcatgtaatcctgagctt  
atggaaacagcagaaggctgtgaaaaattattagagcagttagaaccagctctcagaacagggttctgatggcctg  
cagtcctctttggaacaccctagtagtthttatggtgtgttcacagaagagtrgatataagtgacacacagcaggcc  
attacaaaatggaaggaggaaatgcagagaagaaagaaagcactagagggcagcactggaactggaacaagtcaa  
aactatcctattgtgcagaatgccagggggcaaatgacccatctgccgctgtctcccaggacgctgaatgcctgg  
gtgaaggcagtagaagagaaggccttcaaccctgaaattatccctatgtttatggccttgtcagaaggggtctata

cccgatgacattaataactatgctcaatgcagtagggcgacatcagggagcrttrcaggtgttgaaagargtgatt  
aatgaagaggctgcagaatgggatagAACACATCCTGTTCCWGTGGACCGTTACCACCAGGGCAGCTTAGAGAC  
CCAACAGGAGGGGATATTGCAGGAACCACTAGTAACAAGCAGGAACAGATAACCTGGACAACAAGGAACAATAAT  
CCTATACCAGTAGGAGATATCTATAGAAAGTGGATAGTGTGGGGCTCAATAAAGTGGTAAAAATGTATAGCCCC  
ATTAGCATCCTGGACATAAAGCAGGGACCTAAGGAACCATTTAGAGATTATGTAGATAGATTCTACAAAACYCTC  
AGAGCAGAACAAGCTAGTCAGGAAGTAAAGAGTTGGATGACAGACACATTATTAATACAAAATGCTAATCCAGAT  
TGTAAGCAGATTTTGAAAGCTCTGGGACCAGGGGCCACCTTAGAAGAAATGATGAATGCCTGTCAAGGAGTAGGG  
GGACCAACACATAAGGCCAGGGTCTTAGCAGAAGCTATGGCAGCAGCTAATCAAGCTAACCAAGATTTAAAAGGA  
GGGTATACAACCTGTTTTCATGCAGAGTGGACAGAGAWAGCCAGTTAAGTGCTTTAACTGTGGAAAAATAGGACAC  
ATAGCAAAGAAGCTGAAGGCACCTAGGAGAAAAGGATGCTGGAAGTGTGGACAGGAAGGTCAATGAAAGAC  
TGCAAATCAGGAAGACAGGCA

>#73 DQ017382 1305 nt

atgggtgCGAGAGCGTCAGTGTTAACAGGGGGAAAATTAGATAAATGGGAAGCAATTTATTTGAGACCAGGGGGA  
AAGAAAAATACAAAATGAAACATTTAGTATGGGCAAGCAGGGAGCTGGAAAGATTCTGCTTGTAACCCAGGTCTC  
ATGGACACAGCGCACGGCTGTAAACCAGTTACTAAACCAATTAGAACCAGCTCTCAATACAGGGTCAGAAGGACTG  
CGCTCCTTATATAAYACCATAGCAGTTCTTTATTGTGTCCATAGTACAATACCGGTACTCAATACACAAGAGGCT  
TTGGACAAGATAAAAAGAGAAAAAGGAACAGCACAAGTCTGAGGCAAAAAATCCAGAAGCAGGGGCGAGCGGCAGCA  
GCTGATAACAATATCAGTAGGAATCTCTCTAGTCCAGAATGCTCAAGGACAAATGGTACATCATCCGCTGACA  
CCAGAAGCTTTAAATGCTTGGGTAAAAGTAATAGAGGAGAAGGCCTTTAATCCAGAAGTAATACCAATGTTTATG  
GCCTTGTGAGAAGGGGCAACACCCTCAGATCTAAATTTCTATGTTAAATACAGTAGGAGGACATCAGGCAGCTATG  
CAAATGCTAAAGGAAGTCATCAATGAGGAAGCAGCAGAATGGGACAGGACGCATCCAGTCCCTGTGGGACCCTA  
CCCCAGGGCAACTGAGAGAACCCTAGAGGRAGTGATATAGCAGGGACAACCTAGTACTCTGCCAGAACAGATAACA  
TGGATGACTTCTAATCCTCCTATTCCAGTAGGAGATATTTATAGAAGATGGATAGTTTTGGGGTTAAACAGAATT  
GTGAGAATGTATAGTCTGTGAGCATTTTAGAGATCAAGCAAGGACCAAAAAGAACCTTTAGAGATTATGTAGAC  
AGGTTCTACAAAACCTTTAAGAGCAGAGCAGGCAACACAGGATGTAAAGAATTGGATGACAGAAACACTCTTAGTA  
CAAAATGCAAATCCAGATTGTAARCAGATCCTAAAAGCATTAGGACCATCAGCTAGCTTAGAAGAGATGATGACG  
GCCTGCCAAGGAGTGGGGGGACCAGGGGCATAAGGCAAGAGTGCTAGCAGAGGCTATGGCACAGGCACAGGCAGCA  
ACTAGTGTCTTTGTACAAAGAGGAAACTTTAAAGGCACAAGGAGAACCATTAAATGTTTCAACTGTGGCAAAGAG  
GGCCATTTGGCAAGGAAGCTGAAGGCTCCTAGAAGARGGGGCTGTTGGAAGTGTGGGCAAGAAGGACATCAAATG  
AAAGATTGTA AAAATGAAGGAAGACAGGCT

>#74 AY532635 1314 nt

atgggtgCGAGAGCGTCAGTGTTAACAGGGGGAAAATTAGATCAATGGGAAGCAATTTATTTGAGACCAGGGGGA  
AAGAAAAATACAGAATGAAACATTTAGTATGGGCAAGCAGGGAGCTGGAAAGATTCTGCTTGTAACCCAGGTCTC  
ATGGACACAGCGAGCGGCTGTGCCAGTTACTAAACCAATTAGAACCAGCTCTCGCAACAGGGTCAGAAGGACTG  
CGCTCCTTATATAACGCCCTAGCAGTTCTTTATTGTGTCCATAGTAACATACAGGTACACAATACACAAGAGGCG  
TTGGACAAGATAAAAAGAGATAAAAAGAGAAAAAGGAACGGCACAAGTCCGAGCCAAAAAACCCAGAAGCAGGGGCA  
GCGGCAGCAGCTGATAACAATATCAGTAGGAATTATCCTCTAGTCCAGAATGCTCAAGGACAAATGATACATCAG  
CCGCTGACACCAGAAGCTTTAAATGCTTGGGTAAAAGTGATAGAGGAGAAGGCCTTTAATCCAGAAGTAATACCA  
ATGTTTATGGCCTTGTGAGAAGGGGCAACACCCTCAGATCTAAATACTATGTTAAATACAGTAGGAGGACATCAG  
GCAGCTATGCAGATGCTAAAGGAAGTCATCAATGAGGAAGCAGCAGAATGGGACAGGACGCATCCARTCCCTGYG  
GGACCATTACCCCCAGGACAACCTGAGAGAACCCTAGAGGAAGTGATATAGCAGGGACAACCTAGTACTCTGMTGGAA  
CAGGTGACCTGGATGACTTCTAATCCTCCTGTTCCAGTAGGAGAAATCTATAAAAAATGGATAGTTCTGGGGTTA  
AATAGAATTGTGAGAATGTATAGTCTGTGAGCATTCTAGAGATCAAACAAGGACCAAAAAGAACCTTTAGAGAT  
TATGTAGACAGGTTCTACAAAACCTTTAAGAGCAGAGCAGGCATCACAGGATGTAAAGAATTGGATGACAGAAACA  
CTCTTAGTACAAAATGCAAATCCAGATTGTAACAGATACTAAAAGCATTAGGGCCAGCAGCTACCTTAGAAGAA  
ATGATGACGGCCTGTGAGGGAGTGGGGGGACCAGCGCATAAGGCAAGAGTGCTAGCAGAGGCTATGTACAGGTA  
CAGACAGCAACTAGTGTCTTTGCACAAGGGAGAACTTTAAAGGCATAAGGAGAACCATTAGATGTTTCAATTGT  
GGCAAAGAGGGCCATTTGGCAAGAACTGTAAAGGCCCTAGAAGAGGGGGCTGTTGGAAATGTGGGCAAGAAGGA  
CATCAAATGAAAGATTGTA AAAATGAAGGAAGACAGGCT

>#75 AJ006022 1302 nt

atgggtgCGAGAGCGTCAGTGTTAACAGGGGGAAAATTAGATCAATGGGAATCAATTTATTTGAGACCAGGGGGA  
AAGAAAAATACAGAATGAAACATTTAGTATGGGCAAGCAGGGAGCTGGAAAGATTCTGCTTGTAACCCAGGTCTC  
ATGGACACAGCGGACGGCTGTGCCAAGTTACTAAATCAATTAGAACCAGCTCTCAAGACAGGGTCAGAAGAAGT  
CGCTCTTTATATAACGCTCTAGCAGTTCTTTATTGTGTCCATAGTAGGATACAGATACACAACACACAGGAAGCT  
TTGGACAAGATAAAAAGAGAAACAGGAACAGCACAAGCCCGAGCCAAAAAACCCAGAAGCAGGGGCGAGCGGCAGCA

actgatagcaatatcagtaggaattatcctctagtcagactgctcaaggacaaatggtacatcagccgctgaca  
cccagaaccttaaatgcttgggtgaaagtgatagaggagaaggccttttagtccagaagtaataccaatgtttatg  
gccttgctcagaaggggcaacgcctcagatctaaatactatgttaaatacagtagggggacatcaggcagcaatg  
cagatgctgaaggaagtcacatgaatgaggaagcagcagactgggataggacacatccagtcctgtgggaccacta  
ccccagggaactgagagaccctagaggaagtgatatagcaggaacaactagcacctggcagaacagggtggct  
tggatgactgctaactcctcctgttccagtaggagatatttatagaagatggatagtcctgggggttaaacagaatt  
gtgagaatgtatagtcctgtcagcattctagagatcaaacaaggaccaaaagaacccttcagagactatgtagac  
aggttctacaaaactctaagagcagagcaggcaacacaggaagtaagaattggatgacagaaacactcttagta  
caaatgcaaaccagattgtaaacagctcctaaaagcattagggccaggagctaccttagaagagatgatgacg  
gcctgccaggagtggtgggggaccagcacataaggcaagagtgtcagcagaggctatgtcacagggtgcagcagcca  
acaactagtgtctttgcacaaaggggaaactttaaaggcataaggaaaccattaaatgtttcaattgtggcaaa  
gagggccatttggaagaaactgtaaggcccctagaagaggaggctgttggaagtgtgggcaagaaggacatcaa  
atgaaagattgtaaaaatgaaggaaga

>#76 MF7672 1305 nt

atgggtgcgaaagcgctcagtggttaacagggggaaaattaaataaatgggaagcaattttatttgaaaccaggggga  
aaaaaaaaatataaaaggaaacatttagtatgggcaagcaggagctggaaagattcgcttgtaaccagggtctc  
agggacacagcagtggtgtgtgccagtttaataaaccagttaaaaccacctctcaagacaggggtcaaaaggactg  
cgctctttatataaacaccctggcagttctttattgtgtccatagtaacatatcggtacacaatacacaaagggt  
ttggacaagataaaaagagaaacaggaacagcacaaagtctgagccaaagcaaccagaagcagggggcagcagcgga  
gctgataacaatgtcagtaggaactatcctctaattccagaatgctcaaggacaaatggtacatcaggcgctgtca  
cctagaactttaaatgcttgggtaaaagtaatagaggaaaaggcctttaatccagaagtaataccaatgtttatg  
gccttgctcagaaggggcaacgcctcagatctaaattctatgttaaatacagtagggggacatcaggcggctatg  
cagatgctaaaggaagtcacatgaatgaggaagcagcagaatgggacaggagcagcatccagcccctgtggggccacta  
ccccaggacaattgagagaccctagaggaagtgatatagcagggacaactagtactctggcagaacagggtggca  
tggatgactgctaaccctcctattccagtaggagatatttatagaagatggatagttctgggggttaaacagaatt  
gtgagaatgtatagtcctgtcagcattctagaratcaagcaaggaccaaaagaacccttttagagattatgtagac  
agattctacaaaactttaagagcagagcaggcaacacaggatgtaaagaattggatgacagaaacactcttagtr  
caaatgcaaayccagattgtaaacagatyctaaaagcattagggccaggagctaccttagaagagatgatgacg  
gcctgccaggagtggtgggggaccagcacacaaggcaagggtcctagcagaggctatgtcacagggcacaggcagca  
actagtgtctttgcacaaaggaggaaactttaaaggcacaagaaaaaccattaaatgttttaattgtggcaaaagag  
ggccatttggaagaaactgtaaggcccctagaagaggagggtgttggaagtgtgggaaagaaggacatcaaatg  
aaagattgcaaaagtgaaggaagacaggct

>#77 KY498771 1302 nt

atgggtgcgagagcgctcagtggttaacagggggaaaattagatcaatgggaatcaacttacttgagaccaggggga  
aagaaaaataccaatgaaacatttagtatgggcaagcaggagctggacagattcgcttgtaaccagggtctc  
atggactcagcgaaggctgtgtgccagtttaatgaaccaattagaaccagctctcaagacaggggtcagaaggactg  
cgctctttatataaacaccctagcagttctttattgtgtccatcgtagaatatcagtacaaaatacacaaagaagct  
ttggacaaagtacatggggaaaaggaaacagcacacaagccaaaaaactcagaagcaggggacagcggcagcagtt  
gacagcagtatcagtagaaattatcctctagtcagactgctcaaggacaaatgatacatcagccgctgacaccc  
agaaccttaaatgcttgggtaaaagtgatagaggagaaggccttttagtccagaagtaataccaatgtttatggcc  
ttgtcagaaggggcaacaccggagatctaaatactatgttaaatacagtaggaggacatcaggcagctatgcag  
atgctgaaggaagtcacatgaatgaggaagcagcagaatgggacaggctgcatccagtcctgtgggaccactgccc  
ccaggacaactgagagaccctagaggaagtgatatagcaggaacaactagtactctgcaagaacagggtggcatgg  
atgactgctaactcctcctgtcccagtaggagatatttatagaagatggatagtcctgggggttaaacagaattgtg  
agaatgtatagtcctgtcagcattctagagatcaaacaaggaccaaaagaacccttttagagactatgtagacagg  
ttctacaaaactttaagagcagagcaggcaacacaggaagtaaaagcagtggtgacagaaacactcttagtaciaa  
aatgcaaaccagattgtaaacagctcctaaaagcattagggccaggagctaccttagaagagatgatgacrgcc  
tgccagggagtggtgggggaccagggcataaggcaagagtactagcagaggctatgtcacagatacagccaacaact  
agtatctttgcacaaaggaggaaactttaaaggcataaggagaaccattaaatgtttcaattgtggcaaaagagggc  
catttggaagaaactgtaaggcccctagaagaaagggtgttggaatgtgggaaagaaggacatcaaatgaaa  
gattgcaacaatgaaggagacaggct

>#78 DQ017383 1305 nt

atgggtgcgagagcgctcagtggttaacagggggaaaattagataaatgggaagcaattttatttgagaccaggggga  
aagaaaaataatagaatgaaacatttagtatgggcaagcaggagctggaaagattcgcttgtaaccagggtctc  
atggacacagcgaagggtgtgtgccagttactaaaccagttagaaccagctctcaatacaggggtcagaaggactg

cgctccttatataaacaccttagcagttctttattgtgtccatagtagacaataaccggtacttaatacacaaaggagct  
ttggacaaaataaaaagagaaaaaggaacagcacaaagcctgaggcaaaaaatccagaagcaggggagcggcagca  
gctgataacaacatcagtaggaattatcctctagttcagaatgctcaaggacaaatgatacatcagccgctgaca  
cccagaacttttaaatgcttgggtaaaagtgatagaggagaaggcctttaatccagaagtaataccaatgtttatg  
gccttgtcagaaggggcaacacctcagatctaaattctatgttaaatacagtaggaggacatcaggcagctatg  
caaatgctaaaggaggtcatcaatgaggaagcagcagaatgggacaggacgcatccagtcctgtgggaccacta  
ccccaggggcaactgagagagccttagaggcagtgatatagcaggggacaactagtactctgccagaacagataaca  
tggtatgacttctaaccctcctattccagtaggagatatttatagaagatggatagttttgggggttaaacagaatt  
gtgagaatgtatagtccgtgcagcattctagagatcgagcaaggacccaaaagaacccttttagagattatgtagac  
aggttctacaaagttttaagagcagagcaggcaacacaggatgtaaagaattggatgacagaaacactccttagta  
caaatgcaaatccagattgtaaacagatcctaaaagcattagggccaggatcctccttagaagagatgatgacg  
gcctgccaggggagtggggggaccagggcataaggcaagagtgttagcagaagctacggcacaggcacaggcagca  
accagtgtctttgtacaaaggggaaactttaaggccacaaggagaaccattaaatgtttcaattgtggcaaagag  
ggccatttggcaaggaactgtgaaggcccctaggagaggaggctgttggaatgtgggcaggaaggacatcaaatg  
aaagattgtaaaaatgaaggaagacaggct

>#79 AJ271370 1308 nt

atgggtgcgagagcgtcagtggttaacagggggaaaattagatcaatgggaagcaattttatttgaggccaggggga  
aagaaaaatacagattgaaacatttagtatgggcaagcaggagctggaaagattcgcttgtaaccaggtctc  
atggacacagcgaatggctgtgccagtttaataaaccaattagaaccagctctcaagacaggggtcagaaggactg  
cgctctttgtwtaacaccttgccagttctttattgtgtccatagtagacaataaccggtacacaatacacaaaggagct  
ttagacaagataaaaagagaaacaggaacagcacaaagtccgagccaaaagaaaccagaagcaggggacagcggcggca  
gctgacagcagtatcagtaggaattatcctctagtcacagaatgctcaaggacaaatggtacatcagccgctgaca  
cctagaacttttaaatgcttgggtaaaagtaatagaggaaaaggcctttaatccagaaataataccaatgtttatg  
gccttgtcagaaggggcaacgccctcagatctaaatagtatgttaaatacagtaggaggacatcaggcagctatg  
cagatgctaaagggaagtcacatcaatgaggaagcggcggagtgggacaggacgcatccagcccctgtgggaccacta  
ccccaggggcaaatgagagacccttagaggaagtgtatatagcaggggacaactagtactctggcagaacagggtggca  
tggtatgacttctaatcctcctattccagtaggagatatttatagaagatggatagttctgggggttaaacagaatt  
gtgagaatgtatagtccgtgcagcattctagagatcaagcaaggacccaaaagagcccttttagagattatgtagac  
aggttctacaaaactttaagagcagagcaggcaacacaggatgtaaagaattggatgacagaaacactccttagta  
caaatgcaaacccagattgtaaacagatcctaaaagcattagggaccaggagctaccttagaagagatgatgacg  
gcctgccaggggagttagggggaccagcacataaggcaagagtgttagcagaggctatggcacaggcacaaaacagca  
actagtgtctttgtacaaaggggaaactttaagggcataagaaaaaccattaaatgttttaattgtggcaaagag  
ggccatttggcaagaaactgtgaaggcccctagaagaaggggctgttggaagtgtgggcaagaaggacatcaaatg  
aaagattgtaaaaatgaggggaagmcaggctaat

>#80 DQ314732 1287 nt

atgggtgcgagagcgtcagtattaagtgggggaaaattagatgcatgggaaaaaattcggttacggccaggggga  
aggaaaaaatataagatgaaacatctaatatgggcaagcagagagttggaaagatttgcaattaaccctggcctt  
ttagaaacagcagagggatgtcaacaaataatagaacagttacagtcaactctcaagacaggatcagaagaactt  
aatcattatataatacagtagcaaccctctggtgcgtgcaccagaggatagaggtaaaagacaccaaaagaagct  
ttagacaaaatagaggaagcacaaaataagagtcagcaaaaagaaacagcaagcagctgctggcacaggaagcagc  
agcaaaagtcagccaaaattaccctatagtgcaaaacgcacaagggcaattgggtgcatcagccctttatcacctaga  
actttgaatgcatgggtgaaagtagtagaagaaaagggttttaaccagaggtaatacccatgttctcagcatta  
tcagaggggagccgccccacaagatttaaatatgatgctaaatatagtggggggacaccaggcagcaatgcaaatg  
ttaaagaaaccatcaatgaggaagctgcagaatgggatagggtacacccagtagcatgcagggcctattccacca  
ggccagatgagggaaaccaaggggaagtgcacatagcaggaactactagtacccttcaagaacaaataggatggatg  
accaacaatccaccgatcccgggtgggagacatctataaaagatggataatcctgggattaaataagatagtaaga  
atgtatagccctactagcattttggacataagacaaggggccaaaagagcccttcagagactatatagataggttc  
tataaaactctcagagcagaacaagctacacaggaggtgaaaaactggatgacagaaaccttgctagtccaaaat  
gcgaatccagactgtagggtccatttttaaaagcattaggaagaggcgctacattagaagaaatgatgacagcatgc  
caggagtgaggagacctagccataaagcaagggttttgccgaggcaatgagccatgtacaacaagcaaatata  
atgatgcagagaggcaattttaaggggccagaaaagaattaaagtgttcaactgtggcagaagaaggacacctagcc  
agaaattgcaggggcccctagaaaaaagggttgttggaatgtgggaaggaaggacatcaataaaaagactgcact  
gagagacaggct

>#81 AF377956 1272 nt

gcaagagcgctcactattaagcgggggaaaattagatgatttggaaaaaattcgggttaaggccaggggggaagaaa  
aaatataggctgaaacatatagtatgggcaagcagggagctagaaagatttgcacttaatcctggccttttagag  
acaaaggaaggctgtaaacaataataggacaactacaaccatcccttcagacaggatcagaagagcttaaatca  
ttattcaacacaatagtagtcctctattatgtacatcaaaggataaaaaataggagacaccaaggaagcttttagat  
aagctacaggaagaacaagacaaaagtcagcaaaaaacacaaccagcagcggctgacaaaggggtcagtcaaaat  
taccctatagtagagaatcttcagggacaaatgggtacaccagtcctctatcacctagaactttaaatgcatgggta  
aaagtaatagaagagaaggctttcagcccagaagtaatacccatgttttcagcattatcagaaggagccaccca  
caagattttaaacaccatgctaaacacagtggggggacatcaagcagccatgcaaagtgttaaagataccatcaat  
gaggaagctgcagaatgggacagattacatccagtgagcaggaagccatcccaccaggtcagataagagaacct  
aggggaagtgatatagcaggaactactagcaacctacaggaacaaatagcatggatgacaagcaaccacactgtc  
ccagtaggagaaatctataaaagatggataatcctaggattaaataaaaatagtaagaatgtatagccctgtcagc  
atthttggacataaaaacaagggccaaaagaacccttttagagactatgtagacaggttcttttaaactctaagagct  
gagcaagcttcacaggaagtaaaaggctggatgacagacaccttggttggtccaaaatgcgaacccagattgtgag  
atcatttttaaaggatttaggaacaggggctacactagaagaaatgatgacagcatgtcaggggggtggggggacct  
ggccataaggcaagaatthttggctgaggcaatgagccaagtaacatctacatccatattgatgcagaaaagcaac  
tttaagggccaaagaagaaatgttaagtgtttcaactgtggcaagaaggacatatagctaaaaattgcagggcc  
cctagaaaaaggggctggttggaatgttggaagggaaggacaccaaatagaaagactgcactgagagacagggct

>#82 AB254156 1284 nt

atgggtgcgagagcgctcaatattaagaggcggaaaattagatgcatgggaaaaaattaagttaaggccaggagga  
aagaaacattatatgctaaaaacacttagtatgggcaagcagggagctggaaagatttgcacttaaccctggcctt  
ttagagacagcagaaggctgtaaacaataatacaacagctaactccagctcttaagacaggaacagaggaactt  
agatcattattttaacacagtagcaactctctattgtgtacataaaaaatatagaggtacgagacaccaaggaagcc  
ttagacaaaatagaggaagaacaaaagaaatgtcagcaaaaaaccacagcaagcagaagcagctgacaaaggaaaa  
gtcagtcaaaattaccctatagtgagaatctccaagggcaaatgggtacaccaaagcctatcaccgagaacttta  
aatgcatgggtaaaagtaatagaggagaaggctttcagcccagaggtgataccatgtttacagcattgtcagaa  
ggagccaccccaagattttaaacaccatgtttaatacagtggggggacatcaggcagccatgcaaagtgttaaag  
gataccatcaatgaggaggctgcagaatgggatagggtacatccagtgcatgcagggccaggtgcaccaggccaa  
atgagagaaccgaggggaagtgcataagcaggaaccactagtagccctcaagaacagatagcatggatgacaagt  
aaccacactattccagtaggagacatctataaaagatggataattctggggttaaataaaaatagtaagaatgtat  
agccctgtcagcatttttgacataaaaacaagggccaaaaggaacccttttagagactatgtagaccggttcttttaa  
actttaagagctgaacaatctacacaagaagtaaaaaattggatgacagacaccttggttggtccaaaatgcgaac  
ccagattgcaagaccatttttaagagcattaggaccaggggcttcattagaagaaatgatgacagcatgtcagggga  
gtgggaggacctagccacaaagcaagagtggttggtgaggcaatgagccaagcaggcaatgcaaacataatgatg  
cagagaggcaatttttaagggccctagaaaaattgttaaatgtttcaactgtggcaagggaagggcacatagccaga  
aattgcagggcccctaggaaaaaggggctgttggaatgttggaagggaaggacaccaaatagaaagactgtactgaa  
agacagggct

>#83 MF373132 1287 nt

atgggtgcgagagcgctcaatatttagaaggacggaattggatacttggaaaaaaattaagttaaagccaggggga  
aagaaaaagtatatgatgaaacatctagtatgggcaagcagagagctggaaagatttgcacttgaccctggcctt  
ttagaaacatcagaaggctgtaaacgaataatacaacagctacagccatctcttcagacaggaacaaaagaactc  
atatccttgataatacagtagtagttctatattgtgtacataacaatatagcggtaaatgacactaaggaagcc  
ttagacaaagttaaaggaagaacaaaacaaaagtcagcaaaaaacacagcaggcagcaacggctggcaacaaacag  
gtcagtcaaaattatcctatagtgagaaccttcaagggcaaatgggtacatcaaaacatatcaccaagaaccttg  
aatgcatgggtgaaagtaatagaggagaaggctttcagcccagaggtaatacccatgtttacagcattatcagaa  
ggagccactccacaagattttaaacaccatgtttaatacagtggggggacatcaagcagccatgcaaagtgttaaaa  
gacaccatcaatgaggaggctgcagaatgggatagggtacatccagtgcaagcagggcctgtcgaccaggccaa  
ataagagatccaaggggaagtgcataagcaggaactactagtagccctcaggaacaaataacatggatgacaagt  
aaccacactatccagtaggagacatctataaaagatggataattctagggttaaataaaaatagtaagaatgtat  
agccctgttagcatttttgacataaaaacaagggccaaaaggaacccttttagagactatgtagaccggttcttttaa  
accttaagagctgaacaagctacacaagatgtgaaaaattggatgacagacaccttggttggtccaaaatgcgaac  
ccagactgtaagaccatttttaagggcattaggggcaggagctacattagaagaaatgatgacagcatgtcagggga  
gtgggaggacctggccacaaagcaagagtattggctgaggcaatgagccaagcaacaatgtaaacataatgatg  
cagagaaacaatttttaaggggccaaaagaattattaaatgtttcaactgtggcaaggaggggcacatagccaga  
aattgcagggcccctaggaaaaaggggctgttggaatgttggaagggaaggacaccaaatagaaagactgtactaat  
gaaaggcaggct

>#84 KP109483 1278 nt

atgggtgcgagagcgtcaatattaagagggggaaaatttagataaatgggaaaaaattaggttaaggccaggggga  
aagaaacattatatgtttaaacacttagtatgggcaagcagggagctggaaagatttgcacttaaccctggcctt  
ttagagacagcagaaggctgtaaacaaataataaagcagctacaccagctctccagacaggaacagaggaactt  
aatcattattcaacacagtagcaactctctattgtgtacatgcagggatagaggtacgggacaccaaggatgcc  
ttagacaaaatagaggaagaacaaaacaaaagtcagcaaaaaacacagcaggcaaaagaggctggcggggaaggtc  
agtcaaaattatcctatagtgagaatctccaagggcaaatggtacaccaggccatatcacctagaactttgaat  
gcatgggtataaagtagtagaggagaaggcttttagcccgaggttaatacccatgtttacagcattatcagaagga  
gccaccccacaagattttaaacaccatgttaaatacagtggggggacatcaagcagccatgcagatgttaaaagat  
accatcaatgaagaggctgcagaatgggatagaacacatccaatacatgcagggcctattgcaccaggccaaatg  
agagaaccaaggggaagtgacatagcaggaactactagtacccttcaggaacaaatagcatggatgacaagtaac  
ccacctgttccagtgaggagacatctataaaagatggataattctgggggttaaataaaaatagtaagaatgtatagc  
cctgttagcatttttggacataaaaacaagggccaaaggaaccctttagggactatgtagatcggttctttaaact  
ctaagagctgaacaagctacacaagatgtaaaaaattggatgcagacaccttgttgatccaaaatgcgaatcca  
gattgtaagaccattttaagagcattaggaccaggggcttcaatagaagagatgatgacagcatgtcaaggagtg  
ggaggacctagccacaaagcaagagtgttggctgaggcaatgagccaaacaaacaatgccataatgatgcaaaga  
agcaatttttaaaggctctaaaagaactattaaattgtttcaactgtggcaaggaagggcacttagccagaaattgc  
agggcccctaggaaaaaagggtgttggaatgtggaagggaaggacaccaaataagaaactgtactgaaagacag  
gct

>#85 KY658708 1281 nt

atgggtgcgagagcgtcaatattaagagggcgaaaaatttagataaatgggaaaaaattaggttaaggccaggggga  
aagaaacattatatgtctaaaacatctagtatgggcaagcagggagctggaaaggatttgcacttaaccctggcctt  
ttagaaacagcagaaggctgtaaacaaataatgaacagctacaaccagctcttcaaacaggaacagaggaactt  
aggtcattatacaacacagtagcaactctctattgtgtacatgcagggatagaggttaagagacaccaaggaagcc  
ttagacaagatagaggaagaacaaaacaaaagtcagcaaaaaacacagcaggcaaaagaggctgatgggaaggtc  
agtcaaaattatcctatagtagagaatctacaagggcaaatggtacaccaggccatatcaccwagaactttgaat  
gcatgggtataaagtaatagaggagaaggcctttagcccagaagtaatacccatgtttacagcattatcagaagga  
gccaccccacaagatctaaacaccatgttaaatacagtggggggacatcaagcagccatgcaaatgttaaaagat  
accatcaatgaggaggctgcagaatgggatagattacatccagtacatgcagggcctgttgcaccaggccaaatg  
agagacccaaggggaagtgacatagcaggaactactagtacccttcaggaacaaatagcatggatgacaagtaac  
ccacctgttccagtgaggagacatctataaaagatggataattctgggggttaaataaaaatagtaagaatgtatagt  
cctgtcagcatttttggacatcagacaagggccaaaggaaccctttagagactatgtagatcggttctttaaact  
ttaagagctgaacaagctacacaagatgtaaagaattggatgcagaaaccttgttgggtccaaaatgcaaacca  
gattgtaagaccattttaagagcattaggaccaggggctacattagaagaaatgatgacagcatgtcagggaagt  
ggaggacctggccacaaagcaagagtgttggctgaggcaatgagccaggcaaacagtgtaaacataatgatgcag  
aaaagcaatttttaaaggccctagaagaattgttaaattgtttcaactgtggcaaggaagggcatatagccaaaaat  
tgcaggggcccctaggaaaaaagggtgttggaatgtggaagaaggacaccaaataagaaactgtactgagaga  
caggct

>#86 KC156114 1284 nt

atgggtgcgagagcgtcagatttgaaaggcggaaaaatttagatgcatgggaaaaaattaggttaaggccaggggga  
aagaaaaatataggctaaaacacttagtatgggcaagcagggagctggaaaaatttgcacttaaccctggcctt  
ttagaaacatcagaaggctgtaaagcaatactgacacagctacaaccagctcttcaaacaggaacagaggaactt  
aatcattattcaacacagtagcaactctctattgtgtacataaaaaggatagaggtacatgacaccaaggaagcc  
ttagacaaggtagaggaagaacaaaacaaaagtcagcaaaaaacacagcaggcagaagcggtgacaaaggaaaa  
gtcagtcagaattatcctatagtgagaatctccaagggcaaatggtacaccaggccttatcaccaagaactttg  
aatgcatgggtataaagtaatagaggagaaagctttcagcccagaggtgataccatgtttacagcattatcagaa  
ggagccaccccacaagattttaaacaccatgttaaatacagtggggggacatcaagcagccatgcagatgttaaaa  
gataccatcaatgaggaggctgcagaatgggataggatgcatccagtgcagggcctgctgcaccaggccag  
atgagagagccaaggggaagtgacatagcaggaaccactagtaaccttcaggaacaaatagcatggatgacaagt  
aaccacctattccagtgggagacatctataaaagatggataattctgggggttaaataaaaatagtaagaatgtac  
agccccgtcagcatttttggacataaaaacaaggaccaaaagaaccctttagagattatgtagatcggttctttaa  
accttaagagctgaacaatcctcacaagaggtaaaaaattggatgcagacaccttgttgatccaaaatgcgaac  
ccagattgtaaaaccatttttaaaagcattaggatcaggggcttcattagaagaaatgatgacagcatgtcaggga  
gtgggaggacctggccacaaagcaagagtgttggctgaggcaatgagccaagtaacaataaccagtataatgatg  
cagaaaagcaactttaaggctctagaaaaattgttaaattgtttcaactgtggcaaggaagggcatatagccaga

aattgcagggcccccaggaaaagaggctgttggaatgtggaaggaaggacaccaaatgaaagactgtactgag  
aggcaggct

>#87 AF005496 1296 nt

atgggtgcgagagcgtcagtattaagcggcggaatttagatgcttgggagaaaattcggctaaggccaggggga  
aagaaaaaatataggctaaaacatctagtatgggcaagcagggagctggaaagatttgcacttaaccccggcctt  
ttagaaacaccagaaggctgtctacagataatagaacagatacagccagctattaagacaggaacagaagaactt  
aatcattattttaatctagtagcagtcctctatttgcgtacatcgaaaaatagatgtgaaagacaccaaggaggct  
ttagataagatagaggaaatacaaaaacaaaagtcagcaaaaaacacagcaagcagcagctgataaggaaaaagac  
aacaaggtcagtcaaaattatcctatagtagacagaatgctcaagggcagatggtacaccaggccatatcacctagg  
accttaaatgcatgggtaaaagtagtagaagaaaaggcttttagcccagaagtaatacccatgttttcagcatta  
tcagaaggagccaccccacaagacttaaatgctatgctaaatacagtggggggacatcaagcagccatgcagatg  
ttaaagatacaatcaatgaggaagctgcagaatgggacagggtagcatccagtgcatgcagggcctattccacca  
ggccaaatgagagaaccaaggggaagcgatatagcaggaactactagtagccctgcaggaacaaatagcatggatg  
acaggcaatccagctatcccagtgaggagacatctataaaagatggataatcctgggattaaataagatagtaaga  
atgtatagtcctgtcagcattctggacataaaacaagggccaaaagaacccttttagagactatgtagacaggttt  
tttaaaactttaagagctgagcaagccacacaggatgtgaagaattggatgacagaaaccttgttgggtccaaat  
gcaaatccagattgcaagactatattaagagcattaggacaaggggcttcaatagaagaaatgatgacagcatgt  
cagggagtgaggagcctagtcataaagcaagagttttggctgagggcaatgagccaagtaacaaatacaaataca  
gccataatgatgcagaaaggcaactttaagggccaaagaaaatttgttaaagcttcaactgtggcaagagggga  
cacatagccagaaattgcagggccccctaggaaaaagggctgttggaatgtggaagagaaggacatcagatgaaa  
gactgcacagagagacaggct

>#88 FJ389367 1293 nt

atgggtgcgagagcgtcagtattaagtgggggaaaatttagatgcatgggaaaaaattcggttgaggccaggggga  
aagaaaaaatatagaataaaaacatctagtatgggcaagcagggagctggaaagatttgcactcaaccctggcctt  
ttagaaacaacagaagggtgtcaacaaatattggaacagttgcaaccaactcttaggacaggaacagaggagatt  
aatcattatataatgcartagcaactctctattgtgtacatcaaaggatagaggtaaaagacaccaaaagaagct  
ctagaagaagtggaaaagatacaaaaagaaaagtcagaaaaagacacagcagggcagcaatgggtgaaggaaacagc  
agccaagtcagccaaaattatcctatagtgcaaaatgcacaagggcaaatggtacatcagcccctatcacctaga  
acttttaaatgcatgggtaaaagtagtagaagagaaggcattcaatccagaagtaatacccatgttttcagcacta  
tcagaaggagccaccccacaagatttaaataccatgctaaacacagtggggggacatcaagcagctatgcaaatg  
ctaaaagatactattaatgaggaagctgcagagtgggacaggacacatccaccacagggcagggcctatcccacca  
ggccagataaggggaaccaaggggaagtgatatagcaggaactactagtaacctgcaggaacaaataagatggatg  
accagcaatccacctatcccagtgaggagaaatytataaaagatggataatcctgggattaaataagatagtaaga  
atgtatagccctgtcagcatttttgatataagacaagggccaaaagarccttttagagattatgtagataggttc  
tttaaaactttaagagctgaacaagctacacaggaagtaaaaaactggatgacagacaccttgttgggtccaacat  
gcaaacccagattgtaagaccatcttaagagcattagggccaggagctacactagaagaaatgatgacagcatgt  
cagggagtgaggagccggccataaagcaagggtttttagctgaagcaatgagccaggcatcaaattcagcagca  
gctataatgatgcaaaaaggcaattttaagggcccaagaagaattaagtgtttcaactgtggcaaggaaggacat  
ctagccagaaattgcagggccccctaggaaaaagggctgttggaatgtggaagaggggacatcaaataagagac  
tgcacagaaagacaggct

>#89 FJ389365 1242 nt

attcggctgaggccmgggggaargaaammrtayaractaaaacatwtagtatgggcaagcagggagctggayaga  
tttgcacttaaccccggcctcttagaaacaggagaaggwtgtcagcagatamtgrmamagttgsaaccakctctc  
magacaggaacagaggarattaaatcattatataatacagtagcaacyctctattgtgtacatcacaggatagar  
ataaragacaccaagaagctctagatgtartrgaaaaamtacaaaagaamagtcagcaagaaacacagcaggca  
gcaaggagtacaggaataacagccaagttagccaaaactatcctatagtgagaatgcacaagggcaaatggta  
caycaggccatatcaccyaggacttttaaatgcatgggtaaaagtaatagaagaaaaggccttcagcccagaagta  
ataccatgtttacagcattatcagaaggagccaccccacaagatttgaataccatgctaaacaccgtggggggg  
catcaagcagctatgcagatgctaaaggatactattaatgaagaagctgcagagtgggataggatgcattacca  
caggcagggcctcttccaccaggccagmtaagagaaccagggggaagtgatatagcaggaactaccagtacctg  
caggaacaaataacatggatgaccagcaaccacctatgccagtgggagaactatataaaagatggataatcctg  
gggttaaataaaaatagtaagaatgtatagccctgtcagcatttttgacataaaacaagggccaaaagaaccyttc  
agagattatgtagatagrttttttaaaactttgagagctgarcaagccaccaggatgtaaaaaattggatgaca  
gacaccttgttgggtccaaaatgcgaatccagattgtaaaaccatcttaagagcattaggaccaggagctacatta  
gaagaaatgatgacagcatgtcaaggagtgaggagccagccacaaagcaagagtgttagctgaggcaatgagc

caggcaacargtgcagcagcaaacrtaatgatgcagaaaagcaattttaagggcccgagaagaaatattaagtgt  
ttcaactgtggcaggggaaggacatctagccagaaattgcagggcccctagggaaaagggctgttggaatgtgga  
caggagggacatcaaatgaaagactgcacagaragacaggct

>#90 MH705151 1284 nt

atgggtgcgagagcgtcagtattaagcgggggaaaatttagatgcatgggagaaaattcggttaaggccaggggga  
aagaaacattataaaactgaaacatctagtatgggcaagcagggagctggaaagattcgcagttaaccctggcctt  
ttagactcagcagaaggctgtcaacaaataatggaacagttacaaccagctctcaagacaggatcagaagaactt  
acatcattattttaatacagtagcaaccctctatttgtgtacatcaaaggatagatgtaagagacaccaaggaagct  
ttagataaaaatagaagaaataaagagcaagcaaaagacacagcaggtagcagctgacacaggaaacagcaacaag  
gtcagtcaaaattaccccataatacaaaaatacacaagggcaaatggtatatcagagcttatcacctaggactttg  
aatgcatgggtaaaagcaatagaagaaaaggctttcagcccagaagtaatacccatgttcacagcattatcagag  
ggagccgccccacaagatttaaatatgatgctgaacatagtggggggacaccaggcagctatgcaaagttaaaa  
gataccattaatgaagaagctgcagaatgggatagggtacatccagtacatgcagggcctattcaaccaggccag  
atgagagaaccaaggggaagtgcatagcaggaactactagtacccttcaagaacaaataggatggatgacaagc  
aatccacctatcccagtgaggagaaatctataaaagatggataatcctgggattaaataaaatagtaagaatgtat  
agccctgttagcatttttgacataagacaagggccaaaagaacccttcagagactatgtagatagggtcttttaa  
actctcagagctgagcaagctacacaagaggtaaaagggttgatgacagaaaccttgctgggtccaaaatgccaat  
ccagactgtaagaccatttttaagagcattaggagcaggggctacattagaagaaatgatgacagcatgtcagggga  
gtgggaggaccggccataaaagcaaggggttttggtgaggcaatgagtcaggtacaacatacaaacataatgatg  
cagagaggcaatttttagggggccagaaaagaatgattaaatgtttcaactgtggcaaagaaggacacctagccaga  
aattgcagggcccctagggaaaagggctgttggaatgtgggaaggaaggacatcaaatgaaagaatgcacagaa  
agacaggct

>#91 KF716478 1290 nt

atgggtgcgagagcgtcagtattgagtgggtggacaatttagatagggtgggagaaaattcggctaaggccaggggga  
aagaaaaaatatagactaaaacatctagtatgggcaagcagggagctggatagattcgcacttaaccctagcctt  
ttagaaacaacagaaggatgtcaacaaatattagaacagttacaaccagctattaagacaggaacagaagaactt  
agatcattatataatacagtagcaaccctctattgcgtacatcgaaagatagaggtaaaagacaccaaggaagct  
ctagataaaaatagaggaactacaaaagaaaagcaagcaaaagacacaaacaggcagcggctgacacaggaagtaac  
agcagcacggctcagccaaaattaccctatagtgcaaaatgtacaagggcaaatgatacaccagcccttgtcacct  
aggactttgaatgcatgggtaaaagtaatagaagaaaagggtttcaatccagaagtaatacccatgttctcagca  
ctatcagaaggagccaccccacaagatttaaatatgatgctaacaatagtggggggacaccaggcagctatgcaa  
atgctaaaagataccatcaatgaggaagctgcagaatgggacaggttacatccagtacatgcagggcctgttgca  
ccaggccagatgagagaaccaaggggaagtgatatagcaggaactactagtaacactcaagaacaaatagcatgg  
atgacaggcaatccacctatcccagtgaggagacatctataaaagatggataatcctgggattaaacaaaatagta  
agaatgtatagtcctgttagcatttttgatataaaaacaagggccaaaagaacccttcagagactatgtagatagg  
ttcttttaaagctctcagagctgaacaagctacacaggaggtaaaagggttgatgacagaaacattactggtccaa  
aatgcaaatccagattgtaagtctatttttaagagcattaggatcaggggctacattagaagaaatgatgacagca  
tgccagggagtgaggagaccagccataaagcaaggggttttggtgaggcaatgagtcaggtccaacagccaaac  
ataatgatacagagaggcaatttttagaggccagaaaaagattaagtgtttcaactgtggcaaagaaggacaccta  
gccagaaattgcagggcccctagaaaaacagggctgttggaatgtgggaaggaaggacaccaaataagagactgc  
actgagagacaggct

>#92 AJ320484 1296 nt

atgggtgcgagagcgtcagtattaagcgggggaaaatttagatgcatgggaaaaaattcggttacggccaggagga  
aagaaaaaatatagactgaaacatatagtatgggcaagcagggagttagaacgattcgcacttaacctggcctt  
ttagagacatcagaaggctgtaaacaaataataggacagctacaaccagctgttcagacaggatcagaagaactt  
aaatcattattttaatacagtagcaaccctctatttgtgtacatgagaggatagaggtaaaaggacaccaaggaagct  
ttagaaaaaatagaggaagaacaagccaaaagtaagaaaaaagcacagcaagcaacagctgacacaagaaacagc  
agccaggctcagccaaaattatcctatagtgcaaaacctacagggcaaaatgatacaccaggccatatcacctaga  
actttgaatgcatgggtaaaagtaatagaagagaaggctttcagcccagaagtaatacccatgtttacagcatta  
tcagaaggagccaccccgcaagacttaaacaccatgctgaacacagtaggggggcatcaagcagccatgcagatg  
ttaaagagaccatcaatgaggaagctgcagaatgggatagggtacatccaccgcaggcagggcctgttgacca  
ggccagatgagggaaaccaaggggaagtgatatagcaggaactactagcacccttcagggaacaaatagggtggatg  
acaagcaatccgcctgtcccagtaggagagatctataaaagatggataatcctgggggttaataaaaatagtaaga  
atgtatagtcctgtcagcatttttgacataagacaaggtccaaaggaacccttttagagattatgtagatcggttc  
tataaaactctaagagccgagcaagcttcacaagatgtaaaaaattggatgaccgaaaccttgttgggtccaaaat



gcaaaccagattgtaaaactatcttaaaagcactgggaccaggggctacattagaagaaatgatgacagcatgt  
cagggagtagggggaccagtcataaagcaagagttttggctgaggcaatgagccaagcaacaaatttgaatggg  
gccgcaatgatgcagagaagcaattttaagggcccaaggaaaattgttaagtgtttcaactgtggcaaagaagg  
cacatagcaagaaattgcaaggctcctaggaaaaagggtgttggaatgtggcagtgaaggacaccaaatgaaa  
gattgcactgaaagacaggct

>#93 KT200357 1299 nt

atgggtgcgagagcgctcagtattaagcgggggagaattagatagatgggagaaaattcggttaaggccaggggga  
aagaaaaaatataggttaaaacatatagtatgggcaagcagggagctagaacgattcgcagtcaatcctggcctt  
ttggagacatcagaaggctgcagacaaatactgggacagttacaaccgtcccttcagacaggatcagaagaactt  
agatcactatataatacagtagcaaccctctattgtgtacatcaaaagatagatgtaaaagacaccaaggaagct  
ttagacaaggtagaggaagagcaaaacaaaagcaagaaaaggggcacagcaagctgcagctggcacaggaaacagc  
aaccaggtcagcgctcagccaaaattaccctatagtgacagaaccttcaggggcaaatggtacatcaggccatatca  
cctagaactttaaatgcatgggtaaaagtggtagaggagaaggctttcagcccagaagtaatacccatgttttca  
gcattatcagaaggagctaccccaacaagacttaaacaccatgttaaacacagtggggggacatcaagcagccatg  
caaagtctaaaagagaccatcaatgaggaagctgcagaatgggatagattgcatccagtacaggcagggcctgtc  
gcaccaggccagataagagaaccaagggggaagtgcatagcaggaactactagtacccttcaagaacaaatagca  
tggtatgacacataatccacctatcccgttagggagaaatttataaaagatggataatcctgggattaaataaaata  
gtaagaatgtatagccctgtcagcattctggacataagacaaggaccaaaggaaaccttttagagactatgtagat  
cggttctataaaaactctaagagctgaacaagcttcacaggatgtaaaaaattggatgacagagaccttgtagtc  
caaaatgCGAACCCAGATTGCAAGACTATTTTGAAAGCACTGGGACCAGCAGCTACACTAGAAGAGATGATGTCA  
GCATGCCAAGGAGTGGGGGGGCCCGGCCATAAAGCAAGAGTTTTGGCTGAAGCAATGGGCCAAATAACAAATACA  
GCTACCATAATGATGCAGAGGGGCAATTTTAAGAACCAAAAAAGGACTGTTAAGTGTTTCAATTGTGGCAAGGAA  
GGACACATAGCCAGAAATTGCAGGGGCCCTAGGAAAAAAGGCTGTTGGAATGTGGAAGGGAAGGACACCAATG  
AAAGATTGCCTGAGAGACAGGCT

>#94 AY331292 1296 nt

atgggtgcgagagcgctcagtattaagcgggggaaaattagataaatgggaaaaaattcggttaaggccaggaggg  
aaraaaaagtataaattaaaacatatagtatgggcaagcaggggaactagaacgcttcgcagtcaatcctggcctg  
ttagaaacaacagaaggctgcagacaaatactgggacagctacaaccatcccttcagacaggaaacagaagaactt  
agatcattatataatacaatagcagtcctctattgtgtacatcaaaaggatagatataaaagacaccaaggaagct  
ttagataagatagaggaagagcaagacaaaagtaagcaaaaggcacagcaagcagcagctgacacaggaaacagc  
aacaaccaggtcagccaaaattaccctatagtgacagaacctccaggggcaaatggtacatcaggccatatcacct  
agaactttaaatgcatgggtaaaagttagtagaagagaaggctttcagcccagaagtaatacccatgttttcagca  
ttatcagaaggagccaccccaacaagatttaaacaccatgctaaacacagtggggggacatcaagcagccatgcaa  
atgttaaaaagagaccatcaatgaggaagctgcagaatgggatagattgcatccagtgcagggcctattgca  
ccaggccagatgagagaaccaagggggaagtgcatagcaggaactactwgtacccttcaggaacaagtaggatgg  
atgacaagtaatccacctatcccagtaggagaaatttataaaagatggataatcctgggattaaataaaatagta  
aggatgtatagccctaccagcattctggacataagacaaggaccaaagagcccttttagagactatgtagaccgg  
ttttataaaaactctaagagctgagcaagcttcacaggaggtaaagaattggatgacagaaaccttggtgtccaa  
aatgCGAACCCAGATTGTAAGACTATTTTAAAGCATTGGGACCAGCAGCTACACTAGAAGAAATGATGACAGCA  
TGTCAGGGAGTGGGAGGACCCGGCCATAAAGCAAGAGTTTTGGCCGAAGCAATGAGCCGAGTAACAAATTCAAAT  
GCCATAATGATGCAGAGAGGCAATTTTAAGAACCAAGAAAGACTGTTAAGTGTTTCAATTGTGGCAAAGAAGGG  
CATATAGCCAGAAATTGCAGGGCTCCTAGGAAAAAAGGCTGTTGGAATGTGGCAGGGAAGGGCACCAATGAAA  
GATTGTACTGAGAGACAGGCT

>#95 KP109514 1293 nt

atgggtgcgagagcgctcagtattaagcgggggagaattagatagatgggaaagaattcggttaaggccaggagga  
aggaaaaaatatcaattaaaacatatattatgggcaagcagggagctagaacgatacgcaacttaatcctggcctg  
ttagaaacatcagatggctgtaaacaaatattggcacaactacaaccagcccttcagacaggatcagaaggattt  
agatcattattcaacacagtagcagtagtactctattgtgtgcatcaaaagatagagataaaagacaccaaaagaagct  
ttagataagatagaggaagagcaaaacaaaatttaagaaaaaggcacaacaagcagcagctgacacaggaaacagc  
agccaggtcagccaaaattaccctatagtgacagaacatgcaggggcaaatggtacatcagcccatatcaccaaga  
actttgaatgcatgggtaaaagttagtagaagagaaggctttcagcccagaagtaatacccatgttttcagcattg  
tcagaaggagccaccccaacaagatttaaacacaatgctaaacacagtggggggacatcaagcagccatgcaaatg  
ttaaagagaccatcaatgaggaagctgcagaatgggatagattacatccagtggctgcagggcctgttgacca  
ggccagctgagagacccaagggggaagtgcatagcaggaactactagtacccttcaggaacaaataggatggatg  
acacataatccacctatcccagtaggagagatctataaaagatggataatcctgggattaaataaaatagtaagg

atgtatagtcctaccagcattctggacataaaacaaggacccaaaagaaccctttagagactatgtggaccgggttc  
tataaagttctaagagccgagcaagcatcacaggatgtgaaaaattggatgacagaaaccttggtgggtccaaaat  
gcaaaccagattgtaaaactattttaaaagcattaggaccagcagctaccctagaagaaatgatgacagcatgt  
cagggagtgggaggaccagccataaggcaagaattttggcagaagcaatgagccaagtaacaaacccaactacc  
atactgatgacagagaggcaatttttaagaacccaaaaagaattgttaagtgtttcaattgtggcaaagaagggc  
atagccaaaaattgcagggccccctagaaaaaggggctgctggaaatgtggaaaggaggggacaccaaataagga  
tgactgagagacaggct

>#96 AF146728 1311 nt

atgggtgagagagcgtcagtattaagcgggggagaattggatagatgggagaaaattcgggttaaggccaggggga  
aagaaacatataaattaaaacatatagtatgggcaagcaggggaactagaacgattcgcagttaatcctggcctg  
ttagaaacatcagaaggctgtagacaaatactggtagcagctacaacatcccttccgacaggatcagaagaactt  
aatcattatttaatacagtagcaaccctctattgtgtgcatcaaaagatagagataagagacaccaagggaagct  
ttagaaaagatagaggaagagcaaaacaaaagtaagaaaaaggcacagcaagcagcagctgacgcagcagcagct  
gatgcaggaatatgcagcaaggctcagccaaaattaccctatagtgacagaaacctccaggggcaaatggtacatcaa  
cccatatcacctagaactttaaatgcatgggtaaaagtagtagaagagaaggctttcagcccagaagtaataccc  
atgttttcagcattatcagaaggagccaccccaagaatttaaataccatgctaacaacagtagggggacatcaa  
gcagcagccatgcaaatgttaaaagagaccatcaatgaggaagctgcagactgggatagattacatccagtacat  
gcagggcctattgcaccaggccagatgagagaaccaaggggaagtgcataagctggaactactagtacccttcag  
gaacaaataggatggatgacaaataatccacctatcccagtgaggagaaatctataaaagatggataattctggga  
ttaaataagatagtaagaatgtatagccctaccagcattctggacataaaacaaggaccaaaggaaccctttaga  
gattatgtagaccggttctatagaactctaagagccgagcaggcttcgcaggagggtaaaaaattggatgacagaa  
accttggttggtccaaaatgcgaaccacagattgtaggactattttaaaagcattgggaccagcagctacactagaa  
gaaatgatgacagcatgtcagggagtagggggacccggccataaaagcaagagttttggccgaagcaatgagccaa  
gtaacaaattcagctaccataatgatgcagagaggcaatttttaggaaccaagaaagactgtcaagtgtttcaat  
tgtggcaaagaggggccacatagccagaaattgcagggccccgaggaaaaggggctgttggaatgtggaaaggaa  
ggacaccaaataaggaattgtactgagagacaggct

**Supplementary File S4.** Dataset of 96 nucleotide sequences of the gene *pol* from primate lentiviruses: 37 sequences from SIV infecting Old-World monkeys (#1 - #37), 4 from HIV-2 (#38 - #41), 20 from SIV infecting African apes (7 from SIVgor, #42 - #48, 13 from SIVcpz, #49 - #61), and 35 from HIV-1 (9 from group O, #62 - #70, 2 from group P, #71 and #72, 7 from group N, #73 - #79, and 17 from the pandemic group M, #80 - #96). From each genome sequence we selected the non-overlapping region that encodes the Pol protein. Each nucleotide sequence contains the NCBI ac. number and the length of the coding region.

>#1 AF468658 2763 nt

```
gaagtctccatggggggacaagtgggtgtccatgttattagacacagggggcggacgataccattgtccaagaatca
gcaattgaattagacacacccatggacacccaaaaacggtaggggggataggggggtttaatacaagtaaaggaacat
agacatgtagaagtgtatctttaatgaaaaaagaatcaaagccactgtacttgtagggcccacaccagtgaatata
ttgggaagaaattgtttaagcaagttaggagtaaccttaaacatgggtgcagcagaaaactagagcccgtagaagtg
cacctaaaaatcaggaagaaggaccaaagattaaacaatggcccttgtctaaaggaaaagatagaggccttaacc
caaataacacaagaaatgctcaagttaggccaattggaaaagatagggccagaaaatccatacaactcgccagtc
tttgccataaaaaagaaagacaaatcacatggagaatgttaatatagatttcaggaaattgaatgagggtacgcaa
gacttggctgagggtccagttggggattccgcacccagcaggactagaacaaaaagagcacgtaactataatagat
atgaaagacgcttattacagtgtaccattgtatgaagaattcagaaagtacactgcattttcagtaccatcagta
aacaatcagaccccagctgagaggtatcagttcaaagttttacctcagggttggaaaggcgtctccaaccattttt
caggccactgtagcttcccttgttatatcagattagagaccaggagccagatgtggttaataatacagtacatggat
gacttgttgataggatcagataggaaattggcagagcataggcaagtagtgcacaaaataagaaatttgttgacg
tcctataacatccagacccccgaggccaaacaccaacaagattatccagtcagatggctcgggtatgagttgcac
cctaagggtatggagggtccaaccagtggagctcccagatcaagacatctggacagtaaatgacatccaaaaattg
gtaggggaagctcaattgggtatcgcaaatatcctggcataaggacaaaacagttatgcagatgtattagagga
gccaaagggtacacagaacaggtggagctcactgaggaagcacaaatagagtttagcagaaaacagagagattcta
aaacaatcctcagagggcagctactacgacgcagaaaagccacttgtggtagaaattacctccctaggagaacag
caatggggatacatgttccagtcaggacagcaagatgctaagatcaggcaaatgtgcaaaaaccagaactgcacat
ataaactcttatcagcaattggcagatgctatgaccaaagtaggtagggaagtcagggttacttggggaaaagta
cctgacaaaattcaggatcccagtagtcaaggagcaatgggatacgtggtggtgaactattggcaggcaacatgg
attcccaccatagaagcagtagacacacaccacatttgttgagacagtggtagacccctagtctcggaaaccctaga
aatgcagtcacctattatgtagacggggcagcaaataggacctctaaattaggaaaagctggctatgtgaccaat
acaggaaaaatatagagccatagaactagaaggaactacaaatcaacaagcagaactccaggcagttcttttggca
ttaaagaaggaccaccaagaatgaacttgggtcacagattcccaatacgtaatggggatcttacaaagccaacca
gaagtatccacctctcccttagtggaacaaatcatacaagaactgttagggaaagaggccgtctacttgagttgg
gttccagcacacaaagggtataggaggaaacacagaggttagacaaattagtcagcagaggggatccgccaagtactc
ttcatggagaacatagagcccgcagtagaggaccatgaaaaatatcatagtaattggaagtatttaagggtatcaa
tacaaaatcccggcactatttggctaaagaaatagtaaaacaagtgtccaaatgtcagatacatggggaacccaaa
catgggcaagtaaatgcagaattaggcatatggcgaatggactgcacacatctggaaggcaaaagtatatcttagtg
gcagtcacgtagccagtggttatgtttgggctaggataataccccaagaaacagggcagacaaactgcattaaag
ctattagaattagcagcaacatggccagtaactcacctacatacagataatggccccaatttcatctctaaggaa
ctggaggcagcttgttgggtgggcaaacatacaacacagtagcaggggtgccatacaaccgcgcaagtcaggggta
gtagaaaacatgaacaaacaactcaaggaaacaatccaaaagattagagatgaggtcacatacttagaaacagca
gtgacacaagcatgtacattcataattttaaaagaaaggagggaataggggatatgtgcctacagagagggtta
gtgaacatgatccacacagaattagaacacacacacttaaacacacaaaagttccaaatttcaaaaatttcgggtt
tattacaggcaaggagctaattcctcattggcaaggaccagcagtagtctcttgggaagggtgaaggagcagtagtg
gtccaaacccaagcaggtgagatcatcacagtccttagaaggaaagcaagatcatcaagcca
```

>#2 AF468659 2781 nt

gaagtctccatagggggacaagtgggtgtccatgttatttagacacagggggcggacgacaccatcgtccaagactca  
gcaattgaattagatacaccatggacacaaaaatggtagggggaataggggggttaatacaagtaagggagcat  
aaacatgtagaagtaatctttaatgagaaaagaatcaaagctactgtactgggtggacccacaccagtaaata  
ttaggaagaaattgcttaagtaagttaggggtaactttaacatgggtgcagcagaagatagaacccatagaagt  
cacctaaaggcaggaaaagagggaccaaagatcaaacagtggccccctgtctagggaaaagatagaggccttaacc  
caaataacacaagagatgcttagattaggtcaattggaaaaaataggaccagaaaatccatacaactcaccagtc  
tttgccataaaaaagaaggacaaatcacaatggagaatgctaatagattttagaaaattaaatgaggctacgcaa  
gacttggtgaggtccagttgggaattccgcacccagcaggaattccgcaccctgcaggactagagcaaaaggag  
catgtaactataatagatatgaaagatgcttattatagtagatcaccattgtatgaggatttcaggaagtacaccgct  
ttttcagtaccttcagtaataatcaggccccagctgaaaggtatcagttcaaagtcttaccgcaggggttgaaa  
gcgtcgccaaccatctttcaaaacattgtagcttccttgctacgacagattagagatcaggagccagatgtggta  
ttaatacagtacatggatgatttactgataggatcagataggaaactgggagaacacagggaagtgtgcacaaa  
ataagaaatttactaacatcctataacatccaaacccccgaggccaaacaccaaccagattatccggtcaagtgg  
ctcgggtatgagttgcatcctaagggatggaggctccagccgggtggaactcccagaccaggatacctggacagt  
aatgacatccagaaattggtagggaaattaaattgggtatcacaaatacaccctgggtataaggacaaaacagttg  
tgcaaatgtattaggggagctaaagggtctaacagaccaggtagagctcactgaggaggcacagatagaattagca  
gaaaatagggagatcttaaaacaatcttcagagggtggctattatgacgcagaaaagccgctcgtgggtggaatt  
acctccctagggagaacagcaatgggggtacatgttcagccaagaaggcaagatgttaaaatcagccaaattcgca  
aagaccagaaatgcacacataaaactcctatcagcaatttgagatgctttgaccaaagtaggtaggagagtcag  
gttacctggggaaaggtaccagacaaatttaggatcccagtagtcaaggaacaatgggatgcatgggtgatgaat  
tattggcaggcaacatggatacccaccatagaagcaatacacacaccacactactgagacaatggtagacccta  
gtctcggaaacccttagaagatgcagttacttattatgtagatggagcagcaaataggacctccaaactaggaaaa  
gctgggttatgtgaccaatacaggaaaacatagggccatagaattagaagaaactacaaatcagcaagcagaactc  
catgcagttcttttggcattaaaagaagggccacaaaaaatgaatctggtcacagattcccagtatgtaatggg  
atcttgcaaagtcagccagaggtatccacctctgcgctagtggaaacaaatcatacaagaactgctaaaaaaggaa  
gccatctacttaagttgggttccggcacacaagggaataggaggaaacacagaggtggacaaattagttagcaag  
ggaatccgccaagtgttttccctggaaaacatagagcctgcagtagaagaccatgaaaagtatcatagtaattgg  
aagtacctaagagatcaatacaaaaatccccgcactattggctaaagaaatagtgaacaaatgttccaagtgtcag  
gtacatggggaaccaaacaatgggcaggtaaatgcagaattaggcatgtggcagatggactgcacgcatttgga  
ggaaagggtcatcttagtggggtccacgtagcaagtgggtatgtctgggctaggataataccccaggaaaacaggc  
agacaaactgcattgaagctcttagaattagcagcaacatggcctgtaaccacctaatacagataatggcccc  
aatttcgtctccaaggaattggaagcagcctgctgggtgggcagacatacaacacaccacaggggtgccatacaac  
ccgcaaagtcaaggggtagtagaaaacatgaacaaacaactcaaggaaacaatcacgaaaatcagagaagaggtc  
acatacttagaaacagcagtagcacaggcatgctacattcataattttaaaagaaagggaggaataggggatatg  
tgccctacagaaagaatagtaaatatgattcacacagaattagaaacacaacacttaaacacacaaaaattccaaa  
tttcaaaaatttcgggtttattacaggcaaggagctaaccctctttggcaaggaccagcagtagtaccttgaaa  
gggtgaaggagcagtagtagtccaaactcaagcaggtgagattattacagtccttagaaggaaagcaaatcatc  
aagcca

>#3 EF070329 2760 nt

attaatgggcagccagtggtccatgctcctggacaccggagcggatgacaccatcatccaagactcagatataaaa  
attagtggggaattgactcccaaagtagtgggaggttttaggggggctgatcaatgtaaaacaatataaggggggtg  
atagtaaaattcaatgagaaaagaatagtagccacagtccttggtgagtcctacacccatcaatatcttagggaga  
aattgcttatcaaaattggaaataacactaaacatggtaaatggcaggaacagcaattgaaacccactaaagttagc  
cttaaagaaagaaaaaaagggccaatggtaaaacaatggccactctctaaggagaagatagaggcactaaaagaa  
attactcagaaaatgataaaattaggtcaactggaggaagcagggcctaataacccatataattcaccagtatctc  
gccataagaaagaaagacaaagacaaaatggcgaatgttaatagatttcagaaaagcttaatgaggtgacacaagaa  
tttgacagaagtccagacagggatcccacatccctcaggggttagccaaaaggcacatgtcactatagtagatatg  
caggatgccttttatagtggtccattagacaaagaattccgaccctacacggccttctcggtccctgcagtgaac  
aacatgggaccagctaaaagattccaatttaaggtgttgccacaggggtggaaggatcaccacatttttcaa  
gccacaacagccaagcttctagagcaagttaggaaggacaatcaggacgccttaatagtccaatacatggatgac  
ctgcttatagggtcagacagagaaataggagaacatagaaggctagtgaaaaagatcagagatctcctctcaagt  
aaggggatacagaccccagaagacaaacaccagccagactaccggtagaatggctagggtacgagttacatccg  
aaaggatggagaatcaaaccagtggagctgccagaccaggacacctggacagtgaatgaaattcagaagctggta  
gggaagttaaactgggcagcccaagtctattcagggtatcaaaactaaacatttatgcagatgtatcaggggaata  
aaggggtctaacagagctagtggagctcagtgagcaagcccaattagaactagcagaaaatagggaatcctgaag

caagaggccggtggggcctattatgaccagaaaaacccctagtccttagagatagtgctccttaggggaacaacaa  
tgggggtacacctttacccaagacagaaacatgctaagaacaggaaagtttgccaagatcagaacagcccatagt  
aaccctaccaacagctggcagaagccctatctagagctagtaaggaggccctagtcctgttgggggaagaccca  
gacaaatgcaggataccggtagtcagggaacagtgaggacaattgggtgggcagactcatggcaacaacttggatt  
cccgacatagaagcagtagcacaccccataccttctgagacagtggtttaccttgggtcccagagcccatagaaca  
gcaccacactactatgtggatggagcagcaaataaggaactctaaactaggaagagctggatatgtaaccgatagg  
ggacaggagagagctataaaatttggaacacacaaccaaccagcaagcagagctccaagccattctcttgggtcta  
atggatggggccaccagaaatgaacctagtaacagattctcaatatgcattgggaataatcacagcagcaccagag  
gtatcagagtcacctctgggtggagcagataatacagcaaattgctgagcaaaaatgccatctttatatcccgagta  
ccagcccacaagggcataggagggaatgaggaagtagaccacctagttagcaggggaatccgccagggtactattt  
atggaaaatatagaccggcagttgaagaccatgagaagtagaccattctaatgggaagtatctcagggataaatac  
aacatacccaccatcttagccaaggaaatagtaacaaatgctcagcatgtcaaacacatggggaacaaaacat  
gggcaagtcaatgcagacttgggggtatggcaaattgattgcacacatctggaaggcaagggtcatcttgggtggca  
gtacatgtagccagtagtttcatatggggccaggataatttcccagaactggaaggctaacagccctagagctg  
tcaaacttggcagccacatggccaattagtcagatacaccagacaatggtaccaactttactagcaaggaattc  
caagctgttgcatgggtgggctaacatacagcacaccacaggtgtcccctacaatccacagagtcaggagtagta  
gaaaatgcaacaacagttaaaggaaaccattcacaaagtaagggaagaagtaacataatttagaaacagcagta  
gcacaagcagtccttcattctaaataataaaagaaagggagggataggggatatgaccctacagaaagggttagtt  
aatatgctatacacagaactagaaatacaacaactacaaaatcacatacaaaaattttcaaaatttcggggttat  
tacagaagaggagcaaacccttatttggtgagaccagctcgacttctttggaaaggagaaggagctctagtgate  
aaaacaaagggaagggtgagatcgtaacagtcccaagaagaaaagcaaaaataatcaaggat

>#4 EF070330 2754 nt

atagaaggacaagtggtgcacatgctgctcgacacaggggcagatgacaccatagtcaggattccaacattcag  
atagataaaccatggaatcccaaattgggtgggggaatcgggggaaacatatcagtcagagaatatagaggggta  
caagtatctttcaatgagaaaacaattaagggaacagtggttgggtgggacctacacccatcaacataatggggaga  
aattgtttaagtaaaatttggaatcaccttgaacatgatacaggaaaaaatagaaccataaaaagtggccttaaag  
gaagggggcaaaaggaccaatggtcaaacagtgggccactgactcaagaaaaagattaaggccttagaaggcatagtt  
cagcaaatgttaaaattagatcagatagaagagatagggccagacaatccttacaactctccatgttttgcaatc  
aggaagaaagataaatctaaatggagaatgttaatatagatttttagacagctaaatgaggccacccaagagttcaca  
gaggtacagctagggatcccacatccagcaggattagcggaacatgagcatgtcacaatatgtagatatcaaggac  
gcctttttacagcgtcccattagatccagcattcagaaaaatacacagccttctcgctgccccagggtaaataaccag  
ggaccagcaagaagggtatcagttcaaagtgtgcccacaggggtggaaaggatccccaccatcttccaatacacg  
gcagcaaaaattattacaggaaatcagggaagcaaatccagatatcaccctcatccagtacatggatgatctctta  
ataggatccaacagagagatatcgggacataggagagtagtagcacagattaggaacatgctcttgaaactgggg  
atacaaacccccggaagataagtagcagaaagactaccagtcagtggttagggtaggtatgagttacccccagaggg  
tggaaaatacagccagtaaacactcccacagcaagaaaactggacagtaaatgatatacagaagttggtaggcaaa  
ttgaattgggcagcgcaagcctacccaggagttaaaaccaaacagctatgcaaatgtataaggggagttaaatcc  
ctgacagaagaagttcaactaacagaggaagctcaattagaattggcagaaaaccaggaaattcttaagcaggca  
gtccaggggggcatactttgatccagaacaacccctgggtgggtgaaattgtctcgtaggagactcacaatggggg  
tataacttctccaaaataagggaatatataaatctggaaaatttgccaaagtcagatcagtcacataccaacagt  
tatcagcagttatctgatgccatagccagaataggaagggaatcattagtcatttgggggaagccccccgaaaag  
gtcaggattccagtgatcaaggagcagtggtgatcaatgggtggacagaacattggcagggtatcatggatacctgac  
atagaggcagtagataccacccacctgctgcgacagtggttcacattggtgccagagccattgtcagaagctccc  
acataattatgtagatggagcagcacataaagtatctaagttagggaaggcaggatatgttactaacacaggaaaa  
gaaaagggtggttagcttagaaaaatactaccaatcaaaaggcagaactagaagctgtcttgttggccttgaaagaa  
ggccctcccagcatgaatatagtcacagattcccaatatgtgctggggatagtggtcttctcaaccccaagaatcc  
acctcgcccttggtagaagaaataattcaacaattactgaccaaggaggcgtatacctatcggtgggtgccagcc  
cataaagggtataggaggaaatgaggatgtggacaaactggtaagccatggaattaggcagggtgctattcatggag  
caaatagagcctgcaaaagaggacatgaaaagtaccatagcaattggaagtatctcagggataagtacaacatc  
ccagctttactggctaaggaaatagtaaacctttgtcccaaatgtcagacacatggggagccaaaaacaggacag  
gtcaatgcagaattgggagtggtggcaaatggattgtactcacttagaaggaaaaatcatcttagtagccgtccac  
gtggccagtggtatcacgtggggcaaaaatattaccaggggaacagggaaggcaaacagccctaggcctgttagaa  
ttagcagctctttggcctgtaacacaaatacacacagataatggagccaacttcattagtgaagaattcgagct  
gcatgttgggtgggctagcatagatcacaccacaggggtaccatacaaccctcaaagtcaggagtagtagaaaac  
aaaaacaaacagttaaaagaaactatacagaaaatcagagaagaagtcacctatttagaaacagcagtagcacag

gcagtcttcatcatgaatttttaaaaagaagggaggaatagggggacctagcagctgctgagagaataattaatatg  
ttacatacagaactagaactacaacacttacaatcacaaaaatccaaatttcaaaattttcgggtttattatagg  
acaggctctgacccatcttggaagggacctgctgccttgttgtggaaggtgaaggagcagtagtctgtaaaaaca  
gaacaaggacaggtaatcactgtacctaagaagaaggcaaaaataatcaagcca

>#5 AY340701 2769 nt

tctgtgctgatagggggacaaaaggtgtccatgctatttggtacaggtgcccagcacacaattatacaagatcag  
cacgtaaatttaggggagaattggacacctaagtagtagggggaatagggggaatgatagaagttaacaatac  
aaagcaatacaagtgatatttgaagacagagaggtttgggcaacagtagtagttggaccaactcctataaatatt  
ttagggagaaatgtcttagctaagatgggggtaaccctcaacatggctgctgggggagacctccaacccccatct  
ttagaggtcactttaaaagcaggaaaagagggaccaaaagttgaaacagtggtcattatccagagaaaagatagag  
gctcttacacaaattactcaagagatgcttaaattaggacaattggaaccaaccgagcccaataacccatataac  
tcacctgttttgcataaagaaaaaggacaagagcaaatggagaatgctcatagatttcagagaaacttaacaag  
gcaactcaggacttctttgaggtgcagttgggaatcccacaccagcggtgacttgagaagatggaccatgtgaca  
atagtagacatgaaggacgccttctacagcattcccttgtgggaaccgttcagaaaaatacacggcggttctcaata  
ccctctttaacaatgctgaacctgctaaaaggtatcagttcaaggtcctcccgaggggtggaaaggggtcccca  
actgtgtttcaacatacagcggcagagctaccacaggagatcaggaaaaataaccagaggttaactttaatacag  
tacatggatgacctactgataggatcaaatacactctctgccagaacacaggaaaaatagtaggggtcataagagcg  
accctactaaggaaaagggattcaaacacccccagagaaaatttcaggatgactaccgggtgcaatgggttagggat  
gagctacacccatcccattggaaaaattgccaaaatagagctaccagaccaggaacaatggactgtcaatgagatc  
caaaagttgataggaaaagcttaattgggacagcaaaatctattcaggaataaaaaacaaaaacctgtgcaaaagt  
atcagaggggacggagcctgacagatacagtggtcctctcagatttagctcaagctgagctagcggaataatagg  
gagattctcaaggaggaatccaccgggggatattacgaccccaacgagccattaaaggtggaggttaacctcacta  
gcagaaaaccaatggggctacagattcttccaagaaaaatcagtagttgaagacaggaaaaatttgccaaaattaga  
agtacccactccaatacctatcagcagttagcagatgcgctagccaaattgggaaaagaggccatagtcacatgg  
ggacgacttcccatttttcgcctaccagtggtgaaagagcaatgggacgcatgggtgggcagataattggcaaatc  
aattgggtaccagacatagaggcggtgtattccccacacctgctcagacagtggtatactctggtacaagacccc  
atagaaggggtccaacatactacgtggatggggccgccaataggacatcaaaggaagggaagcaggttatgta  
accaactttggggcaagaaaggccgtcacattagaacagaccaccaaccaaaggcagagctagaggccgtgtta  
ctagccctcagagatggaccacctcagatgaacataattacagattctcagtatgtactgggcattctagcctcc  
tgccccggagatctcagaaaagtcccatagtggaggccatcatacaggaaactcttaaaaaaggaccaggtattcttg  
tcatgggtaccagctcacaaaggaataggaggaaatgaagaagtagatcgcttagtgggcccagggaattaggcaa  
gtcctgtttatggaaaatttggaacccgcaagggaagatcatgaaaagtatcatagtaattggaaaacttaaga  
gatacctaccacattcctactctgttggccaaagaaatagtcaaccattgtcacaatgtcaaaacatggagaa  
cccaaatcaggacaggtaaacgcagaagtaggagtagtgccagatggactgcacccatctagagggaagcataatt  
ttggtagcagtagcatgtagccagtggttatgtatgggccaagatcctaccaagggaacaggaaaatgtacaggg  
atagccctgttggagctggccgctatgtggccggtcactcagatacatacagataatgggccaatttcaccagc  
caagaattcgaagcagctgcatgggtgggcaaatattcatcacaccacaggggtaccctacaacccacaaaagccaa  
ggggtttagagaatatgaatagacaactaaaagagaccattaagaaaaatcagggatgaggttgaataacctccca  
acagcatttagcacaagcactgttcatcttaatttttaaaaagaaagggaggaataggggatattggccctgtagac  
agatttataaacatgatacacacagaattagaactacaaacctcaacaaccaaattacaaaattttcaaaattt  
cgggtttatttcaggacaggtgccgacctcagtggaaggaccagcgcgctactctggaaaggtgaaggtgcc  
gtagtcataaaaactgaggagggcgatatcctgacagtccttaggagaaaggcaagataatcaaacc

>#6 KJ461716 2754 nt

tctgtcttagtgagaggcaagaagttgacctactattggacacgggtgcagatgatacaataatccatgatcag  
gacatagaactaggagataactggcaccccaaaaattatagggggagtaggtggcaatattagagtaaaagcatat  
catagtgttgaatagaatggcagggaaaaagagtaacagaggaagtattggtgggagacactcccataatata  
atggggagaaaatttcttaaccaaatttgggggtgactttaacatggtagtaggcaaatttaagccgacagaagta  
cggctaagagaagggaaagatggacccaaagtcaacaatggccattaagtgcagagaaaaatacaggcactaaaa  
gagatagtacaagatatggtagataaaggacaattggaaaaaatagggccagaaaaccatacaattctccagta  
ttttgtattaggaagaaggacaaaacaaaatggaggatgctaattgatttcaggaaactaaatgagcacacacag  
gacttagcagaagtacagttggggatcccacaccagcaggtttaccaagaaggcacaggtttccatagtagac  
atcaaagatgcctactatgcaatcccgtacatgaggactttcaaaaatacacagcattcaccataccttcagtg  
aacaacatgggaccaggagaaagatatcagtttaaggtactgccacaggggtggaaggcatctccaactatattt  
cagaacacaataggagacctgttgcaacagatcaggaaaaataaccacaaatccttatgattcagtagcatggat  
gacctcctcataggggtcagatgaaacagtaacagaacacaggaaaaatagtagagcaaatttaggaacatccttcta

aaacaaggggttacagacccctgaggaaaaataccagccacaaaggccagttaattgggttaggggtatgagcttaga  
cctagagagtggaacaattcctagaataacattgccagttaagcaggtctatacagtcattgagatccaaaagtta  
gtaggacaattaaattggggccagccaaatatatccagggataaaaaacaaaggctctgtgttaaattaattagagga  
acaaaaggcttaacagaagaagtagcaggtcacagaagaggcagaaacagagcttgcagaaaaccaagccatttta  
gaccaagaagctaaagggggatactatgatgcagagaagccattagaagtagatatcatacagttgggaggaacc  
cagtggggttacacagtaagacaagacaaagaagtactaaagacaggttaaatttgcaaaaacaaagaagtgcacat  
agtaaccattcaacaattggtagatgccattatgaaaataggaaaagaaagcttagtatactgggggagaata  
ccacaattcaatgtcccagttaacaaagagcagtgaggacgcagtggtggaatgaacattggcaggtgtcctggatt  
ccggatataaaaccagtgacactccacctttgatacaaatgtggtaccaattagtagcaggtccaatttcagaa  
gcagaaacttggtatattgatggagcagcaaatagggaatctaaattagggaagcaggtatgtgacagataga  
ggaaaagagaaagtagtagcattagaacataccaccaatcaaaaagcagagttacaagcattacttctagctcta  
caagatgggggaacaaaacagaacatagttacagactcccaatatgttctaggaatcataacaggagctcccaca  
gaaacagaccatccaatactagagcaataataacacagttacaaagcaagaagcaatatacctctcatgggta  
ccagcccataaaggcatagggggcaatgaagcagtagacaaactagtaagcaaggaatcagaaggggtattgttc  
ctggaacaaataccacaagcccaggaagaacatgaaaggtatcataacaattggcaagaccttagagacaggttc  
cagataccagcattaatagcaaaagagatctttaaagcatgccccagtgcaaggaaaaggagagccaatgcat  
gggcaggtgaacatggaagtgggactctggcagatggattgtacacacttggaagggaaaatcataatagtagca  
gtacatgtagccagtggtacacagaagccaagctaattcccacaagaaacaggaaaagagacggctatatctctg  
ttacaactatgtgctagatggccagtcacacagatacacacagataatggaccaaatttccaccagccaggaatta  
gcagcagcagcatggtgggctaattgtacaacacagcacaggtgtgccttacaatccacagagtcagggagtagta  
gaaaacaagaacaagcaattaaaggaaaacaataagcaaaatcagagatgaagtacaatacttagagacagcagta  
gcaatggcactcctcattcttaattttaagaaaaggggaggaataggggggatgacaccagcagaaaggctaata  
aacatgatacacacagacttagaactacaacaaaccaaatttccaaaattttcgaattttcggggtttattacagg  
acaggggaagagccctgagtggttagggccagcacaactcctgtggaaaggagaaggtgcagtggtaatcaagaca  
actacaggtgagctgttgacagtcacaaaaaggaaaagcaagatcattaagccc

>#7 KJ461714 2754 nt

tctctgtttagtagagggacaagaagttgacactactattggacacgggtgcagatgatacaataattcatgatcag  
gacatagacttaggagataactggcaccccaaaattatagggggagtaggtggcaatattagggtaaaagcttat  
catagtgtagcatagaatggcagggaaaaagagtaacagaggaagtattggtgggagacactcccattcaatata  
atgggggagaaattttttaaccaaatttggggtaactctaaatatggttagtaggcaaatttaagccaacagaggtta  
cgggttaaagggaagggaaagatggacccaaagtcaacaatggccattaagtgcagaaaaaatacaggcactaaaa  
gagatagtacaagatatggtagacaaaggacaattggaaaaagtagggccagaaaaccatacaattctccagta  
ttctgtatttaggaagaaggacaaaaacaaatggaggatgctaattgatttcaggaaactaaatgagcacacacag  
gacttagcagaagtacagttggggatcccacaccagcaggtttacccaagaaagcacaggtttccatagtagac  
atcaaggatgcctactatgcagtcctgctacatgaggactttcaaagatacacagcattcacaataccctcagtg  
aacaacatgggaccaggagaaagatatcagtttaaggtactgccacaggggtggaaggcatctccaacctatatt  
cagaacacaataggagacctgttacaacagatcaggaaaaaataccacaagtcctcatgattcagtagatggat  
gacctcctcataggggtcagacgagacaataacagagcacaggaaaatagtagagcaaattaggaacatccttcta  
aaacaagggctacagacccctgaggaaaaataccagccacaaaggccagttaattgggttaggggtatgagcttagg  
cctagagagtggaacaattcctaaaataacattgccagttaagcaggcctatacagtcattgagatccaaaagcta  
gtaggacaattaaattggggccagtcacaaataaccagggataaaagacaaaggctctgtgttaaattaattagggga  
acaaaaggcttaacagaagaagtagcaggtcacagaagaggcagaaacagagcttgcagaaaatcaagccatttta  
gaccaagaagctaaagggggatactatgatgcagagaagccattagaagtagatatcatacaattagggggaacc  
cagtggggtatacagtaagacaagacaaagaagtactaaagacaggttaaatttgcaaaaacaaagaagtgcacat  
agtaaccattcaacaattggcagatgctattatgaagataggaaaagagagcttagtataattgggggagaata  
ccacaatttaattgtcccagttaacaaagagcagtgggacgcgtggtggaagtgaacattggcaggtgtcctggatt  
ccggacataaaaccagtgacacccccacctttgatacaaatgtggtaccaattagtagcaggaaccaatcccagaa  
gcagaaacttggtatattgatggagcagcaaatagggaatctaaattagggaagcaggtatgtgacagataga  
ggaaaagagaaggtggttagcattagaacacaccaccaatcaaaaaggcagagttacaagcattgctcctagcttta  
caagatgggggaacaaaacagaacatagttacagactcccaatatgttctaggagtcgtaacaggagctcccaca  
gaaacagaccaccaatactagagcaataataacacagttacagagcaagaagcaatatacctctcatgggta  
ccagcccataaaggatagggggcaatgaagcagtagacaaattagtaagcaaggaatcagaaggggtattgttc  
ctggaacaaataccacaagcccaggaagaacatgaaaggtatcataacaattggcaagaccttagagacaggttc  
caaataccagcattaatagcaaaagagatcttgaaagcatgccccagtgcaaggaaaaggagagccaatgcat  
gggcaggtaaacatggaagtggggctctggcagatggattgtacacacttggaagggaaaatcataatagtagca

gtacatgtagccagtggttacacagaagccaaactaatcccacaagaaacaggaaaagagacggctatatattcctg  
ttacaactatgtgctagatggccagtcacacagatacacacagacaatggaccaaatttcaccagccaggaacta  
gcagcagcagcatggtgggctaattgtacaacatagtcaggtgtgccttacaatccacagagtcagggagtagta  
gagaacaagaacaggcaattgaaggaaacaataggcaaaatcagagatgaagtacaatacttagagacagcagta  
gcaatggcactcctcattcttaattttaagaaaaggggaggaataggggggatgacaccagcagaaaggataata  
aacatgatacacacagaattagaactacaacaaaccaaatttccaaaattttcgaattttcgggtttattacagg  
acaggggaagagccctgagtggttagggccagcacaactcctgtggaaaggagaaggtgcagtggttaatcaagaca  
actacaggtgagctgttgacagtcccaagaaggaaagcaaagatcattaagcct  
>#8 KJ461715 2754 nt

tctctgttagtgagggggcaagaagttgacctactattggacacgggtgcagatgatacaataattcatgatcag  
gacatagaattgggagataactggcacccaaaaatttatagggggagtaggtggcaatattagagtaaaagcatat  
cataatgttgacatagaatggcagggaaaaagagtaacaggggaagtgttggtgggagacactcccatcaatata  
atggggagaaaatttcttaactaaatttggggtgactctaatatggttagtaggcaaatttaagccgacagaagta  
cgggttaaagaagggaaagacgggacctagagtcaacaatggccattaagtgcagaaaaaatacaggcactaaaa  
gagatagtgcaagatatggtaaataaaggacaatttgaaaaaatagggccagaaaaccatacaattctccagta  
tttgtattaagaagaaggacaaaacaaaatggaggatgctaattgatttcaggaaactaaatgagcacacacag  
gacttagcagaagtacagttggggatcccacaccagcaggtctacccaagaaggcacaggtttccatagtggtgac  
attaaagatgcctactatgcagtcctgcgtacacgaggactttcaaaaatatacagcattcacgataccttcagta  
aacaacatgggaccaggagaaagatatcagtttaaggtgctgccacaggggtggaaggcatctccaactatattt  
cagaacacagtaggagacctgttacaacagatcaggaaaaaataccacaaaatcctcatgattcaatacatggat  
gacctcctcatagggtcagatgagacagtaacagaacatagaaaaatagtagagcaaattaggaacatccttcta  
aaacgaggggttacaaccccctgaggacaaatatcagccacaaaggccagtttaattggttaggggtatgaacttagg  
cctagagaatggacaattcctagaataacattgccagtttaagcaggtctatacagtcfaatgagatccaaaagtta  
gtaggacaattaaattgggcccagccaaatataccaggggataaaaaacaaaggctctatgtaaatttaattagagg  
acaaaaggcttaacagaggaagtgcaggtcacagaagaggcagaaacagagcttgtagagaaccaagccatttta  
gaccaagaagctaaaggggatactatgatgcagagaagccattagaggtagatatcacacaattgggagaaacc  
cagtggggttacacagtaagacaagataaagaagtactaaagacaggtaaatttgcaaaaacaaagaagcgcat  
agtaaccattcaacaattggtagatgccattatgaaaataggaaaagaaagcttagtatattggggaagaata  
ccacaatttaattgtcccagtttaataaagaacagtgaggacgcgtggtggagtgaacattggcaagtgtcctggatt  
ccggatataaaaccagtgcacacccccacctttgatacaaatgtggtaccaattagtacaagatccgatcccagga  
gcagaaaacttggtatattgatggagcagcaaatagggaatctaaattagggaagcaggatatgtgacagacaga  
gggaaagaaaaagtagtagcattagaacacaccaccaatcagaaagcagaattacaagcattacttctagctcta  
caagatgggggaacaaaacagaacatagttacagattcccaatatgttctaggaatcataacaggagctcctaca  
gaaacaaaccaccaatactagagcaaataataacacagttacaaagcaaagaagcaatatacctctcatgggta  
ccagcccataagggtataggaggtaatgaagcagtagataaattagtaagcaaaggaatcagaaaggattgttc  
ctggaacaaataccacaagcccaggaagaacatgaaagggtatcataacaattggcaagaccttagagacaggttc  
cgaataccagcattaatagcaaaagagattttaaaagcatgccccaaagtgtcaaggaaaaggagagccaatgcat  
gggcaggtaaacatggaagtgggactctggcagatggattgtacacacttgaaggggaaaatcataatagtagca  
gtacatgtagccagtggttacacagaagccaaactaatcccacaagaaacaggaaaagagacggctatatattcctg  
ttacaactatgtgctagatggccaatcacacagatacacacagataatggaccaaatttcaccagccaagagttg  
gcagcagcagcatggtgggctaataacacacagcagcaggtgtgccttacaatccacaaaagtcagggagtagta  
gaaaataagaacaggcaattaaaagaaacaataagcaaaaatcagagatgaagtacaatacttagagacagcagta  
gcaatggcactcctcattcttaattttaagaaaaggggaggaataggggggatgacaccagcagaaaggctaata  
aacatgatacacacagacttagaactacaacaaaccaaatttccaaaattttcgaattttcgggtttattacagg  
acaggggaagagcccagagtggttagggccagcacaactcctgtggaaaggagaaggtgcagtggttaatcaagaca  
actacaggtgagctgttgacagtcccaaaaaggaaagcaaagatcattaagcct  
>#9 JX860407 2751 nt

acagcgcaggtcgagggtcagcctgtggaagtattactggacacaggggctgatgactctatagtagcaggagta  
gaattaggaacaaattacaccccaaagatagtaggaggaattggaggttttattaataactaaagaatataaaaaat  
gtagaaatagaagtactagggaaaagaattagaggaacactcatgacaggagataccccaatcaatatttttggc  
agaaatttactaacagctttgggtatgtccttaacttcccaatggcccaagtggagccggtaaaagtaacacta  
aaaccaggaaaagatggaccaaagtaaggcaatggccactatcaaaagaaaagatacaggcattaaaagagatc  
tgtgaacagatggaaaaggatggtcaattagaagaagctccacctaccaatccatacaatacacctacttttgct  
ataaagaagaaagacaaaaacaagtggagaatgctaattagatttcagggaactaaataaagtcactcaggatttc  
acagaagtgcagttgggaattccacacccagcaggattggcaaaagagaaaaaggattacagtcctggatgtaggg



gatgcataatttctctataacccttagatgaggacttcaggcagttatactgctttcacccctaccatcggtaaataat  
gcagagccaggaaaaagatatatctacaaggttctaccacaaggggtgaaaggatcaccagcaatttttcaacat  
acaatgagaggtgtattggagccatttagaaaagcaaattccagatgtaaccctaattcagttacatggatgacatc  
ctgatagccagtgacagaacagacttagaacatgacagagtagtgctgcagttaaaagaactcttaaacggaatg  
ggcttctctactccggatgagaagttccagaaagaccctccatatcaatggatgggggtatgaactgtggccaaca  
aaatggaaattgcaaaaaatagaattgcctcagaaagacaattggacagtaaatgacattcagaaactagtagga  
gtgttaaattgggcagcgcaagtctatccaggaatcaaaaccaaaccatctttgtaaactgatcagaggaaaaatg  
actctgacagaggaagtccaatggactgaattggcagaagcagagtagtgaggaaaacaagatcattctcagtcag  
gaacaagaaggatgttactaccaagaggggaaagccttttagaggcaacggtagtgaaaaatcaggataatcagtg  
tcttacaacaaatccaccaggaagataaagtattgaaagtaggcaaatgtgcaaaaataaagaatacacatacaaat  
ggagttaggctattggcacatgtggtacaaaagataggaaaggaggtatagtgatctggggacggatcccaaaa  
ttccatctaccagtagagagagaaaatctgggagcaatgggtggacagactactggcaggtgacctggataccagac  
tgggactttgtatcaacacccccctttggtcagattagttttcaacctagtaaaggatcctcttgaaggagaagaa  
acattctacacagatggatcatgcaacaggcagtcctaaagaaggggaaagcaggttatgtaacagatggaggaaaa  
gacagggtaaagggtgttagaacagaccactaatcagcaagcagagctagaggcctttctcatggcattaacagac  
tcaggacccaaaagcaaatatcatagtagattcacaatatgtaatgggaatagtagcaggtcaacctactgaatca  
gaaaaataagatagtaagccaaatcatagaagaaatgatcaaaaagacggcaattttatgtcacatgggtaccagct  
cacaaagggctaggaggaaatcaagaagtagaccacctagtcagtcagggaatcagacaagatattgtttctagaa  
aagatagaaccagctcaagaagagcatgaaaaataccacagcaatgtaaaagagttgggtattcaaatatggcata  
ccaagattggtagcaaaaacaaatagtagatacctgtgacaaatgccacccaaaaggggaagctatacatggacaa  
gttaatgcagatctaggaacctggcaaatggattgcacacacttagaaggaaaaatagtcatagtggcagttacat  
gtggctagtggattcatagaagcagaagtaattccacaagagacagggagacagacagcattattcctgttaaaa  
ttggcaagtagatggcctatcacacatttgcatacagacaatgggtgccaaactttacttcacaagaagtaaaaatg  
gtagcttgggtggacaaatatagagcacacctttggagtaccctataatccacagagccaaggagtagtggaagct  
atgaatcaccacttgaaaacacaaatagacagaattagagagcaagcaaatcagtagaaaaccatagttactaatg  
gcagttcattgcatgaatttttaaaagaagggggaggaataggggatatgaccccagcagaaaagactaattaatatg  
attaccacagaacaagaatacaattccagcaatccaaaaattcaaaattttaaaatttttcgggtctattacaga  
gaaggcagagatcagctgtggaaaggacccgggtgaactattgtggaaaggggaaggagcagtcattctaaaggta  
gggacagatataaaggtagtgcccagaagaaaagctaagatcataaaagat

>#10 U79412 2751 nt

actgctcatattgagggacagcctgcagaagtactattggatacaggggctgatgattctattgtagcaggaata  
gagttaggtccacattataccccaaaaatagtaggaggaataggaggttttattaataactaaagaatacaaaaat  
gtagaaaatagaagtttttaggcaaaaggattaaagggacaatcatgacaggggacaccccgattaacatttttgg  
agaaatttgctaacagctctggaatgtctctaaattttcccatagctaaaggtagagcctgtaaaagtcaccta  
aagccaggaaaaagatggaccaaaattgaggcagtggccattatcaaaaagaaaagatagttgcattaagagaaatc  
tgtgaaaagatggaaaaggatgggtcagttggaggaagctccccgaccaatccatacaacacccccacatttgct  
ataaaagaaaaggacaagaacaaatggagaatgctgatagatttttagggaactaaataaggtcactcaggacttt  
acagaagccaattaggaataccacacccctgcaggactagcaaaaaggaagaggatcacagttactggatgtagg  
gacgcataatttctccatacctctagatgaagaatttaggcagttacactgcttttactttaccatcagtaaataat  
gcagaaccaggaaaacgatacatattataaggtcctgcctcaggggtggaaggggtcaccagccatcttccaacac  
actatgagaaatgtgctggaaccttcaggaaggcaaatccagatgtgacctagtcacagtatatggatgacatc  
ttagtagctagtgcaggacagacctggaacatgacagggtagttttacagttaaaggaactcttaaatagcata  
gggttttctaccccagaagagaagttccaaaaagatccccatttcaatggatgggggtatgaattatggccaaca  
aaatggaaagttgcaaaagatagagttgccacaaaagagacctggacagtgatgatatacagaagttagtagga  
gtattaaattgggcagctcaaatttatccaggtataaaaaccaaaccatctctgtagggttaattagaggaaaaatg  
actctaacagaggaagttcagtggaactgagatggcagaggcagaatatgaggaaaataaaaataattctcagtcag  
gaacaagaaggatgttattaccaagaaggcaagccattagaggccacggtaataaagaatcaggacaatcagtg  
tcttataagattcaccaagaagacaaaatactgaaagtaggaaaatttgcaagataaaaaatacacataccaat  
ggagttagactattagcacatgtaatacagaaaataggaaaggaagcaatagtgatctggggacaggtcccaaaa  
ttccacttaccagtcgagaaggatgtatgggaacagtggtggacagactattggcaggtaacctggataccagaa  
tgggattttatctcaacgccgccactagtaagattagttcttcaatctagtgaaggaccctatagaggggagaagaa  
acctattatgtagatgggtcatgtaataaacagtcaaaagaaggggaaagcaggatatatcacagataggggcaaa  
gacaaagtgagagtccttagaacagactactaatcaacaagcagaattggaagcattttctcatggcattgacagac  
tcaggggccaaaggcaaatattatagtagattcacaatatgtttatgggaataataacaggatgccctacagaatca  
gagagcaggctagtttaaccaataatagaagaatgattaaaaagacagaaatttatgtagcatgggtgccagca

cacaaaggtataggaggaaccaagaaatagaccacctagttagtcaagggattagacaagtcctcttcttggaa  
aagatagagccagcacagaagaacatgataaataccatagtaatgtaaaagaattgggtattcaaatttggatta  
cccagactagtggccaaacagatagtagacacatgtgataaatgtcatcagaaaggagaagctatacatgggcag  
gtaaattcagatctagggacttggcaaatggattgtacccatctagagggaaaaataatcatagttgcagtacat  
gtagctagtggattcatagaagcagaagtaattccacaagagacaggaagacagacagcactatctgttaaaa  
ttggcaagcagatggcctattacgcatctacacacagataatgggtgccaaactttacttcgcaagaagtaaatg  
gttgcattgggtggcagggatagagcacacctttgggggtaccatacaatccacagagtcagggagtagtggaagca  
atgaatcaccatctaaaaaatcaaataagatagaatcaggggaacaagcaaattcaatggaaccatagttattaatg  
gcagttcattgcatgaattttaaaagaaggggaggaataggggatatgactccagcagaaaggttacttaacatg  
atcactacagaacaagaataacaattccaacaatcaaaaaactcaaaatttaaaaattttcggtctattacaga  
gaaggcagagatcaactgtggaagggacccggtgagctattgtggaaaggggaaggagcagtcattctaaaggt  
gggacagacattaaggtagtaccagaagaaggctaagattatcaaagat

>#11 JQ864086 2751 nt

actgcctacattgaagaacagcccgtagaagtattattagatacaggggctgatgattcaattgtagcagggata  
gaattaggtccaaattatacccctaaagtagtaggaggaataggaggcttcattaataccaaagaatataaagat  
gtaaaaataaaagtccttaggcaaggtgattaagggaacaattatgacgggagataccccaattaatatttttggc  
agaaatttgctaacagctatgggcatgtctttaaatctccccatagctaagggtggagcctataaaagtaacacta  
aaaccagggaaagaaggacaaaaattaagacagtggccgctatcaaaagaaaagataaattgcattaagagaaatc  
tgtgaaaaaatggaaaaagatggccagtttagaggaagcccctccaaccaatccgtataacacccccacttttgct  
ataaagaagaagacaaaaataaatggaggatgctaataagatttttagagaattaaataagggtcactcaagacttt  
acagaagtacagtttaggaataccacacccctgcaggactagcaaagagaaggaggatcacagttattggatgtaggt  
gatgcataatttctccatacctctagatgaagaattcaggcagtagactgcctttactttaccatcagtaaaataat  
gcagaaccaggaaaaagatacatctataaggtattacctcaaggggtggaaggggtcaccagctatttttcagtat  
actatgagaaatgtattagaacctttcaaaaaagcaaattccagatgtgaccctgatccaatacatggatgacgtc  
ttaatagctagtgtatagaacagatttttagagcatgacagggtagttttacagttaaaggaacttctgaacggcata  
ggattctctaccccagaagagaagttccagaagatccccattccagtggtgggatatgaattgtggccaacc  
aatggaaaactgcagaaaaatagagttgccacaaagagagattttggacagtaaatgacatacaaaaaatagtagga  
gtgctaaattgggcagcacaaatttatccaggaataaagactaaacatctttgcagactaatcagaggaaaaatg  
actttaacagaagaggttcagtggtgactgagatggcagaggcagaatatgaagaaaacaagataattctcagtc  
gaacaagaaggtgttactaccaagagggaaaaccaatagaggcaacagtaataaagagtcaggataatcaatgg  
tcatataaaaattcaccaagaagacaaagtactgaaagtaggcaaatttgcaaaggttaaaaatacacatacaaat  
ggagtcagattactagcacacgtagtgcaaaaaataggaaaagaagcactagtaattttggggagaggtgccaaaa  
ttccatttgccagtagaaaagagaaatttggaacaatgggtggacagattattggcaagtaacctggataccagat  
tgggactttgtgtcaacacctcccttagtcagattagtcttcaacctagtaaaagagcctatacagggggcagaa  
acattctatgtagatggatcctgtaataggcagtcagagaaggaaggaagcaggctatgtggcggataggggcaga  
gacaaagcaaaacttttagaacagactaccaaccaacaagcagagttggaagccttctatctagccttagcagat  
tcgggaccaaagcaaatattatagtagattcccaatatgttatgggcataatagcaggtcaacccactgaatca  
gaaagtaggttagtaaaaccagataatagaggagatgattaaaaaagaagcaatttatgtagcatgggtgcctgca  
cataaaggaataggaggaaatcaagaagtagatcacctgggttagccagggaattagacaagtcctattcttagaa  
aaaatagaaccagcacagaagagcatgaaaagtaccatagtaatgtaaaagaattgggtattcaaatttgggtta  
cctaggctagtagcaaaacagatagtagacacatgtgataaatgccaccagaaaggagaagccatacatgggcaa  
gtaaatgcagaactagggacttggcaaatggactgtacgcacctagaaggcaaaataattatagttgcagtacat  
gtggctagtggattcatagaggcagaagtaatcccgacaggaaacaggaagacaaacagcactgtttctgttaaa  
ttagctggcagatggcctatcacacatctgcatactgataatgggtgccaaatttcacatcacaagaagtaaaaatg  
gttgcctgtgggtggcagggattgaacagacctttgggggtgccttataatccacagagccaaggagtagtggaagca  
atgaaccatcatttaaaaaccagatagatagaatttagagaacaagcaaaactcaatagagactatagtactaatg  
gcagttcattgtatgaattttaaaagaaggggaggaataggggatatgactccagcagaaagatttagtcaatatg  
atcaccacagaacaagaataacaattccaacaatcaaaaaattcaaaatttaaaaattttcggtctattacaga  
gaaggcagagaccagctgtggaaaggacccggtgagctattgtggaaaggggaaggagcagtcattctaaaggt  
gggacagagatcaaggtagtaccaaggaggaaagctaaaattatcaaagac

>#12 AF334679 2751 nt

agagcactaatagaggggtcagcccctagaggttctactggacacaggggcagacgactccatagtagcagggata  
gagttaggtccaggggtacacaccaagaattgtaggggggattggaggattcataaatacaaaaagaatatagaaca  
gtaaaaatagaagtttttaggaaaggtataagagaaacactaatgacaggagataccccgataaataatttttggc  
agaaatattctagcagcattaggggtctctttaattaccacagtggaaggtagaatatacaaaaagtaaaagttg

aaggaggggaatggatggggccaagattaaaacaatggcccttatctaaggaaaagatacaagcattaacagagatc  
tgcgagaaaatggaaaaggagggaacaattggaacgagccctcctacaaatccttataatacaccgacctttgct  
attaagaaaaagaataaggacaagtggagaatgctcatagatttcagagaattaaacaaaatgacacaagaattc  
acagaagtacagctgggtatcccatccggcaggcctaaggaaatggaaaggataacagtgctagatataggg  
gatgcctatTTTTcagtacccttagaccggaatttagacaatacacagcattcactataccatcagtgaaacac  
caagaaccaggaaagaggtatatttacaaggtcctgccacaaggatggaagggatctcctgcaattttccaggca  
accatgaggcaggtattagaacccttcagaaaagctaaccagatgtgcttctcgtccagtatatggatgattta  
ctaattggcagtaacagaggcctaacagagcatgacaaaatggtaacacagttaagagacatgctcaacaatctg  
gggttcagtaccccagaagacaagtttcaaaagaatccaccattacagtggtgggatatttgttatacccaag  
aagtggaaattacagaaaatagaactcctgaaaaggagcagtgacagtaaatgacatacaaaaactagtgga  
gttctaaattgggcagcacagatatatccagggattaaaacaaaaaacctgtgcaaaatgatcagagggaaaatg  
actctgacagaagaagttcagtgacagaatttagcagaagcagaattggcagagaatagaattattctaaatcaa  
gagcaggaaggaagatattacagagaagatgaaccgctagaagcaacggttctaaagaatcaagacaatcagtg  
agttataagattcatcaaggtgacaggatttcaaggtagggaagtttgcaaaaataaaaaatacacatacaaat  
ggaataaggttactggctaattgtagttcaaaagataggaaaagaaagtctagtgatatggggaaagacaccattt  
tttcaccttccagtagaaaggagggtttgggatcaatggtggacagattattggcaagctacttggttccagag  
tgggacttcatctccacaccaccgttaatcaggttagtggttaatttagtaaaagatccaatagaaaaggaggaa  
gtatattacattgatggctcctgcaatagaaacagtaaaagaagggaagcaggatatgtcacagacaggggaaaa  
gaaaaggctcctgccattagaacaggtaccaatcagcaagcagagctgcaggccctgttattggccttgaaagat  
tctccaagtaaggtcaatgtagtaacggactcacagtatgtcttgaacataataacaggacagccatcagaatcg  
gattcagatatagtggcacaaattattgaacaactagttcagaaaagaagcagtatacataggatgggttccagct  
cataaaggcataggaggggaacaatgaggtagaccgttttagttagtcaagggaataagacaggctcctgttcctaga  
agtatagagccagcacagaagaccatgacaaatatcatagcaatgtaaaggagttagctcagaaatataacatc  
ccacaattagtagctaaacagatagtaaattgcttgaacaaatgccaacagaaggggagaagcgatagtggtcag  
acaaatgcagaggttaggcacatggcagatggactgcacccacttagaaggaaagggttatcatagtagcagta  
gtggctagtggctttatagaagcagaggttaatacctagggaacaggaagacagacagcattgttccctcttaaaa  
atagcatcaagatggcctataaagcatctgcatacagacaacgggtgccaaatttcacctccaggaggtgaagatg  
gtagcatggtggttaggagtggaacagtcctttggagtaccgtacaaccacaaagtccaggagtagtagaagcc  
atggacttacatcttaagaaaaacatagataaaataagggaacaagcagagtcagtagagaccctagtactaatg  
gcagcacattgcatgaatttttaaaagaaggggaggaataggggatatgactcctgcagaaaagaatagtaaata  
atcaccacagaactagaaacccaatacttaaatcacaaaattcaaaattttcggtttattacaga  
gaaggaagagaccaactgtggaaggggaccagcagagctcctctggaaaggagaaggggctgttgtaattaagga  
gggacagaaaataaaagtgggtaccaagaagaaaagcaaaaatcatcaaagat

>#13 JX860414 2751 nt

acagcccatattgaaggctcagccagtagaagtattattagacacaggggctgacgactcaattgtagcaggaata  
gaattaggattaaattataccccaaaagtagtaggagggataggaggattcattaataccaaggaatacaaaaat  
gtagcaatagaagtattaggtaaaacaattaggggaacagtcacgaggggataccccaatcaacatttttggc  
agaaatctgttaacaagattagggatgtctttaattttccagtagctagggtagaaccagtaaaagtgaacta  
aaaccaggggcaggatggaccaaaattaagacagtggccattatctaagaaaaaatagaggcattgaaagagatc  
tgtgaaaaaatggagaaggagggccagttggaggaagctcctcctactaatccatacaatacggccacctttgcc  
ataagaaaaaggacaaaaataagtggagaatgctaatagacttcagagaactaaatagggttacacaggatttc  
acagaagttcaactaggaataccacaccctgcaggactagcaaaaagaagaattacagtagtggtgtaggg  
gatgcatacttttccataccactggaccagaattcagacaataactgcctttaccctaccatcagttaacaat  
gcagagccaggaaagagatacatctacaaggtcttaccacaaggatggaaagggtcaccagcgattttccaacac  
acaatgagaaatgtattggagccttttagaaaggccaatccagatataaccttagttcagtacatggatgacatc  
ttgatagctagtgtataggacagacttggaacatgacaggggtggtcctgcagttaaaagaactattgaatggccta  
gggttctccaccccagatgagaaatttcagaaagaccctccatatcattggatgggatagtggttatggcctaca  
aatggaaagctgcaaaagatagagctaccacaaagagaaagctggacagtaaatgacattcagaagttagtagga  
gtactaaattgggcagcacaaatttatccagggataaagacaaaacacctctgcaagctaatttagaggaaagatg  
gcattgacagaagaagtccaatggacagaaatggcagaggcagagtttgaggaaaatagaatcattcttaatcaa  
gaacaagaagggtgttactaccaagaggataagcccttagaagcaaccatagtgaaaagccaagataatcagtg  
tcttataagatccatcaagaaaaataaaatactgaaagttaggtaaatatgcaaaaataaagaatacacatacaaat  
ggagtcaggttatttggcatgttagtacaagataggaaaagaagcaatagtaatttggggaaaagtgcctaaa  
tttcatatgccagtagaaagagaaatttgggagcagtggtggacagactattggcaggtaacatggataccagaa  
tgggatttcatatcaacaccccccttagttaggctagtgtttaatctggtaaaagaccctatagaaggggcagaa

acattctatgttgatgggttcttgtaataggcagacgaaggtaggaaaagcaggatacataacagacagaggaaaa  
gataaggtaaaactcttagaacagactaccaatcaacaagcagaattagaagcttttctcatggcagtaacagat  
tcaggaccagaagcaaacttatagtagactctcagtatgtcatgggaatagtagcaggacaacctactgaatca  
gaaagcagggtagtaaaccaaataatagaggagatgatcaaaaagacagcaatctatgtggcatgggtaccagcc  
cataaaggcataggaggaaatcaggaaatagatcatttaggttagtcaaggaatcagacaagtcctgtttctagag  
aaaatagagccagcacaagaagaacatgagaagtaccatagtaatgtaaaagaactgggtgttcaaatttagaata  
cccagattagtagcaaaacagataattgatacttgtgacaaatgccacaaaaaggggagggaatacatggacaa  
gtaaatgcagagttagggaacttggcaaatggactgcacacacttagaaggaaaggtaatcatagtagcagtgc  
tagctagtggattcatagaggcagaagtaataccacaggaaacaggaagacagacagcattgttcctgttgaaa  
ttggcaagcagatggcccatcacacatttgcatacagacaatgggtgccaatctcacctcgcaagaggtgaagatg  
gtagcctgtggggcaggcatagaacagaccttgggggtgccttataatccacagagccaaggggtagtagaagca  
atgaatcatcacttaaaaactcaaatacagagaatcagagaacaagcaaaactcagtagaacaatagtactcatg  
gcagttcattgcatgaattttaaaagaaggggaggaataggggatatgacccagcagaaaagattaatcaatatg  
attaccacagaacaagaataacaattccaacaatcaaaaaattcaaaatttaaaaattttcggggtctattacaga  
gagggcagagaccaactgtggaaaggacccggtgagctattgtggaaaggggaaggagcagtcataaaaggta  
gggacagacattaaagtagtagcaaggagaaaaagcaaaaattatcaaagac

>#14 HM803689 2754 nt

atgggtcaatatagaagggcaaaaggtagaagccctcttagatacaggggagatgacacagtaattaatgggata  
gaattaggagaaaaattggaagccaaaaattataggggggtattgggtggatatataaatgtgaaacaatattacaat  
tgtaagatagaaatagcaggggaaagtaacacatgcccattgtattggtagggccaacacctgtaaatattattgga  
agaaatgttttacacaaattaggagcctctttaatttttccaattagcaaggcagaaacaattgaagtgaattg  
aaaccaggacaagatgggcctaaagtaaaacaatggcctttaagcaaaagaaaagatagaagcggttaacagaaatt  
tgtaatgctatggaaaaagaaggaaaaatatccaaaatagggccagaaaaatccttacaatacgcctattttttgc  
attaggaaaaaggattctacaaaatggagaaaaattggtagatttcagagaattaaataagagaactcaggacttc  
tttgaggtacagctgggaataccacatcctgggggtttgaaaaaatgtaaacagataacagttttggacataggg  
gatgcttatttttcatgtcctctatatgaaccttttagaaaaatatactgcattcacaataccagcaatcaataat  
caggggaccaggagtttaggtatcaatacaatgtgctcccacaggggatggaagggatctccagctatatttcaaaca  
actgcaaatagaatcttagagccattcagaaaagaaaatccagatgtagtaatctatcaatacatggatgattta  
tttgtaggatctgataggacagaattagaacataatcagatgataaaaagactcagagaacatttgttgatctgg  
gggtttgaaaccccagataaaaaatttcaggacaaacctccctttgaatggatgggggtatgtactccatccagac  
aaatggacagtacaagaaattaaattacctgagaaagaggaatggacagtaaatgatattcagaaattagtggga  
aaattaaactgggccagtc aaatctatacaggaataaagacaaaagaattatgtaaattaatttagaggagtaaaa  
aggctagatgaaaaggtagaattcaccagagaagcagaactagaatatgaggaaaacaagctattgctgaaagaa  
caaatgcatggagtctactatgatccagaaaaacctctgatagctaaagtacaaaagttaacaggagggcagtg  
tcttatcaggtagaacaaggagatggtaaacatttaaagacagggaaatatgccaaagcaaaagactgcacacacc  
aatgagatcaggatgctagcaggattggtacagaaaaatatgtaaagaagcagtagtcatttggggaaaaattgccc  
aaatttgagctgccaatagagagagaggtatgggaacaatgggtgggctgattattggcaggtatcatggattcct  
gagtgggaattcgtgagcacgcccccatthaattagggttatgggtataatctggtaaaagatcccataccaggggaa  
gaagtctattatgtagacggggcagctaacagaaatagcaaacaggggaaaagcaggatacattacagacagagga  
agagaaaaaggtaaaagaattagaagataccactaatcaaaaggcagaattggaggcagtccttattagcattaaaa  
gattcaggggaaaaaggtaaatatagtaacagattcacagtatgtgtttggcatattggcaggaagtccagacact  
agtgatagtcctcttgtacagcagatcatagaacaattaataggggaaagaggaagtgtacctctcctgggtacct  
gcacataagggcataggaggaaatgaggaagtagacaaattagtaagtaaaaggaattagacaagtcctcttttta  
gatggaatagaaaaggctcaagaagagcatgaaaaatatcataataattggagagcaatggcagaagattttcag  
ataccacaagtagtagcaaaggagatagtagccaatgccctaaatgtcaggtgaaaggagaagcaatgcatgga  
caggtagatgccagtc caaaaaacatggcagatggactgcactcatttagaaggaaagggtcatcatagtagcagtc  
catgtagccagtggggtatatagaagcagaagttttaccagcagaaacagggaaaagaaacagctcacttcctgcta  
aagctagcagccagatggccagtaaaacatttgcacacagacaatggagcaaattttacgagctcagcagtacaa  
gcagtttgttgggtgggctcagatagagcacaccttcgggggtaccctacaaccacaaagtcaaggagtagtagag  
tccatgaatcaccagctaaaaactataataacacaaataagagatcaagcagaaaagatagagacagcagtacaa  
atggcagtgctcattcacaatttttaaaagaaaaggggggattggggggtacagtgaggagaaagaataatagat  
ataatagcatcagacttacaaacaactaaattacaaaatcaaattttcaaaaatttcaaaaattttcggggtttatttc  
agagaaggaaagggtcaacagtggaaggacctgccactctaattctggaaaggagaaggagcggtagtaatccag  
gacggacaagatttaaaaggtagtcccaagaagaagtgtaaaatcataaaagat

>#15 HM803690 2754 nt

tgggtcaccatagaggggtcaaaaagtagaagcccttttagacacaggtgctgatgatacagtcacagtgacata  
gaattaggagataaattggaagccaaaaattataggaggaatagggggatatataaatgtaaaacagtattataat  
tgtaaaatagaaatagcagggaaaggttacacatgctcatgtattagtaggtccaacaccggtaaatataattggg  
agaaatgtgttacacaaaattaggagcttcattaaattttccaataagtaaagcagaaataattaaagtagagtta  
aaggaaggtcaggatggaccaagagtaaagcagtgggccctcagtaaagaaaaaatagaagccttaacagaaata  
tgcaatgcaatggaaaaggagggaaaaattagtagaataggaccagagaatccatataatactccaatattttgt  
attagaaagaaagattcgaccaaatggagaaagctagtagatttcagagaactaaataagaggacacaggatttc  
tttgaggtacagctggggattccacatccaggaggattgaagaaatgcaagcagattactgtgctggacataggg  
gacgcataatttttctgccccctctatgagcccttcagaaagtatacagcttttactataccagcaataaataat  
caagggccagggtatcagatatcaatacaatgtgcttcctcagggatggaagggctccccagccatatttcaaacc  
actgctaacaaaatttttagaaccagtcaggaaacaaaatccagatttagtcatctatcagtatatggatgacctg  
tttgtaggatcagacagaacagaattagaacacagtc aaatgataaagaaattgagggaaacatttgctcgctgg  
ggatttgagacaccagaaaagaaatttcaagataaaccaccatttgaaatggatgggggtatgtactccaccagac  
aagtggacagtgaggaaattaaagttgccagaaaaggaagaatggacagtgaaatgacatacagaagttggtaggc  
aaattgaactgggcaagtcagatctatgcaggaatcaaaactaaagaattgtgcaaattaattagaggaataaaa  
agattagatgataaggtagaatttacaaaagaagcagaattagagtatgaagaaaataaactgctattaaaagaa  
aaattgcatgggggtatattatgacccagaaaaaccattgatagcaaaaagtacagaaattagaaggaggacagtg  
tcatatcaggtagaacaaggagatggaaaacctctaaaaacaggaaaaatatgccaaagcagaagacagcacatacc  
aatgagattagaatgctggcaggggttagttcagaaaaatttgtaaagaagcaatagttattttggggaaaaattgcct  
aaatttgaattgcctgtagaaagagaggtatgggaacaatgggtgggctgattattggcaagtctcatggattcca  
gaatgggaattttgtgagcacgccgcctttaattaggctgtggtataacctagtaaaggatcccataccaggagag  
gaggtgtattatgtggatgggggcagcaaacagaaatagtaaattaggaaaagcaggatacataacagatagagga  
aaagaaaaagtaaaagaattagaagataccaccaatcagaaggcagaattagaggctgtacttttagctttaaaa  
gattcaggaaaaagagtaaatatagtaaacagactctcaatatgtgtttggcatattagcaggaagtccagacact  
agtgagagtccttagtacagcagataatagagcaactaatagggaaagaagaagtgtacctctcctgggtaccg  
gcacataagggcataggaggaaatgaagaggtagataaattagtgagcagaggaattagacaagtattattcctt  
gatggcatagaaaaagcacaagaagaacatgataaatatcatagcaattggagagctatggcagaagatttcaga  
atacctcaagtagtagctaaggaaatagtgcccaatgtcctaagtgccaggtgaaaggggagggcagtcctagg  
caaacagatgctagtccaggggacatggcaaatggattgtactcatttggaaggaaaggtaatcatagtggcagtc  
catgtagccagtggtatatatagaagcagaagtcataaccagcagaaacaggaaaagagacagcatacttctgtta  
aaattagcagcaagatggccagtgaaacacttacatacagataatggagctaatttcacaagtgcagcagtacag  
gcagtcgtgttggtgggctcagatagagcacacctttggagtacctacaatcctcaaagtcagggagtggtgaa  
agtatgaatcatcaattgaagacaataatagggcaattagagaccaagcagagaaattagaaacagcagttcaa  
atggcagtgctcattcacaatttttaaaagaaaaggggggattggggggtacagtgaggagaaagaataatagac  
ataatagcatcagagttacaaacaaataaattacaaaatcaaatttcaaaaattcaaaaattttcggggtttat  
agagaaggcagggatcagcagtggaagggaccggccactctcatctggaaaggagaaggagcagtggtgatccag  
gatggacaggatctgaaggtagtccttagaagaaagtgtaaaattgtaaaagat

>#16 M58410 2772 nt

cgagtcacatagaaggaacgccagtgcaagccttgttagatacaggagcagatgacactataattcaagaaaag  
gacttgcactttccccacataaacatggcgttccaaggtagtaggaggtataggaggagggattcatgtcaaa  
gaatatcagggggtacaagtacaattggaggataaaatcatcaccggctcaatttctaataaggaagtacaccaatc  
aatattataggaagaaatatttttagctcaggcaggcatgaaattagttatgggagttctatctagtcagattgag  
gaaacaaaagtacaactaaaagaagggaagatggacctaaattgaaacaatggcccttatcaagagaaaaaatt  
gaagctttaacagaaatatgcaaacaaatggaagaggagggaattatctaggaataggaggagaaaatccttat  
aatacaccagtgtttgccataaaagaaaaaggataaaacacaatggagaatgcttgtagatttcaggggaactaac  
aaagctactcaagacttttttgaggttcagctgggaattcctcaccagcgggccttcagaaaaagaagcaaatc  
acagtaatagacataggggatgcctattattcaataccattatgcaaggaattcagaaaaatatacagcatttacc  
atcccctcagtaaaataacagggccagggataaggtatcagttcaattgtctgcctcagggatggaaaggatct  
cctacaattttccagaatacggcgagcaaacatttttagaggagatcaaaaggcacactcctgggttagaaattgtc  
caatacatggacgattttgtggttggcgctcagaccatgatgagactagacataatcaacaggtagacatagtaaga  
aagatgctgctagaaaaaggtctagaaaccccagacaagaaagtccaaagagaaccgccatgggaatggatgggg  
tataaattgcatccgaataaatggaccattaacaaaatagaattaccccccttagaaggagaatggacagtaaac  
aaaatacagaaggtagtaggagttctaaattgggcaagtc aaatttatccaggaattaaaaccaaacatacctgt  
gccatgttgagaggggaaaaagaacctcctagaagaaatagtatggacagaagaggcagaggcagaatataagaac  
aatcaagggtatgtgcaggaaacacaagaaggaacatactatgacctctcaaagaattaatagcaacagttcaa

aagcaaggagaagggcaatggacataccaattcacccaagaaggggcagtattaaaggtgggaagatatgccaaag  
caaagagaaactcataactaatgatctaaggactctagcacaccttggtccaaaaaatctgtaaggaagcacttacc  
atttggggaagacttccacgagtacaactcccagtagacaagaaaacatgggatatgtggtggcaggactattgg  
caagtatcctggataccagaatgggagtttgttagcacaccactcctagtaaaactgtggtattccttagtaaaa  
gaaccaatcaaaggagaagatgtttattatgtggatggggcagcatccaaagtgaccaaattaggttaaggcagga  
tatctgtcagagagaggaaaaagtagaattaggggaattagaaaacaccactaaccaacaagcagaattaacagca  
gttaagatggcattggaggacagtgagagaaaatgtaaatatagtcacagattctcaatatgtaatgaacatcttg  
acagcatgtccacaggaaagtaactcaccttagtggaacagataatacaagccctaattgaaaaagaggcaggtc  
tacttacaatgggtaccagctcataaggggataggaggcaatacagaaatagataaattagtaagcaaaggaata  
agacagatcctcttcttagatagaatagaagaagcacaaagatgaccatgcaaagtaccataacaattggagaagt  
atggtacaggaatttggattacctaataatagtagcaaaagagatagtagcggtatgtcccaaattgccaataaga  
ggagaacctaaagcatggacaggttagacgcctccattgaaacttggcagatggactgcacccatttagaaggaaaa  
gttataatagtagcagtagcatgttagccagtggtattcatagaagcagaggtgatcccaagagaaaactgggaaggag  
acagcacactttctgctgaaactgttagcaagatggccagtgaaacatctacacactgataatggcccaaacttt  
acctctcagaatgtggcagcgggtgtgctggtgggtaatatagagcacaccactggaataccttataaccacag  
tcacagggtagtgtagaaagcatgaacagacagctcaaggaaatcatctctcaaataagagatgattgtgagaga  
ttggagacagcagtgcaaattggctacgcatatccacaattttaaaagaaagggaggaataggggggtatctctagt  
gcagaaagattggttaatatgtctaacaacacaactagaactaaataactctacaaaaccaaattccaaaaattttg  
aattttaaggtctactacagagaaggttagagatccagtggtgaaaggaccagcgcgactcatctggaaaggagaa  
ggcgcggtggttaattaaagaggggggaagacatcaaggtagtccccaggagaaaaggctaagattatcaaagat  
>#17 IC114462 2766 nt  
attgttagaatagaggggtcagccaatcaaagtcttgttagatacaggagcagatgataccatcataaaagaacag  
gacttagcattaacgggatcatggcgacccaaaatcataggaggaataggaggaggtttacaagttaggaggtat  
aataatgtagaagtaatatattagaagacaaaacattaaaaggggcagtcttattaggaccaacacctataaatatt  
ataggaagaaatttttttagcccaggcaggagtcaaacttgttatggggcaattatcagaagcaatccccataact  
ccagtcagactaaaagaagggggccaaaggaccttgtgtaaagcaatggcctctatctagggaaaaagataaaaagct  
ttgacagatatttgtgactccttagaaaaagagggaaaaaatatcaagaataggaggggaaaaatgcatataacacc  
ccagtatctgcataaaaaagaaggtcaatcgaaatggagaatgctaatagacttttagggagctaaataaggcc  
accaggacttctttgaagtccagctaggaatacctcatccctcaggggtacagaaaaagaaacaagtaactgtt  
ttagacataggagatgcttattacagcattcctctagatccagagtttagaaaatatacagcctttactattcct  
agcataaaacaatcagggacccggacagaggtatcaatttaattgtttgccacaaggatggaaaggatccccaca  
atttttcagaatacagcagcaaaaaataactggcccagattaaagaagaattaccgggggtagaaattgtccagtat  
atggatgacctctgggtaggggtcaaaactactcagaaagagaacatgatgaaaaagtttagacagcttagagagaaa  
ctattacagtggggcttttagacccccagaaaaagaaagttcaatcagaacctccctatgaatggatgggatataaa  
ctttggccaagcaaatggcagttacaaaagtttagagatagaagaaaaagatcaatggacagtaaatgatattcag  
aaattggcaggaaaaacttaactgggcagcacaaactatatccagggcttaaaccaaaacacatttgccgcctcatt  
aggggaaaaaggggattgttagatccagtcctatggactcctgaggcagaactagaacttgaagagaatagaagc  
attcttaagacagaacaagaaggggcatattatgaccacaaaaagcccctaagagcagcagtccaaaaagtttagga  
aatggacagtggggatatacaataaaaacaggagcaaaaaggtattaaaagtaggaaaaatatgagaaacagaaagca  
atacataactaatgaacttagaatattagcaggacttgtgcaaaagatagctaaagagagcctagttatctgggga  
accttacccaaattttgagttaccagtagaaagggaggtatgggaacaatggtggagtgtatttggcaagtctct  
tggataccagaatgggaattcgtcagtggtcccacctctagtaaaattgtggtactctctggtcaaagatccaatt  
ccaaaagaagatgtctattatgtagatggggcctgtaatagacaatcaaaagaaggaaaagcaggttatatcact  
caatatggaaaacaaagagtcaaaactcttgagaataactaataacacaggcagaactgcaggctatcctcatg  
gctctagaggatagcgggtctaaagttaatatagtaacagactcccaatatgcgttagggatcttgacagctcac  
cccacacagagtgtattccgccttagtaaatcaataattgagcaattaatcaagaaggagcaagtataccttcaa  
tgggtcccagcacataaaaggcataggaggaaatgaagaggttagacaaattagttagtaaaaggaattaggcaagt  
ttattcttagaaaggatagaagaagcacaggaagaacatgagaggtaccataacaattggaaggaaatggcggac  
acatttggcatcccacaagtagtggttaaagaatatagtagcagcatgtcctaattgccaagtcaaaggagagccc  
gttcatggccaggttagacgcgtccccaggggtctggcagatagactgtaccacatagaaggacacatcatcata  
gtagctgtccatgtggccagtggttcatagaagcagaggaaataccaagggaacaggaaaggctacagccaaa  
ttcctattaaagttactatcaagatggccagtaaaacagattcacactgacaatggaccaaattttgtatcacia  
gaagtcaaagctatttgttgggtggggaaaaatagaacatacaacaggagtagccctataatcctcaatctcaagg  
tcagtagaatctatgaataaacaattgaaagaataataggaaaaattagggtgactgccaatatgtcgaaaca  
gcagtattaatggcatgccacattcacaattttaaaagaaagggaggaataggggggtatgaccagtgacagaaaga

ctactaagtataactgacacaaatagaaacacaaaccttacaacaaaaaatccaaaaaatTTTgaattttaga  
gtctactacagagaaggaagagaccctgtgtggaagggaccagcacagctcatttggaaaggagaaggagcagtg  
gtaataaaagaagcagacggagacttgaaagtaataccaagaagaaaggctaagattattaaagac

>#18 KR862336 2760 nt

gaaattctcataaatggcctcccagtcattggtccttttagatacaggggcagatgatacaattattaaagaaaca  
gatattaatttggcaggaccatggcggcccaaattaataggaggcattgggggaggcttaagagtaaaagaatat  
aacaatgttacagtacaaatagaggacaaaacattgattggcacgatcttaatagggccaaacccaattaatata  
ataggaagaaactTTTTggctagtgcagggatgaaattagtaatgggacaattaagcgataaaaataccattaca  
cctgctaaattaaaggaggggagccaaagggtcccaaaaataaagcaatggccactctcagcagaaaaaatcaaagcc  
ctcacggacatatgtgaggacatggaaaaggaaggaactaaccagaataggaggagaaaatccttataacacc  
ccaatcttctgtattaagaaaaaggatacctcacaatggaggatgttagtagatttttagggaattaaataagatg  
accaagactTTTTtaggtacaattagggtacccacaccagcgggactgaggaaaatgaaacagatcacagtg  
ctagacataggcaatgcctattacagtgtaccattagaccctgacttccgcaaatatactgcatttactatacct  
gcaattaataatgaggggaccagggaaaagggtaccaattcaactgtctccgcagggatggaaaggatcaccaacc  
atctttcaaaatacggcagcagggttctagagaaaattagggaagagttaaagagtttaactattatccagtat  
atggatgatTTTgtgggtaggatccaattgtggggaaaggaagcatgatgaactgatagagcgactaaggacagag  
cttctagcctgggatttgaacccccagacaaaaaggtacagaaacaacctccctttgaatggatggggtataaa  
ttatatcctcagaaatgggtagtacaacccatagaattagaagagaaagaacagtggacagttaatgatattcag  
aaactagtaggaaaactaaattgggctgcacaaatatatccaggggtaaaaactaaaagaatttTgtcaattaata  
aaaggaaagaaaaatttTgttagaccctgtagtctggacagatgaagcagaggcagaatatgaagaaaaataagatt  
attctaaaaacagaacaagaagggacatattatgatccagaaaaacctctaaggtagcagtgcaaaagctggga  
gatggacaatggggatatcagttcaaacaagacaaaatcttaaagacagggaattcatgaaacagaggaccact  
catagtaatgagctaagaattttTggcaggatttggtacaaaagatagccaaagaaagcctagtaacatggggaata  
ctccctaagtTTTgaactcccagtagaaaagggtatgggaacaatggTgggcgagatttggcaagtTggctgg  
atacctgaatgggaattTgtcagtgtaccaccattgggtcaccttatgggtaccgcctcaccaaagaccccatacct  
aaacaagatgtctactatgtagatggagcctgtaacagaaactccaaaatgggcaaagcaggatatatcactcaa  
tatgggaaacagagagtgaagaattggaaaatactaccaaccaacaggcagaattaacagctatccttatggca  
ctacaagatagtgagatcaagtaaacatagtaacagactcccagtatgccttagggatcatatcaagtcacccc  
acacaaagtgactcgctctgtgtagaacagatcatccaagaattagtgaagaaaaaggcggtataacctacaatgg  
gtaccagcacacaaaggcatagggggaaatgaagaggttgataaactagtcagcaaaggaataagacaagtacta  
ttcatagaaaaaatagaagaggcccaagaagaacacgaaagatatcacaacaattggagagaaatggcagataca  
ttTgggtattccccagtagtagccaaagaaatagtagctcagtgccttaagtGCCaaataaaaggagagcctata  
catggacaagtggatgcttcaccaggagtgtggcagatggactgtacccatatggaaggacatgtgatcatcaca  
gccgtacatgtagccagtggttcatagaagcagaaataatacctagagaaacaggaaaagagacagcaaagttc  
ctgttaaaaattctctccagatggccaataacaaagctacacacagacaatggccctaacttcatttcacaggaa  
gtgaaggcaatgtgtTggTggggaaaaatagagcacacaacaggagttccctataatccacaatcacaagggTca  
gtggaaagtatgaataaacaattaaaggaaatcataggcaaaattagagatgactgtcaatacctagaaacagca  
gtattaatggcctgccacatccacaattTTaaagaaaagggtaggaataggggatagactagtgcagatagactc  
ctgaacatcctaaccacacaaatagaaacaaaacaactacaacaaaaaattcaaaaactTTTTgaatttcaaggtg  
tacttcagagaagggagagacccaattTggagaggcccagcaacactcatctggaagggagaaggagcagtggta  
attaaagaccaaggagaactaaaggtagtccaagaagaaaagcaaagatcataaaagat

>#19 KR862356 2766 nt

acagtgtatattaacggcctccccattaaggctctcttagacacaggagcagatgatactatcataaaagagaca  
gatatacaatttagcaggacattggagaccaaagttaatagggggaataggaggaggccttaatgtaaaggaatat  
ttaaatgtcacccataatttagaaggaaaagagttaataggggaccatttttagtaggagaaacacctatcaatatt  
ataggaagaaacttcttagccaatgctggtatgagattggtaatgggacaattatctgatgtataccattacc  
aaagtagctctaaaagaaggagctaaaggaccgtgtataaaacaatggccactttcaaggggaaaaaatagaagcc  
ctacagcaaatatgcacacaaatggaaaaggagggaatttaaccaagatagggggagagattgcatataacacc  
cctgtatttTgaataagaaagaaagacaaaacacaatggaggatgctaatagatttttagggaattaaataaagta  
acacaagacttctttgagggtccagttggggataccacatccaggaggccttcataaaaagaagcaaataacagtt  
ttggatataggggatgcttattatagcattccattggaccggatttcagaaaattcactgcttttacgatacct  
agtgtaaacaaccagggtccagggactagatacatatttaactgcctcccgcaaggatggaagggtccccaaact  
atttttcaaaatactgcagcaaaagatattagaagaaataaaaaacagaacttctgctcttacaattattcagtat  
atggatgatatgtgggtaggatcagatttaacaccatatgagcatgataaacagatcacaatactgagagaaagg  
ctatctcaatggggctTggaaactccagaaaagaagctccaaaaggaacccccgtattcatggatgggatataag

ttgtggccacagaaatggcagctacagcccatagagctaccaaacctgaggaatggactgtaaatacaca  
aaattagtagggatgctaaactgggctgcacaaatttacgcaggtcttaaaactaaacaaatatgcaaactgatc  
agaggggaagaaagacctgttggaaggttaacatggactcaagaagctgaaatagagctagcagaaaatagagaa  
attctcaaaaccacacaggaggagcatactatgaccctacaaaaagtcttagggcaacaatacagaaattgcca  
gatggacaatggagttatcaataaaacaagaaggaaaccaaattttgaggacaggaatacatgaaggctaaa  
gctacacatacaaatgacttaagagtactggcgggtctagtacagaaaattgctaaggagagtataacttgttg  
gggactttaccctgtcttgagttaccagtagaaagggaagtatgggaacagtggtggagtgattattggcaagtc  
agctggataccagaatgggaatttgttagtgttccaccattagtcaccctatggtataggctaacgaaagatcct  
ataccaaggtggacacctattatgtagatggatcctgcaacaggaatagcaaggaaggaaaggccggatatatc  
acacaacaggggaagcaaaggattaggaccttagaaaataccaccaaccaacaagcagaattacaagcagtattg  
atggccctagaagatagtggaacacaggttaacataataacagattcccaatatgtgttaggggttatatcgtca  
catcccacgcaaagtgactcgccactggtagaacaaattattgctgcattaattcaaaaggaagcgggtgtattta  
aactgggtaccagctcacaaggggataggaggaaatgaggaaatagacaaatttagtgagccaagggttagacag  
gtcctcttcttagaaaaatagaagaagcacaagaggaacacgaacgggtaccacaacaattggaaggagatggca  
gatacctttggaatacctcaagtagtagcaaaagaaatagtagcacaatgtccaaaatgtcaataagaggggaa  
ccaatacatgggcaagtagatgcctcaccgggggttggcaaatggactgtactcatctagaaggaaaaattatt  
ataacagcagtacatgttgcaagtggctttatagaagcagaaattatacctagagaaacaggaaaggaaacagca  
aaatttttactcaagctactttctagatggcctatcacaaaactacacacagataatgggcccactttgtgtcg  
caagaagtacaagcaatgtgttggtgggggaaaaatagagcacacaacaggtataccatataaccctcaatcaca  
ggttcggtagagtctatgaatagacaggttaaaggacattattggaaaaatcagggaagactgccaatacttagaa  
acagcagtactcatggcctgccacattcataatttttaaagaaaggagggaataggggatagtagtgctgat  
agattactaaacatattaaccacccaactagaacccaaactttacaacaaaaaattcaaaaattcttgaatttc  
aaggtctactacagagaaggccgtgatcctgtgtggaaaggaccagccgtgctcatttggaaagggtgaaggggca  
gtgggtgatcaaagaacagggagaactgaaagtcatacccagaagaaaggctaagattattaaggat

>#20 KR862363 2766 nt

accatacatataaatggcctcccaataaaaagtacttcttgatacaggagcagatgacactattatcaaagaaaca  
gacattcaattacaaggttcatggagacccaaattaataggaggtatagggggaggtattaatgtaaaagaatat  
aataatgtagtagtagaaatagaagggaaagaactaattggcactgttttagtaggagaaactcctattaacatt  
atcggagaatcttcttagctaacgcagggtgaaattagtaatgggagcattatctacaaatataccaatcaca  
aaagtgaatttgaaagaaggagcaaaaggaccttgcttaaaacaatggccactgtctaaagaaaaaattctagca  
ttacaacaaatttgtcaggaaatggaaaaagaaggaaaattgactaagattggaggggaaaaatgcctacaacaca  
ccagtatgtgcaataaggaagaaagacaaaacacagtggcgaatgttaatagactttaggggagctaaataaagtc  
actcaagacttctttgaagtgaattaggaataccacatccggggggattaaaaaagaagaaacaaatcactgtg  
ctagatataggcgatgcctattatagcatccccctggatccagactttagaaaatacacagccttactatacca  
agcataaaataatgaaggaccaggcactaggtatcaatttaattgtctaccacaaggatggaaaggctcaccacc  
atcttccaaaatacagcagcaaaagatattggaagaaataaaggcagacttacctgcattaactatcattcaatat  
atggatgatttatgggtaggatctgacttaaccccatatgaacatgataaacaattgaaaccctcagacagaga  
ttaggacggtggggactagaaactcccgagaagaattacagaaacaacctccctatgaatggatggggtacaaa  
ctatggcctcataaatggcagttacaacctatagaattaaaagagccagaagaatggacagttaatgacattcag  
agagtggtaggacaattaaattgggcagcacaattgtacccaggattaaaaacaaagaacatttgtaaactgata  
agaggaaaaaagaaccttttggaaaccagtacaatggaccccggaagcagaggtagaatatgcagagaataaagag  
attctcaaaacttcacaggagggagcctattatgaccctcaaaaaatctcaaagtagcagtacagaagcttcca  
gaaggacaatggagctatcagtttaacaagaaggaggaaacattctaaaaacaggaaaatacatgaaaaataaa  
gcaactcacactaatgatcttagagtattggcaggattagttcaaaaaatagctaaagaaagcatagttatctgg  
ggacaattaccatttttgaattacctgtagaaaaagagacttgggagcaatggtggagtgactactggcaagta  
gggtggataccagattgggaatttgtcagtggttccctccattagttacactttggtatcgactgacgaaagacccc  
atcccaaaggaagatgtttattatgtagatgggtcatgcaacagagaaagtaagttaggcaaagcaggatacatc  
actcagcaaggaaagcagaaagtcacttttgaaaaacacacaaaccaaaggcagaattgcatgcagtactg  
ctggccttacaagacagtggaaaaaagggttaacattgtgacagattcacaatatgttttaggtatcatctcttca  
caccacacagagtgattcaccactggtagaacaaataatagcccagttgattcaaaaggagttagtatattta  
aattgggtgccagccataaagggtatagggggaatgaggaaatagacaaatttagtaagtcagggaattaggcaa  
gtactgttcttagaaaaatagagcatgcacaggaagaacatgaaagataccataacaattggaaggaaatggcc  
gacacatttgggataccacaggtggtagcaaaagaaatagtagcagtgcccaagtgccagataaggggagaa  
ccaatacatgggcaaatgtatgcctcaccaggtgtgtggcaaatggattgtaccacttagaaggaaaaataatt  
atcacagcagtcacggttgcagtggttcatagaagcagaggtcataccaaggagacaggaaaaagaaaccgcc



aaattccttctaaaaataatatcaaggtggcctatcacaaagttacacacagataatggcccaaattttgtatca  
caggaagtacaagccatgtgttggtggggaaaggttgagcatacaacaggagtaccttacaatccacaatcacaa  
ggttcagtagaatcaatgaatagacaattaaaagagattattggcaaaatcagagatgactgtcaattcttggaa  
acagcagtaacttatggcctgccacattcataattttaaaagaaagggaggagtaggggatatgactagtgcagaa  
agattattgaatatgttaaccacacaattagaaatcaatcacttacaaaaacaacaaaaattttcaaatttc  
aaggtctacttcaggaagggcagagatcctgtctggaaaggacccgcaacactcatctggaaggggagaaggagca  
gtggtataaaaagaccaagaagaattaaaagtagtccaaggaggaaagcaaaaattataaaaagat

>#21 M29975 2763 nt

acctgtataataggaggaactgccgttaaggcattattagatacaggggagatgacactataataaaggatata  
gatttacaattaaggggatcatggagaccaaaaatagtaggaggaattgggggaggggttaaacgtaaaagaatat  
gataatgtagaagtacaattggaagacaagatattaagaggaacagtcctcataggagcaactcccatcaatatc  
ataggaagaaacttttttagcccaggcaggagccaaatttagtgatggggcaattgtcgcagacaataccaatcacc  
ccggtacgcttaaaggaagggggccagaggaccacgattgaagcaatggccactctctaagaaaaaataatagcc  
ctgcaagaaatttgcaaaacattagaggaagaagggaaaattaagcagggtagggggagacaatgcatacaatata  
ccagtattctgtataagggaaaaagacaaatcacagtgagagaatgctggttagatttcaggggaactcaacaaagct  
acacaagacttctttgaagtccaattaggtatacccatccagcaggggttaaagaaaatgaagcaaaataaccatt  
atagatgtgggggatgcatattatagcataccactggatcctgagtttagaaaatacacagctttcaccatccct  
acggtaaaccaatgagggaccaggcataagatatcaatttaattgcctaccgcaggggtggaagggatccccgaca  
attttccaaaacacagcatcaaaaattctagaagaaataaagaaagaattaaaacagctgacgattgtccagtac  
atggatgacctctgggtaggatcacagaagaggggtccaaagcatgatcagctagtacaaacacttaggaataga  
ttgcaagaatggggattagaaacaccagagaaaaaggtgcaagagaacctccctttgagtggatgggatataaaa  
ttatggcctcataaatggaagttacaaagtatagaattagagaagaaagaacaatggacagtgatgatcttcag  
aaattggtagggaaattaaattgggcagcacattatatccaggattgagaacaaaaaatatctgtaagctactt  
agaggaaagaaaaatttattagacgtggtagaatggaccccagaggcagaagcagagtacgaagaaaaacaaggag  
atcctaaaaacagagcaagaaggtacttattatgcaccagaaaaaccccttagggcagcagtagacagaaattagga  
gatgggcaatggtcataccaattcaagcaggaagggaaaaatcttaaaggtaggggaagttcgccaaacagaaagct  
actcacaccaatgagttgctgtactagcaggagtagtacagaaaaatagggaagagggccctagtaatttggggga  
caattacccacttttgaaactcccagtgagagggacacatgggaacaatggtgggcagactattggcaagtcagt  
tggatacccgaatgggactttgtcagtggtccgccccttagtaactttgtggtatacactgactaaggaacccatc  
ccgggagaggatgtctactatgtagatggagcctgtaatagacagtcgaaagagggaaaaagcagggtacataacc  
caacaaggcaacaaagagtacaacagctagaaaacacaacaaatcaacaagctgaactgacagccataaaaaatg  
gccttgaggatagcgccctaaagtcaatatagtaacagattcacaaatgtcgatgggcatattgacagcacag  
cccacacagagtgactcccactagtagaacaataatagcacagatggtacagaaagaagccatctatctgcaa  
tgggtacctgtcataaaggtatagggggcaatgaagaaatagacaaattagtaagcaagggagtagaagaata  
ttgttcattggcaggatagaagaagcacagaagaacatgataggtatcacagtaactggagaaatctagcagac  
acatttggattgccacaaatagtagctaaagaaattgtagcaatgtgcccaaatgtcaagtaaaaggggaacca  
atacatggacaagtagatgcttcaccaggagtgtggcagatggactgcacacatatagaagggaaaaatagtgata  
gtagcgggccatgtagccagtggtttatagaagcagaggttatccctagggaacaggaaaaagagacagcaag  
ttcttggttaaaaaataataggaagatggcccatcactcacctccatacagataatggaccaaatttcaacttctcag  
gaagtagctgctatgtgctggtggggaaaggtagaacacacaacgggggtaccatataatccacagtcacaggga  
tctatagaaagtatgaacaaacaattgaaagagataattggaaaaataagagatgactgtcaatatacagaaaca  
gcagtacttatggcctgccacattcacaaattttaaaagaaagggaggaataggggggctaacagctgcagagaga  
ctaataaatatgataacaacacaattagaaatcaacactctacaaacccaaaatccaaaaaattttgaattttaga  
gtctactacagagaaggcagagatccagtggtgaagggacctgctcgctgatctggaaaggagaaggcgcggtga  
gttctcaaggaaggtgaagaactgaaggtagttccgagaaggaaagcaaaaatcataaaagac

>#22 AF301156 2790 nt

atagtagaagtagaaggacaaaagtgccaagcgctgttagatacaggagcagatgatacagtttttaagaagaa  
gatgttcaattaacaggcgcttgagacagcagtacaaattcaggggaatagggggagcaatcagagtaaaacagtat  
agagataaaattctaagatgggaggaaaagaatacagaggagatatcttaataggacacacccccataaatata  
gtaggtagaaatgtttaaagaagggaaatttagtagtagctcaattatcagataggatcccagtcaccaaggtg  
acgttaaaagagggcatggatgggcaaaaagtaagcagtgggcccttaagcaagaaaaaatagaaggtttacaa  
aagatatgtgaaagattggaagcagagggaaaaatagaaaaagcagaattagggaatccatataatacaccaata  
ttttgcattaggaaaaaagataaaaaatgaatggaggaaattaatagatttcagggagctaacaagagaaacaaa  
gacttcatggaagtcgaattagggataccacacccaggaggtcttatagaaaagacccatataacagtattagat  
ataggagatgcctattttctcaattcccttgatccggattatcaaaagtacacagctttttacaatcccatcagtg

aacaatttggcaccagggactagatatgtgtacaaagtgtaccgcagggttggaaaggggtctccaacaatcttc  
caaggaacagtagcaagaatcctagaaccgttcaggaagagaggacaattgcaaatagctcagtagcatggatgat  
ttatatctaggatcagatctgccttttagaggagcatagaagggcagtagcaggagctcagagatgcactcttgtac  
tatgggttagagacaccagaaaagaaataaccaggcagatcctccatacaagtggatgggctatgaattacatcct  
aagcaatggaaattacaaaagggtcaaaattccagaacaggataagtggacagtaaatgatatacaaaaatttggt  
ggagccttaaatttggttaagccaattatacccaggaatcaggacaaaggagataagtaaatgcactaaaggtaag  
aagcatttgggtggaggaagtgcagcttagtgcagaagcagaagaggagctacaagataacaaacagataatcaaa  
gaagaagttcaggaggtgtactatataccacatgaggacatttgggttagacattttcagggttagggaaaggacaa  
tggggctatgcagctctgcaaaaaacatggaacgctaagaagaggaaaacataacacaggcaaaaaatcagcacttt  
aatagtagtgcaggaggttagcttcagttatacaaaagataggttagggaagccatagtcacctggggaaagggtgcc  
aaaatgaaagtcccagcaaaagagagaggattgggaacagtggtggagtgactattggcaaagtgccttggatcca  
gagatagagtttgtctcatcctcttatgtagtaaaattagtagtgaacttgggttttagagcctctgaaggaggca  
ccaacttattggacagatggaggatgctccaggaaattaggagcgggaaaggcaggatggataaattcaaaagga  
gaagaagaagtagtcaatcttcatgaagggtcaaatcagcaagcagagctgacaggagtttgcagtagctctaaaa  
catgggccaacaaagaatgaatttggtaacagacagctctttagcattagggataattactgggcagccatagat  
cagcttccatctagtagaggggagattatcaggcaggatgggctaaagaagccattcatgtagcctggtgtcca  
gcacataaagggataggaggaaatgaactgatagatcaaaaggtaggagtaagacaggtaatgtggatagataaa  
atagaagcagcagaagaagaccatcaaaagtttcatagtaatgtgcagtagtctaaaagaacaatttgggttacc  
actgtagtagcaaaagaaatttgggaaagatgttcagagtggtcagaacaaaggacaagctgttcatggccagcta  
gattatagctatggccttatggcaattagattgtactcatgaggaaggaaagggttatcttagtagcagtagcacgtc  
tgtactctgttctgctgggcaaccatattaaagagagaaacaggggaaagaaacaggtagggccctcataaaattg  
gctagtcagtgagggttagacaagttcacacagataatgggccaatttggtaagtcagcactttaaggcagca  
gtgtggtggctaggaatagcacacaccacaggacacccctataatcctcaatcacaaggagttgtagagcagaga  
aacaaggatgttaaaagaaagattaagaaaaatgaaagatcaagcagaaacattagaaagcaaagtagcaatggca  
gtctatgcgctcaatttttaaaagaaaggaggattaggggggaagagtcctgggaaagacaagtagaaagagca  
ataatagaattagatacacaaaacctaacaaaattacaaaatcaaaaattttaaaattttaaggcctactggaaa  
gagcacacaggagagtggaaggaccaggagaactggtgtggaaagggtgaaggagcggtagtcatcagaaattct  
caaggtagccttgtttgtgaaacctagaagaaaagtaaaagatcaccagactccaatatggagaagatgtgggcagt  
gagaatttgttatcc

>#23 AY159322 2748 nt

gaaatagaggggcaaaaggtagaggcacttctagatactggagcagacgatacagtaattaaagatttagagtta  
acaggaaattggaagccacgaattataggaggaattggaggagcaatcagagtaagacagtagttttaattgtaaa  
gtagaaatagcaggaaaaattactcatgctgcagttctgggtgggcccctaccctgtaaaatattataggtagaaat  
gtacttaagaagtttaggatgtactttaaattttcctattagtaagatagagacagtaaaaagtaacactaaaacca  
ggaacagatggaccgagaataaaaacagtgccactgtctaaagaaaagatccttagccttacaagaaatattgcaat  
caaatggaaaaagaaggcaagatctctagagtaggtccagaaaaatccatacaacaccccagtagttctgtataaaa  
aagaaagatggaaccagctggagaaaaattagtagatttttagacaactgaacaaagtcactcaggatttctttgag  
gtgcagtttaggaatcacacatccaggaggcctaaagcaatgtgagcaaatcagtagattggacataggagatgcc  
tatttttcatgtcccttggatgtggactttagaaagtatactgcgttcaccattccatcggtgaacaaccagggc  
ccaggaatcagataaccagtataatgtcctaccacagggatggaaaggctctccagcaattttccaggcaacagca  
gacaaaattctaaaggcttttaaggaaaagcatccagaagtcttaatttatcagtagatagtagtacttgtttgtg  
gggagtgatctaagtgcctctgaacacagtaaaatgatagtagaattaagggaacattttgcagttctgggggctc  
gagaccccgacaaaaagttccaaaaggaaacctccctttgaatggatgggatgtgtgctgcacccaaagaaatgg  
acagttcagaaaaatacagctaccagaaaaaagaaagctggacagtaaatgatattcagaaattagtagggaaactt  
aattgggcaagccaaatctattccggaattaaaacaaaagagctctgtaaattgataaggggggcaagaccctta  
gataaaatagtggaatggactagagaagcagaactagaatatgaagaaaacaagctaattagtgacaggaggaagta  
catggagtgtagtaccagccagaaaaacctttaatggcaaagggtgcaaaagttaacacaaggacagtggaattac  
caatagaacaggaagacaacaaacctctcaaggtaggaaagtagtccaggacaaagaatgccacacaaatgaa  
ttgagggtagtgcagggttggtacaaaaggtagctaaggagtggttagtaattctggggaaagctaccgaaattc  
tatctcccgttagagaggggaggtatgggaccaatggtggcatgactattggcaagtaacatggatcccagagtg  
gacttcatttcaacaccaccattaataagggttatggtacaacctgctaaaagacccaataaccaggggaagatgta  
tattatgtagatggggcgacaaacagaaactccaaggaaggcaaggcaggctattataacctctagaggtaaaagc  
aaggtagtagccttggaaagaaacgaccaatcaaaaggcagaattgacagctataaagatggctttgcaagattca  
ggacccagggtgaatatagtcactgattcccagtagtgcactaggcatactttcagcagccccagatcagtcagac  
aaccatagttagggaataatagaactcatgataggcaaggaagagatttatctctcatgggtcccagcccac

aagggatataggaggtaatgaacagatagataaattagtaagtaaggggaataagacaggtactatTTTTtagagggga  
atagataaagcccaggaagaacatgacaaatatcacaataattggagagcgttgtctcaggactTTAACCTACCC  
cccatagtggcaaaagagatagttgcacaatgtccaaaatgtcagacaaaggggagaacctgttcatgggcaggta  
aatgcagatccagggaacatggcagatggactgcacccatttagaaggaaaaatcatcatagtagcagtcctatgta  
gccagtggatatttagaagcagaggttaataccagcagagacaggaaaagaaacagcgcacttctgttaaagcta  
gcaggtaggtggccagtaaaacatctacacactgacaatggtcctaactttgtcagtgaaaaggtggccacagtc  
tgctggtgggctcaaatagagcacaccacaggagtaccttacaacccacagagtcaggagtagtagaagcaaaa  
aatcatcatcttaagaagatcatagaacaagttagggatcaagctgaaaggctagaaacagcagtgcaaatggca  
gtgctaattcacaatttttaaaagaaaaggggggataggggagtagcagtcctgggagaagaatagtagacataata  
accacagacatcctaacaaccaaattacgacaaaatatTTCAAAAATTCAAAATTTTCAGGTTTATTACAGAGAA  
ggaagggaccaacagtggaaggaccagcagagctcatttggaaggagaaggcgctgtggtaatcaaagaaggga  
gttgatttaaagggtggttcctagaagaaaagcaaaaataattaaggac

>#24 AF367411 2748 nt

gagatagaagggcaaaaagtgagggccttactggacacaggagctgatgatacagtaaatcaaagatctagattta  
aaaggtaattggaaccacagattattggaggaattggaggatcaatcaatgtaaaacagttttcaattgtaaa  
gtaacaatagcaggcaaaactacacacgcttcagtcctagtgggccccacacctgtaaatattgtaggtagaat  
gtgctgaagaaattaggatgtacactaaattttccagttagtaaagtagaaacagtaaaggtaacactaaaacca  
ggaactgacggacctaataaaaacaatggccattgtcctaaggaaaagatttttagccttacaagaaatatgtagt  
caaatggagaaggaaggccagatctctaagataggtccagaaaatccttacaacacaccgggtgttttgcatcaaa  
aagaaagatggaaccagctggagaaaattggtagatttttagacagttaaacaaagtaactcaggacttctttgag  
gtgcagttgggaatcccacaccctggaggtctcaaaacaatgtgagcaaattacagtactggacataggggatgcc  
tatttctcatgtcctttggatgaggactttagaaagtacactgcattcaccattccatcggtgaataatcagggc  
ccaggaatcaggtaccagtataatgtcctaccacagggatggaagggtccccagccattttccaggcaacagca  
gataaaatcttacagcccttcagagagagacatccagatgtagtgatctatcaatatatggatgatctctttgtt  
gggagtgatagagttgccccagaaacacagcagaatgattcaagagttaagagaccacctcttgttttgggggctc  
gagaccccagacaagaagtttcaaaaaggaaccaccccttgagtggatgggatacatactgcaccctaagaaatgg  
acagtgacagaaagtacagcttccagagaaaagaagaatggacagtaaatgacatccaaaagttggtagggaaactt  
aattgggcaagtcagattttattccggaattaaaacaaaagagctctgtagactaatttagagggggcaaaacccta  
gatgaaaaagttagaatggactagagaagcagaattagaatatgaagaaaacaaactcatagtgacaggaggaagt  
catggagtatactatcaaccagagaagcctttaatggcaagggttcaaaaattgacacaagggcaatggagttac  
caaatagagcaggaggataataagccgctgaaggtagggaaatatgccagaacaaagaatgctcatacaaatgag  
cttagagtgttgacaggactagtacagaagattgcaaaagaagcttttagtgatctggggaaaactccctaagttt  
tatctgccaatagaagagaagctctgggaccagtggtggccagaatatgggaagccacatggattcccgaatgg  
gaatttgtatccactccacaccttatcggttgtggtataacctgttgagagaacctgtgccaggagaagatgtg  
tattatgtggatggagcagctaacagaaactccaaagaagggaaagcaggatatgtaacagctagaaaataatcc  
agagtaatagccctagagaataccacaaaacccaaaagcagaattggaggcaataaaaatggcattacaagactca  
ggacaaaagtaaatatagtgacagattcacagtatgctatgggtatcctatcggcagcaccgcaccaatcagac  
aaccatagtaagagaaattatagaactcatgatccacaaggaagcagtatacctagcttgggtaccagcacac  
aaaggcataggaggaatgagcaagtagataaactagttagcagagaggagtaaggcaagtactgttttagaaggc  
atagataaagcacaagaagagcatgataaatatcacaataattggagggcatttagcacaagacttctgtatacca  
aacatagtggcaaaagaaatagtagccagtggtccaaagtgtcaaaacaaaaggagagccaatacatggccaggta  
gatacatccccaggaacctggcaaatggactgcacacatatggaaggaaaagtaatcatagcagcagtcctatgta  
gcaagtaggtatctagaagcagaagtaatacccacagaaacaggaaaagaaacagcacacttctgttaaatta  
gcaggtagatggccagtaaaacatctacacacagataatggccctaatttcaccagtgaaaaagtagccacagtc  
tgttggtgggctcaaatagagcacactacaggaattccctacaatcctcagagtcaggagtaatagaggcaaaa  
aaccatcatctcaacaaatcatagggcaagttagagaccaagcagagaaactagaaacagcagttcaaatggca  
gtattaattcacaatttttaaaagaaaaggggggataggggaatacagtcaggagagaagaatagtagacattata  
gcaacagacctcctaacaactaaattacaacacaatatTTCAAAAATTCAAAATTTTCGGGTTTATTACAGAGAA  
ggaagggaccaacagtggaaggaccagcagaactcatttggaaggagaaggagcggtggtaatcaaagagggg  
acagacttgaaggtagtaccaggagaaaagcaaaaatcatcagagat

>#25 AF328295 2748 nt

gaaatagagggacaaaaggtagaagccctactggacactggagcagatgatacagtaaatcaaagatgtagattta  
acaggaaattggaaccccaaattataggaggaattggaggagcaattagggtgaaacagtatTTCAATTGTAAA  
ataacagtagcaggaaaaagtagtcatgcttcagtgctagtgggcccctaccctgtaaatatttataggtagaat  
gttcttaagaagttaggatgtactctgaattttcctattagtaagatagagacagtaaaagtaacactaaaacca

ggaatggatggaccaagaattaaacagtggccactgtctaaagaaaagatTTtagccttacagacaatatgtgat  
gaaatggaaaaggaaggcaaaatctctagaataggtccagaaaatccatataatacaccagtatTTTgtataaaa  
aagaaagatggaaccagctggagaaaattagtagatTTTtaggcaattaaatagagtgactcaggatttctTTgag  
gtgcagctaggaatcccacatccgggaggcttaaaacaatgtgaacaaatcacaatatTTggatataggagatgcc  
tatttttcatgtcctTTTggatgagagctTTtagaaagtacactgcatttaccattccatcggtaataatcaaggc  
ccaggaatcaggtaccagtataatgttcttccacagggatggaaaggctctccggcaatatttcaagcaacggca  
gacaaaattctaaaaacattcaaagaggaatacccagaagtattaatttatcaatacatggatgatctgtTTTgtg  
ggaagtgatctgagtgcgtcagagcacacaaaatggtaaataggTTtgagggaacattttaaggTTctgggggctc  
gagaccccagacaaaaagttccaaaaagaacctcctTTTgagtggatggggtatgtgctgcacccacagaaatgg  
acagtccaaaagatacagctgccagaaaaagagacatggacagtaaatgatattcagaaactggtaggaaaactc  
aattgggcaagtcaaattctattccggaattaaaacaaaagagctctgcaaattgatcagagggggcaaaacctcta  
gatgaagtagtagaatggactaggggaagcagaattagaatatgaagaaaaataagTTaatagtgacaggaggaagta  
catggagTTtattatcagccaggaaaacctctgatggccaaggtacagaaactgacacaggggacaatggagctat  
cagatagaacaggaagagaataagcctcttaaggtaggggaagtatgctaggacaaaacatgcccacacaaatgag  
ttaagggtgcttgcaggattagtacaaaaaatagccaaagagtgcatagtgatttggggagaattgccaaaattc  
tatctccccctggagaggggaagtatgggatcagtggtggcatgattattggcaggcaacatggatcccagaatgg  
gaattcatctcaacaccaccactaataaggttTgtggtataacctgttaaaagaaccaataccaggggaggatgtc  
tattatgtggatggggcagcaaatagaaactctaaggaaggggaaagcaggatactatacagctaggggaaaaagt  
aaagtaatagccttagaaaacacaactaatcagaaagcagaattagaggcaataactgTTtagccttgaaagattca  
ggTccttagggcaaatatagtcacagactcacaatatgcattaggcatactttcagccactccagatcgatcagac  
aaccttatagttagagaaataatcaaccaaattgatagccaaagaagctgtatacttagcatgggtaccagctcat  
aaaggcataggaggcaatgaacaaatagacaaattagtaagcaaagggaatcagacaagtactattcctggaagga  
atagataaagctcaggaggaacatgacaaataccataataattggagatcattaagtccaggaatttagcataccc  
cctatagtgccaaaagaaatagttgcacagtgcccaaagtgtcaggtaaaaggagaacctatccatggacaggtg  
gatgcggccccaggaacatggcaaatggattgcacccatctagaaggaaaggTTtatcatagtagcagtcctatgtg  
gccagtggatatctagaagcagaagtgataccagcagaaacaggaaaaagaaacagcacatttctgctaaaacta  
gcaggaagatggccagtgaacattttacatactgacaatggTccaaactttgtcagtgagaaggtagccacagtg  
tgTTggtgggctcagatagagcacaccacaggaataacctataacccccaaagtcaaggagttgtggaagcaaaa  
aatcatcatcttaaggtaattatagagcaagttagggatcaagcagagagactggagacagcagtacaaatggca  
gtactcattcacaatttttaaaagaaaaaggggggataggggagtacagtcaggagaaagaatagtggatataata  
acaacagatatttctaactaccaaattacaacaaaatatttcaaaaattcaaaattttcgggtttattacagagaa  
ggaagggagcagctctggaaggaccagcagaactcatttggaaaggagaaggagcagtggttaatcaaagaagga  
acagacttaaaagttgtgcccagaagaaaagctaaaataatcagggat

>#26 KM378564 2748 nt

gagatagaaggggcaaaaggTggaggctTTacttagacacaggagcagatgatacagtaattcaaggattagaatta  
acaggaaaaatggaagccacaaattataggaggaattggaggagctattaatgtgaagcaatatTTtaattgtgaa  
atcaaggtagcaggtaaaattactcatgtctcagtgTTTggtaggccctaccttgtaaatattataggtagaat  
gtgctgtgtaattaggagctactcttaactTTTcctgttagtcaagtagaaccagtaaaagtaacactaaaacca  
ggaatggatgggccaagataaaacaatggccccctctccaaggaaaaaattgaagccttaaaagagatatgtgag  
caaatggagaaggaaggtcaaataagtagaataggtccagaaaatgcatacacacaccgggtgtTTTgtattaaa  
aagaaagatggtaccaaattggagaaaaattagtagatTTTcaggcagTTaaataaagcaacacaggacttctTTgag  
gtgcagttggggataccacacccgggaggattaaaagagtgcgaacagatcacagtaactggatgtaggtgatgcc  
tacttctcatgccctctggatccggactTTtagaaagtacactgcattcaccattccatcgggtgaataatcagggc  
ccaggaatcaggtatcagtataatgtcctcccacagggatggaaaggctcacctgcaatcttccaagctacagct  
gacaagatcttacagccattcagagagaaaaatccagatgtgattatttatcagtacatggatgatctgtTTTgta  
ggaagtgatagaccaaagcattttacatgatcagatgattaaagaattgagaacacattttaagTTctgggggctc  
gagaccccggacaaaaatttccaggacaatcctccttatgagtggatgggataccagctgcattccaaagaaatgg  
acagtgcagaaattcgtTTTgctgataaagaaattTggactgttaattgatattcagaaattagtaggaatactc  
aattgggctagtcaaattttattccggaattaaaacaaaagagctctgtaaatttaattaggggagccaagccctg  
gatgaagaagtagaatggtctaggggaagcagaactagaatatgaagaaaaacaaactgatattaaaagaacaaatg  
catggggtatattatcagccagaaaagcccctaaaagccaagatacaaaaattgggcaatggacaatggtcatat  
cagatagaacaagatgacaacaagccactaaaaacaggaaaaatgctaaggtaagaatagtcacaccaatgat  
atgaggatgttagcaggactagtgcaaaaggtagcaaaagaagcactggtaatctgggggaagattgccattttc  
tacctaccggtagaaagggaggTTTgggaacaatggtggcaggagtagtggcaggtaacatggattcctgattgg  
gaatttgatcaacacccccctctcatcaagttatggtataactTgttgagtgaccaataccaggagaagaagtt

tattatgtggatggagctgctaacagagtttagcaaagaaggaaaagctggctatgtttacctccaggggaaaagaa  
aaggtaatagccttagaagaaaccaccaatcagaaggctgaattacaggctattctgttagccttgaaagactct  
ggccaaaagtcaacatagtgacagattcacaatatgccatgggcataatatcttctccccagaaatcagtgac  
aacccctatagtgaaatcaaattatagaacaaatgatcagtaaaagaagcagtttacttaaattgggtaccagcacat  
aaagggataggaggtaatgaggaggtggacaaattagtttagtagaggaataagacaagtgttattcctagataat  
atggaaaaggcacaggaagaacatgatttataccataataattggagatccttagcacaagaatttgggtctacca  
gggatagtgggcaaaagaaatagtggcacagtgtcccaaatgtcaaatacatggagagccaatacatggccaagta  
gatgcaagcccaggaacttggaatggactgcacacatctagaaggaaaaataatcatagtggcagtgccatgta  
gcaagtggatacatagaagcagaagtaataaccagcagaaacaggagagaaaaacagcttactttctgctaaaagtta  
gctggcagatggccagtatcacacttgcatacagataatggaccaaatttcaccagtgaagaggtagcaacagta  
tgctgggtgggctaaaatagagcataccacaggagtaccctataacccccagagtcagggagtggtagaatcaatg  
aacaatcagctaaagaaaattataggacaaatcagagatcaggcagaaaaactagagacagcagttcaaatggca  
gtactgattcacaatttttaaaagaaaaggggggataggggagtagcagtcagcagaaagaatagtagacatcata  
gccacagatctcttaacaagcaaactacaacaaaatattctcaaaattcaaaattttcgggtttattacagagag  
ggaagagatcagttgtggaaaggaccagcagaacttgtctggaaaggggaaggagcagtggtcatcaaggaaggt  
actgacttgaaagtaatacctagaagaaaggcaagatcatcaaat

>#27 KM378563 2748 nt

gaaatagaagggcaaaaggtagaggtttacttagacacaggagcagatgatacagtaattcaaggattggaatta  
acaggaaaatggaagccacaaattataggaggaattggaggaaccattaatgtgagacaatatatttaattgtgaa  
atcaagatagcagggaaaattactcatgcttcagtgttagtagggccctacccctgtaaatatttataggtagaat  
gtactctgtaattaggagctactcttaactttcctgttagtcaagtagaaccagtaaaagtaaacactaaaacca  
ggaatggatggaccaaaagataaaaacaatggccccctctccaaggagaaaaattgaagccttgaaagaaatatgtgaa  
caaatggagaaggaaggtcaaataagtagaataggtccagaaaaatccatacaacacaccgggtgttttgtattaaa  
aagaaagatggtaccaaatggagaaaaactagtagatttcaggcaattaaacaaagcaacacaggacttctttgag  
gtgcagttagggtatccacacccaggaggtataaaagcatgcgaacagatcaccgtagtggtatgagtgcc  
tacttctcatgcccctctggatccggactttagaaagtacactgcattcaccattccatcggtgaataatcagggc  
ccaggaatcaggtatcagtataatgtccttccacagggtggaaaggctcacctgcaatcttccaagctacagct  
gacaagatcttacagccattcagagagaagaatccagatgtgattatatatcagtacatggatgatctgtttgta  
gggagtgatagaccaaaagcatttacatgagcagatgattaaggaattaagaacacacttaaagttctgggggcc  
gagaccccagacaaaaaatttcaggacaatcctccttatgagtggatggggtaccagctgcacccaaagaagtg  
acagtgcaagaaattcgcttgccctgataaagaaatttggaactgttaatgatattcagaaattagtaggagtgctt  
aattgggctagtcaaatttattccggaattaaaacaaaggagctctgtaaattaattaggggagccaaaccctta  
gatgaagaagtagaatggaccagggaagcagaactagaatatgaagaaaaacaaactgatattaaaagaacaaatg  
catggggtatattatcagccagaaaaacccctaaaggccaagatacaaaaaactgggcaatggacaatggtcatat  
cagatagaacaagatgacaacaagccactaaaaacaggaaaaatagctaaaggtaaaaaatagtcacaccaatgat  
atgagaatgttagcaggactagtgcaaaagatagcaaaagaggcactggtgatctggggaagattgccactttc  
tacttaccagtagaaaggggaagtttggaacaatggtggcaggagtagtggaaggttaacatggatcccggttg  
gaattcgatcaacaccacatctcatcaagttatggtataatttgctgagtgaaccaataaccaggagaagaagtt  
tattatgtggatggagccgctaacagagtttagtaaaagaaggaaaagctggctatgtttacctccagggggaaagag  
aagggtgatagccttagaagaaaccaccaatcagaaggctgaattacaggccatcctgttagccttaaaggactcc  
ggccaaaagtcaacatagtgacagattcacagtatgccatgggcataatatcatcctccccagaaatcagtgac  
aacccgatagtgaaatcaaattatagaacaaatgatcagtaaaagaagcagtttacttaaattgggtaccagcacat  
aaaggaataggaggtaatgaggaggtggacaaattagtttagtagaggaataagacaagtgttatttctagataat  
atggaaaaagcacaggaagaacatgatttataccataataattggagatccttagcacaagaatttgggtctacca  
gggatagtgggcaaaagaaatagtggcacaaatgtcctaagtgtcaaatacatggagaaccaatacatggccaagta  
gatgcaagcccaggaacttggaatggactgcacacatttagaaggaaaaataatcatagtggcagtgccatgta  
gcaagtggatacatagaagcagaagtaataaccagcagaaacaggagagaaaaacagcctactttctgctaaaatta  
gccggcagatggccagtgacacttgcacacagataatggaccaaatttcaccagtgaagaggtagcaacagta  
tgctgggtgggctaaaatagagcataccacaggagttccctataacccccagagtcaggagtggtagaatcaatg  
aacaatcagttaaagaaaaatcataggacaaattagagatcaggcagaaaaactagagacagcagttcaaatggca  
gtactaattcacaatttttaaaagaaaaggggggataggggagtagcagtcagcagaaagaatagtagacattata  
gcctctgatctcttaacaataaaactacaacaaaatattctcaaaattcaaaattttcgggtttattacagagag  
ggaagagatcagttgtggaaaggaccagcagaacttgtctggaaaggggaaggagcagtggtcatcaaggaaggt  
actgacttgaaagtaatacctagaagaaaggcaagatcattaaagat

>#28 M27470 2766 nt

gaggtctcagtggtggtgtcactataagagctctactagatacaggagctgatgataccatctttaatgaaaga  
aatataaaattaaaaggaaattggcagccaaaaattatagggggaataggtggaaacttaagagtaaaacagtat  
gataatgtatatgtagaaataagaggggaaggggaacatttgggcagctattgataggacctactccaatagatata  
ataggggagaaacataatggaaaaattaggaggaaaattaatattggcacaattgtctgataaaataccaataaca  
aaagtgaattaaaaccaggagtagatggaccagaataaaaacaatggcctttaagtaagagaaaaatagttggt  
cttcagaaaaatgtgatagattagaggaggaagggaaaaattagtaggtagatccaggaaaataattacaataca  
cctatctttgccataaagaagaaggataaaaaatgaatggagaaaattaatagacttttagagaattaacaagtta  
acacaggattttcatgaattacagtttaggtatacctcaccagcaggaataaaaaagtgtaaaagaataacagtc  
ctagatataggggatgcctatttttagtatacctctggatccagattatagaccctatactgcctttacggtacca  
tcagttaataatcaagcaccaggaaaaagatacatgtataatgttcttctcaagggtggaagggaagtcctatgt  
atctttcaaggacagtagcatcactgctggaggtatttagaaagaacctccaacagtacagttatatcaatac  
atggatgatttgtttgtagggctcagactatacagcagaagagcatgagaaagctatagtagaattaagggtctta  
ttaatgacatggaacttagaaacacctgaaaagaatatcagaaagaacctccctttcattggatggggtatgag  
ttacaccagataagtggagatagaaaagggttcaactaccagaattagcagaacagccaacagtaaatgaaata  
cagaaattggtaggtaaattaaattgggctgcacagttatatcctgggatcaaaacaaaacaactgtgcaagcta  
ataagaggaggactaaacataacagagaaagtcacaatgacagaagaagcaagactggaatatgaacaaaataaa  
gagatcttggctgaagaacaagaagggtcttattatgatcctaataaggaattatatgtaagatttcagaaaaa  
acaggaggagatatatcatttcaatggaagcaaggaaataagggttttaagagcagggaaatatgggaaacagaaa  
acagcacatagtaatgacctcatgaaattggcaggtgctacgcagaaggtaggaagagaaagtatatgtaaatctgg  
ggttttgtacaaaaatgcagataccactacaaggagatatgggaagattggtggcatgagtattggcagtggt  
acatggataccagaagtagaatttatcagcacacctatgttagaaagggaatggtatagcttgtcccagaacct  
ctagagggggtagaacatatattatgttgatggagcagctaacaggggacagtaaaatgggaaaagcaggatatatt  
acagatagagggttttcaaagggtagaagaatatctaataaccaccaatcagcagacagaattacatgcagtaaaa  
ctagctctagaagatagtggaagttatgttaacatagtaacagattcacaatatgtagtaggtatactagcaagc  
agacctactgaaacagatcaccccatagtaaaaggaaataatagaattaatgaaaggaaaagaaaaaatttattta  
agttggctaccagcacacaaaagggtataggagggaatgagcaaatagataagctagtaagttcaggaatcagaaaa  
gtcttattcctacaaaatatagaaccagcacaggaagaacatgagaaatatcatagcaatgaagcacaaattaaga  
gagaaattccacttaccagctctagtagccaaacagattgtgcaaagttgcagtaagtgctgtcatcatggagag  
cccataaaaggacagacagatgcttcacttggagctctggcagatagattgcacacatctggaaaaatcaaattatt  
atagtagcagtgcatgtagcttcaggcttcatgaaggcagaagttataacagcagaaactggaaaaagacagca  
gagtttctgttaaagtttagcagcacaaatggcctattagtaaaactacacacagataatgggcctaactttactagt  
caggaagtagaaacctgtgttgggtgggttagggatagaacacacatttggaaatccctataacccacaaaagtcag  
gggtagtggaataaaaaataagtatctaaaagaattgattgagaaaaataagagaagattgcaaaagaattaaaa  
acagcagtagccatggccacattcattcataatttttaacaaaagggggaggactaggggggatgacagcaggagag  
agaatagtaaatatgatcaatacagaattagaatatcaatatcaacaaaatcaaatttcaaaaaatttaaatttt  
aaggtttacttcagagaaggaagagatcagctgtggaaaggacctggtatccttttgtggaaaggagaaggggca  
gtagtttttaaaatatcaagaagagataaaagatagtagctagaagaaagtgtaaaataataaaaagat

>#29 AF131870 2769 nt

aaggctctcattaatgggcaacctgtgactgctttattggcacagggagcagatgacacaatagtgtctgaagat  
tctgtgtccatagaaggctcactggaagcccagggtagtggttggtatagggggacaaattagagtaaaagaatat  
gcagatgtctttgtagaaattagggtataaaacagctacaggaacagtggttggtggggccaacaccagtagatatc  
ataggggagaaatattctttcagccttagggggaagattagtttttagccactcttagtgaaaagatcccaattaca  
aaagtttaagttaaaagaaggggcccgtggacaaaagtgaacaatggccctgtcaaggggagaaaaatagaaggc  
ctacagaaaaatttgtgatagattggaagcagaaggaaagattagcaggggcagaccagggaacccttataacaca  
ccaatttttgtataaagaagaaagacaaaaatgaatggagaaagttaatagatttttagagtactaaatggtatg  
actcaagactttcatgagttacagttagggttccctcatccagcaggattaaagaagtgtaaacagattacagta  
gtagatgtgggggatgcatacttctcaataccattggatccagattatagaaagtatacagcattcacaataccg  
tcagtaaaataatcaggcaccaggaaaaagatatgtgtataatgtcctaccacagggtggaagggaagtccttgc  
atctttcagggaacggtagcgcacctcttagagaaatttagaagacagtatccagaagttcaattgtaccaatac  
atggatgatttactcataggatctgattatgagaaaaagaagcatgaagaaatagtgaacaattgaggcagcta  
ctcatggaatggaatttagaaacaccagagaaaaaatatcaggggagagccaccctataagtggatggggtacata  
ttacaccagacagatgggagatagagaagataaaaattaccccctctagaagaagagccaacagtgaaatgacata  
cagaaattgtaggagttatcaattgggcttcacaatttatgaagggtcagaacaaaagaattatgtaaacta  
attagagggaataaaccattagcagagaaagtaaatgacagaagaagctagggaagaataccagagtaatcag  
gaggtattacaggagtcagtatcaggcagttactatgaaccagataaagaattaatttgcagagtgcaaaaggta

aagcaaggaatattaacctttcaatggttgacagggaaaacaagtattaagggtaggaagatatcaaaagagagggg  
gcagcacatgagaatccttgtcaacaggttagcagctgccctacaaaagataggaagagaaaagcatagttatatgg  
ggatttgtgccaaagatacaggtacccatacaaaagagagatatggagtcagtggtgggcagactactggcagtg  
acatggatccctgagttagaatttgtcagcactcctaagttggagcaagagtggtatactctagccacagaacca  
gtgccaggagacacctactatgtggatggagcagctgaaaagctagaaaagagaggggaaagcaggatatataacc  
cagggaggaagatccagagtttaagaaattggaaaacaccaccaatcagcaagcagaactagaggctataaaaatg  
gccttgaggatagtaggagctcagttaatatagtaacagactcacagtatgccttaagactgctcagtaagaga  
cccacagaaacagattcagagctagtaaaaggagatcgtagagctcataaggcaaaaggaccagggtatacctaggt  
tgggtaccggcacacaaaaggaataggaggaaatcaagaaatagatcaactagttagccagggaatcagaaagaga  
caggtaatgtttatagaaaagatagaaccagctgtagaagaacatgggaagttccataacaatgcagcctctttg  
caggagatgtttgacatacccctagtggttagcaaagcagatagtcfaatgtgacacatgtcaacagaaaggg  
gaagccataacaggacaagtagatgcctcagtgggcatctggcagatagattgcacccacatggaagaaaaagtc  
ataatagtagcgggtgcatgtggcttcaggggtatatggttagcagaagtactaccaatgagcaagggaagacaaca  
gccacttggtgttaaaagctctgtgccatgtggccagtaaaacagatacatacagataatgggccaatttcatc  
agtaaagatgtggaggcagtatgttggtggttaggcatacagcatacaacagggtaccttacaaccctcagagt  
caaggagtagtggaagcaagaacaaggtattaaaacaaattatcagcagaattagagaagatgcacaggaattg  
aaaactgcagtactcatggctctgcacattcataatttttaacaaaaggggaggactagggggaatgacagcagca  
gagaggtttatcaacatgattaatgcagatctagaaacacaatacttacagaaaataaattcaaaaattttaaaa  
tttaaggtctactacagagaaggaagagatcctcagtggaaggacctgctaaacttctgtggaaaggggaagga  
gcagtagtcatcaaacagggtgagaacatcctggtagtacctaggagaaaagcaaaactagtaaaaggac

>#30 AF075269 2775 nt

agtatatgttggtcaatgggcaaccagtggtcagcactggttgacactggggctgatgacacaattttttcagaaaa  
tcagtaagaatagaaggaccctatactccaagagtagtagggggcataggggggcaaattagggtaaaagaatat  
agagatgtctttatagaaatagcaggaaaaactacagtagggacagtccttattaggacctacccagtagatatt  
gtagggaggaatattttaactgcaatgggggcaaattgatttttagctcagttaagtataaaattcctattaca  
aaggatatctttaaacctgggtgtgatggaccaagagtaaaagcagtggtccttatcaaaagagaaaaatagaaggc  
ctacaagctatttgtgatagggttagaaaaagaaggaaaaatatctccagtggtccagggaacccatacaatact  
ccaatatttgcctatcaagaagaaagacaaaaatgaatggagaaaagtttaattgatttcagaaaagctcaatgaatta  
actcaagactttcatgagctacaattaggtattccacaccagcaggtatcaagaaatgcaaacagattacagta  
gtagacataggagatgcctattttagtatcccttttagatccaaattacagaaaagtatacagcatttactatacct  
tctctcaataatcaagagccaggaaaaagatatcagtaacaatgtgctgccacaaggggtggaaggggagcccttgt  
atatttcagggaacagtagcaggacttctctcagagtttaggaaattaaatccagacatgatcatttaccatatt  
atggatgatttattcataggatcagatagagagagaaaaaggacatgatcaggcagtaaaagaactcagagaactt  
cttatgacatggaacttagagacaccagaaaaagaagttccaagcagagccaccctatcattggatgggttatgta  
ctgcatcctgatagggtgggaaatagaaaagattaaattaccagagatggatctaacaaaaactacagtaaatcaa  
atacagaaaactggtgggagtagtacttaattgggcagctcaattgtatgatggtattaggacaaaagaactctgcaa  
ttaataaggggagtaaaacccttggaagaaatcataaactggacagaggaagccttggaagaatatgggcagaac  
aaagaggtacttaagaaaagatgcagggagcctattatgaccagaaaaggaacttattgtcaggggtacagcaa  
aacaacaaaggggataattactttccagtgtagacaaggaaataacatcttaagagctgggaggtatcaaaagacag  
aaggcagcacacacaaatcccctacagaaattagtagaagctattcagaagataggaaaagaaagcatagtcac  
tggggctttgtgccaaaaattcaagtcccagtgactagagaagctctgggagcactggtggagcgaccactggcag  
gttacatggattccagacttagaattcatttctaccccgcaattagaacaagagtggtacatttgggagggcagaa  
cccataatagggttagacacctactatgtagatggagcagcagaaaaggtaggaaaaacaggaaaagcaggatat  
ataacacaatcagggaagagaaaagtaaaaggagtttaactgacaccacaaatcagcaagcagaactagaggcagtt  
ctaattggcattacaagatagcaatagtaaaagtaaatatagtaacagattcacaatatgtaatgaaaatattgtca  
caaagaccaacagaaacagaacaccccatagtaaaagacatcatagaacaatgcaagcagaaaagatcaagtttat  
ctaggatgggtgctgctcataaaggaataggaggtaatcaagaggtagaccacctagtaagtaaaaggtataaga  
cagaaacagggtcatgtttctagaaaagatagaacctgcagtagaagaacatagcaaatccataacaatgcaaag  
gatctagaagaaaaatttaacctaccccccatggtagccaaacaaattgtcaatgactgtgcaaactgtcaaaag  
aaaggagaagccataacaggacaagtggtgtctcagtggttatttggcagctagactgtactcacttagaagga  
cagggtcattataaatgcagtcctatgtggcctcagggttcatggttgcaagttataaccagatgagacaggaaaa  
acaacgtcacatttctgtttaaattatgcagtagatggcctgtaaaacaaatacatacagacaatggtccaaat  
tttgtaagtaaggaggtacaggcagtaacctgggtggatagggtatagaacatacaactgggataccttataacct  
cagagtcaaggggtttagaagcaaaaaacaaagtttttaaaaggtattatagaaaagagtaagagaagatgcacag  
caactaaaaacagcagtagtactaatggcagtcacatttcataatttttaacaaaaggggaggactaggggggcttaca

ccagcagagaggtttattaatatgattaatgcagaactagaaacacaatatctacaaaaattaaattcaaaaatt  
ttaaatttaagggtttattacagacaaggaagagatcctcagtggaaggaccagcgcaacttctgtggaaggga  
gaaggtgctgtagtggtaaaagaaggggagaaacatcttctcagtcgccagagaaaagcaaaactagtaaaagat  
>#31 AF188116 2775 nt

aaagtactggtcaatgggcaagaagtaactgccctattggacactggagcagatgatacaatcttttctgaaaat  
tcagttagaatagaaggaccttatactccaagagtagtagggggtatagggggacaaattaaagtaaaagaattc  
agggatgtttttatacaaatagcaggggaagaccacagtagggacagttttgctaggaccaaccccgtagatata  
gtaggaagaaacatttttaaccctctaggggctagattagtgttagcacaattaagtgagaaaaatacctataaca  
aaggtgcatttgaagccaggggtgtgatgggccaagagtaaaacagtgggcactatccaagaaaaaataagaagga  
ttacaagcaatttgtgatagattagaaaaggaagggaaaaatatccccagttgatccaggaaatccttacaacacc  
ccaatctttgctataaagaaaaaggacaaaaatgaatggagaaagttgatagatttcagaaaattaaatgagtta  
acacaagactttcatgagctacagttaggaataccacaccagcaggaataaagaaatgcaaacaaattacagta  
gtagatataggagatgcctatttcagcataccttttagatcctgattacagacaatatatactgcgttcactataccg  
tcactaaacaatcaggaaccaggaaaaagatatcagttataatgtgttgccacaaggatggaaggggagtccttgt  
atttttcaagaaacagttagtggactccttgacagagttcaggaaattaaatccagacatactcctctaccagtac  
atggatgatttgttcataggttcagacagggagaaagaaggacatagtcaggcagtaaaagaattaagagaactt  
ttaataacttggaaacttagaaactccagagaagaaatttcaagacaaaccaccctaccattggatggggtatgtc  
ctgcacccagatagatgggaaatagagagagtaaaaactgccagagatagacacaaggaaaaactacagtaaatgaa  
attcagaaactggtaggagtttttaattgggcagcacaaactgtatgatggaatcagaacaaaagagctctgtaag  
ttgattagaggagtaaaagcccttggaaacaactagtgcattggacagaggaagcactagaagaatatgagaccaat  
aagacaattctaaaagaaaaagtaacagggggccttactatgatccaagttaaagaacttgtagtaaggggtacaacag  
aacaagaaaaggggttataactttccaatggaggcaaggaaatgccatttctaagagcaggaagatatcaagacaa  
aagagtgtcacatgaatcccccttcagcaatttagcagaagctgtacagaaaaataggaaaagaaagcatagtcatt  
tgggggttttgtaccaaaagatacaagtaacctgtcactagagaaacatgggaaaaattggtggataaaacttttggcaa  
gtaacttggataccagacttagaattcatctccacacctcaattagaacaggaatggtatagcttggaaagcagaa  
cccatagaaggtacagatacctactatgtggatggagctgcagaaaagagtaggtaaaacaggaaaaagcaggggtat  
ataactcaatcaggaagagagaaaaataaaagaattacaagatactactaatcagcaggcagaattagaggcagta  
ttgttagctttacaagatagcaaatcaacagttacatagtaactgactcccaatatgtaatgaagggtcttaagt  
cagagacctacagaaactgagcatcctatagtgaagaacatcataaaggagctgcagaagaaagatgcagtttac  
ctaggatgggtaccagctcataaaggatagggggaaaccaggagatagatcaattagttattaaaggaattagg  
acaaaacaggtcatgtttctggagaagatagaaccagctgtagaagagcatggaaagtttcacaataatgcaaaa  
gacttagaagaaaagtatgggataccccccatggtagctaagcaaatagtaaatgagtggtgctaagtgtcagcag  
aaggggagaagccataacaggtcaagtagatgtatcagtggggtatttggcaactggattgtactcacctagaaggg  
caaatcatcatgaatgcagtcacatagggcatcaggcttcatgggtgcagaagtgattccagatgaaacaggggaaa  
actacagcaaatTTTTTTgttaaagttatgtagcagatggcctgtaaaaacaaattcacacagataatggtccaaat  
tttgtgagtaaaagatgtacagggcagtgacctgggtggttaagtatagagcacacaacaggggataccatataaccct  
caaagtcaaggagtagtagaggcaaaaaataaagtttttaagcaaatcatagaaagagtaagagaagatgcacag  
cagctaaagacagcagtggttaatggcagtcacattcataatttttaacaaaggggaggactgggggggttatca  
ccagcagagagatacatcaatatgatcaatgcagatttagaaactcaatacatacaaaaattaaattcaaaaatt  
ttaaatttaagggtttactacagacaaggaagagatccacagtgagaggacctgctcaacttctgtggaaggga  
gaaggtgctgtagtggtaaaaggaggagagaaacattttctctatccccaggaggaaagcaaaatttagtgaaagat  
>#32 AF188115 2775 nt

aacattctggtcaataggcagccagtggtctgtctcttcttgacactagggcagatgataccatcttttcagaaaaat  
tcagttaaaatagagggaaccttatacacctagagtagtagggggaatagggggacaaattagagtaaaagaatac  
aaggatgtctttatagaaatagcaggggaagacaacagtagggacagtagtatttaggacctacaccagtagacatt  
gtaggaagaaatattttaactagtgtgggagcaaaattagtactagcacaaattaagtgacaaaaatacctatcaca  
aaggtcagattgaagccaggctgtgatgggtcccagagtaaaacagtggcctttgtcaaaagaaaaagatagagggc  
ctacaagcaatttgtgatagattagaaaaagaagggaaaaatatcaaaagcagatgcaggaaacccatataacaca  
ccaatctttgccataaagaagaaggacaaaaatgagtgagagaaaactgattgatttttagacaactaaatgcttta  
acacaagaccttcatgaagtacaattaggcattccacatcctgcaggaataaagaaatgcaagcaaaataacagtg  
gtagatataggagatgcctatttttagtattccccctggatccagactatagacagtacacagcattcacagtaacca  
tctattaataaccaggaaccagggagaaagatatcagttataatgtactaccccaaggatggaaggggagtcctatgc  
atttttcaagctacagtagcaggactcctatcagaatttagaaaaattaaacctgacataatcctgtatcaatac  
atggatgatttactcataggggtcagatagggacaagaaagggcatgatcaggcagtaaaagaattaagagagctc  
ttaatgacatggaatttagaaacaccagaaaaagaatttcaagcagagcctccctatcattggatggggtatgta



cttcatccagataggtgggaaatagagaaaagttaaactgccagacatagaccttcagaagacaacagtaaacaaac  
atacagaagctagtaggagctctgaattgggcagcacaaactttatgagggaattagaactaaagaactttgtaaa  
ttaattaggggggtaaaagctctagaagaagttgtaacctggacagatgcagcattagaagaatatgaacaaaac  
caacagatactaaaagaaaaactgcaggggagcttattatgaccctactaaagaattggtagtaagagtagcagcag  
aataaaaagggggctattaccttccagtgagggaaggaattctattctgagagcaggaaggtatcaaaggcaa  
aaagcagctcacacaaatcccctacaaaagttggcagaggcagtagcaaaaaataggaaaagagagtagtagtcatt  
tggggctcatgtgcctaagatccaggtaccagtaacaagagaagtggtggatcaatgggtggagtgatcattggcag  
gtcacctggatacctgaattggagtttatctcaacccacagtttagaacaggaatgggtatagcttagaagcagaa  
cccatagaaggggtagatacctattatgtagatggagctgcagaaaaagtagggaaaacaggaaaagcaggttat  
gtcacacaatcaggaaaggagaaagttaaagaattaacagataccaccaatcaacaagcagaattagaggctgtc  
ttattggcattaaaagacagtaaaagcagggtcaacatagtaacagactcacaatatgtgatgaaagtcttatct  
caacggcctacagaaacagaacaccctgtagtgaaagcagattatagaggaaatgtaagaagaaagaccaagtatat  
ctaggatgggtaccagctcaciaaaggtatagggggaaatcaagaagtagaccacctagtcagtaagggaattaga  
caaatacaagtactgtttctagaaaaaatagagccagcacaggaagagcatagcaaatttcataataatgctaaa  
gatctagaagaaaaatttcacctacccccctatggtagctaagcaaatagtgaaacagttgtataaatgtcagaca  
aagggagaagccataacaggacaagtagatacttcaccagggtatttggcaaatagactgcactcacatggaggga  
caggtaatcattaatgcaatccatgtggcctgtggatttatggtagcagaagtaattccagatgaaacagggaaa  
acaacagcaaacttccctgttaaaactgtgcagcagatggccagtagcagaagtcctacagacaatggaccaaac  
tttgtcagcaaggaggtacaagcagtaaacctgggtggctaggtattgaacactcaacagggttcccttacaatccc  
cagagtcagggtagtagttgaagccaaaaataaagtgtctaaagcaaatcatagaaaagggttagagaagatgctcaa  
caattaaagacagctgtcctaattggcagtagcacattcataatttttaacaaaaggaggactaggggggctttca  
ccagcagaaagggtttattaatatgattaatgcagacttagaaacacaaatatttacaaaaactaaattcaaaaatt  
ttaaattttaagggtttactacagacaaggacgagatcctcagtggaaggacctgcacaaattctgtggaaagga  
gaagggtgctgtagtggtaaaagaaggagataccatcttctcagtcgccagaagaaaagctaagctagtaaaagat  
>#33 AY523867 2769 nt

gaaataaatgtagaagggaaccaaggtaacaatgttgctggacacaggggagatgacaccataataagagaacaa  
gacatccagttacatcaaccttggacccccaaaaatagtagggggattaggaggaaacataagggttaagacaatat  
aaccagatcagattttcaaataagaaagaccagatgggagaataaagggaagtagagggtagtccttctagtaggacct  
acaccagtaaatatttttaggaagaaacatatattgagcaaatggggagcaaaattagtaatgatagcacaaaaatta  
gaaccaatgaaagtccaactaaagccagggaaggagctacctaataaaacagtggcctctgacaagagaaaaa  
cttgagggcactgcgagcaatagtttcagatatgcttgaaaaggggcaattggaaaaggcctccccctacaaatcct  
tataataccccagttttttgtaatacaaaaagaaggacaaattaaaatggaggatgcctatggatttttaggaaactc  
aatgaagcaacacaggacttttgggaagtacagtttaggaataacctcatccaggagggtcagtagcaaaaagaatg  
acagtattagacttgaaagacgcctattacacagtagcctctagatgaagagttcagacagtagatacagcatttaca  
gtgcccagtagataaacaattcttctccaggagagagataaccagttcaagggtgttgccacaaggatggaagggtatcg  
cccactatctttcaggcaacagtaaatcagatactccaacctataagggaagaaatcagatatataataatagta  
cagtagcatggatgaccttttggtaggggtctaacagatcagaaaaaggaacatgggtcaaattgtgaagtgaattgtga  
aaaagtctatttagcagtaggattctctattccaccagaaaaatggcaggacaaattcccccttgcaatggttaggg  
tacacgctacacctgataagtggaggtctacaaaaggttcaactaccagaaattacagaatcaccaacagttaat  
gagttacagaaaaataataggagtcctaaattgggcaagtcacaaatatatcctgggtatcaaatgtaaagcattgagt  
aagtgcataagagggggcaaaagcacttaccgacattgtagaactgacagaagaggcagaagcagaaatggctgaa  
aatagagagatactcaaagtagaacaacagggtcttattatcagccagaaaaaccattagaagcacacattagc  
aagttaggacaacaacagtggggtacataattaaacaaggggccacaagaaaaacctctgatcacaggaaaaaca  
ggaaaagcatatgagcccatcacaaatgattaccaggcattgggtcagctgatgaataaaaataggaatacaagcc  
ctatggatttggggaaaaatccctgaattccacctcccagtaaaaaagggaagaatgggaaaaatgggtggacagat  
cactggcaagcaacatgggttgccagaagtaaaatgtgtgcaccccccatattagtttagatgggtattacaatttg  
gtttcagagccagtagaagcagaaacattttatgtcgatggggccgctaataaggaatagcaaaagaaggacaagca  
ggttacataacagataggggttaacagacattaaagaggttggaacacacaaccaatcaaaagggtgagttagaa  
gcagtattaatggcattacaagactcaggaccagaagttacatagtaacagattctcagtagcatttaggaata  
ttaatgaactgtcctacatcctcggaacaccagtagtcgaacagattatgcaaaaggctatggagaaagaaaag  
atctacataacctgggttccagcccataaaggaataggaggaaatcaagaagtagatcaattagtaagtaaggga  
attaggaaaaatactgtttctggataacatcccaaaagcacaggaagaacatgagaaatatcacactaatgtagaa  
tacataaggcaagaatttcatctacccagacaggtagccaaagctatagtagaaatgtgtcccaaatgccaaatc  
agaggagaacaaaacatgggcaagtagacacagatctaggtacatggcaaatggattgtacccacttagaagga  
aaagtaatttgtgtagcagtaaacacagccagtggggtatacagaaactaaaatattgaaaagagaaacaggggcaa

gaaacaggactattccttttgcaaatagcagcaagatggccaattaacatatacatacagacaatgggtccaaac  
ttcatcagtgatgcctttgctggcagcctgttggtgggcaggagtcgaacacaccacaggaataccatacaatcca  
caaagccagggaatagtagaaaaacaaaatagacaattaaaagaaacccatcaatcaaattagggagaagtagaa  
agattagagacagcggtggcaatggccacgttcatttttaatttttaaaagaaagggaggaataggggggactaca  
ccagcagataggtatattaacatgctatacacagaactacaactacaaaatacacacacacaaaaattttcgaat  
tttaaagtatattatagacatgggtacttctgattggcagggaccagcttctctactgtggaagggagaaggagca  
gtagtgatccagacaccagatcaacaggtaatagcagtagctagaaggaaagcaaaaatcatcagcagt

>#34 AY655744 2760 nt

aaagtgctgatagaaggacaagaggtggaggtactcctagacacaggagcagatgacacaattatacaagtagga  
gaaatagaatttgaaggagtagccccacaaaaaacagtagggggattggcaggatacatacaagtgcagggttat  
agtgccatagaaatacagtggggaaaacaaaagagcaagggacacagttttgattggaccaacgccaattaacatt  
ctagggagaaaatttttttagcaaaaatttagtggtacacttaacatgggtcagctcagacataccgataaccaaggtt  
aaattaaaagagggtaaggaaccccccaaatcaagcaatggcccttaaccagagaaaaaatagaagggtacaa  
atcatcatagacgacatgggtgaaggcaggacagtttagaggaggttggtgacggaaaatccatataattctccagt  
ttcgctatcagaaagaaggacaaaactcaatggagaatgctcatagacttccgcgccttaaatcaagcaacccaa  
gacttcgcggaagtacaacaggggatacctcaccctcaggcctgcctcagatgaagcaataacgggtcctagac  
atgaaggatgcctattacagcatccccttagaccagacttctcagctacacagccttcaccatcccgtctctg  
aacaatgataggccaggaagaagatatcaattcaaggtgctaccccaaggatggaaggggttcgcccaccatcttc  
caacatacctcggatcaattattgaggaaaattcagggaacagtagccctcaggtagcactctttcaatacatggat  
gacctatttggttaggaagcaatgagagcttgagggaacatagaaggatagtaggagaactaagagctctcttaaac  
aaggtagggatccagaccccagaggctaaataccaagacaaaccgcccattaaatggctaggggtatgaattgtat  
ccagataagtggaaagtacagcctattgaattgccagataaaactcacatggacagtcattgagttacagaagtta  
ataggaaaacttaattgggcatgccaaatatattctgggtattaaaacaaaaggccctctgcagggtacctcagggga  
gtaaaaggacttctagaagaagtacagttatcagaggaagcagaggcagaatttagcagaaaaacaggggaaatctta  
gcagaagaaactcacgggtacatattaccaggaaggagagccctggaggcagaactgaccaaatggcagaaggt  
caatggggctatatgataaaaacaaggcaaacgggtctttaaacaacaggcaagtttgccaaacagagaaacagcacac  
agtaacccttatcaacagttaataggagctatgcagaaaaataggcaaggagtcctatagctcttttgggggcaggta  
ccagttattcaggatcccagtggtcaaggaggaatgggaacagtggtggacagaacactggcaatgctcatggata  
cccaccatcgtgcccattcacacaccaccattagttaggctatgggtataacctagtgcaggagcccatagaagga  
gcagacacgtattacgtagacgggtgcagcccaccgagagtcaaaagaaggcaaggcaggatacgtgactgcaaca  
ggaaaagaacatgtcatcaagtttagaaaaaactaccaacaaaaggcagaatttgaagcagtagctattggcactc  
aaagattcaggggccaaggtaaatatagtcacagactctcagtatgtctatggcatattggcaggaagccccaca  
gaaacagataacaagataatagaagacattatccagctactactaagcaaggagcagtcacttggcttggtg  
ccggcccacaaaggcataggaggaaatgaacaggtggataagtttagtaagccaaggaatcaggaagatccttttt  
gtagaacagatcccagaagcacaagaagaacatgagagataccataataattggagggatcttaaggcaagattt  
aagttacccaccatagtagccaaggctattatagaagcatgccccaaatgtcaagtacaaggagaacctaaagaca  
ggacagaacaatgcagctgtagggacatggcaaatggattgcacccatttgaggggacaaatcatctgtgtagca  
gtacacgtggccagtggttacatagagactaagattctgccaaaggagacggggcgaggagaccgcccctctttctc  
ttacaagtggccagcagatggcctataagccacctgcatacagacaatgggcccacactttgtctcagcagaaatg  
caggccatgggtatgggtggctcaaaaatagagcactccgcaggaggtccatataatcctcaatcccaggagcagta  
gaaaacaaaaataaacagctcaagaagacaatcacacaaattagggtatgaagtacaataacctgtccacagcagtg  
gcacaggcgacttttcattttgaattataaaagaagaggggggattaggggatatgtgccagcagaagcaataatt  
aacatgatctacacagaactacaaactacacaaactacaaaaccaaattcaaaaatttttcggattttaagggtctat  
tacagaaaggggtctaactcctcttttggcagggaccagctcacctcatttggaaggagaaggagcggtgtcttg  
cgaacagacgaaggagaggtaatcacagtccttagaagggaaggcaaaaataattaagccc

>#35 AY523865 2754 nt

acagtacacatagaagggaagaaaagtccaggtgctaatagatacaggggcagatgataccattatttcagaaaaa  
gatatagatatttagaggcaccttggaacccccaaaaaacagtagggggattaggaggtttcataaatgtcaaatgttac  
ccagggatagaaattgcaatggctaataaggtagcagtatcagatctattagtaggagataccccaattaatatt  
ctaggaagaaattattttagcaaaaatgggggtatctataaattttccagtagtagattatccccagtaaaatta  
aaagagggggcagatggaccaaaagattaaacaatggccactttcaagggaaaaaatagaggccttaaaagatatc  
ttaaagcccattgatagaggcaggacagatagtcccggcagcgccccaccaacccatataactctccagtggttgta  
ataaagaagaaggacaaaagtaagtggcgaatgctaatagacttaagagccttaaacaggccacacaggaggtg  
tgggaggtgcagacaggtataccacacccatctgcactaccacaaatggaacagatcactgtcttagatcttgca  
gatgcctattattcaatagcactagacccaacattttgcaaaaatacacagcattcacagtagcatctgtcaataat

atacaaccaggagaaagatatgagttcagagtactgcctcagggatggagcgcttcaccagccatTTTTcaagcc  
tcagtagggagacagttacagatctttagggaaaagaatccagagctaataatagtcaggtatattgaggtat  
ctagtagggtagattttaaggaaagatcaacacctaagaaggtagcacaaattaagacagttcctcctagagagg  
ggattgaggacaccacctgagaagtatcaggaagaccacccttctactggatgggggtatgagttacaccctaaa  
aaatggcggttgatgccagttaccctaccagatgaagaagaatggacagtgcataaaattcagaagttagtagga  
cagttaaattgggcaagccaaatttattcagggataaaaaacaaaacacttatgtagggcaatcagaggggtcccg  
ggattaacagaccgggttaccctctctgaagaagctcaagcagaacttagagagaacaaggaaatcctgaagcaa  
gaagtgtcaggagtttactataaagagcaggaaccattaatagcagaattatccaaattagggaaaggacaatgg  
ggatatgtgatcagacaacctaaagggaatattaaagacaggaaaattctctagagataaaggagctcactataat  
gatttccatcaattagctaagggtatgtataaaataggaacagaaaagcatagtttttggggaagaataccacag  
ttcagggtcccagtggtaaaagaagaatgggacaattgggtggcataatcactggcaagccgctggatcccagac  
tgggaggcaatacataccacacatctggtcaagctctggtatgagctggtgtcagaaccataccagatgcagac  
acctactatgtagatggggcagctaacagggagtcctaaattagggaaagctggctatgtcacagagtggggaaaa  
caaagtgtaaaatgcttagagaataccactaatcagaagcagaattagaagccatattgttggccttggaagaa  
ggcccatcaaaaatgaatatagtaacagactcccagtatgcactggggataatttttagaacacccatctgagaca  
gaacataagatagtagaaaaggtaatacaggccttgcaagggaaagaacaaatttatctagcatgggtaccagcc  
cacaagggaataggaggaaatgaccaggtagataaattagtcagtaaaggaataaggaggatcctcttcttgga  
agggtagaggaagcccaaggagaccatgaaaaataccatgggaattggaaacaattaagggtatgaataccaacta  
cctacactcatagctaagcaattataacacaatgccccaaatgtcagacaagaggggagccacacatggtcag  
gtggatgcctcaatgggcatctggcagatggactgcacccatctggaaaacaaaataataatagtggcagtcctat  
gtggctagtggatatatagagaccaagatcctaccagcagaaaacaggaaaagagacagctctgttctgttacag  
ttaggagcaagatggccagtaactcagatacacacagacaatggacccaactttatcagtcacccagtcaggca  
gcttgctggtggctaggtattgagcacaccacaggggtaccatataaccacaaaagccagggagtggtagaaagt  
aagaacaggattctaaaagataccatcaaacaatcagagatgatgcagagagattggaaacagcagtagcaatg  
gctacctacataattaatttttaaaagaaggggaggaataggggatatgtctccgatagaaagactagtaaacatg  
ataacaacagaaatagaaacaaaaactttacaacaaaaaatttcaaaacttttaggcttcaaggtctattacaga  
gaaggtgctgatccaacttggaagggccagcaaccctgctgtggaaaggagaaggtgcagtggtgtgcaagaca  
gaggttaggagatatcaaagtggtccctagaaggaaagcaaaagtaatacaagaa

>#36 AY523866 2754 nt

gcagtatatgtggaaggaaaaagggtccaggtgctaataagacacaggtgcagatgatacaattatttcagagaaa  
gatttagatttagatgcaccttggaacccgaaaacagtggggggattaggggatttatcaatgtaaaatgctac  
ccagggtatagagattaaaatggcagacaaggtagctgtttcagatgtgttagtaggtgataccccaatcaacata  
ttgggaaggaattattttggcaaagatgggggtatccataaattttccagtatgttgactttacaccagtaaagttg  
aaggagggagctgatggcccaaggattaaacagtggtccctttcaagagaaaaaatagaagccttaaaagagatc  
ataaggcctatggtagaagcaggacagatagtcacacagagcccactaaccatataagctctcctgtgtttgtt  
ataaagaagaaggacaagaataaatggagaatgcttatagacctgagagcccttaataagggtacccaggatgtc  
tgggaagtgcacacagggatcccgcaacccctcggggttgccacaaatggaacagataacagtccttagacttggca  
gatgcctattattcaatacccttggtccacagtttgacgttatacagcattcacaataccttcggtgaacaat  
acacaaccaggagagagatatgagttcagagtactacctcaaggctggagtgcacaccagccatattccaggca  
acagtgggcaggcagctgaaactttttaaggaaaaataaccagacttaattatagtcacatataatggatgacctta  
ttggtaggatcaaatttagataaggtctcacatttagaacagggtaaaacagcttaggaaatttctcctagaaaag  
gggttaaggacacccccggagaaataccaggaggatccccataccattggatgggggtatgagttacatccaaag  
aaatggcacttggttgccaatagagctaccagaagaggaggagtggacagtcacaaaaatccagaaactggttagga  
cagttaaattgggcaagtcagatatactcaggaataaaagaccaaacacttggtgcaaggcaatcagaggggttcca  
gggctaacagataaaagtaagcctttcagagggaagcacaagcagaactgaggggagaataaaagaaactcccaaacag  
gaagtctcaggggtatactacaaagaagatgagcccctaataatcagagatttccaaaataggaagaggacagtggtg  
ggatatgtaattagacaaacaaagggttgctaaaaacaggggaaattctcaaaggacaagggaactcattataat  
gactttcatcaactagctaaggcaatgtataaaataggcacagagagtatagctatttggggaaaagttcccaa  
tttaggttgccagtagtaaaggaagaatgggataactgggtggcataaccactggcaggccacttggtccctgac  
tgggaggcggtgcataccccacaactagtcaggctatggtatgagcttgatcagagccaataccagatgctgac  
acctattatgtagatggagcagctaataagggaatcaaaaatgggaaaagcaggctacatatcagaatggggaaaa  
caggagtaaaaagtctggaaaatactaccaatcaaaaggcagaattagaagccatcctactggccttgaggag  
ggaccctccaagatgaacatagtaacagactcccagtatgcttttaggaatattgttagaacaccccacggaaaca  
gaacatgagatagtagaaaagatcatacagccttacaagaaaagggaacaggtatatcttaattgggtaccagcc  
cacaaggtataggagggaatgatcaggtagacaaattggtaagtagaggaataaggagaatcctattcttgga

agagtagaagaggctcaagaggatcatgagaaatatcatggtaattggaaacaattgagagatgaatttcagtta  
cctaccttaatagccaagcagattattgcgagtggtccaaagtccagataaagggagagcctatgcatgggtcaa  
gtagatgcctccatgggggtatggcaaatagattgcacccacctagaaaacaaagtcacatagtagcagtgcat  
gtagctagtggatttatggagactaagggtcttatcagcagaaactggaaaggaaacagccttattcttattacag  
ttgggggcaagatggcccattaaacagatacacacagacaatggaccaaatctcataagtcagccagtcaggca  
gcatgttggtggttggaatagatcactacaggggtaccatataaccacaaaagtcaggggtagtagaaagc  
aaaaatagggtcctaaaagaaactatcaaacaatttagagaagatgcagaaagactagaaacagcagtagcaatg  
gccaccttcattattaatttttaaagaaggggaggaataggggatatggcagcaatagagagactagtaaactg  
ataactacagacttggaacacaaaaccttacaacaaaaaatttcaaaacttttaggttacaaggtatattacaga  
gaaggagctgacccaacttggaagggacccgctaccttactgtggaaaggagaaggagcggtggtgtgtaaaaca  
gaggtaggagacataaaggtagtaccagaagaaaagccaaggtgataaaagat

>#37 FJ919724 2760 nt

acaatagagatagaggggaagaaggggtgcaggttctattagatacaggggcagatgatactataattcatgagaaa  
gatattcaacttacctcacccttgtcccaaaaacagtaggggggtctgggaggtttataaatgtaagatgttat  
ccagggatagaaatccaatgtcaaggtaaggttagcagtaggggaagtcctagtgggagagacacccattaatatt  
ttagggaggaatttcttagcacccttaggtctctcgataaacatgctagagagtcagattcaatataccccagtg  
aaattaaaagaaggggaagtcaggaccaaaagtcacaacatgggcctctagccagggaaaagatagagggtctcag  
ggaaatagtggaagatggtggaggaaggccaatgggtcctgcctcaccacccaatccatataactcacctgtg  
tttgccattaaaaagaaagacaagaacaaatggagaatgttaatatagatcttagagaattgaacaaggcaacacaa  
ccagtttgggaggtccagacagggatcccgacccagcaggtctgccacagaaaaggcagataacagttttggac  
atagcagatgcatactattctataccattagatccatcctttgctcagtatacggcattttactataccatcagtt  
aataacacagcccctggagagaggtatgagttcaggggtgctgccacaaggatggagtgcacaccagctatattc  
caacacactgttcacggttattggaaggatttagaaaagaaatacccagatgtactcatagtcacagtcacatggat  
gacctattggtagggtcagacagaacagaagaacaacacagactagtagtcaaaacactaagagattatctccta  
gagagggggttaaaaacacccccagagaaaatttcaggcagagccccctatcagtggatgggatatgtccttcac  
ccaaaaaagtggtactaccaaccaattcagatccctgaggaagaggaatggactgttaataaaatacagaaaacta  
gtaggaatcttgaattgggcaagccaaatatattcaggggataaaaaacaaaacacctgtgcaagagtattagaggg  
gttccagggttaacagaccctgtaaagtttaacagaagaggcacaggccgagctggaagaagccagacagatctta  
aaagaacaagtgtcagggacctattacaaagaacaggaggacctcatagcagacattactaagctttcagaaggg  
caatggggatacaccattagacagtcaaaagggaatcctgaaaacaggcaaatatgcaaaggcaaaaggggcacat  
ttcaatgattttcatcagatagcaaaattgatgatgaaggtaggaacagaaagcatagtaacatgggggaggtta  
cccacatttaggttacctgtccagaagcaggactgggatggatggtggcatgagcattggcaagccacttggtac  
ccagaatgggaggggtacacactcctcccctagtcagattatggtattccttgggtttcagaacctataaaagaa  
gcagatacatattatgtggatggagcagctaacagagaatccaaggaagggaagcagggtacatttcagagaga  
ggaaaacagagtgtaaaggccttagaaaacactaccaatcaaaaggcagaattaacagcagtttctcatggcctta  
gaagatagtggggaaaagggtgaacatagtaacggactcccagtatgtactaaacataactaacagaacacccccaca  
accactgaacatgaattagtagagaaaataattcaacaactacagaagaaacaggaagtatatcttcagtgggtg  
ccagctcataaaggctctgggaggtaatgaacaaatagataaattagtttagtaagggaattagaaagatccttttt  
ctagaaaagtagaagagggtcaggaagatcacgataaataccacagtaattggaaacagctaaggggaggagttt  
aatctccccaccttagttgcaaagcaaataattaatcaatgtcccaaatgtcaaatacatggggaacccaaacat  
ggacaagtcaatgcagacttgggtatttggcaaatggactgcacacatttagaaggaaaagtcataatagtagca  
gttcatgtggctagtggatttacagaaacccaggtgttaaaggaggaaacaggaaaacagacagctttattcctg  
ttacaattaggggctaggtggcccatacaacaagttcacacagacaatggaccaactttatttagtcaggcattt  
gctgccgcctgttggtggttagggatagagcacaccacaggggttccatacaaccacagagtcaggagtagta  
gaaaacaaaaatagacaattaaaggatataatcacacaagtttagggaagatgcacaacgattggaaacagcagta  
gctatggctactcacattcttaatttttaaagaaggggaggaataggggatatgaccccttcagaaaggatagtc  
aatatgattaatacagaactagaaataaaatacctacaacaaaaaatttcaaaatttttcaggattcaaagtcac  
tacagagaaggagctgatcccagttggaaaggcccagcaacactcctgtggaaaggagaaggagcagtggtaatc  
aaattggacacaggggattttaaagtagttccagaagaaaagcaaaagtaataaaggac

>#38 AF208027 2751 nt

actgcatacatagaaagtcagccagtagaagtactattagacacaggggctgatgactctatagtagcaggaata  
gaattaggaagtaattatagtcacaaaaatagtaggaggaataggaggatttattaataccaaagaatacaaaaat  
gtagaaattaaagtggttaggaaaaagaatacagggtactgttatgacaggggataccctataaaatatctttgga  
aggaacatttttagttaagctaggcatgtctctaaattttccaattgcaaaggtagagccagtaaaagtaaggcta  
aaacctggcatggatggggccaaaaatcaggcaatggcccctatctaaggaaaaataacaagcactcagggaatt

tgtgacaaaatggaacaggaagggcaatttgaagaagcacccccaccaatccgtataacacacccacctttact  
atcaagaagaaggacaaaaacaaatggagaatgttaatagacttcagagaacttaacagggtaaccaggacttt  
actgaagtcagttgggcatacctcacctgcaggtttggcagaaaaaaggagaataacagtagtgatataggg  
gatgcctacttcagcattcctctagatgtagatttcaggcagtagacacagctttcactttaccatcagtaaacaat  
gcagaaccaggaaaaagatacatctacaaggtcctaccgcaaggatggaagggctcaccagctatcttccaacat  
acaatgaggaaggtactagaccccttcagaaaagccaatgaggatrttaattatyatccaatatatggatgacatt  
cttgtggccagtgacagaactgatttagaacatgatcaagtagttttgcagctaaaggaactcttaataaaaacr  
gggttctctacccctgatgaaaagttccaaaagaccctccatatcaatggatgggatatgaatttrtgccaaaa  
aagtggaaactacaaaagattaacctgcmgaaaaagagacttggacagtaaatgatattcaaaaactagtaggg  
gtactgaaytgggcagctcagctatatccaggaatcaaaaacaaaaacctgtgyaaattaattagaggtaaratg  
accttgacggaagaagtacagtgagcagaattggcagaagcagaattgcaagaaaacaagattatcctaraacag  
garcaggaaggcgctattacaaagaagragagcctttrgaagccactgtacagaaaaatttagacaatcagtg  
acatacaaaagttcatcaaggaaacagaatcctaaaagtaggtaaatatgcaaagataaaaaatacccatacaaat  
ggagtaagattattgggtcatgtggtccaaaarataggaaaggaagcactagtaatatggggaaaattacccttc  
ttcatctgcccagtagaaaaggacacctgggaacaatggtggacagactattggcaagtaacttggatcccagat  
tgggactttgtgtctacaccgcatctagtaagggttagtctacaacctagtcaaagaacctctagagcagacagag  
acctattatacagacgggtcctgcaataaaacctccaaggarggaaaagcaggctacgtcacagacagaggaaaa  
gacaaggtaaaargtcttagagcagacaacaaaccagcaggcrgaacttgaggcattttgcaatggccttgaggac  
tcagggtccaaaagtcaatatcatagtrgattcccagtatgtcatgggratcatagcaggrrcaaccaacggaaaca  
gaatccccgttagtaataaaaataattgaagaaatrattaaaaaagaarctctatatgtaggatgggtaccagct  
cataaaggaataggaggtaatcaagaggttagacrrtctagtaagccagggaattagacaagtagtattcttgraa  
aaaatagaacctgctcaagaagaacatgaaaartttcatagtaattgtaaaagagttaactcataagtttggcatt  
cctcaattagtagcaaaaacagatagtaaatccataccacagttgccaacagaaaggagaagccattcatggacag  
gtaaatgcagaattgggtacttggcaaatggactgcacccatttagaaggaaaagtaatcatagtagcagttcat  
gtggccagtggtttgtagaagcagaagtaatcccacaagaaacaggaaggcaaacagcattattcctgttaaaa  
ttagcagggagatggcctatcacacacctacatacagacaatgggtgccaacttcacctcgcaagaggtgaagatg  
gtagcctggtgggtaggcatcgagcaagcatttggagtaccatacaacccccagagtcaaggggtagtagaatca  
atgaatcatcatctaagaacaaatagataaaattagagatcaagcaaattcaatagaacccatagtggttaatg  
gcagtacattgcatgaattttaaaagaaggggaggaataggggatatgacccctgcagaaaagaataattaacatg  
attactacagaacaagaaatacaatttcaacaaacaaaaaattcaaaaatttaaaaattttcggtctattacaga  
gaaggcagagaccagctctggaaaggacctggtgagctttttgtggaaaggggaaggagctgtcatcataaaggt  
gggacagaaatcaaagttgtacccagaagaaaagcaaaaatcataaaagat

>#39 M30502 2559 nt

atgacaggagatacccccaatcaacatctttggcagaaatattctgacagccttaggcattgtcattaaattacca  
gttgccaagatagagccaataaaagtaacattgaagccagggaagatggaccaaggctgaaacaatggccccta  
acaaaagagaaaaatagaagcactaaaagagatctgtgaaaaaatggaaaaagagggccagctagaagaggcacct  
ccaactaatccttataataccccccacatttgcaattaagaaaaaggacaagaacaaatggaggatgctgatagat  
tttagagaactaataaggtgactcaagatttcacagaaattcagctaggaattccacacccggcaggactagcc  
aaaaagaaaaggatctctatatattagatgtaggggatgcctatttttccataccactacatgaagattttaggcag  
tatactgcatttaccctaccagcagtaaaacaatatggaaccaggaaaaagatatatatataaaagtcttgccacaa  
ggatggaagggatcaccagcaatttttcaatacacaatgaggcaagtcttagaacctttcagaaaagcaaacc  
gatgtcatttctcatccagtacatggatgatatcttaatagctagtgcaggacaggttttagagcatgacaaagt  
gtcctgcagctaaaagaacttctaaatggcctagggttttctactccagatgagaagttccaaaaagaccctcca  
tttcaatggatgggtctgtgaactatggccaactaaatggaagctgcagaaactacaactgccccagaaagacata  
tggacagtcaatgacatccaaaagctagtgggagtcttaattgggcggcacaaatctattcaggaataaaaacc  
aaacacttatgtagactaatttagaggaaaaatgacactcacagaagaagtgcagtggacagaactagcagaagca  
gagctagaagaaaacaaaattatcttgagccaggaacaagaaggatattattaccaagaagaaaaagaattagag  
gcaacaatccaaaaaagccaaggacatcaatggacatacaaaaatacaccaggaagagaaaaatcctaaaagtagga  
aagtatgcaaagataaaaaatacccataccaatggggtcagattactagcacaggtagttcagaaaaataggaaaa  
gaggcactagtcatttggggacggataccaaaatttcacctgcccagtgagagagagacctgggagcagtggtgg  
gataactactggcaagtgcacatggatcccagagtgggactttgtatctacccaccactgggtcaggttaacattt  
aacctagtaggagatcctataccaggcgagagaccttctacacagatggatcatgcaatagacagtcaaaagag  
ggaaaagcaggatattgtaacagatagaggaaaagacaaagtaaaagtattagaacaaactaccaatcagcaggca  
gaattagaagcttttcggatggcactggcagactcaggcccaaagggttaatatcatagtagattcacagtatgta  
atggggatagtagcaggccagccaacagagtcagaaaaatagaatagtgaaaccagatcatagaagaaatgataag

aaggaagcagtctatgttgcacatgggtcccagcccataaaggcataggaggaaaccaggaagtagaccatttagta  
agtcaaggcatcagacaagtattattcctggaaaagatagagcccgtcaagaggaacatgaaaaatatcatagc  
attataaaagaactaaccataaatttggaaatccccttctagtagcaagacagatagtaaactcatgtgccc  
tgccaacagaaaggagaagccatacatgggcaagtaaatgcagaaataggcggttggcaaatggactacacacac  
ttagaaggaaaaatcattatagtagcagtagcatgttgcaagtggattcatagaagcagaagtcacccacaggaa  
tcaggaaggcagacagcactcttcctattaaaactggccagtaggtggccaataacgcacttgccacacagacaat  
ggccccaacttcacttcacaggaagtgaagatgggtggcatgggtgggttaggtatagaacaatcctttggagtacct  
tacaaccacaaaagccaggagtagtagaagcaatgaatcaccacctaagaatcagataagtagaatttagagaa  
caggcaaatacaatagaacaatagtagtactgatggcagttcattgcatgaattttaaaagaaggggagggaatagg  
gatatgacccagcagaaagactaatcaacatgattaccacagaacaagaatacaattcctccaaagaaaaaat  
tcaaattttaaaatcttcagggtctattacagagaaggcagagatcagctgtggaaaggacctgggtgaactactg  
tggaagggagaaggagcagtcacatagtagcaaggtagggacagacataaaagtagtagtaccagaagggaaggccaagatt  
atcagggac

>#40 AF082339 2751 nt

acagcctacattgagggccagccagtggaagttttactagacacaggggctgacgactcaatagtagcaggaata  
gagttagggagcaactatccccaaaaatagtagggggaatagggggattcataaataccaagaatatgaagat  
gtagaaataaaagtactaaataaaagagtaaaagccaccataatgacaggtgacaccccaatcaatatttttggc  
agaaacattttgacagccttaggcatgtcattaacctaaccagttgccaagatagagccaatagaggtaagatta  
aagccaggaaaagacggggccaaaattaagacaatggcccttaacaaaaagaaaaaatagaggcactaaaagaaatc  
tgtgaaaaaacggaaagagaaggccaattagaggaggcacctccaactaaccccttataatccccccacatttgca  
ataaagaagaaggacaaaaacaaatggagaatgctaataagatttttagagaattaaacaaggtaactcaagatttc  
acagagattcagttagggattccacatccagcaggattagccaagaaaagaagaatcactgtgctggatgtaggg  
gatgcttacttttccataccactgcatgagagcttttagacagtagtactgcatttactctaccatcagtaaacaat  
gcagaaccaggaaaaagatatatatataaagtcttaccgcaggggatggaagggatcaccagcaatttttcaacac  
acaatgagacagatcttagagccattcagaaaggcaaaccaggatgtcattctcattcaatacatggatgatatc  
ttaatagctagtgacaggacagatttagaacatgacaaggtggtcctgcagttaaaggaactcctaataatggccta  
ggattttccaccccagatgagaagttccaaaaagaccctccatacaaatggatgggctatggactgtggccaact  
aatggaaagctgcaaaaaatacaattgcccagaaagaagtagtgacagtcacatccaaaaacatgtgggt  
gtcctaaattgggcagcacaatctacccaggaataaaagacaaacacttatgtagactaatttagaggaaaaatg  
acactcacagaaggagtgagtgacagaaactagcagaagcagaactagaggagaacagaattatcttaagttag  
gaacaagaggggactattaccaagaagaaaaggagttagaagcaacagtcacaaaaagatcaagacaatcaatgg  
acataataaatacaccaggagagaaaaattctaaaagtggaaaagtatgcaaaaatgaaaaatacccataccaac  
ggggtcagattgttagcacaggtagttcaaaaaataggaaaagaagcactgggtcatttggggacgaataccaaga  
tttcacctaccagtagaaagagaaaacctgggaacagtggtgggatgactactggcaagtgcacatggatcccagac  
tgggactttgtatctaccccaccactgggtcaggctagcatttaacctagtaaaagatcctatactaggcgcagag  
accttctacacagacgggcccctgtaataggcaatcaaaagaaggaaaagcaggatatataacagatagaggggaga  
gacaaggtgaaggtactagaacaaactaccaatcagcaagcagaattagaagccttcgcgctggcagtaacagac  
tcaggtccaaaagccaatattatagtagattcacagtagtgaatgggaatagtagcaggccagccaacagaatca  
gaaaatagaatagtaaatcaaatcatagaagaaatgataaaaaagggaagccatctatgttgcgtgggtcccagcc  
caciaaaggcatagggggaaatcaggaagtagaccatttagtaagttagggcatcagacaagtagtttctagaa  
aaaatagagccagctcaggaagaacatgaaaagtatcatagcaatgtgaaagaactatccataaatttggatta  
cccaatctgggtggcaagacagatagtaaacacatgtgccaatgtcagcagaaggagaggtatatacatgggcaa  
gtgaatgcagaactaggcacttggcaaatggactgcacacacttagaaggaaaagtcacataatagcagtgcat  
gttgccagtggttcatagaagcagaggtcatcccgcaggaatcaggaagacaaacagcactcttcctattaaaa  
ctggctagtagatggccaataacacacttgccacacagatagtggtgtcaacttcacctcacaggaagtaaagatg  
gtagcatggtgggttgggtatagagcaatcctttggagtaccttacaatccacaaagccaaggagtagtagaagca  
atgaatcaccacctaataaaatcagataagcagaatttagagagcaggcaaatacagtggaacaatagtagtaagt  
gcagttcattgcatgaatttttaaaagaaggggaggaataggggatatgacccagcagaaagactcatcaatatg  
atctccacagaacaagaatacaattcctccaaacaaaaatgtgaaatttaaaatctccgggtctattacagg  
gaaggcagagatcagctgtggaaaggacctggggagctactgtggaaaggggacggagcagtcacatagttaagga  
gggacagacataaaagtagtagtaccagaagggaaggccaagatcatcagagac

>#41 U27200 2751 nt

aaagcaactattgaggggtcaatcagtagaagtagtacttagacacaggagctgatgactcaatagtagcagggata  
gaattaggcagcaattacccccaaaaatagtaggtgggataggaggatttataaataccaatgaatacaaaaat  
gtagaaatagaagtagtaggaaaaagagtaagagcaacagtaatgacaggggacaccccaataaacatttttggc

agaaatatTTTTAAATagcttaggcatgactctaaattttccagtagcaaggatagaaccagtaaaagtccagtta  
aagcctgaaaaagatggggccaaaatcagacaatggcccctatccaaagagaaaatactagccctcaaagaaatc  
tgtgaaaaaatggaaaaagaggacaggttagaagaggcgccctcctactaatccatacaattcgccaccttcgcc  
ataaaaaagaaagacaaaaacaaatggaggatgctaatagatttcagagaactaaacaaggtaacccaagaattt  
acagaggtccagctgggtatttctcaccagcaggactggcatcaaagaaaagaataacagtactagatgtagga  
gatgcctacttcagtgtcccactagatccagacttcagacaatatacagcatttactttgccagcagtaataat  
gcagaaccaggaaagagatatctttacaaagtcctaccacagggatggaagggatccccagcaattttccagtac  
accatggcaaaggtactagaccctttcagaaaagccaacaatgatgtcactataatccagtacatggatgacatt  
ctcgtggcaagtgcaggagcgatctggagcatgcagggtagtgtctcaactaaaagagctattaaataacatg  
ggattctctactccagaagaaaagttccaaaagaccctccattcaaatggatgggggtatgagctctggccaaag  
aaatggaaaactgcaaaaaatacagctaccagaaaaagaggtttggacagtaaatgacattcagaagttagtggga  
gtattaaattgggcagctcaacttttccgggggattaagaccaggcatatatgtaaactaataaggggaaagatg  
accctaacagaagaggtacaatggactgaattggcagaggcagaattccaggaaaacaaaatcatcctagaacaa  
gagcaggaaggatcctattacaaagaaggggtacctttagaagcaacagtgagaaaaatctagcaaatcagtgg  
acatacaagattcatcaggagagataaaatcctaaaagtaggaaaatatgcaaaggttaaaaacactcacaccaat  
ggagtaagactattgggtcatgtagtccaaaaataggaaaggaagcattgggtcatctggggagagataccaatg  
ttccatctaccagtagaaagagagacatgggatcagtggtggacagattactggcaagtaacctggatcccagaa  
tgggattttgtctcaacccccaccattaataagggttagcctataacctggtcaaagacccccctagaaggagtagaa  
acttactacacagatggatcctgtaacaaagcctcaaaagaagggaaagcaggatatgtcacagacaggggaaag  
gataaagttaaaccattagaacaaacaacaaatcagcaagcagagcttgaagcatttgcactagcactacaggac  
tcaggaccacaggtcaatatcatagtagattcacaaatgtgtcatgggaatagtagctgcacaaccaacagaaaca  
gaatcaccgatagtaagagaaataattgaagaaatgatcaaaaaggaaaaaatatatgtaggatgggtaccagct  
cacaagggactgggtggtaatcaggaagtagaccacctagttagccaaggaattagacaaatcctatttctagaa  
aaaatagaaccagctcaagaagaacatgaaaaatatcataataatgtaaaagaactagtccataaatttgggatt  
ccacaattagtggcaagacaaatagtaaattcctgtgataaatgccaacaaaaaggggaagctattcatggacag  
gtaaattcagaactagggacatggcaaatggactgtacacatttagaggggaaaggttataatagtggcagttcat  
gtagccagtggattcatagaagcagaagtaataccccaagaaacaggaagacagacagctctcttctgttaaag  
ctggccagcagatggcctatcacacacctgcacacagacaacgggtgccaaacttcacttcacaagatgtgaaaatg  
gcagcctggtggataggatagaacaaacattcggagtgccttataatccagaaagtcagggagtagtagaagca  
atgaaccatcatctgaaaaatcagatagacagaattagagatcaggcagtatcaatagagacagttgtgttaatg  
gcaactcactgcatgaattttaaaagaaggggaggaataggggatatgacccctgcagaaagaatagtcaacatg  
ataactacagaacaagaaatacaattcctccaaacaaaaaatttaaaattccaaaatttccgggtctattacaga  
gaaggcagagatcaactctggaagggacctggtgatctattgtggaaaggggaaggagcagtcataaaggta  
gggacagaaatcaaagtaatacccagaagaaaagcaaagatcataaggaac

>#42 KP004991 2754 nt

acagcgaaaatcggggggccatctatgtgaagttttgctggatacaggggcagatgatacagtgctacatgacata  
caattagaaggaaaatggacacccaaaaatgataggggggtataggggggtttataaagggtgaaagaatttaacaat  
gtgacagtacaaatagaaggcagggaagttcaggaacagtatgttggtgggacctactcctgttaatatgttggga  
agaaacatattgacaggggttgggttgacattaaatttccccataagccccatagccccagtgccagtaaaacta  
aaaccaggaatggatggaccaaaaagtaaaacaatggcccctatctagagaaaaaatagaagcattaacagcaata  
tgtcaggaaatggaacaagaaggaaagatatcaagaatagggcctgaaaatccttataatacaccccatatttgcct  
ataaaaaagaaagatagcactaagtggagaaaattagtagatttcagagagttaaataaaaagaacacaagatttc  
tgggaggtacagttaggtatcccacatcctgggggtttaaagaaaaagcaatctgtcacagtttttagatgtagga  
gacgcctatttctcatgtccattagaccagatttcagaaaaatatacagcttttactatttcctagtgtaaacaat  
gagacaccaggagttagataccaatacaatgtcctcccgcaaggatggaagggctctccagctatatttcaaagt  
tcaatgactaagattctagatccattcagraaagacaatccagaaatagaatttatcagtacatggatgacctc  
tacgtagggtcagattttaccactagcagaacatagaaggaaagttgaggtgcttagggagcatctataccagtg  
ggatttactaccccagayaaaaarcacccaaaaggagcctccctttttgtggatgggctatgagctccaccagat  
aatggacagtacagcccatacaattgcctgacaaagaagtatggacagtaaatgatatacaaaargctggttagga  
aaattaaattgggcaagtcaaattctatcaaggaatcagagtaaaargaactatgtaagttgatttagaggaaccaag  
tcattracagaagtagtacctctaagcaaagargcggaactagaactagargaaaataggggaaaggctaaaggaa  
ccagtgcatgggggtatattaccaacctgacaaagacttatgggttaatatctcaaaaacarggagaagggcaatgg  
acgtaccaggtctatcaagatgagcataaaaaaccttaaaacaggaaaaatatgctaggcaaaaagtctcacataca  
aatgatataagacaactagcagaagtaattcagaaagtgtctcaagaatctatagttatttggggaaagttgcct  
aagtttaagctgccagttactagagaaacttgggaagcatggtgggcagactattggcaagccacctggattcct

gaatgggaatttgttagtacacctccattgatcaaattatgggtatcaattagaaagtgagcctatttcaggggca  
gagacatactatgtagatggggcagccaatagggacacaaaattaggaaaagcaggggtatgttacagaacaagga  
aaacagaagataatcaaattagaggagactactaatcagaaaagctgaattaatggcagtccttagtagcactgcaa  
gactccaaaaaagaagtaaatatagtaaacagactcgcagtatgtattaggtgttatctcagcccaacctacacaa  
agtgattccccctagttcagcagataatagaggaattgacaaaaaaggaaagagtataccttgccctgggttcct  
gcccataagggcatagggggaaatgaaaaaatagacaaactagtaagtaaagatattagaagagttctattccta  
gaagggatagaccaggcacaagaggatcatgaaaaatatcatagcaattggagggcggttgccagtgactttgga  
ctgccaccagtggttagccaaagaaatcattgctagctgccctaaatgtcatgtgaaaggggaagctatgcatggg  
caagtagattgcagtcagggtatggcaactggactgcacgcatttagaaggaaaaattatattagtgaggcagtt  
catgtggccagtggttcatagaagcagaagtaatccctgcagaaacaggacaggaaactgcttacttccctgctt  
aaattagcagcaaggtggccagtc aaagtaatacacaccgataatggaccaactttaccagtgctgcagtaaag  
gctgcttgttgggtggcttaataactcatgaatttgggaattccatataatccacaaagtcaaggagtagtagaa  
tctatgaataaagagttaaagaaaaataatacagcaagttagagatcargcagagcagttgaaaacagcagttcaa  
atggcagtatttgtccacaattttaaaagaaaaggggggattggggggtacactgcaggagataggataatagac  
ataatagcttcacaaatacaaacacagaattacaaaaacaaattttaaaaattcaaaattttcggggtctattac  
agagacagcagagaccctatttggaaaggaccggcacagctcctgtggaaaggtgagggagcagtagtcatacaa  
gacaagggagacattaaggtagtagccaagaagaaaggcaaaaataatcagggtat

>#43 FJ424866 2754 nt

cctgtgaagatagggggacatctatgtgaggctttgttagacacaggggctgatgatacagtagtagaacttta  
tctttagaaggtaggtggaaccaagaatgataggaggcataggaggattttattaaagtaaaagaatatgaagat  
gtagaaatagaatagaacataggaaagtagtagggacagttctagttggaccaaccctgtaaatattatagga  
aggaatattttaacaaaaattggatgtaccctaaattttcccataagctccatagatgtagtaccctgatcttta  
aagccagggtatggatggacccaaagtcaagcaatggcctttgtcaaaaagaaaaatagaagccttaacagctatt  
tgtcaggaaatggaacaggaaggcaagatatcaaaaattgggcctgaaaatccatataatacacctatttttgcc  
ataaaaaagaaagacagtactaaatggagaaaattggtagattttagagaattaaataaacgaacacaggat  
tggaaggtcagttagggatttccaccaggagggttaaaaaagaaaaatcagtaacagtagtggatgttggg  
gacgcttatttttcttgtcccttagaccagatttttagaaaaatatacagctttcacaattccttagtgtaataat  
gagacaccaggggtaaggtatcagtacaatgtactacccagggtatggaaggatctccagcaattttccagcac  
tccatgacaaaaatacttgatcctttcagaaagaaaaaccagagatagaatctatcagtacatggatgacttg  
tatgtagggtcagattttacctataacagaacataggcagaaggtagaaaaactcagggaacatttatatgcatgg  
ggattcaccactcctgacaaaaagcatcaaaaggaacctcccttttgtggatgggggtatgagctgcaccctgat  
aagtggacagtgacgcctataaagttaccagaaaaggaaagttggacagtc aatgatatccagagattggtaggt  
aaactaaattgggctagtcaaatatatccagggataagagtaaaagaactctgcaaatatattaggggtactaaa  
tcacttacagaagtagtgacccttagtaaaagcagaattagaactagaagagaacaggggaaatattaaaagaa  
cccgtagatggagtgtattaccagcctgaaaaggaattaatagtgaatgtgcaaaaaacaaggagaaggacagtg  
acttatcagatcttccaggatgaatacaagaatctaagacaggaaagtatgctagacaaaaggccactcatact  
aatgacatttagacagttggcagaagtgatacaaaaggtctcacaaagacatagttatctggggaaaaactgcct  
aagttcaggctacccatatgtcggagtacctgggacgctttttggactgactattggcaggttccctggatccct  
gagtgggaatttatttagtacacctccctcatcaagctctgggtatcaattggaaaaggaaccataccaggagca  
gaaaccttttatgtagatggagcagctaataagagaaagtaaaacaaggaaaagcaggatagtaacagataaggg  
agacagaaaaataagaaaactagagggcacaactaatcagaaagcagaactagaggcagtcctcttggccttagaa  
gaatcaggaaaaaatgttaacatagtgacagactccagtatgtactagggtattatgcagcaagtcctgatcaa  
agtgactcccccttagtgacagaaaataatagaggaaatgacaacgaaggaaaaagtcattttagcttgggtacca  
gctcacaaggtatagggggaaatgaagaaatagacaaattagtcagtaaaagatatcagaagagtcctattccta  
gaaggcatagatcaagcgcaggaagatcatgaaaaatatcacagtaattggagaacactagccagtgactttgg  
ctgccgagtggttagccaaagaaatcatcaatagctgccctaaagtgccatgtaaaaggggaagctaggcatgga  
caagtagattgcagcccaggtatctggcagttggattgcactcacttagaagggaatcatttttagtagcagtc  
catgtggccagcggttcatagaagctgaagttattccagcagaaacaggggcaggaaacagcctacttccctgctc  
aagttagcagctaggtggccagtaaaaaataacacacagacaatgggcctaattttactagtgccacagtc aag  
gctgcctgttgggtggctcaatgtaacacatgagtttgggaattccctataatccccaaagtc aaggagtagtgaa  
tctatgaacaaagaattaaaaaagattatacaacaagtgaagatcaagcagaacattttaagacagcagtgacag  
atggcagtatttgtccacaattttaaaagaaaaggggggattgggggatacactgcaggagacaggataatagac  
atgttagccacacaaatacaaacacagaattacaaaaacaaattttaaaaattcaaaattttcggggtctattac  
agagacagcagagaccctatttggaaaggaccagcgacgctcctgtggaaaggtgaaggggctgtagtcattcag  
gacaaaggggacattaaagtagtccctaggagaaaggcaaaaataatagggtat



>#44 KP004990 2754 nt

cctgtaaaaaatagggggacatatattgtgaagctttatttagatacaggggctgatgacacagtagtagataaaaata  
ccattagaaggaaggtgggtaccaaaaatgataggaggaataggaggattttattaaagtaaaagagtttgaaaat  
gttaaaatagaaatagaaggtagagaagttcatgggacagtagtagttggcccgacccagttaataatagga  
aggaacattttgacatccattggctgtacttttaattttcctatcagcccatagaagtagtaccagtaaaattg  
aaaccaggcatggacgggcctaaggtgaagcaatggcctttatcaaaagagaaaaatagaagcattaactgctatc  
tgccaagatatggaacaggaaggaaaaataacaagaattgggcctgaaaatccctataacaccccctatttttgca  
ataaaaaagaaagatagcagtaaatggagaaagctagtagatttttagagagttaaataaaaagaactcaagatttt  
tgggaagtcagctgggaatccctcaccagggaggtcttaagcagaagaagtcagtaacagtagtagtggtgga  
gatgcttattttctcctgtcccttagatccagatttcaggaagtacacagcttttactataccttagtgtaataat  
gaaacaccaggggtcagataccagtacaatgtgttacctcaaggggtggaagggtaccagccatcttccaacat  
tccatgaccaagatccttagatccattcaggaaaaataatccagaaatagaaatttatcagtacatggatgattta  
tatgtagggtcagacttgccactatctgaacataggcaacagagtcgaaaagcttagagaacatctctatgcttgg  
ggatttacaactcctgataaaaaacatcagaaggaacccccctttcctttggatgggggtatgaactccaccctgac  
aagtggacagtgaacccattaagttgccagaaaaagaaagctggacagtgaatgatatccagggacttagtaggg  
aaactaaattgggcaagtcaaatttatccaggaataaggataaaagagttatgcaaactcataaggggaactaaa  
gctttaacagaagtagttaccttcactagagaagcagagttagaactagaagaaaaataaagaaatcttaaaagaa  
ccaaggcatggagttttattaccaaccagaaaaagaatttaatagtagatatacagaaacaaggagagggacaatgg  
acttatcagatattttcaggaagaacataagaattttgaagacaggggaaatatgccaggcaaaaggctactcacacc  
aatgacataaggcaattggcagaagtaatacagaaggtatcacaaagagcagtagtaatatgggggaagctgccc  
aaattcaggttaccagtaaatagaaccttgtgggaagcctgggtggcagattattggcaagccacctggatacca  
gagtgggagtagttagcacacccccctcttattaaactctgggtaccagctagaaaaggaccccataccagagaca  
gaaactttttatgtagatggggcgagcaaatagagaaaccaagctaggtaaggctggctatgtaacagatagggga  
agacaaaaaatagtcaaaactagaaggaaccaccaatcaaaaagcagaactagaagcagtgctattagccttaaaa  
gaatcaggaaaagcaggctaatatagtaaacagactctcagtagtggttagggattattgcagcaactccagatcag  
agtgactccccctagtagcaaaaagataatagaagaaatgacaaaaaaagaaaaggtgtacctatcatgggtacca  
gcacacaaaggcatagggggtaatgaagaaatagacaaattagtcagtaaaagacatcaggagagtgcttattttta  
gaaggcatagatcaggcgaggaagatcatgagaaatatcatagtaactggaggaccttagccagtgactttggg  
cttccaccaatagtggaagagagattattaacagttgcctaaatgccatgtaaaggggagaagccatgcatggg  
caggtggactgcagtcagggaatatggcaattggactgtacccacacagaaggaaaaatcatccttgtagcagtc  
catgtggccagtggttctcctggaagctgaagtaattccagcagaaacaggacaggaaactgcatacttctgctt  
aagctagcagcaagatggcctgtaaaaagccatccacacagacaatgggcctaacttcgctagtgctgcagttaaa  
gcagcttgttgggtggctcaacataactcatgaattttgggataccctataatcccccaggtcaaggagtagtagaa  
tccatgaacaaggaattaaagaaaaattatactgcaagttagggaccaagctgaacattttaaaaacggcagttcaa  
atggcagtagtttgtccacaatttttaaaagaaaaggggggattggggggtacactgcaggagataggattatagat  
ataatggctacacaaatacaaaacagaaactacaaaaacaaatttttaaaaattcaaaattttcgggtctattac  
agagacagcagagaccctatttggaaaggaccagcgacgctcctgtggaaaggtgaaggggcagtagtcatacaa  
gataagggagacattaaagtagtccttagaaggaaagcaaaaatcattagggat

>#45 KP004989 2754 nt

ccagtaaaagatagggggacatatattgtgaagctttatttagacacaggggctgatgacacagtagtagataaaaata  
ccttttagarggtagatggaagccaaaaatgatagggggaataggaggttttattaaagtaaaagaatttgaraat  
gttaaaatagagatagaagggagagaagtttctgggacagtagtagttggcccaacccagtaaatatagttgga  
agaaatatcctaacattagtggttgtactctaaattttccattagccctatagaagtagtaccagtaaaattg  
aagccaggaatggacgggcctagagtaaaagcaatggcctctatcaaaagaaaaaatagaagctttaactgctatc  
tgtcaagagatggaacaagaggggaaaaataacaaaaattgggcctgaaaatccatataacaccccctatctttgca  
attaaaaagaaagatagcagcaaatggaggaaattagtagacttcagggaattaaataaaaagaacacaagacttc  
tgggaagtcagctgggaatccctcaccaggtgggtcttaaaacaaagggaatcagtaacagtggttgatgtggga  
gatgcttattttctcctgtcccttagatccagattttcgggaagtatacagcttttacaataccttagtgtaataat  
gaaacaccagaggttagatatcagtacaatgtacttccctcagggctggaarggatctccagccattttccagcac  
tcaatgactaaaaatcctggaacccttttagaaaagagaaccagaaatagaaatttatcagtacatggatgattta  
tatgtagggtcagattttgcctctgcctgaacataggcagcgrgtagagaagcttagagaacatctctatgcatgg  
ggrtttacaactcctgataagaaacaycaaaaggaacctccattcctctggatgggctatgagctccatcctgat  
aaatggacagtacaacccatcaagctaccagaaagagaaagctggacagtaaatgatatccagaaattagtaggc  
aaattaaattgggccagtcagatatatccaggaataagagtaaaagagttatgcaaactaatttagagggactaaa  
gccttaacagaggtgattcctcttactagagaagcagaatttagagttagaagaaaaataaagaaatcttaaaaggaa

ccagtgcattggrgtctattatcagccagaaaaagattttaatagtagatatacaaaaacaaggagaggggacaatgg  
acttatcagatattttcaggaagaacataaaaaacttgaaaacwggaaagtatgctagggcagaaggctaccatacc  
aatgatataaggcaatttggcagaagtaatacagaaagtatcacaagaaagtatagtaatatggggaaagctrccc  
aaatttaggttaccagtaaataggactttatgggaagcctgggtggcagactattggcaggccacctggatacct  
gagtgggaatttggtagcacacccccctctcattaagctttgggtatcaattggaaaaggaccccataccaggaaca  
gaaactttttatgtagatggggcagcaaacagagaaaaccaagctaggttaaagctggatatgtgacagataggggt  
aggcagaaaaatcattaaattggaagaaacaactaatcagaaagcagaattagaagctgtactattagccttaaaa  
gaatcaggaaaacaagctaacatagtaaacagactcccaatatgtattagggtattatctcagcaactccagatcaa  
agtgactccccctagtgagagaaataatagaagaaatgacaaaaaggacaagggtgtacctttcatgggtacca  
gcacataaaggcatagggggtaatgaggaaatagacaaatttagtcagcaaggacattagaaggggtgtattttcta  
gaaggcatagatcaggcacaagaagatcatgaaaaataccacagcaattggaagaccctagctagtgactttggg  
cttccaccaatagtagcaaaagagatcatcaatagttgccttaaatgtcatgtaaaaggagaagccatgcatgga  
caggtagattgtagtcagggtatggcaggttagattgtacccacacagaaggaaaaattatccttgtggcagtc  
catgtagccagtggttcttctggaagccgaggttaattccagcagaaacaggacaggaaactgcatactttctgctc  
aagtttagcagcaagatggcctgtgaaagtcatacacacagataatgggcctaacttcactagtgtgcagtaaaa  
gcagcatgttgggtggctcaacataacacatgagtttgggaataccctacaatccycaragtcaggagtrgtagaa  
tctatgaacaaagaattaaagaagattatacttcaagtacgagaccagggtgagcatttaaagacagcagttcaa  
atggcagttatttgtccacaatttttaaaagaaaaggggggattggggggtacactgctggagacagaatcatagat  
atgatggctacacaaatacaaaacaacagaactacaaaaacaaatttttaaaattcaaaattttcgggtctattac  
agagacagcagagaccctatttggaaaggaccagcgagcgtcctgtggaaaggtgaaggggcagtagtcatacaa  
gataagggagacattaaagtagtccttagaaggaaagcaaaaaataattagggat

>#46 FJ424863 2754 nt

cctgtgaagatagggggacatctatgtgaggcttttggtagacacaggggctgatgatacagtagtagaacttta  
tctttagaaggtaggtggaaccaaagaatgataggaggcataggaggattcattaaagtaaaagaatatgaagat  
gtagaaatagaatagaacatagaaaagtagtagggacagtttttagttggaccaaccctgtaaatatcatagga  
aggaatattttaacaaaaattggatgtaccttaattttcccataagctccatagatgtagtacctcgatatcttta  
aaaccagggtatggatggacccaaagtcaagcaatggccttttgtcaaaaagaaaaatagaagccttaacagctatt  
tgtcaggaaatggaacaggaaggcaagatatcaaaaattgggcctgaaaatccatataatacacctattttcgcc  
ataaaaaagaaagacagtagcaaatggagaaaattggtagatttttagagaattaaataaaaaggacacaagatttt  
tgggaagttcagttagggttccctcaccagggggttaaaaaagaaaagatcagtaacagtagtggtgtggg  
gacgcttatttttcttgtcccttagacccagatttttagaaaaatatacagctttcacaattcctagtgtgaataat  
gagacaccaggggtaagggtatcagtacaatgtactacccagggatggaaaggatctccagcaattttccagcac  
tccatgacaaaaatacttgatcctttcagaaagaaaaaccagaaatagaatctatcagtacatggatgacttg  
tatgtagggtcagattttaccataacagaacataggcagaaagtagaaaaactcagggaacatttatatgcatgg  
ggattcaccaccctgacaaaaagcatcaaaaggaacctcccttttgtggatgggggtatgagctgcacctgat  
aagtggacagtgcaacctataaagttaccagaaaaggaaagttggacagtcattgatataccagaaactggtaggg  
aaattaaattgggccagtcacataatccaggaataagagtaaaagaactctgcaaatatttaggggtactaaa  
tcacttacagaagtagtgaccttagtaaaagggcagaattagaactagaagagaacaggggaaatattaaagaa  
cccggtgcatggagtgtattaccagcctgaaaaggaattaatagtgaatgtgcaaaaaacaaggagaaggacagtg  
acttatcagatcttccaggatgaatacaagaacttaaaagacaggaaagtatgctaggcaaaaggccactcatact  
aatgacatcagacagttggcagaagtaatacaaaaggtctcacaggaaagcatagttatctggggaaaattgcct  
aagttcagggtacccatatgtcgaagtacctgggacgctttttggactgactattggcagggtcttctggattcct  
gagtgggaatttggtagtacacccccctcattaagctctgggtatcaattggaaaagaacccataccaggagca  
gaaaccttttatgtcgatggagcagctaataagagaaagcaaaacaggaaagcaggatacgtaacagataggggt  
agacagaaaaataaggaaactagagggcacaactaatcagaaagcagaactagaggcagtcctcttggccttgga  
gaatcagggaataatgttaatatagtgacagattcccagtagtactagggtatttgcagcaagtcctgatcaa  
agtgactcccccttagtgagaaaataatagaggaaatgacacaaaaagaaaggtctatttagcttgggtacca  
gtcacaaaaggtatagggggaaatgaagaaatagacaaatttagtcagtaaaagatatcagaagagtcctattccta  
gaaggcatagatcaagcacaggaagatcatgaaaaatcacagtaattggagagcactagccagtgactttgggt  
ctgccgagtggttagccaaagaaatcatcaatagctgccttaagtgccatgtaaaaggggaagctaggcatgga  
caagtagattgcagcccaggtatctggcagttggactgcacccacttagaagggaataatcatttttagtggcagtc  
catgtggctagcggcttcatagaagctgaagttattccagcagaaacaggggcaggaaacagcctacttctgctc  
aagtttagcagtagatggccagtaaaaaataacatacagacaacgggcctaattttactagtgccacagtcagg  
gctgcctgttgggtggctcaatgtaacacatgagtttgggaattccctataatcccaaagtcaggagtagtgga  
tctatgaacaaagaattaaaaaagattatacaacaagttagagatcaagcagaacatttaaagacagcagtgacg

atggcagtatTTTgtccacaattTTTaaaagaaaaggggggattgggggatacactgcaggagacaggataatagac  
atgttagccacacaaatacaaaacacagaattacaaaaacaaattTTTaaaattcAAAattttcggggtctattac  
agagacagcagagaccctatttggaaaggaccagcgacgctcctgtggaaaggtgaaggggctgtagtcattcag  
gacaaaggggacattaaagtagttcctaggagaaaggcaaaaataattagggat

>#47 FJ424864 2754 nt

cctgtgaagatagggggacatctatgtgaggctttgttagacacaggggctgatgatacagtagtagaacactta  
tctttagaaggtaggtggaacccaagaatgataggaggcataggaggatttattaaagtaaaagaatatgaagat  
gtagaaatagaaatagaacataggaaagtagtagggacagttcttagttggaccaaccctgtaaatattatagga  
aggaatatTTTaacaaaaattggatgtaccctaaattTTTcccataagctccatagatgtagtaccctgtatcttta  
aagccagggatggatggaccCAAagtcAagcaatggcctttgtcaaaagaaaaaatagaagccttaacagctatt  
tgtcaggaaatggaacaggaaggcaagatatcaaaaattgggcctgaaaatccatataatacacctatttttggc  
ataaaaaagaaagacagtactaaatggagaaaattggtagatttttagagaattaaataaacgaacacaggatttt  
tgggaagttcagttagggattcctcaccagggagggttaaaaagaaaaaatcagtaacagtaytggatgttggg  
gacgcttatttttcttgtcccttagaccagatttttagaaaatatacagctttcacaattcctagtgtgaataat  
gagacaccaggggtaaggtatcagtacaatgtactacccagggatggaaaggatctccagcaattttcagcac  
tccatgacaaaaatacttgatcctttcagaaagaaaaaccagagatagaaatctatcagtacatggatgacttg  
tatgtrgggtcagattttaccyataacagaacataggcagaaaggtagaaaaactcaggggaacatttatatgcatgg  
ggattcaccactcctgacaaaaagcatcaaaaggaacctccctttttgtggatgggggtatgagctgcaccctgat  
aagtggacagtgcagcctataaaagttaccagaaaaggaaagttggacagtcaatgatatccagagatttggtaggt  
aaactaaattgggctagtcaaatatatccaggaataagagtaaaagaactctgcaaattaattaggggtactaaa  
tcacttacagaagtagtgaccttagtaaaagaagcagaattagaactagaagagaacagggaratattaaaagaa  
cccgtagcatggagtgtattaccagcctgaaaaggaattaatagtgaatgtgcaaaaaacaaggagaaggacagtgg  
acttatcagatcttccaggatgaatacaagaatctaagacaggaaagtatgctagacaaaaggccactcatact  
aatgacatcagacagttggcagaagtgtacaaaaggtctcacaagaaagcatagttatctgggggaaaactgcct  
aagttcaggctaccatattgtcggagtacctgggacgctttttggactgactattggcagggttcctggatycct  
gagtgggaattttatttagtacacctccctcatcaagctctggtatcaattggaaaargaaccataccaggagca  
gaaaccttttatgtagatggagcagctaataagagaaagtaaaacaaggaaaagcaggatatgtaacagataaggg  
agacagaaaaataagaaaactagagggcacaaactaatcagaaagcagaactagaggcagtcctcttggccttagaa  
gaatcaggaaaaaatgttaacatagtgacagactcccagtagtactagggattattgcagcaagtcctgatcaa  
agtgactcccccttagtgcaaaaataatagaggaaatgacaacaaaggaaaaagtcatttttagcttgggtacca  
gctcacaaggtatagggggaaatgaagaaatagacaaattagtcagtaaaagatatcagaagagtcttattccta  
gaaggcatagatcaagcgcaggaagatcatgaaaaatatcacagtaattggagaacactagccagtgactttgg  
ctgccgccagtggttagccaaagaaatcatcaatagctgccctaagtgccatgtaaaaggggaagctaggcatgga  
caagtagattgcagcccaggtatctggcagttggattgcactcacttagaagggaaaaatcatttttagtagcagtc  
catgtggccagcggcttcatagaagctgaagttattccagcagaaacagggcaggaaacagcctacttctgtctc  
aagtttagcagctaggtggccagtaaaaaataacacacagacaatgggcctaattttactagtgccacagtcaag  
gctgcctgttgggtggctcaatgtaacacatgagtttggaaattccctataatcccaaagtcAaggagtagtgga  
tctatgaacaaagaattaaaaaagattatacaacaagtgtagagatcaagcagaacattttaaagacagcagtgag  
atggcagtatTTTgtccacaattTTTaaaagaaaaggggggattgggggatacactgcaggagacaggataatagac  
atgttagccacacaaatacaaaacacagaattacaaaaacaaattTTTaaaattcAAAactttcggggtctattac  
agagacagcagagaccctatttggaaaggaccagcgacgctcctgtggaaaggtgaaggggctgtagtcattcag  
gacaaaggggacattaaagtagttcctaggagaaaggcaaaaataattagggat

>#48 FJ424871 2754 nt

cctgtgaggatagggggacatctatgtgaggctttgttagacacaggggctgatgatacagtagtagaacactta  
cctttagaaggtaggtggaacccaagaatgataggaggcataggaggatttattaaagtaaaaggaatatgaagat  
gtagaaatagaaatagaacatagaaaagtagtagggacagtccttagttggaccaaccctcggaatatattatagga  
agaaatgtgttaacaaaaattgggtgtaccctaaattTTTcccataagccccatagaggtagtaccctgtatcttta  
aagccagggatggatggacctaaagttAagcaatggcctttgtcaaaagaaaaaatagaagccttaacagccatt  
tgtcaggaaatggaacaggaaggcaagatatcaaaaattgggcctgaaaatccatataatacacctatttttggc  
ataaaaaagaaagacagtaccaaatggagaaaactggtagatttttagagagttaaataaacgaacacaagatttt  
tgggaagttcagttagggatccctcaccagggagggttaaaaagaaaaaatcagtaacagtagtggttggg  
gacgcttatttttcttgtcccttagaccagatttttagaaaatatacagctttcacaattcctagtgtgaataat  
gagacaccaggggtaaggtatcagtacaatgtactacccagggatggaaaggatctccagcaattttccagcac  
tccatgacaaaaatacttgatcctttcagaaagaaaaaccagaaatagaaatctaccaatacatggatgacttg  
tatgtaggggtcagattttaccataacagaacataggcagaaagtagaaaaactcaggggaacatttatatgcatgg

ggattcaccaccctgacaagaagcatcaaaaggaacctccctttttgtggatgggggtatgagctgcaccctgat  
aaatggacagtgcagcctataaagttaccagaaaaggaaagttggacagtcaatgatataccagaaattggtaggc  
aaattaaattgggctagtcaaataatccaggaataagagtaaaagaactctgcaaattaatcaggggtactaaa  
tcacttacagaagtagtgacccttagtaaagaagcagaactagaattagaagagaacaggggaaatcttaaaagaa  
ccagtacatggagtgattaccagcctgaaaaggaattaatagtgaatgtgcaaaaacaagaagaagggcagtgg  
acttatcagatcttcaggatgaacacaagaacttaaaagacaggaaaatatgctaggcaaagggccactcatact  
aatgacatcagacaattggcagaagtgatacaaaaggtctcacaggaaagcatagttatctgggggaaaactgcct  
aaattcaggctacccatatgccgaagcacctgggacgctttttggactgactattggcaggcgctcctggattcct  
gagtgggaatttatttagtacacccctctcattaagctctgggtatcaattggaaaaagaaccataacaggagca  
gaaaccttttatgtagatggagcagctaataagagaaagcaaaacaggaaaagcaggatatgtaacagataggggt  
agacagaagataagaaaactagagggcacactaatcaaaaagcagaactagaggcagtcctcttggccttggaa  
gaatcaggggaaaaatgttaatatagtgcagactcccagtatgtgctggggattattgcagcaagtctgatcaa  
agtgactcccccttagtacagaaaataatagaggaaatgacaacaaaagaaaaagtcatttagcctgggtacca  
gctcacaaggtatagggggaaatgaggaaatagacaaattagtcagtaagatatcagaagagtcttattccta  
gaaggcatagatcaagcacaggaagatcatgaaaaatatcacagtaattggagagcactagccagtgactttgk  
ctgccaccagtggtagccaaagaaatcatcaatagctgccctaagtgtcatgtaaaaggggaagctaggcatgga  
caagtagattgcagcccaggtatctggcagttggattgcactcacttagaaggggaaaatcattctagtagcagtc  
catgtagctagtggcttcatagaagctgaagttattccagcagaaacagggcaggaaacagcttacttctgctc  
aagttagcagccaggtggccagtaaaagtaatacacacagataatgggcctaactttactagtgccacagttaag  
gctgcctgttgggtggctcaatgtaacacatgagtttgggaattccctataatcccccaggtcaaggagtagtgga  
tctatgaacaaagaattaaaaaagattatacaacaagtgagagatcaagcagaacatttaagacagcagtgag  
atggcagtatgttccacaatttttaaaagaaaaggggggattgggggatacactgcaggagacaggataatagac  
atgttagccacacaaatacaaaacagaaattacaaaaacaaatttttaaaattcaaaattttcgggtctattac  
agagacagcagagaccctatttggaaaggaccagcgagcgtcctgtggaaaggtgaaggggctgtagtcattcag  
gacaaaggggacattaaagtagttcctaggagaaaggcaaaaataattagggtat

>#49 JN091690 2760 nt

actgtgaaagtacaaggacaagtctgtcaagctcttttagacactggagcagatgcagcgttttttgaatctt  
aagctaaaggacagtggactccaaaaactatagggggaatagggggctttgtgccagtgaatgaatattacaac  
attccagttcagataggaaataaagaagtaacagccactgttctagtaggggacacccccattaataatagga  
agaaatattctacaacaattaggatgtactctaaattttccccattagtaaaagttgatgttgtaaaggtgaagcta  
aaagaggggaatggatggggccaaaggtaaaacaatggccccctctctaaagaaaaaattgaagctttaacagagatc  
tgcaattccttagaagaggaaggaaagatttctgcaattgggccagaaaaatccatataatacaccaatctttgca  
attaagaaaaaggtatgttctaaatggagaaaattggtagattttagagagttaaacaagagaaacacaggatttc  
tgggaattgcagctaggaatacccatccagcaggactaaagaagaggggcatggtaacagtagtggatgtaggg  
gatgcttatttttctattcctctggatccagacttcagacagtatactgcttttaccattcccagtccttaacaac  
aatacaccaggaaaaagatttcagtataatgtgttgccctcaagggtggaaggggtcaccagcaatttttcaaac  
agtatgacaaaaatttttagatcccttcagaaaagaccaccagaggtggatgtctatcagtacatggatgatctt  
tatgtagggtcagattttaaataaagaaatgaccataggcagctcataaaaaggttaaggcagcatttgttagcctgg  
ggactagagactccagacaaaaagtatcaggaaaaacctccatttctgtggatgggttatgagctgcatccaaac  
aaatggacagtgcaaaatattacactgccagagccagagcagtggaacagtaaatcatattcagaaatagtaggt  
aaattaaattgggctagtcaaatttaccaggaataaaaaactaaggaaactgtgcaagctcattagaggagtaaaa  
gggctgactgaccagctacagatgactagggaagcagaactagaattagaagaaaacaaagaaattctaaaagaa  
aaggtacaaggggcttattatgatccctaagctacccctgcaggcagcagttcaaaagcaggggcaaggacaatgg  
acataccagatttatcaggaagaaggaaaaaacctgaaaacaggaaaaatatgcaaaatcagcaggcactcatact  
aatgagataaggcaactagcaggattgatacagaaaataggtaatgaaagcatcataatttgggggaattgtgcct  
aaattccttgcctgagcagtatccaaagaaacatggagtcaatgggtggactgattattggcaagttacctggatacct  
gagtgggagttcattaataccccaccattaatcagattatgggtataatttggtagataaccccatcccagaagca  
gaaactttttatgtggatggagcagctaataagatatagcaaaaaagggaagcaggatatgtcacagataggggg  
aggtacaaggcaaaagagttagaaaacaccacaaatcagcaagcagaattatgggcagtggtttggcattaaaa  
gattcaggagcacaaagtaacatagtgacagactcccaatatgttataggaattctacaaggactgcctgatcaa  
agtgactccccatagtagaacaatatatacaaaaatttaaccaataaagcagcagtcatttagcctgggttcca  
gcccatagaggaatagggggcaatgaagaagtagacaagttagttagcaaaaatatcagaagagtactctttcta  
gaaggaattaatgaggcacaggaagatcatgataaatatcatagtaattggaaagcattggctgatgaatacaat  
cttcctcctgtagtagcaaaagaaatcatagcccaatgccccagtggtcacataaaagggaagccatacatgga  
caagtagactgtagtcagaaagtatggcagctagattgtaccacttggaaagggaaaatcatcatagtagcagta

catgtggccagtggattcatagaggcggaggtcatacctgaggaaacaggaaaagaaacagcttacttcatatta  
aaattagcaggcagatggcctgtaaagaagattcatacagataatgggcaaatttctactagtacagcagtaaaag  
gctgcatgttgggtgggcgcaaattccaacatgaatttgggattccatacaatccccaaagtcaaggggttgtggaa  
tccatgaataagcaattgaagcaaattattcagcaggttagggaacaagcggaacaactgaaaacagcagttgta  
atggcagtctacattcataattttaaaagaaaaggggggattggggagtatactgcaggagaaagactatttagac  
ctactgactacaaacatacagacaaaagcaattacaaaaacaaattttaaaaattcaaaattttcgggtttattat  
agggacggcagagatccgggttgggaaggaccagcgcgactgctgtggaaaggtgaaggagcagtagtaataaag  
gagggggaagatattaaagtagtgcccagaagaaaagttaagataataaaaagactatgga

>#50 AF447763 2754 nt

acagtaaaagtccagggaacaagtctgtcaagctcttttagatactggagcagatgacagtggtttttgtaacatc  
aaattaaaggacagtggaacacaaaaacataggaggaataggaggatttgtaccagttagttagtactataat  
attccagtacaaattggcaataaagaagtcagagccactgtcctagtgggagaaacccccattaataataggt  
agaaatattttaagcaattaggatgtaccttaattttcctattagcccaatagaggtagtaaaagtacaatta  
aaagaaggaatggatgggcaaaaagtaaaagcagtgggccctctccaaggagaaaattgaggcattaacagaaata  
tgtaagacattggaaaaggaaggaataatttctgcagttggaccagaaaacccatataaacacaccaatttttgcc  
attaagaaaaaggatacctctaaatggagaaaattagtagatttcagagaactgaataaaaagaactcaagatttt  
tgggagttacagctaggaatacccccattccggcaggggttaagaaaaagaaatatggtgacagtagtggatgtaggg  
gatgcctacttttccattccccctggatccagacttcagaaaagtatacagctttttaccatacccagtcctcaataat  
aacacaccagggaagagatttccagtataacgtgttacctcaaggttgggaagggatctccagcaatttttcagagc  
agtatgacaaaaatcctagatcctttcagaaaagaacaccagatgtggacattttaccaatatatggatgatctt  
tacataggttcagatcttaatgaagaggaacataggaaaactgataaagaagctgagacagcatctgttaacatgg  
ggattagagacccctgacaaaaagtatcaggaaaaaacctccattcatgtggatgggctatgagctacatccaaat  
aaatggacagttcaaaaatatcacattaccagaaccagagcagtggaacagtgaatcatatccagaagttggtaggc  
aaacttaattgggcccagtc aaat ttatcatggaataaaaaactaaagaactatgcaaattgatttagaggagtaaaa  
ggattaactgagccagtagaaatgaccagggaagcagaattggagttagaagaaaaaagcagattctaaaagaa  
aaggttcaaggagcatactatgatcctaaattacctctgcaagcagcaatacagaagcagggggcaaggacagtg  
acatatcagatatatcaggaagaagggaataatttaaaaaacaggaaaatatgcaaaatcaccagggtacccacacc  
aatgagataagacaatttagcaggactgatacagaaaataggcaatgagagcataataatttgggggtatttgtcct  
aaat ttttattacctgtatccaaagagacatggagccagtggtggactgattactggcaagttacctgggtacct  
gagtgggaattttattaacccccaccactaatcaggctatggtacaatctgttgtctgaccccatcccagaagca  
gaaaccttttatgtagatggggcagcaaacagagacagtaaaaaagggaagagcaggatatgtaacaaacagaggc  
agatacaggtcaaaggacttagagaacaccactaatcaacaagcagaattatgggcagtagatctagccttaaaa  
gactcaggagcacaggtaaatatagtcacagattccc aatatgttatgggagttttacagggtaccagatcaa  
agtgactcccccatagtagagcaaattattcaaaagttaacacaaaagacagcaattttatctagcatgggtacca  
gcccataaagggtataggggtaatgaagaagtagacaaattgggttagtaaaaaatattagaaaaatattattcctg  
gatggaattaatgaagcacaggaagaccatgataaatatcacagtaattggaaagcttttagctgatgaatataat  
ctgccccagttgtgtggttaaagaaattattgtcagtggtccaaaatgccatataaaaaggagaggctatacatgga  
caggtggactacagtccagaaatctggcaaatagactgtacccacctagaaggaaaggtcatcatagtagcagtg  
catgtagctagtgtgtttcatagaagcagaagtcataaccagaagaaacaggaagagaaacggcttacttcatecta  
aaattggcaggaagatggcctgtaaagaaaatacatacagataatggaccaaat tttactagtacagcagtgaaag  
gcagcctgtggtgggcacaaattcaacatgaatttgggattccatataatcctcaaagtcaaggagtagtagaa  
tctatgaataaacaattaaagcaaattatagagcaagtcagggaccaagcagagcaactgaggacagcagtaatc  
atggcagtgatatccacaatttttaaaagaaaaggggggattggggagtagactgcaggggaaagactatttagac  
atactaactacaaatatacagacaaaacaattacaaaaacaaatttttaaaagttcaaaattttcgggtttattat  
agggacgccagagatccaatttgggaaggaccagcgcgactactgtggaaaggtgaaggggagcagtagtaataaaa  
gaaggagaagacattaaagtagtaccaggagaaaagcaaaaatcataaaagag

>#51 JQ768416 2754 nt

gcagtcagagttcaaggacatctctgtcaagctctgttagacacaggtgctgatgacagtggtttctgcaattta  
cagctaaaaggacagtggaacacaaaaacataggggggtataggggggtttataaccagtaagttagtactataat  
attccggtgcaaattggcaataaagaagtaagagccactgtccttagtgggggatacaccctaaatataatagga  
agaaacattttacaacaattgggctgtactttaattttccccattagtaaaagttgaagtagtaaaagtagaacta  
aaacaaggcatggacggggccaaaagtaaaacaatggcctctgtctaaagagaaaattgaagccttaacagaaata  
tgtagtacttttagaaaaggaaggaaaaatctctgccataggaccagaaaaatccttacaatacaccatatttgca  
atcaagaaaaaggactcttctaaatggaggaagttagtggacttcagagaattaaataaaaagaacacaggatttc  
tgggagttacaactagggataccacaccctgcaggattaaaaaagagaaaagtggttaacagttctggatgtaggg

gatgcttatttttccattcctctagatccagacttttagaaaatatacagcatttaccatccctagtctcaataac  
aacacaccagggaagagatttcagtacaatgtgttacctcaaggatggaagggatcacctgctatatttcagagt  
agcatgacaaaaatttttagaccctttcaggaaaaaacatccagaggtagatgtgtaccaatacatggatgatctt  
tatgtaggatcagactacagtgaagaggagcacagaaagctaatagaaagagctaagacagcacttgtagcatgg  
ggattagaaaccccagacaaaaaatatcaagaaaaacctccattcttatggatgggctatgagctacatccagat  
aaatggacagtgcagaacatcacctgccagaaccagaacagtggaacagtgaatcacatccaaaagctggtaggc  
aagttaaattgggcaagtcaaattctatgcaggaataaagacaaaagaattatgcaaattaataagaggagtaaaa  
ggactaactgaccctgtggaactaacaagagaagcagaatttagagttagaagaaaaataagaaattctaaaagaa  
aaggtgcagggtgcatactatgaccctaaactaccattacaagcagcagtaaaaaacagggaacagggatcaatgg  
acatatcaaataatcaggaagaaggaaaaaatttaaaaaacagggaagtagtgcaaaatctccaggcacccacact  
aatgagataaggcaatttagcagggtcttatacagaaaaataggtaatgaaagcatagtaatttggggcactgtacca  
aagtttctcttgccagtgactaaggaaacatggagtcagtggtggacagattactggcaagtcacctgggtacct  
gaatgggaattcattaacacccccccattgattagactatgggtacaatttgctctctgacccattccagaagca  
gaaacattttatgtagatggggcagcaaatagggaagtaaaaagggaagcaggatattgtcacagacaggggt  
agatataaaaccagggaactagaaaaataccacaaatcagcaagcagaactatgggctgtagatttagctctaaag  
gattcagggtcacaagtaaacatagtaaacagactcccagtagtgcattgggggtactgcaagggatgctgatcaa  
agtgcactcccccatagttgaggaaatcatacaaaaactcatgcagaaaaatgcagtgtagcttagcatgggtacct  
gctcataaaggaataggaggcaatgaggaagtagataagctagtcagtaaaaaatattaggaaagtcctattttta  
gaagggtataactgaggcacaggaagatcatgataaatatcatagtaattggaaagcaatggctgatgaatacaat  
cttccccctatagtagccaaggaaatcattgccagtggttctaaatgtcacaaaaaggagaagccattcatggc  
caagtagactgtagcccagaagtagtgccagctagattgcactcacctagaagggaagtcacatagtggcagtg  
catgtggccagtggtttcatagaagctgaggtcataccagaggaaacagggaagaaacagcttacttcattctt  
aaattggcaggggagatggcctgtaaaaagaatacatacagacaatggaccaattttactagcacagcagtaaaag  
gcagcatgttggtgggcacaaatccaacatgaatttggcataccttataatccccaaagtcaggagtagtgga  
tctatgaataagcaattaaagcaaaataatagagcaaattagagaccaagcagagcagttaaaaacagcagtagta  
atggcagtcctacattcacaatttttaaaagaaaaggggggattggggagtagtactgcaggagaaagactgctagat  
atactaaccacaaatatacagacacaacaactacaaaaacaaattttaaaagttcaaaattttcgggtttattat  
agggacgccagagacccgatttggaaaggaccagcgcggtactgtggaaaggtgaaggagcagtagttataaaa  
gagggtaggacatcaaagtagtaccagaaggaaagcaaaaataatcaaagaa

>#52 JQ866001 2754 nt

gaagtaacagtgagggacaggtctgcacagcccttttagacacaggggctgatgatacagtagtttgcagacctt  
aagttaaaaggatcatgcaaccctaggacaattggaggaatagggggatttgtccctgtacaagaatattacaat  
gtaccaattaccatagcagggaaaacagtgaaaacaaaagtactaataggaccaaccccagtaaatataattgga  
agaaatgttttaagacaacttggttgtagtctaaattttccctattagtagcagtagaaatagtaaaagtgaagctc  
aaggaaggaatggatgggcctaaaggtaaaacaatggccactatccagagagaaaattgaagccctaacagaaatt  
tgtgaaaatttaagagcagaagggaataatcattgaagtaggacctgacaatccttacaatactcccatctttgct  
attaaaaagaaagacagtacaaaatggagaaaattagtagatttttagagagctcaataaaaaggacacaaagatttt  
tgggaggtacaattaggaataccacacccagcaggggttaaaaaagagaaaagtcattactgtgttggtggtggg  
gatgcttatttttcaatcccatttagaccagaattttcaaaagtatacagcatttaccataccaagtgatcaataat  
gaaaggcctggtaaaagatatgtttacacagtgctaccacagggatggaaggggtctccagcaatcttccaatac  
agtatgacaaaaatttttagatccattcaggaagaagcatcctgaaatagatgtttaccaatacatggatgacctg  
tatgtaggatctgatttgacagctgaaaaacataaagaagtggttcaggagttaagaaaccacttgaaagcatgg  
ggcttagaaacccccgataaaaaaatatcaagagaaaccaccatttctctggatgggatatgaattacaccagag  
aagtggaacagtgagcagataaaattaccagagccagaaacatggacagttaatgatattcagaaattagtggtt  
aaattaaattgggcaagtcaaatttatccagggtatcagaacaagagaactctgcaaattaattagggggagtcaa  
ggactaacagatgtagtacagttgactgcagaagcagaattagaattagaggaaaataaacaatttttaaaagaa  
acagtagcaggggacctactatgacccaaaggaaacctcttaaggcagctgtacagaagcaaggaaaaggacaatgg  
acttatcaagtcctatcagaaagaaaatcaaataatttaaaaaacagggaataatgcaagaaaccatgggtactcatact  
aatgaattaaaacaatttagcaggggtagtgcaaaaaattgggacagaaagcattataatatgggggaagagtacct  
gtattccaacttccagttacaaaggaagtggtggaacaatgggtggtctgactattggcaggtcagctggattcca  
gaatgggagtttggttaacacccccccattaataaagttatgggtacaatctgttaacagaacctatgccagaagca  
gagacctattatgtagatggagcagcaaacagggactctaaattagggaagcagggtatgtgacagatagagga  
aaaagcagggtaatagaattaacagaaactactaatcagcaggcagaattacagggtatactgctggcattaaaa  
gatgcaaaaagaaaaggtcaacatagtgacagattcccaatatgtgctaggaatcttacaaggaactcctgaccaa  
agtgcactccccctagtagaggaaataatacaagaattaatgaataaagaagcagtttattttaattgggtacct

gctcacaaggaataggaggggaatgaagaagtagataaattagtaagcaaaaacattagaaaagttcttttccta  
gaaggaatagatcaagcacaagaagatcatgaaagattccatagtaattggaaaatggttagctgatgaatataat  
ttaccccccatagtagctaaggaaatcatagctcaatgcaataaatgtcacaggaaaggagaagccatacatgga  
caagtggattgtagcccagaaatatggcaactagactgcacacacatagaaggaaaagtgggttctagtagcagtc  
catgtagccagtggttcatagaagcagaagtgttatcaagtgaacaggcaaggaaacagctttcttcatttta  
aaactagcaggaagatggccagtaaaaaagatacatagataatggagccaattttactagtgtgcagtaaaag  
gcagcatgtgtgtgggcaaacatccaacaggaatttgggaattccctacaatccacaaagtcaaggagtggtagaa  
tccatgaataaacaattaaaaattattgtagaccaaattagagaacaagcagaacattttaaggacagcagtagct  
atggcagtgtagattcacaatttttaaagaaaaggggggattggggggtacacaccaggagatagaatattagac  
atattaacaacagacatacaaaactaaagaattacaaaaacaaatttttaaacttcaaaattttcgggtctattat  
agggactcaagagaccagtggtgaaaggaccagcccgtctcctgtggaagggtgaaggggcagtagtcataaag  
gagggagaagaaatcaaagtagtaccaagaaggaaggctaagattataaaggat

>#53 DQ373065 2745 nt

ataggaggagaaataaaaagaagctcttctagatacaggagctgatgatacagtaatagaagaaatacagttggaa  
ggaaaatggaaacaaaaaatgatagggggaattggagggtttatcaaagtaaaacagtatgataatgtgataata  
gagatacaagggaaaaaagcagttggcacagtcttagtagggccaacacctgttaattatttgggaagaaatttt  
ctgacacaaatttggttgtactctaaattttccaataagtcctattgaaaccataccagtgaaattgaagccaggt  
atggatggcccgagagtaaaacagtggtctttgacagaagaaaaaataaaggcactaacagaaatttgtacagaa  
atggaaaaagaaggaaaaatttccagaatagggcctgaaaatccatataataactccaatttttggctataaaaaag  
aaagatagcactaaatggagaaaaattagtagatttcagagaggttaaacaaaagaactcaagatttttgggaagta  
caattaggaatcccacatccagcagggctaaagaagaaaaaatcagtaaacagtgctagatgtagggagatgcttac  
ttttcatgtcccttagatgaaaatttttagaaagtatacagctttttaccataacctagtgtaaataatgaaacacct  
gggtattagataccagtagaatgtgctgccacaaggctggaaaggatcaccagcaatctttcagagcactatgaca  
aaaatattagaaccatttaggaagaacaatccagaactagtcatatatcagtacatggatgatctctatgtaggc  
tctgatctagaataacacaacatagagaggcagtggaagacttaggagtcattcttttgacttggggatttaca  
accctgacaaaaagcatcagaaagaaccaccatttttgggtgggatatgaactccatccagataaatggaca  
gtccagacaatacaattaccagagaaagacacatggactgtcaatgatatacaacagtttagtaggaaaaattaaac  
tgggctagccagatctaccaggggattaaagttaaacaactttgcaaattaattagaggagcaaaaagctctaaca  
gaagtagtcacacttacaagagaagcagaatttagagtttagctgagaataggagatattaaaagaacctgtacat  
ggggcctattataaccagacaaagaattaatagcagagatccagaagcagggacaaggtcaatggacatatcag  
atztatcaagacttacataaaaaatttaaagacagggaaaatatgcaaaaatgaggtctactcataactaatgacata  
agacaattaactgaagtgggtacaaaagggtggcactagaaaagtatagttatctggggaaaaactcctaaattcaga  
ttaccagtgcaaaaagaagtatgggagacctgggtggacagagatttggcaggcaacttggattcctgattgggag  
tttgtcaacaccctccactagtaaaattatgggtatcagtttagagacagaaccaatttagcggggcagaaacctat  
tatgtagatggagcagctaattagggaaaactaaattagggaaagcaggatttgtgacagataggggtaggcaaaag  
gtgacctctatctcagaaactaccaaccaacaagctgaattacagggtgtcctcatggccttacaagatgcagga  
caagaagtaatatagtcactgactctcagtatgtccttaggaataattcactcacaaccagataaaaagtgaatca  
gaattagtaaatcagataatagaagaacttataaaaaaggaaagaatatatctttcctgggtacctgcacataaa  
gggtattggaggaaatgaacagatagacaaatttagtcagcacaggaatcaggaaagtccttatccttagatgggtata  
gataaggctcaagaagaacatgaaagatatcatagtaattggaaggcaatggccagtgattttaatctaccccc  
atagtagctaaagaaatagtagccagttgtgataagtggtcaattgaaaggagaagccatacatgggcaaatcaac  
tgtagtccaggggtatggcaattagattgcacacatttggagggaaaaattatccttgttagcagtcctatgtggcc  
agtggctacttagaagcagaagtcattcctgcagaaacaggacaggaaactgcataattttatcctaaagttagct  
ggaagatggccagtaaaagtcatacatactgataatgggagcaacttcaccagtgccactgtaaaagcagcctgt  
tgggtgggcaaatatccaacaggagtttgggaataccctacaatcctcaaagtccaggtgcagtagaatccatgaat  
aaagaattaaagaaaattataggacaaattagagatcaagcagaacatttaaaaacagcagtagacaaatggcagtc  
ttcattcacaattttaagagaaaaggggggattggggggtacactgcaggggaaagaataatagacataatagca  
acagatatacaacaacaaagctacaaacacaaatttttaaagttcaaaattttcgggtttattacagagacagc  
agagagcccacttggaaaggaccagccaaactactgtggaaggagaaggggcagtggttaattcaagataacggg  
gatataaaagtagtcccacgtagaaaggccaaaataattagagat

>#54 AF103818 2745 nt

gtagcagggcagatagtagaagctcttttagacacaggagctgatgatacagtagtagacaacatacaaaattgaa  
gggacatggagacaaaaaatgatggggggaattggagggtttataaaaagtaaaacaatatgatcacgtcaatata  
gaaatagaggggaagaaaagcacagggttcagtttttagtgggaccaacaccagtaaatattattggcaggaatatt  
ttaacacaaattggatgtactttaaattttcctatcagctctattaaaactgtaccagtaagattaaaaccagga

atgggatggccctagagtaaagcaatggccattgacagcagaaaaaattaaggcattaacagaaatTTGCCAAGAA  
atggaaaaagaaggaaagattacaagagtagggccagaaaatccttacaatacaccaatTTTTGCTATCAAAAAG  
aaagatagcactaaatggagaaaattagtagactTTtagagaattaaataaaaaggacacaagacttctgggaagtt  
cagttaggcataccacacccagcaggattaaagaagaaaagatcagtaacagtcctagatgtaggggatgcctat  
TTTTCTTGTCCACTGGATAAGGAATTTAGAAAATACACAGCATTtaccatccctagtgtaaacaatgagaccca  
ggaattagataccagtataatgtgttaccacaaggatggaaagggtcaccagcaatTTTCCAGAGCAGTATGACA  
aaaattctagatcctTTTtagaaaacaacatccagatgttataatctatcaatatatggatgatctctatgtaggg  
tcagatctaaacttagaaaagcatagggaaaaggtagaactgctcagacaatatTTTgcttacttggggattcact  
accctgataagaagcatcaggaggaaccaccattccttatggatgggctatgaactccatccagataagtggaca  
gtgcagcccatacagttaccacaaaaagaaatTTGGACAGTCAATGATATTcagaaatttagtagggaaactgaac  
tgggcaagtCAGATATATCCAGGAATAAAAAATAAGCAGTTATGCAAATTAATAAAAAGGAGCTAAAGCTCTAACT  
gaagttgtaaatTTTACACATGAGGCAGAAATGGAGTTAGAAGAAAACAGAGAAATCTAAAGGAACCACTACAT  
ggggctctattatgaccagaaaaagaattagtagcagaagtacaaaaacaaggaaggagtcagtggacataccaa  
ATTTTCAAGAACGGCATAAGAATCTAAAGACAGGAAAATATGCCAGACAAAGATCAGCACATACTAATGATATC  
AGACAGCTAGTTGAAGTGGTGCAAAAAATAGCTACTGAGAGCATTGTcatttggggaaaggtaccaaaattTAAA  
TTGCTAGTGCAGAAAGAGTCTGGGAAACATGGTGGTCAGAAATATTGGCAGGCCACCTGGATTCCAGATTGGGAA  
TTTGTCAATACCCTCCCTCGTAAAACTTTGGTATAAGTTAGAGACAGAGGCCATAGAGGGGGCAGAAACATTT  
TATGTGGATGGAGCAGCCCAACGAGAAACCAAGAAAGGAAAGGCAGGATATGTTACTGATAGGGGTAGACAAAA  
ATTATAACTTTAGAAAATACTACTAATCAAAAGGCAGAGCTCACAGCGGTATACTTAGCATTAAAGATTcagag  
AATACAGTTAATGTAGTCACTGGCTCCCAATATGTCTTAGGAATCATCCACTCTCAGCCAGACCAAAGTGAATCA  
GAATTGGTCAATCAGATAATAGAAGAATTAATAAAGAAAGAAAAAAGTTATATCTCATGGGTACCAGCACATAAA  
GGAATTGGAGGAAATGAACAAATAGATAAACTAGTCAGTTcagggatcagaaaagttctTTTcctagatggcata  
GATAAAGCACAGGAAGACCATGACAAATATCATAGTAATTTGGACAGCTATGGCCAGTGATTTTAACTGCCACCA  
GTGGTCGCTAAGGAGATAGTGGCCAGCTGTGATAAATGTcagccaaaaggagaggccatacatgggcaggtagat  
TGCAGTCCAGGTATCTGGCAGCTAGATTGTACACATTTAGAAGGGGAAATCATTATAGTGGCAGTACATGTGGCC  
AGTGGATACCTAGAAGCAGAGGTcattcctgcagaaacaggacaagagacagcctatTTTtatctTAAAATTAGCA  
GGAAGATGGCCTGTAAAAGTGATTcatactgataatggatctaactTTTACAAGTAGTACAGTTAGAGCAGCTTGC  
TGGTGGGCAGGCATACAACAAGAGTTTGGAAATCCATACAATCCACAAAGTCAAGGAGTGGTAGAATCCATGAAT  
AAAGAATTAAGAAAATCATAGGACAAATCAGGGATCAAGCAGAGCATTtaagacagctgtacagatggcagta  
TTCATTcacaatTTTAAAAGAAAAGGGGGGATTGGGGGTATACTGCAGGAGAAAGAATCATAGACATCATAGCA  
TCAGAACTACAAACAGACTTATTACAAAAACAATTTTAAAAGTTCAAAATTTTCGGGTCTATTACAGGGACAGC  
AGAGATCCAATTTGGAAAGGACCAGCCAAACTTCTGTGGAAGGTGAAGGGGCAGTAGTAATCAAGGAAAACGAG  
GAGGTTAAAGTAGTACCAGAGAAAAGCAAAAATTATAAAGAC

>#55 EF535993 2745 nt

atagaggggCAGCTGATAGAAGCTCTGCTAGACACAGGAGCTGATGATACAGTGATAGATAATGTACAATTAACA  
GGAAGATGGAAACCAAAAATGATAGGGGGAATTTGGAGGTTTTATCAAAGTAAACAATATGATAACATAGCAATA  
GAAATTGAAGGCAGAAAAGCAACAGGCACAGTGTTGGTGGGACCAACACCAGTGAATATAATTGGCAGAAATATA  
TTGACACAGATTGGCTGTACTTTAAATTTCCCTATAAGTCCATTGGAAGTGTGCCAGTAAAATTAAAGCCAGGA  
ATGGATGGCCCTAGAGTAAAACAATGGCCCTTAACAGAAGAGAAAAATCAAAGCTTTAACAGAAATTTGTcaggaa  
ATGGAAAAAGAAGGAAAGATTTCAAAAATAGGGCCAGAAAATCCTTATAATACACCAATTTTTGCCATAAAAAAG  
AAAGATGGTGA AAAATGGAGAAAATTGGTAGATTTTtagagaattaaatagaagaacacaggacttctgggaagtc  
CAATTAGGCATACCACACCCGGCAGGATTA AAAAGAAAAAGTCAGTAACAGTACTAGATGTGGGAGACGCTTAT  
TTTTCTGCCCCTAGATGAAAGTTTTAGAAAATACACAGCATTtaccatacctagtgtaaacaatgagacacca  
GGAATTAGATATCAATATAATGTGCTACCACAAGGATGGAAAGGGTCACCAGCAATTTTTCAAAGCAGCATGACA  
AAAATCTTAGAACCATTTAGACAACAGAATCCAGAGTTGACAATTTACCAGTACATGGATGATCTTTATGTAGGC  
TCTGAYCTAGAAATAGGAGAACATAGAAAAAAGGTAGAGTTACTTAGACAACATCTACTCACTTGGGGTTTTACT  
ACTCCTGATAAGAAGCATCAAAAAGAGCCACTTTTTTGTGGATGGGCTATGAGCTTCATCCAGATAAATGGACA  
GTGCAACCAATACAGTTACCACAAAAAGAGACCTGGACTGTCAATGATATCCAAAAGCTGGTAGGAAAATTAAAT  
TGGGCAAGTCAATATATCCAGGGATAAAAGTAAAACAGCTATGCAAGCTCATAAAAAGGAGCAAAAGCTTTAACT  
GAAGTAGTGGCATGACACAGGAAGCAGAAATGGAATTGGAAGAAAATAGAGAAATTTTAAAAGACCCAGTGCA  
GGAGTGACTATGACCCAGAGAAGGAGTTAATAGCAGAAGTACAAAAACAGGGAAACAGTCAGTGGACTTATCAA  
ATTTTTCAGGAACAGCATAAGAACTTGAAAACAGGGAAGTATGCTAGGCAAAGATCAGCACATACTAATGACATA  
AGACAATTAGCAGAGGTAGTACAAAAAGTAGCAACTGAAAGTATAGTAATCTGGGGAAAAACACCAAAATTCAGA  
TTACCTGTTCAAAAGGAGGTCTGGGAAACCTGGTGGTCAGAACTACTGGCAAGCCACCTGGATCCAGACTGGGAG  
TTTGTAATAACCCTCCCTGGTAAAATATGGTACCARTTAGAAACAGAACCCATACCAGGGGCAGAAACATTC



tatgtagatggggcagccaacagagacacaaaagaaaggaaaaagcagggttatgtcacggatagaggtagacagaaa  
atagtcaatctagaagataccactaatcagaaagcagagctgcacagctgtttatctagccctacaagatgcagaa  
catatagttaacatagtcactgattcccaatatgtgttaggaataattcactctcagccagatcaaagtgagtca  
gaattgggttaatttaataatagaagagtttaataaaaaaggaaaaaagctacctctcatgggtgccagcacacaaa  
ggaattggaggaaatgaacaggttagataaatttagtcagctctggaattaggagagttctcttcttagatggtata  
gataaggcacaagaagaacatgaaaaatatcataataattggagagctatggcaagtgacttcaacctcccacct  
gtagtggccaaagaaatagtagccagttgtgacaagtgccaattaaaaggagaagccatgcatgggcaagtagac  
tgcagcccaggaatgtggcaattagactgcacacatctagaagggaagtcctcctagtggcagtagcatgtagcc  
agtggatacctagaggcagaggtcatccctgcagaaactggacaggaaacagcttattttattctaaaattagca  
ggaagatggccagtaaaagtaattcacactgataatggatctaattttaccagtaatacagttaaggcagcctgt  
tggtgggcaggcatccaacaggaatttggaattccttataacccacaaaagccaaggagtagtagaatcaatgaac  
aaagaattaaagaagatcataggacaaattagagaacaagcagagcatttaaagacagcagttcaaatggcagtg  
ttcattcacaatttttaaaagaaaaggggggattgggggggtacactgcaggagaaaggattatagacattatagca  
acagacatacaaaactaattttacaaaaacaaatttttaaaagttcaaaattttcgggtttattacagggacagc  
agagatccaattttgaaaggacctgccagacttctgtggaagggtgaaggggcagtagtaatcaaagataaagag  
gaagttaaagtagtgcccaggaggaaagcaaaaataatcagagat

>#56 AY169968 2745 nt

atagaagggcaattatgtgaagccctgttagacacaggggctgatgatcacagtaatacaagacattcaattacag  
ggaatttggaacccaaaaatgatagggggaattggaggctttattaaagtgaacaatatgataatgtatcaata  
gagatagaggggaaaaaagtgcaaggggacagtgttggtggggaccaacacctgtcaatataattgggagaaatatt  
ttaacacagataggggtgcacactgggtattccctatcagttcaattgaaactgtcccagtc aaattgaaaccagga  
atggacggggccaagaataaagcaatggcctttatcagcagaaaaaattaaagccttgacagaaatatgtcaggaa  
atggaaaaggaaggggaagatatctaaaataggacctgaaaacccatataactcctatttttgcaattaaaaag  
aaagatagttcaaatggagaaaattagtagatttcagagaattaaataaaaagaacccaagatctctgggaagta  
caattgggcataccccaccagcaggggttaaaagagaagaaatcagtaaacagtactagatgtgggtgatgcatat  
ttctcttgtcctctagataaggacttcaggaagtatacagcattcacaaattcctagtgtaaataatgaaactcca  
gggatcagatatcagtataatgtttttaccacaaggatggaaaagggtctccagctatctttcaaagtagtatgaca  
aaaattctggaacccttcagagcaaaaaacccctgatatcactgtctaccaatacatggatgacttatatgtaggg  
tctgatcttgacattacccaacacagacagaaggtagaagagtttaaggcaacatttgcttcactgggggtttaca  
accccagataaaaagcatcaaaaagaaccaccttcttatggatgggggtatgagcttcacccagataaatggaca  
gtgcagccaataaagctaccagaaaaggaggtatggacagtc aatgatcttcagaaactcataggaaaattaaac  
tgggcaagtgcagtttatccaggaataaaaaataaaacagttgtgcaaatttaataagaggaacaaaaagggttaaca  
gatgtagttcctctcacaccagaagcagaatttagaatttagcagaaaacagagaaatagtttagtacaccagtagcat  
gggggtttattataatccagataaggagctcatagcagaagtacaaaaacaggggagaaggggcagtggaacatatcag  
atctttcaggaacaacatagaaatttaaagacaggaataatgccagacagagatcaacacatacaaatgatatt  
agacaattggcagaagtcatacaaaaaattgctgtggaaggtatagtcatttggggaaaaaacacctagatttaga  
ttaccagtacaaaaagaaagttgggagacatggtgggcagagtagtggcaggccacctggatccccgagtgggag  
ttcattaacacccccccattagtaaaattatggtatagtttagagacagacctataccaacggcagacacatac  
tatgtagatgggagcagcaaatagggaacaaagaaaggaaaaagcaggatacataacagacaagggaaaaacaaaa  
ataatcagtcctagagaacaccactaatcaacaggcagagttaggggccttgatctagctttacaagactctgaa  
caacaagtgaacatagtaactgactctcaatatgtgttagggattattcagtcacaaccagatcacagtgaatca  
gaattagtaaatcaataatagaagaattaattaaaaaggacaaggtttacctttcctgggtacctgcacataag  
ggcataggaggaaatgaacaagtagataagtttagtcagttctggaatcaggaaagtactattcctggatggaata  
gataaagcacaggaagaacatgaaagatatcatagcaattggaaagcttttgcggggtgaatttaacttaccaccc  
atagtagcaaaagagatagtggttaactgtgataaatgtcaggtaaaaggagaggctctgcatgggcaggttgat  
tgtagcccggaacatggcagatggattgcacacatttagaaggcaaaatcatcatagtagcagttcatatagcc  
agtggatacatagaagcagaagttatcccagcagaaacaggacaagaaactgcatacttcatattaaaattagca  
agcagatggccagtgaaagtcttacacacagataatgggacaaattttacaagtaatgcagttaaagcagcatgt  
tggtgggccaacatcaacaaaaagtttggaattccttacaacccacaaaagtcaaggagtggtagaatccatgaac  
aaagaattaaagaaaatcattgaacaagttagagatcaggcagaacatctaaaaacagcagtagcaaatggcagtg  
ttcagtcacaatttttaagagaaaaggggggattgggggggtacactgcagggggaaagaataatagacataatagca  
acagacatacaaaagaactacaaaaacaaatttttaaaattcaaaaattttcgggtttattacagagacagc  
agagacccgattttgaaaggaccggccacctgtgtggaagggtgaaggggcagtagtaattcaggatcaagga  
gaaataaaagtagtacctagaaggaaagcaaaaataattagagat

>#57 AF382828 2745 nt

gtagcaggacaactatgtgaagccctactagatacaggggctgatgatacagtattagataatatatacaactagaa  
gggaaatggagacccaaaattaataggaggcattggaggattttattaaagtaaaacaatatgataatgtagaaata  
gaaatagagggaaaaagagtagaaagcacagtactagtgggaccaactccagttaatatattataggaagaaatgtg  
ttaacccaattaggatgtactctaaattttccaataagtcgaattactcctgtgccagtaaaaattaaagccagga  
acagatggaccaagggtaaagcaatggccattgtcaaaagaaaagatagaggcattaacagaaatttgtagggaa  
atggaaaaagaaggaaaaatttcaagaataggctcctgaaaatccatataatactcccatatttgcaataaggaag  
aaagacagtacaaagtggagaaaattagtagatttttagagaattgaataaaagaacacaagatttttgggaagta  
cagttaggcattccacaccctgcagggtttaaagaaaaagaaatcagtaacagtgccggatgtgggagatgcttat  
ttttcctgccccttagatgaaaacttttagaaagtatacagccttcaccatccctagtgtaaataatgaaactcca  
ggtataaggtaccagtataatgttctaccacaaggatggaaagggtcaccagcaatcttccaaagcagcatgaca  
aagggttttagaccctttcagacagaaaaaccagaatttggtaatattaccaatacatggatgacttatatgtagga  
tcagatttatctttggaagaacacaggaagagtagaacaactcagagaacatttactcagatgggggtttacc  
accctgacaagaagcaccaaaaggaacctcttttctctggatgggggtatgagcttcacccagacaaatggaca  
gtgcagccaatacagctgcctcagaaagagaattggactgtaaatgacattcagaaaactggtaggttaaattaaat  
tgggcaagtgcagatctatccaggaattaagataaaaacaattgtgtaaattaatcagaggagctaaggctttaaca  
gaaatagtcgagatgactagagaagcagaatttagagttagaagaaaatagggaatttttaaagaaccagtgcat  
ggcacctactatgaccagaaaaagaactaatagcagaagttcaaaagcagaataatgggcaatggacttatcag  
atttttcaggaacaggaaggaatctaaaaacaggaataatgcccagacaaagagcagctcctactaatgacata  
agacaactagctgaagtgggtgccaaaagtttcccctgaaagtataatcctttggggaactgttcctaaatttaaag  
ttaccagtgc aaagggaagtatgggaagcctgggtggacagattattggcaagccacctggatccctgaatgggaa  
ttcgtcagaacccccaccttgttaaagttatgggtatcaattggaaaaagaacctatacaaggagcagaaacctat  
tatgttgatggggcagccaataggggagacaagaagaggaaaaagcaggatatgttattaataatggaaaaacagaag  
gtcatttcttgggaagagaccactaaccaaaaggcagaatttagaggcactcagaatagccctacaggactcaggg  
caagaagttaaattgtggtaacagactcccaatatgtgttgggaatcataaattcccaaccagaccaaagtgcagca  
gaaatagtgaaatcaataatagaagagctaataaagaaagagaaggtctatttgacatgggtaccagcacacaaa  
ggaataggaggaaatgaacaggtagataagtttagtcagtagtggcatcagaaaggtgctattttttagatggtata  
gataaggcacaagaagaccatgagagatatcatagcaactggagagccatggctgatgaattccaactcccaccg  
gtagtagccaaagaaatagtagccacatgtgataaatgtcagcttaaaggagaagcaatacatggacaagtggat  
tgcagtcagggatctggcagctggactgcacccacttagaagggaaaaataatcctgggtggcagtcctatgtggca  
agtggatacttagaagcagaagtaattccagctgagactggacaggaaactgcataattttatcttaaaattagca  
gggagatggccagtaaaagaagatacacacagataatggaacaaatttcaccagtgcagcagtaaaagcagcctgt  
tgggtgggcaggcataaaacaagaatttggaaatccttataatccacaaagtcaaggggtagtagaatccatgaac  
aaagaattaaaaaagattatagggcaagtttagagaccaagcagaacacttaagacagcagtagacaaatggctgta  
ttcattcacattttttaaagaagaaagggggattggggggtacactgcaggagaaagaatagtagacatgctagca  
acagacttacaaacacaagaactacaaaaacaaattctaaaaattcaaaaatttcgggtttattacagagacagc  
agagacccccatttggaaaggaccagcctctctcctgtggaaaggtgaggggtgcagtagttattcagggacaacgga  
gatataaaagtagtaccagagaagaaaagctaaaattatttaaact

>#58 EF535994 2739 nt

ggagttataaaagaggtactatttagacacaggggcagatgatacagtactagaggaaatagaattagagggaaaa  
tggaggccaaaaatgatagggggaattggaggttttataaaagtaagacaatatgatcagatacccatagaaatt  
tgtggaaaaagagcaatagggtacagtatttagtagggccacacctgtgaatattataggggagaaatatcttaact  
caaattgggtgtactctaaattttccattagcactatagaaactgtaccagtaaaaattaaagccagggtggac  
ggtccaagaggttaaacagtgggccctaacagaagaaaaaataaaagcattgacagaaatttgtacagagatggaa  
aagggaaggaaaaatttcaagaataggggccagaaaatccatataatacaccaatatttgcattaaagaaaaagga  
agcacaaaaatggagaaaattagtagacttcagagaattaaataaaaagaacccaagatttttgggaagtccagcta  
ggaataccacacccctgcgggactgaaaaagaaaaaatcagtaacagtgctggacgtaggggatgcttatttttca  
tgccccctagatgaagagtttagaaaaatacactgccttcaccatacctagtgtaaataatgagacaccaggaata  
aggtaccagtacaatgtactcccgcagggtggaaaggatcaccagctatttttcaaagcagtagtactaagatt  
ctggaaccttatagaaaacagaatccagaaatagtcattctaccagtacatggatgatctatatgtaggatctgat  
ttacatatagagcaacatagagaaaaggtggaagaattaaagagctcatctattaaagtggggctttactacacct  
gacaaaaagcatcaaaaagaaccaccattcctttggatgggatatgagctccatccagacaaatggacagtcag  
ccatacagctgccagamaaagacagctggactgtcaatgacatacagaaattagtaggaaaggttaaattgggca  
agtcaaatatatccaggaattaaggtaaaaacaattgtgtaaagcttatttagaggaacaaaagctttaacagaggta  
gttrccctcacacaggaagcagaattagagtttagcagaaaacaggggagatattaagagacctgtacatggggcc  
tactatgacccctcaaaagaattgatagcagaaatacagaaacaaggtcaaggccaatggacttatcagatttat

caggaacagcataaaaaatctgaaaacaggaaaatatgcaaaaatgagagctgccattcaaatgatgtaaaacag  
ttgactgaagtagtacagaaagtagccctggaaagtatagtcattctggggaaaaacacccaagtttagactgcc  
atacagaaagaaacatgggaggcttggtggacagattactggcaagcaacttggatccctgaatgggaatatgtt  
aacacccctcccctggtaaagctgtggtaccagttagaacagaaacccatagtgggggcagaaaccttttatgta  
gatggggcagcaaatagagaaaccaaattaggaaaagcaggatatgtaactgatagaggagacaaaagattatc  
tcctaacagaaacaactaatcaaagagcagaactgcaagctatatacctagccctacaggattcagaagtagag  
gtaaacatagttactgactcacaatatgcattagggatcattcaatcacagcctgacattagtgaatcagacata  
gtaaatcagataatagagcagctagtgtaaaaaggaaaagatttatctttcatgggtaccagcacacaaaagggtt  
ggaggaaatgaacaaatagacaaattagtttagtgcaggaatcaggaaagtccttttctggatgggaatagataag  
gccaagaagaacatgagaaataccacaacaattggaaagctatggcagatgaatttaatttgccacccatagta  
gcaaagaaatagtagccagctgtgataaatgccaattaaaaggagaagccatgcatggacaggtagactgtagt  
ccaggaatatggcaactagactgcacacatttagaaggaaagatcatcttagtagctgtacatgtagccagtgga  
tacatagaggcagaagtcatacctgctgaaacagggcaagagacagcttattttgtgctgaaatttagcaggaaga  
tgccagtaaaaggttatcacactgataatggcagcaactttactagtgtgctgtcaaggctgcatgttggtgg  
gcaaatatccaacaggaatttggaattccctacaatcctcagagtcaggagtagtagaatcaatgaacaaagag  
ttaaagaaaatcatagggcaggttaagagatcaagcagaacatttaagacagcagtgcaaatggcagtcctcatt  
cacaattttaaaagaaaaggggggattggggggtacagtgccaggggaaagaatcatagatatataatagcaacagat  
atacaactagagaactacaaaaacaaatttcaaaagttcaaaaatttcgggtttattacagggacagcagagaa  
cctatctggaaaggaccagccaagcttctctggaaaggtgagggagcggtagtgcttcaagataaggaagatata  
aaagtagtcccacgcagaaaggctaaaataatcagggac

>#59 DQ373066 2745 nt

attgaaggacaattaattgaagccttgctagacacaggggctgatgacacagtaattgaagacttaaatttgcca  
ggaaaatggagtcacaaaatgatagggggaattggaggttttattaaagtaaaacaatttgaaagagtaaacata  
gaaatagaaggaaaaaagataaccagtagtatttagtaggaccaaccctgtcaatataataggaagaaatgtc  
ctaacaaaatttagggtgtactctaaatttccaataagtccaatagacacagtaaaagtgtttctaaagccaggg  
atggacggggcccaaggtaaaacagtgccctctgtcaaaagaaaaaatagaggcattaactgaaatatgtaaagaa  
atggaaaaaggaaggaaaaatttcaaaaatagggccagaaaaatccttacaatacacctatttttgcaattaagaaa  
aaggacagcaccaaatggagaaaacttggtgatttcagagaacttaataagaggactcaagaattttgggaagta  
caactgggcataccacaccagctgggttaaagaagaaaaaatcagtaaacagtccttggatgtgggagatgcctat  
ttttcatgtcctcttgaccagacttttagaaaatttactgcattcaccattcctagcataaataatgaaactcca  
ggaattagatatcaatataatgtacttcctcaaggatggaagggatctccttccatctttcagagtagcatgaca  
aagatcttagaaccttttagaacaagcatccagaaataattatttaccagtacatggatgacttgtatgtgggc  
tcagatttacctatagaggaacatagaaagagagtagaagagctcagagcacatctgttaaaatggggatttaca  
acaccagacaagaagcatcagaaagaacccccatttctctggatgggatatgagttacatccagataagtggaca  
gtccagcaataaaaattgccagaacaggaagtgtggactgttaatgatattcagaagtttagtaggcaaattaaat  
tgggcaagtcaatatatccaggaattaaaattaaagcagctttgtaaattaattaggggagcgaagggctgaca  
gaagtagtagtctcaccccagaagctgaactagaactggcagaaaaatcaagagatactaaaagaaccagtacat  
ggagcctactatgacctgaaaaggaattaatagcagaaatacagaagcaaggacagggtcagtggaacatatcaa  
atatttcaggagccacataaaaaacctaagacaggaaaaatatggcaaaacaaagagctgcacatactaatgatatt  
aggcagcttgctgaaacagtacaaaaaatagctacagaaagcattgtaatatggggaaaaacaccaaatttaga  
ctccctgttcaaaaagaaatgtgggaagcctggtgggcagattactggcaggctacctggattcctgagtgggaa  
ttcataaacaccccacccctagtaaagttaggtaccagtttagagacagagcctatagaaggagcagaaacatac  
tatgtagatggggcagccaacagagaaacaaaaagaggaaaaagcaggctatgtgacaaacagggggagacaaaag  
attcatagtcttgaagataccactaatcaaaaagcagaattacaagcagttttaatggccttacaggactcagga  
caggaagtcaatgtggtcactgactcccaatatgtgctgggaatcttacaatcacaccagaccacagtgaatca  
gatatagtaaatcagataatagaagagtttaataaaaaaggaaaaaatttatctatcatgggtaccagcacacaga  
ggtataggaggaaatgaacaggttagataaactagtttagttcagggatcagaaaagttcttttcttagatggaata  
gaaaaagctcaagaagaacatgaaagataccactctaattggaaggcaatggctcaggactttaacttaccacca  
atagtggttaaagaaatagtagccaatgtgataaatgtcagctaaaaggagaagcaatgcatggacaagttgac  
tgtagcccaggaatatggcagattgattgcacccattttagaaggaaaaataattatagtggcagtcctatgtggcc  
agtggatacatagaagcagaagtcacccctgctgaaacaggacaggaaaacagcatattttgtccttaagttagca  
ggaagatggccagtaaaagactatacacacagacaatgggcctaatttctactagtaatgcagtaaaaggcagcatgt  
tggtgggcaggtatttagacaggaatttggaattccatacaacccacaaagtcaaggagtagtggaatctatgaat  
aaagaattaaaaaagatcatagagcaagtcagagatcagggtgaacatttaaaaacagcagtacaaatggcagtc  
ttcattcacaatttttaaaagaaaaggggggattgggggggtacagtgccagagagagaataatagacatcatagca

acagacatacaaaacaaaagaactacaaaaacaaatttttaaaaattcaacaatttcgggtctattacagagacagc  
aaagatccaattttggaaggaccagcgaaactcctgtggaaaggtgaaggggcagtggtaattcaagatcaggac  
gaaataaaagtgggtgcctagaaggaaagctaagataattagggat

>#60 DQ373064 2745 nt

gtcgggggctacttgaaaggagcactgttagatacaggggcagatgatacagtgctagaagatttagaattaggg  
ggaaggtggaaccaaagatgataggaggaattggaggttttatcaaagtaaagcaatatgataatataccaata  
gaaataggaggaaaaaaggcactaggtacagtttttagtaggacccacaccagtaaatatcataggaaggaacatt  
ttaactcaaattggatgtactctaaattttcctatttagccctattgaaactgtaccagtacaattaaagccagga  
atggatgggcaaaaagtaaaacaatggcccttaacagaggaaaaaattaaagctttaacagaaatctgtacagaa  
atggaacaggaaggaaaaatttcaagaatagggcctgaaaacccatataatactcctgtgtttgctataaaaaag  
aaagatagcacaaaatggagaaaattagtagatttttagagaattaaataaaagaactcaagacttttgggaagtt  
caattaggaatacctcaccctgcgggattaaagaagaaaaggtcagtcacagtattggatgtaggagatgcctac  
ttttcatgccccctagatgaaaacttttagaaaatatactgcattcaccatacctagtataaacaatgaaacacca  
ggaatcagatatcaatacaatgttctaccgcagggatggaaaggatcaccagctatatttcaaagtagcatgaca  
aagatttttagagccattcagaagacagaaccagatatagtaatttatcagtacatggatgatttatatgtaggg  
tcagatttgaaaatagagcaacacaggaacaaggtagaagagctgagagctcacttgctaaagtgggggtttacc  
accctgacaaaaaacatcagaaggaaccaccatttctctggatgggatatgaactccatccagacaaatggaca  
gtacagcccatacagttaccagaaaaggaaagttggactgtcaatgacatacagaaattgggtgggaaaaattaaat  
tgggcaagtcaaatatacccaggcatcaagataaaaacagatatgcaggccttcttaggggagtaaagaattcaaca  
gaagtagtcacctttactagagaagcagaattagaatttagcagaaaaatagggaatattaaaaaacccagtacat  
gggggtctattatgacccggctaaagacctgatagcagaagtacaaaaacaaggacagagtcattggacctatcaa  
atctatcaggaacaattttaaaaatctgaaaacaggaaaaatatgccagacaaggggtctgctcataccaatgatgta  
aaacagtttagcagaggtaatgcaaaagatagccatagaaagcatagtcatatggggaaaaataccaaagttaga  
ttgcccattcaaaaagaagcatgggaagcatggtggacagattattggcaagccacttggatccctgaatgggaa  
tatgttaataccccttcccatgtcaagttttgggtaccaatttagagcaagaacctataaccaggggcagaaacattt  
tatgtagatggggcagctaacagagaaaactaagttaggaaaaagcaggatatgtaacagatagggggaagcagaaa  
ataatccccttaacagaaacaaccaatcagaaggctgagttacaagccattcaattagccttacaagactcagga  
cctgaggtaaatatagttactgattcacaatatgcattaggaatccttcaagcccaaccggatcagagtgattca  
gaattggtgaatcaaatcatagaaaatctaataaaaaaggaaaaagtttacttaacatgggtacctgcacataag  
ggaataggaggaaatgaacaagtagacaaatttagtcagttcaggaattaggaaagtcctttttctggatggaata  
gatcgagcccaggaagagcatgaaaaataccataataattggagagctatggccagtgatttcaatctgccacc  
attgtagcaaaagagatagtagctagttgtgataaatgtcagctaaaggagaggcaatgcatggacaggttagac  
tgtagcccaggaatatggcagtttagattgtacacacctagaaggaaaaagtcattcttagtagcagtgcatgtagct  
agtggctatatggaagcagaagtcatacctgcagaaacaggacaggaaacagcttatttttatcttaaaattagca  
tcgagatggccagtaaaaaattatacatactgataatggttagcaattttactagcactgcagtcagggtgcatgt  
tgggtgggcgcagatccagcaggaatttggaattccctacaatccccagagtcaaggagtggtagaatcaatgaac  
aaagaacttaagaaaataatagggcaggtgaagagatcaggcagagcacctaaaaacagcagtacaaatggcagta  
ttcattcacaatttttaaaagaaaagggggattgggggatacagtgacaggagaaagaataatagacataatagca  
acagatatacaaactacagaattacaaaaacaaatttcaaaagttcaaaaatttcgggtttattacagggaccgc  
agagatcctattttggaaggaccagccaaactactgtggaaggggtgaaggagcagtagtgctgcaagatcaggaa  
gaaataaaggtagtcccacgtagaaaagctaaaatttattagggat

>#61 KP861923 2745 nt

ataggaggacacttaaaagaggcactgttagacacaggggcagatgatacagtgctagaagagctagaattaggg  
ggaaaatggaaccaaataatgatagggggaattggaggttttatcaaagtaaagcagtatgaaaatataccaata  
gaaatatgtggaagagagcagtaggtacagtttttagtaggacccacacctgttaatatataatagggagaaacata  
ttaactcaaattggctgtactttaaattttcctatcagtcctattgaaactgtaccagttagcattaaagccaggg  
atggatggaccaagagtcaaaacaatggccattgacagaagaaaaaataaaagcattgacagaaatttgacagaa  
atggaaaaggaaggaaagatttctaaaattgggcctgaaaatccatacaatacaccagttattgctataaaaaag  
aaagatagtacaaaatggagaaaattagtagatttcagagaattaaataaaagaactcaagatttctgggaggtt  
cagttaggaataccccaccctgcgggggttaaagaagaaaaaatcagttactgtattggatgtgggggatgcttat  
ttttcatgccccctagatgaaaatttttaggaaatatacagcattcactatacctagtgtgaataatgagacacca  
ggaatcaggtatcaatacaatgtactcccgagggatggaaaggatcaccagccatatttcaagctagtatgaca  
aaaattctagagccttacagaaagcagaatccagagataattatttaccaatacatggatgatttgtagtaggc  
tcagatttataaaattgagctacacagacaaaagggtagaagagctgagagatcatctactaagatggggatttact  
accctgacaagaaacatcagaaggaaccaccattcctctggatgggggtatgagctccatccagacaaatgggca

gtacagcctatacagttaccagacaaggagagctggactgtcaatgatatacaaaaaactagtgggaaagttaaatt  
tgaggcaagtcaaataatccaggaattaaagtaaagcaattatgcaagctaattagaggaacaaagagtttaaca  
gaggtagttaccctcacaaaagaagcagaattagaattggctgaaaacagggagatattggcaaaccagtacat  
ggggtctattatgacccttcaaaaagaattgatagcagaagtacaaaacagggacagagtcagtgacatatcag  
atatatcaagaacagtttaagaatttaaaagacaggaaaatatgctaaaacaagatcagcccataccaatgatgta  
aagcaattaacagaagtagtgcaaaaaatagcattagaaagcattgttatctggggtaagataccaaagttaga  
ctgcccatacaaaaaggaaacatgggaagcctgggtggactaattattggcagggtacctggatccctgaatgggaa  
tatgttaatacccccctcccctagtataaaactctgggtaccagttagaaacagaaaccaataacaggtgcagagacattc  
tatgtagatggggcagctaataagagataccaagttagggaaagcaggggtatgtaacagatagggggaaacaaaag  
ataatctccctaacagaaacaactaatcagaaagcagagttacaagctattcagctagctttacaggattcagga  
tcagaagtaaacatagtaactgactcacaatatgcattaggaattatccaaggccagccagataaaaagtgaatca  
gaaatagtaaatcagataatagaaagtttaataaacaaggaaaggggtctatctctcatgggtacctgcacacaaa  
gggaattggaggaaatgaggaagtagacaaatttagtcagttcagggattagaagagttctcttccctggatggaata  
gacaaagcacaggaagagcatgaaaaataccataataattggaaagcaatggccagtgactttaataataccccc  
atagtagcaaaagaaatagtagccagttgtgataaatgtcaattgaaggagagaagcaatgcatggacaggtagac  
tgcagtcctggaatatggcaactagattgcacccacctagaaggaaagatcatcctagtagcagtagcatgttgcc  
agtggctacatagaagcagaagtcatacctgcagaaacagggcagggagacagcatacttcatattaaaattagca  
ggaagatggccagtaaaaagttatacacactgataatggcagcaactttaccagtaatgcagtcagggtgcatgt  
tggtgggacacagatccaacaggaatttggaattccctacaatccccaaagtcaaggagtagtagaatccatgaat  
aaagaactaaagaagattataggacaagtaagagatcaggcagaacatttaagacagcagtagacaaatggcagta  
ttcattcacatttttaaaagaaaaggggggattggggggtacagtgacaggagagagaataatagacatcatagca  
acagacatacaaaactacagaactacaaaaacaaattttaaaagttcaaaaatttcggggtttattacaggggacagc  
agagatcctattttgaaaggaccagcaaaaactacttttggaaggggtgaaggagcagtagtgcttcaagatcaggaa  
gaaataaaggtagtcccacgtagaaaaagcaaaaattattagggat

>#62 AJ302647 2754 nt

ccagcaagggttgggggcatctatgtgaagttttactggatcacaggggcagatgatacagtagtaataacata  
caattggaaggaaaatggacacccaaaaatgatagggggtataggaggttttataaaggtaaagaatataatcaa  
gtgccagtagaaatagagggaagggaagtagtactgggaacagtagttgggtgggacctactcctgttaatatatttga  
agaaacatatattgacaggattgggtgtgactactaaatttccctataagtcctcatagccccagtagccagtaaaacta  
aaaccaggaatggatggacccaaaaataaaacaatggcccctatctaaagaaaaaatagaagccttgacagcaata  
tgtcaggaaatggaacaagaaggaaaaatttcaagaataggacctgaaaatccttataatacacctatctttgct  
ataaaaaagaaagatagcactaagtgagaaagctggtagacttttagggaattaaacaagagaaacacaagatttc  
tgaggaggtacagttaggtatcccatccgggggttttaagcaaaaagcaatctgttacagtccttagatgtagga  
gatgcttatttctcatgccccttagacccagatttcagaaaaatatactgccttcactattccttagtgtagcaat  
gagacccaggaataagataccagtagcaatgtcctcccgcagggatggaaagggctgccagctatatattccaaagt  
tcaatgacaaaaatttttagatccatttaggaaaaacaaccacagaattagaatttgtcaatacatggatgactta  
tatgtaggatcagattttaccccctgacagaacatagaaagagagtagaattgcttagagaacacttatatcagtggt  
ggattcactaccccctgataaaaagcatcaaaaggaacctcccttttgtggatgggggtatgagctccatccagac  
aatggacagtagacaaccatccaattgcctaacaaggaggaatggacagtaaatgatatacaaaaactagtagga  
aaattaaattgggcaagtc aaatctatcaaggaattagagtaaaagaattgtgtaagtttaattagaggcaccaag  
tcattgacagaagtagtacctttaagtaaagaggcagagctagaattagaggagaatagagaaaaagttaaaagaa  
ccagtgcatggtgtatactatcaacctgacaaagacttatgggttaatatcagaagcagggaaaaaggacaatgg  
acttatcagatatatcaggatgaacataagaacctcaaaacagggaaatataactaagcaaaaaggcctctcacaca  
aatgatataagacaatttagcagaagtagtccagaaggtgtctcaagaagctataattatctggggaaaaattgcct  
aaatttaagctgccaatcactagagaaaacttgggaacatgggtgggcagactattggcaagccacctggattcca  
gaatgggaatttgtcagcacagccccattgatcaaattatgggtaccagttagaaagtgaacctattataggggca  
gaaacctattatgtagatggagcagctaacagagatacaaaaactaggaaaagcaggatattgttacagaaaaagg  
aaacagaaaaatagtaaaattagaggagaccaccaatcaaaaggctgaattaatggcagtagttatttagccttacag  
gattccaaggaaacagtaaatatagtaacagattcacaaatattgtattgggcatcatctcctcacagcctacacag  
agtgagtcctctagttcagcagataatagaggaaactaacacaaaaggaacaggtgtttcttacatgggttccct  
gcccataaaggcataggaggaaatgaaaaaatagataaattagtaagcaaggatattagaagagtcctattccta  
gaaggaaatagaccaggcacaagaagatcatgaaaagtatcatagcaattggagagcatttagctagtgattttgga  
ttgccaccagtggtggccaaagaaatcattgctaattgtcctaaatgtcatataaaaaggggaagcaattcatgggt  
caggtagactacagtcagaaagtagtgcaaatagattgcacacatctagaaggcaaaatcataatagttgctgtt  
catgtggcaagtggttcatagaagcagaagtaataccagcagaaacaggacaagaaactgcctacttccctgtta

aaattagctgcaagatggcctgtttaaataatacatacagacaatgggcctaatttcacaagtgcacccatgaag  
gctgcatgttggtggacaggcataaaacatgagtttggaataccatataatccacaaagtcaaggagtagtagag  
gccatgaacaaggaattaaaatcaattatacagcaggtgagggaccaagcagaacacttaaaaacagcagtacaa  
atggcagtatgttgcacaattataaaagaaaaggggggattggggggtacactgcaggagaaaggataatagac  
atattagcatcacaatacaaacacagaattacaaaaacaaattttttaaattcaaaaatttcaggtctattac  
agagacagcagagatcctatttggaaaggaccggcacagctcctgtggaaaggtgagggagcagtagtcatacaa  
gataaaggagacattaaggtagtaccaagaagaaggcaaaaataatcagacat

>#63 AJ302646 2754 nt

acagcaagggttgggggcatctatgtgaagttttactggatacaggggcagatgatacagtactaaccaacata  
caattggaaggaaaatggacacccaaaatgatagggggtataggaggttttataaaggtaaagaatataatcaa  
gtgccagtagaaatagagggaagggaagtactgggaacagtagttggtgggacctactcctgttaatatatttggga  
agaaacatatattgacaggattgggttgcacactaaatttccctataagtcctatagccccagtagccagtaaaacta  
aaaccaggaatggatggacccaaaaataaaacaatggcccctatctaaagaaaaaatagaagccttgacagcaata  
tgtcaggaaatggaacaagaaggaaaaatttcaagaataggacctgaaaatccttataatacacctatctttgct  
ataaaaaagaaagatagcactaagtggagaaagctggttagacttttagggaattaaacaagagaaacacaagatttc  
tgggaggtacagttaggtatcccatccgggggtttaaagcaaaagcaatctgttacagtccttagatgtagga  
gacgcttatttctcatgccccttagacccagatttcagaaaaatatactgccttcactattccttagtgtgaacaat  
gagaccccggaataagataccagtagcaatgtcctcccgcaaggatggaaaggtcgccagctatatccaaagt  
tcaatgacaaaaatttttagatccatttaggaaagacaaccagaaattagaattttgtcaatacatggatgactta  
tatgttaggatcagattttacccttgacagaacatagaaagagagtagaattgcttagagaacacttatatcagtggt  
ggattcactaccctgataaaaaagcatcaaaagggaacctccctttttgtggatgggggtatgagctccatccagac  
aaatggacagtgacagcccatccaattgcctaacaaggaggaatggacagtaaatgacatacaaaaactagtagga  
aagttaaattgggcaagtc aaatctatcaaggaattagagtaaaagagttgtgtaagttaattagaggcgccaag  
tcattgacagaaatagtacctttaagtaaagaagcagagctagaattagaggagaatagagaaaaagttaaaagaa  
ccagtgcatggtgtatactatcaacctgacaaagacttatgggttaatatcagaagcaggggatggggacaatgg  
acttatcagatatatcaggatgaacataagaacctcaaaacagggaaatatactagacaaaaggcctctcacaca  
aatgatataagacaatttagcagaagtagtccagaggggtgtctcaagaggctataattatctggggaaaaattgcct  
aaatttaagctgccaatcactagagaaaacttgggaacatggtgggcgactattggcaagccacctggattcca  
gaatgggaatttgtcagtagacccccattgatcaaattatggtaccagttagaaagtgaacctattatgggggca  
gaaacctattatgtagatggagcagctaacagagatacaaaaactaggaaaagccggatatgttacagaaaagggg  
agacagaaaaataattaaattagaggagaccaccaatcaaagggtgaattaatggcagtagtatttagccttacag  
gattccaaggaaacagtaaatatagtagaagattcccaatatgtattgggcatcatctcctcacagcctacacag  
agtgaatcctctctagttcagcagataatagaggaaactaacaaaaaaggaaacaggtgtatcttacatgggttct  
gcccataaaggcataggaggaaatgaaaaaatagataaaattagtaagcaaggatattagaagagtcctattccta  
gaaggaatagaccaggcacaagaagatcatgaaaagtatcatagcaattggagagcatttagctagtgattttgga  
ttaccaccagtggtggccaaagaaatcattgtcaattgtcctcaatgtcatataaaaaggggaagcaattcatggt  
caggtagactgcagtcaggaagtagtggcaaatggattgcacacatctagaaggcaaaatcataatagttgctgtc  
catgtggcaagtggattcatagaagcagaagtaataccagcagaaacaggacaggaaaactgcctacttctgtta  
aaattagctgcaagatggcctgttaaggttaatacatacagacaatgggcctaattttacaagtgcagccatgaag  
gctgcatgttggtgggccaacataaaacatgagtttggaataccatataatccacaaagtcaaggagtagtagag  
gccatgaacaaggaattaaaatcaattatacagcaggtgagggaccaagcagaacacttaaaaacagcagtacaa  
atggcagtatgttgtgcacaattataaaagaaaaggggggattggggggtacactgcaggagaaaggataatagac  
atattagcatcacaatacaaacacagaattacaaaaacaaattttttaaattcaaaaatttcaggtctattac  
agagacagcagagatcctatttggaaaggaccggcacagctcctgtggaaaggtgagggagcagtagtcatacaa  
gataaaggagacattaaggtagtaccaagaagaaggcaaaaataatcagacat

>#64 AY169812 2754 nt

acagcaaaagtggggggcatctatgtgaagtkttrctggatacaggggcagatgatacagtactaaacaacata  
caattggaaggaaaatggacacccaaaatgatagggggtatagggggytttataaaagtaaagaatataatgatg  
gtgacagtagaaatagagggaagacaagtacagggaacagtagttggtgggacctaccctgttaatatatttggga  
agaaatatattgacaggattaggttgtacactaaattttccctataagccccatagccccagtrccagtaaaatta  
aaaccaggaatggatggacccaaaaataaaacaatggcccctatctaaagaaaaaatagaagcyttgacagcaata  
tgtcaggaaatggaacaagaaggaaaaatttcaagaataggacctgaaaatccttataatacacctatctttgca  
ataaaaaagaaagatagtactaagtggagaaaattggttagacttttagggaattaaacaagagaaacacaagatttc  
tgggaggtacagttaggtatcccatccaggggggtttaaagcaaaagcaatctgttacagtccttagatgtagga  
gatgcttatttctcatgccccttagacccagatttcagaaaaatatactgccttcactattccttagtgtgaacaat

gagaccccggaataagataaccagtacaatgtcctcccgcaaggatggaaagggtcaccagctatatattccaaagt  
tcaatgataaraattctagatccatttaggaggggacaaccagaaattagaaatttgtcagtagcatggatgacct  
tatgtaggatcagattttacccttgacagaacatagaagaagggtagaaatgcttagagaacacttatataagtgg  
ggattcactacccttgataaaaagcatcaaaaggaacctcccttctgttgatgggggtatgagctccatccagac  
aaatggacagtacagcccatccaattacctaacaaggatgtgtggacagtaaatgatatacaaaaattagtagga  
aagttaaattgggcaagtc aaatctattcaggaattagagtaaaagaattgtgtaaattaattagaggcacaaa  
tcattgacagaagtagtacctttaagtaaaggagcagagctggaattagaggagaacagagagaagctaaargaa  
acagtgcattggtgtatactatcaacctgamaaagamttatgggttcagattcagaagcatgaawcaggggcaatgg  
acttaccagatatatcaggatgaatataagaacctcaaaacaggaaartatactaggcaaaaagcctcccacaca  
aatgatataagactattaacagaagtagtccagaaggtggctcaagaagccatagttatctggggaaaattgcct  
aaatttaagctgccagtcactagagaaacttgggaacatgggtggacagactwttggcaagccacctggattcca  
gaatgggaattcgttagtacacccccattgatcaaattatgggtacaggttagaaagtgaacctatcataggagca  
gaaacctattatgtagatggagcagctaatagaatacwaactagggaaggcaggatatgttacagaacaaggg  
aaacagaaaaatagtaaaattagaggagaccaccaatcaaaaggctgarttaatggcgatactattagccctacag  
gaytccaargaaacagtaaatatagtaacagattcacaatatgcattgggtatcatctcctcccaacctacrcag  
agtgaattccccattagttcagcagataatagaggaactaacaataagggaacaggtgtatcttgcattgggttcct  
gctcataaaggcataggaggaaatgaaaaatagataaattagtgagcaaggatattagaagagtcctattcyta  
gaaggaatagaccaggcacaagaagatcatgagaataatcatagcaattggaaagcatttagctagtgcatttggg  
ctaccaccagtagtggccaaagaaatcattgctagttgtcctaaatgtcatataaaaggagaagcaatgcattggt  
caggtcgactgcagtcaggaagtatggcaaatagattgcacacatttagaaggcaagggtcataatagttgctgtc  
catgtggcaagtggttcatagaagcagaagtaataccagctgaaacaggacaagaaactgcctacttctgttta  
aaattagctgcaaggtggcctgttaaaattatacatacagacaacgggcctaattttacaagtgcaccatgaaa  
gctgcattgttgggtggaccaacatacaacatgagtttgggaataccttataatccacaaagtcaaggagtagtagaa  
gccatgaataaggaattaaaaatcaattatacagcaggtgagggaccaagcagaacacttaagaacagcagtacaa  
atggcagttattgttccaaatttttaaaagaaaaggggggattggggggtacactgcaggagaaaggataatagac  
atactagcatcacaatacaaaacaacagaattacaaaaacaaatttttaaaattcaaaaatttcaggtctattac  
agagacagcagagaccctatttggaaaggaccggcacagctcctgtggaagggtgagggagcagtagtcatacaa  
gataaaggagaaattaaagtagtaccaagaagaaaggcaaaaataatcagacat

>#65 AY169816 2754 nt

acagcaagagttgggggcccacctatgtgaagttttctggtgatacaggggagatgatacagtattaaccaacata  
caattggaaggtaaatggaacccaaaaatgataggaggtataggaggctttataaaggtaaaggaatatgagaat  
gtgacagtagaaatagaaggaagagaagtacaggaacagtagttgggtgggacctactcctgttaatatatttggg  
agaaatatattgacaggactaggttgtacactaaatttccctataagccccatagccccagtgccagtaagacta  
aaaccaggaatggatggaccaaaaagtaaaacaatggccccctatctaagaaaaaatagaagccttaacagcaata  
tgtcaggaaatggarcaaagaaggaaaaatttcaagagtaggacctgaaaatccwtataatacacctatctttgct  
ataaaaaagaaagatgggtaccaagtggagaaagctggttagacttttagagaattaaacaagagaaacacaagatttt  
tgggaggtacagttaggtatcccatccgggggggtttaaagcaaaagcaatctgttacagtccttagatgttagga  
gatgcttattttctcatgtcccttagatccagatttttagaaaatatactgctttcactattccttagtgtgaacaat  
gagaccccggaayaagataaccagtacaatgtcctcccgcaaggatggaaagggtcacrcgctatatattccaaagt  
tcaatgacaaaaattctagayccatttagaaaagacaaccagaaattagaaatatgtcagtagtatggatgactta  
tatgtaggatcagattttacccttgacagaacatagaaaaargattgaattgcttagagaccacttatatcagttgg  
ggattcactacccttgataagaagcatcaaaaggaacctcccttctgttgatgggggtatgagctccaccagac  
aatggacagtgacgctatccaattgcctaacaaggatgtgtggacagtaaatgatatacaaaaactaatagga  
aagttaaactgggcaagtc aaatttaccaaggaattagagtaaaagaattgtgtaaattaattagaggcaccaag  
tcattaacagaagtagtaccccttaagtaaaggagcagagctagaattagaggaaaacagagaraggctaaaagaa  
ccagtgcatgggggtatattatcaacctgamaaagacttatgggttgatattcagaaacaggggagaaggggcaatgg  
acttaccagatatatcaggataaatataagaacctcaaaacagggaatatacwaggcaaaaggcctcccacaca  
aatgatataagacaatttagcagaagtagtccagaaggtgtctcargaatctatagttatctggggaaaattgcct  
aaatttaagctgccagtcactagagaaatttgggaagcatgggtggcgactattggcaagccacctggattcca  
gaatgggaatttgyagcacacccccattgattaaattatgggtaccagttagaaagtgaacctattatgggggca  
gaaacttattatgtagatggagcagctaatagagagacaaaactaggaaaggcaggatatgttacagaactaggg  
aaacagaaaaataaaaaattagatgaaaccaccaatcaaaaggctgaattaatggccatattattagccttacag  
gattccaaagaaaaagtaaatatagtaacagattcacaatatgcattgggcatcatttctctcaacctacacag  
agtgaatctcctatagttcagcagataatagaggaactaacaagaaaggaacaggtatatcttgcattgggttcctg  
gctcataaaggcatagggggaaatgaaaaatagataaattagtaagcaaggatattagaagagtcctgttctta

gaaggaatagaccaggcacaagaagatcatgaaaagtatcatagtaattggagagcattagctagtgaatttggga  
ctaccaccagtagtggccaaggaaatcattgctagctgtcctaaatgtcatataaaaaggggaagcaatgcatggg  
caggtagactgcagtcaggaagtatggcagatggattgcacacatctagaaggcaaaatcataatagttgctgtc  
catgtggcaagtggattcatagaagcagaagtaataccagcagaaacaggacaagaaactgcctacttctgtta  
aaactagctgcaagatggcctgttaaaatattacacacagacaatgggcctaattttacaagtgcactatgaag  
gctgcatgttgggtgggccaacatacaacatgagtttgggaataccatataatccacaaagccaaggagtagtagaa  
gccatgaataaggaattaaaatcaattataggacaggtgagggaccaagcagaacacttaagaacagcagtacaa  
atggcagttatttgttcacaattataaaagaaaaggggggattggggggtacactgcaggagagaggataatagac  
atattagcaacacaattacaaacaacagaattacaaaaacaaattttaaaaattcaaaattttcgggtctattac  
agagacagcagagaccctatttggaaaggaccggcacagctcctgtggaaaggtgagggagcagtagtcatacaa  
gayaagggagacattaaggtagtagccaagaaggaaggcaaaaataatcagagat

>#66 KU168282 2754 nt

acagcaagggttgggggcatctatgtgaggctttactggatacaggggcagatgatacagttattaaatagcata  
caattagaaggaagatggaaacccaaaatgatagggggtataggaggctttataaaagtaaaagaatatgataat  
gtgacagtagaaatacaaggaaaggaagtasaggggacagtagttgggtgggacctactcctgttaatatatttggg  
agaaatatattgacaggattaggtgtactactaaatttccccataagtcccatagccccagtagccagtagcagcta  
aaaccaggaatggatggaccaaaagtaaaacaatggcccctatctagagaaaaaatagaagcactaacagcaata  
tgccaagaaatggaacaggaaggaaaaatctcaaggataggacctgaaaatccttataatacacctatttttggct  
ataaaaaagaaagatagcacaaaatggagaaaagttggtagacttcagggaattaaataaaaagaacacaagatttc  
tgggaaagtgcattaggtattccacatccagggggtttaaagcagaggcaatctgttacagttcttagatgtggga  
gatgcttatttctcatgtccttttagaccagacttcagaaaaatacactgccttcactataacctagtttgaacaat  
gagacccccggagtaagataaccagtacaatgtcctcccgcaagggtggaaaggttcaccagccatatttcagagt  
tctatgacaaagatttttagatccatttagaaaagacaaccagaaatagaattttatcagtacatggatgactta  
tatgtaggatcagatctaccattggcagaacatagaaagaggggttgaattgcttagagaacatttatatcagttgg  
ggattcactaccctgataaaaaagcaycagaaagaacctccctttctatggatgggatagtagctccatccagac  
aagtggacagtagcagcccattcaattgcctaacaaggaagtatggacagtaaatgacatacaaaaagtaatagga  
aaattaaattgggagagtcacaaatctatccaggaatcagagtaaaagaattgtgcaagtttaattagaggaactaaa  
tcattgacagaggtgataccgttaagtaaaagaagcagaactagaattagaagaaaacagagaaaaggctaaaagag  
cctatacatggagtatattatcaacctgacaaagacttatgggttaatatcagaagcaaggagaaaggcaatgg  
tcttaccagatatatcaggatgaacataagaaccttaaaacagggaaaataactaggcaaaaaggcctctcacaca  
aatgacataagrcaatttagcagaagtggtccagaaggcatctcaagaatctatagttatatggggaaaattacct  
aaatttaagttgccagtcactagagaaaacttgggaagcctgggtgggcagattattggcaagccacctggattcct  
gaatgggaatttgtcagcacrcccccatgatcagattatgggtaccgggttggaaacagaacctattgttaggggca  
gaaacctattatgtagatggagcagctaataaggaatacaaaaactaggaaargcaggatatgttacagaacaaggg  
aaacagaaaaataataaagtttagaggagacaaccaatcagaaggctgaattaatggccatactattagccttgag  
gattccaaaaaacaagtaaacatagtaacagactcacaatatgcattgggcatcatagcctcccaaccaacacaa  
agtgactccctatagttcagcagataatagaagaactaaccaataaggaacaagtgtatcttacatgggtacca  
gctcacaaggcataggaggaaatgaaaaaatagataagtttagtaagcaagatattagaagagtcctgttccta  
gaaggaatagatcaggcacaagaagatcatgaaaaataccatagcaattggagagcattagctagtgaactttgga  
ataccaccagtagtagctaaggaaatcattgctagttgtcctaaatgccatataaaaaggagaagcaatgcatggc  
caagtagactacagcccagagatatggcaaattggattgcacacatttagaaggcaagatcataatagttgctgtc  
catgtggcaagtggctttatagaagcagaagtaataccagcagaaacaggacaggaaactgcctatttctgtta  
aaattagcagcaagatggcctgtcaaaagtaatacatacagacaatgggcctaattttacaagtgcagccatgaag  
gctgcatgttgggtggacaggcatacaacatgagtttgggaataccatataatccacaaagtcagggagtagtagaa  
gccatgaataaggaattaaagtctattatacagcaggtgagagaccaagcagagcatctaaaaacagcagtacaa  
atggcagttcttgttcacaatttttaaaagaaaaggggggattggggggtacactgcaggagagagattaatagat  
atactagcatcacaatacaaaacaacagaattacaaaaacaaattttcaaaattcaaaattttcaggtctattac  
agagatagcagagaccctatttggaaaggaccggcacaaactactgtggaaaggtgagggggcagtagttatacaa  
gataaaggagacattaaagtagtagccaagaagaaaggcaaaaataatcagaat

>#67 AY169809 2754 nt

acagcaagggttgggggcatctatgtgaagttttactggatacaggggcagatgatacagttactaaacaacata  
caattggaaggaaaatggacacccaaaaatgatagggggtataggaggctttataaaaggtaaaagaatatagcaat  
gtgaaagtagaaatagaaggaagggaagtacagggaacagtagtttagtgggacctaccctgttaatatatttggga  
agaaatatattgacaggattaggtgtactactaaatttccctataagccccatagccccagtagccagtgaaacta  
aaaccaggaatggatggaccaaaagtaaaacaatggcccctatctaaagaaaaaatagaagctttaacagcaata



tgtcaggaaatggaacaagaaggaaaaatttcaagaataggacccgaaaaatccttataatacacctatcttttgct  
ataaagaagaagatagtagtaccagtgagaaaaatggtagacttyagagaattaaacaagagaaacacaagatttc  
tgaggaggtacagtttaggtattccacatccggggggtttaaagcaaaagcaatctgttacagtcctagatgtagga  
gatgcttattttctcatgtccttttagacccagatttcagaaaaatatactgccttcactattcctagtgatgaacaat  
gagaccccaggagtaagataccagtacaacgtcctcccgcaaggatggaaaggatcgccagccatattccaragt  
tccatgacaaaaattctagatccatttaggaaaaagaaccagaaatagaaatttatcagtacatggatgactta  
tatgtaggatcagatttgcccttggcagaacatagaaaaagggttgaaattgcttagagagcatttatatcagtg  
ggattcacgacccctgataaaaaacatcaaaaggaacctccctttctgtggatgggatatgagctccaccagac  
aagtggacagtacagcccatccacttgccctaataaggacgtgtggacagtaaatgatatacaaaaactagtagga  
aaattaaattgggcaagtcaaattctatcaagggttagagtaagagaattgtgtaagttaatcaagggcaccaag  
tcattgacagaggtggtacctttaagtaagaggcagaactagaattagaagaaaayagggaaaagctaaaagaa  
ccagtacatggrgtatactatcaacctgacaaagatttatgggttaatatcagaagcaaggagagggacagtg  
acttaccagatatatcaggatgaacataagaacctcaagacagggaaatatactaggcaaaagagcctccacaca  
aatgatataaggcaattggcagaagtactccagaaggatctcaggaatcgatagttatctgggggaaattgcct  
aaatttaagctgccggtcactagagaaacttgggaacatgggtgggcagactattggcaagccacctggattcca  
gaatgggaatttggtagcacacccccattgatcaagttatgggtaccagttagaaagkgaacctattaggggggca  
gaaacataattatgtagatggagcagctaataagagatacaaaaactaggaaaggcaggatattgttacagagcaagg  
aaacagaagataataaaattagaagagaccaccaatcaaaaggctgaattaatggcagtggttagtagccttacag  
gattccaaggagaaaagtaaacatagtaaacagattcacaatatgtattgggtatcatctcctcccaacctacacag  
agtgaatcccctatagttcaacagataatagaagaactgacaaaaaggaacaggtgtaccttacatgggtccct  
gctcataagggcatagggggaaatgaaaaaatagataaaattagtaagcaagatattagaagagtcctattccta  
gaaggaatagaccaggcacaagaagatcatgagaaataccatagcaattggagagcatttagccagtgactttgga  
ctaccaccagtggtggccaaggaaattattgctaattgtcctaaatgtcatataaaggggggaagcaattcatggt  
caggtagactgcagtcagaaagtattggcaaatggattgcacacatgtagaaggcaaaagttatcatagttgctgtc  
catgtggcaagcggattcatagaagcagaagtgataccagcagaaacaggacaggaaactgcctatttctgtta  
aaattagcagcaagatggcctgttaaagtaatacatacagacaacgggcctaattttacaagtgaacctatgaaa  
gctgcatgttgggtggactaacatacaacatgagtttggaaataccatacaatccacaaagtcaaggagtagtagaa  
gccatgaataaggaattaaaaatcaattatacagcaagtgagggaccaagcagagcacttaaggacagcagtacaa  
atggcagttatttgttcacaatttttaaaagaaaaggggggattggggggtacactgcaggagagagattaatagac  
atattagcatcacaatacaaaacaacagaactacaaaaacaaattttgaaaattcaaaaatttcgggtctattac  
agagacagcagagaccctatctggaaaggaccggcacagctcctgtggaaagggtgagggagcagtagtcatacaa  
gacaaaggagacattaaggtagtagcaagaagaaggcaaaaatactcaggggac

>#68 KU168283 2754 nt

acagcaagggttgggggcatctatgtgaagctttactggacacagggggcagatgatacagtagtaaccaacata  
caattagaggggaaaatggacacccaaaaatgatagggggtataggaggttttgtaaaagtaaaagaatatgatgac  
gtgacagtagagaaagaggggaagaagagtacaggggaacagtagttgggtgggacctactcctgttaatatatttggga  
agaaatatattgacaggattaggttgtagactaaacttccctataagccccatagccccagtgccagtaaaacta  
aaaccaggaatggatggacccaaaagtaaaacaatggccccctatctaaagaaaagatagaagccttgacagcaata  
tgtcaagaaatggagcaagaaggaaaaatttcaagagtaggacctgaaaatccttataatacacctatcttttgct  
ataaaaaagaaggatagtaggtggagaaagctagtagacttttagagaattaaacaagagaaacacaagatttc  
tgaggaggtacaattaggtatccacacccggggggtttacagcaaaaggcaatctgttacagtcctagatgtagga  
gatgcttattttctcatgccccttagacccagatttcagaaaaatatactgctttcactattcctagtgatgaacaat  
gagaccccagggataagatatcagtacaatgtcctcccgcaaggatggaaagggtcaccagctatatattccaaagt  
tcgatgacaaaaattctagatccatttaggaaaaacaaccagagctagaaatttgtcagtacgtggatgacct  
tatgtagcatcagattttaccctgacagaacatagaaaacgggtagaattgcttagagaacacttatatcagtg  
gggttccactaccctgataaaaaagcatcaaaaggaacctccctttctgtggatgggggtatgagctccatccagac  
aaatggacagtacagcccatccaattgcctaacaaggacgtatggacagtaaatgatatacaaaaactagtagga  
aagttaaattgggcaagtcaaattctatccaggaatttagagtaaaagaattgtgtaagttaatttagaggcaccaag  
tcattgacagaaatagtacccttaagtaagaagcagagctagaattagaggagaacagagaaaggctaaaagaa  
ccagtgcattggtgtatactatcagcctgacaaagacttatgggttaatatcagaagcaaggagaagggcaatgg  
acttatcagatatatcaggaggaacataagaacctaaaaacagggaaatactctaggcaaaaggcctccacaca  
aatgatataagactatttagcagaagtagtccagaagggtgtctcaagaagctatagttatttgggggaaaattgcct  
aaatttaagctgccagtcgctagggagacttgggaacatgggtgggcgactattggcaagccacctggattcca  
gaatgggaatttgtcagcacacccccattaatcaaattatgggtacaggttagaaagtgacctattaggggggca  
gaaacataattatgtagatggagcagctaataagagatacaaaaattaggaaaggcaggatattgttacagaamgagg

aaacagaaaataataaaattagargagaccaccaatcaaaaggctgaattaatggcagttattattagccttacag  
gattccaaggaagcagtaaacatagtaaacagattcacaatatgcattgggcatcatctcctcccaacctacacag  
agtgattcccctatagttcagcagataatagaggaactaacaagaaaggaaaggggtgtatcttgcattgggttcct  
gctcataaaggcataggaggaaatgaaaaatagataaattagtaagcaaggatattagaagagtcctatttcta  
gaaggaatagaccaagcacaagaggatcatgaaaagtatcatagcaattggagagcattagctagtgcactttgga  
ctaccaccagtggttagccaaagaaatcattgctaattgtcctaaatgtcagacaaaaggagaagcaatgcatgga  
caagtagactgcagtcagaagtatggcaaatagattgcacacatacagaaggcaaaagtcataatagttgctgtc  
catgtggcaagtggatatatagaagcagaagtaataaccagcagaaacaggacaagaaactgcctacttctgtta  
aaattagctgcaagatggcctgttaaagtaatacatacagacaacgggcctaattttacaagtgccaccatgaag  
gctgcatgttgggtggaccaacataaaacatgagtttgggaataccatataatccacaaagtcaaggagtagtagaa  
gccatgaataaagaattaaaatcaattatacagcaggtgaagggaccaagcagaacacttaagaacagcagtagac  
atggcagttatttgttcacaattttaaaagaaaaggggggattggggggtacactgcaggagaaaggataatagac  
atattagcatcacaatacaaaacagaattacaaaaacaaatttttaaattcaaaaatttcagggtctattac  
agagacagcagagatcctatttggaaaggaccggcacagctcctgtggaaaggtgaaggagcagtagtcatacaa  
gataaaggagacattaaggtagtaccagaaggaaggcaaaaataattagacat

>#69 AY169813 2754 nt

acagcaaaggttgggggcatctatgtgaggttttgcctggatcacaggggcagatgatacagttactaaacaacata  
caattggaaggaagatggacacccaaaaatgatagggggaataggaggttttataaaaagtaaaagaatatgataat  
gtgacagtagaaatagaaggaaaaaagggtgcaggggaacagttattgggtgggacctactcctgttaatatatttggga  
agaaatatattgacaggattgggttgcacattaaacttccctataagccccatagacacagttaccagtaaaacta  
aaaccaggaatggatggaccaaaaagtaaaacaatggcccctatctagagaaaaaatagaagccttaacagcaata  
tgtcaggaaatggaacaagaaggaaaaatttcaagaataggacctgaaaatccttataatacacccatctttgct  
ataaaaaagaaagatagtactaagtggagaaaaattggtagacttcagagaattaaataaaaagaacacaagacttc  
tgggaggtacagttaggtatcccatccgggggttttaagcaaaaaacaatctgttacagtttttagatgtagga  
gatgcttatttctcatgtccttttagatgagaatttcagaaaaatatactgctttcactattccttagtataaacaat  
gagaccccaggaataagataaccagtacaatgtcctcccacaaggatggaaagggtcaccagctatatattccaaagt  
tcaatgacaaaaattctagatccattcagaaaaacaatccagaaatagaattttgtcagttacatggatgactta  
tatgtaggggtcagatttgccttggcagagcatagaaaaagggtagaatcacttagagagcatttatatcggtgg  
ggattcactaccccagataaaaaagcatcaaaaagaacctccatttatgtggatgggatatgagctccaccagac  
aatggacagttacagcccattccattgcctgacaaggaagtgtggacagtaaatgatattccaaaaattagtagga  
aagttaaattgggcaagtcagatatatcaggggaattagagtaaaagaattatgcaagttaatcagaggaaccaag  
tcattgacagaagtggtacctttgagtaaaagaggcagaactagaactggaagaaaacaggggaaaggctaaaagaa  
ccagttacatgggtgtatattatcaacctaaacaagacttatgggttaatatattcagaaacaaggacaagggtcaatgg  
acttatcaggtgtatcaggatgaacataagaacctcaaaacaggaaaaatattgctaggcaaaaaggcctcccataca  
aatgagataagacaaatagcagaagtagtcagaaaggtgggtcaagagttctatagttcatctggggaaaaattgcct  
aaatttaagctgccagtcactagagaaaacttgggaagcatgggtgggcagactattggcaagccacctggattcct  
gaatgggaatttgtcagcacgcccccattaatcaaattatggtaccaattggaaagtgaacctattgtaggagca  
gaaacctattatgtagatggagcagctaataaggagacaaaattaggaaaggcaggatattgttacagaacaagga  
aaacagaaaataataaaatttagaggagaccaccaatcaaaaggctgaattaatggcagttactaatagcattacag  
gattccaagaaaaggtaaacatagtaaacagactcacaatatgtattgggcatcatctcctcccaacctacacaa  
agtgattcccctatagttcagcagataatagaagaactgacaaaaaaggaaacaaacgtatattacatgggttcct  
gctcataaaggcataggaggaaatgaaaaatagataaattagtaagcaagatattagaaggggtcttattcctg  
gaaggaatagatcaggcacaagaagatcatgaaaaatatcacagcaattggagagcattagctagtgcactttgga  
ctaccaccagtagtagccaaagaaattattgctagttgtcctaaatgtcactaaagggggaagcaattcatgggt  
caggtagattacagtcagagatatggcaaatggattgcacacatttagaaggcaaaagtcataatagttgctgtc  
catgtggcaagtggattcatagaggcagaagtataaccagcagaaacaggacaagaaactgcctatttctgtta  
aaattagcakaagatggcctattaaaaatattacatacagataatgggcctaattttacaagtgaacctatgaag  
gctgcatgttgggtgggcyaacataaaaacatgagtttggcataccatataaccacaaaagtcaaggggtagtagaa  
gccatgaacaaggaattaaagtcaattatacagcaggtgagggaccaagcagagcatttataaaacagcagtagaa  
atggcagttatttgttcacaattttaaaagaaaaggggggattggggggtgactgcaggagagagattaatagat  
atgttagcatcacaatacaaaacagaactacaaaaacaaatttttaaattcaaaaatttcgggtctattac  
agagacagcagagaccctatttggaaaggaccggcacaaactcctgtggaaaggtgagggagcagtagtcatacaa  
gataaaggagatatcaaggtagtaccagaagaaaggcaaaaataactcaggtgt

>#70 AY169805 2754 nt

atagcaagggtgggagrcatctatgtgaagttttactggatacaggggcagatgatacagtactaaacaacata  
caattggaaggaaaatggacacccaaaaatgataggggggtataggaggtttttataaaagtaaaagaatatgataat  
gtgacagtagaaatagaggggaagagaagtacaggggaacagtatgttggtgggacctactcctgttaatatcattgga  
aggaatatattgacaggattaggtatgtacactaaatctccctataagccccatagccccagtgccagtaaaacta  
aaaccaggaatggatggacccaaaaataaaacartggccccctatctaagaaaaaatagaagccctgacagcaata  
tgtcaggaaatggaacaggaaggaaaaatctcaagaataggrcctgaaaatccttataatacaccatctttgct  
ataaaaaagaaagatagtactaagtggagaaarttggttagacttttagggaattaaacaagagaacacaagatttc  
tgaggaggtacagtttaggtatcccatccggggggtytaagcaaaagaaatctgttacagtcctagatgtagga  
gatgcttattttctcatgccccttagaccagacttcagaccatatactgctttcactatcccaagtgtaacaat  
gagaccccaggaataagataccagtcacatgtcctcccgcaaggatggaaagggtcaccagccatattccaaagt  
tcaatgataaaaattctagatccatttaggaaagacaaccagaaattacaaatgtgtcaatacatggatgacctc  
tatgtaggatcagatttacctctgacagaacatagaaaaaggggtgaattgcttagagaacacttatatcagtg  
ggattcactacccctgataaaaaagcatcaaaaggagcctcccttctgtggatgggggtatgagctccatccagac  
aaatggacagtacagcccattccaattgcctaacaaggaagtgtggacagtaaatgatatacaaaaactaatagga  
aagttaaattgggcaagtcacaaatctatcaaggaattagagtaaaagaattgtgtaagtttaattagaggccaag  
tcattgacagaagtagtacctttaagtaaaggagcagagttggaattagaggaaaacagagagaagctaaaagaa  
ccagtgcatggtgtatactatcaacctgacaaagacttatgggttaatatcagaagcaaggagaagggaatgg  
acttaccaaatatatcaggatgaacataagaatctcaaaacagggaaatatgctaggcaaaagagcctccacaca  
aatgagataagacaatttagcagaagtagtccaaaagggtgtcccaagaagctatagttatctggggaaaaattgcct  
aaatttaagctgccaaattactaggggaaacttggaagcatggtgggcgactactggcaagccacctggattcca  
gaatgggaatttgtcagtagacccccattgatcaaaattatggtaccaattagaaaagagaacctattataggggca  
gaaacttattatgtagatggagcagctaatagaaatacaaaaactaggaaaggcaggatattgttacagaacaagg  
aaacagaaaaataataaaattagaagagaccaccaatcaaaaggctgaattaatggcagtagtatttagccttacag  
gattccaaagaaaaggtaaatatagtaaacagattcacaaatatacattgggcatcatctcatcacaaacctacacag  
agtgaatcccctatagttcaacagataatagaggaactgacaaaaaggaagggtgtatcttacatgggttcct  
gctcataaaggcataggaggaaatgaaaaaatagataaaattagtgagcaaggatattagaagagtcctattccta  
garggaatagaccaggcacaggaagatcatgaaaaatatcatagcaattggagagcatttagctagtgactttgga  
ctaccaccagtggtggccaaggaaatcattgctagctgtcctaaatgtcatataaaaggagaagcaatacatggt  
caggttagactgcagtcaggaagtagtgagatgacacatgtagaaggcaaaagtcataatagttgctgtc  
catgtggcaagtggttcatagaagcagaagtaataaccagcagaaacaggacaggaaactgcttacttctgtta  
aaattagctgcaagatggcctgttaagataatacatacagacaatgggcctaattttacaagtgcaactatgaag  
gctgcatgttggtggactaacatacaacatgagtttgggaataccatataatccacaaagtcaaggagtagtagaa  
gccatgaataaggaattaaaaatcaatyatacagcargtgagggaccaagcagaacacttaagaacagcagtacaa  
atggcagtagtttgttcacaattttaaaagaaaaggggggattggggggtacactgcaggagagaggataatagac  
atactagcatcacacatacaaaacaacagaattacaaaaacaaattttaaaaattcaaaattttcgggtctattac  
agagacagcagagaccctatttggaaaggaccggcccagctcctgtggaaagggtgagggagcagtagtcatacaa  
gataaaggagacattaaagtagtaccaagaagaaaggcaaaaataatcagagat

>#71 HQ179987 2754 nt

ccagtaaaaaataggggggcatatttgtgaggctctattagatacaggggctgatgacacagtagtagataactta  
cctttagaaggaagatggaaacccaaaaatgataggggggaataggrggttttataaaagtaaaagaatttgaagaa  
gttaagrtagaaatagaaggaagacaagtttatggractgtattagtggyccaaccccagtaaatataatagga  
agaaatattttgacattaattggatgtactttgagtttccccatcagccccatagaaatagtagccagtaaaatta  
aaagcaggaatggatgggcctagggtgaagcaatggcccttgtcaaaaggaaaaaatagaagctttaagagccatc  
tgtcaagagatggaacaggaaggaaaaataacaaaaattgggcctgaaaatccatataacacccccatttttgca  
ataaaaaagaaagatggcagcaagtggaggaaattagtagacttcagagaactaaataaaaagaacacaagatttc  
tggaaggtccaattgggratccctcatccaggaggtcttcagaaaagraaatcagtgaccatattagatgtaggr  
gatgcttattttctcctgycccttttagatccagatttttagaaaatatacagctttcactatacctagtgtaaataat  
gacacaccaggacttagrtatgtgtayaatgttctgcctcagggtggaagggtaccagccattttcagcat  
tcaatgactaagatcttagaacccttttagraagagtaatccagaagtagaaatctaycaatacatggatgatyta  
tatgtagggtcagatytgcccttctgtgaacatagacagcgggtagagaaactyagggarcacctctatgtatgg  
gggttcacaactcctgacaaaaarcatcaaaaggagcctcctttcctctggatgggatatgagctccatcctgac  
aagtggackgtgcaaccatcaaattaccagaaaaggaaagtggacagtaaatgacattcagaagctagtagga  
aagttaaattgggctagtcaaatttatccaggaattagggtaaaagagttatgyaaactaattagagggaactaar  
tccttaacagaagtagttgcytttactagagaagcagaattagaactagaggaaaataaagaaattttaaaagaa  
ccagtgcatggagtttattaccaaccagaaaaggaattaatagtagacatacagaaacagggggcgggacaatgg

acttatcaggtattccaggaagaacataaaaaacttgaaaaacagggaaatatgccaggcaaaaggctacccacacc  
aatgatataaggcaactggcagargtaatacagaaggtatcacaagaaagcatagtgatatggggaaaactaccc  
aagtttagactaccagtaaatagaaatgtgtgggagacttggtggtcagactattggcaagccacctggatacct  
gagtgggaatttggtagacacccccctcttattaagctctggtatcagctagaaaaagaccccataccaggaaca  
gaaaccttttatgtagatggggcagcaaacagagagaccaagttaggyaaagctggatatgtaacagataggggt  
aggcagaagataatcaaactagaagaracaactaatcaaaargcagaattagaagcagtggtgtagccttaaaa  
gaatcaggagaacaggctaacatagtaaacagactcccaatatgtgttaggrattatctcagcaactccagatcaa  
agtgactccccctagtgcaaaaaataatagaagaaatgacaaaaaggaaaaggtatacctrtcatgggtacca  
gcacacaaaggcatagggggtaatgaraayatagayaaattagtcagyaargacattagaagagtggtattcttg  
gaaggcatagaccaagcacaggaggatcatgaaaaatatcacagtaattggagagccctagctagtgartttggc  
cttccaccaatagtggaagagattatyaacaattgcccataatgtcatgtaaaaggggaagccatgcatgga  
caggtagactgcagtcagggaatttggcaactggactgtacccacatggarggaaaaattatcctcgtggcagtc  
catgtrgccagtggttcatggaagcagaagtaattccagtagaaacaggacaagaagctgcatactttgtgtctc  
aaattggcatcaagatggcctgtaaaagtaatacacacagacaatgggcctaactttactagcgtgcagtaaaa  
gcagcctgttgggtggcttaataactcatgagtttgggataccctacaatccccaaagtcagggagtagtgga  
tcaatgaataaagaattaaagaaaattatacatcaggtacgagatcaagctgagcacttaagacagcagttcaa  
atggcagtatttgtccacaattttaaaagaaaaggggggattggggggtacactgctggagacaggatcatagat  
attctggctacacaratacaaaacagaattacaaaaacaaattttaaaaattcaaaattttcaggtctattac  
agagacagcagagaccctatttggaaaggaccagcgacactcctgtggaaaggtgaaggggcagtagtcatacaa  
gacaaaggagatattaaggtagtccctaggagaaaagcaaaaataattagaaat

>#72 GU111555 2754 nt

ccagtaagagtaggggggcatatttgtgaggctttattagatacaggagctgatgacacagtagtagataaatta  
ccttttagaaggaagatggaaaccaaataatgataggaggaatagggggtttataacagtaaaaasaatttgaagwa  
gttaaggtagaatagaaggaagagaagtttacggaactgtattagtrggcccaacccagtaaaayataatagga  
agaaatattttgacattaattggatgtactctaagtttccccatcagctccatagaaatagtaccagtrawatta  
aaggcaggaawggatgggcctaaggtaaaagcmatggcccttrtcaaargaaaaaatagaagctttaagagstatt  
tgtcaagagatggaacaggaaggaaaaataacmaaaattgggcctgaaaatccatataacaccccccatctttgca  
ataaaaaagaaagatagcagcaartggaggaaattagtakacttcagagaactaaataagagaacacaaagatttt  
tgggaagtacaghtgggaatccctcatccaggaggtcttaagaaragraaatcagtgacagtagtagtggtggg  
gatgcttattttctcctgtccttttagatccagatttttagaaaaatatacagcttttactatacctagtgtaaataat  
gagacaccaggaattagatatcagtataatgttctgcctcagggatggaaaggatcgccagccatctttcagtat  
tcaatgactaagatcttagaaccctttaggagagtaayccagaagtagaaatctatcaatacatggatgatcta  
tatgtagggtcagattttgcctttgtctgaacatagacagcggttagagaaaacttagggaacacctctatgtatgg  
gggtttacaactcctgacaaaaaacatcaaaaggagcctcctttcctctggatgggatatgagctccatcctgac  
aagtggacggtgcaaccatcgattaccagaaaaggaagcttggacagtaaatgacatccagaagctagtagga  
aagttaaattgggcaagtcagatttatccaggaataagggtaaaagaatttrtgcaaactaatttagaggaactaaa  
tccttaacagaagtagttgtcttactagagaagcagaattagaactagaggaaaaataaagaaattttaaaagaa  
ccagtgcatggagtttattaccaaccagaaaaggaattaatagtagacatacagaaaacaggggagagggacaatgg  
acttatcagatataccaggaagaacataaaaaacttgaaagacagggaaatatgccaggcaaaaggccactcacacc  
aatgatataaggcaactggcagaagtaatacagaagacatcacaagaaagcatagtaatatggggaaaattaccc  
aagtttagactaccagtaaatagaagtatgtgggagacttggtggtcagactattggcaagccacctggatacct  
gaatgggaatttggtagacacccccctcttattaagctctggtatcagctagaaaaagaccccataccaggaata  
gaaaccttttatgtagatggggcagcaaacagagagactaaattaggyaaagctggatatgtaacagataggggt  
aggcaraagataatcaaactagaaggaacaaccaatcaaaaagcagaattagaagcagtgctgtagccttaaaa  
gaatcaggaaaacaggctaacatagtaaacagactcccaatatgtrttagggatcatctcagcaactccagatcaa  
agtgactccccctagtgcaaaaaataatagaagaaatgacaaaraaggaaaaaggtatacctatcatgggtacca  
gcacacaaaggcatagggggtaatgaagatatagayaaaytagtcagtaaaagacattagaagrgtgttattccta  
gaaggcatagaycaagcacaggargatcatgaaaaatatcacagtaattggaaagccctagctagtgcatttggc  
cttccaccaatagtggaagagattatyaacaattgtcccaatgtcatgtaaaaggggaagccatgcatgga  
caggtagactgcagtcagggaatttggcarctggactgtacccacacagaaggaaaaattatccttgtagcagtc  
catgtagccagtggtttcctggaagcagaagtgattccagcagaaacaggacargaaactgcatayttttgtgtctc  
aaattggcagcaagatggcctgtaaaagtgatacacacagacaatgggcctaacttyactagygtgcagtaaar  
gcagcctgttgggtggcttaataactcatgagtttgggataccctacaatccccagagtcagggagtagtgga  
tcaatgaataaagaattaaagaaaatcatacttcaagtacgagatcaagctgaacacttaagacagcagttcaa  
atggcagtatttgttcacaattttaaaagaaaaggggggattggggggtacactgctggagacaggatcatagat

attatggctacacaaatacaaaacaacagaattacaaaaacaaatttttaaaaattcaaaatttttcgggtctattac  
agagacagcagagaccctatttggaaaggaccagcgacgcttctgtggaaaggtgaaggggcagtagtcatacaa  
gacaaaggagatattaaagtagtccctaggagaaaagcaaaaataatcagagat

>#73 DQ017382 2745 nt

ataggaaatgaagtaagagaagctcttttrgatacaggagctgatgatacagtaatagaagaaatacaattagaa  
ggaagatggaacccaaaaatgataggaggaattggaggatttatcaaagtaagacaatatgataatataacaata  
gacatacaaggaaggaaagcagttggtacagtgttggtaggaccaacacctgttaatatattataggaagaaacttt  
ttaacacagattggctgtaccctaaattttccaataagtcctattaaaactgtaccagtaaaaattaaaaccagga  
atggatggcccaaaagtaaaaacaatggcctttgacagcagaaaaaatagaggcattaagagaaatttgtacagaa  
atggaaaaggaaggaaaaatttctagaatagggcctgaaaatccatataacactccaatttttgcctataagaaag  
aaagatagcaccaaatggagaaaattagtagatttcagagaattaaataaaaggaccaagacttttgggaagtg  
cagctaggaattccacatccagcaggattaaagcagaaaaagtcagtaacagtccttagatgtaggagatgcttat  
tttcatgtcccttagatgaagatttttagaaaatatacagcttttaccatacctagtgtaaataatgagacacct  
ggtattagataccagtataatgtgtttaccacagggatggaagggatcaccagcaatttttcaaagttcaatgaca  
acaattytagaaccatttagaaagaagcatccagaaataatcatttatcagtacatggatgacctctatgtggga  
tctgacttagacctagcacaacatagagagacagtagaagaacttagaggctcatcttttgaagtggggctttaca  
accctgacaaaaaacatcaaaaggagccaccgttcctctggatgggatatgagctccatccagataaatggaca  
gtccagccaataaaagttaccagaaaaggatacatggactgtcaatgatatacaaaaatttagtaggaaaagttaaat  
tgggcaagtccagatctatccaggaatcaaagtaagacagctttgtaaattaatcagaggaaccaaggtttgaca  
gaagtagttacctttacagaagaagcagaattagaactagcagaaaaataggagagatattaaaagaaccctacat  
ggagtctattatgacccagaaaaagaattaatagcagaaattcaaaaaacaaggacaaagtcagtgacatatcag  
atttatcaggaatcayataaaaaatttaaagacaggaaagtatgcaaaaatgaaatctgccataactaatgatata  
aaacagtttaactgaagtagtacaaaaggtagcaacagaaagtatagtaatttggggaaagactcctaagtttaaa  
ttaccmgtacaaaaggaagtgtgggagggcatggtggactgagaattggcaagcaacttggattccagagtgggaa  
ttcgttaacactcctccccttgtaaaattatggtatcagttagaaacagagccaatttagtggggcagaaacatac  
tatgtagatggagcagctaataaagaaaacaaaattgggaaaagcaggttttgtgacagatagaggaagacagaaa  
gtggtctctcttgaaaaacaccaccaatcaaaagactgagttacaagctatccttatggccttacaagatkagga  
caggaagtaaacatagtcactgattctcagtatgctatgggaataattcactcacaaccagataagagtgaatca  
gaattggtgagccaaataatagaagaactcataaaaaaggaaagagtctatctctcttgggtrcctgcacataaa  
ggtattggaggaaatgagcaggttagacaaatttagttagctcaggaattagaaaagtattatttctagatggtata  
gaaaaagcccaagaagagcatgaaagatatcacagtaactggaaaagcaatggccagtgattttaacttgccccc  
atagtgggcaaaagaaatagtagccagctgtgacaaatgccagctaaaagggggaagccatgcatggacaggtcaat  
tgtagtccaggagtgtggcagtttagattgtacacacttagaaggaaaaatcattcttgtagcgggtccatgtggcc  
agtggctacttagaagcagaagttattcctgcagaaacaggacakgaaacagcatattttatttttaaagttagct  
ggaagatggccagtaaaagttatacacactgataatggacceaatctactagtgccactgtaaaagcagcctgt  
tgggtgggcaagtatcaaacaggaatttgggataccctacaatcctcaaagtccaggagcagtagagtcctgaat  
aaagaattaaagaaaattataggacaaatcagagatcaagcagaacatctgaaaacagcagtacaaatggcggtc  
ttcattcacaatttttaaaagaaaagggggattggggggtacactgcaggggaaagaataatagacataatagca  
acagacatacagacaacaaaattacaaacacaaatttttaaagtccaatttttcgggtttattacagagacagc  
agagatcccatttggaaaggaccagccaaactgctgtggaaaggagaaggggcagtggtaatccaagataacggg  
gatataaaagtagtcccacgtaggaaagcaaaaataattagagat

>#74 AY532635 2745 nt

ataggaaaagaagtaagagaagctcttctagatacaggagctgatgatacagtgatagaagagatacaattagaa  
ggaaaatggaagccaaaaatgataggaggaattggaggatttatcaaagtaagacaatatgataatgtaacaata  
gacatacaaggaaggaaagcagttggtacagtgttagtaggaccaacacctgttaatatattataggaagaaacttt  
ttaacacagattggctgtactttaaattttccaataagtcctattgaaactgtaccagtaaaaattaaaaccaggg  
atggatggcccaagagtaaaaacaatggcctttgacagcagaaaaaatagaggcattaagacaaatttgtgcagaa  
atggaacaggaaggaaaaatttctagaatagggcctgaaaatccatataacactccaatctttgctataaaaaag  
aaagatagcactaaatggagaaaattagtagatttcagggaattaaataaaaggaccaagatttttgggaagta  
cagctaggaattccacatccagcaggattacagaagaaaaaatcagtaacagttctagatgtaggagatgcttat  
tttcatgtcccttagatgaagatttttagaaagtatacagccttcaccatacctagtacaaataatgagacacct  
ggtattagataccagtataatgtgttgccacagggatggaaggggtcaccagcaatttttcaaagttcaatgaca  
aaaatttttagaaccatttagaaagaacatccagagataatcatttatcagtacatggatgacctctatgtggga  
tctgactcagaactagcacaacatagagagacagtgggaagaacttagaagtcacatcttttgaagtggggctttacg  
accctgacaaaaaacatcaaaaggagccaccgttcctctggatgggatatgagctccatccagataaatggacg

gtccagacaataaagttaccagaacaggatgtatggactgtcaatgatatacaaaaattagtaggaaagttaaatt  
tgggcaagtcagatctatccaggaatcaaagtaaacagctttgtagattaatcagaggaaccaaagctttgaca  
gaagtagtcaactttacaaaagaagcagaattagaattagcagaaaacaggagatattaagagaacccctacat  
ggagtctactatgacccaggaaaagaactaatagcagaaaattcaaaaacaaggacaagatcagtggaacatatcag  
atztatcaggagccatataaaaaatttaaaaacaggaaaatatgcaaaaaggagatctgccataactaatgatata  
aaacagtttagttgaagtggtagcaaaaagtagcaacagaaggtatagtaatttggggaaagattcctaagttaa  
ttaccagtacaaaaggaagtgtgggaggcatggtggactgacaattggcaagcaacctggattcctgagtgggaa  
ttcgtcaacactcctccccttgtaaaattatggtatcagttagaaacagagccaatcactggggcagaaacatac  
tatgtagatggagcagctaataaagaaacaaaatttgggaaaagcaggttttgtgacagatagaggaaaacagaaa  
gtggtctctattgaagacaccaccaatcaaaagactgagttacaagctatccttctggccttacaagattcagga  
caggaagtaaacatagtcactgattctcagtatgctctgggaataattcactcacaccagataaaaagtgaatca  
gaattggtgagccaaataatagaagagctcataaaaaaggaaagaggttatctctcttgggtacctgcacataaa  
ggtattggaggaaatgagcaggttagacaaaattagtttagctcaggaattagaaaagtattattcctagatggtata  
gaaaaagcccaagaagatcatgaragatatcacagtaactggagagcaatggccagtgattttaacttaccctct  
gtagtggcaaaagaaatagtagccagctgtgacaaatgccagctaaaagggggaagccatacatggacaggtcaat  
tgtagtccaggagtgtggcagctagattgtacacatttagaaggaaaaatcattcttgtagcgggtccatgtggcc  
agtggctacttagaagcagaagttattcctgcagaaacaggacaggaaacagcatattttatttttaaattagct  
ggaagatggccagtaaaagttatacacactgataatggacccaatttcactagtggcactgtaaaagcagcctgt  
tggtgggcaaatatcacacaggaattcgggataccctacaatcctcaaagtcaggaggtagtagaatccatgaat  
aaagaattaaagaaaattataggacaaatcagagatcaagcagaacatctaaaaacagcagtgcaaatggcgggtg  
ttcattcacatttttaaaagaaaagggggattggggagtacactgcaggggaaagaataatagacataatagca  
acagacatacaaaacaacaaaattacaaacacaaatttttaagattcaaaattttcgggtttattacagagacagc  
agagatcccatttggaaaggaccagccaaacttctgtggaaaggagaaggggcagtggtaatccaagataacgga  
gatataaaagtagtcccacgtaggaaaagcaaaaataattagggat

>#75 AJ006022 2745 nt

atagggaaagaagtaagagaagctcttttagatacaggagctgatgatcacagtaatagaagagctacaattagag  
ggaaaatggaaacccaaaatgataggaggaattggaggatttatcaaagtgaagacaatatgataatataacagta  
gacatacagggaagaaaagcagttggtacagtattagtaggaccaacacctgttaattattataggaagaaatctt  
ttaacccagattggctgtactttaaattttccaataagtcctattgaaactgtaccagtaaaaattaaaaccagga  
atggatggcccaaaggtaaaacaatggcctttgacaacagaaaaaatagaggcattaagagaaatttgtacagaa  
atggaaaaggaaggaaaaatttctagaataggccttgagaatccatataacactccaatttttggctataaaaaag  
aaagatagcactaaatggagaaaattagtagatttcagggaattaaaataaaaggacccaagatttttgggaagt  
cagctaggaattccacatccagcaggattaaagcagaaaaaatcagtgacagttttggatgtaggagatgcttat  
ttttcatgtcccttggacaaagatttttagaaagtatacagctttttaccatacctagtataaaacaatgagacacct  
ggtattagataccagtataatgtgctgccacaaggctggaaagggtcaccagcaatttttcagagtacaatgaca  
aaaattctagaaccattcagagagaaaacatccagagataatcatttaccagtacatggatgacctctatgtggga  
tctgacttagaactagcacaacatagagaggcagtagaagaccttagagatcatcttttgaagtggggctttacg  
acccctgacaaaaaacatcagaaggaacccccgttcctctggatgggatatgaactccatccagacaaatggaca  
gtccagccaataaagttaccagaaaaggatgtatggactgtcaatgatatacagaaattagtaggaaagttaaatt  
tgggcaagtcagatctatccaggaatcagagtaaaaacagctctgtaaattaatcagaggaaccaaagctttgaca  
gaagtagtcaactttacagaagaagcagaattagaactagcagaaaacaggagatattaagagaacccctgcat  
ggagtctattatgacccaggaaaagaattagtagcagaaaattcaaaagcaaggacaaggtcagtggaacatatcag  
atztatcaggagttacataaaaaatttaaaaacaggaaaagtatgcaaaaatgagatctgccataactaatgatata  
aaacagtttagttgaagtggtaaggaaagtggcaacagaaagtatagtaatttggggaaagactcctaatttaga  
ttaccagtacaaaaggaagtgtgggaggcatggtggaccgatcattggcaagcaacttggattcctgagtgggaa  
tttgtcaacactcctccccttgtaaaattatggtatcagttagaaacagagccaatcagtggggcagaaaactttc  
tatgtagatggagcagctaataagggaacaaaatttgggaaaagcaggttttgtgacagataggggaagacagaaa  
gtggtctctattgcagacaccaccaatcaaaaggctgagttacaagctatccttatggccttacaagagttagga  
cgggatgtaaacatagtcactgactctcagtatgctatgggaataattcattcacagccagataaaaagtgaatca  
gaattggtgagccaaataatagaagagctcataaaaaaggaaagaggttatctctcttgggtacctgcacataaa  
ggtattggaggaaatgagcaggttagacaaaattagtttagctcaggaattagaaaaatattattcctagatggtata  
gaaaaagcccaagaagatcatgacagatatcacagcaattggaaagcaatggccagtgattttaacttaccctcc  
atagtggaacaaaagaaatagtagccagctgtgacaaatgccagctaaaagggggaagccatgcatggacaggtcaat  
tgtagtccaggagtgtggcaattagattgtacacacttagagggaaaaatcattccttgtggcgggtccatgtggcc  
agtggctacttagaagcagaagttattcctgcagagacaggacaggaaacagcatattttatttttaaagttagct

ggaagatggccagtaaaagttatacacactgataatggatccaatttcactagtgccactgtaaaagcagcctgt  
tggtgggcaaataatcaaacaggaatttgggataccctacaatcctcaaagtcagggagcagtagagtcctgaat  
aaagaattaaagaaaatttataggacaaatcagagatcaagcagaacatctaaagacagcagtgcaaatggcggtt  
ttcattcacaatttttaaaagaaaaggggggattggggggtacactgcaggggaaagaataatagacataatagca  
acagacatacagacaacaaaatttacaacacaaaatttttaaaagttcaaaattttcgggtttattacagagacagc  
agagatcccatttggaaaggaccagccaaacttctgtggaaaggagaaggggcagtggttaattcaagataacggg  
gatataaaagtagtcccacgtaggaaagcaaaaataattagggat

>#76 MF7672 2745 nt

ataggaaaggaagtaagagaagctcttttagatacaggagctgatgacacagtaatagaagaaatacaattagaa  
ggaaaatggaagccaaaatgataggaggaattggaggatttatcaaagtaagacaatatgataatataacaata  
gacatacaaggaaggaaagcagttggtacagtattagtaggaccaacacctgtcaatattataggaagaaacttt  
ttaacacagattggctgtactttaaattttccaatcagttctattgaaactgtaccagtaaaattaaaaccagga  
atggatggccaaaggttaaaacaatggccattgacagaagaaaaaatagaggcattaagagaaatttgacagag  
atggaaaaggaaggaataatttctagaataggcctgaaaatccatataacaccccaatttttgctataaaaaag  
aaagatagcactaaatggagaaaattagtagatttcagagaggttaaataaaaggactcaagatttttgggaagt  
cagctaggaattccacatccagcaggattaaagcagaaaaaatcagtgacagtttttagatgtaggagatgcttat  
ttttcatgtcccttagataaaagagtttagaaaagtatacagcttttaccatacctagtgtgaataatgagacacct  
ggtatttagataccagttataatgtgttgccacagggatggaagggtaccagcaatttttcaaagttcaatgaca  
aaaattttagaaccattcaggaagagacacccagagatagtcctttatcartacatggatgacctctatgtggga  
tcagacttagaaatagcacaacatagagagacagtagaagaacttagaggctcatcttttgaagtggggctttaca  
accctgacaagaaacatcaaaaggagcctccattcctctggatgggatgatgagctccatccagataaatggacg  
gtccagccaataaaagttaccagaaaaggaggtatggactgtcaatgatatacagaaatttagtaggaaaattaaat  
tgggcaagtccagatctatccaggaatcaaagtaaaacatctttgtagattaatcagaggagccaaggccttgaca  
gaagtagtcacttttacacaagaagcagaattagaactagcagaaaaacaggagatattaaaagaaacccctgcat  
ggagtctactatgaccagaaaaagaattaacagcagaaattcaaaaaacaggacaaggctcagtggtacttatcag  
atttatcaggagcaatataaaaaatttaaaaacaggaaagtatgcaaaaatgaaatctgctcataactaatgatata  
aaacagtttagctgcagtggtacaaaaagtggtgacagaaagcatagtaatttggggaaaaattcctaagttaa  
ttaccagtacaaaaggaagtgtgggagggcatggtggactgataattggcaagcaacttggattcctgagtgggaa  
tttgtcaacacccctcccctwgtaaaaattatggtatcagtttagagacagagccaattattggggtagaaacatac  
tatgtagatggagcagctaataagagaaacaaaattggggaaagcaggttttgtgacagacagaggaagacagaaa  
gtggtctctattgaaaacaccaccaatcagaaggctgagttacatgctatccttatggctttacaagagtccagga  
caggaagtaaacatagtcactgactctcagtatgctatgggaataattcactcacaaccagatacaagtgaatca  
gacttgggtgggtcaaataatagaagaactcataagaaaggaaagagtgctatctctcttgggtacctgcacataaa  
ggcattggaggaaatgagcaggttagataaatttagttagctcaggaattagaaaagtattattcctagatggtata  
gaaaaagcccaagaagagcatgaaagatatcacagtaattggaaagcaatggccagtgattttaacttaccctct  
gtagtagcaaaagaaatagtagccagttgtgacaaatgccaataaaaaggggaagccatgcatggacaggtcaat  
tgtagtccaggagtgtggcaattagattgtacccacttagaaggaaaaatcattctggttagcgggtccatgtggcc  
agtggctacttagaagcagaagttattcctgcagaaacaggacaggaaacagcatattttatttttaaagttagct  
ggaagaaggccagtaaaagtcatacacactgataatggaaccaatttcactagtaacactgtaaaagcagcctgt  
tggtgggcaagtatcaaacaggaattcgggataccctacaatcctcaaagtcagggagcagtagaatccatgaat  
aaagaattaaagaagatttataggacaaatcagagatcaagcagaacatctaaaaacagcagtgcaaatggcagtc  
ttcattcacaatttttaaaagaaaaggggggattggggggtacactgcaggggaaagaataatagacataatagca  
acagacatacaaaacacaaaatttacaacacaaaatttttaaaagttcaaaattttcgggtttattacagagacagc  
agagatcccatttggaaaggaccagccaagctactgtggaaaggagaaggggcagtggttaattcaagataacggg  
gatataaaagtagtcccacgtaggaaagcaaaaataattagggat

>#77 KY498771 2745 nt

atagggaagaagtaaggggaagctcttttagatacaggagctgatgatacagtaatagaagaactacaattagag  
ggaaaatggaaccaaaaatgatagggggaattggaggatttatcaaagtaagacaatatgataatgtaacagta  
gatatacaggggaagaaaagcagttggtacagtattagtaggaccaacacctgttaatatattataggaagaaatctt  
ttaacacagattggctgtactttaaattttccaataagtcctattgaaactgtaccagtaaaattaaaaccagga  
atggatggccaaaggttaaaacaatggcctttgacagcagaaaaaatagaggcattgagagaaatttgacagaa  
atggaaaaggarggaaaaatttctaaaaataggcctgagaatccatataacactccaatttttgctataaaaaag  
aaagatggcactaaatggagaaaattagtagatttcagagaattaaataaaaaggaccaagatttttgggaagt  
cagttaggaattccacatccagcaggattaaagcagaaaaaatcagtgacagttttggatgtaggagatgcttat  
ttttcatgtcctttggatgaagatttcaggaagtatacagcttttaccatacctagtataaacaatgagacacct

ggtattagataccaggtataatgtgttgccacagggctggaaagggtcaccagcaatTTTTTcaaagttcaatgaca  
aagattctagacccatttagaaagaacatccagagataatcatttatcagtacatggatgacctctatgtggga  
tctgacttagaactagcacaacatagagaggttagtagaagaacttagaaggcatcttttgattggggctttacg  
accctgacaaaaaacatcaaaaggagccaccgtttctctggatgggatatgagctccatccagataaatggacg  
gtccagccaataaagttgccagaaaaagagatatggactgtcaatgatatacaaaaatttagtagggaaattaaat  
tgggcaagtcagatctatccaggaatcaaagtaaaacagctgtgtagattaatcagaggaaccaagcctttgaca  
gaagtagttgactttacaaaagaagcagaattagaactagcagaaaacagggagatattaaaagaaccatgcat  
ggagtctactatgacccaggaagaattaatagcagacattcagaaacaaggacaaggtcaatggacatatcag  
atctatcaagagccatataaaaaacctgaaaacagggaaatatgcaaaaatgagatctgccatactaatgatata  
aaacagttagttgaagtagtacagaaggtggcaacagaaagtatagtaatttggggaaggactcctaaatttaga  
ttaccagtacaaaaggaagtggtgggagacatgggtggactgatcattggcaagcaacttggattcctgagtgggaa  
tttgtcaatacyctcccttgtaaaattatggtatcagttagaaacagagccaatcagtggggtagaaacatac  
tatgtggatggagcagctaataagagaaacaaaattgggaaaagcaggttttgtgacagatagaggaagacagaaa  
gtgggttctcttgacagacaccaccaatcaaaaggctgaattacaagctatccttatggccttacaagagtcagga  
caggcagtaaacatagttactgactcccagtatgctatgggaataatacatgcacaaccagataaragtgaatca  
gaattggtaagccaaataatagaagaactcataaaaaaggagaaagtttatctctcatgggtacctgcacataaa  
ggtattggaggaaatgagcagatagacaaatttagtcagctcaggaattaggaaagtattattcttggatggcata  
gacaaagcccaagaggatcatgaaagatatcacagtaattggagagcaatggctagtgtattttaacctaccccc  
gtagtggcaaaagaaatagtagccagctgtgacaaatgccagctaaaaggggaagccatacatggacaggtcaat  
tgtagtccaggagtatggcagtttagactgtacacacttagaagggaaaatcattctttagtcagtcctatgtggcc  
agtggctacttagaagcagaagttattcctgcagaaactggacaggaaacagcatatTTTTTaaagttagct  
ggaagatggccagtaaaagttatacacactgataatggaccaatttcactagtgccactgtaaaagcagcttgt  
tggtgggcaaacatcaaacaggaatttgggataccctacaatcctcaaagtcaggagcagtagagtcctgaat  
aaagaattaaagaaaattataggacaaatcagagatcaagcagaacatctaaaaacagcagtgcaaatggcggtt  
ttcattcacaattttaaaagaaaaggggggattgggggtacactgcaggggaaagaataatagatataatagca  
acagacatacagacaacaaaattacaaacacaaattttaaaagttcaaaattttcgggtttattacagagacagc  
agagatcccatttggaaaggaccagccaaacttctgtggaaaggagaaggggcagtggttaatccaagataacggg  
gatataaaagtgggtgccacgtaggaaagcaaaaataattagggat

>#78 DQ017383 2745 nt

ataggaaatgaagtaagagaagctcttttagacacaggagctgatgatacagtaatagaagaatacaattagaa  
gggagatggaaacaaaaaatgatagggggaattggaggatttatcaaagtaagacaatatgataatataacaata  
gacatacaaggaaggaaagcagttggtacagtgttagtaggaccaacacctgttaattattataggaagaaacttt  
ttaacacagattggctgtactctaaattttccattaagtcctattaaaactgtaccagtaaaaattaaaaccagga  
atggatggcccagaagtaaaacaatggcctttgacagcagaaaaaatagaggcgtaagagaaatttgtacagaa  
atggaaaaggaaggaaaaatttctagaatagggcctgaaaatccatataacactccaatttttgcataaaaaag  
aaagatagcactaaatggagaaaatttagtagatttcagagaattaaataaaaaggaccaagacttttgggaagt  
cagctgggaatcccacatccagcaggattaaagcagaaaaagtcagtaaacagtcttggatgtaggagatgcttat  
ttttcatgtcccttagatgaagattttagaaggtatacagtttttaccatacctagtgtaaacaatgagacacct  
ggtattagataccaggtataatgtgttaccacagggatgggagggatcaccagcaatTTTTTcaaagttcaatgaca  
acaattctagaaccatttagaaagaagcatccagagataatcatttatcagtacatggatgacctctatgtggga  
tctgacttagaaatagcaaaacatagagagacagttagaagaacttagaggccatctgttgaagtggggctttaca  
accctgacaaaaaacatcaaaaggagccaccattcctctggatgggatatgagctccatccagataaatggaca  
gtccggccaataaagttaccagaaaaggatacatggactgtcaatgatatacagaaatttagtagggaaattaaat  
tgggcaagtcagatttatccaggaattaaagtaagacagctttgcaaaattaatcagaggaaccaaggtttgaca  
gaagtagttacctttacagaagaagcaggattagaactagcagaaaacagggagatattaaaagaaccctacat  
ggagtctattatgacccagaaaaggaattaatagcggaaattcaaaaaacaaggacaaagtcagtggaacatatcag  
atttatcaggagtcacataaaaaatttaaagacaggaaagtatgcaaaaatgagatctgccatactaatgatata  
aagcagtttaactgaagtagtacaaaagatagcaacagaaagtatagtaatttggggaagactcctaagtttaa  
ttaccagtacaaaaggaagtggtgggagcatgggtggactgagaattggcaagcaacttggattcctgagtgggaa  
ttcgtcaacaccctccctctgtaaaattatggtatcagttagaaacagagccaatttagtggggcagaaacatac  
tatgtagatggagcagctaataagagaaacaaaattgggaaaagcaggttttgtgacagatagaggaagacagaaa  
gtggtctctattaaagataccaccaatcaaaaaactgagttacatgctatcctcatggccttacaagagtcagga  
caggaagtaaacatagtcactgactctcagtatgctatgggaataattcactcacagccagataaaaagtgaatca  
gaattggtagccaaataatagaagaactcataaaaaaggaaagagtgctatctctcttgggtacctgcacataaa  
ggtattggaggaaatgagcaggttagacaaatttagtttagctcaggaattagaaaagtattattcctagatggtata



gaaaaagcccaagaagagcatgaaagatatcacagtaactggagagcaatggccagtgattttaacttrcccccc  
atagtggcaaaagaaatagtagccagctgtgacaaatgccagctaaaaggggaagccatgcatggacaggtcaat  
tgtagtccaggagtgtggcagtttagattgtacacacttagaaggaaaaatcattcttgtagcagtcctatgtggcc  
agtggctacttagaagcagaagttattcctgcagaaacaggacaggaaacagcatatttttattttaagtttagct  
ggaagatggccagtaaaagttatacacactgataatggaccaatttcactagtgccactgtaaaagcagcctgt  
tgggtgggcaagtatcaaacaggaattcgggataccctacaatcctcaaagtcagggagcagtagagtcctatgaat  
aaagaattaaagaaaattataggacaaatcagagatcaagcagaacatctaaaaacagcagtgcaaatggcagtc  
ttcattcacaattttaaaagaaaaggggggattgggggggtacactgcaggggagagaataatagacataatagca  
acagacatacagacaacaaaattacaaacacaaattttaaaagttcaaaattttcgggtttattacagagacagc  
agagatcccatttgaaaggaccagccaaacttctgtggaaggagaaggggcagtggtaatccaagataacggg  
gatataaaagtagtcccacgtaggaaagcaaaaataattagagat

>#79 AJ271370 2745 nt

ataggaaaggaaataagagaagctcttttagatacaggagctgatgatacagtaatagaagaaatacaattagaa  
ggaaaatggaaacaaaaatgataggaggaattggaggatttatcaaagtaagacaatatgataatataacaata  
gacatacaaggaagaaaagcagttggtacagtgttagtaggaccaacacctgttaatatattataggaagaaacttt  
ttaacacagattggctgtactttaattttccaatcagtcctattgaaactgtaccagtaaaattaaaaccaggg  
atggatggcccaagggtaaaacaatggcctttgacagcagaaaaaatagaggcattaagagaaaatttgtacagaa  
atggaaaaagaaggaaaaatttctagaatagggcctgaaaatccatataaacactccaattttttgctataaaaaag  
aaagatagcactaaatggagaaaattagtagatttcagggaattaaataaaaaggaccaagaattttgggaagt  
caactaggaattccacatccagcaggattaaagcagaaaaaatcagtaacagttmtagatgtaggagatgcttat  
ttttcatgtcccttagataaagatttttagaaagtatacagctttttaccatacctagtataaataatgagacacct  
ggtatttagataccagttataatgtgttaccacagggatggaagggtaccagcaatttttcaaagttcaatgaca  
aaaattctagaaccatttaggaagaaacatccagagataattattttatcagtacatggatgacctctatgtggga  
tctgacttagaaatagcacaacatagagagacagttagaagaacttagaggctcatcttttgaagtggggctttacg  
accctgacaaaaaacatcaaaaggagccaccgttcctctggatgggatatgagctccatccagataaatggacg  
gtccagccaataaagttaccagaaaaggaggtatggactgtcaatgatatacaaaaatttagtaggaaaagttaaat  
tgggcaagtccagatctatccaggaatcaaagtaaaacagctttgtaaattaatcagaggaaccaaggtttgaca  
gaagtagtcacttttacacaagaagcagaattagaactagcagaaaaacagggagatattaaaagaaccctacat  
ggagtctattatgaccaggaaaagaattaatagcagaaattcaaaaaacaggacaaggtcagtggaacatatcag  
atztatcaggagccatataaaaaatttaaaaacaggaaagtatgcaaaaaygagatctgctcataactaatgatata  
aaagagttagctgcagtggtacaaaaggtggcaacagaaagtatagtaatttggggaaagactcctaagtttaaa  
ttaccagtacaaaaggaggtgtgggagacatggtggactgagcattggcaagcaacttggattcctgagtgggaa  
ttcgtcaaacactcctccccttgtaaaattatggtatcagttagaaacagagccaatttagtggggcagaaacatac  
tatgtagatggagcagctaataaaagaaaacaaaattaggaaaagcaggttttgtgacagatagaggaagacagaaa  
gtggtctctattgagaacaccaccaatcaaaaggctgagttacaagctatccttttggccttacaagagtccagga  
caggaagcaaacatagtcactgactctcagtatgctatgggaataattcactcacaaccagataaaaagtgaatca  
gacttgggtgggccaataatagaagaactcataaaaaaggaaagagtctatctctcttgggtacctgcacataaa  
ggtattggaggaaatgagcaggttagataawtttagtttagctcaggaattagaaragtattattcctagatggtata  
gaaaaagcccaagaagaacatgaaagatatcacagtaattggaaagcaatggccagtgattttaacttaccccc  
atagtagcaaaagaaatagtagccagctgtgacaaatgccagctaaaaggggaagccatgcatgggcagatcaat  
tgtagtccaggagtgtggcagtttagattgtacacacttagaaggaaaaatcattcttgtagcagtcctatgtggcc  
agtggctacttagaagcagaagttattcctgcagaaacaggacaggaaacagcatatttttattttaagtttagct  
ggaagatggccagtaaaagttatacacactgataatggaccaattttatttagtgccactgtaaaagcagcctgt  
tgggtgggcaggtatcaaacaggaattcgggataccctacaatcctcaaagtcagggagcagtagagtcctatgaat  
aaagaattaaagaaaattataggacaaatcagggatcaagcagaacatctaaaaacagcagtgcaaatggcggtt  
ttcattcacaattttaaaagaaaaggggggattgggggggtamacggcaggggaaagaataatagacataatagca  
acagacatacaacaacaaaattacaaacacaaattttaaaagttcaaaattttcrggtttattacagagacagc  
agagatcctatttgaaaggaccagccaaacttctgtggaaggagaaggggcagtggtaatccaagataacggg  
gatataaaggtagtcccacgtaggaaagcaaaaataattagagat

>#80 DQ314732 2745 nt

ataggaggacagctgaaagaagctctatttagatacaggagcagatgatacagttattagaagatataaatttgcca  
ggaaaatggaaacaaaaatgatagggggaattggaggttttatcaaggtaaggcagtatgatcaaatacctata  
gaaatttgtggaaaaaaggctataggcacagttatttagtaggacctacacctgtcaacataattggacgaaatatg  
ttgactcagcttgggtgtactttaattttccaatttagtcctattgacactgtaccagtaacattaaagccagga  
atggatggaccaaaaggttaaacagtggttaacagaagaaaagataaaaagcatttaacagaaattttgtaaagag

atggaagaggaaggaaaaatctcaaaaattgggcctgaaaatccatacaatactccagttatttgctataaagaaa  
aaggacagcaccaaatggagaaaattagtagatttcagagagctcaataaaagaactcaggacttttgggaagtt  
caattaggaataccgcatccagcaggtttaaaaaaggcaaaatcagtaacagtactagatgtgggagatgcatat  
ttttcagttccttttagatgaaagcttttagaaagtatactgcatttaccatacctagtataaacaatgagacacca  
ggaatcagatatcaatacaatgtgctgccacagggatggaaaggatcacgggcaatattccagtgtagcatgaca  
aaaatccttagagccctttagaataaaaaatccagaaatgggttatctatcaatacatggatgacttgtagtagga  
tctgacttagaaatagggcagcacagagcaaaaatagaggagctaagagctcatctattgagctggggatttact  
acaccagacaaaaagcatcagaaggaacctccgttcctttggatgggatatgaactccatcctgacagatggaca  
gtccagcctatagaactgccagaaaaagacagctggactgtcaatgatatacagaaattagtgggaaaaactaat  
tgggcaagtcaaatttatgcagggattaaggtaaagcaactgtgtaaactcctcaggggagctaaagcactaaca  
gacatagtaccactgactgaagaagcagaattagagttggcagagaaacagggagattctaaaacacctgtgcat  
ggagtatattatgacccgtcaaaagacttagtagcagaagtacagaaacaagggcaggaccaatggacatatcaa  
atttatcaagagccatttaaaaatctgaaaacagggaaatatgccagaaaaaggtctgctcacactaatgatgta  
agacaattaacagaagtgggtgcaaaaaatagccacagaaggcatagtaatatggggaaagaccctaaatttaga  
ctaccatacaaggagaaacatgggaaacatgggtggatggagtattggcagggtacctggattcctgaatgggag  
tttgtcaatacccctcctctagtaaaattatgggtaccaattagaaaaagaccctatagtaggagcagagactttc  
tatgtagatggggcagccagtaggggagactaagctaggaaaagcagggatgtgctactaatagagggaagacaaaag  
gtagtttccctaactgagacaaccaatcaaaagactgagttacatgcaatccatttagccttgccaggttcagaa  
ccagaagttaatataagtaacagactcacaatacgcatttaggaatcattcaggcacaaccagacagggagtgaatca  
gaagtagtcaaccaataatagaggagctgataaaaaaggaaaaggtctacctgtcatgggtaccagcacacaag  
gggattggaggaaatgaacaagtagataaatttagtcagttcaggaatcaggaaggtgctattttttagatgggata  
gataagggtcaagaagaacatgaaagatatcacagcaattgggagaacaatggctagtgtattttaatttgccacct  
atagtagcaaaggaaatagtagccaactgtgataaatgtcaactaaaagggggaagctatgcatggacaagtagac  
tgtagtccagggatatggcaattagattgcacacatctagaaggaaaagtcacacctggtagcagtcacgtggcc  
agtggatatatagaagcagaagttattccagcagaaacaggacaggaaacagcatactttctgctaaaattagca  
ggaagatggccagtaaaagtaatacacacagacaacggtagcaatttcaccagcgtgcagttaaagcagcctgt  
tggtggggccaatgtccgacaggaattcgggatcccctacaatccccaaagtcaaggagtagtagaatctatgaat  
aaagaattaaagaaaatcatagggcaggtgaagagagcaagctgaacaccttaagacagcagtagacaaatggcagta  
ttcatacacaatttttaaaaggaaaggggggattggggagtagcagtgaggggaaagaataatagacataatagca  
acagacatgcaaactaaagaattacaaaaacaaattacaaaaattcaaaattttcgggtttattacagggacagc  
agagacccaattttgaaaggaccagcaaaaactactctgaaaaggtgaaggggcagtagtaatacaagacaatagt  
gatataaaggtagtagtaaccaagaagaaaagcaagatcattagggat

>#81 AF377956 2754 nt

acaataaaagtagaggggcaactaaggaggcactattagatacaggggagatgatacagtagtagaagatata  
aatgtgtcaggaaaatggaaaccaaggatgtagggggaattggaggttttatcaaagtaagacagtagtagcaa  
ataccatagaaatttgccggacaaaaggctataggtactgtatttagtaggacctacgcctgtcaacataattgga  
agaaatatgttgactcagattgggtgcacttttaattttccaattagttctattgaaactgtaccagtaaaatta  
aagccaggaatggatggcccaagggttaacaatggccattgacagaagaaaaataaaagcattaacagaaatc  
tgtacagagatggaaaaagaaggaaaaatttcaaaaattggggccagaaaaatccatacaatactccagttattgcc  
ataaagaaaaaggacagtagtaaatggagaaaattagtagatttcagagaacttaataaaaagaactcaagatttt  
tgggaggttcaattaggaataccacaccctgcagggttaaaaaagaaaaatcagtaacagtactagatgtgggg  
gatgcatatttttcagttcccttagataaggagttcaggaagtacactgcattcaccatacctagtatcaacaat  
gagacgccaggaattagatatcagtacaatgtgcttccacagggatggaaagggtcaccagcaatattccaaagt  
agcatgacaaaaatccttagagcccttttagagtaaaaaatccagaaatagttatttaccatacatggatgatttg  
tatgtagggctgacttagaaataggacagcataggacaaaaatagaagagttaagagaacatctattgagatgg  
ggatttactacaccagataaaaaacatcagaaggaacccccatttctttggatgggggtatgaactccatcctgac  
aaatggacagtagcaggctatacaattgccagacaagagcagctggactgtcaatgatatacagaagttagtggga  
aaactaaattgggcaagtcagatttatccagggattagagtaaaagcacctatgcaaactccttagaggagccaaa  
gcgctaacagacgtagtgccactaacagtagaagcagaattagaaatggcagagaacaggggaaattctaaaagaa  
ccagtagatgggggtatattatgacccatcaaaagatctaatagcagaagtagagaacaagggcacgaccaatgg  
acatatcaaatttatcaagagccacataaaaaatctgaaaacaggaaagtagtgaagaaggaggtctgccacact  
aatgatgtaaaacaattaacagaagtagtgcaaaaaatagccacagaaggcatagtaatatggggaaaaagttcct  
aaatttaggttaccatacaaaaaagaaacatgggaaacatgggtggacagagtagttggcagggccacctggattcct  
gaatgggagtttgtcaatacccctcctctagtaaaattatgggtatcaattagaaacagagcccatattaggagca  
gaaactttctatgtagatggggcagctaataagagagacccaaaataggaaaagcaggtatgttactgacagagga

agacaaaaagttgtccccctaactgagacaacaaatcagaagactgaattacaagcaattcatttagctttgcag  
gactcaggatcagaagtaaacatagtaacagactcacagtatgcattaggaatcattcaagcacaccagataag  
agtgaatcagagtttagtcaaccaataatagagcaattaatacaaaaagaaaggggtctacctgtcatgggtacca  
gcacataaaggaattggaggaaatgaacaagtagataaattagtcagtgctggcatcaggaaagtagtgtttttg  
gatgggatagataaggctcaagaagaacatgaaaaatatcacagcaattggagagcaatggctagtgattttaat  
ttgccacctgtagtagccaaagaaatagtagccagctgtgtataaatgtcagctaaaaggggaagccatgcatgga  
caagtagactgcagtcaggatgatggcaactagattgtacacatttagaaggaaaaattatcttggtagcagtc  
catgtggctagtggttatatagaagcagaagttatcccagcagaaacgggacaggaaacagcctacttcctacta  
aagttagcaggaagatggccagtaaaaaataacatacagataatggcagcaatttcaccagtagtgggttaag  
gcagcctgttggtgggcaggtatccagcaggaatttggaattccctacaatcctcaaagtcaggagtagtagaa  
tctatgaataaagaattaaagaaaattataggacaggtgaagagatcaagctgaacatcttaagacagcagtagaa  
atggcagtagttcattcacaatttttaaagaaaaggggggattggggggtacagtgtaggggaaagaataatagac  
ataatagcaacagacatacaaaactaaagaattacaaaaacaaattacaaaaattcaaaactttcggtttatttc  
agggacagcagagacccaatttggaaggaccagcaaaagctactctggaaaggtgaaggggcagtagtcatacaa  
gacaataatgaataaaaagtagtagcaagaagaaaagcaaaaatcattagggt

>#82 AB254156 2745 nt

gtagggggccagataaaggaagctctcttagatacaggagcagatgatacagtattagaagaaataaatttgcca  
ggaaaatggaaacccaaaatgataggagggattggaggttttatcaaagtaagacagtatgatcaaataactata  
gaaatttgtggaaaaagggctgtaggttcagtattagtagggcctacacctgtcaacataattggaagaaatatg  
ttgactcagcttggtgtacactaaattttccaatttagtcctattgagactgtaccagtgaattaaagccagga  
atggatgggcccaaaagttaaacaatggccattgacagaagaaaaataaaagcattaacagcaatttgtgaggaa  
atggagaaggaaggaataatacaaaaattgggcctgaaaatccatataatactccagtagtggcataaaaaag  
aaggacagtagtaagtggagaaaattagtagatttcagggaactcaataaaagaactcaagacttttggaagtt  
caattaggaataccacaccagcaggggttaaaaaaggagaaatcagtgacagtgctagatgtgggggatgcatat  
ttttcagttccttttagatgagaacttcaggaaatatactgcattcaccatacctagtataaacaatgaaacacca  
gggattagatatcaatataatgtgcttcacagggatggaaaggatcaccagcaatattccagagtagcatgaca  
aaaatcttagagcccttttaggacaaaaaacccagaaatagttatctatcaatataatggatgacttgtagtagga  
tctgacttagaaatagggcaacatagagcaaaaatagaggagtttaagagaacatttattgaaatggggatttacc  
actccagacaaaaaacatcagaaagaacccccatttctgtggatgggggtatgaactacatcctgacaaatggaca  
gtacagcctatacagctgccagaaaaagaaagctggactgtcaatgatatacagaagtttagtgggaaaattaaac  
tgggcaagtcagatttatccaggaattaaagtaaaagcaactgtgtaagctccttaggggagccaaagcactaaca  
gacatagtagcactgactgaagaagcagaattagaattggcagagaaacagggaatttcaagagaaccagtagcat  
ggagtatattatgacccatcaaaaagacttaatagctgaaatacagaaacagggacatgaccaatggacatatcaa  
atttaccaagaccattcaaaaatctgaaaacagggaagtagcaaaaatgaggactgccacactaatgatgta  
agacagtttagtagaggcagtgcaaagaataactatggaaagtatagtaaatatggggaagactcctaaatttaga  
ctacccatccaaaagacacatgggagacatggtggacagactattggcaagccacctggattcctgaatgggag  
tttggttaatacccctcccctagtaaaattatggtaccagctagagaaagaacccatagtaggagcagaaactttc  
tatgtagatggagcagctaatagggaaaactaaaataggaaaagcaggatattgttacagatagaggaagacagaaa  
attgtttctctaactgaaacaacaaatcagaagactgaattacaagcaattcagctagctttgcaggattcagga  
tcagaagtaaacatagtaacagactcacagtatgcattaggaataattcaagcccaaccagataagagtgatca  
gagttagttaatcaataatagaacagttaataaacaaggaaaaagtcacctgtcatgggtaccagcacataaaa  
ggaattggaggaaatgaacaagtagacaaattagtaagtagtggaatcaggagagtgctgtttctagatggata  
gataaggctcaagaagagcatgaaaaatatcacagcaattggagagcaatggctagtgaaattcaatctgccacc  
atagtagcaaaagaaatagtagctagctgtgataaatgtcagctaaaaggggaagccatacatggacaagtggac  
tgtagtccagggatatggcaattagattgtacacatttagaaggaaaaatcatcctagtagcagtcctatgtagcc  
agtggctacatagaagcagaggttattccagcagaaacaggacaggaaacagcatacttcatactaaaattagca  
ggaagatggccagtc aaagtaatacacacagacaatggcagtaatttcaccagtgctgcagtttaaggcagcctgt  
tggtgggcaggtatccaacaagaatttggaattccctacaatccccaaagtcaggagtagtagaatccatgaat  
aaagaattaaagaaaatcatagggcaagtaagagagcaagctgagcaccttaagacagcagtagcaaatggcagta  
ttcatccacaatttttaaagaaaaggggggattggggggtacagtgtaggggaaagaataatagacataatagca  
acagatatcaaaactaaagaactacaaaaacgaattatacaaaattcaaaattttcggtttattacagagacagc  
agagaccctatttggaaggaccagccaaactactctggaaaggtgaaggggcagtagtaatacaagataatagt  
gacataaaggtagtagcaaggaggaaagtaaaaatcattaaagac

>#83 MF373132 2745 nt

gtagggggacagataaaggaggctctcttagacacaggagcagatgatacagtattagaagaaataaaattacca  
ggaaattggaaacccaaaaatgatagggggaattggagggttttatcaaagtaagacagtatgatcaaatacttata  
gaaatttgtggaaaaaaggctatagggttcagtattagtaggacctacacctgtcaacataattggaagaaatatg  
ttgactcaacttggatgcacactaaattttccaatttagtcctattgaaactgtgccagtaaaattaaagccagga  
atggatggcccaaagggtcaaacaatggccattgacagaagagaaaaataaaagcattaatagaaatttgtgaagaa  
atggaaaaggaaggaaaaattacaaaaattgggcctgaaaatccatataacactccagtatattgccataaaaaag  
aagaacagtactaagtggagaaaaattagtagatttttaggggaactcaataaaagaactcaagacttttgggaagt  
caattagggataccacacccaggagggttaaaaaagaacaaatcagtgacagtactagatgtaggggatgcatat  
ttttcagttccttttagatgaagggtttcaggaaatatactgcattcaccatacctagtctaacaatgagacacca  
gggattagatatcaatataatgtgcttccacagggatggaaaggatcaccagcaatatttcagagtagcatgaca  
aaaatcttagaaccttttagggcacaaaatccagaaatagtcattctaccaatacatggatgacttgtatgtagca  
tctgatttagagatagggaaacatagagcaaaaatagagggaattaagagaacatctatggagggtggggattttac  
acaccagataaagaacaccagaaagaaccaccattttctttggatgggggtatgaactccatcctgacaagtggaca  
gtacagcctatacagctgccagaaaaggatagctggactgtcaatgatatacagaagtttagtgggaaaattaaac  
tgggcaagtcaaattttatccagggttaaaagtaagcaactatgtaaactccttaggggaaccaaagcattaaca  
gacatagtaccactgactgaagaagcagaattagaattggcagagaaacagggaaattctaaaagaaccagtacat  
ggagtataattatgacccatcaaaagacttaataactgaaatacagaaacagggaaatgatcaatggacatatcaa  
atttaccaagaaccattcaaaaacctgaaaacagggaaatatgcaaaaatgaggactgccacactaatgatgta  
aagcagtttaacagaggtagtgcaaaaagtagccatggaaagcatagtaatatggggaaaaactcctaaatttaga  
ttacctatccagaaagaacatgggaggcatggtggacagattattggcaagccacctggattcctgagtgggag  
tttgtcaatacccctcccctagtaaagttaggtaccagctggagaaagaacctatagcaggagtagaaactttc  
tatgtagatggagcagctaataagggaaactaaaatgggaaaagcaggatatgttactgacaggggaaggcagaaa  
attgtttctctaactgaaacaacaaatcagaaaactgaattacaagcaattcagctagctttacaggactcagga  
tcagaagtgaacatagtaacagactcacagtatgcattaggaattattcaagcacagccagataagagtgaatca  
gagttagtcaatcaataatagaacagttgataaaaaaggaaaggggtctacctatcatgggtaccagcacataaa  
gggattggaggaaatgagcaaatagataaaactagtaagtactggaatcaggaaagtgtgtttctggatggaata  
gataaggctcaagaagagcatgaaagatatcacaacaattggagagcaatggctgatgagtttaattctgccacc  
atagtagcaaaagaaatagtagccagctgtgataaatgtcagctaaaaggggaagccatgcatggacaagtagac  
tgtagtccaggaatatggcaattagattgtacacatctagaaggaaaaatcatcctggtagcagtcctatgtagcc  
agtggctacatagaagcagaggttattccagcagaaacaggacaagagacagcatactacataattaaattagca  
ggaagatggccagtc aaagtaatacatacagacaatggcagtaatttcaccagtagtgagtttaaggcagcctgt  
tggtgggcaggtatccaacaagaatttggaattccctacaatccccaaagtccaggagtagtagaatccatgaat  
aaagaattaaagaaaatcatagggcaggttaagagatcaagctgagcaccttaagacagcagtagacaaatggcagta  
ttcattcacatttttaaaagaaaaggggggattggggggtacagtgacaggggaaagaataatagacatgatagca  
acagatatcaaaactaaagaactacaaaaacaaatcacaaaaattcaaaattttcgggtttattacagagacagc  
agagaccctattttgaaaggaccagccaaactactctgaaagggtgaaggggcagtagtaatacaagataacagt  
gacataaaggtagtaccagaaggaaagtaaaaaatcattaaggac

>#84 KP109483 2745 nt

gtaggggggtcagataaaagaggctctcttagacacgggagcagatgatacagtgttagggagaaataaatttgcca  
ggaaaaatggaaacccaaaaatgataggaggaattggagggttttatcaaagtaagacaatatgatcaaatacctata  
gaaatttgtggaaaaaaggctatagggttcagtattagtaggacccacacctgtcaacataattggaagaaatatg  
ttgactcagcttgggtgcacactaaattttccaatcagtcaccttgaaactataaccagtaaaattaaagccagga  
atggatggcccaaagggttaaaacaatggccattgacagaagagaaaaataaaaggcattaacagcaatttgtgatgaa  
atggaaaaggaaggaaaaattacaaaaattgggcctgaaaatccatataacactccaatatttgccataaaaaag  
aaggacagtactaagtggagaaaaattagtagacttcagggaactcaataaaagaactcaagatttttgggaagtt  
caattaggaataccacacccagcaggggttaaaaaaaaaaaaaatcagtgacagtactggatgtgggggatgcatat  
ttttcagttccttttatatgaagacttcaggaaatatactgcattcaccatacctagtataaacaatgaaacacca  
gggattaggtatcaatataatgtgcttccacagggatggaaaggatcaccagcaatatttcagagtagcatgaca  
agaatatttagagcccttttagggcacaaaatccagaaatagtcattctatcaatatatggatgacttatatgtagga  
tctgacttagagatagggcaacatagagcaaaaatagaggaggttaagagaacatctgttaaagtggggatttacc  
acaccagacaagaacatcagaaagaacctccattttctttggatgggggtatgaactccatcctgacaaatggaca  
gtacagcctatacagctgccagaaaaggatagctggactgtcaatgatatacagaagttgggtgggaaaattaaac  
tgggcaagtgcagtttaccaggaattaaagtaaggcaactttgtagactccttagggggggttaaagcactaaca  
gacatagtaccactaactggagaagcagaattagagttggcagaaaacagggaaattctaaaggaaccagtacat  
ggagtataattatgacccatcaaaagacttgatagctgaaatacagaaacaggggcaggaccaatggacatatcaa

atttaccagaaccatttcaaaaatctgaaaacaggggaagtatgcaaaaatgaggactgcccacactaatgatgta  
aaacaggttaacagaggctgtgacagaaaatagccatggaaagcatagtaatatgggaaaagactcctaaatttaga  
ttacccatccaaaagaaacatgggagctatgggtggacagactattggcaagccacctggattcctgagtgggaa  
tttggttaatacccctcccctagtaaaattatgggtatcggctggaaacagaacctatagcaggagcagaaaactttc  
tatgtagatggagcagctaataagggaaactaaaacaggaaaagcagggtatgttactgacagaggaagaaataaa  
gttggtttctctaactgaaacaacaaatcagaagactgaattgcaagcaatttgtctagctttgcaagattcagga  
tcagaagtaaacatagtaacagattcacagtatgcattagggatcattcaagcacaaccagataagagtgaatca  
gagttagttaaccaaataatagaacaggttaataaagaaggaaagggtctacctgtcatgggtaccagcacataaa  
ggaattggaggaaatgaacaagtagataaattagtaagtaattggaatcaggaaagtgtctatttctagatggaata  
gataaagctcaagaagagcatgaaaaatatcacagcaattggagagcaatggctagtgtactttaatcttccaccc  
atagtagcaaaagaaatagtagccagctgtgatcaatgtcagctaaaagggggaagccatgcatggacaagtagac  
tgtagtccagggatatggcaattagattgtacacatttagaaggaaaaatcatcctggtagcagtcctatgtagcc  
agtggctacttagaagcagagggtatttccagcagaaaacaggacaagaaacagcatactatatactaaaattagca  
gcaagatggccagtc aaagcaatacacacagacaatggtagtaatttcaccagygctgcagtttaaggcagcctgt  
tggtgggcaggcatccaacaggaatttggaattccctacaatccccaaagtcaggagtagtagaatccatgaat  
aaagaattaaagaaaattatagggcagataagagatcaagctgagcaccttaagacagcagtagacaaatggcagta  
ttcattcacaatttttaaaagaaaaggggggattgggggggtacagtgccaggggaaagaatagtagacatgatagca  
acagacatacaaaactaaagaattacaaaaacaaattataaaaaattcaaaatttttcgggtttattacagagacagc  
agagacccccatttggaaggaccagccaaactactctggaaagggtgaaggggcagtagtgatacaagataataat  
gacataaaggtagtagtaaccaaggaggaaagcaaaaaataattaaagac

>#85 KY658708 2745 nt

gtagggggccagataaaggaggctctcttagacacaggagcagatgatcacgtattagaagaaataaatttgcca  
ggaaaatggaaacccaaaatgataggaggaattggagggttttatcaaagtaagacagtatgatcaaatagtttata  
gaaatttgtggaaaaaaggctataggtacagtattagtaggacctacacctgtcaacataattggaagaaatatg  
ttgactcagcttggtatgtacactaaattttccaatttagtccattgaaactgtaccagtaaaattaaagccagga  
atggatggcccaaagggttaaaccaatggccattgacagaagagaaaaataaaagcattaacagaaatttgtgaagaa  
atggagaaggaaggaaaaattacaaaaattgggcctgaaaatccatataacactccagttatttgccataaaaaag  
aaggacagtactaagtggagaaaaattagtagatttttagggagcttaataaaaagaactcaagacttttgggaagtt  
caattaggaataccacaccagcaggggttaaaaaagaagaatcagtgacagtactggatgtgggggatgcatat  
ttttcagttccttttagatgaaggcttcaggaaatatactgcattcaccatacctagtataaacaatgaaacacca  
gggattagatatcaatataatgtgcttccacagggatggaaaggatcaccagcaatattccagagtagcatgaca  
agaatttttagagcccttttagagcacaaaaatccagaaatagtcattctatcaatatatggatgacttgtatgtagga  
tctgacttagaaatagggaacatagagcaaaaaatagaagaattaagagaacatctgttaaagtggggatttacc  
acaccagacaaaaaacatcagaaagaacccccatttcttttggtgggggtatgaactccatcctgacaaatggaca  
gtacagcctataaagctgccagacaaggatagctggactgtcaatgatatacagaagttagtgggaaaaattaaac  
tgggcaagtcagatttaccaggggatcaaagtaaggcaactttgtaaaactccttagggggggccaaagcactaaca  
gatgtagtaccactaactgaagaagcagaattagaattggcagagaaacagggaattctaaaagaaccagtagcat  
gggggtatattatgacccatcaaaaagacttaatagctgaaatacagaaaacaggggcatgaccaatggacatatcaa  
atttaccagaaccatttcaaaaatctgaaaacaggaaagtatgcaaaaatgaggactgcccacactaatgatgta  
aaacaggttaacagaggcagtgcaaaaaatagcccaggaaagcatagtaatatgggaaaagactcctaaatttaga  
ctacccatccaaaaggaaacgtgggagacatgggtggacagactattggcaagccacctggattcctgaatgggag  
tttggttaatactcctcccctagtaaaattatgggtaccagttggagaaagaaccataaccaggagtagaaaactttc  
tatgtagatggagcagctaataagggaaactaaactaggaaaagcagggtatgttactgacagaggaaggcagaaa  
attgtttctctaactgaaacaacaaatcagaagactgaattgcaagcaattcagctagctttgcaagattcagga  
tcagaagtaaacatagtaacagactcacagtatgcattaggaatcattcaagcacaaccagataagagtgaatca  
gagttagtcaaccaataatagaacaattaatacaaaaaggaaagggtctacctgtcatgggtacctgcacataaa  
ggaattggaggaaatgagcaagtagataaattagtaagtcagggaatcaggaaagtgtgtttctagatggaata  
gataaggctcaagaagagcatgaaaaatatcacaacaattggagagcaatggctgatgagtttaattctgccacc  
atagtagcaaaagaaatagtagctagctgtgataaatgtcaactaaaagggggaagccatacatggacaagtagac  
tgtagtccagggatatggcaattagattgtacacatttagaaggaaaaagttatcctggtagcagtcctatgtagcc  
agtggctacatagaagcagagggttatccagcagaaaacaggacaagaaacagcatactacatactaaaattagca  
ggaagatggccagtcagagtaatacacacagacaatgggtactaatttcaccagtgctgcagtttaaggcagcctgt  
tggtgggcagggtatccaacaggaatttggaattccctacaatccccaaagtcaggagtagtagaatccatgaat  
aaagaattaaagaaaattatagggcaggttaagagatcaagctgagcaccttaagacagcagtagacaaatggcagta  
ttcattcacaatttttaaaagaaaaggggggattgggggggtacagtgccaggggaaagaataatagacataatagca

acagacatacaaactaaagaactacaaaaacaaattataaaaaattcaaaattttcggggtttattacagagacagc  
agagaccctatTTTggaaaggaccagccaaactactctggaaaggTgaagggcggtagtaatacaagataacagt  
gacataaaggtagtagtaaccaaggaggaaagtaaaaaatcattaaggac

>#86 KC156114 2745 nt

gtagggggacagataaaggaggctctcttagacacaggagcagatgatacagtattagaagacataaatttgcca  
gggaaatggaaccaagaatgataggaggaattggaggTTTTatcaaagtaagacaatatgaacaaatacctata  
gaaatTTTgtgggaaaaaggctataggtacagtgttagtaggacctacgcctgttaacataattggaagaaatatg  
ttgacacagcttggtatgtactactaaatTTTccaatttagtcctattgaaactgtaccagtaaaattaaagccagg  
atggatggcccaagggttaaacaatggccattgacagaagagaaaaataaaagcattaacagcaattTgtgaagaa  
atggagaaggagggaataattacaaaaattgggcctgaaaatccatataacactccaatTTTgccataaagaag  
aaggacagtactaagtggagaaaattagtagatttcaggggaactcaataaaagaactcaagatTTTTgggaggtt  
caattaggaataccacaccagcaggggttaaaaaagaaaaaatcagtgacagtgctagatgtgggggatgcatat  
TTTTcagttcctTTtagatgaaagctTTtaggaaatatactgcattcaccatacctagtataaacaatgcaacacca  
ggaattagatatcaatataatgtgctaccacagggatggaaaggatcaccagcaatattccagagtagcatgaca  
aaaatccttagagcccttcaggacacaaaaatccagatatagttatctatcaatatatggatgacttgtatgtggga  
tctgacttagaaatagggcaacatagagcaaaagatagagcaattaagagaacatttactgcaatggggacttacc  
acaccagataaaaaacatcaaaaggaacccccatttctTTTggatggggatgaactccatcctgacaaatggaca  
gtacagcctatacagctaccagacaaggatagctggactgtcaatgatatacagaagtttagtgggaaaattgaac  
tgggcaagttagatttaccagggattaaagtaaggcaactTTTgtaaactccttaggggaaccaaagcactaacg  
gacatagtaccactaactgaagaagcagaattagaattggcagagaacagggaaattctaaaagaaccagtagcat  
ggggatatattatgacccatcaaaagacttgatagctgaaatacagaaacaagggcagtaggacatatcaa  
atttaccagaaccattcaaaaaatctgaagacaggaaagtatgcaaaaaatgaggactgccacactaatgatgta  
aaacagctaacagaggcagtgcaaaaaatagcccaggaatgcatagtaatatggggaaagactcctaaatTTtagg  
ttaccattcaaaaagacatatgggaaacatggtggacagactattggcaagccacctggattcctgaatgggaa  
TTtagtaatacccctcccctagtaaaattatggtatcagcttgagaaagatcccatagcaggagcagaaaactTTc  
tatgtagatggagcagctaattagggaaaactaaactggggaagcaggggtatgtaactgataaagggaaggcagaaa  
atcattactctaactgaaacaacaaatcagaaggctgaattacaagcaattcagcttgccttgccaggttcagga  
tcagaagtaaacatagtaacagactcacagtatgcattaggaatcattcaggcacaaccagataagagtgaatca  
gagttagtcactcaataatagagcagttaataggaaggaaaggatctacctgtcatgggtaccagcacataaaa  
ggaattggaggaaatgaacaagtagataaattagtaagtagtggaatcaggaaagtagtgttctagatggaata  
gacaaggcccaagaagagcatgaaaaatatcacagcaattggagagcaatggctagttagtTTaatctgccacc  
atagtagcaaaagaaatagtagctagctgtgataaatgtcaacaaaaagggggaagccatgcatgggcaagtagac  
tgtagtccagggatctggcaattagattgtacacattttagaaggaaaaatcatcctggtagcagtcctatgtagcc  
agtggctacatagaagcagaggttatccagcagaaacaggacaagaaacagcatactacatactaaaattagca  
ggaagatggccagtcagggtatacatagacaatggcagtaatttcaccagtaatgcagTTaaggcagcctgt  
tgggtgggcaggtatccaacaggaattTggaattccctacaatccccaaagttagggagtagtagagtcctgaat  
aaagaattaaagaaaatcataggacaggtgaagagatcaagctgagcacctaagacagcagtagcaaatggcagta  
TtcattcacaattTTTaaagaaaagggggattggggggtacagtgtaggggagagaataatagacatgatagca  
acagacatacaaactaaagaattacaaaaacaaattataaaaaattcaaaatTTTcggggtttattacagagacagc  
agagaccctatTTTggaaaggaccagccaaactactctggaaaggTgaagggcggtagtaatacaagataacagt  
gacataaaggtagtagtaaccaaggaggaaagcaaaaaatcattaaggac

>#87 AF005496 2745 nt

atagagggacagttaaagggaagctctattagatacaggagcagatgatacagtattagaagagataaatttgccg  
ggaaaatggaaccaaaaaatgatagggggaattggaggTTTTatcaaagtaagacagtatgagcaagtagccata  
gaaatctgtggaaaaaaggctataggtacagtattagtaggacctacacctgtcaatataattggaaggaaatata  
ttgactcaaattggttgccacttaaatTTTccaatttagtcctattgaaactgtaccagtaaaattaaagccagga  
atggatggcccaagggttaaacaatggccattgacagaagaaaaataaaagcattaacggaaattTgtacagag  
atggaaaaagaaggaaaaatctcaagaatagggcctgagaatccatacagcactccaatTTTgccataaaaaag  
aaggatagtactaaatggagaaaattagtgatttcagagaactcaataaaagaactcaagacttctgggaagtt  
cagttaggaataccacaccagcaggggttaaaaaagaaaaaatcagtatcagtagtggatgtgggggatgcatat  
TTTTcagttcctTTtagataaagaattcagaaagtatactgcattcaccatacctagtataaacaatgagacacca  
gggattagatatcagtataatgtgcttccacagggatggaaaggatcaccagcaatattccagagtagcatgaca  
aaaatccttagcgccctTTtagagaacaaaaatcctgaaatggttatttaccataacatggatgattTgtatgtagga  
tctgacttagaaatagggcaacatagagcaaaaaatagaggagTTaagagctcattTgttgaaatggggatttacc  
acaccagacaaaaaacatcagaaagaacccccatttctTTTggatgggatatgaactccatcctgacaaatggaca

gtacagactgtaaaactgccagaaaaagacagctggactgtcaatgatatacagaagttagtgggaaaactaaat  
tgaggcaagtcagatttatccaaatattaaagtaaagcaactatgtaaactccttagggggggccaaagcattaaca  
gacataataccactgacaaaagaggcagaatttgaattggcagaaaacagggagattctgagagaaccaatacat  
ggagtatattatgatccatcaaaagacttaatagcagaaaatacggagcaagggcaaggccaatggacatatcaa  
atttatcaggagccatttataaaatctgaagacaggaaaatatgcaaaaatgagaactgccacactaatgatata  
aaacaattaacagaagcagtgcaaaagatatctacagaaagcatagtaatatggggaaaaattcctaaatttaga  
ctacctatacaaaaagaacatgggagacctggtggacagagatttggcaagccacatggattcctgaatgggag  
tttggttaacacccctcatctagtaaaattatggtatcagttagaaacagagcccatagcaggagcagaaaacttac  
tatatagatggggcagctaataagggaaactaaattaggaaaagcaggatatgtcactgatagaggaaagcaaaaa  
gttgtctccctaacggaacaacaaatcagaagactgaattacaagcaatttatctagctttgcaagattcaggg  
ttagaagtgaacatagtgacagattcacagtatgcactaggaatcattcaagcacaacccgataagagtgaatca  
gagttagttaatcaataatagaggaattaataaagaaggaaaaggtctacctgtcatgggtaccagcacacaaa  
ggaattggaggaaatgaacaagtagataaattagtttagttctggagtcagaaaagtgctatttctagatgggata  
gataaagctcaagaagaacatgaaaggtatcataacaattggagagcagtggttagtgattttaatctaccacct  
atagtagcaaaagaaatagtagctagctgtgataaatgtcagctaaaaggggaagccatgcatggacaagtagac  
tgtagcccggaatatggcaattagattgcacacatttgggaaggacaagttattctggttagcagtcctatgtagcc  
agtggctatatagaagcagaagtcacccagcagaaaacaggaaaggaaacagcatacttccctggtgaaactagca  
agcagatggccagtaaaagtaatacatcacagacaatggcagcaatttcacgagtgctgcggttaaggcagcctgt  
tgggtgggcagatatccaacaggaatttgggattccctacaatccccaaagtcaggggagtagtagaatctatgaat  
aaagaattaaagaagatcatagggcaggttaagagaccaagcagaacacctaagacagcagtagacaaatggcagta  
ttcattcacatttttaaaagaaaaggggggattggggggtacagtgacaggggaaagaataatagacataatagca  
acagacatacaaaactaaagaattacaaaaacaaatttcaaacattcaaaaatttcggggtttattacagggacagc  
agagacccaatttggaaaggaccagcaaaaactcctctggaaaggtgaaggggcagtagtaatacaagacaatagt  
gaaataaaagtagtagtaaccaagaagagaggcaaaaatcattaggggat

>#88 FJ389367 2754 nt

acagtaagagtagggggacagctaataagaagccctatttagacacaggagcagatgatacagtagtagaagatata  
aattttacaaggaaaatggaaacaaaaatgataggggggaatttgggtggttttattaaagtaaaacagtagtagcaa  
atacttatggaaatttgtggaaaaaaggctatagggacagtggttagtaggacctacacctatcaacataatttga  
agaaatatgttgactcagatttgggtgtacttttaattttccaaatagtcctattgaaactgtaccagtaaaatta  
aagccaggaatggatggcccaaagggttaacaatggccatttgacagaagagaaaaataaaagcattaacagaaatt  
tgtacagaaatggaaaaagaaggaaaaatttcaaaaatttgggcctgaaaatccatacaacactccaatatttggc  
ataaagaaaaaagacagtagcaagtgaggaaaatttggtagatttcagagagctcaataaaaagaactcaagacttc  
tgggaggtccaattaggaataacctcatcccgcggggttaaaaaagaaaaaatcagtaacagtagtagatgtggg  
gatgcataatttttcagtgcccttatatgaagacttttagaaagtatactgcattcaccataacctagtgtaaataat  
gagacaccagggattagatatcagtacaatgtgcttccacagggatggaaaggatcaccagcaatatattcagart  
agcatgacaaaaatcttagagccctttagaataaaaaatccagaaatagaaatctaccaatatatggatgattta  
tatgtaggatctgacttagaaatagggcagcatagarcaaaaatagaggagtttaagagaacatctgttaaaatgg  
gggtttaccacaccagataaaaaacatcagaagaacctccattcctttggatgggatatgagctccatcctgac  
aaatggacagtagacaacctatacagctgccaaataaagaaagctggactgtcaatgatatacaaaagttagtggga  
aaactaaatttgggcaagtcagatttatccaggaatyaaagtaaaacaactatgtaaactccttagggggggccaaa  
gcactaacagacatagtagcactgactgcagaagcagaatttggaaactggcagagaacaggggaaattctgaaagaa  
cctgtacatggagtctattatgacccatcaaaagacytaatagcagaagtacagaaacaaggggttagaccaatgg  
acatatcaaatctatcaggagccatacaaaaatctgaaaacaggaaaaatatgcaaaaagggggtctactcacact  
aatgatgtaaaacaatttaacagaagtagtgcaaaaaatagccacagagagcatagtaatatgggggaaagactcct  
aaattttaaactaccatacgaaaagaaacatgggaagtagtggtggacagaatatttggcaggccacctggattcct  
gactgggagtttatcaatactcctcctctagtaaaattatggtatcagttagaaacagaacccatmgcaggagta  
gaaacttattatgtagatggggcagctaataagggaacaaagtttaggaaaggcaggatatgtcactgacagagga  
aaacaaaaaattattaccctaactggaacaacaaacaaaagactgaattacaagcaatttcagctagctttgcag  
gactcaggatcagaagtaaacatagtaaacagactcacagtatgcattaggaattattcaagcacaaccagatagg  
agtgaatcagaattagtcattcaataatagagcagctaataaaaaaggaaaggggtctacctgtcatgggtacca  
gcacacaaagggttggagggaatgaacaagtagataaattagtyagtaattggaatcaggaaagtggtattttta  
gatggcatagataaaagcccaagaagagcatgaaagatatcacagcaattggagagcaatggctagtgtattttaat  
ctgccacctatagtagcaaaagaaatagtgccagctgtgtataaatgtcagctaaaagggggaagccatgcatggc  
caagtagactgtagtccaggaatatggcaattagattgtactcatttagaaggaaaaattatcctggtagcagtc  
catgtggccagtggtctatatagaagcagaagttatccagcagaaaacaggacaggaaacagcattcttcatatta

aaattggcaggcaggtggccagtgaaaatgatacacacagacaatggcagcaatttcaccagtgctgcagtaaag  
gcagcatgttggtgggcagatatcacacaagaatttgggaattccctacaatccccaagccaaggggtagtgagg  
tctatgaataaagaattaaagaaaatcattgggcaggtcagggatcaagctgaacaccttaagacagcagtacag  
atggcagtatcattcacaatttttaaagaaaaggggggattggggggtacagtgccaggggaaagaataatagac  
ataatagcatcagacatacaaaactaaagaactacaaaaacaaattacaaaagttcaaaattttcgggtttattac  
agggacagcagagacccaatttggaaaggaccagcaaaaactactctggaaaggtgaaggggcagtagtaatacaa  
gacaataacgaaataaaggtagtagcaaggagaaaagcaaagatcattagggat

>#89 FJ389365 2745 nt

gtgggggggacagctaataagaagccctrttagacacaggrgcagatgatacagtagtattagaacaaataaatttacca  
ggaaaatggaagccaaaaatgatagggggaattggaggatttatcaaagtaaaacagtagtgatgatatacatata  
gaaattgarggraaaaaggctatagggacagtagtagtaggacctacacctgtcaacataattggaagaaatatg  
ttgactcagattgggtgtacttttaaattttccaatttagtcctattgaaactgtaccagtaaaattaaagccagga  
atggatggcccaaggggttaaacaatggccattgacagaagagaaaaataaaagcattaacagaaatttgtaatgaa  
atggaaaaggaaggggaaaatttcaaagattgggcctgaaaatccatacaacactccaatatttgccataargaaa  
aargacagtactaaatggagaaagttggtagatttcagagagctcaataaaagaactcaagatttctgggaagtc  
caaytaggtatacctcatccckcgggggttaaaaaagaaraaatcagtaacagtagtggtggtgggagatgcatat  
ttttcagttcccytacatgaagacttttagaaagtatactgcattcactataccagtagyaaataatgagacacca  
gggagtagatatcagtagaattgtgctycmcagggtggaagggatcaccagcaatatttcagagtagtagtacc  
argatcttagagcccttttaggayaaraaatccagaactgggtgatctaycaatacatggatgatttatatgtagga  
tctgacttagaaatagggcagcatagagcaaaaatagaggaggttaagarakcatctrytgarrtggggatttacc  
acaccagataaraaacatcagaaagaacctccattcctttggatgggataygagctccatcctgacaaatggacg  
gtacaacctatacagctgccagacaaggaaagctggactgtcaatgatatacaraaatttagtgggaaaactaaat  
tgggcaagycagatytatcaagggattaaagtaaggcagctatgtaaactccttagggggggccaaagcactaaca  
gacatagtagcactgactgargaagcagaattagaattggcagagaacagggagattctaaaagaacctgtacat  
ggagtctactatgacccatcaaaagatttaatagcagaagtacagaaaacaggggctygaccaatggacatatcaa  
atztatcaagagccatataaaaaatctgaaaacaggaaagtatgcaaaaagggggtctgccacactaatgatgta  
agacaattaacagaggcagtgcaaaaaatagccacagaragcatagtaatatggggaaaagttcctaaattttaa  
ctacctataaggaaagagacatgggaattatggtggacagaatattggcaggccacctggattcctgattgggag  
tttgtcaatacyccctcctctagtaaaattrtggtaycagtttagagacagarcccatakyaggagcagaaacttac  
tatgtagatggggcagctaataagggaaacaaaattaggaaragcaggatattgttactgacaaaggaaagcaaaar  
gttatyaccatacaggaacacaacaaaccaaagggtgaattacatgcaattcagctagccttacargactcaggg  
tcagaggtaaacatagtaacagaytcacaatatgcattaggaatcattcaagcacaaccagatagragtgatca  
gaattagtcaatcaataatagarcagctrataamaaggaaaggrtctacttarcatgggtaccagcacacaaa  
gggattggrggaatgaacaagtagataaatttagtcagtagtggaatcagaaaagtactattttttagatggcata  
gataaagcccaagaagaacatgaaagatatcacagcaatttgaaagcaatggctagtgattttaatctgccaccg  
gtagtagcaaaagagatagtgggccagctgtgataaatgtcagctaaaaggagaagccatgcatggacaggttagac  
tgtagtccaggaatatggcaattagattgtacacattttagaaggaaagattatcctggtagcagtcctatgtagcc  
agtggctatatagaagcagaggttatccagcagaaacaggacaggaaacagcatactttatattaaaatttagca  
ggaaggtggccagtaaaagtaatacatacagacaatggcagcaattttaccagtaatgcagtaaaaggcagcttgt  
tggtgggcaagtatcacacaagaatttgggaattccctacaatccccaagccaaggagtagtggaatctatgaat  
aaagaattaaagaaaattattgggcaggtcagagatcaagctgaacatcttaagacagcagtagatggcagta  
ttcattcacaatttttaaagaaaaggggggattggggggtacagtgccaggggaaaggataatagacataatagca  
tcagatctacaaactaaagaactacaaaaacaaattacaaaaattcaaaattttcgggtttattacagggacagc  
agagacccaatttggaaaggaccagcaaaaactactctggaaaggtgaaggggcggtagtaataacaagacaataac  
gaaataaaagtagtagcaagaagaaaagcaaagatcattagggat

>#90 MH705151 2745 nt

ataggaggacagctaaaagaagctctattagatacaggagcagatgatacagtagtattagaagacataaatttgtca  
ggaaaatggaaccaagaatgatagggggaattggaggttttatcaaagtaaggcagtagtgatcagatacttata  
gaaatttgtggaaaaaaggctataggtacagtagttggttaggacctacacctgtcaacataattggaagaaatatg  
ttgactcagattgggtgtacttttaaattttccaatttagtcctattgaaactgtaccagtaaaattaaagccagga  
atggatggtccaaaggttaaacaatggccattgacagaagagaaaaataaaagcattaacagaaatttgtaaagaa  
atggaaaaggaaggaaaaatttcaaaaattgggcctgaaaatccatacaatactccagtagtttgctataaaagaaa  
aaggacagcactaaatggaggaaattagtagatttcagagagctcaataaaagaaccaggacttctgggaagtt  
caattagggataccacatccagcgggtttaaaaaagaaaaaatcagtaacagtagtagtggtgggggatgcatat  
ttttcagttcctttacatgaagacttcagaaagtatactgcattcaccatacctagtagtaaaacaatgagacacca



ggaatcaggtatcagttacaatgtgcttccacagggatggaaaggatcaccagcaatattccaaagtagcatgaca  
aaaatccttagagcccttttagattaaaaaatccagaattagttatctatcaatacatggatgacttgtagtagga  
tctgatttagaaataggacagcatagacaaaaatagaggagtttaagagatcatctattgagatgggggtttact  
acaccagacaaaaagcatcagaagaacctccatttctttggatgggatatgaactccatcctgacaaatggaca  
gtccagcctatacagctgccaaaacaaagacagctggactgtcaatgatatacagaaatttagtgggaaaactaaat  
tgggcaagtcaaattttatccagggattaaagtaagacaactgtgtaaactcctcaggggagccaaagcactaaca  
gatatagtaacactgactgaggaagcagaattagaactggcagagaaacagggagatttctaaaagaacctgtgcat  
ggagtatattatgacccatcaaaagacttagtagcagaaatacagaaacaagggcaagaccaatggacatatcaa  
gtttatcaagagccattcaaaaaatctgaaaacaggaaaatatgcaagaaaaagggtctgctcacactaatgatgta  
aggcaattagcagaagtgggtgcaaaaagtgtccacagaaagcatagtaatatggggaaaaacccctaaattcaga  
ttacccatacaaaagagaaacatgggaagcatgggtggatggagtattggcagggtacctggattcctgaatgggag  
tttgtcaatacccctcctctagtataaattatgggtaccagttagaaaaggaccccatattaggagcagagactttt  
tatgtagatggggcagctaataagagagactaagctaggaaaagcaggggtatgtcactgacagaggaagacaaaag  
gttgtttccctaactgagacaacaaatcaaaagactgaattgcatgcaatctacctagccttgacaggattcaggg  
tcagaagtaaatatagtaacagattcacagtatgcattaggaatcattcaggcacaaccagacaagagtgaatca  
gagctagttaatcaaatgatagagaagcctaatagaaaaggaaaaaggtctacctgtcatgggtaccagcgcacaag  
ggaattggaggaaatgaacaagtagataaactagtttagttctgggtatcaggaagggtactgttttttagatgggata  
gataaagctcaagaagaacatgaaagatatcacagcaactggagagcaatggctagtgttttaattctgccacct  
atagtagcaaaaggaaatagtagccagctgtgataaatgtcaactaaaagggggaagccatgcatggacaagtagac  
tgcagtccagggatattggcaattagattgcacacatctagaaggaaaaataatcatagtagcagtcctatgtagcc  
agtggctatatagaagcagaagttatcccagcagaaacaggacaggagacagcatacttttctgctaaaattagca  
ggaagatggccagtaaaagtaatacacacagacaatggcagcaatttcaccagcgtgtagttaaagcagcctgt  
tgggtgggcaaatatccaacaggaatttgggaattccctacaatccccaaagtcaaggagtagtggaatctatgaat  
aaagaattaaagaagatcatagagcaagtaagagagcaagctgaacaccttaagacagcagtagacaaatggcagta  
ttcattcacatttttaaaagaaaaggggggtattgggggtacagtgcaggggaaagaataatagacataatagca  
acagacatacaaaactaaagaattacaaaaacagattacaaaaattcaaaattttcgggtttattacagggacagc  
agagacccaattttggaaaggaccagcaaaaactactctggaaagggtgaaggggcagtagtaatacaggacaatagt  
gacataaaggtagtagtaaccaagaagaaaagcaaaagatcattagggat

>#91 KF716478 2745 nt

atagggggccagctaagagaagctctattagatacaggagcagatgatacagtattagaagacataaaatttgcca  
ggaaaatggaaacccaaaaatgatagggggaattggagggttttatcaaagtaagacagtatgatcagatactcata  
gaaatttgtggaaaaaaggctataggtacagtgttggtaggacctacacctgtcaacataattggaaagaaatatg  
ttgacccagattggctgtacttttaattttccaattagtcctattgaaactgtaccagtaacattaaagccagga  
atggatggcccaagaattaaacaatggccactgacagaagaaaaaataaaagcattaacagaaatttgtacagaa  
atggaaaaggaaggaaaaaatttcaaaaattgggcctgaaaatccatacaatactccagttatttgtataaaagaaa  
aaagacagcactaaatggagaaaatttagtagatttcagagaacttaataaaagaactcaagacttttgggaagtt  
caattaggaataccgcatccagcgggcttaaaaaagaaaaaatcagtaacagtactagatgtgggggacgcatat  
ttttcagttcccttagataaaaaattttagaaagtatactgcattcaccataacctagtataaacaatgagacacca  
ggaatcaggtatcagttacaatgtgcttccacagggatggaaaggatcaccggcaatattccagagtagcatgata  
aaaatccttagagcccttttagagcaaaaaatccagaaataattatctatcaatacatggatgacttgtagcagga  
tctgatttggagatagggcagcatagagcaaaagttagaagaattaagagatcatctattaagtggggatttacc  
acaccagacaaaaagcatcagaaggaacctccatttctttggatgggatatgaactccatcctgacaaatggaca  
gtacagcctatacagctgccagaaaaagaaagttggactgtcaatgatatacagaaatttagtgggaaaactaaat  
tgggcaagtcaaattttatgcagggattaaggtaaagcaactgtgtaaagtcctcagaggagccaaagcactaaca  
gatatagtagcactgactgaggaagcagaattagaattggcagagaaatagggaatttctaaaagacctgtgcat  
ggagcatattatgacccctcaaaagaattaatagcagaaatccaaaaacaagggcaggatcaatggacatatcaa  
atttatcaagagccattttaaaccctaaaaacaggaaaatatgcaagaaaaagggtctgctcataactaatgatgta  
aaacaattaacagaagtgggtgcaaaaagtggtccaggaaagttagtcatatggggaaagacccctagattttaa  
ctacccatacaaaaagagacatgggaaacatgggtggatggactattggcagggtacctggattcctgaatgggag  
tttgtcaatacccctcccctagtataaattatgggtaccagtttagagaaagaccccataataggagcagagactttc  
tatgtagatggggcagccaataggagagactaagctaggaaaagcaggggtatatcactgataaaggaagacaaaag  
gttgtttccctaactgagacaacaaatcaaaagactgaactacatgcaatcaatctagccttgacaggattcagga  
tcagaagtaaatatagtaacagactcacaatatgcattaggaatcattcaggcacaaccagacagaagtgaagtca  
gagttagtcaatcaataatagaaaagcctaataggaaaggacaaaggtctatctgtcatgggtaccagcacacaag  
gggattggaggaaatgaacaagtagataaatttagtcagctctggaatcaggaagggtactatttttagatgggata

gataaggctcaagaagaacatgaaagatatcacagcaattggagagcaatggctagtgatTTTTAATCTGCCACCC  
atagtagcaaaggaaatagtagccagctgtgataaatgtcagctaaaaggggaagccatgcatggacaagtagac  
tgcagtcagggatgtggcaattagattgcacacatctagaaggaaaagtaattctggttagcagtcctatgtagcc  
agtggctatatagaagcagaagttatcccagcagaaacaggacaggagacagcatactttctgctaaagctagca  
ggaagatggccagtaaaagtagtacacacagacaatggtagcaacttcaccagcgctgcattttaaagcagcctgt  
tgggtgggcaaatgtccaacaggaatatgggattccctacaatccccaaagtcaaggagtagtagaatctatgaat  
aaggaattaaagaaaatcataggacaggtgaagagatcaagctgaacaccttaagacagcagtagacaatggcagta  
ttcattcacaatttttaaagaaaaggggggattggggactacagtgtaggggaaagaataatagacataatagca  
acagacatacaaactagagaactacaaaaacaaattacaaaaattcaaaattttcgggtttattacagggacagc  
agagagccacttttgaaaggaccagcaaaactactctggaaaggagaaggggcagtggttaatacaggacaataat  
gatataaaggtagtgccaaggagaaaagtaaaagatcattaaggat

>#92 AJ320484 2745 nt

atagggggacagctaaaggaagctctattagatacaggagcagatgatacagtgttagaagacataaatttgcca  
ggaaaatggaaacaaaaatgatagggggaattggagggtttatcaaagtaagacagtatgatcaaatacccata  
gaaatctgcggatataaagctataggtacagtattaataggacctacacctgtcaacataattggaagaaatttg  
ttgactcagattggctgcactttaaattttccaatttagtcctattgaaactgtaccagtaaaattaaagccaggg  
atggatggcccaaaagttaaacaatggccattgacagaagaaaaataaaagcactaacagaaatttgtgcagac  
atggaaaaagaaggaaaaatttcaagaattgggcctgaaaatccatacaatactccagtagtttgccataaagaaa  
aaagacagtactaagtggagaaaattagtagatttcagagaacttaataagagaactcaagatttctgggaagtt  
caactaggaataccacatcctgcaggggctaagaagaaaaaatcagtaacagtagtggtgtggtgtagcatat  
ttttcagttcccttagatatagacttttagaaagtatacagcattcaccatacctagtacaaacaatgaggcacca  
ggaattagatatcagtagacaatgtgcttccacagggatggaaaggatcaccagcaatattccaatgtagcatgaca  
aaaatcttagaaccttttagaaaacaaaaatccagaaatagttatctatcaatacatggatgatttgtatgtagga  
tctgacttagaaatagggcagcatagaacaaaaatagatgaattaaagggaacatctattgaggtggggacttatc  
acaccagacaaaaaacatcagaaagaacctccatttctttggatgggttatgaactccatcctgataaatggaca  
gtgcagcctataaagctgccagaaaaagaaagctggactgtcaatgatatacagaagtttagtgggaaaaattaaat  
tgggcaagccagatttatccaggaattagagtaaaacacttatgtaaactccttaggggagccaaagcactgaca  
gaagtaataccactgacaaaagaagcagaattagaactggcagaaaaacaaggaaattctaaaagaaccagtagcat  
ggagtgtattatgacccatcaaaagacttaatagcagaagtacagaaacaagggaagaccaatggacatatcaa  
atttatcaagagccattttaaataatctgaaaacaggaaagtatgcaaaaatgaggagtgccacactaatgatgta  
aaacaattaacagaggcagtgcaaaaaatagcccaagaatgcatagtaatatggggaaagactcctaaatttaga  
ctacccatacaaaaggaaacatgggaagcatggtggaaagaatattggcaggccacctggattcctgagtgggag  
tttgtcaatacccccccttagttaaattatggtaccagtttagagaaggaaccatactaggagcagaaactttc  
tatgtagatggggcagctaatagagagaccaattaggaaaagcaggatatgttactaacaagggaagacagaaa  
gttgtctcttaactgacacaacaaatcagaagactgagttacaagccattaatctagctttgcaggattcggga  
ttagaagtaaacatagtaacagattcacaatatgcattaggaatcattcaggcacaaccagataaaaagtgaatca  
gagttagtcagtcaataatagagcagtttaataaaaaaggaaaaggtctacctagcatgggtaccagcacacaag  
gggattggaggaaatgagcaagtagataaattgggtcagtaatggaatcaggaaagtattatTTTTTGGATGGAATA  
gataaggctcaagaagaacatgagaaataccacaacaattggagagcaatggctagtgatTTTTAACCTGCCACCT  
gtggtagcgaaagaaatagtagctagctgtgataaatgtcagctaaaaggagaagccatgcatggacaagtagac  
tgtagtccaggaatatggcaattagattgtacacatctagaaggaaaagttatcctggtagcagttcatgtagcc  
agtggctatatagaagcagaagtgatcccagcagaaacaggggcaggaaacagcctactttatcttaaaattagca  
ggaagatggccagtaaaagtagtacatacagacaatggcagcaatttcaccagttctgcagttaaaggctgcctgt  
tgggtgggcaggcattaagcaggaatttggaattccccacaatccccaaagtcaaggagtagtggaatctatgaat  
aaagaattaaagaaaattataggacaggtgaagagatcaagctgaacatcttaagacagcagtagacaatggcagta  
ttcattcacaatttttaaagaaaaggggggattggggagtagcagtgtaggggaaagaataatagacataatagca  
acagacatacaaactacaaaattacaaaaacaaatcataaaaattcaaaattttcgggtttattacagggacagc  
agagatccaattttgaaaggaccagcaaaagcttctctggaaagggtgaaggggcagtagtactacaagataatagt  
gacataaaggtagtaccaagaagaaaagtaaaagatcattagggat

>#93 KT200357 2745 nt

gtaggggggcaactaaaggaagctctattagatacaggagcagatgatacagtactagaagaaataaatttgcca  
gggaaatggaaacaaaaatgatagggggaattggagggtttatcaaagtgagacagtatgatcaggtagccata  
gaaattagtgggcataaagccataggtacagtagtagtaggacctacacctgtcaacataattggaagaaatctg  
ttgacacagattggatgcactttaaattttccatttagtcctattgaaactgtaccagtaaaattaaagccaggg  
atggatggcccaaaagttaaacaatggccattgacagaagaaaaattaaatgcattaatagaaatttgtgcagaa

atggaaaaggaaggaaaaatttcaaaaattgggcctgaaaatccatacaatactccaatatttgccataaagaaa  
aaagacagtactaaatggagaaaattggtagatttcagagaacttaataagagaactcaagacttctgggaaatt  
caattaggaataccacatccttcagggttaaaacagaaaaaatcagtaacagtattggatgtgggtgatgcatat  
ttttcagttcccttagataaagacttttaggaagtatactgcatttaccatacctagtgtgaacaatgagaaacca  
gcaattagatatcagtacaatgtgcttccacagggtggaaggatcaccagcaatattccaaagtagcatgaca  
aaaatccttagagccttttagaaaacaaaatccagacatgggttatctatcaatacatggatgatttgtatgtcgga  
tctgacctagaaaatagagcaacatagaacaaaaatagaggaactgagacaacatctgttgagggtgggggtttaca  
acaccagataaaaaacatcagaaagaacctccattccttttgatgggttatgaaactccatcctgataaatggaca  
gtacagcctataaaagctgccagaaaaggacagctggactgtcaatgacatacaaaaatttagtgggaaaattaaac  
tgggcaagtcagatttatccagggttaaagtaaggcaattatgtaaactccttaggggaaccaaagcactaaca  
gaagtagtatcgctaacaagagaagcagaactagaattggcagaaaacaggagatttctcaaagaaccagtacat  
ggagtgtactatgacccatcaaaagacttaatagcagaaatacagaagcaggggcaaggccaatggacatatcaa  
atttatcaagagccatttaaaaatctgaaaacaggaaagtatgcaagaacgaggggtgccacactaatgatgta  
aaacaattaacagaggcagtgcaaaaaatagccacagaaggcatagtgatatggggaaagattcctaaattcaaa  
ttacccatacaaaaagaacatgggaaacatgggtggacagagtattggcaagccacctggattcctgagtgggag  
tttgtcaatacccctcccttggtgaaattatggtatcagttagagaaagaacctatagtaggagcagaaactttc  
tatgtagatggagcagctaatagggaaactaaaataggaaaagcaggatatgttacagacagagggaagacaaaa  
gttgtccctctaacggacacaacaaaatcagaagactgagttacagggaattcatttagctttgcaggattcagga  
ttagaagtaaatatagtaacagactcccaatatgcattaggaatcatccaagcacaaccagatcagagtgaatca  
gagatagtcagtcaataatagaacagtttaataaaaaaggaaaagggtctacctggcatgggtaccagcacacaaa  
ggaattggaggaaatgagcaagtagataaattgggtcagtagtggaatcaggaaagtgcatttttttagatggaata  
gataaggcccaggaagagcatgagaaatatcacaataattggagagcaatggctagtgattttgacctgccccct  
gtagtagcaaaagaaatagtagccagctgtgataaatgtcagctaaaaggagaagccatgcatggacaagtagac  
tgtagtccaggaatatggcagctagattgtacacacttagaaggaaaagtattcctagtagcagttcatgtagcc  
agtgggttatatagaagcagaagttattccagcagagacaggggaagaaacagcatactttatttttaaattagca  
ggaagatggccagtaaaaaacaatacacacagaatggccccaatttcacagtaatacagttaaggccgcctgt  
tggtgggcggggatcaagcaagaatttggcattccctacaatccccaaagtcaaggagtagtagaatctatgaat  
aaagaattaaagaaaattatagggcaggtgaagagatcagggtgaacatcttaagacagcagtgcaaatggcagta  
ttcatccacaatttttaaagaaaaggggggattgggggtacagtgaggggaaagaataatagacatgatagca  
tcagacatacaaaactaaagcattacaaaaacaaattacaaaaattcaaaattttcggggtttattacagggacagc  
agagatccacttttgaaaggaccagcaaaaacttctttgaaagggtgaaggggcagtagtaatccaagataatagt  
gaaataaaagtagtgccaagaagaaaagtaaaaatcattagggat

>#94 AY331292 2745 nt

ataggggggcaactaaaggaagctctattagatacaggagcagatgatacagtattagaagaaatgaatttacca  
ggaagatggaacccaaaaatgatagggggaattggaggttttatcaaagtaaaacagtatgatcagatacttata  
gaaatctgtggacataaggctataggtacagtattagtaggacctacacctgtcaacataattggaagaaacctg  
ttgactcagattgggtgcaccttaaattttcccattagtcctattgaaactgtaccagtaaaattaaagccagga  
atggatggcccaaaagttaaaacaatggccattgacagaagagaaaaataaaagcattagtagaaattttgtacagaa  
atggaaaaggaagggaatttcaaaaattgggcctgaaaatccatacaatactccagttatttgccataaagaaa  
aaagacagtactaaatggagaaaatttagtagatttcagagagcttaataagagaacacaagacttttgggaagtt  
cagttaggaataccacatcccgcaggattaaaaaagaaaaaatcagtaacagtattggatgtgggtgatgcatat  
ttttcagttcccttagataaagaatttaggaagtacactgcatttaccatacctagtataaacaatgaaacacca  
gggattagatatcagtataatgtgcttccacagggtggaaggatcaccagcaatattccaaagtagcatgaca  
aaaatccttagagccttttagaaaacaaaatccagacatagttatctatcaatacatggatgatttgtatgttagga  
tctgacttagaaaatagggcagcatagaacaagaatagaggaactgagacaacatttgcgtgaagtggggatttacc  
acaccagacaaaaaacatcagaagaaacctccattccttttgatgggttacgaactccacctgacaaatggaca  
gtacagcctatagtgtgccagaaaaagacagctatactgtcaatgatatacagaagtttagtgggaaaattaaat  
tgggcaagtcagatttacgcagggttaaagtaagacaattgtgtaarctccttaggggagccaaagcactaaca  
gaagtaataccactaacaagaggcagagctagaactggcagaaaacaggagatttctaaaagaaccagtacat  
ggagtgtattatgacccatcaaaagacttaatagcagaaatacagaacaggggcaagggtcaatggacatatcaa  
atttatcaggagccatttaagaatctgaaaacaggaaagtatgcaagaatgaggggtgccacactaatgatgta  
aaacaattaacagaggcagtgcaaaaaataaccacagaagcatagtaatatggggaaagattcctaaatttaga  
ctccccatacaaaaagaacatgggaaatatgggtggacagaatattggcaagccacctggattcctgagtgggag  
tttgtcaatacccctccctagtgaattatgggtaccaatttagagaaagaaccataataggagcagaaactttc  
tatgtagatggggcatctaacagggaaactaaattaggaaaagcaggatatgtcactaacagaggaagacaaaa

gttgtctccctaactgacacaacaaatcagaaaactgagttacaagcaatttatctagctttgcaggattcggga  
tcagaagtaaacatagtaacagactcacaatatgcattaggaatcattcaagcacaaccagataagagtgaatca  
gagctagtcaatcaataatagagcagtttaataaataaggaaaaggtctacctggcatgggtaccagcacacaaa  
ggaattggaggaaatgaacaagtagataaatttagtcagtgctggaatcaggaaagtactatTTTTtagatggaata  
gataaggcccaagaagaacatgagaaatatcacagtaattggagagcaatggctagtgatTTTaaacctgccacct  
gtagttagcaaagaaatagtggccagctgtgataaatgtcagctaaaaggagaagccatgcatggacaagtagac  
tgtagtccaggaatatggcaactagattgtacacatttagaaggaaaagttatcctggttagcagttcatgtagcc  
agtggatacatagaagcagaagttattccagcagagacagggcaggaaacagcatatTTTctTTTaaagttagca  
ggaagatggccagtaacaacaatacacacagacaatggcagcaatttcatcagcactacagttaaggccgcctgt  
tggtgggcggggataaagcaggaatttggcattccctacaaccctcaaagtcaaggagttagtagaatctatgaat  
aaagagttaaagaaaattataggacaggtgaagagatcaggctgaacatcttaagacagcagtgcaaatggcagta  
ttcatccacaattTTTaaagaaaagggggattgggggatacagtgccaggggaaagaatagtagacataatagca  
acagacatacagactaaagaactacaaaaacaaattacaaaaattcaaaatttctcggtttattacagggacagc  
agagatccactttggaaaggaccagcaaagctcctctggaaaggtgaaggggcagtagtaatacaagataatagt  
gacataaaagtagtgccaagaagaaaagcaaaaatcatcagggat

>#95 KP109514 2745 nt

ataggggggcaactaaaggaagctctcttagatacaggggcagatgatacagtattagaggaaatgaatttacca  
ggaagatggaaacccaaaaatgataggggggaattggaggttttatcaaagtaagacagtatgatcagatatccata  
gaaatctgtgggcataaagctataggtacagtggttagtaggacctacacctgtcaacataattggaagaaacttg  
ttgactcagattgggtgcactTTTaaatttcccatttagtcctattgaaactgtaccagtaaaattaaaaccagga  
atggatggcccaaaagttaaacaatggccattgacagaagaaaaataaaagcactaacagaaatttgtgcagag  
atggaaaaggaagggaaaatttcaaaaattgggcctgaaaatccatataatactccaatatttggcataaagaaa  
aaagacagtactaaatggagaaaatttagtagatttcagagaactcaataagagaactcaagacttctgggaagtg  
cagtttaggaataccacatcctgcaggggttaaaaaagaaaaaatcagtaaacagtactggatgtgggtgatgcatat  
TTTTcagttcccttagataaagaattcagaaagtatactgcatttaccatacctagtataaacaatgagacacca  
ggggttagatatcagtaacaatgtgctcccacagggatggaaaggatcaccagcaatattccaaagtagtatgaca  
aaaatttttagatcctTTTTtagaaaacaaaaatccagacctagttatctatcaatatatggatgatttgtatgtagga  
tctgacttagaaataggacagcatagaacaaaaatagaggaactaagacaacatctgttgaggtggggacttacc  
accccagacaaaaaacatcagaaagaacctccatttcttgggatgggttatgaactccatcctgataaatggaca  
gtacagcctatagtgtgctgccagaaaaagacagttggactgtcaatgacatacagaagttagtgggaaaattaaat  
tgggcaagtccagatctactcagggattaaagttaaacagttatgtaaactccttaggggaaactaaatcactaaca  
gaaataataccactaacagaagaagcagagttagaactggcagaaaaacagggagattctaaaaacaccagtacat  
ggagcgtattatgacctatcaaaagacttaatagcagaaatacagaagcaaggggaaggccaatggacatatcaa  
atttatcaggaacctTTTTaaaaatctgaaaacaggaaaatatgcaagaatgaggggtgccacactaatgatgta  
aaactattaacagaggcagtgcaaaagatagccacagaaagcatagtaatatggggaaagactcctaaatttaga  
ctaccatacaaaaaagaaacatgggaaacatggtggacagagatttggaagccacctggattcctgagtgggag  
tttgtcaatacccctcccttagtgaaattatggtaccagtttagagaaagaacctatagtaggagcagaaactttc  
tatgtagatggggcagctaacagggaaaactaaattaggaaaagcaggatatgtaactgacaaaggaagacaaaag  
gttgtctccctaataatgacacaacaaatcagaagactgagttacaggcaattcatctagctttgcaggattcagga  
ttagaagtaaacatagtaacagattcccaatatgcattgggaatcattcaagcacaaccagataaaaagtgaatca  
gagttagtcaatcaataatagagcagtttaataaaaaaggaaaaggtctacctagcatgggtgccagcacacaaa  
ggaattggaggaaatgaacaagtagataaatttagtcagtgctggaattaggaaaataactatTTTTtagatggaata  
gataaggcccaagaagaacatgagaaatatcacaataattggagagcaatggctagtgatTTTaaacataccacct  
gtagttagccaaagaaatagttagccagctgtgataaatgtcagctaaaaggagaagccatgcatggacaagtagac  
tgtagtccagaaatatggcaactagattgtacacacttagaaggaaaagttatcctggttagcagttcatgtagcc  
agtggatatatagaagcagaagttatcccagcagagacagggcagaaacagcatacttcatctTaaatttagca  
ggaagatggccagtaaaaaacaatacacacagataatggcagcaatttaccagtgctgcggttaaggccgcctgt  
tggtgggcggggatcaaacaggaatttggcattccctacaatccccaaagtcaaggggtagtagaatctctaacc  
aaagaattaaagaaaattgtaggacaagtaagagatcaggctgaacatcttaagacagcagtacaaatggcagta  
ttcatccacaattTTTaaagaaaagggggattgggggatacagtgccaggggaaagaatagtagacataatagca  
acagacatacagactaaagaattacaaaaacaaattacaaaaattcaaaatttctcggtttattacagggacagc  
agagatccactttggaaaggaccagcaaagcttctctggaaaggtgaaggggcagtagtaatacaagataatagt  
gacataaaagtagtgccaagaaggaagcgaaaaatcattagggat

>#96 AF146728 2745 nt

ataggggggcaactaaaggaagctctattagatacaggagcagatgatacagtattagaagaaatgtgtttacca  
ggaagatggaaacccaaaaatgatagggggaattggaggttttatcaaagtaagacagtatgatcaggtattagta  
gaaatttgtggacataaaagctataggtacagtattagtaggacctacacctgtcaacataattggaagaaatctg  
ttgactcagcttggatgtacttttaaattttcccattagtcctattgagactgtaccagtaaaattaaagccagga  
atggatggcccaaaagttaaacaatggccattgacagaagaaaaaataaaagcattagtagaaatttgtacagaa  
atggaaaaggaaggaaaaaatttcaaaaattgggcctgaaaatccatacaatactccagtatattgccataaagaaa  
aaagacagtactaaatggagaaaaattagtagatttcagagaacttaataagagaactcaagacttctgggaagtt  
caattaggaataccacatcccgcagggttaaaaaagaaaaaatcagtaacagtactggatgtgggcgatgcatat  
tttccagttcccttagataaaagacttcagaaagtataccgcattcaccatacctagtataaacaatgagacacca  
gggattagatatcagtacaatgtgcttccacagggtggaaaggatcaccagcgatattccaaagtagcatgaca  
aaaatcttagagccttttagaaaacaaaatccagacgtagttatctatcaatacatggatgatttgtatgtagga  
tctgacttagaaatagggcagcacagaacaaaaatagaggaactgagacaacatctgttgaggtgggggtttacc  
acaccagacaaaaaacatcagaaagaacctccattcctttggatgggttatgaactccatcctgataaatggaca  
gtacagcctatagtgtgccagaaaaagacagctggactgtcaatgacatacagaaattagtgggaaaaattaaat  
tgggcaagtcagatttattcagggattaaagtaagacaattatgtaaacttcttaggggaaccaaggcactaaca  
gaagtaataccactaacagaagaggcagagctagaattagcagaaaaacaggagattctaaaagaaccagtacat  
ggagtgtattatgacccatcaaaagatttaatagcagaggtacagaagcaggagcaaggccaatggacatatcaa  
atttatcaagaaccattttaaaaatctgaaaacaggaaagtatgcaagaatgaagggtgcccacactaatgatgta  
aaacagtttaacagaggcagtgcaaaaaatagccacagaaagcatagtaatatggggaaagactcctaaatttaaag  
ctacccatacaaaaaggagacatgggaagcatggtggatggagttatggcaggccacctggattcctgagtgggag  
tttgtcaatacccctcccttagtgaaattatggtaccagttagagaaagaacctatagtaggagcagaaactttc  
tatgtagatggagcagctaataaggagaccaaattaggaaaagcaggatatgttactgacagaggaagacaaaag  
gttgtccccctaagtgcacacaacaaatcagaagactgagttacaagcaattcagctagcggtgcaggattcggga  
ttagaagtaaacatagtaacagactcacaatatgcattaggaatcattcaagcacaaccagataagagtgaatca  
gagttagtcaatcaataatagagcagctaataaaaaaggaaaagatctatttggcatgggtaccagcacacaaa  
ggaattggtggaaatgataaggtagatagtttggtcagtgctgggatcaggaaagtactattccttgatggaata  
gataaggcccaagatgatcatgagatatatcacagtaattggagggcaatggctaattgttttacctgccacct  
atagtagcaaaagatatagtagccagctgtgataagtgctcagcaaaaaggagaagccatgcatggccaagtagac  
tgtagtccaggtttatggcaactagattgtacacattttagaaggaaaaagttatcctggtagcagtcctatgtagcc  
agtgggtatatagaagcagaagtcattccagcagagacagggcaggaaacagcatattttctattaaaattagca  
ggacgatggccagtaaaaaacagtacatacagacaatggccccattttcatcagtagtgcgggttaaggccgcctgt  
tgggtgggcagggttaagcaggaatttggcattccctacaatccccaacgtcaaggagtggtagactctatgaat  
aacgacttaacgacaattataggacaggttaagagatcaggctgaacatcttaagacagcagtacaaatggcagta  
ttcatccacaatttttaaaagaaaagggggattggggggtacagtgacaggggaaagaataatagacataatagca  
tcagacatacaaaacaaagaattacaaaaacaaattacaaaagttcaaaattttcgggtttattacagggacagc  
agagatccacttttgaaaggaccagcaaaagctcctctggaaaggtgaaggggcagtagtaatacaagataatagt  
gacataaaagtagtgccaagaagaaaaagcaagattattagggt

**Supplementary File S5.** Dataset of 96 nucleotide sequences of the gene *env* from primate lentiviruses: 37 sequences from SIV infecting Old-World monkeys (#1 - #37), 4 from HIV-2 (#38 - #41), 20 from SIV infecting African apes (7 from SIVgor, #42 - #48, 13 from SIVcpz, #49 - #61), and 35 from HIV-1 (9 from group O, #62 - #70, 2 from group P, #71 and #72, 7 from group N, #73 - #79, and 17 from the pandemic group M, #80 - #96). From each genome sequence we selected the non-overlapping region that encodes the Env protein. Each nucleotide sequence contains the NCBI ac. number and the length of the coding region.

```
>#1 AF468658 2100 nt
gggaactggacgacagtgttctatgggggtaccggtatggagagatgcaaaaccaccattgttctgtgcctcagat
gcagacataactagtaatgaaccaggaaacatttggatctctacggcatgcttgccctcagacccctcacggtct
gaggtgccactaaacataacagaggaatttaatatctataaaaaattatatggttagatgaggtgagagatgacatg
gtatctctatttaatcagggccctaagaccatgtgtcaaaactgactccgatgtgtgtacgaatgaaatgtaagctc
ccaaatacgagcacaacaacaacacccgtccacaacaacagccacaacatcacctcatccccaacgccaacacca
tggggaaaattggggaggtaatggaacaggacagccaatatataactgttcctttaaccagactacagaatttagg
gacaaaaagagacagatgtatagcctcttttggaaagatgatattatgaggggcacaggatggtaatgacactgac
tattatattataaattgcaacacatcatatgtcacgcaaaaagtgtgtcaagacctccttccaaccggttcccata
cactactgtgctccgcccggcttttgcctatgctaaaatgcaatgatgccaatttcacaggagtgggcaagtgttcc
aatgtatcagcagtaacatgcacgcatggcattcaaccttttagtagcaacatggccttcatctaaatgggacttat
cagccagggaacaataaccagagtaatgatgaatggcaaaaagaatgaatctatagtcataggcctttggggaagat
tatcagcttactcttacatgtatcagacctggaaataaaaaccctaaaaaatttacagataggagcaggaatgaca
ttctactcccaaattatagtaggggggagatactaggaaggcctattgcaaactcaaccatacaaagtgggatata
gcaataaggcaagccatgaaggccatgaagaaccattgggaaaaagatcaacaatgataccacccttaataagact
caaataagggtggacctccgaacctaaaggagatctagagggtccaaactcattgggttccaatgtcagggagaattt
ttctattgtaatttgtcagtactctttcaattcaacaacaatattacggcagtggtgacacaaacattaacaat
gtcacaagcaatacaaaaggacaatggatggccttgacagaattaggcaatttgtcacacaatggggatatgtgtct
aggctgatctacttacctccacggcaagggtcatataaattgtacatctaactcactggcctcctaatacagcga
gcatgtatggacattccatcaatatgaccccatcgcccgatgtagccgatgcatggaagtatgagttatccagg
tacaagggtggtggagatagatccactttcgctggccccaacctcggtcaaaggagaccacatccagggtgcat
gtgaaaaagagggccatttccattgggcataccttcttgacgtttctcagtgcggcaggtgccacgatgggcgca
gcggcaacagcgctgacgggtacaatcccggtcattgttggctgggatatgtcagcagcaggagaacctgctgagg
gctgtagaggcccaacagagcttattacagctatctgtatggggcataaaacagctacaagcccgcctgtcttca
ctagagaaaatacctgagggatcaaacaattctccaagcttggggctgtgcgaatcagccaatctgtcacaccata
gtaccttggaatgactcatgggctaagaactcgacgccagattgggagcacatgacctggcaggagtggagtaag
ttaattgaaaatgacacatataccatacagcaattattagaaaatgcaaaccatcaacaatcaaagaacatgaat
gacttattaaagttatccaaatgggactccctttggagttgggttgatatttccaattgggtctggtacattaag
atthtcataatggtagttgcagcttttagtagctttgagaataataatgtttgttcttaatatgcttagaagggtt
>#2 AF468659 2067 nt
aattggacgacagtgtactatgggggtaccggtatggagggacgcaactccaccattgttttgcgcctcagatcca
gatatagctagtaatgaaccaggaaacatttggatttctacagcatgtttgcctcggacccctcacgggcagag
gtgccgttaaacataacagagaaattcaacatctataaaaattacatggtagatgaggtgcgagatgacatggta
tcactatttaatcaggccctgaaaccatgtgtcaaatgtactccaatgtgtgtggggatgtattgtaacctcaca
aacacatccacaagcgaaccaacaacaactccaaggccaccaaatgtctccacaaccacgcagtggggaagtgg
gggggggaaaaatggaacaggacaacccttatataactgttcctttaatcagaccacagaatttagagaccaaag
aaacagatgtatagcctcttctggagagaagacattatggaagagacccatggtaaccagagtggatattatatt
agaaattgtaataacctcatatatcactcaaaaatgtgtcaagtcctccttccaaccggttcccatacactactgt
gctccaccggcgtatgctatgctaaaatgcaatgatgttaatttcacaggagttaggcacatgctacaatgtgtca
```

gcagtaacctgcacacatggcattcaacccttagtagcaacatggctccattttaaatgggacctatcagccagga  
aataataaccagaataatgatgaatggtatgaagaatgaatctatagttataggctttggagaagattatcatctt  
aatcttacatgtatcagacctggaaataaaaccataagaaatttgcaaataggagcggaatgacattttattcc  
caagtgatagtaggaggaaataactaggaagcctattgcccacttgatcctgataggtggaatagggaataaga  
gaagctatgaaagcaatgaatgaacattgggaaataaaaactgggagaaatgatactcaaataagatggacctca  
gagcctaaaggagatctagagggttcaaactcattgggtccaatgtcaaggagaatttttctattgcaatttgtca  
atactctttcaacttaataataacaccattaacagcagcaatattgggaacatcacaagcaaatacaaaggacaa  
tggctggcttgcaaaattaggcaatttgtcacccaatggggatattgtgtctaaatcaatctacttacctccacgg  
cagggcatataaaattgcacatccaacattacagggtctgttgatagatggcgctatgtatgaaagctctatcaac  
atgaccccgctcgccgatgtggctgatgctggaactatgaattgtccaggtacaaagtgggtggagatagatccg  
ctctcgatggcccaactccggctaaaaggaaagaacccccgctgtggagaaaagagcccttctattgggaata  
tccttcttgacgtttctcagtgcggcaggtaccacgatgggcgcagcggcaacagcgtgacggaacagtcctcg  
tcttggctggctgggataatgcagcagcaggagaacctgctgagggtgtagaggccaacagagcttattacag  
ccatctgtatggggcataaaacagctacaaacccgcctgtcatcactagagaaatatttgagggatcaaaccatt  
ctccaagcatggggctgtggaacaggccaatctgtcacaccatagtagcttggaaacacctcatgggctaattggc  
tcgcttcagactgggagaacatgacctggcaaaagtggagtattgttagttgagaatgacacatatatacaatag  
cagttgttagagcaagcaaacagcaacaagcatcaaacctgaatgagctgatgaagttgtccaaatgggactcc  
ctttggagtgggttgatatttccgattggcagaggtacattaagatctttgtaatagtagttgcagccttaata  
gctttaagaatagtaatgtttatccttaatatgcttagaagg

>#3 EF070329 2157 nt

ctaataattgagaaaacatgccaaagcaatgggtcacgggtgttttataggggtaccgggtatcaaagaatgccacacca  
cctctcttctgtgcatcaaattgctaataatagcaaacagagagccagggaaacgtgttgataacgacagcatgccta  
cccacggacccccgcgccacaggaggtacaactaaacatctcaaattgagcactttaatatataagaacttatatg  
gtagatcagatgactgatgatgtgaagtccatctttactcaggcccttaagccgtgtgtgaaactaacacctatg  
tgtgtaaaaatgaagtgtgaccttctcaatattagtagtcttagtaccaccgcagcaagcgccacaacaagcggg  
catacaaccgtcaccccttggggcagatgggcagacaataatgagacacaattgacatgtacaattgttccttc  
aatcagaccaccgagttcagagatgtaaaaaacagatgtactctctcttcttggtaaaagacctcatgaaaggg  
gagaatgagacatattacattacaaaactgcaacacttcttatatcacacagcagtgtagaagagcagcttccaa  
ccgggtccaatacaatactgtgcccctgcaggatatagtctcttaaaatgcaatgatgctaatttcacaggacaa  
ggcatttgtataatgtaacgcgtagggcactgcactcatgacataattaccgctaattgctacttggctacaattg  
aatggtagctacctaccaggcaatgacacagctgtaatgatgaatgggtgataaaaaatgaatctattgccataaaa  
tttggagaaaacttttagggtaaatctaacctgtattaggccaggaaataagacaattagaaatctacagatagga  
gcaggcatgaccttctatttctcagctgatagtggatggagacacccgcagggcatattgcaagatcaataaaact  
caatgggatcctgctttgagacaggctatgatagctatgagagaccattggcacaatagactccaaaaagcta  
aagacaataaacaacacggaaataaaaaataaggtggacctcagagccaaagggagatagggaaggttcagacacac  
tgggttaattgccaaggggaattcttctactgcaacttgtcagtagtatttccaatttgagaataacaccagagaa  
attaatgactcaaatatacatagtaaaaaccaaataatcgccatgaccaatggatgggtctgcagaataaggcag  
tttghtaacccagtggggttaacgtatcaaagtcacataacctgccccctcgaaaaggatgttcaatgtacatcc  
catgtaacagggtatattaatagatggggccatgtacggcaatacaataaacatgacccctcagccaatgtctgg  
acgcgtgctctagactgagagatacagtggttagagatagaccctcttccgtggcacccagacagaagtgcgcagg  
agacctgtgccccacgtcaaggctagggaatcagcttgggaataaccttcttaggattcctcagtgctgcggga  
ggcacaatgggcgcagcgggcagacgccctgacgggtacagtctcggtcttgggtggctgggatagtcgagcaacag  
gctaattctgttgagagccgtagaagcccaacaacatctactacagttgtctgttggggcataaaacaactacag  
gctgcctgacagcactggagaaattcgtgaaggaccaagccataactaaatctgtgggggtgcgccaataggcaa  
atctgccataacctcgggtgccatggaatgattcttggggcaaacacacccaaccaggatgggacaacatgacctgg  
caacagtgagcagattagtggaacatgacacagcagtcacatgggtctattggaaatgggtcaacaacaacag  
gaagaaaaccaacacaagttgcagaagcttttagaatgggattcccttgggaatgggttgacatttccaaatgg  
ctctgggtatgtcaagatattttgcatggttagtagcaggcttaataagctttaagaatagttatgtttatattagga  
atgcttagaaggatttcttttaggggaagccttagggcgcttcatcgcacacgcacaa

>#4 EF070330 2157 nt

ataatatggggcaatcagtggggtcacagtggttctatgggggtaccgggtatggaaagatgcaactccaccactcttc  
tgtgcatcagatgctaacatagcaaacagggaaccagggaatgtgtggatcaccacagcatgtcttccacagat  
cccgacccccaggaagtacaattaaatatctctggggaatattttaattgtctataaaaaattacatgggtgacctag  
atgggtgatgatgaaggtccatattcaaccaggccctaaaacctgtgtcaaattgacccctatgtgtgtcaaa  
atgaaatgcagtagaataaatgtaacaaggccatcaacaacaacaacagcatcaacaccaacaaaaacaacacca

gtgacccttgggggaaatgggacgccaatggtacagagcaaagcatgttcaattgttcattcaatcagactaca  
gaattcagagacaaaaagaagcagatgtactccttattttacactgatgatctgatgcgtgaggataatgatact  
tattacatattaaactgtaacacctcatacataactcagcaatgtgaaaagagcagcttccaaccggttccgata  
caatactgtgcacctgcagggtattctctattgaaatgtaatgatgctaattttacaggacaaggaaaatgtaac  
aatgtgacagctacgcattgcacgcatggcatattacccttgggtgctacctgggttacagcttaatggcacatat  
ttagaaggaaataatacagcagtaatgatgaatggggacaaaaatgaatctataggaataaagtttggggaaaac  
tttagagttaacttaacctgcttaaggccaggcaataagactataaggaacctccagataggggcaggcatgact  
ttctattcacagcttatagtaggaggggacacacgaagagcatactgcaagataaacaacacacagtgaggatgta  
gcattaaggcaagctatgttagcaatgagaaagcattggcatggccgcttggagaaacaaggagaaaatattaca  
gaagaaaagataaaaaatcaggtggacctcccagcccaaaggggataatgaggtccaacacattgggttaattgt  
gcaggggaattcttttactgcaatctatcagtgtgtttcaatttaacaacaatatcacacaaattaacgagagc  
aatatacataatgtgacaaccaaataccaccaagatcaatggatggctgttaggattagacagtttgtcacgcaa  
tggggctatgtgtcaaaatccatctacttgccctccagcaggggacatgtgcagtgtacttctaattgtgactggg  
ctccttattgatggagctatgtataaagacacagtcaacatgactccatccgcaatgtgatggacgcctggcga  
atggaaactaaaaattacaaggtagtgaaatagaccgccttccatggctcccacagaggtgcagaggaggcct  
gttccccatgtaaaagcaagagcaatatctctaggcataacctttctgggatttctcagcgcggcaggaggcacg  
atgggcgagcggcgacagccctgacggtacagtctcggtcattactggccgggatagtgacgacgaggcaaat  
ctgctgagggccgtagaagcccagcaacatctgttacagttgtctgtctggggtataaaacagctacaggcccg  
ctgacagcgcttgagaagttcataaaggatcaagccttgttgaaccttggggatgtgcaaacaggcagatctgt  
cacactagggtgccatggaatacatcatgggccaatcataccttaccaggctgggaaaacatgacctggcagcag  
tgagcaagttggtggataatgataactaataccatacagggcctcctagaagcagcacaaaagcaacaggaagaa  
aaccaacacaaattgcaaaaattattagaatgggactctttatgggaatggtttgacatctccaagtggctttgg  
tatattaagatcttttgtatggtagtagcaggttttagtgctttttagaatattcatgtttgtgctaggcatactt  
agggaaacaagcccgccgctgcagtgaaactcttagcgcgcctcttagcatacattcaa

>#5 AY340701 2088 nt

tggaccaccgtctactacggtgttccagtatggaaaccgggcaactcctcctctcttttgtgcctctgatccaaat  
tacgggtctaaagaggcaggggaacaattggctggcgtcttcctgcctcccgacagaccctaccccgcaatctcta  
tatttgaacatcactgaggagttcaatgcttatcaaaactacatgggtggaagaaatggtagaggatatgaagtct  
ctgttctcgcaggcttttaagccttgtgtgaaattaacacccatgtgtgttaggatgctctgtgttgaagttaac  
accgtttcgaatgccagtaccactcctgcccctagtacccccacaccctggggaaattggggaggggaatggaaca  
ggacagccagtatataattgctcatttaaccagactacagaattcagggataaaaaagaagcaaatgtatagctta  
ttttggaaggaagacataatgaaggaggaaggaagcaatggcagtcactattacatcctgaattgcaacacatca  
tacataaccaagcttgtgagaagtccaattatgagccagttcctttgcattattgtgcacccccaggctatgct  
ttattgagatgtgatgaccccgctttacgggacaaggagttgttctaattgtttctgcagtaacatgtactcat  
gctatccaacctatagtagctacttgggtccagttgaacagtagcgggtaatgctcccaataacaacagtaatgatg  
aataagcagaaaaatgagtctatagtagttagattggctaagcacctacatgtcaacattacttgcattaggcca  
ggaaacaaaactattaggaatttacagataggagcaggcatgacattctattcgcaacttatagtgaggagtaat  
actcgtaaagcctactgcaaagttaataagaccaatgggagactgccctacaggcagttcacgaggcagtaaaa  
actgagtgggaaaagaaaaacaatggaaccaatgtgaccacaatatcttggagatttcaacccccaggggacaag  
gaggtccagactcactggtttaactgccaggggagaattcttttattgtaatgtctcagctttattcattaataga  
agaaccaacaaaacggacgggatatctcattcgacgtgaataacaagcccaacaccacgtatcatggtgggtgg  
ctagcatgtaccataagacaaatggtgacacaatggggatatgtgtcaaagagtatctacctacctccacggaaa  
ggccatgtgcagtgtacatctaatactgacctcctgattacaggggagttgtatcaaaaacaacgtgacctt  
gttccctcggcacagggtgagtgactcatggagatcagagctcagtcgatataaggtgggtggaaattgaccttta  
tctatggcacctacaacagcgcagagaaggactggggtacacaggggaaaagagagcaattactttgggtatggcc  
tttctgggcttctcagcacggcaggaggcacaatgggcgacgcggcgacagccctgacgggtacagtctcggtca  
ttactggctgggatagtgacgacgaggaacctgctgagggccgtaacagcccaacagagcttactacagctt  
actgtttggggagtcaagcagctacaggcccgctgacggctgtagagaagttcataaaggaccaaacattgcta  
aatgcatggggatgtgccaaataaagccgtgtgtcacacaacagtgccgtggaacaattcttgggcaaaaaggtcac  
ttccctgagtgggacaatatgacatggcaacagtgaggtaggttagtagataatgacacaatgaccattcagcag  
ctcttggaagctgcgcaagagcagcaaggcaaaaaccaacatgagttaatgaagccgggacaatgggacttctg  
tggaattggtttgacatctccaaatggttgtgttacatcaaaatattcattatagtagtagcagctttgataggc  
ttaagaatacttatgttcatactaggagttatcagtaggttacgcttgcagcctactgccag

>#6 KJ461716 2250 nt



atgacaaagtataagcttatagtattaggtatagcaattataataggtttaataacaatagatttgcaacagggg  
gatgaaaatgatggatgggtaacagttttctatgggggtaccagtggtgcataatgccacccctcctttgttttgc  
acagcagatgcaagacatacatgggtcactactaattgcttgccaacagatccagcccctatagagacacctatg  
aatatctcaggagaatgggttcaatgtacacaccaattatatgggtggaccatattggacaaagatatggcagcattg  
tttctacagggtacaaaagccatgtaccaaattgacccctatgtgtgttaaaatgaagtgtcagaattatactaaa  
gaagctacaaccacaacaacaccaacatcatcaacaacatcaaaagcaccaccaacaacaacccaaaggcctgca  
acagaatgggtggggaggaaaagatcctcaatctttactcaattgcacttttaacatgaccccagggttttaagat  
aggaaagctcattattgggctcctttttatacattggatttatggcaacaatctaattggtactaatggaacaggg  
gaatattatgtaaagtattgcaacacgtctgctatgacacaagcctgtgataaatttcattttcagcctttccca  
gttcattactgtccaccagcaggggtatgcattgttcaaatgcaatgacataccatggaatggacaagggccatgt  
aaaaatgtgacagcagtagcattgtacacatgcaattaatacattggctagtagcatggctccagttaaatggcaca  
tatgaaaagaatacagatgaggtgcaggttatgagaaagtataattccaattacagtgtagcttttatcttctca  
gagagccaaatagtaaatttaacatgtgtaagaccaggggaataaatcaataaggaacttgcaaataggagcaggc  
atgaccttttactcacaactcatagtagggggaaataactagaagagccttattgcaaaataaatggcacacagtg  
tacaatgctttaaatgctacctatagggccataaagaaggagtataatcttacacgggatcaaccaatcacctgg  
agatctcaaccaaggggggatagagaagtggagagtcactgggtccagtggtcaaggggagttcctttactgtaat  
ttatctaggatctttcagaaaaccaatttcacaaatgataccttctatccacgaaacataacaaaggaaggggca  
gagttgagcaacatattgggtcacatgtaccatcagggaagtagtgaacagatgggtcacatgtagaaaagttagt  
tacttaccaccaagaagggggacatgttcagtgtacatctaattgtcacaggaatcttgggtggaatctgaatactat  
ccaggaagtccatttaacatgaccccatcagccaatatcaaggacttggtggaaaatagatttaagaagatataag  
gtggtggaatagatccaattggcctagcaccactccaataaaaagatatgaaccaccaccaagcaaaaagcgtt  
gtcaaaaagagcagccgcattgactctgggattcttgggatttctcagtacggcagggggcgacaatgggctcggtg  
gcaaccgccttgacagtcaggtcggttccctcttagaaggcatagtagcccagcaaaaaggcgctacttgaggca  
gttgagcaccaacaacagcttctacagctgtctgtgtgggggatcagaaatctcaatgccgccttaccgctatt  
gagaaatattgtcaaggaccaagggatcttggctcatatgggtgccaattcaacaaatattgttatacctcagtt  
ccttggaataaatcctttgctgatggagcacttctgcttggcacaacatgacctggatagagtgggaaagaaaa  
gtgactaatcatacaggtatcatcaatactttgttggtagaggcccaaaggagggaagaagaaaacacacataag  
ttacagaagttaggagaatgggataatccttggaaattggtttgacatctccaagtgggttcagtggttaaaata  
gcagtggtgatagtaaatagggtttaatagcattaagaatagtaaatgtggcttattaatatattgtggtggtttgga  
cgtgcttatcctcgcttgatactagcagcagaagcaacagcagaagcaaccagaagagcagtagcttacattcac  
>#7 KJ461714 2346 nt

atgacaaagtatacgttatagcattaggtatagcaattataataggttttagtaataatagatttgcaacaaggg  
gaagaaaaataatggatgggtaacagttttctatgggggtaccagtggtgcagaatgcctcccctcctttgttttgc  
acagcagatgcaagacatacatgggtcaccatgaactgcttgccaacagacccagcccctgtagagacacctatg  
aatatcacaggagaatgggttcaatgtgcacaccaattatatgggtggaccacatggatcaagatatggcagcgctg  
tttctacagggtacaaaagccatgtaccaaattgacccctatgtgtgttaagatgaagtgtagcaattatactaga  
gaggtacaacagcagcaccatcaacaacagcaccacacgaccaaagggcatacaacagaatgggtggggaggaaaa  
gatcctcaatctttactcaattgttcttttaacatgaccccagggttttaagataggaaagctcattattgggct  
cctttttataaattggatttatggcaacataataatggtactaatggcacaggggaatattatgtaaagtattgc  
aacacgtctgcaatgacacaagcctgtgacaaatttcattttcagccttccagttcattactgtccaccagca  
gggtatgcattgttcaaatgcaatgacataccatggaatgggcaagggcaatgtaaaaatgtgtcagcagtagcat  
tgtacacatgcaattaatacattggctagtagcatggctccagttaaatggcacatatgaaaagaacacagatgag  
gtgcaggtcatgagaaagtataattccaattacagtgtagcttttatcttttcagagagccaaatagtaaatttg  
acatgtgtaaggcctgggaataaaaacaataaggaatttgcagataggatcaggcatgaccttttactcacaactc  
atagtagggggagatactagaagagccttttgcagaataaatggcacacagtggtaccatgctttaaatgctact  
tatagggtataaagaaggagtataatcttacacagaaccaaccaatcacctggagatctcaaccaaggggggac  
agagaagtagagagtcactgggtccaatgccaaagggaattccttttattgtaacttatctaggatctttcagcaa  
accaattttaccaatgacaccttctatccaagaacataacagaggaaggggaaaggttgagcagaacatgggtc  
acatgtaccatcaggcaagtagtgaatagggtggtcacatgtagaaaagttgatgtacttaccaccaagaagggga  
catgttcagtgtagatctaatacacaggagtccttgggtggaatcagaatactatccaggaggtccatttaatatg  
accccatcagccaacatcaaggacctgtggaaaatagatttaagaagatataaggtgggtggaatagatccaatt  
ggcttagcaccactccaattaaaagggtatgaaccaccatcaaacacccaaaagtggtgtcaaaagagcagccgca  
ttgaccctgggattcttgggatttctcagtacggcagggggcgacaatgggtcgggtggcaaccgccttgacagtc  
cagtcgcgttccctcttagaaggcatagtagcccagcaaaaaggcgctacttgaggcagttgagcaccaacaacag  
cttctacagctgtctgtgtgggggatcagaaatctcaatgccgccttaccgctattgagaaatatgtcaaggac

caagggatcttggcttcatatgggtgccacttcaaacaaatttgttacacctcagttccttgggaatatatctttt  
gctgatggaggagtgtcttctgactggaataatatgacctggatagaatgggaaagaaaagtgaccaatcataca  
ggcatcattaataatttgttggtagaggctcaaaggagggaagaagaaaacacacataagttacagaagttagga  
gaatgggataatctttggagttgggttgatatctccagatgggttcagtggtattaaaatagcagtggttaatagta  
ataggtttaatagcattaagaatagtaatgtgggttattaatatattggggttcttagcagttgtctgggacgac  
ctgagagcgatcgtcttgtggatccaccggacattgggtcgacttaggctggctgattcgtcatctgtggagcagt  
ctaactgactgggtgggttgggaagtgttatcctcgcttgatactagcagcagaagcaacagcagaagcaactaga  
agagcaatagcttacattcaa

>#8 KJ461715 2262 nt

atgacaaaacataagcttatagtattaggtatagcaattataataggtttaataatagtagatttgcaacaaggg  
gaagaaaataatggatgggtaacagttttctatggagtaccagtggtggcataatgccaccctcctttgttttgc  
acagcagatgcaagacacacatgggtcactactaattgcttgccaacagatccagcccctatagagacacctatg  
aatatctcgggagaatgggtcaatgtacataccaattatatgggtggaccatatggaccaagatatggcggcattg  
tttctacagggtacaaagccatgtactaggttgaccctatgtgtgttaagatgaagtgtagtaattttactaaa  
ccaacttcaacaccacaaccaactacatcatcaaaaccaacaacattgacagcgacaaccaaaaaagcttgtaaca  
gaatgggtggggaggaaaagatcctcaatctttactcaattgctcttttaacatgaccccagggttttaaagatagg  
aaagctcactattgggtcctttttataaattggatttatggcaacataagaatgatagcgaaactaatgtcaca  
gggggaaggggaatattatgtaaagtattgcaacacgtctgcaataacacaagcctgtgataagtttcattttcaa  
cctttcccagttcattactgcccaccagcaggggtatgcattgttcaaattgcaatgacataccatggaatgggcaa  
gggccatgtaaaaatgtgacagcagttacattgtacacatgcaattaatacattggcttagcacatggcttcagcta  
aatggcacatatgaaaagaacacagataaggtgcaggtcatgagaaagtataattccaattacagtgtagctttt  
atcttctcagaaagccaaatagtaaatttaacatgtgtaagaccagggaataaatcaataagggaacttgcaata  
ggagcaggcatgaccttttactcacaactcatagtgggaggaaataactagaagagcttattgcaaaaataaatggc  
acacagtggtactctgcttttaattgctacctatcgggtatatacagaaggagtataatcttacagagaaccaatca  
atcacctggagatctcaaccaaggggggatagagaagtagagagtcactggtttcagtgccaaggggaattcctt  
tattgtaatttatctaggatctttcagaaaaccaatcttacaaataaacaccttttaccacaaaaacataaacacag  
gaaggggaagcggttgagcaacatatggttcacatgtaccatcaggcaagtagtgaacagatgggtcacatgtagaa  
aagttgatgtacctaccaccgagaaggggacatgttcagtgtagatccaacatcacaggaatcttgggtggagtca  
gaatactatccaggaagcccatttaacatgaccccacagccaatatcaaggacctgtggaaaatagatttaaga  
agatataaggtgggtggaaatagacccaattggcctagcaccactccactaaaaaggtatgaaccaccaccaagc  
aaaagcattgtcaaaagagcagccgcatgacctgggattccttgggatttctcagtagcggcaggggacgaatg  
ggctcggtagcgaccgccttgacagtcacagtcgcgttccctcttagaaggcatagtagcccagcaaaaaggcgcta  
cttgaggcagttgagcaccaacaacagcttctacagctgtctgtgtgggggatcagaaatctcaatgccgcctt  
accgctattgagaaatatgtcaaggaccaagggatcttggcttcatatgggtgccaattcaaacaaatttgttac  
acctcagttccttggaaataaatcttttgtgtatgggtgaagcgcttccctgaatggaacaacatgacctggatagag  
tgggaaagaaaagtgactaatcataggtatcatcaatgggttgttggtagaggcccaaggagggaagaagaa  
aacacacataagttacagaagttaggagaatgggataatctttggagttgggttgacatctccagatggtttcag  
tggattaaaatagcagttattaatagtaataggtttaatagcattaagaatagtaatgtgggttattaatatatta  
tgggtgggttcggaagtgttatcctcgcttgatactagcagcagaagcaacagcagaagcaactagcagagcagta  
gcttacattcac

>#9 JX860407 2241 nt

atgggatgtcttgggaatcaactgcttatcgccatcttgcctagtaagtgttatgggatctattgtgctcaatat  
gtcacagttattctatgggtgttccagcatggaggaaacgcgacaattcccctcttctgtgcaaccgagaatagggac  
acttgggggtacaactcaatgcttgccagataatgatgactattcagaactagcaatcaatgtcacagaggctttt  
gatgcctggaacaatacagtcacagagcaagcaatagaggatgtctggaatctctttgagacatccataaaacca  
tgtgtaaaaattaacccattatgtatagcaatgagatgcaataaagctgagacagacaagtggggactaacagga  
acagcagcaccaccaacaacaaagacactaaagacaacatcaacaacaaaaccaccagtactcgaagtaaattgat  
accgaaccctgtgtaaaaacttaacaactgcacaggattggaaccagaaccaatgataggatgtaaattcaatatg  
acaggattgaaaagaggcaggaaaaaggagtacaatgaaacatggtagtcttagtgatttgggtctgtgagcaaggt  
ggtaacaacacaaatgaaagcagatgttatatgaatcattgttaatacaagtgtaatccaagagtcctgtgacaaa  
cattattgggatgctattagatttagatactgtgcaccaccaggctatgctttgcttagatgtaatgattcaaat  
tattcaggttttatgcctaattgttctaaggtagtagtctcttcatgtacaaggatgatggaaacacaaacctct  
acatgggttgggttttaattggcactagggcagaaaatagaacttacatttattggcatgggtcataggaatagtact  
ataattagtttaaatagctattacaatttaacaataagatgtagaaggccagggaataaaaacagtactaccagtc  
accataatgtcagggttagttttccattcacaaccataaatgagaggccaagacaggcatgggtgctgggttggga

ggaaaatggaagtcagcaataaaagaggtgaaggagaccttggtcaaacatcccaggtatacaggaaccaatgat  
acaagtaaaatattaatctgacagcaccaggaggaggagaccttgaggtcaccttcatgtggacaaattgttagagga  
gaattcctctattgtaaaatgaattggttcctaaattggggtagaagatagaaacagaacgcagatggaggcgaga  
aacaacaacgataaagagaggagaaagaggaactatgtgccatgtcacattagacaggtgatcaatacatggcac  
agagtaggtaaaaatgtatatttgccgcctagagaaggagacctgacatgtaactccactgtgaccagtctaata  
gcagaaatagactgggtatgataaaaaccaaactaatatcaccatgagtgagaggtggcagaactgtatcgattg  
gaattgggggattacaaattagtagaaatcactccaattggcatagccccaacaaatgtaaagaggtacaccact  
actactacctcaagagctaaaagaggggtccttgtgctaggggtccttgggatttctcgcaacggcaggttctgca  
atgggcgcggcgctcgttgacgctgactgctcagtcctcgactttactggctgggatagtgcagcaacagcaacag  
ctggttgacgtgggtcaagagacaacaagaattggtgacactgaccgtctggggaactaaaaacctccagacaaga  
gtcactgccatcgagaagtacttaaaggaccaggcacagctaaattcatggggatgtgctgttaggcaggtctgc  
cacactactgtcgaatggccagccgcaaattgtgacaccagattggaataacatgacctggcaagagtgaggagaga  
aaggttgactatctagaggcaaataacgccttctattagaagaagcacaattcaacaagaaaagaacatgtat  
gagttgcaaaaactaaatagctgggatgtatttggcaattgggttgatctcacctcttgggtaaaatatatacag  
tatggaatatatatagtagtaggaattatattgttaagaatagtaattctatgtagtacagatgttagctaggtta  
aggaaaggtataggccagtttctcttccccacctaattatcgccagcagctcacctatataggga

>#10 U79412 2226 nt

atgggatgtcttgggaatcagctgcttatcgccatcttgtttctaagtgcctatgggatctattgcattcaatat  
gtcacagtcttttatgggtgtaccagcttggaggaatgcgacaattcccctcttctgtgtaaccaggaatagggat  
acttggggaacaactcagtgccaccagataatgatgattattcagaattggcccttaataattacagaaagcttt  
gatgcttgggagaatacagtcacagaacaggcaatagaggatgtatggcatctctttgagacctcaataaagcct  
tgtgtaaaattaacccattatgcattactatgaaatgcaacaaaagtgaacagataaatggggattgacaaaa  
tcatcaacaacaacagcagcaccaacaacaaaaacaacaacaaaggaaatagaagtggtcaatgaaaatagt  
acttgtgtaaatcgtgataattgcacaggcttggacaagagccaatgataagctgtaaattcaacatgacaggg  
ttaaaaagagacaagaaaagagagtacaatgaaacttgggtactctgcagatttgggttgtgaacaaggtaatagc  
actgaagatgaaagtagatgttacatgaatcactgtaacacttctgttattcaagaatcttgtgacaaacattat  
tgggatgctattagatttaggtattgtgcacctccagggttatgctttagatgtaatgacacaaagtattca  
ggctttatgcctaactgttctaagggtggtgctcttcatgcacaagaatgatggagacacagacttctacttgg  
tttggctttaatggaactagagcagaaaaatagaacttatatttactggcatagcaaagataataggactataatt  
agtttgaataagtataataatctaacaatgaaatgtagaagaccaggaaataagacagttttaccagtcaccatt  
atgtctggattggttttccactcacaaccaatcaatgaaaggccaaaacaggcatggtgtaggtttgaaggaaat  
tggaaggaggcaataaaagaggtgaagcagaccattgtcaaacatcccaggtataactggaactaacaatactgat  
aaaatcaatttgacggctcctcgaggaggagatccggaagttaccttcatgtggacaaattgcagaggagagttt  
ctctactgtaaaatgaattgggttctaaattgggtagaagataagaatctgactggaactaccagaaagccacag  
gaacagcataaaaggaattacgtgccatgtcatattagacaaataatcaacacttggcataaaagtaggcaaaaat  
gtttatttgctccaagagaggggagacctcacgtgtaactccacagtaaccagtcctcatagcaaacatagattgg  
attgatggaaacaaactaatatcaccatgagtgagaggtggcagaactgtatcgatttgggaattgggagattat  
aaattagtagagatcactccaattggcttggccccacaaatgtgaagaggtacactactggtggcaccccaaga  
aataaaagaggggtccttgtgctaggggttcttaggttttctcgcaacggcaggttctgcaatgggcgcggcgctcg  
ttgacgctgaccgctcagtcctcgactttatttggctgggatagtgcagcaacagcaacagctgttggacgtggtc  
aagagacaacaagaattggtgacactgaccgtctggggaacaaagaacctccagactagagtcactgccatcgag  
aagtacttaaaggaccaggcgagctaaatgcttggggatgtgcatttagacaagtctgccatactactgtacca  
tggccaaatgcaagtctaaccacaaattggaacaatgagacttggcaagagtgaggagcgaaagggttgacttcttg  
gaggaaaatataacggcccttctagaagaggcacaattcaacaagaaaagaacatgtatgaattacaaaagttg  
aatagctgggatgtgttggcaattgggttgaccttgccttcttggataagggtatatacaatacggagtttatata  
gttgtaggagtaatactgttaagaatagtcatttatatagtacaaatgctagctaaggttaaggcaagggtatagg  
ccagtgcttcttccccaccttcttatttccagcagctaacctacctacaa

>#11 JQ864086 2250 nt

atgggatgtcttgggaatcagctgcttatcgcgctcttgcctagtaagtgccttagagatttattgtgttcaatat  
gtaacagtattctatgggtgtaccagcatggaagaatgcgacaattcccctcttctgtacaaccaggaatagggac  
acttggggaacaacacaatgcttgccagataatgatgattactcagaattggcaatcagtatcacagaggctttt  
gatgcttggaaataatacagtcacagaacaagcaatagaggatgtgtggaacctcttgaacatccattaagccc  
tgtgtaaaactcaccctactatgtatagcaatgagatgtaataaaaactgagacagatagggtgggggttgacaagg  
aacgcaggggacaacaacaacaacaacaacaacagcagcaacaccaagtgtggcgagaaaatgttataaat  
gaaagtaatccttgcataaaaaataatagttgtgcaggcttggacaggagcccatgatagggtgtaaatttaac

atgacaggggttaaaaagggacaaaaggatagaatataatgaaacatggtattcaagagatttaatctgtgagcag  
tcagcgaatgaaagtgagagtaaattgttacatgcatcattgtaacaccagtggtattcaggaatcctgtgacaag  
cattattgggatgctattagatttagatattgtgcaccgccaggttatgctttgcttaggtgtaattgattcaaat  
tattcaggcctttgctcctaactgttctaaggtagtggtttcttcatgcacaagaatgatggaaacgcaaactct  
acttggtttggcttcaatggtactagggcagaaaatagaacatacatttatggcatggcaaaagtaatagaacc  
ataattagcttaataagtattataatctaacaatgagatgtagaagaccaggaaataagacagttttaccagtc  
accattatgtcaggggttggtcttccattcgcaacccataaatgagagaccaaaacaggcctgggtgctggtttgga  
ggaagctggaaagaggccatccaggaagtgaaggaaaccttggtcaaacatcccagggtatacgggaactaatgat  
actaagaaaattaatctaacagctccagcaggaggagatccagaagtcacttttatgtggacaaaattgtagagga  
gaattcttatactgcaaaatgaattgggtttcttaattgggttagaggacagagaccaaaagagtagcagatggaga  
caacaaaatacagagagagcgacagaagaaaaattatgtgccatgtcatattagacaaaataatcaacacgtggcac  
aaagtaggcaaaaatgtatatttgcctcctaggggaaggagacctgacatgtaattccactgtaactagtctcata  
gcagagatagattggaccaatagcaatgagaccaatatcaccatgagtgagaggtggcagaactgtatcgattg  
gagttgggagattacaaattagtagagattactccaattgggttggtggccccacaagtgtagaaggtacaccaca  
actggtgctcaagaaataagagaggggtcctttgtgctaggggtccttggttttctcgcgacagcaggttctgca  
atgggcgcggcgctcgctgacgctgtcggctcagtcgccgactttggttggtgggatagtgagcaacagcaacag  
ctggttgatgtggtcaagagacaacaagaattgttgcgactgaccgtctggggaactaagaacctccagactaga  
gtcactgctatcgagaagtacctgaaggatcaggcgcagctaaattcatggggatgtgcttttaggcaagctctgt  
cacactactgtacctatggccaaatgaaacattgggtgcctaattggagcaatatgacttggcaagagtgggaaaga  
caggttgacttcctagaggcaaatataactcaattattagaagaagcacaaattcagcaagaaaagaatatgtat  
gaattgcaaaaactaaatagctgggatatcctttggcaattgggttgaccttacttcttggataagatatatacaa  
tatggtgtactaatagtttttaggagtagtaggggttaagaatagtaatatatgtagtgagatgttagctagggtta  
agacaggggttataggccagtggttctcttccctcccgcttatgttgctcatcagaattggaatagcctacctacaa  
>#12 AF334679 2256 nt

atggcggtgtcctggacttcacctgcttatagacatcttgtttttaagtgtgttagggacctgggtgtgcacagtat  
gtaacaatcttttatggtattcctgcatggaggaacgctacgatccccctcttctgtgcgacccagaatagagac  
acatgggggacggttcagtgcttgccagataatggagactattcagaattggcccttaattgttacagaggccttc  
gatgcttgggataatacagtaactgaacaagcaatagaagatgtttggaatctctttgaaacatctattaaacct  
tgtgtaaagttaactccattatgtattgctatgaaatgtaataaaaaatgagacagacagatggggggtgacaaga  
gcagctactactactagctcaccaactactactagcccccttaactgctgctagcccatcaggagaggaaatcggt  
aacgcacactatgtcttgtacaaaagaacaacaattgctctggcatagagcaggaaccaatgataggttgtcaattt  
aacatgacaggactaaaaagagaccagaaaaaggcagtagcaatgaaacctggtactccagagatctagtctgtgag  
caaggaggaaatgaaagcagtagatgttacatgaatcattgcaatacaagtgttatacaagagtcagtgtgacaag  
cactattgggatgccatcagatataggtactgtgcaccaccaggctatgctttgcttagatgtaattgatacaaat  
tattcaggcctttgcacctaattgtagtaaggtagtagtatcatcatgtacaaggatgatggaaacacagacttct  
acatgggtttggctttaatggtactagagcagagaatagaacatatatatattggcatggcggaagtaatagaaca  
ataattagcttaataagtattataaattgacaataaagtgcagaagaccaggaaataagacagtcctaccagtc  
accattatgtcaggtttggtctttcattcgcaaccaataaatgagaggccaagacaagcatgggtgctggtttgga  
ggaaaatggagagaagctatgcaggaggttaagaaaaccatagtcaaacaccccagggtatactggaaccaatgat  
actaggaaaattaatctaacggccccgggaggaggggatccggaagtcacattcatgtggacaaaattgcagagga  
gaattcctttactgtaaaatgaattgggtcctcaattgggttagaggataggaatacagagcagcccaaggtggaca  
actcaaaccaaaaagggaacagcacaaaagaaattatgtaccttgccacatcaggcaataattaatacgtggcac  
agggttaggaaaaaatgtctatttgcctccaagggaaggagacttaacttgtaactccacagtgaccagcctaata  
gcaaatattgattggattgacaacaatgagaccaatattaccatgagtgagaagtggcagaattgtatcgattg  
gaattgggggattataaattggtagagatcactccaattggcatgggtcccacacatgtgaaaagggtacaccaca  
agtacctcaaagaataaaaaggaggtcctttgtgctaggggttcttggttttctcgcgacggcaggttctgcaatg  
ggcgacgctcgctaacgctgactgctcagtcgccgactttattgggtgggatagtgcaacaacagcaacagctg  
ttggacgtggtcaagagacaacaagaattgttgcgactgaccgtctggggaactaaaaatcttcagactagagtc  
accgccatcgagaaatacctaaaggatcaggcacagctaaattcatggggatgtgcatttaggcaagtctgccac  
actactgtactatggccaaatgacagtccttgcctcagactggaacaatatgacatggcaagaatgggagaaaaag  
gttgaattcctagaggcaaatataactcaaattgttgagggaagcacgactacagcaagagaaaaacatgtatgaa  
ttacagaaattgaatagctgggatgtggtttgaaattgggttgaccttacctcctgggtaagatacatagcat  
ggagtctttctagtcataggaatagtagttgtaagaatagttatctatgtagtacaaatgttaagtaggttaagg  
caggggttataggcctgttttctcctccccccatcttatcatcagcaggagcttgtcagaagagaagcaggctat  
atccgt

>#13 JX860414 2223 nt

atgggatgtcttggcaatcagctgcttatcgccagcttgctactaagtgcttgctcgatatattgcaagaaatat  
gtaactgttttctatggcattcccgcattggaggaacgcgacagttcccctcttctgtgcaaccaagaatagggat  
acttggggaacagtcgaatgcttgccagataatgatgattactcagaattagctctcaatgtcacagaggccttt  
gatgcttgggagaacacagtcacagaacaggcagtagaggatgtatggaacctctttaagacttctataaaaccc  
tgtgttaaactaacaccactatgtatagctatgagatgcaataggacagagacaaaatcgatggggactaacgggc  
aactccgacacaacaacagtaaacacctagcgccaaaactacaacagaaaaagggtgaaataaatgacactgacccc  
tgcttcaaaggtaacaactgtacagggataggaagtgaagaattggatcttgcaaattcaatatgacagggtta  
aagagagacaaaaagaaggagtacaatgagacctgggtactcaagggtattgggtctgtgaacgagacggaaatgaa  
atagcaaatgaaagtagatgctacatgaatcattgcaatacttctgtaatccaggaatcttgtgacaagcattat  
tgggatgctataagatttagatattgtgcaccacctggctatgctttgcttagatgtaatgatatacaattattca  
ggctttgcacctaattgcagtaaggtagtgggtctcttcatgcacaaggatgatggaaactcaaacctctacatgg  
tttggaattaatggcactagagcagaaaaatagaacatacatatattggcatgggagagacaataggactataatt  
agtttaaataagtattataatctaacaataaaatgtagaagaccaggaaacaagacagttatgcctgtgacaatc  
atgtcaggcttgggtcttccattcccaaccaataaatgacaggccaagacaagcctgggtgttgggttgggtgaaaa  
tggaaatcagctatgcaggaggtgaaacaaaccttgtaaaacatcccagatatactggaaccaatgatactaaa  
aacataaactttactgagccaggaaaaacctctgacccagaagtagcttttatgtggacaaattgcagaggagaa  
ttcctctattgtaaaatgacttgggtcctcaattgggttgaagacagaaacatgtcttcacaaaacaaggcagaa  
caaaaaagacgtaactatgtgccttgccacattcggcagataattaacacttggcacaaggtagggaaaaatgta  
tatttgctcctaggggaaggagaactgacatgtaattcaacagtaaccagtcttattgctaacatatattggatt  
gatggaaacagaacaaatatcaccttcagtgcagaggtggcagaactgtacagattggagttgggggattacaaa  
ttagtagaaattactccaattggctttgcacctaccgatgtaaaaagatatcctctgtaacgacaccgaggaat  
aaaagaggtgtgttcgtgcttgggttcttgggatttctcgcaacggcaggttctgcaatgggcgcagcgtcgttg  
acgctgtccgctcagtcacggactttgttggctgggtagtgacagcaacagcaacagctgttggacgtggtcaaa  
agacaacaagaactgttgcggctgacctgtgggggactaaaaaccttcagaccagagtcactgccattgagaaa  
tacctacaggatcaggcaagctaaattcatggggatgtgcattcaggcaagtctgccacactactgtaccgtgg  
gtcaatgattcactccaaccagactggaacaatatgacttggcaagaatgggagaaacaggtagcttacctagag  
gcaaatattacacagcaattggaagaagcacaaatactacaagaaaagaatatgtatgatttacaaaaattaaat  
agttgggatgtttttggcaactgggttgacctcacgtcatgggtaaaaatatgtctatttcggattctatgtagta  
gcaggagtaatagtatattaaggatagtaatctatgtaatacagatgttaggtaagttaagaaagggtctataggcca  
gtgttttctccctcccacttatcgccagcagctgacctacctccaa

>#14 HM803689 2172 nt

atgaagtgcctaagcttaatagtgttaagtagtctgattccttttagcttttagcaaaacagaagccacaatatgtg  
acagtattttatggagtaccagtatgggtcaacagtacagtacctatgttttgtgttactgacaacacaaactca  
tggggtagctttaattgcatcccagaaggaggaatatcaccagaagtaccagttaatgtgtcagaaaaatttgat  
gcttgggaaaatgcctgtatgaacaagcaaaagataatgtgtggaatctttatgattctaccctaaaacctgt  
gttaggttatcccttttatgtgtaacaatgaattgtactgtaataaatgggagttgggatgggtataacaacacca  
gtccatcaccagcacctacaacaccaacagcagcaaaaaactacaacaaaagtagattgccttatgaataatgaa  
acatgtgcagcagttccagatgaggatgttatgaattgtgagtttgcagtgccaggattaaaaagggtgaaaaa  
tataaagctaattgacacgtgggtactcaagagatcttgggtgtgagaaaagataaaaaataataaagactactaag  
aggcaatgttttatgagacattgtaatactactagtattcagcaattctgtgagcctaataactgggaacctttt  
aggattagatattgcgctccaccaggatttgccttattgggtatgcaaagataaaaaattatacaggatttgatacc  
tgtcataatgtgacagccacttcatgcacagatatgataaaatacaacagtatcaacctcatttggactaaatgga  
tcaattagtgaacagaaacttggatttatcagagaaagcaatcgaatcggacagtaatagggttaaatagagag  
tataatctaacagtgggaatgtagaaggccatcaaataggacagtgaagggaatctcattgggtacaggagtcctt  
atctccttaagagtagagaaaacgaccaaaggagcttgggtgtagattttatggcaattggacagggtgcttgggaa  
gaagttaaaaaagaggttaataaaaaacgaagggtatataaagggacaaatgatactaagaaaatatacataagatca  
cattatggaggggatgatgaagctaaatacttttgggttaattgtgtatggggaattcttatattgcaaattgaat  
tggtttctcaacctattaaataatagaactgatggaacataaatgagcgaagacaagccatgtttgtgccttgt  
atcacaaaaatgggtggttaattgattggtatacagtggtcaaaaaagggtatacacaccaccaagacctgatgcattg  
aaatgcagggccacggctacttacttgttggcagacatagattatatacataccaatgaaacaaatgttactctg  
actgcagaggtaggagatctatgggcagcagagtttaggaagatacaaagtagtagaaattaaaccaattggctat  
gcacctacagatgtttaaagggtacgagacaagacagaaaaagagtacctttgggtgctgggttttctagggttctc  
tcggcagcaggtactgcaatgggcgcagcggcgacagccctgacagtcagtcacggcatttgcctgtctgggata  
ttgcagcagcagaagaagtgtctggacatagttgagcagcagcagcacttgctgaggctcaccgtctgggggact

aaaaacctacaggcgcggtgtcactgctattgagaaatacctagcagaccaatctctattgaatacatttggctgt  
gcatggaggcaagtctgtcatacaacagtgcagtggaactttcaatgcaacacctgaatggaataaacagacatgg  
cttgaatgggaaaggaatatatcaataatagaagggaatatctcttttagcattacaggaagcccaggatcaacat  
gagagaaatgtgcatgaactggagaaattaaataattggggagatgccttttagttggctgaggcttgactgggtgg  
atggaatatctaaaaataggagtttttataatttttaggagttataggactaagaattttctttcttctatgggga  
tgtatcagtaagattagagcagggtatactcctttgttgtcgccccaccttattatcatcagcagatacaa

>#15 HM803690 2145 nt

atgaaaagtgcataaggaatagtgataatagctagtctaataagtgcctatagtaagtaacaatgggtaacagta  
ttctatgggggttccggtatggaaaaatagtacagcaccaatgttttgtgttacagataatgcaaattcatggggc  
actctaaattgtataaccagaaggggactgtcaccagaggtacctgtaaatgtctcagagcagtttgatgcatgg  
gaaaacagtttgtatgaacaggccaaggacaatgtgtggcatctatatgattccaccctgaagccttggttaga  
ctatcaccttatgtataacatgaactgcacagcattaaatggaagctgggatggatcagtaacaacaacaaca  
caaccaagaacaacaccatccgcaacagcatcaacaatatagactgtggaataacaatgaaacatgtagtgc  
gtagaggatgaaaatgttatgcagtgtacatttgcagtagcaggggtgaaaagagatgaaaagcataaatacaat  
gatacttgggtattcaagagacctctggtgtcagaaagctaacaatgtgaccaatgttttatgagacactgtaac  
acaactagcatacaccagttttgtgaaccaagatactgggaacccttttaggttaagatactgtgctccaccaggc  
tttgccttgctaaaatgcaatgattataattacacgggttttgatacttgtcataatgtaacagctacttcatgt  
acagacatgataaacacaacagtgtctactagttttggattaaatggatcaataagtgaaaatagaacttggatc  
tatcaaagaaaacagagtaacagaacaatcataggggttgaatagtttctataacttgacagtaagttgtagaaga  
ccatcaaataaggacaataaagggaatttccttagccacaggagtatattatctctaaaagtagaaaaaaggcca  
aaaggagcttgggtgcagatttttatggaaattggaaaggagcttggaaagaggtaaaagagaagggtcatacaaaca  
aagggatataagggaacaaatgacacaactaaaataaacataagggtcagtttatggaggagatgatgagactaaa  
tatttttggctaaattgcatggagaattcctctattgtaaactcaattggtttttgaattatttgaacaataag  
acagagggtaatgagaaggaaagaaggcaagccatgtttgttccttgctcacgaaaatgattgttaatgattgg  
tacacggtgtcaaggaaagttttatacacccgccaaggcaagatgcgttaacatgtaatgctacagtaagctatttg  
ttagcagacatagagtatgtgaatcaaaatgagactaatgtgacactgtctgcagaagtaggagacctatgggca  
gcagaattgggaagatacaaaagtagtggaattaaaccaattggatatgcaccaacagctataaaaagggtacgag  
acaaaacagaaaagagtacctttgggtgctgggttttctaggtttcctctcagcagcaggtactgcaatggcgca  
gcggcgacagccctgacagtcacgtcccggcatttgccttgctgggatattgcagcagcagaagcagttgctggac  
atagttgagcagcagcaacacttgctaaagctcacgctctgggggactaaaaacctccaggccccgtgtcactgct  
attgagaaatacctagcagaccaatctctattgaatacatttgggtgtgcttgagacaagtgtgtcacacctca  
gtgccttggagctttaataagacaccggactggcagaaacagacatggcttgaatgggaaaggaatgtctcatat  
ttagaagcaaacataacagcctcattacaagaagcacaagatcagcatgagaaaaatgtacatgaactagaaaag  
ttgaacaattggggagatgcatttagctggctaaggctggactgggtggatggagtatataaaaaataggaatcttt  
gttatactaggcattatagggttaagaatagtcttcttgcctatggagctcygttagtaagcttagagcaggatat  
actcctttgctctctccccaccctattatcattcacaggtgcaa

>#16 M58410 2166 nt

ttttccccttacgaagagaggagaccattacaacctgtactaataaatgctattgcaaaaaatgctgttatcac  
tgtgagctttgcttctcgcagaagggttaggagtgcggttatatggggagattgcttataaaaaatactaataata  
gcaatagggataagtataggaataggtaacctgtatgtgacagtgttttatggaatcccagtatggaaaaattca  
acagttcaggcatttttgcattgacgcccaataccaatatgtgggcaaccaccaactgcataccagatgatcatgat  
aatacagaggtgctctaaacattacagaagctttcgaggcttgggataatccgctggtaaaaacaagcagagagt  
aatatacatctactctttgaacaaacgatgaggccttgtgttaagctctcccccatatgtattaaaatgtcctgt  
gtagagctgaatggtacagccacgacaaaaggccaccactactgcaactacaacaatgactacccctgtcagaat  
tgcagtacagagcagatagaaggagaaaatggcagaggaaccagcatccaactgcacttttgcattgcaggatat  
caaagagatgtaaaaaagaattatagcatgacctgggtatgatcaggagttagtctgcaataataaaacaggaagt  
gaaaagggaagtaaggattgttacatgatacattgtaatgattcagtgataaaagaagcttgtgataaaacatat  
tgggatactttaagagtaagatactgtgcaccagcagggtatgctttgctaaaatgtaatgataaggattataga  
ggctttgctccaaagtgaagaatgtttcagtagtgacattgtactagattaatcaatactactataactacaggg  
ataggattaaatggtagtagatcagaaaaatagaacagagatatggcagaaaggaggaatgataatgatacagtt  
ataataaagttgaataagttttacaacttgacagtgaatgccgaagacctggtaataaaaacagtggtgccagta  
acaatcatggcagggttagtatttcaactctcagaaatataataaccagggttaaaaacaagcgtgggtgccacttcaa  
ggagattggaaaggggcatggaaagaagtcagagaagaagtaaaagaagtgaaaaatcttacagaagtaagcata  
gaaaatatacatctgagaaggatatggggagatccagaatcagcgaatttttgggttcaattgtcaaggtgaattt  
ttctattgtaagatggactgggttatcaattatctaacaatcgaacagaagatgcagaagggtactaataggacc

tgtgacaaaggaagccaggaccaggaccatgtgttcagagaacttatgttgccctgccatatacgacaagtagta  
aatgattggtacactgtctctaaaaaggtatatgtctccaccaaggggaaggtcatttggagtgtaactcatcagtc  
acggcactatacgtggcaatagattataacaacaagtctggcccaataaatgtgaccctaagtcctcaggtacgc  
agcatatggcgctacgaactgggagactataaattagtagagataacaccaattggccttctcctacagatgta  
agaagatatactggccccacagagaaaaaaggggtgccattcgtgctagggtttctaggtctcttgggagctgct  
ggaactgcaatgggcgagcggcaacaacgctgacagtcagtcctcggcatttgccttgcctgggatattgcagcag  
cagaagaacttgctggcggtgtggaacagcaacaacagttgttgaagctgaccatttgggggtgtaaaaaacctc  
aatgcccgcgtcacagctctcgagaagtacctagaggatcaggcacggcctaattcatggggatgtgctggtgaaa  
caagtatgtcacaccacagtgccatggaagtataataacactcctaagtgggacaatatgacttgggtggagtg  
gagagacaaattaatgccttgggaaggcaacataactcaactattggaagaagcacaataatcaggaatcaaagaat  
ctggatctgtaccagaaattggatgattggtcaggggtctggtcatggttctcactgtcaacttgg

>#17 LC114462 2229 nt

atgaacataaagtacataaaattttctaatagttataggtataggtataggactagtgttaagtaaacagttatat  
gtgacagtcctttatggagtagcaggtatggaaaaacagcacagtagcaggccttttgatgacacctaccaataga  
ttatgggcaacaactaattgcatcccagatgatcatgactatacgggaagtgcctctgaatattacagagccattt  
gaagcatgggctgacagaaacccttggtagcacaggcagggagtaataattcacctgctgtttgagcagacactc  
aaaccatgtgtaaaattaagccattatgtattaagatgtcatgtgtaccctaaatggctccaagacaggggtca  
acaacggcaccaagtacaacacaaaccacaaaagtcaacacaaaaggccttgcaagcaatatgagaaaaacaacag  
ttgcaggcatgtaacgacaccattatagaaagagaaatggatgaagagcccgcttcaaattgcacctttgccatg  
gcaggatatattagggaccagaaaaagaattattcagtagtatgggatgatagggaattttattgtaaaaatgga  
agcgacaatagctccaaggtgaaagagtgctatatgattcattgcaatgactctgtgataaaaggaagcttgtgac  
aagacctattgggatgaattaaggctgagatattgtgctccagcaggatagccttggcttaaatgtaatgatcat  
gattataatggctataagcaaaattgctctaattgtgtcagtagtacattgcacaggattaatgaacaccacagtt  
agtacaggcctattgcttaattggtagttattcagaaaaatagaactcagatatggcagaaacatagagtgaaat  
gattcagtgattatcctctttaacaagttttataatcttacagtaacttgtaaaaggccaggggaataagacagtc  
ttgccagtcaccattatggcaggattagtcttccactctcagaagtataacatgagggttaagacaagcttgggtgc  
cacttccaggggcaattggaaaggagcctggaagggaagtacgagaggaaaatagtgaattaccaaaagataggtat  
caaggaaccaacaatacagagcagataaaattgctgagcaggatggggatccagaagcagctaaacttgtgggttc  
aattggcaaggagaatttttctattgtaaaatggattgggtttctaaattacataaacaatgccacaactacgttt  
gatggaaacaagtgtggtaataaaaacaaagaaaggaaatgctccaggaccctgtgttcaaaggacatatgttgcc  
tgccacataagatcagttgtaaatgattggtatacagtaagcaaatcaacatgccccgccaaagagaagggcac  
ttacaatgtacttccacggtaacgggtatgacagtagagctaaattacaacaataagaacgtaacaaaatgtgacc  
ctaagtccccaaatagaagggatttgggacagcagaattgggtcgatacaaatgggtggagattacccccattggc  
tttgcacccacagaggtcagaagatacacagggggacatgagagacaaaaaagagtccttctcgtgctaggggtc  
ctaggcttcttaggagctgctggaactgcaatgggagcagcggcgacagccctgacggtccagtcctcagcattta  
cttgcctgggatattgcagcagcaaaaagaacttgctggcggtgtggaagcagcaacaacagatggtgaagctgacc  
atttgggggtgtgaaaaacctcaatgcccgcgtcacagctctggagaagtacctagaggatcaggcacggctgaat  
gcatgggggtgtgcatggaacaggtgtgtcataccacgggtaccatggaaatggaacaatactcctagtgggac  
aatatgacctggctcgaatgggaaaggcaaattcaaaaactggaaggcaacataacagggcttctggaggaagca  
agggcacaggaagagaaaaatttggatgcgtatcaaaaattaacctcatggtcagacttctggagttggtttgac  
ttaagcaagtggtttaacatcttaaaaataggattcttaatagtaataggaattataggattaagactcttatat  
agtgtatacctttgtatagctaggggttaggcaggggggtttccagtagcctgcaa

>#18 KR862336 2256 nt

gaggagagaagaccattgcaaaaatgtgataataagtgtactgtaaaagatggtgttatcattgccagcttttgc  
tttctgcagaaggggttaggtgtgaatatgcatttgcaaaagctcctatctacattcttagtggttaggcttttta  
gcatgggttaggaataggtaaacaatggatcacagtggttttacggagtagcagtagtggaacacagttcagttcaa  
gctttctgcatgaccccactaacagactatgggcaacaacaaaactgtataccagatgatcatgattacacagaa  
atacccttgacattacagaaccttttgaggcttggccagatggaaaccttttagtgggtcaagcagaaagta  
atacacttgttgtttgagcagacactcaaacatgtgtgaaattatctccttgtgcataaaaatgagctgtgtg  
cctctaggatctagtaaagctggctcctactactcctgctagtagtagtaccaccgcaaaaacctaccatgtgtg  
agaatgagactgatccacagctgagggttgtaatgcaacaatcatagaacaggaaatggaggaggaaccagca  
tcaaatgtacatttgcaatggcaggatagtttagggatcagaagaaaaactactcagtagtatggagtgatgca  
gaaatttactgtgaagaacagtagctacagtgccaccagtaacaccaaaagactgttacatgatccattgtaatgat  
tctgttattaaggaagcatgtgataaaacttattgggatgagttgcaacttaggtattgtgctccagcaggat  
gcttgcgtgaaatgtaatgattatgattataatggatataagcaaaaactgcagtaatgtttcagtagtacattgc

acaaagcttataaatacaacaattagtacaggcttatttgcttaatggaagctattcagaaaaataggacacagatt  
tggcaggaacatggagtgagcaacgactcagtgataatccattttaacaaacattacaatctgacagtaacatgt  
agaagaccaggaaataaaaacgggtcttaccagtaacaatcatggcaggcttggtatttctcctcaaaaatataat  
acaaaattaagacaagcttggtgtcacttccagggcaattggaaaggagcctggaaggaagtaagagaagaaatt  
gtaaaactaccaaaaggaaagatatcagggaaccaataacacagagaatataaaattgttaaggcaagatggagat  
ccagaagcagccaatttatgggttaattgtcaggggagaattcttctattgtaaaatggattgggttccttaattac  
atcaacaatcagacagttacctttgatggaaatacgtgtaataataactaagactagaccgagaaagggagcgcct  
ggaccttggtgtgcaaagaacatatggttgcttgccacattcgcctgtcgtctgtaaatgattgggtacaaagtggcaaaa  
ttaacctatgctccaccaagagaagggtcatttgcaatgtacctccacgggtgacgggtatgacagtagaactgaat  
tacaattcaggaaatcggacaaatgtgacactcagccctcaaataagaggcatatgggcagcagaattgggtagg  
tataaattagtggaaattactccaattggctttgcaccaacagatgtcaggcgatatgaaggaccccaagacag  
aaacgggtgcctttctgtgctaggattcctaggattccttggggagcagcaggaactgcaatgggagcagcggcgaca  
gccttgacgggtccagtcacagcatttacttgctgggggatattgcagcagcagaaaaatctgctggcggtgtggag  
cagcaacaacaaatggtgaagctgaccatttgggggtgtgaaaaacctcaatgcccggtcactgctcttgagaag  
tacctagaggatcaggcacgggttaaaccgctggggatgtgcatggaaacaagtctgtcatacaatagtcccgtgg  
caatggcacaatgtaacaccaaggtgggataacatgacctgggtggagtgggaaaggcagatagcaaaacttgga  
ggcaacatatcgcgacaattagaagaggccagggtcaggaagagaaaaacatggatgcatatcaaaaactgtca  
gattgggtcaagcttctggagctgggttgacctgagtcggttggttcaactatctaaagataggcttcttagtgata  
gtagga

>#19 KR862356 2241 nt

cagcgcctcctccagggttgcatgagcctttgaaggcatgtactaacaatgctatttgaagaactgctgttat  
cattgtcagttgtgttttctgcaaaaagggttaggtgtgaatatgctcttgcttaagatctgtctcttaggctta  
atagggatattagtttatagccaccaccaacaatatatcacagtatcttatgggggtaccagtatggaaaaatagc  
acagtcacaagccttctgcatgacacctactactagattatgggctacaaccaattgcataccagacgatcatgat  
tatacagagggttctcttaacataacggaacctttgaggcatgggcagatagaaatccattagtggcacaagca  
gaaagcaatatacacctgttgttttgagcagacactcaaaccatgtgtcaaattaagcccactctgcataaggatg  
agttgtgtagaattaaaatcctcaagaccaacaaccacggcggtcaacaagtactgtaacagcaccactatctgac  
ccatgccagagaaacgagagtgagactgtaattggaaagtgtaatgacacaataatagaaaaggagatggaggaa  
gagccagcttctaattgcacctttgctatggctgggtatgtaagagatcaaaagaagaactactcagtagtctgg  
aatgatgcagaaattatgtgtaagggaaatgggaccaacgagggccggaagagaatgctatatgattcattgt  
aatgattcagtaataaaggaggcttgtgaaaagacatactgggatgagttagactgagatattgtgcacctgca  
ggcttcgctctactcaaatgtaatgatatggactataatggatataagcagaattgctctaattgtatcagtggta  
cattgcacaggcttgatgaataccacgggttagcacaggcttattgcttaatggtagttattctgagaatagaaca  
caaatatggcaaaagcatagagtaataatgattcagtgatagtactcttcaataagttttataatctcacagtt  
agatgtagaagacctggcaataagacagttatggcagtgaccattatggcaggctctgggttttccactcccagaag  
tataacacgagggttaagacaagcgtgggtgtcatttccaaggcgattggaggggagcctggagggaggtaaaagag  
cacatagttaaattacaaaagacaggtataaggggacaaatgacacagaaaaagatctatctgcagagacaattt  
ggtgacccagaagcagcaaatctttgggtcaattgtcaaggagaattcttttattgtaagatggattggtttctt  
aattatctaaacaacctaacagtagatgcagatcataataagtgaacaattcgccaaaaggaaaagcaccagga  
ccctgtgttcagagaacatacgttgcttgccatatccgatctgtcataaacgattgggtataccatctctaaaagg  
acttatgctcctccaagagaagggtcacttgagtgcttttccacgggtcactgggtatgacagtagaacttaattat  
atatccaacaatagaacaaatgttaccctatcccctcagataggggtatatgggcagccgaattggggagatac  
aaattagttgaaattacgccaatgggttttgacccacggacgtcaggcggtatacaggagggcacgcacagagca  
aaacgtgtacctttctgtgctaggattcctaggcttctttaggggtgctggaactgcaatgggagcagcggcgaca  
gccctgacgggtccagtcctcagcatttacttgctggggatattgcagcagcagagaacttgctggcggtcagtgag  
gctcaacagcagatggtgaagctgaccatttgggggtgttaaaaaacctcaatgcccggtcacagcccttgagaag  
tacctagaggatcaggcgcggttgatgctgggggtgctgcatggaaacaagtatgtcataccactgtaccttg  
caatggcaaaacaggaccccacaatgggacaacatgacttggttagaatgggaaagacaaatagcggatttgag  
agcaacataacagggcaactggtagcggctagagaacaagaagagaaaaatttgatgcttatcaaaaacttacc  
tcgtgggtcagatttttgagctgggttgacctgtcaaatgggttaatatctaaaattaggcttc

>#20 KR862363 2229 nt

gaagaaagaagaccttttgaagcatgttttaataaatgctactgtaagaaatggtgttatcactgccagctttg  
tttttgcaaaagggttaggtatcaatatgactatagtacctgtactagtttatttaggaatagggttttatta  
gcaaggagcagtatattacagttattctatggagtaccagtatggaagaatagttcagttcaagcattctgcatg  
accccaccacaagattatgggctactacaaattgtatcccagatgatcatgactatacagaggttcctttgaat



atcacagaaccttttgaagcatgggctgatagaaatcccttggttagcacagcagggagcaacatacatctattg  
tttgagcagacactcaaaccttgtgtgaaattgtccccctatgtataaaaatgtcctgtgtagagcttaactct  
tctagaatcactacaaccagtactccatcagccactgacaagccctcagacccttgtggtggtaatagtgcgacc  
ataggaagatgtaacaatactcttatagagcaagaaatggaggatgagccagcttctaattgtacctttgcaatg  
gcagggatgtgagagatcagaaaaagaattattcagtggtatggaatgatgcagaaattatgtgcaaaagcaag  
aacagcagtgacaataagactaaagagtgttatatgatacactgcaatgactcagtgatcaaagaggcatgtgaa  
aaaacgtactgggatgagctgagattaagatactgtgtctccagcaggatatgctttattaaaatgtaatgatgaa  
gattataatggatataagagaaattgctcaaattgtgtcagtagtgcaattgcacaggactgatgaataccacagtc  
agtacaggcttactgcttaattggtagttatagtgcataaagactgaaatatggcagaagcacaggggttaataat  
gattcagtaatcatactgttcaataaacattataacctgacagtgagatgcaggagaccaggggaacaaaactgta  
ttacctgtaaccataatggcaggattggtcttccactcccagaagtataacacgagggttaagacaagcatgggtgt  
cacttccaaggcaattggcgaggggctggaagggaagttaaggagaaaatagtacagttaccaaaaggacagatat  
caaggaaccaatgatacaaaaacaaatatTTTTGCAAGACAATTGGGAGATCCTGAGGCAGCGAATCTATGGTTT  
AATTGTCAAGGAGAGTTCTTCTATTGTAAGATGGATTGGTTCCTAACTACCTTAATAACCTTACAGTAGATGCA  
AATCACAATAAATGCACAAACAGCACCAAGAAGGGACACGCACCAGGACCTTGTGTACAGAGGACCTATGTTGCT  
TGCCATATCCGAACAGTTATTAATGATTGGTACACAGTATCAAAGAGAACATATGCCCCACCAAGAGAAGGACAC  
TTGGAGTGTTTATCTACAGTCACAGGGATGACAGTGGAATTGAATTATAATTCAAAGAACAGAACTAATGTGACA  
TTGAGTCCCCAAATAGAAGGCATTTGGGCAGCAGAATTGGGCAGATATAAATTAGTGGAAATAACACCAATTGGC  
TTTGCACCCACGGATGTCAGGCGATATACGGGAGGACACGAAAGACAAAAACGTGTGCCTTTCGTGCTAGGGTTC  
CTAGGATTCTTGGGAGCTGCTGGTACTGCAATGGGAGCAGCGGGCAGAGCCCTGACGGTCCAGTCTCAGCATTTA  
CTTGCTGGGATATTGCAGCAGCAGAAGAATTGCTGGCGGCAGTGAGGCTCAACAGCAAATGTTGAAGCTGACC  
ATTTGGGGAGTAAAAAACCTCAATGCCGCGTACAGCTCTCGAGAAATACCTAGAGGATCAGGCACGGCTAAAC  
GCCTGGGGGTGCGCTTGGAAACAAGTTTGTACATACCCTGTCCCTGGACTTGGAGTAACAGGACTCCAGAGTGG  
AACAACATGACTTGGCTTGAGTGGGAAAGACAAATAGCGGACCTGGAAAGCAACATAACAGGACAATTAGTCGCT  
GCCAGGGAACAAGAGGAAAAGAATTTAGATGCATATCAAAAATTGACCTCGTGGTCAGACTTCTGGAGTTGGTTT  
GACTTATCTAAATGGTTTAATATCCTTAAGTTAGGCTTCTTTGTAATCATAGGA

>#21 M29975 2217 nt

cttgagacatgtacaaataaatgctttttgcaaaaaatgctgttatcattgccaatctctgcttcttacggaaagga  
ctaggattacctatatgacaaaagttcttaggaattttttatagtattaggaatagggataggaatagggataagt  
acaaaacagcagtgataacagtggttctatggagtaccagtatggaaaaacagctcagtcgaagctttttgcatg  
acacctactactaggttgtgggcaactactaattgcataccagatgatcatgactatacagaagtaccactgaat  
ataacagagccatttgaagcatgggcagacagaaatcccttagtagcacagcaggaagtaacattcacctgctg  
tttgaacagacattaaagccctgtgttaaagctatcacctctatgtatcaaaatgaattgtgtagagttaaaaggc  
tccgcaacctctaccccagcaacctctactacggcaggaaccaaactacacctgtgttagaaataaaaacagactcc  
aacctacagtcatgcaacgacacccatcatagaaaaggagatgaatgacgaggcagcgtcaaaactgcacctttgct  
atggctgggtacattagggaccaaagaagaattactcagtagtatggaatgatgcagaaatcttttgtaagcgt  
agtacatcgcataatgggacaaaagagtgttatatgatccactgtaatgattcagttataaaaggaagcttgtgat  
aagacataattgggatgaattaagactaagataattgtgtctccagcaggatacgctttgcttaaatgtaatgattgg  
gattatgcaggatttaagccagaatgttctaattgttcagtagtgcaattgcacaactttaatgaatacaacagta  
accactggtctgttattgaatggaagctattcagaaaaatcgaaaccagatctggcaaaaacatggagtgagcaat  
gactcagtgtaattctgtctcaataagcattataacctgacagttacatgcaaaaggccaggggaataagacagtc  
ttgccagtaacgataatggcaggattagcttccactcacagaagtataatacaagactaaggcaggcctggtgc  
cacttccagggcaattggaaaggagcttggaaaggagtacaagaggaaaatagtaaaattaccaaaagaacgggtac  
caaggcaccaatgatacaaaaacaaatctttttgcaagacaatttggagaccagaagcagcaaatctatggttc  
aactgtcaaggggaattcttctactgtaaaatggactggttttttaattatctgaataatttaacagtggtgct  
gatcataatcattgtaaaaacaacgcagggaagggtcgaagtccagggtccctgtgtacagagaacttatgttgcc  
tgccatatccgatctgtcataaatgattggtatactatatcaaagaaaacatatgctccaccaagagaaggacat  
ttgcagtgcacgtccacagttactgggatgacagtagagctaaactataataaccagaacaggacaaatgtaaca  
ttgagtccccagatagaaaccatctgggcggcagaattgggcagatacaaatggtagagattacaccaattgga  
tttgcacccacagaagtcaggcgatacacgggaggccaagagaggcaaaaacgagtcctcggttcgtgctaggggtc  
ctaggcttcttgggagctgctgggactgcaatgggagcagcggcgacagccctgacgggtccagctctcagcattta  
cttgctgggatattgcagcagcagaagaatctgctggcggtctgaggagctcaacagcagatggtgaagctgacc  
atttgggggtgtgaaaaacctcaatgccgcgctcacagctcttgagaagtacctggcggtcagggcacgggttaaac  
gcttgggggtgctgctggaacaagtatgtcatacaacagttaccctggacgtggaataatacaccagagtggaat  
aatatgacctggttggagtgggaaaaacagatagaaggattggaggggcaacatacaaaaacaattggaacaggca

agggaaacaagaggaaaagaatttggatgcttatcaaaagttgtcagactggtcgagtttttgggtcttggttcgat  
ttttcaaaatgggtgaacatttttaagataggctttttggca

>#22 AF301156 2166 nt

atgcttagatatctctttataaacttgctagtagtattaggtatagtggttaagtaataaatgggtaacagtatatcaa  
ggagtacctgcatgggaagaagcagatgtaaatgatcagcagttcttctgcttttcttctccccagagattcaa  
caggtgttgggggtgtttaccacctccgcctggaaagccagtagaacaaaacatgccaaatgtaacagaagctttt  
gatctttttaagaatagcttcagtgaggaggtatggataataacacagactaccttagaaciaaggctaagacca  
tgtgctaagttgacagcactgtgctccaatgatttgcaccaaagtaaataggactgaaaatggcactagtagaca  
gtagccccaacaacaacaataatagtgcttcagattgggatgagtagcaaatggaaagaatatccgtggtataat  
tgcagaatgaattcaacagctttcttacttaagatagaaaggagtagaattaggattttcagtagaagattta  
actgtgcttggaataaaaaatgacagtaatagtagtcagggcaacaatgaaagattgtgcaaatatacagttacc  
caagtatgtgatagtagttagtgatccagttaggacaggggtctgtgtagctccaggatacatgcttttaaga  
tgtgatgataaaaagtgggatgggacaggagcatgcaacaatgtgacagcagtgctctgtacctatgagttta  
ataacagtcagtgctcatgtattagtcagtgcctcaaaagagttgtctgattgggagaaagatagagaggggagtc  
tggaagaatgactcagggaacattgagtattattgggtttccaaaagatatagctttagggtgtataagaagagga  
aatagttctcacagaaatctaacactgccaatggagcaaaattctactatgagcttattccttattcaaaaggc  
atztatggaaggtgtcagtttgtaccaatgactgggcagaaataagaaaaacaaaacacaattcgcaatagaaatc  
aaaaagaatttaacagcttggctagagcgcatttccagcaaaaatataactatcactccaaggaatggaaataga  
acaagtgatccagaggctactttcaccttgtgatttgtcataggttattcttttactgtaatgcatctagttta  
tggaacatgattccccagtcattgaactgtaccattagaaagctgggtgaatagttgggtcactcatgccaggatc  
ctgtatgggcccgcctccaggaggtcatctacaatgtaactgggagaaacagccagttattgcgttcatgggcacc  
atagaaggagacaatgatggtaatgggtgtgcttatccagcagcaccaaattttaagcatgcattaagtactttg  
gaattgggaagatacaaaattggtaaaaatgaggacaactacttatgtcccaacagatataaaaagatcagtgat  
gtaaatggcatcatgggagacaaaagagaggcatctttgcattctccatcttagccctcttgagtggggccggt  
gctgcaatgggctcagcgtctgtggcgctgacgatccagggtcaatccctaatggaagggttagtgccagcagc  
aaccgaatgttgctgaaactggtcgagacgcagtcctgcactgctacagctcacgggtctgggggggttaaaaacctc  
caggtacgagttgccactatagaagggtatttggaggaacaagcaaaagcttgccagcattgggtgtgcaaacatg  
caaatttgtagaactattgtgccctggaacaagacctggggagaggaggtccatggcagaacatgacctggaaa  
cagtggtcatgagcagtagtaagaaattacacagatataatagaggcagacttagtagaggcatatgacttacaagag  
gaaaatgaaaagaattggcagaattaggggattggactaatgggttttcaggctttggcctattcaacatcttt  
aagtatgtactctatgctgcatatgttgtaggaggtttaataggacttagaattattatggtagtaatagcttgc  
ataagaggagctttcagagtttaagggtttcagcagataggcaggactaatgtgtcttcacagatc

>#23 AY159322 2343 nt

atgttaagatatcttaggtatatagtcttaggaataatagtaagtgtaatagtaggagaacaatgggtgacagtg  
tactatggcacacccaaatggcataagggaagacacacctgttttgtgcaacagacaataattcattctgggtg  
accacaagctgtgtccccagtcgttgcactatgaagaacagcatatccccaatataacagagaattttacaggc  
cctatagaagagaatgaaatagtgacacaagcttggggagcaatttcttccatgatagatgcagtagtaaaacca  
tgtgtaaggttaacaccttattgtgtgaagatgaaatgtacagaagggtcaaatgaaacagagcaagcaacagct  
aagaccacaacacctgtacccacaacaacacccccctccactaccactagctccagcacaataagacaacaact  
cctgtgttgggtgttgagaaacaaaataatgagacaacaacacagcaaaatagagtagttaaattcaacacgaca  
ggattatgtagggactgcaaattggaaaatagaggaaaacttttagatatgaagatgtaacttgcacaaagctta  
aaaactggtagtgctactaatagtagtgaacctgaatatgagtgttacatgacttcatgtaacgcaacagtaata  
acacaggaccgtaacaaagcttccacagatagaatgacatttaggttgtgtgcacccccagggtttgtcttacta  
aaatgtaatgaaaaattgaacaagacaaaattatgtgggaatgtgtctgcagtgtagtgacagcaccgctgcca  
gccacaatctctacaatgtttggcttcaatggaactaagcatgattatgatgagcttattcagacaaacccacga  
aaaggaaaagatgagtttcatgaccataaatatgtatatagagtggataaaaaatggggattacaggtaagggtg  
agaagggaagggaatagatctatcatttccacaccaagttctacaggattgctgttctatcatgggttgagcca  
ggaaagaatcttagaaagggaagtgtagttagaagggaatggggacaggctttacatagtagtctatcattagag  
ctaagaaagataaatgatagcatttacaaagacaaccacaatatgacatgtaaaagcagtaacaacaaaaaagac  
acaacagggtgtcatcttaaaactataagtataagttagtccaccgttaaaggcgaaccaggagctgaaactatt  
atgctcctctgtggaggagaatatttcttttgaattggactaaaatatggaaggcatggaatagcaaaacaaagt  
tcagtttggtagccttacatgtctcgcaatattagacaaatagtaggtgattggcataaagtaggcaagaaaatt  
tatatgcctcctgtgtctgggtttaataatgaataagatgtactaatgatgtgacagaaatgttctttgaggtc  
caaaaaactgatgatgacaatggatataatcataaaatttataccacaagattggattcaaaatcaatacacagca  
gtggggggtcattacaaattgggtgaagggtgatccgatagggttttggccccacagacatacacagacatcatttg

cctaatacaaggcaaaaaagaggagcgggtcttacttggaatgctcggcctcctaggtttggcaggttccgcatg  
ggctcagtgggcgggtggccctgactgtccagtcacagactttactgaatgggattgtggagcagcagaaggttctg  
ctgagcctgatagatcagcactccgagttattaaaactaactatctggggtgtaaagaatcttcaggtccgcctc  
acagccttggaggaatacgtagcggaccaatcaaggctctcgggtatggggatgttcattctcccaagtttgc  
actagtgtaaaatggcccaataatagtatagtgcccaattggacctcagagacatggctggaatgggacagaaga  
gtaaacagcatagtgcacaaatagaccatagacttacagagggcatatgaattagaacagaggaacatctttgag  
ttgcaaaaattaggggacttaaacttccatgggctaactgggttcgaccttacatgggtggcttaagtatgttaag  
ataggactgttagtagtagtagttatcataggattaagaatgttagcttgcttatggtcagtattagggaagttt  
aggcagaagccttgggaagccagagcaagtcaggagctgggtgaaaaggctcgacgctttacatttggtgaagaac  
ctccaagcagtaattgaa

>#24 AF367411 2178 nt

atgcttaggtacataatattaggaataattgtaggactaggggttaggaaaccaatgggtgacagtatattatggc  
acacctaaatggcataaggcagagacacacctgttctgtgcaacagaaaatgattccttatgggtaacaactagt  
tgtgttcccagcttgttgcactatgaagagcaaccaattccgaacataacatggaatttcacaggtcccatggaa  
gaaaatgaggtagtaatgcaagcatggggagctatctcctccatgatagacgcagattaaaaccttgtgtgaaa  
ctgacccatactgtgtcaagatgcagtgtaaaaaaggaaaagaccttgctacccctataccactacatccacc  
acaactaccacaactaccaccaagacggtggcaataactactgagttggacatagacaccaataaactgaaact  
acaacacaacagaacaggggtctgtaaattcaatactacaggattatgtagggattgcaattggagatagaagaa  
aattttagatatgaagatgtaacttgtacaaatggcacaataacacatattccttggttatatgacacaatgcaat  
acatcagtaataaaccaggactgtaataaagcatccacagatgaaataaaatttagactgtgtgcacctccagga  
tatgttctcttgaggtgcctagaaaagattgaaatgtctcttaaaaaatgtaccaatatcacagcagtagcagtgta  
cagccattgccagccaccacctcaactatgtgtggatctagtgggacaaaacatgattataatgaattaatacag  
acaaatacaaaagaaaggcaaaagaggagtttcatgaccataagtatgtgtatagagtagatgagaagtacaactta  
caagtagtatgtagaagaaaaggaaaacagatctgtgatctcaacacctagtgcacgggattgatcttttatagt  
gggttagaaccagggaaaaatcttaagaaagggtatgtgtcagttgaagggacaatggggaatagccatgcatgat  
ctagcaatagaattaagaaaaatagacagctccatattggagaaatgtaacaaagggtatttgcaaggggttaaaa  
agaaaggaaaatagaacgggttgtgccccttaaaacaataaagggtctctgactacaccacgaaaggcgaaccagga  
gcagaaaactattatgtcctctgtgtggaggagaatacttcttttgaattggacaaaaatttgaggaaacatggaat  
gatcaaaattcatcagtatggatccatggatgtcatgtaataattagacaaataatagatgattggcataaagta  
ggaaagaagatttatatgcctcctgtatctggatttaataatgagataagatgttctaattgatgtaacagaaatg  
ttctttgaggttcaaaagacagaagagggatacatcatcaaatttgtgccacaagatgaggtacaaaaccgattt  
acagcggtagggacacactatcaactagtaaaagtggacccaattggcttctcctacagaagtggcaagatat  
catctgccagaagctaggcagaagaggggagcgggtcttgccttgggatgttcggcctcctaggtttggcaggttcc  
acgatgggctcagtgggcgggtggccctgactgtccagtcctcaggcttctgttgaatgggattgtggagcagcagaag  
gttctgctgagcctgatagatcagcactccgagttattaaaactaactatctggggtgtaaagaatcttcaggcc  
cgcttacagccttggaggactatgtagctgatcaagcaagactatccatgtggggctgctcattcgcccaggta  
tgccacacacatgtaccatggccaaatgactctataacaccaaattggacctcagagacatggctggaatgggat  
aaaagagtaacagctctaactgacaatatgacagtaaaacttacagaaggcatatgaattggagcaaaaagaatata  
tatgagctagaaaaattaggagattggacttcttgggctagctgggttcgactttacgtggtggcttaaatatgtt  
aagataggtttactaatagtaatatgtgattatagtgttaaggatttttagcttgcttatggtcagtccttaggaaag  
ttt

>#25 AF328295 2379 nt

atgcttagacatttaatacacagcaatagtaataataggtataggtataggaaaacaatgggtaacagtatattat  
ggcacacctaaatggcacccagcaagaacgcacatcttttttgtgcaactgacaacaactcccttgggtaaccaca  
agttgtgtaccaagcttatttgcattatgaggagcaactcatccccaatataacagaaaattttacagtcacctata  
caagagaatgaagtggtaaggcaagcatggggagctatttctctatgatagatgcagttctaaaaccgtgtgta  
aaattgacaccatactgtgtcaagatgcaatgtacaaaggggagaaaacagtagtaccagcactaccactcccatg  
cccactaccaccactcccaccactccagcagtgacggggctggaggtgacggtacagaataatgagagtaccaca  
caagaaaatagggtatgtaaatttaacacaacaggattatgtagggattgtaaaatagagattaaagagagcttt  
agatatgaggatgtgacctgtactaaaaaggaaaatgacactgaaactgaagaatgttatatgacacactgtaat  
acatcagtaataacacaggattgttaataaggcctcaacagacaaaatgacatttagattatgtgcccctccaggg  
tacattctgctaagatgtcgtgagaaattgaataaaactaaattatgtgccaatgtctcagcagtagcagtgta  
gacccaatgctgctactatatcaactatgttttggctttaaattgaacaaaacataattatgatgagtttaatttg  
gtgaaccctcaaaaggagtttcatgaccataaatatgttttatagggtgaacaaaaaatgggggtgaaagggtgta  
tgtgataggaagggaacagggtctatagtttcagtcaccaagtgcacaggttaattttctatcatgggttagaa

ccaggcaggaatctgaaaaaaggaatgtgcaggttaataggacaatggggaagagctttgaacgcattatcacgt  
gaattaaagaaagtaaatgcaagtatttatagaggttttaaatgcaagtggcccttgagggggataaacaataga  
ggagtggtaaaaaaacaggggtgtgccttgaaaacaatagaagtaagtaactacaccaccattggcgaaccagga  
gcagaaacaattatgatcctctgtggaggagaatatttcttttgtaattggacaagaatttggaacacctggaat  
aaccaaaactcaaattgtttggtatccatatatgtcatgtaaaatcagacagatagtggtgatgattggcataaagt  
ggaaggaagatttatatgcctcctgtgtctggatttaataatcatataagatgcactaatgatgtcacagagatg  
tttttgaggtccaactagttgaaggaaaaagatacctaataaagtttctgccacaagatgaggtacaaaatcaa  
ttcacagcagtgaggagcacattataaattggtaaaagtggatccgataggattcgcccctactgatgtacacaga  
tatcatctaccagatgcaaagcagaagagaggagcagtccttgcttggaatgctcggcctcttgggcttggcaggt  
tccgcgatgggctcagtgggcgtggccctgactgtccagtcaccaggtttgttgaaatgggattgtggagcagcag  
aagattctgctgagcctgatagatcagcactccgagttattaaaactaactatctgggggtgtaaaaaatcttcag  
gcccgcctcacagccttgaggactatgtagcggaccaatcaagactagcagtatggggatgctcattctcccaa  
gtgtgtcataactaatgttccgtggccaaatgaaagtataactcctaattggacctcagaacatggctggaatgg  
gatagaagagtgcagctatcactaacaatatgacaatcgatttacagagggcatatgaattggaacaaaagaat  
atgtatgaattacaaaaattgggagatttgacttcatgggctagctggttcgacctcacgtgggtggctcaaatat  
gttaagataggaatattgataataatggtagtaataggacttagaattttagcttgtttatgggtctacaataggt  
aggtttgagactatctccgacctcgcaacctcagacagccagacgaagaaagagaaggagagctcaacttagaa  
gaacagaacatcaagtcagagagctccaagaaagaatttggcagaccttgaggccagagcaaataaggaattgg  
ttgaaggagtcaacaattttacatttggctgaagaatctgcaggcagtaattgaa

>#26 KM378564 2259 nt

atgattagacatatagttataggcttatgcatttttaggatttttaggattaagtataggaaaacattgggtaaca  
gtgttttatggaaccccccaagtggagaccagcatccacacatctgatctgtgctacagataatcattcattctgg  
gtaactacaagttgcataccaagtctattgcattatgaagaaacacaaattgaaaatatagaagaaaattttact  
gtccctatgacaaaaaatgaagtgataaaacaagcatgggggtgcattatcatctatgatagatgcagtgcttaaa  
ccatgtgtcaaaatcaatccttattgtgtaaaaatggaatgtactgatggcccaccacaaccaacaactaca  
gcaactagtactagtactactagtgtgtgccccaaatataacagcagatttgagatagacagaaataaacacagaa  
ccaaaaacagaaacaaatagagtatgtaagtacaatgtgacaggattgtgtagggactgtaaagaagagatcaca  
gaaaatttttaggtatgatgatgtagtttgtaaatgtggcagtagagctgaatcaccagaagagaacaactgtact  
gaaagtagaatatgttatgttcaccattgcaactcaaccgtgattactcaggattgcaataaggcttctactgat  
atgatgaaattcagattgtgtgtgtccaccaggatatatatatttctaagatgtaatgagaagctaaataaaaactaga  
aagtgtagaaatataacagcagtgcatgtactagacacatgcctgccacaatctctagcatgtttggcttcaat  
ggcacaaagcatgatcaagatgagttaatagagacaaggggaagaccagactttattgatcataaatacgtgttt  
agggttgataggaatggaaccttagaattctctgtagaagaaaaggaaataggagtatagtgtaacgcctca  
gccacaggggtgtgttttatcatgggttagaaccaggaagaaatctaaaaagaggaatgtgtatatattcagggg  
cactgggggaatggcttttagaaagcctagccaaagaattgaaaaaagtaaatgcatccatttggagaaatactaat  
aagaccagccaatgtaacgggtcaaaggaaagacaaacgcaacaggggtgctgttgaaagcagcttagggtagat  
aattacaccgcccaggagatctggcatcagagaacctcatgatgatgtgtggaggagaatatttcttctgcaat  
gttactaaaatatgaaaacatggaataatagatcaagtagtgtgtggtatccatatgcactctgccacataaaa  
caaataatagatgattgggcaaaagtggcaggaaaatttatatgcctcctgtatcaggatttaataatgagata  
agatgtacacaagaagtcacagaaatgttctttgaggttcaccgtttggacacaaatgtaaccgatgattctcat  
tatcagattaaatttataccacaagatgaagtgcaaaatcagtcacacagcagtaggagcacattacaaattgggtc  
aagggtggagccaattggctttgtcctaactgacgtgcatagatacaacctgcccgaacacaggcagaaaagaggt  
gcagtcgtgcttggaaatccttggcctcttgagcttggcaggttcacacaatgggctcagtgggcagcgccatgact  
gtccagtcaccaggtttgttgaaatgggatagtgagcagcaaaagcaactgctgcgcctgggtggaacagcaacag  
gagttacttaagttaactatctggggcgtaaaagaacctccaggcccgcttacagctcttgaggaatacgttagga  
gaccaagcaaagttagacctctggggatgtcctttgcacaagtatgtcacacaaatgtagagtggtcctaataa  
acagtgactccaaattggacctcgagacatggatggagtggcaaaaaagagtggatagtatatacaacaacatt  
actcttgatttacagaaggcatatgaacaagaacaaaagaatatctttgaattgcaaaaattaggagatttaaca  
tcatgggctaactggtttgattttacttgggtggttttaatatattaagataggattctttgtagtgatagtaata  
atagggttaagaatcttagcagctttatggagtacagtaggttaggtttaggcaggggttatcgccctcttccttat  
atctttaag

>#27 KM378563 2307 nt

atgattagacatatagttataggcttacgcatttttaggatttttaggaataagtataggaaaacattgggtaaca  
gtgttctatggaaccccccaagtggagaccagcatccacacatctgatctgtgctacagataatcattcattctgg  
gtaactacaagttgcataccaagtttattacattatgaggaaacaaaaattgaaaatatagaggaaaattttact

gtccctatgacagaaaatgaagtgataaaacaagcatgggggtgcgctgtcatctatgatagatgcagtgcttaag  
ccatgtgttaaaatcaatccttactgtgtgaaaatgatatgtaatgataccaaagaaataccaactacaacaaca  
gtagctacaacagtggttactactactagtagctacagctccaaaaaatgctagtgttgcccaacaacagcaaat  
ggcacttttgatatagatacaaaataatacagaaaaagtaacagaagcaaacagagtagtgaagtacaatgtgaca  
ggattgtgcagggactgtaaggaagaaatcacagaaaaattttaggtatgatgatgtagtgtgtaaatgtggcaat  
gtaactgaatcaccagaaaaataataattgtaatggtacaagaacatgttatgtgaccagttgcaactcaacagtg  
attaccaggattgtaataaggcctccacagatatgatgaagttcagattgtgtgctccaccagggatatatttg  
ctaagatgtaatgaaaaactgaataaaaagtagtaagtgtaaaaatataacagcagtgcaagtgtactagacacatg  
cctgccacaatctctagtatgttttggttcaatggcacaaagcatgatcaagatgagttaatagaaacaagagga  
agaccagaatttgtggatcataaatatgtgttttaggggttaataagaaatggaacctcaaaatcatgtgtagaaga  
aaaggaaacaggagtgtaatatctacaccctcagctacaggggtgtgtgttttatcatgggttagaaccagggaaa  
aatctaaacagaggaatgtgtaaatttgagggacaatggggaaaggccttagaaagcttagccaaagaattaaaa  
gcagtaaatgcctccatttggagaaatactactattaaagggaaagaatgtaaacgtctcaaagaaaccaagac  
acaaaaacagttgggacaggggtgcatgttgaagcagcttaaggtagataattacaccaccaagggggatctagca  
tcagagaacctcatgatgttgtgtggaggagaatacttcttctgtaatatctctaaaatatggagaacatggaat  
aatagatcaagtaatgtgtggtatccatatgcatcctgccacataaaacaaatagtagatgattgggcaagagt  
ggcaggaaaaatttatatgcctcctgtatcaggatttaataatgaaataagatgtacacaagatgtcacagaaatg  
ttctttgagatccaaaaattggagacaaatgaaatcaatgattccaactatcagattaaatttgtgccacaagat  
gaagtgcaaaatcagttcacagcaataggagcgcattacaaattgggtcaaggtggagccaattggctttgctcca  
actgatgtacatagatacaacctgccggaacacaggcagaagagaggtgcagtcgtgcttgggatccttggcctc  
ttgagcttggcaggttcacacaatgggctcgggtggcgacagccatgactgtccagtcctcaggctttgtgtctggg  
atagtggagcagcaaaagcaactgctgcgcctgggtggaacagcaacagggagttactcaagctaactatctggggc  
gtaagaacctccaggcccgctcacagctcttgaggaatacgttaggagaccaagcaagggttaagcctctgggga  
tgctcctttgcacaagtgtgtcacacaaatgtggtgtggcctaataagtcagtgactccaaattggacctcagag  
acatggatggagtggcaaaaaagagtagatagatatcaacaacattactcttgatttacagaaggcatatgaa  
caagagcaaaagaatatTTTTTgagttacaaaaattaggggacttaacatcatgggctaactgggttgatttact  
tggtgggtttaatatattaagataggattctttatagtaatagcaataataggattaagaatttttagcagcttta  
tggagcacagtaggttaggttttaggcagggttatcgccctcttccttatgtctttaag

>#28 M27470 2289 nt

atgtctacaggaaacgtgtaccaggaactaataagaagatacctggtagtggtgaagaagctatacgaaggtaag  
tatgaagtgtccaggtctttttcttatactatgttttagcctactagtaggtattataggaaaacaatatgtgaca  
gtcttctatggagtaccagtatggaaggaagctaaaacacattttgatttgtgtctacagataaattcaagtccttg  
gtaaccactaattgcataccttcattgccagattatgatgaggtagaaattcctgatataaaaggaaaattttaca  
ggacttataagggaaaaatcagatagtttatcaagcatggcatgctatgggaagtatgttagataccatacttaag  
ccatgtgtaaagattaacctatattgtgttaagatgcaatgtcaggaaacagaaaaatgtatcagcaacaacagct  
aagcctataactacacctactactacatctacagttgcaagtagtacagagatttacttagatgtagataaaaaat  
aatacagaagaaaaggtagagaggaatcatgtatgttaggtataacataacaggactatgcagggattcgaaggaa  
gaaatagtaacaaatttttagaggggatgatgtgaaatgtgaaaataataacttgctatatgaatcattgtaatgag  
tcagttaatacagaagactgtcagaagggacttttgataagatgtatttttaggttgtgtgcctccaggatatgtc  
atgttaagatataatgagaaggttaataataataaattgtgttagcaatatatcagcagtgcaagtgtactcagcac  
ttagtagccacagtaagtagcttttttggttttaattggaactatgcataagggaaggagaattgataccatagat  
gataaatatagggggccagaggaatttcatcaaagggaagtttgtctataaggtgccaggaaaaatatggcttaaaag  
atagaatgtcacagaaaaggaaatagggtcagtagtgagtactccatcagctacaggattattatttttatcatggg  
ttagaacctggaaagaattttaagaaaggcatgtgcaccttcaaaggacgttgggggttagcactttggagtcta  
gctaaagaactaaataaattaaatgactccatcaaagtgaaccagacctgtaaaaattttacttagcactggagag  
gagaacaaaacaaacacggacaagcaaaaggagtttgccaaatgcataaagactcttaagatagataattatact  
acatcaggagatagagcagcagaaatgatgatgatgacatgtcaaggtgaaatgttcttctgtaatgtaacaaga  
atcatgagggcatggaatgatcctaatagagaagaagtggtatccttatgcctcatgtcaaattaggcaaatagta  
gatgactggatgcaagtaggaagaaagatatatttaccacctacatcaggatttaataatcacataagggtgtaca  
catagggtaacagaaatgtactttgaaatgcaaaagatagatagtaatgaaacaaaaatgcaattaaattcttg  
cctcccagtgaaacctccaatcaatttgttgcttatggagctcattataaatttagtcaaaataatgccaatgggc  
atagcacctacagatgtgaaaagacacactttacctgaacatcataaagagaagagaggagcagtaatacttgggt  
atccttgggtctgctctcgctggcaggatccgcgatgggctcagtgctggtggcactgactgtccaatctcagtc  
ttgggtgactgggatagtggaacaacaaaaacagttgttgaagctcatagagcaacagtcctgaactcttaaaactc  
accatatggggagtaagaatttacagactcgctgaccagtttggaagaattatatcaaggaccaagctttgctg

tctcaatgggggtgttcatggggcacagggtgtgtcatacttctgtagagtggactaatacaagcatcactccaaat  
tggacatcagaaaacttgggaaggaatgggagacaagaactgattatctgcaacaaaacattacagaaatgttaaaa  
caggcatatgatcgagagcaaagaaacacatatgaattacagaagttaggagaccttacatcttgggcaagttgg  
tttgactttacttgggtgggttcaatactttaaagtggggagtttctttagtggttaggaattataggattaagaatt  
ttgttagccttatggaatacaataagtaggttttaggcag

>#29 AF131870 2277 nt

atgcggtgccctgaaatattgataggttttctctttgctgttaggtagtatagcaatacagtatgtaacagtattc  
tatgggactcctaagtgggaaccagcagtagtgccattaatatgtgcttcagctaataatagcttgtgggtgact  
acttcatgcttgccagatttaciaaacttatgcagaagtgcccataacagggttagaagagaattttacagagggga  
ataagcaataatcaaatagtgcagcaagcatggcaagctatgacctctatggttagatgccattatgaagccttgt  
gtaaagatcaatccctattgtgtcaaaatgaagtgtccaccgaaaccgacaactccctcctccaactcaacagtc  
aaaagtagctgtgattattggacgaccaccacggctaagactacaactcagactacaagtagtaccagctccact  
gctagtacaactactccaatgcctctagattggaattgtactgacacagagaacatagcggagagcaataaagta  
tgtaaataatgtgacagggcctttagtagagattgtaaaacggaggtggaacaaaactttagggatacagaagtt  
acttgcaatggtaatgacacatgttatatgacacattgcaatgattcaattattacacaagactgccataagggt  
attatgcaaaatgcttacttcaggcctttagtgacactgcggggtatatgttattaagatgtgatgaaaaattaaat  
gctactaagaaatgtaaaaataaactgctacccttgtactaattatatgacaagtacagtttagtagctttttt  
ggctttaatggaactagacataaggaagatgagtttaataccaatcaataacaaggtaggacaaggggctgagggga  
gaatatgtatggaaagtagcagctaagtgggggttagtaattcagtgcataaggaaaggggaatagggtcacaagta  
agtactataagtagtacaggactgctgttttattatgggcttagagccagggttctaagttaagactggcacagtg  
aaattttagtaggacaatggggaagagcctttagccaccttagggaaactattgaggcaggtggaacctttagctaac  
atgagtaatggctgtacattttagataataaacaagacatgcagatttaccatggtacagattttaaaaagatg  
attaagtttaaaccaatgggagaagcatggagcagatgcagcaacagagatgttgatgatgacttgtggagaagag  
atgttcttttgaatttaacaagaattttcaaagtatggaatgacacaacctccaataaatgggtatccttggggc  
aattggcacataaaaagtgtgatagatgattgggctcagtgggcaagaagatttacttggccccaacatcaggg  
tttaataacagaataagatgtgcaaacagagtgcagaagcatgggtcacactggaaaggggtggaagactggaag  
gtaaatggatcaaacatctcagttgttagccttccagccacctaccaacaccttaaatcaatttgtgagcacagga  
gcacattacaaactagtaagaattaggccaattgggtttagctccaacagatgagcacgggtacgcacccaggaag  
gaaaagagggcagcacctgttggcctaggagccttggcacttctcagtgctgcgggtactgcaatgggcttagta  
tcgacgataactgtccaggcccaagcagtccttgcagggtatattgcagcagcagaagcagttgctggtgctt  
gttgagaagcagcaagagctactaagactcaccatattggggagtgagaatctccaagcacgcctgacagcccta  
gaggagtatgtgcaagaccaaagccttttagcttcttgggggtgtcaatggaaacaagtatgccataactaatgtg  
ccttggaaattataatatcacgcccattggactaaggacacctggatggaatgggataggcaagtaaaaatgtat  
gatgataataaacagctcttctccaggaggcatatgtaacagagttagagaatcaaaaacaagttcaaacagcta  
caagaatttaacttctggagttgggttgacctgtctcaatggtttctatacataaaaatatgcagtcctgattata  
ggcattataatagcagctagaattcttagttttatcatacaacagatctataggatgtgtcaggggatatagggtg  
ttgtccccttctgcttatgttgaacag

>#30 AF075269 2280 nt

atggcatgtccaggattaggaattctgcttttgccttcttggcataatatggggaaaacaatatgtaacagtattt  
tatggggtgccaaattgggatgataatgtttcagtgcccttgatttgtgcttcagccaataactagcctctgggtc  
acgacatcttgccttgccagatttgaatcttatgcagagggtacctatctataatatttcagaaaactttacaata  
ccagtaaaagacaatcaggttatacagcaagcctggtctgctatgaatgctatggttagacagttattatgaaacca  
tgtgtaaaaatcaatccatattgtgtgagaatgcagtggtgggaagttacaaaaacaccaacaacacccaaaa  
actactacacagatgccttgttttatcaacgaacaggtaacagttagaacccggggaatgaaacaagattagag  
gaagatcttaattgcacaagagggccttaatgagaccacagagaggaatgcagaatgccagtataatgtaacaggg  
ttatgcagagactgcaggacggaaataaaaacaagcctttagatatgatgatgtaacgtgctcaggagagaggggag  
aacagaacctgttacatgactcattgtaatgattcaataataacacaagattgtaataagggggtaatgcaaaat  
gcttatttttaggcctttagtgctccagcaggctatatgctattgagatgcaatgaacaattaaacttttagtaaaaa  
tgtgaaaatataacagctacaccatgtactggatatatgcttagtagtgtaagtagtttcttggccttaattgga  
actaatcataccagggatgagcttattccactaactccaataagatggaagatctaattgggtgcaaaagtttgtg  
tataaagtagcaggaaaatgggggttaattatttagatgcataagaaaaggaaatagatcagaagtatccacaatt  
agctctacaggatattttattttattatggcctagaacatggcagcagattaagattagcacagtgtaaaatttgaa  
ggccaatggggaagaatgtttaataatctaggcaaaatgctaaaggagttgaatgcagaagccatgaattataca  
gaagggcagggacatgtgattctaagaaaacaacttgtggacggaaattaaaaggcttaccatagctaatatg  
actaggcatggagcagacttagcaacagagatgttaatgcatacttgtggagaggaaatgttctttttagtaatgta

actaggatattccaagaatggaacaataaaaaattcagataaatggtatccttgggccaactgccacataaaaagc  
atcattgatgattgggctacaataggaaagaagatttatctaccacctacttcagggtttcaacaatagaatcaga  
tgtactcatagagtaacagaaatgttctttgagatggaaaaatgggaaccacatgaggacttaggaggcaaccta  
agtataaagttcttgcctccatcatgggaaactaatcaatttgtggcagaagggctaaatataaattgataaaa  
ttgaatccaattggggttgcctctacagatgagcacaggtacgcacccagggggaaggcaaaccagagcagcgcct  
ctggcttttaggagccttgggacttctcagtgtcgcaggcactgcaatgggcttagtatcgacgataactgtc  
caggcccaagcagtccttgcaagggatattgcagcagcagaagcagttgctgggtgcttgttgagaaacagcaagaa  
ctgttaagactcaccatatggggagtgaagaatctccaagcacgcctgacagcccttgaggagtatgtgaaacat  
caagcgtccttgcctcttgggggtgtcaatggaaacaggtttgtcatactaatgtggagtggacataataatc  
acaccaattggaccaaggatacctggagagaatgggaatcaaaggtagcaatttatgacaagaacattacttct  
ctgttacaagaagcatacaccacagagctagagaatcagaataaatttaagaagttacaagaatttaacttttgg  
agttgggttgatactctcacactgggttacttatgttaagtatgcagtggttaattatacttgaatcatagggtta  
agagtattgagctttataatacaaaatgtagtaaaaatgtgtagggggtatagggtgctctccccctctgtttat  
attgaacaggactacaagtgggagaaagaa

>#31 AF188116 2295 nt

atggcatgtccaggtaacatattgctattgctgctctgcttgggactaacagcaggagaaaaggagaaacaatat  
gtaacagttattctatggagtagcaaaaatgggaagatgctgtagtagcctttaatctgtgcttcagctaataatagc  
ttgtgggtcactacatcttgtctcccagatctgcaatcttatgctcagatccctattcataatattactctaaat  
tttactcaagaaattaaggacaatcaaataatacagcaggcatggggagctatgacgagcatgggtggatgctatt  
atgaagccatgtacaaaaataaatccttattgtgttcgcatgaaatgtacaggggaaggactaggtaagaagaga  
acaacaacaacaacacccaacaacaacacccatgccttgcctttataacagaatctactactactactacaaag  
agttcagggactgaacaaccatctttaatagaagatacaaaattgtacacgatgggttaaattgagactacagaaatt  
aatagggaatgttcatataatgtgacagggctttgtagagattgcaaggaagagataaagcaaaatttttaggtat  
gatgagacaacatgtaattgagaatggtagcttgcacatgacccattgcaatgatagtattattctgcaagactgc  
aataagggagttatgtcaaatgcttatttttaggctttgtgcaccagctggctacatgcttttaaaatgcaatgaa  
aagctaaacttttcagctaattgtactaatataacagctacacatgcacagattacatgataagttcagttagt  
agcttcttttggttttaattggaaccaatcacagaagacgagtttaattccactaactccaaaaaagatgggagat  
cttaattggagctaaatttgtttacaaggtagcaggaaaatggggactaatcattagatgtataagaaaaggaaat  
aggtcagaagtctccacaatcagttcaacaggacttctgttttactatgggttagaacatgggtctagactaaga  
ttggcacaaatgcaaatttgaggggtcaatggggaagaatgtttaacaatttaggaaggatgttaaagaagcttaatt  
gagactgctatgaattataaagaaggaaattgttccacaccaggaaaaccatgtggttagacaattaaagggtcta  
cccatagcaaatatgacgagaagaggagtagatctcgcaacagagatgctcatgcacacttgtgggtgaggaaatg  
ttcttttgtaatgtcacaagaatcttccaggaatggaacaataaaaaactcagataaatggtatccctgggccaat  
tgccacataaaatcaattatagatgattgggcaactgttgggaagaaaatttatcttccctccaacatcaggattt  
aacaatagaataagatgtactcacagagtgcagaaatgtgggttgaaatggaaaaatgggaaccacatgaagac  
ttaggaggaaatctgtctattaagtttttgctccctcatgggagacaaatcaatttgtggcaacaggagctcat  
tacaattgatcagactgagaccaattggctttgctccaacatcagagcatcggtacgcacccagggggaaggcaa  
acaagagcagctccactagctctaggtgccttgggacttctcagtgtcgcaggtagtgcattgggcttagtatcg  
acgataactaactgtccaggcccaagtagtaatacaaggatattgcagcagcagaagcagttgctgggtgcttgtt  
gagaaacagcaagagctgctaagactcaccatctggggagtgaagaatctccaagcacgcctgacagctattgag  
gagtacttgaaagaccaagcactacttgcctcttgggggtgtcagtggaacaagtgtgtcatactaatgtacca  
tggaattataatgttactcctaattggacaagggatacctggatagaatgggaaagacaagttggatctttagaa  
gcaaacatcaccacactgttgcaagaggcttacacaacagagtttagagaataggaataactttaaaaagttacaa  
gatttttaatttttggagttggatggacctcactacttgggttccaatatattaagtatgcagtgcttataatcata  
gggtataataataactaagaattctaagctttatcacaaaagtgtagtgaagatgtgtagggggtatagggttctc  
gccccctctgcttatgttgaacaggacttcaagtgggagaaacgga

>#32 AF188115 2286 nt

atggactgtcttaagctcctacttttcttgccttttttaggagcacaaggggagggcaaagaagcagtatgtaaca  
gtattttatggggtgcctaagtgggaagatgctgtagtgccattaatttgtgcttcagctaataatagcttatgg  
gtcacaacatcatgcctaccagatttacagtccttatgcacagattcctattcacaacataagtttaaatctact  
caagagataaaaagataatcaaatacacagcaagcatggagtgtatgaccagtatgggtggatactatcatgaag  
ccttgtgtaaagataaatccatactgtgtgagaatgaaatgtacagggggagggaataggaccaaaaaacaacca  
tcaccaataggaaaaacaacaacacccatgccttgcctttatagcagaaacaaccacaaccaccaccaaagggaat  
acaactatggaaagtttaatagaggacacaaattgtactagatgggttaaattgagactactgagattaatagagaa  
tgtaaatataatgtaacaggactatgtagggactgtaaagaagaaataaagcagagtttttaggtatgatgagaca

acctgtgataagaatggaacctgttatatgacccactgtaatgatagtattatttcagcaagattgtaataagggga  
gtaatatctaattgcttatttttaggctttgtgcaccagcaggctatatgcttttaaaatgcaatgaaaaattgaat  
ttctcagctaattgtaccaatataacagcaactccttgcacagactatatgattagtagcagtgagtagtttcttt  
ggctttaatggaaccaatcatacagaggataagtttaattccactaactccaaaaagatgggaaatctcctggac  
gcgaagtttgtatataaagtatcaggaaaaatggggactcattatcagatgtattaggaaaggaaacaggctcagaa  
gtctctaccatcagttcaacaggacttctgttttactatggccttggaaacatggtagcaggctgagattggctcag  
tgtaaatttgaaggacaatggggaaggatgtttaataatttagggaaaaatgcttcaaaagcttaatgcaacagca  
atgaattatacaaatggacaatgtcctgagggaaaaacagccttgtggtagacatctaagggttacctatagca  
aatatgacaagacgtggggaaggctcttgcaacagagatgttgatgcatacatgtggagaggaaatgtttttctgc  
aatataacaagaatactccaagaatggaataataaaaaactcagataaatggtatccctgggccaattgccacata  
aaatcagtcatagatgattgggcaactgtagggaagaaaatctatatccctccaacatcaggctttaataacaga  
ataagatgtactcatagagtaacagaaatgtgggttgaactggaaaagtgggagccagaggaaaacctgggggga  
aatttgtctgtcagattcttgccctcctcatgggagacaaatcaatttgtggcaacgggagctcattataaatta  
ataaggattagaccaattggccttctccaacagctgagcaccagtagcaccagtagtaagcagaagagagca  
gcaccgctggctctaggtgccttgggacttctcagtgctgcaggtagtgcattgggcttagtatcgacgatacta  
actgtccaggcccaagtagtaatacaaggatattgcagcagcagaagcagttgctggtgcttgttgagaaacag  
caagagctcttaagactcaccatatggggagtgaagaatctccaagcacgcctgacagctattgaggagtagccta  
aaggaccaagctctgcttgccttctgggggtgtcaatggaaacaaatattgtcactaatgtggaatggaattat  
aatataactcctaattggacaagggatacctggattgagtgggacagacgagttggagtagtagaagcaaatatc  
tccacctgttgcagaagcctataccacagagttagaaaaatagaaatgccttcaagaagctacaggagtttaac  
ttttggagttggttggatattttatcatggttccaatatattaagtatgcagtactaataataataggtattata  
gtgttaagaatagtaagctttattgtgcagaatatagtaaaaaatgtgtaggggatataggggttcttgcacctct  
gcttatgttgaacaggactacaagtgggagaaagga

>#33 AY523867 2172 nt

atgaaactttttaatatcataagtgtagtgttaggtatagtattaaagttaggcatagtagctaggttagaacia  
tatgtcacagtattttatggagttcccaattgggaagatgctcaagtacctatgttttgtgcaaccccccatagc  
ggaggttgggcaacaaagaactgtgtacctcttctgaacagatagaagtcagagttaatattagtggggaatat  
ttcactgctggaattcttcccatggcataagacaacagcttttgcaggacatgtctgatcttttctcctgcaggct  
gataggccttgtgtaaaaattatctcctatgtgtatcagaacgttatgtgtagaggacaaggacagtagtagtgt  
aatcttaccacaacaatcagttccaacaacaacaacaaacaaagcagcaaacaccacctgcatgggtggggggacaac  
tctacagaaaactaggtacaattgttcatttaacatgacaggggggttttaaggataagaaacatcagtataatgca  
ttctttttacaagtcatagatataatgagagaggaaggaaatgaaagttattactatttacagcattgtaatactagt  
gtaatgcgcaatgcttgtgaaaaacagacttttgcgccatttcccatcaatactgtgctccaccgggatactca  
ctgttgaaatgtaatgatacagaatttgaaggagatgctgagtgcaaaatgtaacagcagtttcatgcacacat  
cctttcaacacttttggtagtagcatggtttcagttaaatggcacctataaagcaaaagacaaagttaggtttatt  
agacaaaaggataaaaaatgaatcagtgattatactagtgccagaaaaattaggattacaactgggtgtgtgaaaga  
ccaggaaatgagttcataaaaaacatccaattggcagcaggatttttcttgccagtgattcaaggagagattgaaa  
acagggaaaagctgcgaaaagagcattttgcaaagtc aaaggagaatggggaaagttttttgagcaggtccataat  
gagagtataaaggtgtggaaaaaatgtgacctcaacatcatggaggtcgcaaccacaaggagacctggaagtgaga  
acacattggtttcaatgtggcgggagaatttttttactgcaatgtttcaaagattttttgcaaatgtgtcaaattggc  
tatgtcaatccaagcaattatgcaaaaaatttatatctctcgtgtgccatacgacagattataaaactattggggg  
tatgtaaccaagctaattgtattttgccacctacagaagggcacattaagtgcacttctaataattactgctgtatta  
acagatatagagtactatccaaattcacagttgaattttgcacctactgctaattgtggaagatgtgtggagagct  
gatttattcaattataaaattgattcggattaaacctattggccttgcgcctacaagtcaaaggcgctatgagctg  
cctacgaaaacagaaaagagcagcaccattggcacttgggttctcctgggattactctcggcagcgggtactgcaatg  
gggagcgctgcgacagcgcttacactccagtcacagactttgttggctgggtagtgtagcagcagcagcaaaagttg  
ctggaggctgtagaggcacaacagcacctcttaggcttaacggtctgggggtgtgaaaaaccttaacgcccagctc  
actgctctagagacgtatctcagagaccaagccattatgtcaaattggggatgcgcatttaagcaaaatttgtcac  
acagcagtaacgtggcagcaagcatgtggcaataactctcgttgcaccaacccccaatgggaaaacatgacatgg  
catacatgggaacggcaggtagataatttgacagaccacatagataaatttactgagagaagctcaggagcagcaa  
gagaagaatgtgcatgatcttactaaattacaagaatgggattccctgtggagctgggttggatctgtcgaaatgg  
ttccagtagccttaagataggattctttgccatagcagctatagtgatattaagagtacttagttttgcttggggc  
atagtaagaaatattgttgggaggctattctcctcttttgcagggacttgtaattgcctgggggattcatcagt

>#34 AY655744 2166 nt



atgaaatacttagcagttatTTTTTgcttagcttacttaggaaggtttataataggggaaccagtatgtcaccatc  
tattatggagtaccagtggtgaaaaatgcaacacccccattgTTTTgtgccaccatggcaagggaccaatgggtca  
acatcccaatgCGTCCcatcagatcctcagaatctcgaggtaccagtgaaatctcactgagtacttcgatgtgtat  
aaaaattacatgggtggaccacatagcagaagacatggatagcctctTTTTgacagccacaagaccatgtactaag  
ttaacaccaatattgtgtaaggatgaagtgtgaggacataacaaagaaccttacaatcagtgccaataccacaaca  
ccagccccgacggccatgagcaatagcaatatgccgtgggtggggagacaataacaacagaaccagtatataattgt  
acatggaacatgacaggagcatttagggataagaggtatacctactTTTTctactgggtacctagcagacctaattg  
aaggaaaccaggcaatggatccttctattatgccacaggatgcaatgtgtcagttatagcacaagcttgtgaaaaa  
actcactaccaggcatttctctatacagtactgtgtctccagcaggctttgccctgataaagtgtaatgatagccca  
tggaacaggtagaggaaagtgtcacacatctcagcagtagactgtacagaccctatcaccacaatagcagctacg  
tggttaattctcaatgggacaaaaggaaaaatcacacacaggtcatacatcagggtccaaagaatgaaagtgtctata  
atcctcctaggaaggaacacaacctcacatcacaatgcataagaccaggaaataggacaataaaggacttacag  
atagcagcaggactaatgtttcacagccagataatagcagggaagaacctcaacagggcctattgtgaagctagag  
ggcaattggactaaagccatggaatcggtcaatgaagaaatagcaaaaaggtacaaggagcatatcaacaacaca  
gataaagtgaacatcacatggacggcagtcaggagaggagacctagaggtacaactTTTTctggcatgcatgtcag  
ggagaattcttctattgcaacataagttctatgttcctgaatacttctctatgagtataactacacatcaaaccaa  
ggcaaattacaccaaggggtcataggaaagaagccgaggtcgagtgataggaccaagttctacatgtcatgccaa  
ctgaggcaaatgatcaacaggtggagcaggggtggagaagttaattgtacctcccaccagggaaggacacctgcag  
tgcaaaaagtaacatcacaggattgttggtggatatcaaccaccaccgCGgtctagtgcataacagtagagccc  
tcgtcacagatacgtgactcgtggcgagcagcagttttcacgggtacaaggtgatagagatcgtgcctTTTTgggtat  
gcgcccagaaaatatcagaaggtacgatgggcccgcctaacaagcaaaaaacgagcggccccgctagccttaggcttc  
ataggatttctcagcacagcaggcactgccatgggCGcagtgggcgacagccctgacgggtgcagtcctcgctctttg  
ctgagtgggatagtgcagcagcaggaacacctgctgagggcaattgagcatcagcaaacacctgttacaattaaca  
gtgtggggcatcaagaatctcaatgccCGcctgaccgCGcttgagaaatacttagaggaccagggtaaagctaaat  
tcatgggggtgCGcatggaacagatctgctacacctCGgtaccgtggaacaaaacatgggtcgaattacacagat  
cctcaatggcagaatatgacatggcaagaatgggagatgaaagtagacaatcacacaggggtcatatcacagttg  
ttacaagaagcacaagagcaacaggaaagaaatgtccatgagttgcaaaaagttaaatgactgggacagtcctctgg  
agctggttcaatttgtctgcctgggttagatggcttaggatagcagtaatatgtagtagctagtcttatcttactt  
aggattgtaatgtacatagttaatgtgctcaagttgctcaggcaggggtacttacctcttccgctt

>#35 AY523865 2232 nt

atgaggcttatacagctTTTTgtacttatttttaggggttaatagtgataggtacacaggggaaacagaaaaagcaa  
caatacttgacagtatattatggagtaccagtcctgggtagatgccaaagttgatttgttctgtacagccaactca  
tcagagtcaggatgggcagtgacagcatgcctgccacatgccttagtgagagaagaagtcccaatgccaaatgtg  
acccaaaaactttaatgctTTTTgataacccccatagaggagcagctatggcaggatatgactagtttgtacaaacag  
tcattcaaaccatgtgtaaagctaacaccatattgtgttagcatgcagtgcataaaaaacatcaacaaatccaaca  
ccaacaaacacatcaacaacaacaacaacaatagcaacaacaacaaaaaactacagattgggtcaggggaaaac  
ataacatgacacaatattggaattgttcatttaattgtctcaggtccttatagagataagaaagaaaagagctca  
gcagtatggctagaggatgatatccagtgggcgataataaagatggtagtggaacagaaacaggggtacatgaaa  
cactgtaatgactctgtcatcaccagtccttgtgaaactagccgctttaaactTTTTaagatcaggtagctgtgca  
ccagctggatatgggtctactaagatgtgatgataaaaaTTTTaatggtagcaggggttatgcaacaacgtgactgca  
gtggcatgtacaaatctcatacacacccatggcatccacatgggtacaatttaattgggtctgatgaggagagggca  
gaagagcttcatataataagaaaagaggtaaaaggtgaggtgcagaatggaagcattactataagagtgcccgct  
aaatacaacttgacattaacatgtgtaaggccaggaaataagacctaccgagccatacacatggctacaggtctg  
tcctTTTTatactaccttatacaaaaggctgaggataaagagagcacattgtagactaaacggaagctgggcaaac  
gcaacaaaggaaatgcgacaaaagatattggaatatTTTggaaaggcaaataggacaaataatctgacaatacac  
tacccaaaaggagataggggaagtacaaagtgtctggTTTTcagtgctcatggagaattcttctattgtaacatttcc  
aaagccctagatctcctactcctacaaaataacactagaaatagcacttggtctgacaagtgggtgatgccttgt  
aggataaatcagttagtaaacacttggtatacggtaggggaacatatctatctacctccgaaagaaggagagttg  
aagtgcagctcacacatttctgcatttgttttgatgtagatcactataatgggagtataaccttacaccatca  
gcagacatcaggggcagtatggagagcagacctatttaatataaaatcatagaagtaaaacctataggattcgct  
ccctccgcatgagaaggtacgagggaccggagtcggtaagacacaagagggcagcaggaattgctTTTTggctctg  
gtagcatttctcagtacagcaggtgctgctatgggCGcagcgtcaacagcgtgacgggtacagtcctcgctctttg  
ctgagtgggatagtgcagcaacagcaagagctgttgaaaggctgtggaggctcacgggcagctgttaacattaaca  
gcctggggagtgagaaacctcaacacccgctgactgctatagagaagtacttaaaagaccaagcaaaattaaat  
gaatggggctgCGccttcaaacagatctgtcataccacgggtcccttggaataactctctggaggatccagactgg

gacaatatgacctggcaggagtgggaaatgaaggtagcaaattatacagatgagtgggaaggagctttacagaga  
gcacaagagcagcaggagaggaatgtacatgccctacaatcactacaagattgggactctttatggaattggttt  
gacctgtccagatggttctggtggattagattagtagtatacataatagctgctttaatttgctaagaatagct  
atgtttggagtgaatattggaagtagaggctttgaattactgcaagaaggaatatatagactgtcatttgctctt  
tggcaaagactgagactcttgggggaacgctttagagtgttgggggtacttacag

>#36 AY523866 2175 nt

atgcttagcttattaataataatagcaagtctgacctggttaggggcagcaccaacaaagcaacaatgggtgaca  
gtatattatggagtgcccgatggcacatgccactgttggcttattctgtacagctaatagttcagaatcagga  
tgggctgtgacagcatgcttggcacatgcaatgggttagagaacaagtcctatgcctaattgtgtccagtat  
gactctttttcaaagtgttatggaacaacaattatgggacgacatgactagcttatacagacaatcttttaaacc  
tgtgtaaagttaaccccatattgtgtgcggatgaactgtagtagtacaacaacaacaacagcagcaacaaca  
acaataaaaacaacaactgactggtcaggagagaataagacagtgcacagatttgaattgtaccttcaatggt  
acagggccatatagggacaagaaggaaatgcaaagtgcagtgtggttagaggatgacatacagtgaggagacagaa  
aaccaaacaaataactaacaaaagtataagacatgggtatatgaaccactgcaacaattcagttataacacagtcc  
tgtgaaaccagtcgctttaagccttttaagataagatactgtgcaccagctggatatggtctgttaagatgtgat  
gacagaaactttaatgggtaccggcttgtgtaccaatgtgactgcagtggcatgtacaaatctcatacataccatg  
gcatcaacatggatgcaattcaatgggtcagatgaagaaagggcagaagacatacatatcataaggaagggcctg  
gaaaataagaccattactgtcagaatcccaccaaagtataatctatcttggattgtgttagggccagggaacaag  
acgtatagagctgttcatatggccacagggctatccttttatacaaccttcataccaaggctgaggataaagaga  
gcacattgtaggatgagaggttaattggacaggagcagtttaaggagataaggagcagattaaaggagatatataat  
gtgacaaaaataacagtacactatccaggaggtgatagggaggtacaaaacacgtggtttcaatgccatggagag  
ttctttttattgtaatgtttccaaagcatttaactctgctcatgaataaaactaataacataacctggagtaataac  
actttgatgccttgaagattaatcaattggtaaacacatgggtcaaggtaggacaacatgtatatattgcctcca  
aaggaaggagaattgaagtgtcattcttctgtttctgcacttggttttgaggtagctcattatgggcaaacatg  
aacataacaccctcctcagatattaaggcagtttggagggcagatctatacaagtataagatcatagaagttaaa  
cccatcgggatggcccctacaagtataagaaggtacgagggaccggagtctgcaagacaaaaaagggcgggcgga  
attgcttttggctctagtggcttttctgagtacagcaggtgctgctatgggcgcagcgtcaacagcgtgacggta  
cagtcgccgctctttgctgagtgggatagtgacagcaacagcaagagctgttgaaggctgtggaggctcacgggcat  
ctgttgtcactaacagcatggggagtgagaaacctcaacacccgcctgactgctatagaaaagtacctaaaagat  
cagagcaagttaaatgaatggggatgtgcctttaacaaaatctgtcacactacgggtcccttggaaaccatacatgg  
ggagaacctgattggaataatatgacctggcaagagtgggaaaggaaagtagcaaactatacagatgaatgggaa  
ggagccttacagagagcagaggaacaacaagagagaaaatgtgcatgccttacagtcaactgactgattgggattca  
ttatggaattggtttgacctatccagatggttctggtggattagattagtagtgtatataatagcagctttgata  
ttgcttaggatagcaatgtttggggtaatatcgggactaagagagggctttgagctcctgcaagaaacaatatat  
agactttcatttgcattttggcaaagactgagactcttgggggaacatttaagagtgggtctgggggttattgtcaa

>#37 FJ919724 2127 nt

atgcttgctttcatattagctattatagtaattatcttaggacaaaagacagaacaggttagccagcaacaacag  
tatgtgacagtattttatggggttccagtttggaaaaatgcctcagtggttattgttttgcacagcaaatggttca  
gagtcaggatgggcagtgacagcctgcctaccacactccgtgataagagaacaggtacacatgccaaatgtatca  
cagtactttgatgcattcaagaatcccatagaagaccaattatgggaagatatgacaggggtatataaaacaaca  
tacagaccctgtgtaaagttaacaccttattgtgtaaagatgcggtgtgaagactgaaacaaccctaacaac  
ctaacaactccaaagacaacaactgattggagtggagaaaacaacaccatgtcacaatattggaattgctctttc  
aatgtctcaggtccatatagagataagaaagaagagggacatgccatgtggctaacagatgatctggaatgggca  
aatggaaatgagacaggggatactaggggagcttatatgaggtattgcaacaggtctgtaataactcaagcctgt  
gacaaaagtcactttaaacctttcaaaaataaggtactgtgcaccagctggatatggtctaattgagatgtgatgac  
aaaaatttcaatgggtacaggactttgtaccaatgtgtctgcagtggcatgtacaaacttaatacacacaatggca  
tccacctggttacagttcaatgggtcagatgaggaaagagcagaagaaattcatgtcataagaaagggctcttgaa  
aataagacaataacaattaggattcctcccaggtacaacctccgttttagactgtgtccgtccaggtaataagaca  
tatagagcaactcacatggccacaggattatcatttttacacaacctttgtagaaaggctaaggatcaaaagagca  
cattgcagaatgcgaggttaattggagtggcgagtttctgacataaaaacaagtatttaaagggcataatataatgtt  
actaacataacaatgcattacccaggaggagatagagaggtacaaagggtatggttccaatgccatggagaatat  
ttttattgcaatgtcagtaaggcctatcaacttttcaccaatgacaccataacatggagtaacaacactttgatg  
cctgcaaaattaatcaattggtaaacacctgggtacaagatagggcagcatatatacttggccaccaagagaaggg  
gagttgaggtgtgactcacatgtttctgcaataatttttgatgtggctcactatggacacatgttgaatttgacc  
ccatcatcagatattaaggcagtggtggagagcagatctgtataagtacaaaatcatagaagtgacagccaataggc

tttgcacctactgctgtcagacgctacgagggaccagagtctgtgagacaaaaagagcagtggggaatggcttta  
ggctctagtggcattttctcagcacagcaggtgctgctatgggcgcggtccacagcgctgacggtacagtcctcgc  
tctttgctgagcgggatagtgacagcagcaacaagagttgctgaaggctgttgaggctcacgggcacctgttaaca  
ttgacagcgctggggagtgaaaaacctcaatacccgctgaccgcttgagaaatacctaaaggaccaagcaag  
ttgaatgagtggggatgtgcttttaaacagatctgccacaccacagtgcccttggaatggatcaataggacaacca  
gattggaataacatgacatggcaggaatgggaacagaaggtagcaaaactacacagatatatgggaagaagcatta  
cagaaagcacaggaaaaacaggagcagaacgtacatgccctacagtcactacaagattgggactccttgtggaat  
tggtttgacctatccaggtgggttctgggtggattagaatagtggtgtatgtaatagcaggattagtagttaga  
ataataatgttttagtagtaaatataattagtcctgagccttgctatttggactttgctacaaagacttggggaaca  
ctaagagtactttggggatacttgcaa

>#38 AF208027 2250 nt

atggcatatcttggcaatcagctgcttatcgcaaccttrctcttaagtacttatgggttctattgtaccaaatat  
gtcactgttttttatggcatacccgcatggaggaacgcgagcgtagcctctcttctgtgcaacaaaaatagggac  
acatggggcactacacagtgccctcctgataatgatgattacagtgaaactagcattgaatgtaacagaagctttt  
gatgcctgggataaacacagtaacagaacaggcagtagaagatgtttggaatctgtttgagacatctacaaaacct  
tgtgttaaattaacacctctgtgcattgccatgagatgcaataaaactgagacaaacaaatggggctaacaggg  
accaccactgtaacccctgcaacagttcccacaactaaaatgggtgacagctgaactagtgaatagcactagccag  
tgcttaatgtacgataattgtacaggtatacagtcagaatccatgggtggctgcaaatttaacatgacagggcta  
aaaagggatcagagaaaggaatacaatgagacttgggtattcacaagatttgcaatgygaacagtcctaataagagt  
gagaatgagagtagatgctatatgagggcactgtaatacatcagtcattcaggaatcatgtgataaacattattgg  
gatgctataagatttagatatattgtgctccgccaggggttggcttggctaagatgtaatgataactaactattcagga  
tttgcacctaatgtctctaaagtagtggtctctacatgtacaagaatgatggaaacacaaacctctacatgggtc  
gggtttaatggaacaagggcagaaaaatagaacatatatctattggcatgggagagacaataggactataataagt  
ttaaataagtattataatttaacaataaratgtaggagaccaggggaataaaacagtagttaccaattactattatg  
tcagggctagtcttccactctcaaccaatcaatgaaagaccagacagggcttgggtgttgggttggaggcaaatgg  
aaggaagccatgcaggaggtaaaggaaaccgtgggtcaagcaccacagctataaaggaacaaatgacacaaagaam  
ataacctttacaacaccaggagaaggttcagatccagaagtaaagttcatgtggactaattgcagaggagaattc  
ttgtattgtaaaatgacttgggttctaaattggatagaggacagaaatatgactctcctaaagccccaggaacga  
caaagacgcaattatgtaccctgccatattaggcagataattaacacatggcacaaagtaggaaaaaatgtgtac  
ttgccccccagagaaggtgatctgacgtgtaattcaacagtcaccagcctaataagcgaatatagaagagaatagg  
tctaacaaccatacaaatatcattttcagtgacagaggtggcagaactgtatcgattagaattgggggattataaa  
ttagtagaaataactccaattggctttgcaccacaaatgtaaagagatatcctctgtgacaccgaaaaataaa  
agaggtgtatttgtgctaggggttttgggatttcttgcaatggcaggttctgcaatgggcacagcgctgttgacg  
ctgtcggctcagtcccggactttgttggctgggatagtgacgaacacagcagctgttggatgtgggtcaagaga  
caacaggaaatgttgcgactgaccgtctgggggacgaaaaacctccagactagagtcactgccatcgagaaatat  
ctaaaggaccaggcagggctaaattcatggggatgtgctgttagacaggtctgccacactactgtaccttgggat  
gcccttgggtgctaataaaaacattggagccacaatggaataatatgacatggcaagaatgggaaaagcagatcaac  
tttttggaggacaacatcacacggctattagaagaagcacaattcagcaagaaaaaatatgtatgagttacag  
aaattaaatagctgggatgtatttggcaattgggttgacctaacctcctgggttaaatacgtttacttaggcctt  
tatgtagtggcaggagtaatagtggttaagaatagtcatatatgtagtacaataactaggaagacttaggcaagg  
tataggcctgttityttcttccccctccctcttatgttcagcaggaacatctccggctagaagcagcttatttcagc

>#39 M30502 2172 nt

atggagcctggttaggaatcagctgtttgttgcattttactaacaagtgttgccttagtatattgtagccagtat  
gtgactgttttctatggcatacccgctggaaaaatgcatctattcccttattttgtgcaactaaaaatagagac  
acttgggggaccatacagtgcttgccagacaatgatgattatcaggaaataattttaaatgtgacagaggctttt  
gatgcatggaataatacagtgacagaacaagcagtagaagatgtctggcatctatttgagacatcaataaaacca  
tgtgtcaagctaacacctctatgtgtggcaatgaattgttagcaggggtcaagggaataccacgacccccgaatccc  
aggacctcgagttccacaacctcgagaccaccacatccgcagcctccataataaatgaaacttctaactgcata  
gaaaacaacacatgcgaggattagggatagaggagatgatgcaatgtgagttcaatatgaaggggttagaaca  
gataagaaaaggaggtataaggacacatggtatttagaagatgtgggttgtgacaacacaacagctggcacatgt  
tacatgagacattgcaacacatcaatcatcaaagagtcagtgtgataagcactattgggatgctatgaggtttaga  
tactgtgcaccaccgggctttgccctattaagatgtaatgataccaactattcaggccttgaacctaaagtgcact  
aaagtagtagctgttcatgcacaaggatgatggaaacgcaacttctacttgggttggctttaatggcactaga  
gcagaaaaatagaacatatatctattggcatggcagagataataggactatcattagcttaacaagattataat  
ctcacaatgcgttgaagagaccaggaaataagacagttttaccaataacacttatgtcaggattagtggttcac

tctcagccaatcaacacaaggcctaggcaggcatgggtgccggtttggaggcagatggaggggaagccatgcaggag  
gtgaagcaaacccttgtacaacatcccagatacaaaggaatcaatgatacagggaaaattaactttacgaaaccg  
ggagcaggctcagacccggaagtggcattttatgtggactaactgcagaggagaatttctctactgtaacatgact  
tggttcctcaattgggtagaagacaagaaccaaacacggcgcaactattgccatataaagcagataattaatacc  
tggcataaagttagggaaaaatgtatatttgccctcctaggggaaggggagttggcctgtgaatcaacagtaaccagc  
ataattgctaacattgacatagataaaaaatcggactcataccaacattaccttttagtgcagaagtggcagaactg  
taccgattagaactgggagactacaaattaatagaaataaacaccaattggccttcgcacctacagatcagagaagg  
tactcctcaactccagtgaggaacaaaagaggtgtgttcgtgctaggggttcttgggttttctcgcgacagcaggt  
tctgcaatgggcgcgcggtccctgacgctgtcagcccagtcgccgactttactggccgggatagtgcagcaacag  
caacagctgttggacgtagtcaagagacaacaagaaatgttgcgactgaccgtctggggaacgaaaaacctccag  
gcaagagtcactgctatcgagaagtacctaagcatcaggcacagctaaattcatggggatgtgctgttagacag  
gtctgccacactactgtaccgtgggtaaatgactctttatcgccctgactggaaaaatatgacatggcaggagtgg  
gagaaacaagtccgctacctagaggcaaatatcagtc aaagttagaagaagcccaattcaacaagaaaagaat  
atgtatgaattacaaaaattaaatagctgggatattcttggcaactggtttgacttaacctcctgggtcaagtat  
attcaatatggagtgcataatagtagtgggaataatagctttaagaatagcaatctatgtagtgcaattgttaagt  
agatttagaaaagggtataggcctgttttctctcccccccccggttatctccaacaggcgcccaactgcaa

>#40 AF082339 2166 nt

atgatgtctagtagaaatcagctgcttgttactatcttactagctagtgtgctttagtatattgtaaacaatat  
gtgactgttttttatggcgtgccagcatggaaaaatgcatccattcccctcttttgtgcaacaaaaatagagat  
acttgggggaaccatacagtgcttaccagacaatgatgattatcaggaaatagctttgaatgtgacagaggctttc  
gatgcatgggataatacagtaacagaacaagcagtagaagatgtctggagactatttgagacatcaataaaacca  
tgtgtcaagttaacacctttatgtatagcaatgaagtgttagcaacataagcacagagagcacaccacatccccg  
agcccaggggagcacactcaaaccctgataaatgagagcgatccatgcataaaggcagacaactgcccagggga  
ctaggggatgaagagatgggtcaattgtcggttcaacatgacaggattacagagagataagccaaaacagtataat  
gaaacatggtactcaaaagatgtgggtttgtgaaccatttaacaccaccacaaaaccagaccaggtgttacatgaac  
cattgcaacacatcagtcacacagagtcagtgataagcactattgggatgtctataagggttttagatactgtgca  
ccacctgggttacgccctactaagatgcgatgatatcaattattcagggtttgcacccaattgctctaaagtagta  
gctgctacatgcacaaggatgatggagacgcaaacttctacttgggtttggctttaatggcactagggcagaaaaat  
agaacatatatctattggcatggtagagataatagaactatcatcagcttaaacaaaacattataatcttactatg  
cattgtgaagaggccaggaaataagacagttgtaccaataacacttatgtcagggttaatatcttactcccagcca  
atcaataaaaagaccagacaagcatgggtgctggttcaaaggcgaatggaggaaagccatgcaggaggtgaaggaa  
acccttgtaaaacatcccagggtataaaggaaccaatgacacaaaaccaaattaactttacaaaaccaggaagaggc  
tcagatgcagaagtgggtatatatgtggactaactgcagaggagaatttctccattgcaacatgacttgggttctc  
aattgggtggaaaacaaaacgggtcaggaacagcacaattatgcaccgtgccatataaagcaaataattaatatc  
tggcacaagcagggaaaaatgtatatttgccctcctaggggaaggagagttgacctgcaactcaacagtaaccagc  
ttgattgctaacattgacacggatggcaaccagacaaaatattaccttttagtgcagagggtggcagaactataccga  
ttagaattgggggattataaattagtagagataacaccaattggcttcgcacctacatcagaaaggagatactcc  
tctactccaaggaggaataaaaagaggtgtgttcgtgctaggggttcttaggttttctcgcgacagcaggttctgca  
atgggcacggcagctttaacgctgtctgctcagtcctcgactttattggccgggatagtgcagcaacagcaacag  
ctgttggacgtggtcaagagacaacaggaaatgttgcgactgaccgtctggggaacgaaaaatctccaggcaaga  
gtcactgctatcgagaaatacttaaggaccaggcgcggttaaattcatggggatgtgcatthtagacaagtctgc  
cacactactgtaccatgggtaaaataactccttaaaacctgattgggacaacatgacgtggcaagagtgggaacaa  
caagtccgttacctagaggcaaatatcagtgaaacagttagaacgggcacaaattcagcaagaaaagaatacgtat  
gaactacaaaaattaaatagctgggatgtttttaccaactggcttgacttaaccgctgggtcaagtatatattcaa  
tatggagtttatataatagtaggaatagtagctcttagaatagtaatatatgtagtgcaaatgttaagtagactc  
aggaagggtataggcctgttttctcctccccctcccggttacatccaacaggcgacctacctgcag

>#41 U27200 2148 nt

atggcacatgttaataattacctacttgttacactcctgcttataagtatctatgggtatatgggcaagaacttt  
gtcactgtcttctatgggtataaccgcagtggaataatgcatcaattcccctcttttgtgctaccagaaacagagat  
acctgggggaactgtacaatgcctcccagataatgatgactataccgaaatccaattaaatataacagaggctttt  
gatgcatgggataatacagtgacagatcaggcaacaaaggatgtgtggagtctctttgagacctcaataaaacca  
tgtgttaaaataaccccactgtgtgtgacaatgaagtgttaataagacgtggagctcagctagcaaaagagaccact  
acgtcctccgcgtccctcagatcttctactcagaccctactcaacgaagatagcaaatgtattcaaaatgacagc  
tgtgcagggataggactagaagaaatgatagactgtcaattcaaaatgacaggattaaaaagagatgagtcaaaa  
caatataaggacacctgggtataaacaagatttagtgtgtgaaaaggggacaaggagtaatgaaagcaaatgttat

ataaaaacctgtaatacatcaattatccaagaatcatgtgacaaacattattgggatagtttaagatttaggtat  
tgtgctccccaggatttgctttgctaagatgcaatgatactaaatattcaggcttcatgccaactgtagtaag  
gtagtagtatctctgtacagaatgatggaaacacagacctctacatggtttggttcaatggtacaagggcagaa  
aacaggacatatatctattggcatggttaaagacaataggactatcataagcttaaattcatattataatctgaca  
atgcaactgtaaaagggcaggaacaaaatgggtgtgccaataagaaccgtgtcaggtattctctccattcacag  
cctatcaataaaaagacctaaacaagcttggtgctgggttaaaggaaactggacagaagccatacaggaggtgaaa  
gagaccattaaaaatcatcccagatatcaggaacaacaaatatctcacagataaggttagcagagcacgcgaga  
agctcagatccagaagtaagatatatgtggactaactgtaggggagaggttctctactgtaatatgacttttttc  
ttaaactgggtagaaaatagaactgggctcaagagaaattatgcgatgacacatcagacagatagtcacacg  
tggcacaagattggaagaaatgtgtatttgctccaagagaggggtgaactctcctgtaattccactgttaccagc  
ctcatagccaacattgactggatagataagaaccttactaatattactgtgagtgacagaagtgtcagaactgtat  
aaattggaactgggggactacaaattagtagagataacaccaattggcttgcacctacaagtataaaaagatat  
tcctcagtgcaccgaggaataaaaagaggtgtacttgtgctaggggttttgggattccttgcgacggcaggttct  
gcaatgggcgcggtccttgacgttgctcggtcagtcctcgacttactggctgggatagtgacagcagcagcaa  
cagctcgtggacgtgggtcaaaagacaacaagaactgttgcggtgacctctgggggacgaaaaacctccaggca  
agagtcactgccatcgagaaatatctcaaagaccaggcacaactaaattcatggggatgtgctttcagacaggtc  
tgtcacacgactgtaccatgggtaaatgaatcccttaagccagactggaataacatgacatggcaacaatgggag  
aggcaagtcgcttcttggatgcaaatatacaaaaattactagaagaggcacagatacaacaagaaaagaacatg  
tatgagttacagaaattaaatcaatgggatattttcagtaattgggttgacttcacctcctggatggcatacatc  
agggttaggattatatatagtaatataggaatagtagtattaagaatagcaatatacattatacagatgctagcaagg  
cttaggaagggctataggccagttattctctccctccctcttatact

>#42 KP004991 2334 nt

ccactgtaygcaacagtctattatggggccttctgtatggagagatgcacaaactacattattctgtgcagcagat  
gcaaaaatggcaagctcagagatgcataatgtatgggckacacaagcatgtgttccacagacccacarccaata  
gaactgaaactaaccaatgtgacagagacctttaacatytgaaaagtggatggttagagcaaatgcaggaggat  
attattagcttatgggaccaaagtttaaagccmtgtgtcaagttaacagtcattgtgtgtgacatgaattgcakc  
cgawttacccttaayacgacaacccatagccttaacatgacaggtccagcccctaggacaagtamtccaaccact  
agcagccataacatgacaagtaactccaaacattccagagctagaagtttacaactgtacttttaatgtcaccaca  
gtattgaaaagataaaaaaagtcaacaacaggcggttgttttacagagaagacttatctcagataggtgatracaac  
agcacctataggtctgattaactgtaatacttctaccatctctcaagcttgtcccaaagtgtcctttgagccattg  
ccaatacagttattgtgcaccggcagggctatgctttaatgaaatgtaaccaagcaagtttaatggggacagggaca  
tgtaatgagactttaataactcactgtacacatgggattagaccgacagtggtcaacacaattcatcttcaatggg  
acgttagaaaaggaactcctgatgctaagtaaaaacatttcagacagtggaaaaaacaattatagttaaagttaaaa  
aaggcagtaacattcaagtggtgaaaggacaggggaacaacacgcgaggggcaattcagatagggcccatgacaatt  
tacaattcagaaaacattgtgggcaaaaaccaggaaagcctattgtgcatataatagaacagaatgggaacaggct  
ctgaaaaccatcagtgaagcctttgcaaagttagagaatgtgacaaaggtacagtggaagaacagttcaggaggt  
gatctagaggttagcaatgctgcattttaattgccatgggtgagttcttttattgcaacaccacgacaatgtttaat  
tatacttacaattgtagccaccatagctgtaaagctcaatcaaagaacatttcagagggcagcggggactcgtat  
attccctgtaaattgaaacaagtagtaaatcatggatgagagtaggatcaggtctttttgccccacctatacgg  
ggaactctcaaatgtatgtcaaatataacaggtttactactagaaagagatgtcccattkaacataackgccact  
racagaaaataactctcagaccaacggggggagaaatgaaagatatatggagaagtgaactatacccatacaag  
gtggtgcaagtcaaagcattatctgtggcaccacaaaagataaaaagaccataattgggtctgaacagagaaaaa  
agaggagcaggactaggaatgctattccttggattcatgagtgacaggaagcactatgggcgagcatctctg  
acgtgacgggtacaggccaagcaattattgcatgggtatagtgaacagcaaaaataacatgctgagagctatagca  
gcccagcaggaattgctgaggctctctgtatggggcatttagacagctccgagctcgctgctagctatagaaacg  
tatctaagggtacagcagctcctaggactgtggggatgtgcagggaaattgrtttggtataactaatgtgccatgg  
aataaacttgactaataaaaagtratacagaattagagcacatytgggagaacctaacatggcaggaatgggac  
aaactrgttgacaattacactgawgacatcttctcaagatacagsaggcgaacacacaacaagaggttaatgaa  
agaagttactagagtttagacaaatgggcagacttgtggagttgggttgacataactaaatggctgtggtacata  
aaaatagctataatgatagtagragctttaataggactaagagttgtcatggtagtgcttagtttagtaaagaac  
attaggaagggtatatcaacctctctcggttacaggaagcttgcaaaacacttaaggctacagcacaaatattggcta  
caagaattgcaagaagcrctactaacttactagatactgttgcaagtggcagttgccaattggactgacagcatt  
atcttaggtgtgcagagattcgggaaggggaattcttaacatcccaagaagaataagacaaggggttagaactcagt  
ttattgtaa

>#43 FJ424866 2292 nt

gctacgcattatgctactgtgtattatggagtgccagctctggcgagaggcaaagtgaactttattctgtgcagca  
gatgctaattatgtgagcaaagaacaacacaatatatttgggcaacgcaggcatgtgtgcctaccgacccaaggcca  
acagagtttccattggaaaatgtaacagaaaccttttaatatctggaaaaattacatggtagatcaaagcaggat  
gatatagtttagcttatgggatcagagcttaaagccttgtgtaaaactaacagttatgtgtgtcactctgaattgt  
acacaactaaataacaacaaatacaacacagactgagatgacaaatacaactataaccaccacatacaactatacca  
ccacacatcccacagtttagacatttacaactgtagcttttaattgttaccacggttctaaaagataagacaacaaag  
cagcaagctttattttatagacaagatatataatagaacaggtgaaacaggtacaaatgggatcaaaggggtataga  
ttaatcaattgtaatacctctactatatcgcaagcttgtcccaaagtctcctttgagccactacctatacagtat  
tgtgcaccagcaggctatgccctgatgaaatgtaatgatatacaatttaattggtacaggagaatgcagaaacgtg  
tcaatagttcattgtacccatgggatcaggccaacagctctccacacagttgatactcaatggaacttttagcagaa  
gggaatgccacaataatcagcaaaaatagtagtgatagtggaagaatattatagtcaaaactagccagaccagta  
gaaattacctgtgaaaggacaggtaataatacaagaggacagatccaaatagggcccatgacaatttataactca  
gaaaacatagtaggaacacacaagaaaggctttttgcaagtataatgagacaaaactggcaggggtgcgttgaaagac  
acagtgccaggctctcaacgagagcctgatccacttccggaattcttcaggaggagatccagaagttacctttctg  
cattttaattgtcatggagaatttttctactgtaataccactaaaatgttttagctacaattgcacaacagaggggt  
tgcaataccactgaaacaagcaataccactgaaacaactaaatatattccttgccatctaaaacaggtagtcagg  
tcttggtatgagagtaggctcaggcctatttgctccgcctatttaggggaactctaagatgtatatctaacattaca  
ggaataatattacaaagggatgcacccctaaaaactgatgagaacagcaccttaagaccaataggaggtgacatg  
acaaacatttggaggagtgaactgtacccctacaaggtgggtgaggggtcaaggcattgactgtggcaccacaacaaa  
gcaaagaggcctgttatttggccataacagggaacacgtgcagcaggcctgggaatgctgtttcttgggttcattg  
agtgcagcaggaagcacgatggggcgagcggcagtaacgctgacgggtacaggccaggcaagtccttgcatgggtatc  
gtgcagcagcaaaaacaacatgctgagagctatagcagctcagcaagaattgctgagactctctgtttggggcata  
agacagctccgagctcgctgctagccatagaaacctacctaagagaccagcagctcctaggactgtggggatgc  
acagggagattaatttgttacactaatgtgccatggaacaagacctggaccgggaaaaatgacactgaactagat  
gacatttggggaaacatgacttggcaacaatgggacaaattggtagacaactacactgacacaatatatttttagaa  
atacaaaagggcacaggaacagcaggaggctaataaaaaaggccctactagagttggataaatgggcagatccttgg  
agttggcttgacataacacaatggctatggtatataaaaaatattcataataataatagcaggggctagtaggacta  
agaattctaattggctataataaataatgtgtcacaggggttaggcaggggttactcacctctgtcatttcagttagca  
agagactgctttgctttttattgcttactggggacaagaacttaagcaaaagtgtattagcttgctagactgtgtt  
gctgtatggaccgctaattggactgatcaagtaatagcaatagctcaaagaataggtaggggcatcttaaacata  
cccagaaggattagacaaggattagaaaagaagcctattataa

>#44 KP004990 2352 nt

actggaagctatgttatgggtacacgttatgtcactgtatattatggagtgccagtggtggaggggaagccaaaact  
acattattctgtgcagcagatgcaaaccctagctagcaagagcagcacaatatatttggggccactcaagcctgtgtg  
cctacagaccctactccaataaagggtcaagctaaatatatcagaaccctataacatttgggaaaattatatagta  
aagcaaatgcaaaaaaacatcattagcttattaatatcagagcttaaaaccttgtgttaagctaacagtcataatgt  
gttacaataaattgtagtaagtttaaaaccagctactaccaatacaactagtgcaccaattaacgctagtctacaa  
agtagcactactgcacaaaataacctaactttttataactgttcttttaattgtaactacagtgctaaaagataaaa  
aaagaaaaagaagcaagctctcttctataaagaaaaccttgtaccacttaatcaaacatctaagaaaaaactatat  
aggctaattaattgtaacactactacaattacgcaagcctgtccaaaagtgtcttttaaacattaccaatacag  
tattgtgcaccagcaaaaatatgcattaataaaatgtaaacaaaaagggttttaatrgtacarractttgcaatraa  
acagtaataacacattgcacacatggaattagaccaactgtgtccacacagttaatattttaatggaagtttagca  
gaagaagaggctctagtgtatgtcaaaagatgttacggccactgggaaaaacatcataataaaaattaagtacagga  
gtaaacataacgtgtatcagaacaggtaataatacaagaggacaaacacaaataggacccatgacctggtataat  
agtgtgaattatataggtaatatcaggagggccttattgccagggtggaggaaacagactggaaggggaattttgaaa  
aatgttagcaaagctctcataaaacggttacaatggcaaggtaaatgaaaccatacgttttgagtttaagaacgct  
tctgggggagaccagagggttacacacctgcacttcaattgtcatggggagtttttttattgtaatacctctaaa  
ctcttcaactatacctatgtctgtaatcagacagatcaaggtaatgctaattattcctgtcatagtactagtaca  
ttagaaaatggaaccttagtaataccctgcaatttaaggcaggtagttaattcatggatgagagtgaggatcagga  
ctttttgcaaccacctgtcccggaagcctaactgtccactccaatatcacaggtctaattccttcaaagggactgg  
ccactaaacaataatacgaactactattttgaggcctgaaggaggagacatgaaagacatctggagaagttagcta  
tatccatataaaggtagtccaagtaaaagctttggctgtggcacctacaaaaatctccagaccaacaattatggca  
cagactcatcagagggaaaaaagaggagcaggcctcggaatgctattccttgggttcattgagtgagcaggaagc  
acgatggggcgagcggcagtaacgctgacgggtacaagccaagcaattattgcatgggtatagtgcaacagcagaat  
aatctgtcagagcgatagaggcacagcaagaattgctgaggctctctgtgtggggcataagacagctccgagct

cgcttgcttgccattgagacctacttaagggatcagcagctcctaggcctgtggggatgtacaggacaaatagtc  
tgctataccaatgtgccatggaatcaaacctggactggtaggaatgacactgaattagatagcattttggaacaag  
ttgacatggcaggaatgggataaattagtagataattacactgacaccattttttagagatacaaaaagcaaat  
gaacaacagaaagaaaatgagaaaaaactggttagagtttagaccaatggacacagctgtggagctgggttgacata  
acaaaatggttatggtacataaaaaattttcatcatgatagtaggaggcctcatagggtaaaatttttgctagct  
ataattaacatagttaaaagagtcaggcagggatactcacctttgtcattacagtgttgagagactgcttggct  
gtgtgtggctatttgggcacaagaactacaacagagtgcacttagcttatttggacactgttgctgtgagagttgct  
gactggactgaccaagtgatcctagtagggcaacgaataggagagggcatcttgaacataccaagaagacttaga  
caaggactagagaggagcttgctataa

>#45 KP004989 2430 nt

atgaaggatatgacagtaatgaagaagaagaagagcagcttaggaaactggggaatttgcttggctttgataata  
tactttaatgctatcagttatgttaattgcacacrttatgttactgtatattatggagttccagtttggcaagat  
gctaagactaccttgttttgtgcagcagatgcagatctagctagcaaagagcagcataatatttgggccacacaa  
gcctgtgtgcccctagatccaacaccaatagagcttaagttgaatatcacagagtcctttaatatatttgggaaaat  
tatatggttagagcaaatgcargaggacatcgttagtttatgggatcagagtttaaagccttgtgttaaattgaca  
tttctttgtgtcactatgaattgtagtgagtataaaggttataattgttctacagaagggaacacacacagctgca  
ccatgcaatacaaccgaaaacactacaaaagagaacagcacaggaatgttgacctgtaattttaatgtgactaca  
gtattaaaagataaaaaggaacagaaacaggcactcttctatagagaagacctagcaagcttagaaagcaataat  
agttatagactaattaattgcaatagttctaccatcacacaagcatgtccaaaagtgtcttttgagccactacca  
atacaatactgtgcaccagcagggtagcactaatgaaatgcaacaggacagactttaatggcacaggaacttgt  
aatgagacatctatagtagcactgcacacatggaatcaggccaacagtttcaaccagtttagtgctcaatggaact  
ctagcaaaaaggaaaaccttttagtaattactaagaatgtctcgggagactggagcgcctatcatagtgaattgagt  
gcaagtactgcgataacctgtataagacctggtaataataaccaggggagaagttcaattaggacccatgacatgg  
tacaacatgagacactacataggcgatatcagaaaagcacattgcactgtctctcggggaaaattggacaaaggtc  
ctacaaaatgtcagtgagctctctgggaagcctatccagcagagtggaaaaaataaaacacaagataaaaatcac  
acaatactatttagggcaagctctggaggagaccagaagttgcttcttgcacttcaattgtcatggggaattc  
ttttattgcaacacctctgcactgtttaaccatagctgtacaaaagaatatgacaaagaacgaatggatatgtaca  
ccaaacaatgccactggcacattaagattaccttgaggctaaaacaggtagtgaactcatggatgagagtrggg  
tcaggcttgtttgcccacctatcccaggaagtttaacctgtaaatctaacatcacaggtatactgttggagaga  
gaccttcctctgggaaatatgaccaacaccaccttaagaccataggaggggacatgaaaaatatattggagaagt  
gaattgtacccctacaaggtggtccaagtaaaagcttttaggggtggcacctacaaaaatctccagaccacaatt  
atgggtcctcacagagaaaaaagaggagcaggcctgggaatgctattccttgggtttctgagtgcagcaggaagc  
actatgggcgagcggcagtcacgctgacggtacaggccaagcaattattgcatggtatagtgcaacagcagaat  
aatctgctaagagcaatacaggcacagcaagaactgctgaggctttctgtatggggcataagacagctccgagct  
cgcttgcttgccattgaaacctacctaagagatcagcaactccttaggcctgtggggatgttcaggaaaaattagta  
tgttatactaattgtgccatggcagaaaaattggacgacttaccaaagtgcagtcgaattagatgctatttgggat  
aatttaacatggcaggaatgggacaaacaggtaaacaattacactgatctaatttttcttgaaatacaaatagca  
caggaacagcaagaacagaatcagaagaaattgttagaattggaccaatgggcacagttgtggagctggttggac  
ataacacagtggttgtggtacataaaagatttttatcatgatagtaggagggccttataggactaaggatttttata  
gctgtagttaattgtagttaagagagtcaggcagggatactcacctttgtcattgcagtggtgtgagagactgcttg  
gctgtgtgtggctactgggtgcaagaattacaacgcagtgcaaccaatctgttggacactactgcagtggcagtt  
gctgaatggactgatcaagtgatcttaataggggcaagaataggagaggtatactgaacatacccagragaat  
agacaagggttagagagaagtttactctaa

>#46 FJ424863 2277 nt

gctacgcattatgctactgtgtattatggagtgccagctctggcaagaggcaaatgtaactttattctgtgcagca  
gatgctaattatgtgagccaggaacaacacaatatatgggcaacgcaggcatgtgtgcctaccgacccaagcca  
atagagtttccattggaaartgtaacagagacctttgatatctggaacaataacatggttagatcaaatgcaggat  
gatataattagcttatgggatcagagcttaaagccttgtgtaaaactaacagttatgtgtgtcactttgaattgt  
acaaagacaacagagacgacaacrcagacaaatryaacaatacaactataccaccatacatcccacagtttagac  
atttacaactgtagctttaatgttaccacggttctaaaagataagaaaacaaagcagcaagccttattttataag  
caagatataataaaaaacagatgagacgaatgagaccaaagagtatagtgagtataggttaatcaattgtaatacc  
tctactatatcgcaagcttgtcccaaagctccttttgagccactacctatacagtattgtgcaccagcrggctat  
gccctgatgaaatgtaatgataaacaatttaattggtacaggagaatgcaaaaatgtgtcaatagttcattgtacc  
catgggatcaggccaacagctctccacacagttgatactcaatggaacttttagcaaaaagagcatgccacaataatt  
agcaaaaaatagtactgatagtggaaaagatattatagtcaaactagccagatcagtagaaattacctgtgaaag

acaagtaacaatacaagaggacagatccaagtagggcccatgacaatttataactcagaaaacatagtaggaaac  
acaagaaaggcttttctgcaagtataataagacaaactggcagaatgcattgaaagatacagtacgggctctcaa  
gcgaatcagatccgcttcagaattcttcaggaggagatccagaagttaccttttctgcattttaattgtcatgga  
gaatttttctactgtgataccactaaaatgtttaactacaattgtacaaaggagagctgtgattgcataacaggg  
aattgcacaaattatatccctgccatctgaaacaggtagtcatgtcctggatgagagtaggctcaggcctattt  
gctccgctattaggggaactttaagatgtaaacttaattacaggaataatattacaaagggatgtacccttg  
aataagactaatgagaatagtactgattacaacaccttaagaccaataggaggggacatgacaaacatttggagg  
agtgagttgtaccctacaaagtggtaaagggtcaaggcattgtctgtggtggaccaacaaaagcaaggagacctgtt  
attagccataacagggaacacgtgcagcaggcctgggaatgctgttttcttgggttcatgagtgagcaggaagc  
acgatgggagcagcggcagtaacgctgacggtacaggccaggcaagtcttgcattggtatcgtgcagcagcaamac  
aacatgctgagagctatagcagctcagcaagaattgctgagactctctgtttggggcataagacagctccgagct  
cgctgctagccatagaaacttacctaagagaccagcagctcctaggactgtggggatgcacaggagagattaatt  
tggtacactaatgtgccatggaacaagacctggaccgggaaaaatgaaactgaactagatgacatttggggaac  
atgacttggcaacaatgggacaaattggtagacaactacactgacacaatatttttagaaatacaaaaggcacag  
gaacagcaggaggttaatgaaaaggccttactagagttggataaatgggcagatcttggagttggcttgacata  
acacaatggctatggtatataaaaaatattcataatgataatagcagggctagtaggactaagaattctaattggct  
ataataaatatgtgtcacagggttaggcagggttactcacctctgtcatttcagttgacaagagactgctttgct  
tttattgcttactggggacaagaacttaagcaaagtgtatttagcttgctagactgtgttgctgtatggactgct  
gattggactgatcaagtaatagcaatagctcaaagaataggttaggggcatcttaaacatacccagaaggattaga  
caaggattagaagaagcctattataa

>#47 FJ424864 2292 nt

gctacgcattatgctactgtgtattatggagtgccagtctggcgagaggcaaatgtaactttattctgtgcagca  
gatgctaattatgtgagcaaagaacaacacaatatttgggcaacgcaggcatgtgtgcctaccgacccaaggcca  
acagagtttccattggaaaatgtaacagaaacctttaatatctggaaaaattacatggtagatcaaatgcaggat  
gatatagtttagcttatgggatcagagcttaaagccttgtgtaaaaactaacagttatgtgtgtcactctgaattgt  
acacaactaaatacaacaaatacaacacagactgagatgacaaatacaactataaccaccacatacaactatacca  
ccacacatcccacagtttagacatttacaaactgtagctttaatgttaccacggttctaaaagataagacaacaaag  
cagcaagctttattttatagacaagatatataagaaacagggtgaaacagggtacaaatgggatcaaagggtataga  
ttaatcaattgtaatacctctactatatcgcaagcttgtcccaaagtctcctttgagccactacctatacagtat  
tgtgcaccagcaggctatgccctgatgaaatgtaatgatatacaatttaattggtacaggagaatgcagaaacgtg  
tcaatagttcattgtacccatgggatcaggccaacagtctccacacagttgatactcaatggaactttagcagaa  
gggaatgccacaataatcagcaaaaatagtagtgatagtggaagagatattatagtcaaaactagccagaccagta  
gaaattacctgtgaaaggacaggttaataatacaagaggacagatccaaataggggcccatgacaatttataactca  
gaaaacatagtaggaaacacaagaaaggctttttgcaagtataatgagacaaactggcagggtgcgttgaaagac  
acagtgcaggctctcaacgagagcctgatccacttccggaattcttcaggaggagattcagaagttacctttctg  
cattttaattgtcatggagaatttttctactgtaataccactaaaatgttttagctacaattgcacaacagagggt  
tgcaataccactgaaacaagcaataccactgaaacaactaaatataattccctgccatctaaaacaggtagtcagg  
tcctggatgagagtaggctcaggcctatttgtccgcctattaggggaactctaagatgtatatctaacattaca  
ggaataatattacaaagggtgcacccctaaaaactgatgagaacagcaccttaagaccaataggaggtgacatg  
acaaacatttggaggagtgaactgtaccctacaagggtggtgaggggtcaaggcattgactgtggaccaacaaaa  
gcaaagaggcctgttattggccataacagggaacacgtgcagcaggcctgggaatgctgttttcttgggttcatg  
agtgcagcaggaagcacgatgggagcagcggcagtaacgctgacggtacaggccaggcaagtcttgcattggtatc  
gtgcagcagcaaaacaacatgctgagagctatagcagctcagcaagaattgctgagactctctgtttggggcata  
agacagctccgagctcgctgctagccatagaaacctacctaagagaccagcagctcctaggactgtggggatgc  
acaggagagattaatttgttacactaatgtgccatggaacaagacctggaccgggaaaaatgacactgaactagat  
gacatttggggaaacatgacttggcaacaatgggacaaattggttagacaactacactgacacaatatttttagaa  
atacaaaaggcacaggaacagcaggaggctaatggaaaggccctactagagttggataaatgggcagatcttggg  
agttggcttgacataacacaatggctatggtatataaaaaatattcataataataatagcaggggctagtaggacta  
agaattctaattggctataataaatatgtgtcacagggttaggcagggttactcacctctgtcatttcagttgaca  
agagactgctttgcttttattgcttactggggacaagaacttaagcaaagtgtatttagcttgctagattgtgtt  
gctgtatggaccgctaattggactgatcaagtaatagcaatagctcaaagaataggttaggggcatcttaaacata  
cccagaaggattagacaaggattagaagaagcctattataa

>#48 FJ424871 2301 nt

gctaagactgagcattatgctactgtatattatggagtgccagtctggcgagaggcaaaagtaactttattctgt  
gcagcagatgccagttttgtgagcaaagaacaacacaatatttgggcaacgcaggcatgtgtgcctaccgaccca



agcccaacagagtttctattggaaaatgtaacagagacctttgatatctggaaaaattacatggtagaacagatg  
caggaggatataaattagcttatgggatcagagcttaaagccttggtgtaaaactaacagtcagtgtgtgactatg  
acttggtcaaacgacacaaaaggggagcaataaatcaactgcaactacaactagcgcaaacacacctacaagcaca  
gagacaactataccaacaaacatcccagagttagatatTTTTCAATTGTACTTTTAATGTCACCACGGTTCTAAAA  
gataagaaaacaaagcagcaagccttattctacaagcaagatataacagaaacagataaaaaatgagtataggtta  
ataaattgtaacacctctactatatcacaagcttggtcccaaagtctcctttgagccactacctatacagtatgtg  
gcaccagcaggctatccccctgctgaaatgtaatgatgaacaatttaaatggtacaggagaatgcaacaatgtgtca  
atagttcattgtacccatgggatcaggccaacagtcctccacacagttgatactcaatggaacttttagcaaaaggg  
aataatgccacaataatcagcagcaatagtagtgatagtgtgaacagatatattatagtcaaactagccaaccagta  
gaaatcacctgtgaaaggacaggtaataatacaagaggacagatccaagtagggcccctgacaatttataactca  
gaaaacataataggaacacaaagaaaggctttctgcaagtataatragacagcatggcagaaggcgttacaagct  
acagtgcgggctctcaaaacgaacctgaccactacttcaacaagtcttcaggaggagatccagaggttacctct  
ctgcactttaattgtcatggggaatttttctactgtaataccactaaaatgtttaactacaagtgtacaggggaa  
cactgcaattgtacagacaaggagctttgcaataagactgcagaaatggagtatatccatgccgcctaaaacag  
gtagtcaactcctggatgagagtaggctcaggcctatttgtccwcctmttaggggaactttwagatgtatatyt  
watattacaggaatamtattacaaagagatacaccccygctgagaataataataacaccaccttaagaccatta  
ggaggtgaaatgagaaacatttgaggagtgaaattgtacccctacaagggtgtaaagggtcaaggcattgtctgtg  
gcaccaacaaaagcaaaagggcctgttgtagccataacagggaaaaacgtgcagcaggcctgggaatgctgttt  
cttggggtcatgagtgcagcaggaagcagcatgggcgcagcggcaataacgctgacggtacaggccaggcaagtc  
ttgcatggtatcgtgcaacagcaaaaacaacatgctgagagctatagcagctcagcaagaattgctgagactctct  
gtttggggcataagacagctccgagctcgctgctagccatagaaacttacctaagagaccagcagctcctagga  
ctgtggggatgcacagggaaattgatttgttactaacgtgccatggaacactacctggaccgggaaaaagtgtat  
agtgaactagatggcattttggggaaacttgacttggcaacaatgggacaaattggtagacaactacactgacaca  
atatttttagaaatacaaaaggcacaagaacagcaggaggctaataaaaaggccttactagagttggataaatgg  
gcagatctttggagttggcttgacataacacaatggatatggtacataagaatattcataatagtaatagcaggg  
ctagtaggactgaaaattctaattggctataataaatatatgtcacagggttaggcagggtactcacctttgtca  
tttcagttgacaagagactgctttgcttttattgcttactggggacaagaacttaagcaaaagtgtattagcttg  
ctggactgtgttgctgtatggactgctgattggactgaccaagtaatagcaatagctcaaagaataggtaggggc  
atcttaaacataccaagaaggattagacaaggattagaaagaagcctatta

>#49 JN091690 2268 nt

gtccattatgctacagtatTTTTATGGGGTGCTGTTTGGAAAGATGCAAAACCTCAATTGTTTTGTGCCTCTGAT  
gcagacattactagtagagacccacataatatgggctactcataactgtgtacccctagatccacatccctat  
gaagttccattatcaaattgtctcagtagactttgacatggaaaacaactatatggtggaagaaatgaaaaaggat  
ttaattgcactcttccaacaaagctttaaacctgtgttaagttaacacctttctgtgtaacaatgaactgtgta  
aaacttaaggagacaacaactacaatagctaccatcacaaacccccctgttaaacttgacaggaatagaagattat  
aaagtgtataattgtagttttaatcagaccactgagtttagagacaagaaaaagcagattttattctttattttac  
agagaagatattatgaaaacagacaataacgatagttattatttgcataattgcaacacctcagccattacccaa  
gaatgcgaaaagtcaagctttgaaccaattcctattagatatgtgtgctccagcaggatatgctatgttgaaatgt  
aacagtgcacactttacaggagtaggaacttgaacaatgtaagtgtagtacattgcacacatggaatatatccc  
atgatagccacagccttacatctaaatggaacacttgaaaagcacacaacacagcttattttgcaacaccacaca  
cacaataagccactgttgataaaattcaataagtcagtagacatgaattgtacaagaacagggaataattcaagg  
ggacaagtacaaatcgggtccaggcatgaccttttataatatagaaaacatagttggaaataccaggaaagcttat  
tgtacggtaaactaccaggaatggagtcagccataggagaagctaaaaaagtggccgaagaagccctaaagaag  
aatattacctttcgggtggaaccaaggaggagatctagaagttaccaacttctggtttaattgtcaaggagaattt  
ttctattgcaacctcactaactggacaaatataacgtggctagagacgtggctaaagactaacaatagttcccg  
ccccttgtagccatgttaaacttaggcagatagtaaaccattggggtagtatctaaagggtatctacctacct  
cctagaaggggaaatttaacatgcagatctaacattacagggttcattacgacatgggataatgacacgggaaac  
gtgcttggtaccttttcagccaaagtagaagactatttggaaggtagaaaatgtcacgatacaaagtagtggaatt  
cagcccttgccatagctcctactacaggaaaaaggccggagattagagccaatcacacaagggtcaaaaagagat  
gttggcataggactgttggttctcctgggatttctcagtcagcaggaagtacaatgggcgcagcgtcaatagcgtg  
acggcacaggccagaggattgctctctggtattgtacagcagcagcacaacctgctgcaggccatagaagctcaa  
cagcacttggtacagctttctgtgtggggcatttaaacagctccaagccagaatgcttgtagtagagaaatatac  
agggatcaacagcttttaagtgtttggggatgtgccaataaattggtagtgcacagtaattgtagtgtggaatatg  
acatgggctgaaaatggaactacttgccctcagggttcagaagactattataattgcatctggaacaacttgaca  
tggcagcagtgggaaaagctagtggctaattctacagaagaaatatatacattattagagaaagcacaagtgc

caagaaactaacaaaaaagaactctttgagttagataagtgaggactctttgggattggtttgacattacacaa  
tggtgtgtgtatattaagatagctatactttagtagcaggggttagtaggacttagaattgtttatagtt  
aatgtaattaggcaagttaggcaggggttatatgccctgttttcacagagtagacaacttttcgattggcttagc  
aatacatatagtatcttaagaacctcgcttatacaggcaatagataggttagctaacttcacaggctgggtggacg  
gacttggttatagcaggagtagcattttagtagccaaggcatcaggaatatcccaaggagaattagacagggccta  
gaaatagccttaaattaa

>#50 AF447763 2304 nt

acttattacaccacagtgttttatggagtacctgtttggaaagaggcccaaccaaccttgttttgtgcctctgat  
gctgatattactagtagagataaacacacatatgggcaacacataactgtgtgccttttagatcccaatccttat  
gaagtaaccctagccaatgtgtcaataaggtttaatatggaagaaaattacatgggtgcaagagatgaaagaagat  
atattatcactttttcaacagagttttaagccttgtgtaaaattaacaccattttgcataaagatgacatgtaca  
atgactaataaccacaaataaaaccctgaattcggcaacaacaaccttaacaccaacagtaaatgtgagttctata  
cctaactatgaggtgtataattgttcatttaacagacaactgagtttagagataagaaaaaacaatatattcc  
ttgttttatagagaagatattgtaaaagaggatggtaacaataatagttattatttacataattgcaataacctca  
gtcattactcaagaatgtgataaatctacttttgaaaccaattcccatcagatactgtgtccagcaggctttgcc  
ctgttaaaatgtagagatcagaatttcacagggaaggacaatgtccaatgtctcagtagttcactgtacacat  
gggatttatcctatgatagccacagcattacacttaaatgggtccctggaagaagaagaacaaaagcttacttt  
gttaataacctcagttaatacaccccttattagtaaaatttaattgtatcaataaatttaacgtgtgaaagaacagga  
aacaatacaagaggtcaagtacagataggtccaggtatgacctttataatatagaaaatgtagtaggggacacc  
aggaaagcttattgttcagtcaatgcaacaacatgggtacaggaacttagattgggctatgggtgccataaacaca  
accatgagggccagaaatgaaacgggtacaacaaacgttccaatggcagagggatggagacctgaggtcactagc  
ttctgggttcaattgtcaaggagaattcttttactgtaatctcacaattggactaataacctggacagctaataga  
accaataatactcatgggtactcttgttgcacatgcagactgaggcagatagtaaatcattgggggtatagtgta  
aaaggggtttaccttcccccaaggaggggaacagtaaaatgtcactcaaacatcacaggacttatcatgacagca  
gaaaaagacaacaataatagttatacccccaatttttctgtgtagtagaagactattggaaagtagaattagca  
agatataaagtgggtggaattcagccctgtcagtggtcccaaggccaggaaaaaggcctgaaattaaggccaat  
catactaggtcaagaagagatgtgggcataggactgttgtttcttgatttcttagtgagcagggaagtacaatg  
ggcgagcgtcaatagcgtgacggcacaggccagaggattactctctggtattgtacagcagcaacaaaacctg  
cttcaggccatagaagcgcaacaacacttgttcagctctctgtatggggcattaagcagctccaggccagaatg  
cttgacagtagagaaatacataagagaccaacagctcctaagcctctggggatgtgctaacaaattgggtgtgtcac  
agtagtggtccatggaacctcacctgggctgaagattctacaaagtgcaatcacagtgtgcaaagtactatgac  
tgtatatggaacaatttgacttggcaggaatgggatcgattagtagaaaactctacaggaacctatactccctg  
ttagagaaagcacaacacacacaggagaaaaacaacaagagttgttagaattagacaaatggagcagtcctttgg  
gattggtttgatataacacaatggctgtggtatataaaaaatagctataatcatagtagcaggattagtaggactt  
agaattctcatgtttatagttaatgtagtttaagcaagttaggcaggggtatacacccctattttcacagactatc  
atagtaggagtttagacagatcattgagtggagcagtaatacttatgctagcttaagagttttgtcaatacaagcc  
atagacagacttgctaactttacagggtggtggacagatttaatacatagaaggagtggtttacatagccagggga  
atcagaaaatattcctagaagaattagacagggtctggaactagccttaaattaa

>#51 JQ768416 2331 nt

acatactatgctacagtcttttatggagtacctgtttggaaagatgctacaccaccactgtttttgtgcttctgat  
gcagatgttgctagtagcacaggccacacaacatctgggcaacacataattgtgttcccctagatcctcatccttat  
gaagtgcctttaccaaattgtatccatagaatttgatatgtctactaattatatggtagaagagatgaaaacagat  
ttgatctcactttttcagcaaagttttaaacatgtgtaaaattaacacccttttgtataagaatgacatgtgca  
aatgtaacagaagcaacaacaacaacaccaccaacaacgtcaactagcacaacagaaccaccaacatcaaagacc  
acagtgaatacgtcagagatagaagattataaggtgcttaattgcagctttaatcaaacaactgagtttagggat  
aagaaaaagaacatttactctttattctataggggaagatgttatgaaagaaagccagaataaaacaaacaatagc  
gaatattattttgcataattgcaataccacagccataactcaaagttgtagtaagtcaagttttgaaccaatt  
cccattagatactgtgtccagcagggtatgctatgctaaaatgtaatgatgcaaattttacaggggcaggagaa  
tgcacaaatgtaagtgtagtcactgtacacatgggataatgcccatgatagcctcatggttacatttaaattgga  
acatatgaaaaggagaaaacgaaggtgtatcacaaaatgtaacaaataatccaccactattagtttaagttcaat  
gagacaatacacataacctgtgaaagaacagggaacaatacaagaggtcaggtacagataggaccagggtatgacc  
ttctataacagagaaaaacatctttggagatactaggaaagccttttgctatgttaatgcaactgagtggcggaga  
actcttgagatggccaaaacagccctcagagaagccacaaaaaacctaccctgaatatcacacggccaaagggg  
gaccagaggttagagaacttttgggttaattgtcagggagaatttttctactgcaatctaacaaaatggattaac  
gagacctggcttaacgagacggaccagaccaatctttagtagcaccctgtagactcagacaaatagtttaaccattgg

ggcattgtggctaaagccatctacctccctccaagaagaggaacagtaaaatgtgtgtcaaacatcacgggtttc  
ctgatgacaaacgaggaacgggtgctaccttctccggtaaagtagaggattattggaggggtggaattagcaaag  
tacaaaattgtagaatttcagcccctatcagtggctcctaccacaggaaaaaggccagagattaaggccaatcat  
acaagatcaaaaaggacggttggcatagggctgttgtttctgggatttctcagcgcagcaggaagtacaatgggc  
gcagcgtcaatagcgtggtggcacaggccagaggggtcctctctggtattgtacagcagcagcacaacctgctg  
caggcaatagaggcgcaacagcatttgttgcagcttactgtatggggcgtcaaacagctccaagccagactgctt  
gcaatggagaagtacatcagagaccaacagctcttaagtgtttggggatgtgccaacaaattgggtgtgcatagt  
actgtggtatggaatgacacttgggctgctaggaacacctgttcaaacacatctggacctacagattatgattgc  
atttggcaaaacttaacatggcaacaatggagtgaattagtagacaactctacagacacaatttacactttatta  
gaggttgcacaaatacaacaggaaaagaataagaagaattattagaactagataaatggagcactctctgggac  
tggtttgatattacacaatggctgtggtatattaaattggctataatcataatagcaggcttaataggacttaga  
attctaattgtttatagttaatgtgcttaggcaggttaggcaggggttatatgcccttgttttcacagttcatacag  
accataataatagtacatagaaacttagtgcttaagtggagactatttagagattggcttgccaatgcttatgtg  
attgtaaagacttcttttataaggaacttagataggcttgcaaatttcacagcctgggtggactgacatactaata  
gaaggagcagttaacattttttagaggcattagaaacatcccaaccagaatcagacaagggttagaaatagcttta  
aattaa

>#52 JQ866001 2289 nt

ctaggaattggaacatattacaccacagtctattatgggggtgccagtatggaaagagggaacaccaacattgttc  
tgtgcttcctcagcaaaggtagcaagcacacaaccacataatatttgggccacacataattgtgtgcctcttgat  
cctcagccatatgaaatacctattaacattactactgaattttaatatggaaactaattatatggtagaagagatg  
aaaaaagatttaattctctctgtttcaacagagtttgaaaccttgtgttaaagttgacacctttttgtgtaaaaatg  
aactgcagtgaattcacagaataatgtacaacaggaaataatgcaacaaaaataatacaagtctagaagataaaa  
ataaaaagcaatcttacaagtctagaatgtatgaatgcttttttaatacaactacagaatttagagacaaaaag  
aagcagatatattcattgttctataaagaggatataatgaaagacaaaaacgacagtactaataacctcttattat  
ttaataaattgcaataccacagccataactcaggaatgtgagaagtcttcatttgaaccagttcctattcagtac  
tgtgctccaccaggatgtgctatgctaaagtgtaaagatgaaaatttcaggggaaaaggaaactgtacaacagtg  
aggattgtacattgtacacatagtatatttccaatgatagctacagctttacatttaaatgggtctgtagaagaa  
ggagaaacaaaaggcatactatgtagaagccaaacataatgcaccattattaataaaattcaataaagcaacggtc  
tttaacataacttgtgtaagacccggcaacaacacaagaggacaggtacagatagggccaggcatgaccttctat  
aatataagaaatgttattggagacactagaaaggcatttttgtatgtaaacaaaacactatgggaaaatgctact  
gaggcagcaaaagtagcaataaacgaaaactcttaaaaaacaccacgttcaaaaacaccacctatacatttaggaca  
gatggggatctaaagtggatctcaggaggagaccaagagactcagactcattgggttcaactgtcaaggagaattt  
ttctattgtgacctcaaaaattggacaaacaatggcatcgagatcgatggaatgctgatagcaccatgtcgactt  
agacagatagtaaatcattggggaatagtatccaggggaatttatctccctcccaggaggggacaggtcaaatgt  
gtatctagtattacaggattcataatgacagctgagacgaatgacactgatggcactatcacacccaccttctct  
gcaaagggtggaagactactggaaagtagaaatgagtagatacaaagtagtggagatacagccattatcagtggca  
cccactaaaggaaaaagaccagtagttggtgacctcagaagcaaaaagtagaagtaaaagagaaataggaatggga  
atgatctttatgggatttctcagtgacagcaggaagtactatgggcgcagcgtcaatagcgtgacgggtacaagcc  
agaggattgctctctggtatagtacagcagcaagcaaatgtgctgcaggcaatagaggctcaacaacatttgttg  
cagctctcgggtgtggggcataaaacagctccaagccagactgctagcagtgagaaaatacctaagagatcaacag  
ctcctgggtctatggggatgtgctaacaattgatctgtcatagttcattagaatggaatagctcttgggttaaac  
aaaacctgtgcggttaataagacaaacaattatgaaaacaattatgagtgcataatggtctcaatacacctggcaa  
cagtgggatgaggaaataaggaacatctcagatgttatctaccttagtttagaaacagctcaggtgcaacaagaa  
agaaatcacaagcaactcctagaactagataaatggagctcattatggaactgggttgacatcactaattggctg  
tggtatattaaaatagctataataattgtagccagcttagtaggcttaagaatagtaattgtttatcataaattta  
gtggggaagcttaggcagggctattcacttttgtctccacagcagcattgcattgtttgcatagatacttttagca  
gagttcactggctggtggacagacgggttatagaagcactaagagtagcagtagacataataagacatatacca  
actagaatcaggcagggattagaaattgctctaaactaa

>#53 DQ373065 2193 nt

ttgtgggtaacagtgtactatgggggtacctgtctggagagatgcagagacagttctatttctgtgcttcagatgct  
aaggcccatagtacagaggctcacaatatatttgggccacgcaagcatgcgtccccactgaccccaaccacaaagaa  
gtactaataccaaatgtgacagaacgttttgatatgtggaaaaacaatatggtagatcaaagcaagaagacatt  
attagcttgtgggaacagagtttaaaacctgtgttaagttaaccccattatgtgtaacctatcatgtagctca  
tgaggagagtgtgaacaatagtgttaaccaaacaaccacgtacaaatgcaaaattgctcattttaatgtgaccact  
gagttaaagataaaaaagaagcaagtctactctctgttttatatgggagatataataaccttagacactaataat

agcagtggtaataacagtcaatataggttaataaattgtaacaccacagctgtgacacaggcctgtcctaaaatt  
tcctttgagccaattccaatatattattgtgcaccaccaggatttgccattataaaatgtaatgatcaagat  
aatggaactggggaatgtaacaatgtaagtactgtacaatgtacccatggaataaagccagtgatatccacacag  
ttgatcctaataatggcagcttagcaacatcaaataatcgtaataagaaataattcaaaagacacactcttggtgcaa  
ttaaatgaaagtatcccaataaattgcacaagaccaggaaataagacaagaggacaagtacaaataggacctggt  
atgacattctataacatagaaaatataataggagacactaggcaagcatattgtgaggtaaacaggacatgggaa  
caaataatggaatacaacaaaacaaataataataaacaacagaaagaatattacatttataaccaatccaggcgga  
gacctagaagtaacaaacttaatgatcaattgtggaggagaattcttttactgtaataccagtcaattgtttaca  
aatcaaaatggcaacacaactggcaatatcaccttacaatgcagaataagacaaattgtaaatatggacaaga  
gtaggaaaaggaatttatgtctccgccaattaaaggacctattaactgtctcttaacatcactgggataatactt  
gactatacaaagtctggaactgagaagtacacatatatcccacagggggagacatgactaacctctggaggcag  
gagttgtataagtataaggtggcagcatagaacccataggagtagcaccaggaaaagctaaaagacacacagtg  
actagacaaaaaagagcagccttggactaggtgcgctgttcttggttcttgaggcagcagggagcactatg  
ggcgcagcgtcaataacgctgacggtacaggcccgaaattattatctgggtagtgtagcagcagaataatctg  
ctgagagcaatagaggcgcaacaacacttgctgcaactctcagtttggggcattaaacagctccaagcaagagtc  
cttgctatagaaagatacctgagggaccagcaaatcctaggcctatggggctgctcaggaaaatctgtgtgttac  
accaatgtgccttggaaataccacttggagcaacaataactcctatgacacaatatggggaaatatgacatggcaa  
aattgggatgagcaagtaagaaattattcaggtgtcatTTTTTgggctgctagagcaagcacaagagcaacaaagc  
ataaatgaaaagtcaactcttggaaattggatcaatgggtcaagtttgtggaactggtttgacattacaaaatggctg  
tggtacataaaaaattttcataatggtagtagcaggcattgttaggcataagaataataagcataataatgtctatg  
gtagcaagagtttaggcagggatattctcccctctcgttgccaggaactcagaatatattttgtggggaataatagct  
tactggggaagggagctaaaaattagtgtataaaacttgcttgatactacagctgttgtagtagcagaagggaca  
gatagaatcatagagctagtgcagaagaataggacggggaatactacacatacctaggagaatcagacaaggtcta  
gaaagagcactttttataa

>#54 AF103818 2130 nt

ttatgggctacagtatattatggggctacctgtatggagagatgtagagacaaccttattctgtgcctctgatgca  
aaggcatacaagcaggaggcccaacacatttgggccacacaggcatgtgtccctactgaccccaatccacaagaa  
gtacatttggcaaatgtgactgaaaagtgtgacatgtgggaaaataatattggcagaacaaatgcaggaagatatt  
attagcctatgggaccagagcttaaaaccttgataaaagttaacccccattgtgtgttactatgacttgtcctaac  
cccgatagtaatagtagtgctgtgaaatactactgatataatgagaaaactgttcttttaataataactactgaatta  
agagacaaaaaagaacaagtgtattccttattttatgtagatgatctagctcatatcaataataatacctataga  
ctgataaattgcaacaccaccgctatcacacaggcttgtcctaagacctcctttgagccaattccaatacactat  
tgtgcaccaccaggcttttgccatcctaaaatgtaatgaaaaagatttcaaaggaaagggagagtgtaaaaaatgtt  
agtacagtgcagtgtactcatggcataaaaccagtggtgactacacagctcataataaatggcagtttagcaact  
aaaaatgttactgtaagaagtaaaaactttgcagacattattctagtacaattctcagagggagtgcaatatgact  
tgtatttagaccaggaaacaatacagtgggaaatgtacaactaggaccaggaatgactttttataacataccaaag  
atagtaggagatgtaagagaagcacattgtaacatctcaaaactgacatgggagaaaacagagaaaatacacttta  
gagataataaaaaaggaagcaaacctgacaaaggtagagttaattccaaatgcaggaggagacccagaagtggta  
aatatgatgcttaattgtggaggagaatttttttattgtataacaattcccctattttaacatgacctacaacaat  
accgacaacaccactatcacacttaagtgtagaataagacaaattgtaaatcagtggatgagagtaggaaaagga  
atctttgccccaccaatcaaagggtgtgctaagttgtaactcaaatataacgggaatgattcttgacataagcata  
agcgcagtcaataacgatagtaggaatataacagtgtatgcctacaggaggagatatgacggctttatggaaaaat  
gaattacataagtataaggtggcagcatagaacctataggagtggcaccaggtgaaggccaaaaggcatacagtg  
aaaagagaaaaaagagcagccttcggactaggtgactgttcttggttcttgaggcagcaggaagcactatg  
ggcgcagcatcagtagtgctgacggtacaggcccgacaattattgtcagggatagtgcacagcagaataatctg  
ctaagagcaatagaggcccaacagcatttattgcaactatcagtttggggcattaaacagcttcaagccagagta  
cttgctgtggaaagataccttaaggatcagcagatcctagggtctgtggggctgctcaggaaaaacaatttgttat  
accactgtgccttggaaatgatacctggagtaacaacctctcctatgatgctattttggggcaatctaacttggcaa  
gaatgggacagaaaaagtaagaaactattcaggtactatttttagtcttatagaacaagcacaagaacagcagaat  
acaaatgaaaaatcactcttggaaattggatcaatgggtcaagtctatggaaactgggttgatattaccaactggctg  
tggtatataaaaaatatttttaatagtagtagcaagcttagtaggaatcagaattgtaggtgtgatattttcacta  
gtagcaaaaagttaggcagggttattctcccctctcgttacagggtacaagcttattagatacaacagcaatagca  
gtagctgaaggaactgatagaattatagaattaacaagaaggctctttctaggtattatacacataccaagaaga  
attaggcaaggcctagagagaagcttatta

>#55 EF535993 2190 nt

gatcagttgtgggcaacagtggtactatggagtagcctgtgtggaaagatgctggagacaacactcttttgtgcagca  
gatgcttcagcacttaacaaagaagcccacaatatatttgggcctcgcaagcctgtgttcccacagaccctaacc  
caagaagtgcattgtacaaatataactgaaacctttgacatgtgtggaaaataacatggtagaacaacatgcagact  
gatattattagctctatgggatcaaagtctaaaaccatgtgttaagttgacaccactatgtgtcactatgcattgt  
attccatacaacataagcagcactgggaatgacactaggaatagctctacaagccagatggtaaaaaaatgtctc  
tttaatatgactactgaattaagagataaacagaagcaagtatatcttttattttatgtagatgatatagtas  
mkaattaatggtamtaaktcctataggctaataaaactgtaataccacagctattacacaagcatgccctaaaac  
ctctttgagccaattccaatacattattgtgcacccccaggttttgcaatcatgaaatgcaatgagccagattt  
taattggaacagggaaaatgtagaaatataagtagacataatgtactcatggcatcaagccagtggttaactac  
acarttaattcttaattggaagtctagctgagaacagcagcagaytgytaggactgaasacatgamaraaatgga  
tragaccatc atagtagacagtttcataaaaaggggtccagatgacatgtataagaccaggaaataacagcag  
aggacagatacaaaataggaccagcaatgtcattttataacctagaaaatattataggagataccagacaagca  
tattgtaatrtcagcgccgcagaatgggaacaaaggttmaawgacactrtgagggctataaaaagtcttaagcc  
aggcagtaacatcacctt acagatcaacaaggaggagacccggaaatagtaaactgatgttcaattgtggggg  
gagagtttttttattgtaac accacccattgttcaataacagttggacaaatataactagctcagataataa  
tagctcaaatataataaac tgtagaataaggcaattgttaaactcctggatgagagtgagggaaggaatttacg  
ccccaccaattagagggaactataagttgcacatcaaatattactgggctcctgctcgagttagacagaggact  
cccgagaaatgggactaatacc aataacaagttaacactataccctacaggaggagagatgagagatttgtg  
ggaggctggaattacataaaatacaaa gtagtcagcatagaacccataggagtgccaccaagtaaaaggtc  
acacagtgacaagagaaaaagagca gcctttggactagggtgcgctgtttcttgggtttctaggagcagc  
aggaagcactatgggctgcagcatcactaacg ctgacggtacaggcccggcaattattgtcagggatag  
tgcaacagcagaacaacctgctgagagcaatagaggcg caacagcatttgttgcaactctcagtatggg  
gcattaaacagctccaagcaagagtccttgcctgtgtggaaagatac cttaaagatcagcaaatcctag  
gtctgtggggctgctcaggaaaatccatctgtttatactactgtgccttggaat agtacttggggtgct  
aataacctcctatgatgaaatctggaataacctaacatggcaagactgggacaagagagta aaaaattat  
tcaggagtcattctttgaccttatagagcaagcacaagagcaacaraacacaaatgagagaagctta ttg  
gaattggatcaatggtcaagtttgtggaattgggttgatatttctaattggctgtgtgtacataaaaaatatt  
tctaattggcagtagcaggcttaatataggcataagaatagtaggagttatcatgtccttaatatgcaaaggt  
taggcaggatattctcccctctcggttgacggctacaagcttattagatacaacagcaattgcagtagctga  
aggaacagat agaattatagaagttgtgcaaagaataggtagagggtattctacatataccaagacgcattag  
acaaggttagagagaagcttataa

>#56 AY169968 2202 nt

gaatgggtaacagtggtattatggagtagcctgtgtggagagaagtcacacagtagtactcttctgtgcttcagatgct  
aaagcacatagcacagagggtcataacatatgggccacacacgcagtggtacctacagaccctaactcctcaagaa  
gtagttcttcataatgtaacagaggactttaatatgttggaataatcagatggtagaacagatgcaagaagacatc  
agtagtctctgggaccagagtccttaaaccatgtgttaaagctaactcctttatgtgttaacaatgaaatgtagtaac  
gttactagacaaaatagcactagcaactctaacaataacctaccctcaagaacaatacttcaggtaagaatgaa  
actggagttttacaaatgaaaaactgtacatttaacacaacaacagaattgagagataaaaaagaaacaggtctat  
tcattattttatgtagatgatctgcaaaagcctaggaagtggaaactggtgatacatatacaatgattaattgtaac  
accacagccataacacaggcatgtccaaaagtgtcctttgagcctattccaatacactattgtgcaccagcagga  
tttgcaattctcaaatgtaatgatgtaaacttttcagggaagggaatgtagaaatgtaagcacagtcattgt  
acacatggaatcaaaccagtagtaacaaccaattgatcattaatgggagtcctagctacagaaaacataacagta  
agagtaaaacaatgcctctaaaaatacccatgattggatagtacaactaagcacagcagtgaaatctgacgtgtaag  
agggtagggaataacacaagaggcaaaagtacagataggaccaggaatgaccttctataatatggaccatatattt  
ggtagatacaaggaaagccttttgcgaactcaatgggacaacatggaatgaaacactgcaaaaagttagagaaagc  
ttaataaagggaataaaaagcaaatgcaaatggaacctacaatataacgtttgagccaagcagtgagggtgaccca  
gaaatagcaaatcacatgttcaactgtggaggagaattcttttactgcgatactagaaaaatgtttaatgaaagt  
gaaccttttcacgagaacatgacaataccatgcagaattagacaaatagtgaaatcatggatgagagtaggaagg  
ggaatctatgcacctccaataccaggacatataacttgtaactctctaattactgggctcatattgacacgagac  
catgttaataataactaataatacatatttagaccaataggaggagacatgaaaaacatttgaggagtgaaactctat  
aaatacaaaagtgggtgcgcatagaaccattatctgtggcaccacaaagcaaaaaggcatacagtaggagaaagg  
agacagaagagagcagcctttggcctgggagcactgttccctgggtttctgggtgcagcaggaagcacaaatgggc  
gcagcggcagtcacgctgacggtacaggcccgacagttactatcggaatagtgcaacaacagaacaacctgttg  
agagcaatagaggcccaacagcatctattgcaactaacagtcctggggagtaaaacaactccaagccagattactt  
gctgtagaaagatacctacaggatcagcagattctaggcctttggggctgctctggaaagtctatctgttatacc  
actgtgccttggaaacaaaacatggtcaggcaagtcctatgagtgacatttggaaacaatttaacatggcaacaatgg

gacaaattgatcactaattacacagggacaatttttgggtttattagaagaggcacaatcacaacaagagaaaaat  
gaaaaggacttatttggagttggatcaatgggcatcttttgggaactggtttgacataaccaactggctgtggtac  
ataaaaaattttccttatggcagtaggagggattataggtttaagaattatcatgtcagttgtctcagtgatcagg  
agagtcaggcagggttactcaccctctcgttgcaggctacaagcttatttagatgcaacagctattgcagtagga  
gaaggcacagatagaatcataagagcagtgcaaatagtattcagaatcataggcaacataccccggcgcataaga  
caaggcctagagagaactttactttaa

>#57 AF382828 2184 nt

caatggtgggtaacagtatactatgggggttcagtcctggaaggaggctactacaccattgttctgtgcagcaaat  
gcaacagctttaaaagaggaacctcataatatttggggccacacaagcctgtgtgcctacagacccctctccagaa  
gaggtcatcctaattaatgtgacagaagaatttaattgtatgggacaatgctatggtagagcaaatgcaggaggat  
attactagcctatgggaccagagccttagaccttgtgtaaaattgaaccctttatgtgtgcaattaacgtgtact  
tctataaatgctactggaaacgaaactaatgctactggaaacggaattgaaaaggatgggttggcacaagacatg  
agaaattgtactttcaatacaaccacagaattaagagataaaaaacagcaattttatccttattcttgaaaaat  
gatcttgtaggtactaacaatacgttttaggttaattaattgcaatactacagcaatcacacaagcttgtccaaaa  
acctcctttgaaccaattccaatacattactgtgcaccagctggcctttgcctgttgaaatgtaatgataaagat  
tatccagggaaaaggaaagtgtaaaaatgtaagtacagtgcaattgcacacatggaattaagccaactgtaactact  
cagttgatactcaatggcagcttagcagaagaagaagggtggtgttcagaactaagaatatgcagctccaggt  
ctcagtgacacagttatagtacagttaaaaagggcaattcccatataattgcagtagaccaggaaacaatacagga  
agagcaataaaccttagcccagggacaacattcttcaacacggaagccctaataaggaaaccttaggaaagcgtcc  
tgccaccttaattggtacactatggaataacattctaaacagaataaaaacaaaagattaaaaacagcacaaactgtg  
cacaggggggacatcacattcacaaagcatccaggaggagacccagaagtggtaaatctcatgtttaactgtgga  
ggggagttcttttattgtaatacatcaagattaattacctgtaacagtagtgacacaagtgagtacattctccca  
tgcaaaaattaggcaagtagtaaatcttggtatgagagtgggggaaaggtatctttgccccgcctagaagaggaact  
ataacctgtaatccaccattacaggactcctcttagaagtagagaatggcacgggggaacaacacagaagtttac  
ctgtcagggggagatatgagagatatgttgaggagtgaattatataaatataaaaatagtaaaaattgagccactg  
ggggtggcaccaacaaaagcaaaagaggtacacagtggaagcacttgatagatccaaaagagcagcctttgga  
ctggggggcgctgtttcttggttcttgagcagcaggaagcactatgggcgcagcatctgtgtgacggta  
caagctcgaaacctgctttcggggaatagtgacagcagcaaaaataacttgctgcgagccatagaagctcagcaacac  
ctgctgcagctatcagtcctggggcataaaacagctccaggcgaggggtccttgctgttgaaagatatctaaaggat  
cagcaagtcctagcactatggggctgctctggaaaaactgtgtgctactctactgtaccctggaatacttcttg  
aacagtaacaaatcttatgaggacatttggagtaatctgacctggcagcaatgggataagttagtagaaaaatcat  
acaggaaccattttttcaattattacagagagcacatgagcaacagaatagcaatgaaaaagagctattggaattg  
gatcaatggtcctcattatggaattgggttgacataacaaactggctgtggtatataaaaaatgtttataatctta  
gtgggaggggttataggtttaagaattgtaataggtgtagtaaatataataagaagaagtaggcagggatactca  
cctttatcgtttcaggctatttagcctgcttgatactacagcaattatagtagccgaaagaactgatacaataata  
gaagtagcaactagaatagggagagggcatattgcatataccaagaagaatcaggcaaggtttagaaaagagcttta  
ctagaataa

>#58 EF535994 2151 nt

tctgaaaataatttatgggtaacagtgtagtactatggagtagcctgtatggaaagaggcaaaaaacaactcttttttgt  
gcatcagacgctaaagcacagatagctgaggcacacaacatatgggcttctcaagcttgtgtgcctacagatcct  
aacctgaagaataacgtagaaaatgtaacagaagagtttgatgcatggaacaataacatggtagaccaaagtg  
caagaagatctcattagcctatgggatcaaagcctaaagccatgtgtaaaactgacccccctctgtgtgaccta  
aactgttccacaaatacaactacagaggcatctcaggtgcagtataattgttctttcaatgtaactacagaatta  
agagataagaagaagcaagtgtagtactccttattttatagagaggacataacaagtccttgatagcaataagacagtt  
aaaaatggaacttataggttaattaactgtaataccacagccataacccaggccttggtccaaaaacatcatttgaa  
ccaattcctattttactattgtgcaccagctggatttgcctttttaaaatgtaatgaccagaatttcaagggaaaa  
gggacatgtagaaatgttagcacagtgcatgtgtacacatgggtattaagcctgtagtctctacccaattcctcttg  
aatggaagcctggcagaaggaaacaagactgtagtttagggtaagaagtaaatctaatacagagactatcattgtg  
cagctagctacagcaatatatatcaattgtaccagactaggtaataaaaccatagagggcatacctatagggcca  
ggacaaattttttataggactaaaacggtggtaggcgacaccagaggagcagagtgcagaattaatgggacagcc  
tggaatgagactctgagacaggtaaaggaggcatttaaacacacatatcgaaatctcaatctcagtcctcacagaa  
ataaactttgaaggtgcatccggcgagatctagaagtaactacacattatttcaattgtggaggagaattcttt  
tactgtaatacatcaaacttattcaatcaatccactatttaacaatattacacacattccgtgcagaataagacaa  
attgtaaatcagtggaaggagtaggaaaaggaatctttgcacctcctatttagaggaacaattcaatgtaattcc  
acaatcacaggcctactcttaacaagagatggtaaaaatgagactgaaacttttagacctacaggaggagacatg

agaaataattggagaagtgaattatacaaaatacaaggtagtaaaaaattgaacccttaggattagcaccaaccaag  
gcaaaaaggagaaacagtgcgaagagaaaaaggaggcagtaggactgggagtgatgttccttggattcatgggagca  
gcaggaagcactatggggcgagcggcactgacgctgacgggtacaggccagaaatctactctctggtatagtgc  
cagcaaaagcaatttctgctgaaagctatagaggcgcaacagcatctgttgcaactctcagtcctggggcattaaacag  
cttcaggcgaggttcttctgctgtggaaaggtatctaaggatcaacaactcctaggactatggggctgctctgga  
aaactcatttgcactactaatgtgccttgggaataatacttggagtaaaaaatttaggaacaaacctatccttttgg  
gataacatgacatggatgcaatgggagaaaagagattgataactacacagaaactatctatgaacttctaacacga  
tctcagaatcaacaggaagtcaatgagcaagaattgttagctctggataaatgggcaagcctgtggaattgggtc  
gatataacacagtggtctgtggtatataaaaatttttgtcatgatagtaggaggcttaataggcataagaatagtt  
tttctatgctttctatagtcaatagagtttaggcagggatactcacctttgtcgttccaggctataagcttgctt  
gacgccacagcaatagcagtagcagaggggaacagatagaatyatagaaatagcacaaagagttggcagaggcatt  
ttgcatatacctagaagaattagacaagggttagaaaagagctttgtctataa

>#59 DQ373066 2169 nt

gaaaattggtgggtcactgtttattatgggggtcccagtatggagggaggcaaaaaccacccttttctgtgcctcc  
gatgctaagagttatagtacagaagctcataacatctgggccacccaagcttgtgtacctactgatcccactcct  
caagaggtactcttacctaattgtcactgaagagtttaacatgtgggaaaattacatggtagatcaaatgcaggaa  
gacataataagtcctctgggaacaaagtcttaaacatgtgtataaataacacccttatgtgtgacccttacttgt  
aataatcccactaataacttccctgcactaactctactgacgatcgcttgggagacatgagaaattgtagctttaat  
gtcacaactgaactaagagataagaaaagacaagtgtattccttattctatgtggaggatataacagcaatagga  
aataatagtacttacagggttgattaattgtaataccacagccatcactcaagcttgtccaaagacttcccttgaa  
ccaattccaatacattactgtgcaccagcaggatttgcactcctaaaatgtaatgatataagattacaaagggat  
gaaacttgtaaaaatgtaagtacagtacattgtacacatggcattaaaccagtggcaaccacccaactgattttg  
aatgggagtagacagcagacaatcagactgtggccagaatagacccttcagagaatttagcaataatacagctcaaa  
gatccagtaaaagattacatgttaggagaccaggaaataacacaagaggtcaaatacaaataggaccagcaatgact  
ttttataacatagaaaatgtagtaggggacactagaaaagcatattgtgagataaatgggacacagtgggcaaaa  
gccctcaatgaaacaaaagaagttctaaggaacatactgaggaagaacataagctttatgggtcccttctggggga  
gatccagaagtgactaaccatcactttaactgcgggggagaattcttctactgtaatacaagtgagatcatcaat  
atcactaagataaacaacaaactgagaatatgacaataatcccttgtagaataagacaaatagtgaattcctggatg  
cgtgtagggaaaggaatttttgcaccaccaattagaggtaacattacctgcacttctaataatcacagggtatgcta  
ctagagatacataagaaccgagaagatcaggggagaagatcaggatcagaataacacatacgtttgtctaacaggg  
ggtaacatgaaagatatttgggagaagtgaactatacaaaatacaaaatagttgagatacaaccactaggagtagca  
cctactaaaagtagaagatatgcagtagaaaaacaacaccatagagaaaagagagcccttggactaggagcactg  
tttcttgggttctctgggagcagcaggaagcactatggggcgagcatcagtcgtgctgacgggtacaagcccggcaa  
ttgttaacgggcatagtgcagcagcagaataatctgctaagagcaatagaagctcaacaacatctgttgcagctt  
tctgtctggggaatcaaacagctccaggcgagagttcttctgctgtggaaaggtacctaagggtatcagcaactccta  
gggtctatggggctgtacaggaaaaactatttgtcccactgctgtacgctggaacaagacatggggaaaatattagt  
gactatcagggttatttggaaataattacacatggcaacaatgggatagagaagtaataattacacaggactcatc  
tacacattgctagaggaggctaatacacagcaggagaaaaatgaaaaggagttatttgaattggattcatgggct  
aatttatggagttggtttgacataacaaattggttgtgtgtacataaagatgttcttaatagtagtaggaggcatt  
ataggcttaagaatatgctttgcaataggatcactaatcaatagggttaggaagggatactcacctttgtcattg  
caggccataagcttattagatactaccgctattgcagtaggagaaggaaactgatagaatcttagaagcaataaca  
cgcttgggcaggggcattttacatatacctagaagaattagacaaggcttagaaaagagctttgtcttaa

>#60 DQ373064 2160 nt

agcactaaaaatgaaaatttatgggtgacagtgtactatggagtgctgtctggaaagaagcagaagcaactctc  
ttttgtgcgtcagatgcaaaagcacaaaaggcagaggcacacaatatatgggcctctcaagcttgtgtaccaca  
gatcctgatcctaagcaatagaactaagcaatgtaacagaaaaattttaatatgtggacaaatgcaatggtaaat  
cagatgcaacaggatgtaattagcttatgggatcaaagcctaaaaccatgtataaagctaaccctcctttgtgtt  
actttacattgcagtatccctaaatttgataactctagcattaatagctctaatagagactatgaaaaattgtagc  
ttcaatacaacaacagaactaagagataagaagaaacagacttactcattgttttatgtagatgatttaactcag  
ataaacaagacaaccgagagctataagcttataaattgtaatactacagccataaccaggttgcccaaagatt  
tcttttgagccaatacctatacattattgtgctccagctgggttttcttcttaagggtgaacaataaaaacatat  
aatggtagtggtccatgtaacaatgttagtacagtacactgtactcatggaattaaaccagttattttctactcaa  
ttgatcctgaatggtagtctagcagaagaaaaatcatgattaggtacaaggctgataagggttctagtacagctc  
aatacaagtatacacatcaattgtactagggttaggaataagacaataaaaaggaatccccctaggaccaggacag  
ctgttctatggaacagaaactgtagtaggagacacaagagaggctcattgtgaaattaaccagacacattgggat

aaaataactaaaccaggtgaaaagagagctaaccacggtcttcaatgaatctaacaaaactgtacacttttgcaaac  
agttcaggtggagatccagaagtggcaaacccttcatttttaattgtggaggagaatTTTTTTattgtaacacctcg  
gccttggtcaatgacaccttggttacgcaataaaaccttgctcaatgaaaccttgcacataaacttgacactacct  
tgtaggattagacaaattgtaaacctatggctaagagtaggaaaggaatatttgctccacctattagaggtaac  
atccgctgtaattccactattactgggttgatcctagaaaaacacacaaacacagacaatatcaccttccgtcca  
ataggaggggatatgacagacatctggagaagtgaattatataactataaaatagtaaaaattgaaccattagga  
gtagcgcctaccagggcgagaaggaggactgtggatagagaaaaaagagcagcagggctgggagtgTTTTcctt  
gggttcttgggagcagcagggagcactatgggcgagcatcattaacgctgacgggtacaggccagacaattattg  
actggcatagtgaacagcagagtaatttgctgagagctatagaggcgagcaacacttgctgcaactctcagtc  
tggggcatcaaacagctccaagcaagagtccttgctatcgaaagatacctaaaggatcaacaactcctaggaata  
tggggttgctcaggaaaactcatctgcaccacttctgtgccatggaatagaacttgagtaacaaaacatataat  
gaaatttgggacaacatgacatggatggaatgggacaggggaagtaagaaattacacagaaattatttatgggtta  
atagagcaagcacaagaccagcaggaaaataatgagaaaaaacttttagaactggatcattggacaagcctgtgg  
aattggtttgacataagtcactggctgtgtgtacataaaaaatattcattatgataataggaggcttaatagtgtgt  
aggataatTTTTgctgtgctcgctatagtaaataagagtcaggcagggatactcacctctgtcatttcaggccact  
agcttgcttgatacaacagcaatagcagtagctgaggggaacagatagaatcatagaaatagtacaaagaattgg  
agaggaatattacatatacctagaaggattagacaaggttctcgaaagggtttattataa

>#61 KP861923 2400 nt

agtaaggaggaactgtgggtgacagtgtactatggagtacctgtatggagagatgcagaaacaactctcttttgt  
gcatcagatgcaaaggcacaagaaacagaggcacataatatctgggcctctcaagcttggtgtacccacagatcct  
aaccttgaagaaatacacctaccaatgtaacagaatactttgatatgtggaaaaataatatggtggaacaaatg  
caggaagatataattagtttgggtggtcaaaagtttaaaacatgtgttaaagttgactcctctctgtgttacttta  
aactgcactaattgtatttggggaaatggcacttttaggggaatggaatgacacaagggaagacttgagaaactgc  
agctttaatgctggggatataagagacaagaaaaagaggggtccattcactattttatgctgaagatattatacta  
atagaccgcaccagaactacaaagcagggaaattcaacacaagccccgccacgacgcctatagcgagtaccaag  
gtacccgatagcaatgacacatgcagcccaacaatactctagaatatagacttataagttgtaatacctcagtc  
ataaccagggcctgccccaaaacttcttttgaaccaatacctatacactattgtgctccagctgggtttgctctt  
ttaaataatgtaatgatacaaatTTTtagtgacaggggtatatgtagaaatgtcagcacagttcattgtacacatgga  
attaggccagtggtgtcaactcacctacttttaaatggcagtttagcaaaaggggatatcatgataagggtaaag  
aacaacacataaaaggcatttcctatagggccaggacaacacttctatggtacagaaacggtagtaggtgataca  
aggaaagcctactgcaaaatcaatggaacacaatggtttgatacattaaagagagtagcttggggaattaaaggaa  
acattcaatcttaccagagtaacatttgatcaagcatcacccggagatccagagatacaaaaaacactacttcaat  
tgtggaggagaattcttttattgtgagacatcttcattgtttaatgctacaatagatattacaccaaatactaca  
ctgaatgagacgacctgggattatccagctgagaacaatattaaccaagaaatgataatccattgtagaataaaa  
caaattgtatcaatgtggcagagagtgggaaaaggaatatTTTctcctcctattagaggaaccattcaatgtaac  
tccactattacaggactactgctaactcgcatggtaataacaaagcagatagtgagaacaaaacaaggattgaa  
acaggacagaacaaagcagaagagattaataggactgacatttttagacctgcaggaggagaaatgagagacaat  
tggaagaagtgaattatatagatacaaggtgggtgaaaattgaaccactaggactagcacccaccaaggcaaaaaga  
aggactgtaaatagagaaaaaagagcaccaggactaggactgatgttccttgggttcttgggagcagcagggagc  
actatgggcgagcatcattaacgctgacgggtacaggccaggcaattattgactggcatagtgaacagcaaagc  
aatttgctgagagctatagaggcgcaacagcacttggtgcaactctcagtcctggggcattaaacagctccaggca  
agagtccttgctattgaaagatacctaaaggatcaacagctcctaggaatctggggatgctcaggaaaaactcatc  
tgcactactgatgtaaagtggaaatgaaacatggagtaataaatcttataatgagatctgggataacatgacatgg  
atgcagtgggacaaagaagtcagaaattacacagaaaccatttatgatttaatagaacaagcacaaaaccaacag  
gagtacaatgaaaaaagtttggtagagcttaaccagtgggcaagcctgtggaattggtttgatataatcaaattgg  
ctgtggtatataaaaaatattcattatgatagtaggaggattaataggctgtagaatagtttttgctttgctatct  
atagtaaatagagtcaggcaggggatactcacctctgtcatttcagggtgttctacagtattgggggaagggaacta  
aaagttagtgtataagcttgcttgatacaacagcaatagcagtagcagaaggaaacagataggataatagaagta  
gcacaaagatttggtagaggcatacttaatatccccacacggattagacaaggattagaaagagctttgctataa

>#62 AJ302647 2280 nt

caacactatgcaacagtctatgctgggtacctgtatgggaagaggcaacccccagtactattctgtgcttcagat  
gttaacttaacgagcactgagcagcataatatttgggcatcacaagcctgtgttccaacagacccctctccatat  
gaatatcctttaaaaaatgtaacagataacttcaatatatgggaaaattacatggtagaacaacaaatgcaggaagat  
attattagtttatgggaacagagtttaaaaccttggtgttcaaatgacttttctgtgtgtacaaatgaattgtaca



aatgtaa atgatgagaccaacagctccgtaaagaatgataccagcagctcagagaaccttatgaaaaagtgtgag  
ttta atgtaaccacagttctcaaagacaaaaaggagaaacaacaggctctattctatgtatcagatttgatgaaa  
gtga atgaaaataatgacacaatgtatacattaattaattgtaattccacaaccattaagcaaacctgtccaaag  
gtatcg tttgaggcaattccaatacactattgtgtctccagcgggatatgccatctttaagtgtacaacacaggg  
ttta atggaacaggcccatgcacaaatgttacagtagttacttgtacacatggcatcagaccaacagtaagtact  
caactaatattaaatgggacaatctctgaaggaaagataagaattatgggaaaaaatatttcagacactgggaaa  
aatatc atagtgaccataaattctactataaacatgacctgtgagagaccaggaaatcagacagtacaaaagata  
cta acaggtccagtggttggtacagcatgggcctgaaaaataacctaactcaagggcagcctcttgcaag  
tata acagctctgtttgggaagaagccttaaaacaaacagctgaaaggatatttagaacttatgaacaatacaaat  
acag ttaacataacattcaatcacagcactgggtggagaccagaggtaaccatttgcattttaactgtcatgga  
gaattcttctattgtaacacatctcagatgtttaattataccttttcatgtacaagaaccaactgtattagacaa  
agta acagtagcattaatggcacaatatcttgcaggataaaaacaggtggtgaaggatcatggatacagggagggctg  
ggactttatgcacctcccaggccaggttacctaacatgcaactcatccataactggaatgattctacaattggat  
aagac atggaaccgcaccaacaacagcgaatccacatttagaccaatagggggagatatgaaagatatatggaga  
actga attgttcaaatacaaaagtagtaaagataaaaaccttttagtgtggcacctacaaaaattgcaagaccagtc  
atagg cactggcactcgaagagaaaaaagagcagtaggattgggaatgctgttcttgggggttctaagtgcagca  
gga agcactatgggcgagcggcaacaacgctggcggtacagacccacactttgatgaagggtatagtgcacag  
caggaca acctgctaagagcaatacaggcccagcagcaattgctgaggctatctgtatgggggtatcagacaactc  
cgagct cgctgctagccttagaaaaccttaatacagaaccagcaactcctaaacctatggggctgtaaaggaagg  
ctagtctgctacacatcagtaaaatggaacaggacatggacaaataataactgatttagatacaatttgggga  
aatcta acatggcaggaatgggatcagcagataagcaacataagcgccaccatatatgatgaaatacaaaaggca  
caagtac agcaggaacacaatgagaaaaagttgctggagttagatgaatgggcttctatttgggaactggctggac  
ataactaa atggttgtggtatataaaaaatagcaataatcatagtaggggcactaataggggtgagaattgttatg  
atagtactta atctagtgagaaacattaggcatggatatcaaccctctcatttcagggttgcagaatttgcata  
gctgta atacaatactgggtacaagagttgcagaatagtgtacaagcctactagatacccttgcagtggcagtt  
gccaat tggactgacggtataattttagggctacaaaggataggaagaggaattcttaacatcccaagaagaatt  
agacagg gcttagaaagagctttattgtaa

>#63 AJ302646 2313 nt

cagcactatgcaacagttctatgctggggtacctgtatgggaagaggcaaccccagttatttctgtgcttcagat  
gcta accctaacaagcactgagcagcataatatttgggcatcacaagcctgtgttcccacagacccctctccatat  
gaatatcctttaaccaaggtgacagataatttcaatatatggaaaaattacatggtagaacaaatgcaggaagac  
attattag tttatgggaacagagcttaaaaccttgtgttcaaatagactttcctgtgtgtacaaatgaattgtaca  
aactatgtacaagggaattatacaaaacaatagctccataaataatgataccagcagtcagagaaaccttgtgaaa  
cagtg tgaattta atgtaacacagttgtcaaagacaaaaaggagaaaaaacaggctctatttctatgtatcagat  
ttgatga agataaatgaagcaaatgacacaaaggacatgtatacattaattaattgtaactccacaaccattaag  
caagcctgtccaaaggatcg tttgagccaattccaatacactattgtgtctccagcgggatatgccatctttaag  
tgta acagcacagagttta atggaacaggcccatgcaacaacattacagcagttacttgtacacatggcatcaa  
ccaacag taagtactcaactaatattaaatgggacactctctgaaggaaacataagaattatgggaaaaaatatt  
tcagaca atatgaaaaatatcatagtgacctaaattctactataaacatgacctgtgtgagacaaggaaatcag  
tcagtaca agagatacaaatagggtccaatggcctgggtacagcatgagcctggcccaagagggaaccaaataac  
tcaaggat agcctatttgaagtataacatctctgattgggaaaaagccttaaaacagacagctgaaaggatatta  
gaccttag gaacaatacaaaatagcagtaaacataacattcgagcgcagcattggtggagattcagaggtaaccat  
ttgcattt caactgtcatggagagttcttctattgtaacacatctaagatgtttaattataccttttcatgtata  
ggaacca actgtactagtaacaaaaatagcagcaacagtaatgacactcggatatatttgcaggataaaaacaggtg  
gtaagg tcatggatacagggaggggtcaggactctatgcacctcccaggaaaggtaacctaacatgcagctcactc  
ataactg gaatgattctacaattggatatgccatggaacagcaccaacaacagcaacgccacatttagaccaaca  
gggggag atatgaaagatatatggagaactgaattgttcaaatacaaaagtagtaaaggtaaaaaccttttagtgtg  
gcacctac aaaaattgcaaggccagtc ataggcactggcactcaaagagaaaaaagagcagtaggattgggaatg  
ctattct taggggttctaagtgcagcaggaagcactatgggcgagcggcaacagcgtggcggtacagacccaa  
tctttgat gaagggtatagtgcacacagcaggacaacctgctaagagcaatacaggcccagcagcaattgctgagg  
ctatctgt atgggggtatcagacaactccgagctcgctgctagccttagaaaaccttaatacagaaccagcaactc  
ctaaacct atggggctgtaaagggaagctaactctgctacacatcagtaaaatggaacacgacatggacaaattgc  
acaaatacca ataagtttagatgatatttgggacaagctaactggcagcaatgggatcagcagataagcaacgta  
agttccat catatatgaggaaatacgaaatgcacaagtacagcaggaacaaaatgagaaaaagttgctggagtta  
gatga atgggcttctatttgggaactggctggacataactaaatggttgtggtatataaaaaatagcaataatcata

gtaggggcactaataggggtgagaattgttatgatagtacttaatctagtgaaaaacattagggcagggatatcaa  
cccctctcatttagagcttgcagactttgcatagctgtaatacaatactggctacaagagttgcagaatagtgc  
acaagcctactagataccattgcagtgaggcagttgccaattggactgtcacaataattttagggatacaaaggata  
ggaagaggaattcttaacatcccaagaagaattagacagggcttagaagaagtttattataa

>#64 AY169812 2256 nt

cagctgtatgcaacagtttatgctggtgtacctgtatgggaagaggcagccccagttatttctgtgcctcagat  
gctaacctaaacagcactgagaagcataatgtttgggcatcacaagcctgtgttcccacagacccccactccacat  
gaatatattattaaaaaatgtgacagatarcttyratatatggaaaaattacatggtagaacaatgcaggaagac  
attattagtctatgggaccagagtttaaaaccttgtgttcaaatgactttcatgtgtgtacaaatgaattgtaca  
gacatagaaaacaaaaacagtagctcagaaaaccctatgaaaaagtgtgagtttaatatataaccacagttctcaag  
gacaaaaaggagaaaaaacagggtttatttctatagagcagatttgactgaaataagagacaacagcacaaacagc  
acaatatatacatattaattgtaattccacaaccattaagcaagcctgtccaaagggtatcttttgagccaatt  
ccaatatactactgtgctccagcaggatatgccatttttaagtgtacaatgcagaatttaattggaacaggcaaa  
tgcaacaacatttccagtggtgacttgtacacatggcatcaagccaacagtgagtagtactcaactgatattaaatggg  
acactctcaaaagaaaaaataagaattatgggacaaaatatttcggccactgcacaaaatatcatagtgcacctta  
agttctgctgtaaacataacctgtgtgagaccaggggaataagacagtagacaagagatgagaatagggtccgatggc  
tggtacagcatggccataagtggacaacacagctcaagggtagcctattgccagtataacaccactgagtgggaa  
aaagccttaaaaaacacagctgaaagggtatttggaaacttataaataagacagaagagaataacaataatgttc  
aaccggagccatgatggcgatgtagaggttaacccatttgcattttaactgtcatggagagttcttctattgtaac  
acatctgggatgtttaattataacctttttatgtaatgggaccaactgtaaaaaccaaagtagccatagcaataat  
ggcacgataccttgcaagttgaaacagggtggaagatcatggatgaggggaggggtcgggactctatgcacctccc  
atcccaggtaacctaacatgcatgtcacacataactggaatgattctacaaatagatggggccatggaacaacaac  
accacaaacaatacatttagaccaatagggggagatatgaaagatatatggagaaatgaattgttcaactacaaa  
gtagtgagggtaaaaccttttagtgtggcacctacatcaattgcaaggccagtcataggcactggcactcataga  
gagaaaagagcagtaggattgggaatgctatttcttgggggttctaagtgcagcaggttagcactatgggcgagcg  
gcaacagcgctgacggtacagacccactctctgataaagggtatagtgcacagcaggacaacctgctaagagca  
atacaggcccagcaggaattgctgaggctatctgtatgggggtatcagacaactccgagctcgctgctagcctta  
gaaaccttcatacagaatcagcaactcctaaccctatgggggtgtaarggaagactaatctgctacacatcagta  
aaatggaacgasacatggagwrgtacaactaatatagaccaaatttggggaaacttaacatggcaggaatgggat  
cagcagatagacaacgtaagtgccrccatatatgaggaaatacaaaagggcacaagtagcagcaggaacaaaatgag  
aaaaagttgctggagtttagaygaatgggcttctcttggaaattggcttgacataactaaatgggtgtggtatata  
aaaatagcaataatcatagtaggagcactaatagggtgtgagaattgtcatggttagtgcttaattctagtgagaaac  
attagggcagggatatcaacccctctcgttacaggcttgcagaatttgtgcagctgtaatacatttctggctacaa  
gaattgcagaagagcgctactagcctactagataacctgtgcagtagcagttgctaattggactgacggcataatc  
ttaggggtacaaaggctaggaagaggaattcttaatatccccgaagaataagacaggggttggaaagaagttta  
ttgtaa

>#65 AY169816 2280 nt

cagctgtttgcaacagttctatgctggtgtgctgtatgggaagatgcagcaccagttatttctgtgcttcagat  
gctaatactaacaagcactgagcagcataatatttgggcagcacatgcctgtgttccctacagatccctctccatat  
gaatatccattggacaatgtgacagattattttaatgtatggaaaaattatatggtagaacaatgcaggaagac  
attattagtttatgggaacagagttcttaaaccttgtgttcaaatgactttcctgtgtgtacaaatgaattgtacc  
aacttaaatgacacagtaaatggaaccagcagctcagaaaagcgatatgcaaagggtgtgagtttaattgaaccact  
gttgtaaaaagacaaaaaggagaaaaaacagggtttatttctatagatcagatttgatggaattaaaggataaggat  
aatagcacaaacacaacatgtatacatattaattgtaactccacaaccgtcacgcaagcctgtccaaaggta  
tctttccagccaattccaatacactattgtgctccagcaggatttgcctatctttaagtgtaacagcacagaattc  
aatggaacaggcacatgcaaaaacataacagtagttacttgtacacatggcatcaagccaacagtaagtactcaa  
ctaataattaaatgggacactctctaaaggaaaaaataagaatgatgtcaacaaatatttcagacagtggaagaat  
atcatagtgcacctaaattctaccataaacatgacctgtagtagaccagcattggaagtacagagcatgggcgta  
ggtccaatggcgtatacagtgcacacctaaagggaatcagggacaaacggatcaaggatagcttactgtgagtat  
aataccagtgattgggaaaaagcattaagacaaacagctgagaggtatttagaacttgtaaacaacacaggtagt  
attagcatgacattcaacaaaagcaacgatggtggagatccagagacaaccatttacattttaattgtcatgga  
gaattcttttattgtaacacatctaatttatttaattataaccttttcatgtaattggaaccacctgtaatgatagc  
caaagtaccaccaatgacacacagataccttgcaaactgagacaggtagtaagggtcatggataaaaggacagtc  
ggattctatgcacctcccatcaagggtaacctgacatgtacatcaacataacaggaatgattctacaaatggat  
gcaccatggaacagcaccagaaacaacagcgaaaaccaaactgcaacatttagaccaacagggggagaaatgaaa

gatatatggagaactgagttgttcaactacaaagtagtaagagtaaaaccttttagtgtggcaccacatcaatt  
gcaaggccagttgttaggcactagcactcatagagaaaaaagagcaataggattaggaatgctattcttgggggtt  
ctaagtgcagcaggttagcactatggcgcgagcggcaacagcgctgacggtacagacccacactttgataaagggt  
atagcgcaacagcaggacaacctgctaagagcaatacaggcccagcagcaattgctgaggctatctgtatgggggt  
atcagacaactccgagctcgctgctagccttagaaaccttaatacagaatcagcaactcctaaacctgtggggc  
tgcaaaggaaagctagctgtctacacatcagtaaaatggaatgaatcatggacaggaacgaaagcatttgggaa  
gaactaacatggcaggaatgggatcggcagataagaaacataagctccaccatatatgaggaaatacaaaaggca  
caagtacagcaggaagtaaatgagagaaagggtgctggagttggatgaatgggcttctctttggagttggcttgac  
ataactaaatggttgtggtatataaaaaatagcaataatcatagcaggagcactaataggcctgagagttatcatg  
atagtacttaatctagtgaagaacattaggcagggatatcaaccctctcgttgccaggttgacagaatttgtgca  
gctgtaacacaatattggctacaagaattgcagaatagtgtctacaagtttgctagatacagttgcagtgccagta  
gccaatggactgacgggtataatctcagggatacaagcaataggaagaggaattcgtaacatcccaactagaatt  
agacagggcttagagagaagtctattgtaa

>#66 KU168282 2301 nt

ccacaaatgtatgcaacagtcatttctgggggtaccgggtatgggaagatgcaaaaccaacactattctgtgcttca  
gatgttaacttgacaagcacagagaaacataatatttgggcatcacaagcctgtgttcccacagaccctactcca  
aatgaatatcgtctagagaatgtgacagataaaatttgatatatggaaaaatttatatgggtggaacaaatgcatgaa  
gacattattagtttatgggatcagagtttaaagccttgtgtgacagttgactttcttatgtgtacaaatgaactgt  
acagatgtaaaatcaaatacaacaaatacaaccatcctaaaagaagaagcaacagccataaaaagctgtagcttt  
gatgtaactacagtttctcaaagacaaaaaggagaaaaaacagggtctatttttatgtaacagatctggctaagggt  
gacccaacagatccaaattcaacagatacaacaacctatacattaattaattgtaactccacaaccatcaggcaa  
gcctgtccgaaggtaagcttttgagcccatccctatacattattgtgctccagcaggatagccatctttaagtg  
aatgaaacaaactttaatggaacaggcacatgccacaatggttacaatggttacttgtacacatggcatcaagcca  
acagtaagtactcagctaataattgaatgggacaatatctaaagacaaaacaagaattatgggacaaaatatcaca  
gacagtggaagaatatcataataaccttaataactactataaaaaatgaattgcacgaaagaaggaaataatgag  
atacaagaaataaaaaataggggcccatgtcatggctcagtatggcagttactgcaaataaaactggctcaaatca  
aggatagcttattgtaattatagtagcaccgaatgggaaaaaggccttaaaactaacagctgaaagatatgtacaa  
cttttaaacataacagaaaaagttaccataacattcaaaaatagcagtgggggagatgcagaaataagccgtttg  
cattttaactgtcatggagaattcttttattgtaacacatctaagatgtttaactatacttttgactgtacaagt  
ggcaactgtactgagatcaattccatgaataaaaactgatgagcataatggactaccttgccaggttaagacaggta  
gtaagatcatggataaaggagagtcaggactttatgcacctcccatcagaggcaacctcacatgccagtccaac  
ataactggaatgattctacaactagatgaaccatataaccgcacatcagatgcaaatagtcacacttagaccaagt  
gggggagacatgcaagatatatggagagctcaattgtacaactacaaagtagtacagataaaaccttttagtgta  
gcacctacaagaatctcaaggccaacaataaaccttaacacctcgcagagaaaaaagagcagtaggattggga  
atgctgttcttggggcgctaaagccttgccaggttagcactatggcgcgagtggaacaacactgacgggtacagacc  
cacagtgactgaagggtatagtgcaacagcaggacaacctgctgagagcgatacaggcccagcaaacacctgctg  
aggctatctgtatggggatcagacaactccgagctcgctgcaagccttagagacccttgtagagaatcagcaa  
cgctaaacctatggggctgtaagggaaggataatctgttacacatcagtaaaatggaacacatcatggggagat  
tacaatgacagtatgttgaaccactatacatggcagcaatgggaccaacaataagataatataagctccattatc  
tatgatgaaatacagcagcacaagaccaacaggaaaggaatgtaaaggcactgctggagctagatgaatgggcc  
tctctttggaactggtttgacataactaaatggctgtggtatataaaaaatagctataatcatagtaggagcactg  
ataggatataagagttatcatggtagtacttaatctagttaggaacattaggcagggatatcaaccctctcgttg  
caggctttcaaactttgtggagctgtaacacaatactggctacaagaattgcagactagtgtataaatctgttt  
gatacttttgagtgccagttgctaattggactgacagctttatcttaggtatacaagaataggacgaggattc  
cttaacatcccaagaagggttagacaaggcgcagaaatagcattattgtaa

>#67 AY169809 2286 nt

cagttgtatgcaacagtcatttctgggggtgctgtatgggaagaagcaaaaccaataactattctgtgcttccgat  
gtaacttaacaagcactgagaagcacaataatttgggcagcacaagcctgcgttcccacagacccccactccacat  
gaatatccattatccaatgtgacagataacttcaatatatgggaaaattacatgggtggaccagatgcatgatgat  
atcactgatttgtggaagcagagtttaaagccatgtgttggaattgactttcctgtgtgtacaaatgaattgcaca  
gatgttactcatactaataatgtaaccatctcgcaggctgtaaccagccccgtaaaaaagtgtgatttcaatgta  
accacaattttcaaagacaaaaggagaaaaaacagggtctattctataaagcagatttgccttgaaacaaaagaa  
ttagaatcaaacagaacaatgtatacattaattaactgtaactccacaaccatcaagcaagcctgtccaaaagta  
acttttgaacctattccaatacactactgtgctccagcaggctatgccatctttaagtgtacaatatagcgaattt  
aacggaaaagggtgcatgcagtaataattacagtagttacttgtacacatggcatcaagccagcagtaagtactcaa

ctaataactaaatgggacactctctaaaggaaaaataagaattatgggaaaaaatatttcagacagtgggcaaagt  
atcctagtgtactctaaattctactataaacataacctgtgagagaccaggaaatcggaaaagagaggagataaaa  
ataggtccaatggcttggtacagtatgtcagtagaaaacaacataacatcaagggaagcttattgcacatataat  
gtcagtaaatgggcaacagccctaaagcaaacagctgagaggtatctagaacttgtaaacatacacaggctagc  
ataacattcaatcaaagcagtgggtggagatccagagataaccaatttacatttcaattgtcatggagaattcttt  
tattgtaacacaacggggttggttaattatacctttctgtgtgaaaactccatctgtaacttcaccataacaat  
acttcagaggagcgcaatctaacttgtagaattagacaggtggtaagggtcatggatgaagacaggggtcgggactc  
tatgcacctcccatcgaaggtaacctaacaatgttaggtcaaacataactggaatgattctagaaatggataaacca  
tggaacaaaagtacaaacaatgaaacagccatatttagaccaatagggggagatatgaaagaaatatggagaact  
gaattgttcaactacaaagtagtaagggtaaaaccttttagtgtggcacctacaaaaattgcaaggccagtcata  
ggcactggcactcctagacagaagagagcagtaggattgggaatgctattcttgggggttctaagtgcagcagga  
agcactatgggcgcaacgggaacaacgctggcggtacagacccacactttaatgaagggtatagtgcacagcag  
gacaacctgctaagagcaatacaggcccagcagcatttgcctgaggtatctgtatgggggtattagacaactccga  
gctcgctgctagccttagaaacctttatacggaaatcagcaattcctaaacctgtgggggtgtaagggacaatta  
gtctgctacacatcagtaaaatggaacacaacatgggggaagcaatattcctaataactaactctrgaggaaatt  
tggggcaaaactaacctggcaggaatgggatcagcaggtgaagcaatgtaagctccatcatatatgaggaaatacaa  
aaggcacaagtacagcaggaacaaaatgagaagaagttgctggagttaaatgaatgggcctctatttggaaattgg  
cttgacataactaaatgggttggtatataaaaaatagctataatcatagtaggagcactagtaggtgtgagagtt  
gtyatgataataacttaacttagtgagaaacattaggcagggatatcaacccttatcgttacagggttgtagaatt  
ggtagagctgtaatacaataactggctacaagaattgcagaatagtgtctataagtctggtagataaccttggcagtg  
gtagttgccaatggactgacggcatcattttaggactacaacgcataggaagaggaattcttaacatcccaaca  
agaattaggcagggcctagaattagggtttattgtaa

>#68 KU168283 2226 nt

cagctgtatgcaacagtctatgctggggtacctgtatgggaagaggcaaccccagttatttctgtgcttcagat  
gcgaacctaaacagcactgagcagcataacatttgggcatcacaaagcctgtgtccccacagatcccactccatat  
gaatatccattaaagaatgtgacagataaacttcaatatatggaaaaattacatggtagaacaaatgcaggaagac  
attattagtttatgggaacagagcttaaaaccttgtgttcaaatgactttcctgtgtgtacaaatgaattgtaca  
gacataatgaaacagtggtgcctttaatatataaccacagttctcaaagacaaaaaggagaaaaaacaggctctgttc  
tatgtatcagatttacataaattctatgataacgagacaaaatagcacaaatgtatagattaactaactgtaattcc  
tcaaccattaggcaagcctgtccaaagggtatcttttcagccaattccaatacactattgtgtctccagcaggatat  
gccatctttaagtgtaacagctcagaatttaattggaacaggtacatgccgcaacattacagtagttacttgtaca  
catggcatcaagccaacagtgagtactcaactaatattaaatgggacactctctgaaggaaaaatcagaattatg  
gggaaaaatatctcggacagtggcaaaagcatcttagtgacctaaattctactataaacataacctgtgagaga  
ccatggaaatctgtcattacaagagatacgcataaggtccaatggcctggtatagcattgtttacagacacaacc  
caggcaagggttagctcattgcacgtataataccactgattgggaaaaagccttaaaacaaacagctgaaagggtac  
ttagaacttgtaactatacaagtggtaatgttaacataacattcaatagaagcaatgakggaggagatgcagaa  
ataaccagctacatttttaactgtcacggagagttcttctattgtaacacatctagtctgtttaattatagcttt  
tcatgtaacggaaccaactgtactattaaccaaactaaaaatgagacttggtacacttgaggataaaaacaggta  
gtaagggtcatggatacagggaagggtcaggactctacgcacctcccatccgaggtgcactaaaatgtgagtcaaac  
ataactggaataattctagaaatggatcagccatggaataaaagcagcccagatgtcacatttagaccaataggg  
ggagacatgaaagacatatggagaactgaattgttcagatacaaaagtagtaaaaggtaaaaccttttagtgtggca  
cctacaaaaattgcaaggccagtcataggcactaacactcatagagaaaaagagcagtaggattgggaatgcta  
ttcttgggggttctaagtgcagcaggaagcactatgggcgagcggaacaacgctggcggtacagacccacact  
ttgatgaagggtatagtgcacagcaggacaacctgctaagagcaatacaggcccagcagcaattgctgaggcta  
tctgtatggggtatcagacaactccgagctcgctgctagccttagaaaccttaatacagaatcagcagctccta  
aacctatggggttgtaagggaaggataatctgctacacatcagtaaaatggaacagtacatggggaaatgtcacc  
agtatgagtgaagtttgggacaaaactaacctggcaggaatgggatcagcagatagacaacataagcaatgttata  
tttgatgaaatacaaagagcacaagtagcaggaacaaaatgagaagaagttgctggagtttagatgaatgggct  
tcaatttggaattggcttgacataactaaatgggttggtatataaaaaatagcaataatcatagtaggagcacta  
ataggtgtaagaattgtcatggtagtagtacttaactagtgtgagaaacattaggcagggatatcaaccctctcgttt  
caggcttgcaaatgtgtgcagctgtaggacaatactgggtacaagaattgcagaatagtgtacaaacctatta  
gataccattgcagtggtgagttgccaatggactgacggcataatattaggaatacaaaggataggaagaggaatt  
cgtaacatcccaaggagaactagacagggccttagaacaagaatttattgtaa

>#69 AY169813 2250 nt

aatctatatgcaacagtcctattctggggtgcctgtgtgggaagatgcaascccaacattattctgtgcttcagat  
gttaaccttactagcactgagagccataatatttgggcatcacaggcctgcgtccccacagacccctcaccacat  
gagtatccactaattaatgtgacagatagattcaatatatggaagaattacatggtagatcaaagcaggaagac  
attattagtttatgggagcagagtcctaaaacctgtgttcaaagactttcctgtgtgtacaaatgaattgtaca  
gatgtcaatcaaacattgagtaatgcgacacaagggatggaagtaaaaaagtgatgaatttaattgtaactacagtt  
ttaaagacaaaaaggaaaagaaacagggtctattctatgtatcagatttggctaagggttcaagatagtggtcag  
aatggaacatatacattaattaattgtaattccacaaccatcaagcaagcctgccccaaagggttcttttgagccc  
atcccaatacattattgtgctccagcaggatagccatctttaagtgtaatgacacagcatttaattggaacaggc  
ttatgcaagaacatttcagtagttacttgtacacatgggtatcaagccaacagtaagtactcaactaataactaat  
ggaacaatctctgaaggaaacataagaatgctgggaaaaaatctgacaagtaatgagaatatcctagtgcactcta  
aattccactataagcataacctgtgagagaccatacaatcagtcatacaagagtttaaggataggtccaatggct  
tggtacagcatgacattagaacaaaacaaaacaggcagtaacataaggacagcttattgcaattataatggctct  
gactgggaaggtagcattaaaaggagtagctgaaagatatttagaacttataaatcagacaaaacatgctaccgtg  
acattcagtaatagtacgggtggagatccagagataagctttttgcattttaactgtcatggagaattcttttat  
tgtgacacaagtaagatgtttaattatacctttaattgtaacaagaccaaagtaataatagtaaaaaatagtagc  
cataataacactatgacaacaataccttgcagaataaaaacaggtagtaaggctcatggataaggggagagtcggga  
ctctatgcacccccattaaaggtaatttaacctgcataatcaaacataactggaatgattctattaagggacgag  
ccagggaataacagcagacacaccccttaggccagtagggggagatagaaagatatatggagaactgaattagtc  
aattacaaagtagtaaaaaataaaaccttttagtgtagcacctacaaaaattacaaggccagtcataagcaccat  
agagaaaaaagagcagtaggattgggaatgctattcttaggggttctaagtgcagcaggtagcactatgggcgca  
gcggcagtgacgctgacggtacagacccaaacctttgttgaagggtatagtgcaacagcaggacaacctgctaaga  
gcaatacaggcccgcaacagttgctgaggttatctgtatgggggtatcagacaactccgagctcgctgcaagcc  
ttagaaacctttatacagaatcagcaactcctaaacctctgggggtgtaagggaagctaatgtgtatatacatca  
gtaaaatggaacaaaacatggggaggagatgagtcattctggggtaacctaacatggcagcagtgggatcagcag  
atagagaatgtaagctccatcatatatgaagaaatacaaaaggcacagaacacaggaacaaaatgagaagaag  
ttgctggaattagatgaatgggcctctctttggaattggcttgacataactaaatgggtgtgtatatataaaaaa  
gctataattatagtaggagcactaatagggtgtgagaattatcatggtaataacttagtctagtgaagaacattagg  
cagggatatacaacctctctggttacaggcctgcagacaaaacagagctttattacaatattgggtacaagaattg  
caaaaaagtgtacaagcttgctagataccattgcaataatagttggcaattggactgatagtatcatcttagga  
ctacaaagaataggaaggggaattcttaacatcccaagaagaattagacagggccttgaacgctgcttagtgtaa  
>#70 AY169805 2334 nt

ctgtatgcaacagtcctatgctggggtacctgtatgggaagaggcagaaccagtcattattctgtgcctcagatgct  
aacctaacaagcactgagcagcataatgtttgggcatcacaggcctgtgtccccacagacccactccacatgag  
tatccattacgcaatgtgacagataaatttaatatatggaaaaattacatggtagaccaaatgcaggaagacatt  
attagcctatgggaacagagcttaaaacctgtgttcaaagactttcctgtgtatatacaaatgaattgtacagac  
atacaaatcaattctaaagaaaacaactctacaaacgatagctcaataaaacctataagcacagagaacctaac  
agcatagagaacctatgaaaaattgtgagtttaattgtaactacagtttctcaaagataaaaaaggagaaaagacag  
gctctattctatgtagcagacttggtatagagtgaataatagtgaataaggtaacacagcatatacatattaay  
tgtaactccacaaccatcaagcaagcctgtccaaagggtatcttttgagccaattccaatacactattgtgctcca  
gcaggatttgccatcttcaagtgtacacagcagagtttaattggaacaggcacatgccacaacattacagtagtt  
acttgtacacatgggtatcaagccaacagtaagtactcagctaataatgaatggaacactttcggaaggaaagata  
agaataatagcaaaaaatatttcagctactggcaacaatatcatagtgaccttaataactactataaacatgacc  
tgccagagaccaggacatcaagatgtacaagagataatgacagggtccactggcctggtatagcatggaactaaag  
aaagacacaaacacatccaaatcaagaatagcttattgtgagtataataccaagaagtgggaagaggccttaaga  
cagacagctgaaaggattttagaattagtaaacatacagggtgttagagaaatgatattcaattacaatactgga  
ggagatccagagataacccagttgcattttaattgtcatggagagttcttttactgcaacacatctcagatgttt  
aattatatctttaactgtaccggaaccacctgtaattataccaaaaacatccaaaattataccttttagccaaaat  
accactagcactaagataccttgcagattgaggcaggtagtaagggtcatggatgaggggaggatcgggacctat  
gcacctcccatccgaggttaaccttaacatgtggatcaaacataactggaatgattctagaaatggatgagccatgg  
aacgagagccacagggaaagcatatttagaccaacagggggaaatatgaaagatatatggagaactgaattgctc  
agatacaaaagtagtaaggataaaaccttttagtgtggcacctacaaaaattacaaggccagtcataaggctttggc  
acccgcagagaaaaaagagcagtggttgggaatgctattcttgggggttctaagtgcagcaggtagcactatg  
ggcgagcggcaacagcgtgacggtacagacccacactttgataaagggtatagtgcaacagcaggacaacctg  
ctaagagcaatacagggccagcagcacttgctgaggctatctgtatgggggtatcagacaactccgagctcgctg  
ctagccttagaaaccttaatacagaatcagcaactcctaaactcatgggggtgtaaaggaaggctagtctgttac

acatcagtaatatggaacacatcagaatggaaaggaaatgagtcctatttggggcaacctcacatggcagcaatgg  
gatcaggagatagacaatgtaagtgccaccatatttgaagaaatactaaaagcacaatacagcaggaaacaaat  
gagaaaaagctgctggagttagatgaatgggcttcyatttgggaattggcttgacataactaaatggttgtggtat  
ataaaaacagcaataatcatagtaggagcactaataggtataagaattgtcatggtaatacttaatttagtgaga  
aacattaggcagggatatcaacccctctcgttcagggttgacagaatttgtgcagctgtaatacaatactggctt  
caagaattgcagaatagtgctacaaatctagtagatactattgcagtagcagtagctaattggactgacagtata  
atcttagggatacaaagaataggaagaggaatctggaacgtccccaggagaattagacagggatttgaaagaagt  
ttgttataa

>#71 HQ179987 2349 nt

gctattagctatactagtggaaacacgttatgttactgtatattatggggttccagtttggagagatgctaaaatt  
accttattctgtgcagcagatgcatcgctaactagcarwgagcagcataatatttggggccaccaggcctgtgtg  
cccacagaccctagaccaatagaggtcaggatagataatgtaacagagtccttttaataatttgggacaatttatg  
gtgacacaaatgcaggaagacatcattagcttatgggatcagagccttaaaccttgtgtaaaattgacagttcta  
tgtgttactatgrattgtagcgactgcagcacggttgactgtactaataactcctccagggttaataacagcacc  
gacagcaccaacaccagcaaaaccaatccattagaattatttcagtgcagttttaatacaaccacaatagtaaaa  
gataaacagcagacacagcaagcactcttttatagagcagacctaacaaaattggataatgacaatagtacatat  
agattaattaattgcaacaccactaccattacacaggcatgccccaaaagtgaactttgagccgctacccatacag  
tattgtgcaccagcagggtatgcactaatgaaatgcaatcagacaggatttaatgggtacaggaccttgtaataag  
acagttataacacactgtacacatggaattaagccaacagtggtcaacacaattaatactcaatggaactctagca  
aaggagagcccttagtaattactcagaatgtgtcagatacaggaaaagtcattcatagtaaaattaaatgagagt  
gtgtcactcacctgtataagaccaggtaataacacaagaggacaagtgcacttaggagtcattgacatggtataat  
atgaaacactacgtaggcgatatcagggcagctcattgtaatgtttctagggaaaattggaaaagaaccttagaa  
tgggtcagtgaggccatctggaaggcttatcctcaacattccaaccatacatccaaacacaaccatacatttgtt  
tttaaaaacagtacagggggagaccagaggtttcttcgctgcacttcagttgtcatggggaattcttttattgt  
aacaccagcagcctgttttaacttttagttatacttggaaatgacaccacctggcgggctgcaggcaatcataataca  
agtgaaaatataacactgtcttgttagactgaagcaagtagttaattcatggatgagagtgaggatcaggcttgtt  
gagacacctattgagggggaattaaagtgtcaatccaacattacagggttaatgttagaaaagagaactaccttac  
aatgacagcagcaagaacaccactttaagtccatagggggagacatgacaaatatctggagaagtgaagttatat  
ccctacaaaagtagttcaagtaaaagctctggcctgtggcacctacaaaaatttccagacctacaattatggctcat  
gatggacataggaagaaaagggcagcaggcctaggaatgctattccttgggtttctgagcgcagcaggaagcact  
atgggcgcagcgggaatcacgctgacggtacaggccaagcaattattgcatggtatagtgcagcagcagaacaat  
atgctaagagctatagaggcacagcaagaattgctgagactctctgtgtggggcataagacagctccgagctcgc  
ctgcttgccattgaaacctatttaagggatcagcaactcctaggactgtggggatgctcaggacaaatartatgt  
tatactaatgtgccatggaatagtacctggaccaacaaaaatgaaacagaattagatggcatttggggtaatcta  
acatggcaggagtgggacaaaactgggtggataattacactgacacaatttacttggaaatacagaaagcacaagag  
cagcagaaggaaaatgaaagaaagctattagaattagacaaatgggcacaattgtggagctggatggacataaca  
aaatggttgtggtacataaaaaattttcattatgatagtaggaggaattataggactaaaaatcttaattggctata  
ggtaatgtagtgcagaaagtcaggcagggataytcacctgtrtcgttgagtgccctgcgagactgctttgctgcg  
tgtggctattggactcaagaattaaaacaragtgcaccagcygttgaaactggtgctatatcagttgcaaat  
tggactgatcaagtaatagcagtagggcaacaaataggaagaggcttcttgaacataccaagaagggttaagacaa  
gggctagaaagaagcttactgtaa

>#72 GU111555 2322 nt

gctattagctgtgctagtggaaatacactatgttactgtatattatggggttccagtttggagaaatgctgaagtt  
accttgttttgtgcagcagatgcatcgctaactagcaaagagcagcataatatttggggccaccaggcctgtgtg  
cccaccgacctacaccaatagagatcccgataaatgtaacagagtccttttaataatttggaaaaatttatatgggtg  
acacaaatgcaggaagacatcattagcttatgggatcagagccttaaaccttgtgtaaaattgacaatcctatgt  
gtcactatgaattgtagtgaatgccacagggagggttagctgtaataataacagtagctcctctgtgaatakcacc  
gccgacaatccattagatctatttaagtgcagttttaatacaaccacagatttgaaagataaaaagcaggggacag  
caagcactcttctatagaacagacctaatagcactgaatgagacagcaaaataatacactatatagattaattaat  
tgcaacaccactaccattacacaagcatgccccaaaagtgaacttttgagccactaccatacagatttgtgcacca  
gcagggtatgcactaatgaaatgcaatcagaaaggatttaattggtacaggaccttgtaatcagacagtcataaca  
cactgtacacatggaattaagccaacagtatcaacacaattgatactaaatggaactctagcagaggaagagccc  
ttagtaattactcaaaatgtgtcagacacaagatatgttatcatagtaaaattaaataagaatgtgtcaatcacc  
tgtgtaagaccaggtaataacacaagaggacaagtgc aaataggacccatgacctgggtataatatgaaattctac  
acaggtgatatcaggaaagcttattgtaacattttccatgcaaaattggacagaaaccttaaaatctgtcagtgag

gccatctggaaagcttattcctcaaccccccaacaaaaccatacatttgtctttcgaaacagtacagggggagac  
ccagagggtttcttttctgcactkcaattgtcatggggaattcttttattgtaacaccagtaccctgtttaattat  
agctatacttgaataacctcggtgcatgtacaggtaaacacacaggtgagaacatgacaataaactgccttgt  
agactaaagcaagtagttaattcatggatgaaagtgggatcaggcttgtttgcgccacctatcgagggacaattg  
cagtgccactccaacattacagggttaataattagacagagcatcaccttataatgccaacagcagcaaacaccact  
ttaagccctacagggggagaaatgagaaatatctggagaagtgtgttatatccctacaaggtagttcaagtaaag  
gctctggctgtggcacctacaagagtctccagacctacaatcatggctcatgatgctcataggaaaaaaggga  
gcaggcctaggaatgctattccttgggtttatgagtgcagcaggaagcactatgggcgagcggcagttacgctg  
acggtacaggccaggcaattattgcatggtatagtgagcagcagacaataatgctacgagctatagaggcacag  
caagaattgctgagactctctgtgtggggcataagacagctccgagctcgcttgccttgcattgaaacctactta  
agggatcagcaactcctaggactgtggggatgctcaggacaaacagtatgttataactaatgtgccatggaatagg  
agctggaccaacaaaagtgtgagactgaattagatggcatttggactaatctaactggcaggaatgggacaaamtg  
gtggataattacactgacacaatttatttagaaatacaacgagcacaagatcarcaaaaggctaataaaaaaag  
ttattagagtttagaccaatgggcacaattgtggaactgggtggacataacacaatgggtgtggtacataaagatt  
ttcattatgatagtaggaggaataataggactaagaatcttgttagctataattaatgtagtcaggagaatcagg  
cagggatactcacctgtatcggtacagtgcctgcgagactgcttgcctgctgtggctattggactcaagaatta  
aaacaaagtgaaccagcttattggacactgttgcctatcagttgcagggtggactgatcaagtaataatagta  
gggcaacaaataggaagaggctttttgaacataccaagaaggataagacaagggatagaaagaagcttgcta  
>#73 DQ017382 2190 nt

caacattgggtaacagtgtactatggggtgccagtatggagagacacagagacagttcttttctgtgcttcagat  
gctaaagcccatagtagcagaggctcacaacatctggggccacacaagcatgtgttccactgatcccaatccacaa  
gaagtgccattaatcaatgtgactgaacattttgatatgtggaaaaataacatggcagaacaaatgcaagaggac  
attatcagtttatgggaacagagcttaaagccctgtgttmaattaaccccattatgtgtaactatgcattgtwac  
aatagcaatgggkttaatgrgacagttgacaatggggaattagatataggatacaaaacaaatgaaaaattgttca  
ttcaatgtaaccactgagagaaaagataaaaaagaagctagcttactctctgttttatgcagaagatgtagtgcaa  
ctcaatgagagtgacagtagcaatcaaacatataggctaataagttgtaaaaccacatctgtaacacaagcctgt  
cctaagaccacctttgagccaattccaatacattactgtgcaccaccaggctttgccattatgaratgtaatgaa  
ggaaacttttagtggaaaagggaatgtaaaaatgtgagtactgtacaatgcacacatggaataaagccaacgata  
tctactcagttaatcmtaaatgggagcctagatacagatgatattgttmttagayrtsataawgataatatgttg  
gtgcaatggaatmagacagtggtcaataaattgtacaaggccagggaataatayaggaggacaggtgcagatagga  
cctgctatgacatttttataacatagagaaaaataataggggacattagacaagcacactgtaatgtctctgaagaa  
tggaatcaatgtgggatagaaacaaaagagaaaaataaagggcctcctgggaaacaacacaacctttaagtctcgg  
gtgaacattggaggagaccagaagtaagacacttcatgttcaattgtggaggagagtttttcccttgttaacact  
tccagattatttgatgagaacgggactgtaaatgggactattattctgcctgtagaataaaaacaaattgtaaat  
ttgtggacaagagtaggaaaaggaatttatgcaccaccaattcggggaaatattacctgtaactccagtattact  
ggactaattctagaagttagtggaaatagtagcatagaaccataggagtagcaccaggtaaaagctaaaagacgcacagt  
aatagagaaaagagagcagcctttggactaggtgcgctgtttcttgggttcttgggtgcagcagggagcactatg  
ggcgagcgtcaataacgctgacggtacaggccccggaacttattatctgggatagtgtcaacagcagaataatctg  
ttgagagcaatagaggcgcaacaacaattgttgcaactctcaatctggggcattaaacagctccaagcaaaagtc  
cttgcctatagaaagataccttagggatcagcaaatcctaagtctatggggctgctcaggaaaaactatatgctat  
accactgtgccttggaatgagacttggagcaatcatacctcctatgattcaatctggggaaatttaacctggcaa  
caatgggatgagaaagtaagaaactattcaggtgtcatttttgaccttatagagcaggcacaagagcagcagaac  
acaaatgagaaatcactcttgggaattggatcaatggacaagtctgtggaactgggttgatatttcaaactggctg  
tggtacataaaaaatagctataatggtagtagcaggcattataggcataagaatcataagtgtataataactata  
atagcaagagtttaggcagggatattctccctctcgttgcagctcagaaaacgcttgtggggaatactagcatat  
tggggaaaagagttaaaagatagtgctatcagcttgccttaatacaacagctattgcagtagcagggggracagat  
aggcttatagaattagcacaagaataggaagggggaatattacacatacctagaagaatcagacagggcctagaa  
agaacacttttataa

>#74 AY532635 2211 nt

aaatattgggcaacagtgtactatggagtaccagtatggagagatgtagaaacagttcttttctgcgctcagat  
gctaaagcccatagtagcagaggctcacaacatctggggccacacaagcatgtgtccccactgatcccaatccacaa  
gaagtaccactagacaatgtgactgaaccttttaatatgtgggaaaaataaaatggcagaacaagtgtcaagaggac  
attattagtttatgggaacagagcttaaagccctgtgttaaattaaccccattatgtgtaactatgaattgtagc  
aatagcaatggaaatcggacaacagatgagaaagaaaaaccaggaaatgggacagacctagaagcaagacacatg

aaaaattgctcattcaatataaccactgaaatacatgacaaaaagaagcaagcttactctctgttttatgtagaa  
gatgtagtgccactcaatgatgggaataatagtagacatacaggctaataaattgtaataccacagctgtaacacaa  
gcttgctcctaagactaccttttgagccaattccaatacattactgtgcaccaccaggctttgccattatgaaatgt  
aatgaagcaaatttttaattggaacaggggaatgtaaaaatgtgagtactgtacaatgcacacatggaataaagcca  
gtgatatccactcagttaatcctaaatgggagcttagataaagatattgttattagaaataatagtggtggaaat  
ctggttggtgcaatggaatgagatagtgacaatgaattgtacaaggccagggaataatacaggaggacaggtacaa  
ataggacctgctatgacatttttataacatagaaaaaatagtagggagacattagacaagcacactgtaatgtctct  
aacgaatggagatcaatgtggaataaaacaaaagagaaaaataaagagcctcctgggaaacaacataacattcaag  
gctcaggaaaagaatggaggagacccagaagtaacacacttaattgttcaattgtggaggagagtttatctattgt  
aatacttccagattattcaatgagagcatgaatacaaatgggactaatgggactattactctgcctgtagaata  
agacaaattgtaaattttgtggacaagagtaggaaaaggaatttatgcaccgccaattcggggaaatcttacctgt  
aactccactattactggactgattctagaacatagtggtggcagtaatggcacagtatatccacaggaggaaac  
atggtcaatctctggagacaagagttgtataagtacaaaacagtcagtatagaacccataggagtagcaccaggt  
aaagctaaaagacgcacagtgagtagagaaaaagagcagcctttggactaggtgcgctgtttctgggggtttctt  
ggagcagcagggagcactatgggcgagcgtcaataacgctgacggtacaggcccgacattgttatctgggata  
gtgcaacagcagaataatctggtgagagcaatagaggcgcaacaacatttgttgcaactctcaatctggggcatt  
aaacagctccgtgcaaaagtccttgctatagaaagataccttagggatcagcaaatcctaagtctatggggctgc  
tcaggaaaaactatatgctataccactgtgccttggaaatgagacttggagcaataatacctcttatgatacwatc  
tggggtaatttaacctggcagcaatgggataggaaaagtaagaaactattcaggtgtcattttttgagcttatagar  
aaggcacaagaacaacagaacacaaatgagaaatcactcttggaaattggatcagtgaggcaagtctgtggaactgg  
tttagtatcaciaaactggctgtgtgtacatcaagatagctataatggtagtagcaggcattataggcataagaatc  
ataagtgtataataaactataatagcaagagttaggcagggatattctcccctctcgttgcagctcagaacacgc  
ttgtggggaataatagcatatttggggaaaagagttaaaggatagtgctatcagcttgcttaacacaatagctatt  
gtagtagcagagggaacagacaggcttatagaattagcaciaaagaataggaaggggaatattacacatacctaga  
agaatcagacagggcctagaaagagcacttctataa

>#75 AJ006022 2220 nt

caacattgggtaacagtgtagtactatggggtaggagagaagcagagacaactcttttctgtgcttcagat  
gctaaagcccatagtacagaggctcacaacatctggggccacacaagcatgtgttcctactgatcccaatccacaa  
gaagtgtattacccaatgtaactgaaaaatttaatatgtgggaaaaataaaatggcagaccaaatagcaagaggat  
attatcagctctgtgggaacagagcttaaagccctgtgttaaattaaccccattatgtgtaactatgctttgtaac  
gatagctatggggaggaaaaggaacaatacaaatatgacaacaagagaaccagacataggatacaaaacaatatgaaa  
aattgctcattcaatgcaaccactgagctaacagataaaaaagaagcaagtttactctctgtttttatgtagaagat  
gtagtaccaatcaatgcctataataaaacatataggctaataaattgtataataccacagctgtgcacacaagcttgt  
cctaagacttcctttgagccaattccaatacattactgtgcaccaccaggctttgccattatgaaatgtaatgaa  
ggaaacttttagtggaatggaagctgtacaaatgtgagtactgtacaatgcacacatggaataaagccagtgata  
tccactcagttaatcctaaatggaagcttaaatacagatggaattgttattagaaatgatagtcacagtaatctg  
ttggtgcaatggaatgagacagtgccaataaattgtacaaggccaggaaataatacaggaggacaggtgcagata  
ggacctgctatgacatttttataacatagaaaaaatagtagggagacattagacaagcatactgtaatgtctctaaa  
gaactatgggaaccaatgtggaatagaacaagagaggaaataaagaaaaatcctggggaaaaacaacataaccttc  
agggtcgagagagggaatgaaggagacctagaagtgcacacacttaattgttcaattgtagaggagagtttttctat  
tgtaacacttccaaattattttaattgaggaattacttaacgagacaggtgagcctattactctgccttgtagaata  
agacagattgtaaattttgtggacaagggtaggaaaaggaatttatgcaccaccaattcggggagttcttaactgt  
acctccaatattactggactggttctagaatatagtggtgggcctgacaccaaggaaacaatatgtatatccctca  
ggaggaaacatggttaatctctggagacaagagttgtataagtacaaagtagttagcatagaacccataggagta  
gcaccaggtaaagctaaaagacgcacagtgagtagagaaaaagagcagcctttggactaggtgcgctgtttctt  
gggtttcttgagcagcagggagcactatgggcgagcgtcaataacgctgacggtacaggcccgacattatta  
tctgggtagagtgaacagcagaatatctgtttgagagcaatagaggcgcaacaacatttgttgcaactctcaatc  
tggggcattaaacagctccaggcaaaaagtccttgctatagaaagataccttagggatcagcaaatcctaagtcta  
tggggctgtcaggaaaaacaatatgctataccactgtgccttggaaatgagacttggagcaacaataacctcttat  
gatacaatctggaataatttaacctggcaacaatgggatgagaaagtaagaaactattcaggtgtcatttttggga  
cttatagaacaggcacaagaacaacagaacacaaatgagaaatcactcttggaaattggatcaatgggacagctctg  
tggagctggtttggtattacaaaatggctgtggtatataaaaaatagctataatgatagtagcaggcattgtaggc  
ataagaatcataagtatagtaataactataatagcaagagtttaggcagggatattctccccttctcgttgacgctc  
agaacacacttgtgggggaataacttgcataattggggaaaagagttaagggatagtgctatcagcttgcttaataca



acagctattgtagtagcagaaggaacagataggattatagaattagcacaaagaataggaaggggaatattacac  
atacctagaagaatcagacaaggcctagaaagagcactgatataa

>#76 MF7672 2214 nt

aattattgggtaacagtgtactatggagtaccagtatggaaggaagcacataccgttcttttctgcgcctcagat  
gctaaagcccatagtgagaggctcacacatctgggccacacaagcatgtgtccccactgatcccaatccacaa  
gaagtgtattactaatgtgactgaatatTTTaatatgtggaaaaataaaatggcacagcaaagcaagaagac  
attatcaacttatgggaacaaagcttaagccctgtgtttcattaactccattatgtgtaactatgctttgtaac  
gatagcaatggatggaatgagacagtaaacacactgcaagcccgacwtgaaacaaatgagaaattgctcatat  
aatgtcaccaatgagataagagataaaaagaagcaagtttactctctgttttatgtagatgatgtagtaccactc  
aatgacagtgtgacaacatataggctaataaattgcaataccacagctgtgacacaagcttgctcctaagacctcc  
tttgagccaattccaatacattactgtgaccaccaggctttgccattatgaaatgtaatgaaggaaattttagt  
ggaaatggaacttgtaaaaatgtgagtactgtacaatgcacacatggaataacaccaataatatccactcagtta  
atcctaaatggaagcttagatacaaaaggatatagttattagacatcatagagatagaggagntagagggtgatctg  
ttggtgcaatggaatgagacagtgtcaatgaactgtacaaggccaggaaataattcagtaggacaggtgcagata  
ggacctgctatgacattttacaacatagagaaaatagtaggagacattagacaagcacactgtaatgtctctgga  
aactgggcatcaatgtggaacaaaacaaaagaaaaatacagaacctactgggaaaaaayacaacakaattcrag  
gttcgggggaaaaatggaggagacccagaagtaacacacttaattgttcaattgtagaggagagtttttctctgc  
aacactactaacttatttaattgacagcaagaatgcaactaatgggggtattactctgccctgtagaataaaacaa  
tttgtgaatttggtggacaagagtaggaaaaggaatttacgcaccaccaattcggggagagcttttctgtaacttc  
aatattactggactaatgctagaacatagtggttaacaccaacagttacaatatctcctactatatccctcaggagga  
aacatgggttaattctctggagacaagagctgtataagtacaaagtagtcagtatagagcccataggagtagacca  
ggtaaagccaaaagacacacagtggttagagaaaaagagcagcctttggactaggtgcgctgtttctcgggttt  
cttgagcagcaggggagcactatgggcgagcgtcaataacgctgacggtacaggcccgagkttattatctggg  
atagtgaacagcagaataatctgctaagagcaatagaggcgcaacaacatttggtgcaactctcaatctggggc  
attaaacagctccaggcaaaagtccttgctatagaaagataccttaragatcagcaaatcctaagtctatggggc  
tgctcaggaaaacttatatgctacaccactgtgccttggaatagcacctggagcaataatatctcttatgatgrc  
atctggaataatttaacctggcaacaatgggatgagaaagtaaaaaactattcaggtgtcattttcgrtcttata  
gagcaggcacaagaacacaaaacacaaatgagaaatcactcttggaattggatcaatgggcaagtctgtggaac  
tggtttgatattacaaactggctgtggtacataaaaatagctataatggtagtagcaggcattataggcataaga  
atcataagtgtagtaataactataatagcaagagttaggcagggatattctcccctctcggtgcagctcaggata  
cgcttggtgggaataatagcatattggggagcagagttaaaagagagtgccattagcttgtttaatacaacagct  
attgtagtagcagaggggaacagataggattatagaattagcacaaagaataggaaggggaatcttacacatacct  
agaagaatcagacagggcctagaaagagcacttttataa

>#77 KY498771 2229 nt

caacattgggtaacagtgtactatggggtaccagtatggagagacgcagagacagttcttttctgcgcctcagat  
gctaaagcccatagtagagaggccacaacatctgggccacacaagcatgtgttccccactgatcccaacccacag  
gaagtgtattacccaatgtaactgaaaattTTTaatatgtggaaaaataacatggcagaacaaatgcaagaagac  
atcatcagtctatgggaacagagcttaagccctgtgttaaattaacccattatgtgtaactatgctttgcaac  
aatagcaatggaaatatgtcagttgaggggtaccaccagaggactacaacaagtagtacagggtataggaaataag  
ctaatgaaaaattgctcatttaattgcaaccactgagagaaaagataaaaagaagacagtttactctctgttttat  
gcagaagatgtagtaaaaaatctcaaatgatagtacttataggctaataagttgtaatactacagttgtgacacag  
gcttgctcctaagatctcttttgaaaccaattccaatacattactgtgcaccaccaggcctttgccattataaaatgt  
aatgaaggaaatttttagtggaatggaacttgtaaaaatgtgagtactgtacaatgtacacatggaataaagcca  
gtgatatctactcagttaatcctaaatggaagtttaagcacaggtgacattgttattagaaatagcagtcgcggt  
actctgttggtgcaatggaatgagacagtgcataaattgtacaaggccaggaaataatacaagtggaacaggtg  
cagataggacctgctatgacattttataacatagagaaaatagtaggagacattagacaagcgcactgtaatgtc  
tcttgggaaagttggggaaaaatgtggaatagaacaaaagacaaaataaacagggaggtcaactggaccaactgg  
atctaccgggatagggagaagaaggaaggagatccagaagtaacccaattcatgttcaattgtagaggagaattt  
ttctattgtaacacttctaattgtttaaggagagtaaatcgtctaacaggacagggagattactctgccctgt  
agaataaaacaatttgtaacttggtggaacagggtaggaaaaggaatttatgcaccaccagttaggggaaatctt  
acttgtaattccagttacttgactgrttytagaatatagtrakgyagataatgggtactaatgttacagtatat  
ccctcaggaggaaacatgattgatctttggagacaagagttgcatagatacaaagtagtttagtatagaaccata  
ggagtagcaccaggtaaagctaaaagacgcacagtgagtagagaaaagagagcagtcctttggactgggtgcgctg  
tttcttggtttcttgagcagcagggagcactatgggcgagcgtcaataacgctgacgggtacaggcccgga  
ttactatctgggatagtgcaacagcagaacaatctggtgagagctatagaggcgcaacaacatttggtgcaactc

tcaatttggggcattaaacagctccaagcaaaagtccttgctatagaaagataccttagggatcagcaaattccta  
agtctatggggctgctcagggaaaagctatatgtttataccactgtgccttggaatgagacttggagcagtaatacc  
tcctatgagacaatctggaataatttaacctggcaagaatgggataagaaagtaagaaactattcaggtgtcatt  
tttgaccttatagagcaggcacaagaacaacagaacacaaatgaaaaatcactcttggaattggatcagtgggca  
agtctgtgggactgggttagtattacaaactggctgtggtatataaaaaatagctataatgatagtagcaggcatc  
ataggcataagaatcataagtgtataataactataatagcaagagttaggcagggatattcacctcccctctcg  
ttgcagctcagaatatacttgtggggaataatagcatattggggaaaagagttaaaagatagtgtctatcagcttg  
cttaatacaacagctattgttagtagcagaaggaacagataggcttatagaattagcacaaagaataggaagggga  
atattacacatccctagaagactcagacaaggcctagagagagtacttgtataa

>#78 DQ017383 2220 nt

caacattgggtaacagtgtactatggggtaccagtatggagagaaacagatacagttcttttctgtgcttcagat  
gctaaagcccatagtagcagaggctcacaacatctggggccacacaagcatgtgttcccactgatcccaaccacaa  
gaagtacatttaataatgtgactgaaaaatttgatatgtggaaaaataacatggcagaacaaatgcaagaggac  
attattagtttatgggaacagagcttaaaaccctgtgttaaattaaccccattatgtgtaactatgcattgtaac  
gatagcaatgggtttaatgagacagttgggaatgggacattagacataggatacaaaacaaatgaaaaattgctca  
ttcaatgtaaccactgagagagaagatagaaagaagaaagcttactctctgtttttatacagaagatgtagtgcaa  
ctcaatgacagtgacagtgacagtaatacatataactctaataaattgtaagaccacagttgtaagacaagcttgt  
cctaagaccacctttgagccaattccaatacattactgtgcaccaccaggctttgccattatgagatgtaatgaa  
ggaaacttttagtggaaaaggggaatgtaaaaatgtgagtactgtacaatgcacacatggaataaagccagtata  
tcactcagttaatcatgaatgggagcctagatgagacagatatgttattagaaatgatagtgggtactatattg  
ggtaatatattgggtgcaatggaataagacagtattaataaattgtacaaggccagggaataatacaggaggacag  
gtgcagataggacctgctatgacattttataacatagagaaaaataataggggacattagacaagcacactgtaat  
gtctctgaagaagaatggaaatcaatgtggaatagaacaaaaagaaaaataaaggacattctgtgggaaacaaaaca  
acctttgaggctcgggggaacgatggaagtgaccacagaagtaacacacttaatgttcaattgtggaggagagttt  
ttcctttgtaacacttccagattatttaatgagagcaagaacgagactacaaatgggactattattctgcctgt  
agaataaaaacaaattgtaaatttatggacaagagtaggaaaaggaatttatgcaccaccaattcggggaaatatt  
acctgtaactccaatattactggactgattctagaatatagtaatagcacaaatggtacagtagtatatccttca  
ggaggaaaacatggttaatctctggagacaagagttgtataaaatacaaaagtagtgagtatagaacccataggagta  
gcaccaggtaaaagctaaaagacgcacagtgagtagagaaaagagagcagcctttggactaggggagcgtgttctt  
gggtttcttggtgcagcagggagcactatgggagcagcgtcaataacgctgacgggtacaggccccggacattatta  
tctgggatagtgaacagcagaataatctgttgagagcawtagaggcrcaacaacamtgttgcaactctcaatc  
tggggcattaaacagctccragcaaaagtccttgctatagaragataccttagggatcagcaaattcctargtcta  
tggggctgctcagggaaaactatatgctataccactgtgccttggaatgagacttggagcartmataacctcytat  
gakrcaatctggggwaatttaacctggcarmaatgggatragaaagtaagaaactattcaggtrytatTTTTgam  
cttmtagagcaggcacaagaacaacaraacacaaatgagaaatcactcttggaattggatcaatgggcaartctg  
tggaaactggtttgatattacaagctggctgtggtacataaaaaatagctataatggtagtagcaggcattataggc  
ataagaatcataagtgtataataaactataatagcaagagttaggcagggatattctcccctctcggtgcagctc  
agrawacgcytgtggggartactagcatattggggaaaagagttaaaagatagtgtctatcagcttgcttrataca  
ayagctattgcagtagcagaggggaacagataggmtyatagaattagcacaaagaataggaagggggaatattacac  
gtccctagaagaattagacagggcctagaaaggacacttgtataa

>#79 AJ271370 2205 nt

ccacattgggtaacagtgtactatggagtaccagtatggagagacgcagagacagttcttttctgcgcttcagat  
gctaaagcccatagtagcagaggctcacaacatctggggccacacaagcatgtgtccccactgatcccaatccacaa  
gaagtgtatttaaccaatgtgactgaatatttttaatatgtgggaaaaataaaatggcagaacaaatgcaagaggac  
attatcagtttatgggaacagagcttaaaagccctgtgttaaattaaccccattatgtgtaactatgctttgtaac  
aatagcaatgggaatagtgcagggaatagtactaccaataggacagaggatctagaagacagacaaatgaaaaat  
tgctcattcaatataaccactgagataagagatagaaagaagcaagtttactctctgtttttatgtagaagatgta  
gtgccaatcaaagatgggactgacaataatacatataggctaataaattgtaataccacagctgtgacacaagct  
tgtcctaagactacctttgagccaattccaatacattactgtgcaccaccaggctttgccattatgaaatgtaat  
gaaggaaatttttagtggaatggaagctgtacaaatgtgagtactgtacaatgcacacatggaataaagccagt  
atatccactcagttaatcctaataatggaagcttagatacagatgatattgttattagacatcatgggggtaatctg  
ttgggtgcaatggaatgagacagtgtaataaattgtacaaggccaggaaataatacaggaggacaggtgcagata  
ggacctgctatgacattttataatatagaaaaaatagtaggagacgttagacaagcatactgtaatgtctctgaa  
gaatggggatcaatgtggaataaaaacaaaaagaagataaaaagactcctgggaaacaacacaaactttcaaagct  
caggataaaaaatggaggagacctagaagtaacacacttaatgttcaattgttraggagagtttttctattgcaac

acttccagattatTTtaatgagagcgagaacaagactaataagactattattctgccttgtagaataaaacaaatt  
gtaratTTgtggacaagagtagkaaaaggaatTTtatgcaccaccaattcggggaaatcttagctgtarctccagt  
atcactggactgattctagaacatagtggtgaaaacggtaacaagacagtatatccctcaggaggaaacatgggt  
aatctctggagacaagaactgtataagtacaaagtagttagtatagaaccataggagtagcaccaggtaaagcc  
aaaagacgcacagttagtagagaaaagagagcagccttTggactaggtgcgctgtttcttgggttcttggagca  
gcagggagcactatggggcgagcgtaataacgctgacgggtacaagcccgacattattatctgggtagtgcaa  
cagcagaataatctgttgagagcaatagaggcgcaacaacattTgttgcaactctcaatctggggcattaaacag  
ctccgagcaaaagtccttTgcgatagaaagataccttagagatcagcaaatcctaagtctatggggctgctcagga  
aaaactatatgctataccactgtgccttTggaatgatacytggagcagtaatacctcctatgatacaatctgggrgt  
aatctcacctggcaacaatgggatcggaagtaaggaactattcaggtgtcatttttTgatcttatagagcaagca  
caagaacaacaaaacacaaatgagaaagcactcttTggaattggatcaatgggcaagtctgtggaactggtttgat  
attacaaaatggctgtgtgtacataaaaatagctataatggtagtagcaggcattataggcataagaattataagt  
gcaataaactataatagcaagagttaggcagggatattctccctctcgttgcagctcagaatacgccttTgtgg  
ggaataatagcatattgggggaaaagagttaaaagatagtgctatcagcttTgcttaatacaacagctattTgtagta  
gcagagggaacagataggtttatagaattagcacaaagaataggaaggggaatattacacatacctagaagaatc  
agacagggcctagaaagagcacttttataa

>#80 DQ314732 2235 nt

gcctcaaacaacttTgtgggttacagttcattatgggggtcctgtgtggagagatgcagataccaccctatTTTgt  
gcatcggtatgccaaaggcacatgaaacagaagtgcacaatgtctgggccacacatgcctgtgtacccacagacccc  
aaccacacaagaatatatcatggaaaatgtaacagaaaatTTtaacatgtggaaaaataacatggtagagcagatg  
caggaggatgtaataagtttatgggatcaaagtataaaacatgtgttaaagttaactcctctctgcgttacttta  
aattgtaccaataaggttcggggcgatcaatgtcacatcaagctctagcataggaaatataacagatgaattaaga  
aactgttctTTtaataataaccacagaactaagagataagaaacagaaggccatgcactTTTTtataagcttgat  
atagtacctattgaaaataacaatagtagtaacaatagtagtgagtataggTTaataaattgtaatacttcagtc  
attaagcaggcttTgtccaaagatatccttTgatccaattcctatacattattTgtactccagctggttatTgcgatt  
ttaaagtgtaatgataagaatTTcaatgggacagggccatgtaaaaatgtcagctcagtacaatgcacacatgga  
attaagccagtgggtatcaactcaattTgctgttaaattggcagctctagcagaagaagagatagtaatcagatctgaa  
aatctcacaaacaatgtcaaaaccataatagtacatcttaataaatctgtagaaatcaattTgtaccagaccctcc  
aacaatacaagaaaaagtataactataggaccaggacaaatgtTTtacagaacaggagaaataataggagatata  
agaaaagcatattTgtgagattaatggaacagaatggaatgaaactTTaagacaggtagctgtaaaaattaaaagag  
cactTTaataagacaataatattTTaaaccaccctcagggggagatctagaaattacaatgcattTTtaattgt  
aaaggggaattTTTTctattTgaatacaacacaactgtTTaatagtactTgggtaggaaatgaaacaaaaagggg  
gataatggcactataagaaatgaaacaaaaagggggataatggcactatcatacttccatgcaggataaagcaa  
attataaacatgtTggcaggaaacaggacaagcaatgtatgctcctcccatcagtggaacaattaattTgtgtatca  
aatattacaggactactattTgacaagagatggTggaggttaataatgactcgagtcagaacgagaccttcaggcct  
ggaggggggaaatataaaggacaattTggagaagtgaattatataaatataaagtagtagaaattgaaccactagga  
atagcaccaccaggggcaaagagagaagagtggtTggagagagaaaaaagagcagtggggaataggagctatgatcttT  
gggttcttaggagcggcaggaagcactatggggcgcgcgtaataacgctgacgggtacaggccagacaattattTg  
tctggtatagtTgaacagcaaagcaattTgctgagggctatagaggcgagcagcatctgtTgcaactcacagtc  
TggggcattaaacagctccaggcaagagtcctTggctgtTggaaagatacctaaaggatcaaaagctcctaggactT  
TggggctgctctTgaaaaatcatctgcaccactgctgtTgcctTggaactccactTggagtaataaatcttatgaa  
gagattTgggagaacatgacatggatagaatTgggagagagaaattagcaattacacaaaacaaatatatgagata  
cttacagaatcgaaaaccagcaggataagaatgaaaaggattTgttagaactggataaatTgggcaagtctgtTg  
actTggttTgacataaccattTggctgtTggtatataagaatattTTataatgatagtaggaggtTTaatagggtta  
agaataattTTTgctgtTgctTgctatagtacatagagttaggcagggtactcacctTTTgtctTccaggctatt  
tctTTgtTtgatgctTtcagcaatagcagtagcggggTggacagatagggttatagaagtagcacaaaggagttTgg  
agagctattctccacatacctaggagactcagacagggctTggaaagggtTtgctataa

>#81 AF377956 2190 nt

gctgcagataactTgtgggtcacagtctattatggagtacctgtgtTggaaagaagcaaccactactctatTTTgt  
gcatcagatgctaaagcatatgaaagagagatacataatgtctgggctacatatgcctgtgtacctacagacccc  
aaccacacaagaattagttctTgggaaatgtaacagaaaatTTtaacatgtggaaaaataacatggtagaccagatg  
catgaagatataatcagtttatTgggatcaaagcctaaagccatgtgtacagataacccactctgtTgtaacctta  
aattTgtactgatgtTcctTgtaacatcactaatTgggaacagcaccctTgataacatcaccctTggaagaacaagg  
gaaataaaaaactgtTctTTcaatatcaccacagagataaacgatattaagaaaaagaatctgcaattTTTTtat  
aggctTgatgtagtacaatcaataatagtactagtgaatataggctactaagttTgtaatacctcaaccgttTaca

caggcttgtccaaagggtgtcctttgatccaattccaatacattattgtgctcctgctgggttttgcgattctaaag  
tgtaatgataaagagttcaatgggacagggttatgttaggaatgtcagcacagtacaatgtacacatggaattaaa  
ccagtagtgtcaactcaactactgttaaattggcagccttagcagaaggagatatagtaattagatctgaaaatatc  
tcagataatgcaaaaaccataatagtacagtttaatatagatctgtagcaattaactgtacaagaccaccaacatt  
acaagaagaagtatgcgtataggaccaggacgagtattttatgcaacaggtagcgtactaggagatataagaaag  
gcataattgtaccattaatggaacactgtggaataaaacttttagaaggagtagctaaagagggtccaaagccacctt  
aataaatcaataacatttgcgccatcatcaggagggggacctagaagttacaacacatagttttaattgttagagga  
gagtttttctactgcaacacagtagctctgtttaatgcaactaacatgactaatgcaatgaacagggtccaatggc  
attatcactcttccatgtagaataagacaaattgtaaacatgtggcacaagagtaggacgagcaatgtatgccgct  
cccattgctggacaaattcagtgtaactcaagcatcacagggtctaataattgacaagagatgggtgggaaaaataat  
accaataatgacaccctcagacctggagggggagatatgagagacaattggagaagtgaactgtataaatataag  
gtagtaaaaaattgaaccactaggagtagcaccaccaaggcaaaaagacaagtggtgaagagagaaaagagaaaaa  
agagcagtggggaataggagctgtgctccttgggttcttggggagcagcaggaagcactatgggcgcggcgtcaatg  
acgctgacggtacaggccagacaattattgtctggtatagtgtcaacagcaaaaacaatttgcgtgaaggctatagaa  
gcgcaacagcatctgttgcagctcacagctctggggcattaaacagctccaggcgagaatcctggctgtggaaga  
tacctaaaggaccaacagctcctagggatttggggatgctctggaaaactcatctgcaccactaatgtgccctgg  
aattctagttggagtaataaatctcagaatgaaatttggggagaacatgacctggatgcagtgggaaaaagagatc  
agtaattacacaggcacaatatatacaaattaatagaaaatgcacaaaaccagcaggaaaagaatgaacaggactta  
ttggcatttgacaaaatgggacaatctgtggagttgggtttactataacaaattgggttgtggtacataaaaattattc  
ataatgatagtaggaggcttgataggattaagaatagtttttgcgtgtgcttgctgtaataaatagggttaggcag  
ggatactcacctttgtcgttacaggctattgatctgcttaataccacagcaatagtggttagctgaaggacagat  
agaatcatagaagttctgcaaagagctggttagagctattctccacatacctagaagaataagacagggtgcagaa  
agggctttgctataa

>#82 AB254156 2259 nt

atgggagggcttgtgggtcactgtacactatgggggtacctgtgtggaagaagcaagactactctattttgtgca  
tcagatgctaaagcatatgagacagaaagtgcataatgtctgggctacacatgcctgtgtacccacagaccccagc  
ccacaagaagtgtattttaaaaaatgtaacagaaaattttaatatgtgggaaaaataacatgggtggatcagatgcat  
gaggatataatcagtttgtgggatcaaagcctaaaaccatgtgtaaagttaaccccactctgtgtcacttttagac  
tgtagtcataatattaccattaggaatagtacctccagtgagaataatagtacctccagtagcaaacagtacaatc  
ttgagtgaaataatgagaaaattgtactttcaatgtaaccacagaactaagggataagcagacaaaaagaatatgca  
cttttttataaaacttgatatagtaaaacttgagaagaactctagtgaatatagattaataaatgttaattcatca  
accgtaaacacaggcctgtccaaaagtctcttttgacccaattcctatacattattgtgctccagctgggttatgcg  
attctaaagtgtataataataattatacattcaatggaacaggacatgtaataatgtcagcacagtacaatgtaca  
catggaattaaaccagtggtgtcaactcaactactgttaaattggtagcctagcagagggagggatagtaattaga  
tctaaaaatctgacagacaatgccaaaacaataatagtacatcttaatgaatctgtaagaattgtgtgtacaaga  
cctggcaataatacagaaaaagtgtaaggataggaccaggacaagcattctttgcaacaggagagaagtaatagga  
gatataagaaaggcacattgtaacattactgagaggacatggaataacactttacaaaagataagtagaaaatta  
gaaaaacactttccgaacaaaactataaaatttgcaccatcctcaggaggggacccagaaattacaacacatagc  
tttaattgttagaggagaatttttctattgcgacacatcaaacctgtttaacagcacatttaattgttaacagcaca  
tttaattggtacagataatgcaaatagcacacagaacatcacactccaatgcagaataaaaacaaattataaacatg  
tggcaggaggtaggacgagcaatgtatgccctcccattgcaggaaacataacatgtattttcaaatatcacagga  
atactattaacacgtgatggaaatgataattacacagagacattcagacctataggaggaaatatgaaggacaat  
tggaagaagtgaattatacaaatataaaagtggtagaaattaagccattaggagtagcaccaccaaggcaaaaagg  
agagtggtggagagacaaaaagagcagtgggactaggagctgtgttccttgggttcttaggagcagcaggaagc  
actatgggcgcagcgtcaataacgctgacggtacaggccagacaattgttgcctggtatagtgtcaacagcaaaagc  
aatttgcgtgagagctatagagggcgaacagcacatgttgcaactcacagctctggggcataaaaacagctccaggca  
agagtcctggctatagaaagatacctaaaggatcaacagctcctagggatttggggctgctctggaaagctcatc  
tgcaccactgctgtgccttggaaactctagtggagtaataaaaacatataatgagatttgggataatatgacctgg  
atgcagtggtgatagagaaatcaataattacacagatacaatatactggttgcttgagaaatcacaaaaccagcag  
gaacaaaatgaaaaagatttactagaattggacagttgggtagcctgtggagttgggttaagcataacaaattgg  
ctgtggtatataagaatattcataatgatagtaggaggtttagataggtttaagaataatttttgcgtgtgctttct  
atagtaaagagagtttaggcagggatactcacctttgtcgtttcagtatttgggaagccttgcagctattgggggt  
ccggaactaaaaaagagtgctattagcctgcttgataccatagcaatatcagtagctgaggggaacagataggatt  
atagaattgctaagaagaatttgttagagctatctgtagcatacctagaagaataagacagggttttgaagcagca  
ttgcaataa

>#83 MF373132 2289 nt

gggaaggggggacaaggaggacttgtgggtcacagtatattatgggggtacctgtgtggagagatgcacaaacctct  
ctgttttgtgcatcagatgctaaagcatatgatacagaggtgcataatgtctgggctacacatgcctgtgtaccc  
acagaccccaaccacagaagaatggttttaaaaaatgtaacagaaaattttgacatgtggaaaaataacatgggtg  
gatcagatgcatcaggatataatcagtttatgggatcaaagcctaaagccatgtgtaaagatgaccccactctgt  
gttacttttaaactgtacaaatgctacaactgctatgaatgctacaattgataataacatgcaggggagaaataaaa  
aattgtactttcaatgtaaccacagaaataagagataaggtaaagaaggtagcatgcacttttttataaaacttgat  
atagcaccacttggtaacagtgttagtagtgataacagttctagtgggtgtaaaggtagtaggaataatgagtat  
aatgattatataattaataaattgtaatacctcagccatagctcaagcctgtccaaagggtctcttttgaccaatt  
cctatacattattgtgctccagcgggttatgctgattctaaagtgtaatgataagacattcaatggaacaggacca  
tgcaataatgtcagcacagtacaatgtacacatggaattaagccagtggtatcaactcaattactgttaaattgggt  
agcctagcagaaggagacataataattagatctgagaatatgacaagcaataactaaaacaataatagtacatctt  
aatgaatctgtatcaattaattgtacaagacccaacaataatacaagagaaagtttaaggtaggaccaggacaa  
gcattatatgcaacaggagatataataggagatataagacaagcacattgtaatatagtaaagaagggtggaat  
aaaactttagaaagagtaaagaaaagattagcagagtagtctccctaataacaataactctttgcaccaccccca  
ggagggggacctagaagttacaacacatagctttaattgttagaggagaatttttctattgcaatacatcaaactg  
tttaatatgtagtaaaactaatataacagcaaatgaaaatggaaccatcacactcccatgcagaataaaaccaatt  
gaaaccttggggcagggggtaggaaaagcaattattgccccctccattaaaggaaaattacctgggtacttccaaa  
tccccaggccttaccactggccccgagtaggggtgaaaaaataggaacctatggaaatttggcaaaaaagagaattt  
tccccgggggggggagatatgagtgacaattgggagaagtgaattatataaatataaaagtggtagaaattaatcca  
ttaggagtagcaccactaaggcaaaaaggagagtggtggagagagaaaaaagagcagtggggaataggagctgtg  
ttccttgggttcttgagtgcagcaggaagcactatgggctgcagcgtcaataacgctgacgggtacaagccagacaa  
ttgttgtctggtatagtgcaacagcaaaacaatttgcgtgagagctatagaggcgcaacaacatatgttgaaactc  
acagtctggggcattaagcagcttcaggcaagagtcctggctatagaaagatacctaaaggatcaacagctccta  
gggatttggggctgctctggaaaactcatctgcaccactgctgtgacctggaatgaaagttggagtaataagtct  
caaaatgagatttgggataacatgacctggatgcagtgggtagggaaatcaataattacacaaatgaaatatac  
agattgcttggggaatcgcaaatccagcaggagaaaaatgaacaggatttactagcgtggacaagtggcaaaat  
ctgtggagttggtttgacataacaaactggctgtggtatataaaaaatgttcataatgatagtaggaggcttgata  
ggtttaagaatagtttttgcgtgtgctttctatagtaaatagaattaggcagggatactcacccttatcgttgag  
tatctgggaagtcttgtgcagtagttgggttctgagctaaaaaggagtgctattagctgtgcttgataccacagca  
atagcagtaggtgaaggaacagataggattgtagaatttatactacgagtttgtagagctatctacaacatacct  
cgaagaataagacagggctttgaaagcagctttgcaataa

>#84 KP109483 2292 nt

gtgggaggaaacttgtgggtcacagtttattatgggggtacctgtgtggagagaagcaaaaaactactctattctgt  
gcatcagatgctaaagcatatgagaaagaagtgcataatgtctgggctacacatgcctgtgtacccacagacccc  
aaccacagaagaatagatttgaatgtaacagaaaattttaacatgtggaaaaatgacatgggtggagcagatgcat  
gaggatgtaatcagtttatgggatcaaagcctaaagccatgtgtaaagttgaccccaatttgtgtcactttagaa  
tgtacagatgctaataattacctgcaatagtactactagcagtaataattgtaccagctatgagatcaacaaggag  
gacatgggggaaataaaaaattgctctttcaatacaaccacagaattaatagataagcagaagaaagtgcagca  
ctcttttatagacttgatatagtatcactagaaaaggacaactctagtaagaagaacgactctaattgagtattat  
agattaataaattgtaatacctcagccataacacaagcctgtccaaagggtcacttttgaccaattcctatacac  
tattgtgctccggctggttatgctgattctaaagtgtaaaaataagacattcaatgggacgggacatgcaataat  
gttagcacagtacaatgtacacatggaattaagccagtggtatcaactcaactactgtttaaatggtagcctagca  
gaagaagagataataattagatctgaaaatctgacaacaatgccaaaaataataatagtacatcttaatacagct  
gtagaaattgtatgtacaagacctggcaataatacaagaaaaagtataaggtagggccaggacaaacattctat  
gcaacaggagacataataggagacataagacaagcacattgtaacattagtgaagctaagtggaaataaaacttg  
cgagaggtaagtaaaaaattagcagaacacttccctaataaaaacaataatatttaactcatcctcaggaggggac  
ctagaaattacaacacatagctttaattgtggaggagaatttttctattgtaatacatcaagcctgtttaatagt  
acatttaatagtagacatacatgactaatgatacagacatgaattcaaaactcaaccatctcaatcccatgccgcata  
aaacaaattataaacatgtggcaggaggttaggacgagcaatgtatggccctccattgcaggaaacataacatgt  
aatcaaatatcacaggactactattggtacgagatggaggaaactcaaatgatacaaatgagccagagatattc  
cgacctcaaggaggagatatgagggacaattggagaagtgaattatataaatataaaagtggtagaaattaagcca  
ttgggagtagcaccactgcagcaaaaaggagagtggtgggaagagaaaaaagagcagtgggactaggagctatg  
atccttgggttcttgggagcagccggaagcactatgggctgcggcgctcaataacgctgacgggtacaggccagacaa  
ttgttgtctggtatagtgcaacagcaaaagcaatttgcgtgagggctatagaggcgcaacagcatatgttgcaactc

acggtctggggcattaaacagctccagacaagagtcctggctatagaaagatacctaaggatcaacagctccta  
gggatttggggctgctctggaaaactcatctgcactactgctgtaccttggaactccagttggagtaacaaatct  
caagaccagatttgggaatgatacgacctggatgcagtggtgataaagaaattagtaattacacagacataatatac  
acgttgcttgaaaaatcgcaaaaccagcaggaaataaatgaaaaggatttatttagcattggacagttggaacagt  
ctatggaattgggttgacataacaaagtggctgtggtatataaaaaatattcataatgatagtaggaggcttgata  
ggtttaagaataatTTTTGCTGTGCTTTCTATAGTGAATAGAGTTAGGCAGGGATACTCACCTTTGTCGTTTCAG  
ACCTATCTAGGAAGTCTTGTGCAGTATTGGGGTCTGGAAGTGAAGAGAGTGCTATTAGTCTGTTTGATACCATA  
GCAATAGCAGTAGCTGAAGGAACAGATAGGCTTATAGAATTCATACAAAGAAGTGGTAGAGCTATCTGCAACATA  
CCTAGAAGAATAAGACAGGGTTTTGAAGCAGCTTTGCAATAA

>#85 KY658708 2241 nt

agtgtggtgggaaacttgtgggtcacagtttattatggggctacctgtgtggaagatgcaaaaactactctattc  
tgtgcatcagatgctaaagcatatgaaaaagaagtgcataatgtctgggtacacatgcctgtgtacccacagac  
cccaaccacaagaaatagtttggaaaatgtaacagaaaattttaacatgtggaaaaatgacatggtggatcag  
atgcatgaggatataatcagtttatgggaccaaagcctaagccatgtgttaaagttgacccccactctgtgtcact  
ttaaagtgtgaaatgttagtaataaatttaacctacaaaatagcatgaatgaagatccgaaggaagaaataaga  
aattgctctttcaatgcaaccacagaattaagagataagaaacagaaagtgcctgactcttttataaaacttgat  
atagtaccacttcatggcaacaactctagtgtgatatagattaataaattgtaatacctcaaccataacacaagcc  
tgtccaaaggtctcttttgatccaattcctatacattattgtactccagctgggttatgcatgttttaaagtgtaat  
aatcagacattcaatgggacaggaccatgcaataatgtcagctcagtacaatgtacacatggaattaggccagta  
gtatcaactcagttactgttaaattggtagcctagcaaaaggagagataataattagatctgaaaaatctgacaaac  
aatgccaaaataataatagttacatcttaataaacctgtaaaaattgtgtgtgtaaggcccaacaataatacaga  
aaaagtgtgaaggataggaccaggacaaacattctatgcaacaggtgaaataataggagacataagacaagcatat  
tgtatcattaataaaaactgaatggaataacacttttacaaggggtgaagtaaaaaattaggagaacacttctcta  
aaaacaataaaaatttgaaccgtcatcaggaggggacctagaaattacaacacatagctttaattgttagaggagaa  
tttttctatttgaacacatcacaactgtttaatagtacatacagctccagttttaatgggtacagaaggtaaat  
aatgggaccatcacaatcccattgtagaataaaaacaaattataaacatgtggcagaaagtaggacaagcaatgtat  
gccccctccattgcaggaaacctaacatgtgaatcaaatatcacaggattactattgacacgtgatggaggaaaa  
acaggttcaaatcaccagagatattcagacctggaggaggggatatgaggagataactggagaagtgaattatat  
aaatataaagtggtagaaattaagccattgggagtagcacccactgaggcaaaaaggagagtggtggagagagaa  
aaaagagcagtggaataggagctgtgttccttgggttcttgggagcagctggaagcactatgggcgcagcgtca  
ataacgctgacggtacaggccagacaattgttgtctggtatagtgcagcagcaaaagcaatttgcctgagggctata  
gaggcgcaacagcatctgttgcaactcacagctctggggcattaagcagctccagacaagagtccttggctatggaa  
agatacctaaggatcaacagctcctagggatttggggctgctctggaaaactcatctgcaccactgccgtgcct  
tggaactccagttggagtaatagatctcatgatgagatttgggataacatgacctggatgcagtggtgatagagaa  
attaataattacacagacacaatatacaggttgcttgaagaatcacaaaaccagcaggagaaaaatgaaaaggat  
ttatttagcattggacagttggcaaaaatctgtggaattggttttagcataacaaattggctgtggtatataaaaaa  
ttcataatgatagtaggaggcttgataggtttaagaataatTTTTGCTGTGCTTTCTATAGTGAATAGAGTTAGG  
CAGGGATACTCACCTCTGTCGTTTCAGTATCTGGGAAGCCTTGTGCAGTATTGGGGTCTAGAGCTAAAAAGAGT  
GCTATTAGTCTGTTTGATACCATAGCAATAGCAGTAGCTGAAGGAACAGATAGGATTATAGAATTAATACAAAGA  
ATTTGTAGAGCTATTCGCAACATACCTAGAAGAATAAGACAGGGCTTTGAAGCAGCTTTGCAATAA

>#86 KC156114 2226 nt

gggatggggcaattgtgggtcacagctctattatggggctacctgtatggaaggaagcaaaaactactctattttgt  
gcatcagatgctaaagcatattcccaagaagcacataatatctgggtacacatgcctgctacctacagacccc  
aaccacagaagaatggTTTTAGAAAATGTAACAGAAAATTTAACATGTGGAAAAATGACATGGTAGATCAGATG  
CATGAGGATATAATCAGTTTTATGGGATCAAAGCCTAAAGCCATGTGTAAAGTTGACCCCACTCTGTGTCACTTTA  
AAGTGTACTACTGTTAATATTACCCAGGAAAATAATCCCCTTAATGATAGTGTAGTAATTACATGAAAACTGC  
TCTTTCAATATGACCACAGAAGTAAAAAGATAAAAAAGGAAGGAGAGGGCATTGTTTCATAGACTTGATCTAGTA  
CCACTTAATGAGAATAGTAGCAAGTATGAGAATAGTAACAAGTATATATTAACAAATTGTAGGACCTCAACCATA  
GCACAGGCCTGTCCAAAGATCTCGTTTGATCCGATTCTCTATACATTATTGTGCTCCAGCTGGTTATGCGATTCTA  
AAATGTAATAATAAGGCATTCAATGGATCAGGACCATGCCTAATGTCAGCACAGTACAATGTACACATGGAATT  
AAGCCAGTGGTATCAACTCAGCTACTGTTAAATGGTAGCCTAGCAGAAGAGATAATAATCAGATTTGAAAATCTG  
ACAAACAATGTCAAAACAATAATAGTACACCTTAATGAATCTGTAGAAATTTCTGTGTACAAGACCCAACAATAAT  
ACAAGAAAAAGTGTGAGGATAGGACCAGGACAAACATTCTATGCAACAGGAGAAAATAATAGGAGATATAAGACAA  
GCATATTGTACCATTAATGAAGGAAAATGGAATAAACTTTAGAAAGGATAAGGAACAAATTAGCAGAGTACTTC  
CCTAATAAAACAATAAATTTCAAAGCGCTCAGGAGGGGACCTAGAAATTACAACACATAGCTTTAATTGTGGA

ggagaatTTTTctattgcaacacatcaagattgtttaatcatacatTTaatgagacatcagacgaagacatcaca  
ctccaatgtaggataaaacaaattataaacatgtggcaggggtaggacgagcaatatatgccccctccattgca  
ggaaacataacatgtaactcaaatatcacaggactactattgacacgtgatggaggggaagagtaatagtagtaat  
cagacagagatattcagacctgcaggaggaaatatgagggacaattggagaagtgaattatataaatataaagt  
gtagaaattaaaccattaggaatagcaccactaaggcgaaaaggagagtggaggagagagaaaaagagcggca  
ataggagctatgttccttgggttcttgggagcagcaggaagcactatgggcgcggcgctcaataacgctgacggta  
caggccagacaattattgtctggtatagtgcacagcaaagcaatttgctgagagctatagaggcgcaacagcat  
atgttgcaactcacggtctggggcattaaacagctccaggcaagagtcctggctatagaaagatacctaaaggat  
caacagctcctaggaatttggggctgctctggaaaactcatctgcaccactaatgtgccttggaaactctagtgg  
agtaataaacctgaagaagaaatttgggggaacatgacctggatgcaatgggagagagaaattgataattataca  
gacacaatatagcttggcttgaaaaatcgcaaaaccagcaggaacaaaatgaacaagatttactagcattggac  
agttggaaaaacctgtggaattgggttagcataacaaaatgggtgtggtatataaaaaatttcataatgatagta  
ggaggcttaataggtttaagaataatttttgctgtgctttctatagtgaatagagtttaggcagggatactcacct  
ttatcgttccagtatctaggaagtcttgcgagctattggggctctggaactaaaacaaagtgcattaacctgctt  
gataccatagcaatagcagtagctgaaggacagataggatcatagaagtaatacaagaatttgtagagctatc  
tgcaatatacctacaagaataagacagggccttgaagcagctttgcaataa

>#87 AF005496 2187 nt

gctgcacaaaacttgtgggttacagtatattatgggggtacctgtgtggaaaggcgcaaaaaccactctattctgt  
gcatcagatgctaaggcatatgagacagaaaagcataatgtctgggctacacatgcatgtgtacccacagacccc  
aaccacacaagagatgggtcatggagaatgtaacagagagctttaatatgtgggaaaaataacatgggtggagcagatg  
catacagacataatcagtttatgggatcaaagcttgaaacctgtgtgtaaaattaacccactctgtgttactcta  
aactgtactaatgtcagaaacaataacctctaacagcactagcagtatggaggcaggaggggaactaacaattgc  
tctttcaatgtaactacagtactaagagataagcagcagaaaagtagcatgactcttttatagacttgatgtagta  
ccaattgataacaatagtactcagtataaggctaataaattgtaataacctcagtcattacacaggccttgcccaaag  
gtgtcctttgaacctattcccatacattattgtgtctccagctggcctttgcgattctaaagtgtacaataaaaaca  
ttcaatggaacaggattatgtacaaatgtcagtagcagtaaatgtacacatggaatttagaccagtgggtatcaact  
caactgctattaaatggaagccttagcagaagaacagatcataattagaactaaaaatatctcagacaataacaaa  
aacataatagtacagcttaagacaccagtaaacattacatgtaccaggcctaacaataatagcagaacaagtata  
catttagggccaggacgagcattctatgcaacaggtgacatcataggagatataagacaagcacattgtaatat  
agtagaacagactggaataagactttacaccaggtagttacacaattaggaatacacttgaacaatagaacaata  
agctttaagccaaactcaggaggggacatggaagttagaacacatagttttaattgtagaggagaatttttctat  
tgcaatacatcagggctgtttaatagtagttgggaaatgcatactaattacacatcaaagtagacaaaagggaac  
gaaaacattacactgccatgcagaataaaacaaattgtaaacatgtggcagagagtaggacgagcaatgtatgcc  
cctcccatccaaggaaacattatgtgtgtatcaaataattacaggactaatattgacaattgacgagggtaacgcg  
tctgcagaaaattataccttcagacctggaggaggagatatgagggacaattggagaagtgaattgtataaatat  
aaagtagtaaaaattgaaccactgggaatagcaccacccaagacaaggagaagagtggtggagagagaaaaaga  
gcagtggaatgggagcttctttccttgggttcttgggagcagcaggaagcactatgggcgcggcgctcaataacg  
ctgacggtacaggccaggcaattattgtctggtatagtgcagcagcaaagcaatttgctgagagctatacaggcg  
cgacagcatatgttgagctcacggtctggggcattaaacagctccaggcaagagtcctcgctgtggaaagatac  
ctaagggatcaacagctcctggggatttggggctgctctggaaaactcatctgcaccactaatgtgccttggaac  
tctagttggagtaataaatcacagagtgaatctgggacaacatgacttggtggaatgggataaacaatttagc  
aattacacagaggaaatatacaggttgcttgaagtctcgaaacccagcaggaagaatgaacaggacttatta  
gcattggacaaatgggcaagtctgtggacttgggttgacatatcacattggctgtggtatataaaaaatttcata  
atgatagtaggaggtttaataggtttaagaataatttttgctgtgctttctatagtaaatagagtttaggcaggga  
tactcaccttctgtcttttcaggctattgatttgccttaacaccacagcaatagcagtagctgagggaaacagatggg  
attatagtaatagtgcaaagagcttgagagctattctccacatacctagaagaataagacagggccttgaaga  
agcttgctataa

>#88 FJ389367 2205 nt

gcctcaaataccttgtgggtcacagtctattatggagtacctgtgtgggaagatgcagataccaccctatTTTgt  
gcatctgatgctaaatcatatagtactgaaggccataatgtctgggctacacatgcctgtgtacccacagacccc  
aaccacacaagagatatctctgataaatgtaacagaaaattttaacatgtggaaaaataacatggtagaacagatg  
catgaggatataatcagtttatgggacgaaagcctaagccatgtgtacagctaaccctctctgtgttacttta  
aactgtgtgccagcaaatggcactaacataactggctctggcactgtgaatataaccgaacagatgaaaaactgc  
tcgttcaatataaccacagaaataagggataggaagaagcargaatacgcgcttttttataaacttgatatagta  
ccaatagaggataatagtaatagtaataataatagttataggatgataaattgtaatgtctcaaccattaaacaa

gcttgtccaaagatgtcctttgacccaattcccatacattattgtgctccagctgggttttgcgatttttaaagtgt  
agggacgaggagttcaatggaacaggaacatgtaaaaatgtcagtagacatgacacatggaattaagcca  
gtggtatcaactcaattactgctgaatggcagtttggcagaaggagacataatgattagatctaaaaacatcaca  
gacaatgccaaaatcataatagtgagcttaataaatctatagaaattaattgtaccagacctggcaataatata  
agaaaaagtgtagaatcggaccaggacaagtgttctatacaacagggtgaaataataggagatataagacaagca  
tactgtaatatgtcaaaaaaagactgggataatatgctaagggaagtggctataaaaactaaggaaaagccttaac  
agcaacaagaccataacctttaactcatctgcaggaggggacctagaaattgcaacacatagttttaattgtaga  
ggagaatttttctattgtatacatcaggcctgtttaatatatcatataatagtagacagagaatagtacttataat  
gaagggaatgagacttatacactcccatgtaaaaataaaacaaattgtgagaatgtggcaaagagtgggacaagca  
atgtatgccctcccatcaaaggaaacattacatgtagatcaaacattacaggactactattaacaagagatgggt  
ggggagaatgataataataacagtagtgaggtcttcagacctgcaggaggagacatgaggggacaattggagaagt  
gaattatataagtagtaaaaatagtaaaaataaaaccattaggagtagcaccaccaagggaaggagaagagtgggtg  
gggagagaaaaaagagcagtagttggactaggagctgttttccctgggttcttaggagcagcaggaagcactatg  
ggcgcggtcaataacgctgacgggtacagggtcagacaattattgtctggcatagtgaacagcaaagcaatttg  
ctgagagctatagaggcacagcatcatctgttgcaactcacagctctggggcattaacagctccaggcaagactc  
ctggctgtggaaagatacctaaggatcaacagctcctagggatctggggctgctctggaaaactcatctgcacc  
actaatgtgccttgggaatgctagttggagtaataaatcttatgaggccatttgggagaacatgacctggatagaa  
tgggaaaagggaattaacaattatactcaacaaatatacagcctaattgaagaatcgcagaaccagcaggaaaag  
aatgaacaagacttatttagcatttagaccaatgggcaagtttgtggaattggtttgacatatcaagatggctatgg  
tatataaaaaatattttataatgataataggaggtttaatagggtttaagaatagtttttgcgtgtgctgtataata  
aatagagtttaggcagggatactcacccttgttgttccagggtattaatttgccttgatagcgttagcaatagcagta  
gctaattggacagatagggttatagaagtagtacaaagagcttgttagggcttttctcaacatacctagaaggata  
agacaaggcgtagaagagcattgccataa

>#89 FJ389365 2190 nt

gcttcctcagacttgtgggtcacagctctattatggggtagcagtggtgggaagatgcagatactcctctattttgc  
gcatctgatgtcaagcacatagtagtgaagccataatgtctgggccacacatgcctgtgtacccacagatccc  
aaccacacaagaaatgcttctgaaaaacgtaacagaaccttttaacatgtggaaaaataacatggtagaacagatg  
aatgatgatataatcagttttatgggatgaaagcctaaagccatgtgtacagctaaccctctctgtgttacttta  
aactgtgctgatgtttgtcttaagaacagcactgctactaatgattgtcctaagaacagcactgggaataacact  
gtgagtaatagtagtattacaaaagaaatgacaaactgctctttcaatataaccacagaaataaaaagataagcagaag  
aaagaatacgcgcttttttataaaacttgatatggtgcaactggatggtagaaatgactcttatgggttaataaac  
tgtaatgtctcagccattaaacaagcttgtccaaagggtgtcttttgacccaattcccatacattattgtgctcca  
gctgggtttgcgatttttaaagtgcaggataagaatttcaatggaacaggaacatgtaaaaatgttagttcagta  
caatgcacacatggaattaagccagtggtatcaactcaattactactgaatggtagtctagcagaagaagaata  
gtaattagaactgaaaacatctcagacaatgccaaaatcataatagtgagcttaataaatccatagaaattaat  
tgtaccagaccagtaacaatacaagaagaagtataagtccttgacctggacggcggttctatgcaacagggtgat  
gtagtaggagatataagacaagcacactgtaatgtaagtagacaacaatggaatgacacgggtacagaaagtaact  
gcatcactacaaaagatcttttaaaaaaggcaatataacctttaagccaccacaggaggggacctagaaatgaca  
acacatagttttaattgtagaggggaatttttctattgtatacatcagacttgtttaatatcagtacaacaaat  
agtactaatgatactatcacactcccatgtaagataaaacaaattgtgagaatgtggcagagagtgggacaagca  
atgtatgccctcccatgtcaggagaaattacatgcagggtcaaataattacaggactactattaacaagagatgggt  
gggggtggaggtaatcaacaaaatgaaaccttcagacttgcaggagggaatatgaggggacaattggagaagtga  
ttatataagtataaagtagtaaaagattaaaccactaggaatagcaccaccaagtcaaggagaagagtgggtggag  
agagaaaaaagagcagttggaataggagctgccttccttgggttcttaggagcagcaggaagcactatgggcg  
gcgtcaataacgctgacgggtacagggtcagacaattattgtctggcatagtgaacagcaaagcaatttgcctgaga  
gctatagaggcgagcaacatctgctgcaactcacagctctggggcattaagcagctccagggaagagtcctggct  
ctggaaagatacctaaggatcaacagctcctagggttttggggctgctctggaaaactcatctgcaccactaat  
gtgcgctggaacactagttggagtaataratctttttrtagatattgggataacatgacctggatacaatgggaa  
agggaagtcagcaattacacacaagaaatatacagactaattgaagaatcgcaaaaccagcaggaaaagaatgaa  
caagacttattagcactggaccagtgggcaagcttgtggaattgggttgacatatcaaggtggctgtggtatata  
agaatattcataatgatagtaggaggggttaatagggtttaagaatagtttttgcgtgtgctttctatagtaaataga  
gttaggcagggatactcaccctttatctttccagttgcttgatacaattgcaatagcagtagctaactggacagat  
agggttatagaagtagcacaagcagctggtagagcttttcttcacatacctagaaggataagacaaggctttgaa  
agagcttttgctataa

>#90 MH705151 2268 nt



gctacaggaaacttgtgggtcacggtatattatgggggtacctgtgtggaaagacgcagagaccaccctatTTTTgt  
gcgtcagatgctaaagcatatgatacagaagtgcataatgtctgggctacacatgcctgtgtacccacagacccc  
agcccacaagaaatagacctggaaaatgtaacagaaaagtttaacatgtggaaaaataacatggtagagcagatg  
catatggatataaattagtctatgggatcaaagcctaagccatgtgttaaagttaacccctctctgtgttacttta  
gattgtagccatagcatcaccaccatcaatagcaccaccatcaatagcaacagcacaagtgtatatacaggagaa  
ataaaaaactgctctttcaatatgaccacagaactaagagataagacaaagaaagtatattcacttttttataga  
cttgatgtggtacaaattgatgaaaataatggtagtaataacagtgagtatagactaataaattgtaatacctca  
gccattacacaggcttgtccaaaggtaacctttgagccaattcccatacattattgtgccccagctggttttgcg  
attctaaagtgtgaaggaggagaatttcaatggaacagggatatgcagggaatgtcagcacagtacaatgcacacat  
ggaattaagccagtagtatcaactcaactgctgttaaatggcagcctagcagaaggagaggtagtgattagatct  
gaaaacttcacaaacaatgccaaaatcataatagtacagtttaatgagtctgtacaaattaattgtaccagacct  
aacaacaatacaagaagaagtttccgtataggaccaggacagacattctatgcaacagggtgaaataataggaat  
ataagacaagcacattgtaatgtcagtaaaacagactgggagagcactttacaaaaggtagctgcacaattaggc  
aaagaatttaaaaccaacacacaacaatctttgctaactcctcaggaggggatatagaaattacaacacatagttt  
aattgtagaggggaatttttctattgcaatacatcagacctgtttaatagcacttggcggaaactggcaaattggc  
acttggagcaacataaataatgcaacgtcaaatgacactataactctccaatgcaaaataaagcaaatgtaaac  
atgtggcagagagtaggacaagcaatgtatgccctcccataccaaggagtaatacagtggtgtatcaaacattaca  
ggactactcttaacaagagatgggtgggagtagtaacagggcaaatgagacctcagacctggaggaggagatag  
agggacaattggagaagtgaattatataagtataaaagtagtaaaaattgaaccactaggagtagcaccaccagg  
gcaaggagaagagtggtggagagagaaaaaagagcaattggaatgggagctcttttccttgggttcttaggaaca  
gcaggaagtactatgggcgcggtcaataacgctgacgggtacaggccagacaattattgtctggtatagtacaa  
cagcagagcaatctgctgagggctatagaggctcaacagcatctgttgaaactcacagctctggggcattaaacag  
ctccaggcaagagtcctggctgtggaaagatacctaaggatcaacagctccttaggaatttgggggttgcctgga  
aaactcatctgcaccactactgtgccctggaactctagttggagtaatatagatctcaggaggaaatatggaacaac  
atgacctggctgcaatgggaaaaagaaattagcaattacacagacataatatatagtctacttgaagaatcacag  
aaccagcaggaaaagaatgaacaagacttattggcattggacaagtgggcaagtctgtggaattggtttgacata  
acaaattggctatggtatataaaaaatatttataatgatagtaggaggcttaataggattaagaatagtatttgct  
gtgctttctataataaatagagtttaggcagggatactcacctctctcgtttcagtacctgtggaaccttctgtta  
tattgggttcgggaactgaaaattagtgtattaatttgccttgataccacagcagtagcagtagctgagtggaca  
gataggattatagaaataggacaaagacttgctagagctattctcaacatacctagaagaatcagacagggctta  
gaaagggctttgctataa

>#91 KF716478 2232 nt

gctacagacaaattgtgggttactgtctactatgggggtacctgtatggaaagacgcagagaccaccttattttgt  
gcatcagatgcgaaagcatatgagaaagaaatgcacaatgtctgggctacacatgcctgtgtacctacagacccc  
aaccacacaagaagtagcttttggaaaatgtgacagaagagtttaatatgtggaaaaataacatggtagaacagatg  
cagacagatataatcagtcctatgggaccaaaagcctaagccatgtgttagagtttaacccctctctgcgtcactttg  
gagtgtagcaatatcaacagcaccaataacaccgccaccaatttcaccaatttcatgggagaagacataaaaaac  
tgctctttcaatatgaccacagaattaagggtataaggagaagaaagtatattcactttttctataaagtggatata  
acaccattggaaaacagcaacgaaactaagtataaggtttaataaattgtaatacctcagccattaaacaagcctgt  
ccaaaggatcctttgagccaattcccatacattattgtgtccagctggttttgcgatcctaaagtgtagagat  
gaggagttcaatggaacagggccatgcaaaaatgtcagcacagtacaatgcacacatggaatcaagccagtagta  
tcaactcaactactattaaatggcagcttagcagaaaagaaggtaatgattagatctgaaaatttcacaaacaat  
gctaaaaacatcatagtacaatttaataagtcagtagaaattaattgtaccagacctaaacaacaacaccagaaaa  
agtgtacatataggaccaggacgagcattctatgcaacagatataataggggacataagatgggcataattgtaat  
gtcagtagatcagaatggaaggaaactttacaacaggtagtcaacaattaggaaaccattggaataaaacaata  
cactttaataattctgcaggaggggatttagaaattacaacacatagttttaattgtggaggagaatttttctat  
tgtaatacatcaagcctgtttaatagtacttgggtatatggtaatggaagctgggggtcaaatagcacgggggtta  
aatagtacaatgataaataatactattttcagtgataccataattcctcaatgcagaataaagcaaaattataaat  
atgtggcagagagcaggacaagcaatatatgccctcccataccaaggagtaataagctgttagatcaaacatcaca  
ggactaatattaacaagagatgggtgggagtaacagcaatgcaagtacaaatggaagtgaacacctcagacctgga  
ggaggagatatgagggacaattggagaagtgaattatataagtataaagtagtaaaagtgaaccactaggaata  
gcaccctccaaggcaaggagaagagtggtggcgagagaaaaaagagcagttggaataggagctgtactccttggg  
ttcttaggaacagcaggaagcactatgggcgcagcgtcaataacgctgacgggtacaggccagaaaattattgtct  
ggcatagtgcacagcaaaagcaatttgcctgagggtatagaggctcaacagcatctgttgaaactcactgtctgg  
ggcattaaacagctccgggcaagagtcctggctgtggaagggtacctaaaggatcaacagctccttaggaatttgg

ggctgctctggaaaactcatctgccccactactgtgccttggaactctagttggagtaataaaaagttacagtgag  
atatgggataacatgacctggctgcagtgggataaagaaatttagcaattacacagacctaatatatgggctaatt  
gaagaatcgcaaaaccagcaggaaaagaatgaactagacttatttagcattaaacaagtgggcagagctgtggaat  
tggtttgacttatcaaactggctgtggtatataagaatatttataatgatagtaggaggcttaataggattaaga  
atagtttttgcgtgtgctttctataataaatagagtttaggcagggatactcacctttgtcgttccaggctattagt  
ttgcttgataccatagcaatagtagtagctggctggacagatagggctatagaaataggacaaggaattggtaga  
gctatcctcaacatacctagaagaatcaggcagggttagaaagggtttgctgttaa

>#92 AJ320484 2220 nt

gttgacagagaagaagtgggtcacagtgtattatgggggtacctgtgtggaagaagcaacaaccactctattttgt  
gcatcagatgctaaatcatataaaacagagggtacataatatctgggctacacatgcctgtgtaccaacagacccc  
aaccacagagaaatagaactggaaaatgtcacagaaaactttaacatgtggaaaaataacatggtggagcagatg  
catgaggatatcatcagtttatgggatcaaagcctaaaaccatgtgtgtaaaattaacccactctgtgtcacttta  
aactgcactgatgcaaggaggaatgagactaggaataatattacaggaatggaaaacaatgatcaaatagaaatg  
aaaaactgctctttcaatataaccacaaaattaatagataagaagaagcaagtacatgcacttttttatagactt  
gatgtggtacaaatagataatgatactagtaatagcaactatagcaactatagattaataaattgcaatacctca  
gccattacacaggcttgtccaaaggtaacttttgagccaattcccatacattattgtgccccagctggttttgca  
attctaaagtgtagagataagaagttcaatggaacaggaccatgcaaaaatgtcagcacagtacaatgcacacat  
ggaattaggccagtagtgtcaacccaactgctgttggaatggcagctctagcagaagaagagataataattagatct  
gaaaatctcacaacaatgctaaaaccctaatagtacagcttaatgagtctgtagaaatcaattgtacaaggccc  
tactacaaccagataagacaaaagaacatctataggacaagggtcaagcactctatacaacaagagtaacgggagat  
ataagaaaagcatatttgcaatattagtaaaagcaggatggaataaaactttacagcagggtagcaaaaaaattagga  
gacctctttaaccagacaacaataatttttaaacctcctcgggaggagacccagaaattacaacacacagcttt  
aattgtggaggggaatttttctactgcaatacatcaaaactgtttaacagtgcattggaatgacagtacatggaat  
ataggggaataataatacaggggtcagataatgagacaatcattatcccatgcagaataaaaacaaattataaacatg  
tgccagggagtaggaaaagcaatgtatgccctcccatcgaaggatggatcaattgtgcatcaaatattacaggg  
ctcttactggtaagggtggtggtggtgcaaatgatagtcagaacgagaccttcagacctcaaggaggagatatg  
agagacaattggagaagtgaattatacaagtataaaagtagtaaaaaattgaaccactaggaatagcaccaccaag  
gcaaagagaagagtgggtggaaagagaaaaaagagcaataggactaggagctatgttccttgggttcttgggagca  
gcaggaagcacgatgggcgcagcgtcattgacgctgacgggtacaggccagacaattattgtctggtatagtgcaa  
catcaaaaacaatttgcgtgatggctatagaggcgcaacagcatctgttgcaactcacagctctggggcattaaacag  
ctccagggaagaatcctggctgtggaagatacctacaggatcaacagctccttaggaagttgggggtgctctgga  
agacacatttgcaccactactgtgccctggaactctagttggagtaataaatctatagatgacatttggaataac  
atgacctggatggagtgggaaaaagaaaattgacaattacacaggtgtaatatagattaattgaggaatcgcaa  
accagcaagaaaagaatgaacaagaactattgcaattggacaaatgggcaagtttgtggaattggttttagcata  
acaaaatggctgtggtatataaaaaatattcataatgatagtaggaggcttaatagggttaagaatagtttttact  
gtgctttcttttagtaaatagagtttaggcagggtactcacctctatcgtttcaggctattagcttgtttaacgct  
acagcagtagcagtagctgaggggacagataggggttatagaagtagtacaaagatttttttagagggtattcttaac  
gtacccacacgaataagacagggttggaagggtgcttactataa

>#93 KT200357 2187 nt

gctacagaacaattgtgggtcacagtctattatgggggtacctgtgtggaaggaggctaccaccactctattctgt  
gcatcagatgctaaagcctataaaaacagaggcacataatgtttgggccacacatgcctgtgtacccacagacct  
aaccacagaagaagtagaattggtaaatgtaacagaaaattttaacatgtggaaaaataacatggtagaacagatg  
catgaggatataaattagtttatgggatgaaagcctaaaaccatgtgtgaaattaacccactctgtgttacttta  
aattgcagtaatgctaatttcaattgcaataataactaataacgctagttgtctagagatgcaggcagaagtaaaa  
aattgctctttcaatatctccacaagcataaaaaacaaagaaaaagaagaacatgcacttttttatagcttggat  
gtaatgtcaatagataatacaagctatgcattgagacagtgtaacacctcagtcattaaacaggcctgtccaaag  
gtatcctttacaccaattcccatacattattgtgccccagctggttttgcatctctaaaatgtaaggataagaaa  
ttcaatggaacaggaccatgtaaaaatgtcagcacagtaaatgtacacatggaattaagccagtagtgtcaact  
caactgctgttaaatggcagctctagcagaagaagaggtagtgattagatctgaaaatctcacagacaatgctaaa  
accataatagtgagctgaatgaaactgtaaaaatttaattgtacaagaccagtaacaacacaaagaaaggata  
cacataggaccggggagtgcattttatgcaacaggagaaataataggagatataagacaagcacattgtaacgtt  
agtagaacagaatggaacaaaactttaggatacatagttgaaaaattaagagaacaatttaagaatacaacaata  
atctttaaccagctcctcaggaggggacccagaaattgaaatgcacagttttaattgtggaggggaatttttctac  
tgtaatacaacacagctgttcaatagtagtgggagccagggaagaatactactacagaggggaatgacactatc  
acgctcccatgcagaataaaaacagattataaacagggtggcaggaagtaggaaaagcaatgtatgccctcccatc

agaggacgaattaattgtacatcaaataattacagggctgttattaacaagagatgggtggaacaataataaccag  
acaaataggacagagaccttttagacctcaaggaggggaatatgaaggacaattggagaagtgaattatataaatat  
aaagtagtacaagttgagccattaggaatagcaccacccaaggcaaggagaagagtgggtgcagagagaaaaaga  
gcagtgggactaggagctgtgttccttgggttcttaggagcagcaggaagcactatgggcgcagcgtcaataacg  
ctgacggtacagggcagacaattgttgtctggtatagtgaacagcagaacaacctgctgagggctattgaagcg  
caacaacatatgttgcagctcacagctctggggcatcaaacagctccgggcaagagtcctagctctggaaagatac  
ctacaggatcaacagctcctaggcatttgggggtgctctggaaaactcatttgcaccactaatgtgccttggaat  
gctagtgtggagtaacaaaacccgtagtgagatttgggaaaacatgacctggatgcagtgaggaaagagaaattagc  
aattacacagcaacaatatatactccttaattgaagaatcgcaaatccaacaagaaaagaatgaacaagaattatta  
gaattagataagtgggcaagtttgtggaattgggttgacataacaaaatggctgtggtatgtaaaaatattcata  
atgatagtagcagggttagtaggttaagaatagcatttactatatttctttagtaaatagagttaggcagggga  
tactcaccattatcattccaggcagttagtttatttaattgccacagctataacagtagccgaaggggacagatagg  
gctatagaattacttcaaagcattggttagagctatttctccacatacctagaagaataagacagggccttagaaagg  
gctttgcaataa

>#94 AY331292 2226 nt

gctgaaaaagactcgtgggtcacagctctattatgggggtacctgtgtggaagaagcaatcaccactctattttgt  
gcttcagatgctaaagcatataagacagaggtacataatgtttgggccacacatgcctgtgtacccacagacccc  
aaccacacaagaagtagtatttggcaaatgtgacagaacatttttaatatatgggaaaaataacatggtagaacaaatg  
catgaggatataatcagtttatgggatgaaagcctaaagccatgtgtgtaaaattaacccactctgtgttacttta  
aattgcactgactatattaataacagtagtgaagtaagaaaaccaatgaaggcttgaacagtagtataagaatg  
aaaaactgctctttcaaaataaccacaggcatgagagataagatgcagaaagcatatgcacttttttataagctt  
gatatagtaccaatagatgatgataatattaataagactagcaccaaccataattataaccagctatagggttaata  
agttgtaacacctcagtcattacacaggcctgtccaaaggtatcctttgagcccattcccatacattttttgtgcc  
ccggctggttttgcgattctaaagtgtacaacaagagttacacaggaaaaggaccatgtacaaatgtcagcaca  
gtacaatgtacacatggaattaggccagtagtatcaactcaactgctgttaaatggcagtcctagcagaagaagag  
atagtrattagatctgccaatcttctaacaatgctaaaaccataatagtagcagctaaataaaaactgtagtaatt  
aattgtataagacctaacaacaataacaagaaaaagtatacatataggaccagggagagcatttttatgcaacagga  
gaaataataggagatataagacargcacattgtacccttaattggaacacaatggaataacactttaagacagata  
gcttttaaaattaaaagaacaatttaagggtaaaacaatagtcctttaatcactcctcaggagggggaccagaaatt  
gtaaagcactccttttaattgtgcaggggaatttttctactgtgatacaaaaaactgtttaatagtagtacttggcat  
ggtaatgaaacatcttggaaataatactgaaaagttaaattgacactatcatactcccagcagaataaaaacaatt  
ataaacatgtggcaggaagtaggaaaagcaatgtatgcccctccaatcgaaggactaattaactgttcatcaagt  
attacggggctgctattaacaagagatggtggtgaagagcaataatcagactgagatcttcagacctggaggagga  
gatatgagggacaattggagaagtgaactatataaatataaagtagtaaaaattgaaccagtaggagtagcacc  
accaaggcaagagaagagtggtgcagagagacaaaagagcagtgaggactaggagcgttgttcatgtgggttcttg  
ggagcagcaggaagcactatgggcgcagcgtcaatgacactgacgggtacaggccagacaattattgtctggtata  
gtgcaacagcagaacaacttgtgagggctattgagggcgaacaacatctgttgcaactcacagtcctggggcatc  
aagcagctccaagcaagagtcctggctgtggaagatacctaaggatcaacagctcctggggatttgggggttgc  
tctggaaaactcatttgcaccactgatgtgccttgggaatgatagctggagtaataaatctctggataagatttgg  
aataacatgacctggatgcagtgaggaaagagaaattgacaattacacagatgtaatatacaacttacttgaagaa  
ttgcaaaaaccaagaagaaagaatgaacaagaattattgcaattagataaatgggcaagtttgtggacttgggtt  
gacataacaaaatggctgtggtatataaaaatagtcataatgataataggaggcttaatataggattaagaatagtt  
tttgttgtactttctatagtgaaatagagttaggcagggatactcaccattgtcgtttcaggctgttagcttgctt  
aattccactgccatagtagtagctgaggggacagataggattatagaagtagtactaagagcttttagagctgtt  
cttcacatacctacaagaataagacagggccttagaaagggcctttgctataa

>#95 KP109514 2166 nt

gctgaggaattgtgggtcacagctctattatgggggtacctgtgtggaagaagcagtcaccactctattttgtgca  
tcagatgctaaagcatatgacaaagaggtacataatgtttggggccacacatgcctgtgtacccacagaccccaac  
ccacaagaaatagaattggaaaatgtgacagaaaattttgacatgtggaacaataacatggtagaccagatgcat  
gaggatataattagtttatgggatcaaagcctaaaaccatgtgtgtaaaattaaccccagtcctgtgttactttacat  
tgctgtaagttgaatgatactaagtgccatgatttgaatgtcactaatagtactacccctgaaggtaacaataacc  
actaatattactaacaatgggtgggtgatgatttaagaaattgctctttcaatatgaccacaataatgacagagaag  
atgcagaaaaattatgcacttttctatacatctgatatagtacctatagataatacagataatactagtgactat  
aggttgataagttgtaacacctcaatccttacacaagcctgtccaaaggtatcctttgagccaattccaatacat  
tattgtgccccggctggttttgcattctaaagtgtaaagacaagacattcaatggaacaggaccatgtacaaat

gtcagcacagtacaatgtacacatggaattaggccagtagtatcaactcaattggttggttaaatggcagctctagca  
gaggaagacatagtaattagatctaaaaatcttcggaacaatgctaaaaccataatagtacagctgaatgaatct  
ataccaattgtgtgtgtaagacccaacaacaatacaagaaaaagtataatctataggaccaggggagaacatgggtat  
gcaacaggagacataataggagacataagacaagcatattgtaacattactggttggaattggagtaaacacttta  
caacggatagataaaaaattaaaagaacaatttagaaaataaaacaataaaactttaatcaatcctcaggaggggac  
ccagaaattgtaatgcacagctttaattgtggaggggaatcttctactgtaatacaacacagctatttaataat  
acttggttacttggaaggccaatgcaagtgatcctgaaaaaaataacacaaaaaatatcacactcccatgcaga  
ataaaacaaattataaacatgtggcaggaagtaggaaaagcaatgtatgccccctcccatcgcaggacaaaattaa  
tgtgtatcaaatattacaggggttactattaacaagagatgggggtcaggacaataacactaacggtaacgagacc  
ttcagacctggaggaggagatatgagggacaattggaggagtgaattatataaatataaagtagtaaaaaattgaa  
ccattaggaatagcaccactaaggcaaagagaagagtgggtgcagagagaaaaagagcagcactaggagctatg  
ttccttgggttcttgggaatggcaggaagcactatgggcgagcgtcaataacgctgacggcacaggccagacaa  
ttgttgtctggtatagtgaacagcagaacaatctgctgagggctattgaggcgcaacaacatttggtgcaactc  
acagtctggggcatcaagcagctccaggcaagaatcctggctgtggaaagatacctacaggatcaacagctcctg  
gggatttggttggtctctggaactcatttgcaccactactgtgccttggaatgctagtgtggagtaataaatct  
ctggataccatttggaataacatgacctggatgcagtggtatagagaaattaacaattacacaagcttaatatat  
accttacttgaaaaatcgcagaaccagcaagaaaagaatgaacaagaattattggaattggataagtgggcaaat  
ctgtggaattggtttgacataacaaattggctgtggtatataaaaaatattcataatgatagtagggaggttgata  
ggtttaagaatagtttttactgtactttctataataaatggagttaggcagggatactcaccattatcgtttcag  
gcaattagcttgatcaacgcgcagcagtagcagtagctgagggggacaggtaggccacgcacctag

>#96 AF146728 2220 nt

gcaacagaaaaattgtgggtcacagtctattatgggggtacctgtgtggaagaagcaaccaccactctattttgt  
gcatcagatgctaaagcatatgataaagaggtacataatgtttgggccacacatgcttgtgtacccacagacccc  
aaccacacaagaatattactagaaaatgtgacagaagagtttaacatgtggaaaaataacatggtagaacagatg  
catgaggatataatcagtttatgggatcaaagcctaaagccatgtgtacaattaacccactctgtgttacttta  
aattgcactgatgagttgacgaatgttacttttactaatagtaggcatgtgactaatagtagttatgtgggaagt  
atggaaaaaggagaaatgaaaaactgctctttcaacatcaccacaagcataagagataagaggcacaaaagaattt  
gcactttttataaacttgatgtagtacaatatagatggtagtaataactagctatagattaataaattgtaatacc  
tcagtcattacacaggcctgtccaaagggtatcctttgagccaattcccatacattattgtgccccggctggtttt  
gcgattctaaagtgtacaataaagacgttcaatggaaaaggacatgtgcaaatatcagcacagtacaatgtaca  
catggaattaggccagtagtgtcaactcaactgttggttaaatggcagctctagcagaaaaagagatagtaattaga  
tctgacaatttcacggacaatgctaaaagcataatagtacagctgaatgaatctgtagaaattcattgtatgaga  
cccaacaacaatacaagaaaaagggatatatgtaggaccagggagacacatctatgcaacagagaaaaatagtagga  
gatataagacaagcacattgtaacatcagtagaacaactggactagcgtgctaagacagatagctgtaaaatta  
agagaacgatttaagaataaaacaatagtctttaatcactcctctggaggggaccagaaaattgtaaggcacagt  
tttaattgtggaggggaatcttctactgtaattcaacacaactgtttaatagtagtacttgggttaatagtagtggg  
aatgatactgaaagggcaactaacaatacagaaaatatcacactcccatgtagaataaaacaaattataaacatg  
tggcagaaaagtaggaaaagcaatgtatgccccctcccatcaacggacagattagatgttcatcaaatattacaggg  
ctgatactaacaagagatggtggtaatacaagagaacaagaccgagatcttcagacctggaggaggagatatgagg  
gacaattggagaagtgaattatataaatataaagtagtaagaattgaaccattaggagtagcaccacccaaggca  
aagagaagagtggtgcagagagaaaaagagcagtggaatgataggggcaatgatccttgggttcttgggagca  
gcaggaagcactatgggcgagcgtcactggcgctgacgggtacagaccaggcaattgttggtctggtatagtgcaa  
cagcagaacaatctgctgagggctattgaggcgcaacagcatctgttgcaactcacagtctggggcatcaaacag  
ctccaagcaagaatcctggctgtggaaagatacctagaggatcaacagctcctagggatttggttggtctgga  
aaactcatttgcaccacttctgtgccttggaatgctagtgtggagtaataaatctctaagtgcatttgggataac  
atgacctggatgcagtgggaaagagaaaattggcaattacacaggcttaatatatcatttacttgaagaatcgag  
aaccaacaagaaaagaatgaacaagaattattggcattagataagtgggcaagtttggtggaattggtttagcata  
acaaaatggctgtggtatataaaaaatattcataatgatagtagggcttagtaggtttaagaatagtttttgc  
gtactttctctagtgaagaaagttagggagggatactcaccattgtcattgcaggctattagcttgctcaacgcc  
acagctatagcagtagctgaggggaacagatagggttatagaagtagtacaagagcttgtagagctatttccac  
atacctagaagaatcagacagggccttggaaggcttttactataa

**Supplementary File S6.** Dataset of 96 nucleotide sequences of the regulatory/accessory genes taken together (*tat*, *rev*, *vif*, *vpr*, and *nef*) from primate lentiviruses: 37 sequences from SIV infecting Old-World monkeys (#1 - #37), 4 from HIV-2 (#38 - #41), 20 from SIV infecting African apes (7 from SIVgor, #42 - #48, 13 from SIVcpz, #49 - #61), and 35 from HIV-1 (9 from group O, #62 - #70, 2 from group P, #71 and #72, 7 from group N, #73 - #79, and 17 from the pandemic group M, #80 - #96). From each genome sequence we selected the non-overlapping region that encodes the Tat, Rev, Vif, Vpr, and Nef proteins. Each nucleotide sequence contains the NCBI ac. number and the length of the coding region.

>#1 AF468658 1314 nt

gcaactaaacatcatatatggtcaggaaaaactccatttgtgtatatccaccactatcaactacaacatcaaa  
ggtttacacaaaaacaaattcgattagcattagatactaggcaggtaggagaggaagtagaagccacatatat  
tgagataaccatcctatgggacacaactagtcattggaccagccagtcctatcccgatccacctactaccaacag  
gcagtcacaatagagtggttttacaacagaagtaagctaggagcaagggaaacagacataacatggtacagta  
ctaatttgacccagacgtagcaatgcaaatacacaacaaggtactttccatgttttcagaacgaagacgt  
acggaggggcaataaggggtgaacagctccttaggatattgtgaccacccggaagctcacccacaggttaggaaca  
cctcacacgcttgaaaggctagccttctttgcgtacgtagatacgtaacggagctccctgccgatccggatt  
ggacagtggtatcaggcagcaatagcatgtgcaatagattatgtcaggagagtgacagacattactcttttagaca  
cttttagagatgggtgtttccacagatacaatagaattgtcagaaggtacccagtaatcaggcccttaaggggt  
accgccccaccagatagtaactctgttccctgacccggcagagtgctcttttgccctaagtggcaacagccaggag  
ccgcgccaaacaccccgctgctctgttgcctattgcaaaaagtgctgtcttttcattgtcagttgtgttttctaag  
gaagggactaggtctttccctttccgaatcacccctccaggcaaaattgcatcgattatgaaccatcatgccca  
gtgagaccacaggtgccgcttagagacccacctacaaaacttatggtggatctctcgcactttttgaaagaaa  
agggaggactggaggccatgttttattgtgaagatagacaccaaagctagagagctattgtctattatgagtg  
gggcatgtgcttggtatggctccagtggaactccaggaccaggaatccgctacccaactatgccaggcttctgc  
tggtgcttacggccagtggtccatgactgaggactctgagcccggggatgatcaatatctgttgaaaccatcccg  
cctatcagggaacagcaagaggaccaccataggagatcttggtcttctccttctgctctaggcttagccttgaa  
atcaggctggcagatgaaccagctgcagcaggaggagcggaagaagcgccctaaccgcaaaccgcttcctatag  
>#2 AF468659 1251 nt

aggaaggtagactggttgcttagagctactaaacaccacatatggtcaggcaaaacaccatttgtatatgtcc  
atcactaccaattgcaacaccaaagatttacacaaaaacaagattcgattagcaatggatactaggaaggtagg  
ggaagaagtagaagcaacatatagagataactatcctatgggacacaaccagtcattggaccagctagctta  
tcccggtccacctattaccaacaagcagtcataatagaatgggtataacaacagaagcaaaactaggagcaagag  
agggagacataatttggtacagcactaatctgacccacaggagtagcaatgcaaattatacatggaaaatactt  
tccatgctttcagaacgaagacatacggaggggcaataaggggtgagcagatcctaggaaattgtgaacacccg  
gaagctcacctgcaggttaggaacacctcagacgcttgagcagttagccttctttgcatatgtcaaacatgtga  
cggagctccctgccgatccagattggacagtggtatcaggcagcaatagcatgtgcaatagattacatcagggt  
gcaaacacttctcttttagacactttaagaccgggaagagtgctcttggcccaactggcagcagccaggagcg  
gcgcccggcaccctgctctgcttgcctactgcaagaagtgtgccccttactgtcagttgtgcttttctaagga  
agggactaggtctttccctccataggtccagtgagccaaaacccaagagaggaagcctcgaggagtatgaacc  
atcatgcccagtaagaccacgggtaccacttagagacccacctacaaagtcatggtggatctctctcactttt  
ttgaaagaaaaggaggactggagggtcatgttttactgtgaggacaggcaccagaagttggaacaatatgcct  
atctggagtggggcctggtgcctggatggctctcattcactccaggcccaggaaccgctatcctacgatacc  
aggattctgcatctgtctgcggccagtagccacaactgaggactctgagcctggggatgatgaatatctgctg  
accacacctgcctatcagggaacggagtgaaagaccagcataaggagttcttggtcttctccttctgctccaagc  
tgggcataaagtcaggcatacagctagaccagctgcagcaggaggagcggaagatgcgccctaaccgcaaaccg  
cttcctatag

>#3 EF070329 1371 nt

tgcactaaacatttatatcttctcagggaaggtccatttacatatgtccaccactatcaattgcagcatcaga  
gattcaccagaacaaaaataaaatacctttgagcataaacagaatagaaggaggcccaacagagactacata  
catagagataaccatattgttagatgtcacaacgtagggccagccagtttatcaaggtccacctattggcag

caatcctatatcctgaagtggagatacatcagggcagccccacaaaatagagagatagacatgggtgcattacg  
agaccttcctagaccagaagtgcacatgcagattatacacacacactacttctcttgtttccaacagagaga  
catccaaagggcaatcagaggagaacagctcctaagaaagtgtgagcacatcaagacacactaccggaaggta  
ggaactcctctatctctagaaaagctagcattctttgcatacatcaaacatacagtcacagagctcccagcag  
atccacaatgggtctgtagatcaggcagccataacatgtgccattgattacattaaatcagtccaaaccctctt  
gttcagacactatagggacggatgttaccatagctatgctcaaacaatcaggagatacccaccgttgcgccca  
ttgagagggacgcagccccagactctaattccatgccaaatgctgacccacacccatctttgagaccctcca  
gatatagaatggatgaaatggacccttcagttgaaggcctgcctccggaccagcgtcccggagcggcaccccc  
cacaccttgcaccaactgttactgcaaattgttgcgcttctactgtatattgtgcttccagaaaaaagcatta  
ggatctcacaacagggccgcaggcaaatcatagaagaacatgagtgctcctgccagtagccccgaaagtcc  
cgattcgtgatgtcaactacaaactcatgatagacctctctactatttgaaaaaaaagagaggactagaagg  
aatgtttgtgtgcatagacagactgcaaaaactagagacttatgcctatgtaaaatcaaaaatagtcccaaga  
tactaatatacacggatggcccaggcaccggttaccacaggcaaccagggttcctgtgggtgcttgagaccgg  
tagccatgacagaggagtcgggagccaggagatgaccagtacctcctgacacacccggcctatgtgggtcgggga  
tgaagaccaccacaaagagttcctgggtcttctccttttgctctaggctggccctaaagtcaggccccgcagctt  
aatcaaatacaacaaaaagagcggaagagacgcttaaccgcaaaccgcacacctctag

>#4 EF070330 1359 nt

gctacaaaacatcatatcttttcaggaaaaacaccatttgtgtatgtacaccactaccaggtacaacacccaaa  
gattttcccaaaacaagatcaagctagcattgacacaaaacaccttagaatcaggagagacagaagtcacctt  
catagagataacagtcctatgggatgtgactaatgtaggaccagcaagcctatccaaaagtacctattggaag  
cagtcatacatcctggaatgggtatacatgaggaaaggtccaagagatagagaacgggactatgtttgggtatc  
acacatacctcacacctgagatagccatgaagatcatacacacccaccacttctcttgtttctatagccagga  
tatcccgaggggtcatcagaggacaaccacccttaggggattgtgaacacccaggagcacatacaaaggtagga  
ccccctcccactctacaggtattagcactattaacattaaagaaagtaacggagctaccagccgatcctaatt  
ggacagtggatcaggtgcataatgcatgtgccatagattacattaggagaacacaaaacactccttttcaggca  
ttatcgagagggatgttatcataggtactctaacaacatcaggagataccccaacataagacccttgagaggg  
acacaagctcctccttctaattcaatgcctaattgctgatcctactcctcctttgagaccctctagatatagga  
tggatgaggatccttcagtagaaaaccttcccccggaacagcgccccggcgagcgccgaccacgccttgag  
ctcctgctattgtaaacgggtgtgcttttcattgcatgttgcttccaaaagaaagcttttaggtatctccgga  
agcaatgagcggccactcatcgaagaacatgagcgttcatgccagtgcgccgagtgccccctacgggac  
ccacatacaagatgatgattgacctctctcattatttaaaagaaaagggaggactggaagggatgttttattg  
tgaggaaagacacccaaaaatttgagacttatacctatgtggactggggaattgtaccaggatgggtacagttt  
acagagggccccggggacccgggtacccaacactgccaggggtcctgtgggtgcctaagggaagtcgccataactg  
aggactctgaggagggggatgaggaatatctcctcacccatgcagcctaccaagggaaggaggaggaccccca  
taagcagttcttgggtcttctcattctgctctcgccctcgccatgaagtcaggcagggaatttagatcaaatacag  
caagaagaacggaagagggcgcttaaccgcaaaccgcacacctatag

>#5 AY340701 1395 nt

tgcactaaatggcacatactcacaggaagtgcaccctttgtctatgtacatcactaccagctgcacaatcaga  
gattctcacagaacaaaattaaactccccttagacctaggaatcactcaagaaggagagtcattgggcaacata  
tttgagataacaattttattgggacttaacaaacgtgggacctagtgcactctaccaacagtgtagacaacaaa  
caggcctacacaatagaatgggtttattggatgcaaaaggtggaacgggtcccttttagatcccggtgtggaatc  
caaacccaagagatagagaggtcagaacatgggtatgctacccatctgacgcgggacctggcgaatcagatagt  
acatacacattattttgcattgcttccaacagttggacgtgcgcagagcaatcagaggagagaagctcttgga  
cagtgtaacatctagcaacacactaccggaaggtagggaccccggtgaccttagagaaattagccttccctg  
ccctagtgcgaccggcctggaatgcagaccaggcatgggcagcatgtgccattgattatactagatgggtcca  
aaccatcctttataggcactacagggaaggctgttaccatagatatgcagagcaaataagaagataccctgtt  
cttaggccaatgagagggactgctcccggcccaaccagttctgttccacaggccgatccagacaatcccagaa  
gaccttccagatatagaatggatgaacctgttgaccagacttacccaaagaacaacacccccagcaaccccc  
acgcacaccttgtaactgctttttagagtttgttgctttcactgtcagatttgcttccctcacaaaaggc  
ctcgggatttcaggcagaaatggcaacaacgcggcaacctctggacgacgacgacgacgacgagcgggtgtcg  
gttgctccagtaaggccccgagttccgcttcgcgacctacttggaagctcatgatggacctctctcattattt  
gaaagaaaaggaggactgggagagatgttttactgtgaagacagacatagaaagatagagcaatatgcctat  
ctggaatggggcttaatcccaggatgggtacaatatacggaagggccaggggtcaggtacccgactatgcccg  
gggtcctgtgggtgcttgcccccgttagccaccacggaggattccgaggaggagatgaggacttccctaac  
ccatccggcctatcaaggccggatggaggacccccatagacagttcttgggtcttctcattctgctccaagctg  
gcagtcagagcgggcagacagctagcacagcttcagcaagaggagcgggaagaagcgttagccgcaaaccgca  
tcctctag

>#6 KJ461716 1377 nt

ctaactaagtatctcaagtataaaacaaaggaatttagaggaagtacaatggatacatcattaccaattatatg  
cacataggtatacacaaaacaaagcaatcatcccacttaccttgaaagtatcacaggattatgtggaagcaac

agccatagaagtacaaatattgtgggatctgtcaagttgtagaagtagggatccacctggaacaagagacaca  
caagcccttactattagttggacttacaccaggttgactaaggagacagagagatagatagaatcagctatg  
agacagagattactccgcacttagctgatgcaatgatacatgtggagcatttctcttgttttacagctcagga  
tttactagagcaatcagaggacagcaattgctaggtgagtgccatcatccacattatthaggaagagata  
cccacattgcaatacctagcactaagggaataacaatggacagaacagcaggcaatggcagctactgcaatag  
attacataaggatcggttcaaaagtattgtgggatcattataagaaaggatgctatcacagataccatgctag  
agtaaggaggtttccacaactgagaccactgagaggtacagcaggacaggacacgccccatgacagtgatccg  
ccacaggtgctaagaccctctcggtatcatccagataacgatccatctcaagaggggttagaaaaatggcata  
ggcgctgcacaacctccaactgcttgactccatgcttttgcaaaaactgcatatatcactgcatattgtg  
cttccaacgaaaaggacttggcatccgcgaagaacagccgagacagccaagagaggggaagttgtacctgta  
agatacaacgaaggtgacagcaccgagatgatgatgaagaaggagtgggtttcccagtatgccacaagtac  
ccctcagacaaatgacattcaagacggctgtggatttctcctgggtttttaaagaaaaggaggactggaagg  
gttgttttattcccctgagagacacaagaaattggacctatatgcttataatgtatggggactagtccaggg  
tggcaaggatacacccaggggcccaggcacaaggttcccaacatgctttggcatcctctgggaattgggtcccgg  
tgagatagggccacagggcctgggagaaggagatgaaagagcatcgttgctccatgcggggcaacaagtcta  
ccaggacccccattgtgagaccctggtatggcacttcaatcccacccttgcccttgagccaggcatactgaag  
gctgacaagttgggacagaagcctttgcctgggcaaaaagacctttctaacaggaagagactag

>#7 KJ461714 1374 nt

ctaactaagtatctcaagtataaaaacaaaggaattagaggaagtacaatggatacatcattaccaattatatg  
cacataggtatacacaaaaacaaagtaatcatcccacttaccttgaaagtatcacaggattatgtggaagcaac  
agccatagaagtacaaatattgtgggaactatcaagttgtagaagtagggatccacctggagtaagagacaca  
caaggcctcactattagttggacttacaccagattgcacaagggagacagagagatagatagaatcagctatg  
agacagagattactccgcaattagctgatgcaatggtacatgtggagcatttctcttgttttacagctcagga  
tttcaatagagcaatcagaggacagcaattgctaggtgagtgccatcatccacattatthaggaagagagta  
cccacattacaataccttagcactaagggaataacaatggacagaacagcaggcgtgggcagctactgcaatag  
attacataaagatcattcaaaagtattgtgggaccactataagaaaggatgctatcacagataccatgctag  
agtaaagaggtatccacacctaagaccactgagaggtacagcaggacaggatacgccccatgatagtgtacca  
ccacaggtgctaagaccctctcggtatcatccagacaatgatccctcccaagaggaggtagaaaaatggcata  
ggcgctgcacaacctccaactccttgcaattcctgcttttgcaaaagctgcatatatcactgcatattgtg  
ctttcaacgaaaaggacttggcatccgcgaagaagcagcagcagccaagagagggagaagttgtacctatgagg  
tacaatgaaggtgacaacacccgagatgatgatgaagaagaagtggttttccagtagcggccacaagtaccca  
tcagaaacctgacattcaaaatagctgtggatttctcctgggtttttaaagaaaaggaggactggaaggggt  
gtattattcccctgagagacacaagaaattggacctatatgcttatcatgtatggggagttagttccaggggtg  
caaggatacacccctggcccaggccccagggttcccaacatgttttggcatcctctgggaattgggtcccgggtg  
atgtggggccacagggcctgggagaaggagatgaaagggcattgttgctccatgcggggcaacaagcatacca  
ggacctccatggtgagaccctggtgtggcacttcaatcccacccttgcccttgagccaggcatactgaaggct  
gacaagttgggccagcagccattgcctgggatgaagagctgcataacaggaagagactag

>#8 KJ461715 1368 nt

ctaacaaagcatctcaaatataaaaacaaaggaattagaggaagtacaatggatacatcattaccaattatatg  
cacataggtatacacaaaaacaaagcaatcatcccacttaccttgaaagtatcacaggattatgtggaagcaac  
agccatagaagtacaaatattgtgggaactgtcaagttgtagaactaggaatccacctggagtaagagacaca  
caagctcttactattagttggacttacaccagattgaataaaggagacagagagatagatagaatcagctatg  
agacagagattactccgcaattagctgatgcaatggtacatgtggagcatttctcttgttttacagctcagga  
tttactagagcaatcagaggacagcaattgctaggtgagtgccatcatccacattatthaggaagagagata  
cccacattgcaatacctagcactaagggaataacaatggacagaacagcaggcatgggcagctactgcaatag  
attatataaagatcattcaaaagtattgtgggatcattataagaaaggatgctttcacagataccatgttag  
agtaagaagatttccacagcttagaccactgagaggtacagcaggacaggaaaacgccccacgacagtgatccg  
ccacaggtgctaagaccctctcggtatcatccagataatgatccatcccaagaggggttagaaaaatggcata  
ggcgctgcacaacctccaactccttgcaattcatgcttttgcaaaagctgcatatatcactgcatattgtg  
cttccaacaaaaaggacttggcatccgcgaagaagcagcccaaccaggagaagtagtacccttaaggtacaac  
gagggtgactacaccggaactgatgatgaagaagaagtggttttccagtagcggccacaagtagcccatcagaa  
caatgacattcaaaacagctgtggatttctcctgggtttttaaagaaaaggaggactggaagggctatttta  
ttcccctgagagacaccagaaattggacctatatgcttatcatgtatggggactgactccaggggtggcagggga  
tacaccaaggggccaggccccagggttcccaacatgtaattggcatcctctgggaattgggtcccgggtggaggtag  
ggccacagggcctgggagaaggagatgaaagggcaaggtgctccatgcagggcaacaatcattccaggaccc  
ctatggtgaggtcctggcgctggcacttcaatcccacccttgcccttgagccaggcatactaaaggctgacaag  
ttgggacagcagcctttgctggcaggagacctttctaacaggaagagactag

>#9 JX860407 1167 nt

ctcataaagcattttaaataataacactaaagacctacagcaggcatgttatgtcccccataaaagttggat  
gggcatggtggacttgcagcagggtaatctttccattacaaggagaatctcatttagaagtacaaggggtactg

gaacttaacaccagagaaaggatggctcagtacttatgctgtaaggataacttggtagcagcagaaatTTTTGG  
acagatgtaacaccagattatgcagatacattactgcatggatcttatttctcttggctttacagcggggagaag  
taagaagagccatcaggggagaacagttactgtcttggctgcaagttcccaagagctcatagaaatcaggtacc  
aagtctgcaatatctagcactgagtgtagtaagtatggcagaagctccccagaggatgaggccccacagaga  
gagccgtgggatgaatgggtaatggaagtcctggaggagctcaaagaagaagctaaaaggcattttgatcttc  
gcttgctaactgcgcttggttaactacatttatgataggcctcagatgtataatgaaggccagtacatgaatac  
cccctggagaaaccctgcaagagaaagagccaaattagcatataggaacaaaaatatggatgatgtagatgag  
gaggatgatgaattagtaggggtagcagtacatccaaaagttccattaagagcaatgtcatacaaattggcaa  
tagacatgtcacattttataaaaagaaaaggggggactggatgggatttattacagtgaagagaagacataggat  
tctagacatgtacctagaaaaggaagaaggaataataccagattggcagaattacacctctgggccaggggata  
agatacccaatgttctttggctggttatggaaactggtagcagtagatgtatcagatgaagctcaagaagatg  
agaccactgtctgggtgcatccagcacagacatatcagtgggatgacccttggggagaagtccttagcatggaa  
gtttgatccaacatttagcttatacctatcaggcatttgttaaatacccagaagagtttgatataagttaggc  
ctgtcagaggaagaggttaagagaaggctaaccgcgaagaggccttttaaaatggctgacaagaaggaaacca  
>#10 U79412 1173 nt

ctcataaaatatctgaaatataaaaactaaagatctacaaaaggtttgctatgtgccccatcataaggctcggat  
gggcatgggtggacctgcagcagagtaatcttccactacaagaagaaagccagttagaagtacaagggtattg  
gaatttaacaccagaaagaggggtggctcagtacttatgcagtgaagaataacctgggtactcaaggaacttttgg  
acagatgtaacaccagactatgcagacattttactgcatagcacttatttcccttggctttacagcggggagaag  
tgagaagggccatcaggggagaacaactgctgtcttggctgcaggttcccgagagctcataagaaccaggtacc  
aagtctacagtacttagcactgagagtagtaagtatggaagaaagacctccagaagatgaaggccacaaaagg  
gaaccatgggatgaatgggtagtggaggttctggaggaactgaaagaagaagctttaaacattttgatcctc  
gcttgctaactgcgcttggttaattatatctatgatagaggacagaaatacaatcaggggacagtttatgaatac  
tccatggaaaaaccagctggagagaggggaaaaattagcatacagaaaaacaaaatatggatgatatagatgag  
gaagatgatggcttggtaggggtaccagtgaggccacgagttcccttaagagcaatgacttacaaattggcag  
tagatatgtctcattttataaaaagaaaaggggggactggaagggttattacagtgaagaagacataaaat  
cttagacatatacttagaaaaggaagaaggcatcggtccagattggcaggattacacctcgggaccaggacct  
agatacccaaagacatttggctggctatggaaattagtccctgtaaatgtatcagatgaggcacaggaggggtg  
aggagaattatttactgcatccagctcaaacttcccgatgggatgacccttggggagaggttctagtatggaa  
gtttgatccaactctagcctacacttatgaggcatatattagatacccagaagagtttggaagcaagttaggc  
ctgtcagaggaagaggttagaagaaggctaaccgcgaagaggcctcttaaaaatggctgacaagaaggaaacta  
gctga

>#11 JQ864086 1164 nt

ctcatcaaacacctgaaatataaacactaaagacctacagatggcttgttatgtgccccatcataaagttggat  
gggcatgggtggacttgcagcagagtaattttcccatgaagagatgagactcatttggagtacaaggatattg  
gaatttggcaccagaaaaaggatggctcagtactcatgcagtaagaataacctgggtactccagaaatttctgg  
acagatgtaacaccagattatgcagacactttactgcatagcacttatttcccttggctttcagaggggagaag  
tacgaagggccatcaggggagagaaattgctgtcttggctgcaagttcccgaaagctcataaaaatcaggtacc  
aagcctacagtatctagcactaacagtagtaagtatggcagaaagacctccagaagatgaagccccacagagg  
gaaccatgggatgaatgggtagtggaggttctggaggaattaaaagaagaagccctgaaacattttgatcctc  
gcttgctaactgcgcttggttaactatattcctcagaaatatagtgagggacaatatatgaataccccctggag  
gaaccagcaacagaaagagaaaaattaggttatagacaacaaaacatggatgatgtggatgatgaagatgat  
gacttagtaggtgtctcagtgcacccaagagtccccttaaggggccatgacatacaaattggcaatagacatgt  
ctcattttataaaaagaaaaggggggactggaagggttattacaatgagaaaagacatagaatattagatat  
gtacatggaaaaggaagaaggaataataccagattggcaaaattacacatcaggggccagggaactagataccct  
atgtactatgggtggctctggaaattagtcccagtagatgtctcagatgaagctcaggaagacgagacacatt  
gcctgatgcatccggcacagactcatcagtgggatgacccttggggagaggtactggcatggaagtttgatcc  
agaattagcttatagctataaggcatttattaagtaccagaagagtttggtagtaagtcaggccttgtcagag  
gaagaggtaaagagaaggctaaccgcgaagaggccttattaaaatggctgacaagaaggaaacaagctga  
>#12 AF334679 1278 nt

agaatagtggagcgtggcatagctgcattaaattccataagtataaaaacaagagagctagagaaagcctgct  
atgtgccacatcacaaagtaggatgggcatggtacacagcctctagggtgattttcccttggaggaggggaag  
tcacttggaggtacaagtgtagtactggaatctgaccccagaaaaaggatgggttatcaagctatgcagttaggatt  
acttggtagctcagaaaaattttggacagatgtaaccccagatgtagcagatcagttagcacatagtacttatt  
tcccttgcttttgcagcgcacgcggtgagacaagccatcagaggagagcagggtgtatcctactgtggctacgc  
ggtagcccatcactctagtgtcctaaagcctacagctgttggccctaaaggtagtattacaatggaacatgct  
ccagaggatgagaccaaccaagagaaccatgggatgagtggataagagatgtactggaagaattgaaagaag  
aggcactgaaacattttgaccctcgcttggcttactgctttaggaaattacgtatatgatacttacggggatac  
aatagaaggggcaggggaaataattaagatatataaaaaggcattgttcttacactttagggatggatataaa  
tacaatgtaggggaatttatgaacaccccatggagaaaccctgctacagaaagacaaaagcaacagtataggc



agcagtgtatggatgatatatagatgaggatgatgatgagctggctggagtagttgtctggccaaaagtaccct  
aagagcaatgtcatataaaattggcaatagacatgtcacattttataaaaagaaaaggggggactggatgggatt  
tattacagtgagaggagacatagaatcctagatatatacctagaaaaagaggaaggtatcatcccagattggc  
agaattatacaagtgggccaggaataaggtacccaaagtctttgggtggctctggcagctggtgccagtaga  
cgtctcggatgaggcaacaatgatgagaccattgcttgggtacatccagcccagacatatcagcattcagac  
ccttggggaaaggtcctagcctggaagtttaatcctcacctagcctacacatatgaagcatttgaagggcacc  
cagaagagtttgggtggaagtcaggccttgacagaggaagaggttgagagaaggttagctaacaagccaaaacc  
gcagaagaagatggcggataagaaggaacaagctga

>#13 JX860414 1167 nt

ctcataaagcatttgaatatataacactaaagagctacagaaagcctgctatgtgccccatcataaggttggat  
gggcttgggtggacttgcagcagagtgatcttccattagaaggggaatctcacttagaggtacaaggatattg  
gaacttgacaccagagaagggatggctcagtagcttgcagtaagaatcacctggtagaccaggaggttctgg  
tcagatgtaacaccagactatgcagacacgttactgcatggcacttatttcccttggtttacagcgggagaag  
tgcggaagggccatcaggggagaacaattgctgtcttccctgcaggttcccgaaagctcataagaaccaggtacc  
aagcttacagtatctagcattaagaatagtaagcatggcagaaagacctccagaagatgaaggccacagaga  
gaaccatgggatgagtggttagtggaagttctggaagaattaaaagaagaagctctgaagcattttgatactc  
gcttgctaactgcgcttggttaattatatctatgataggggagagagttacagtcagggtcagtttatgaatac  
cccctgggaaaacccagctagagagagagaaaaattggcatataggcaacaaaatatagatgatatatagatgat  
gataatgatgatttaataaggagtaccagtagactcaaaagtccccttaagatgcatgacttacaaattagcag  
tagacatgtcacattttataaaaagaaaaggggggactggaagggatttattacaatcagagaagacatagaat  
actagacatttacttagaaaaaggaggaaggaatcatccctgactggcagaattacacatcaggaccaggaata  
agatacccaatgatgttcggatggctgtggaactagtcccagtagaggtctcagatgaggcacagaatgatg  
agacacattgtctggtgcatccagcacagacgggccaatgggatgaccctggggaaaggtccttggcatggaa  
gtttgaccccactctggcttatacctatgaggcatatattaagtaccagagaagatttggggacaagtcaggc  
ttgtcagaggaagaggttaagagaaggctaaccgcgaagaggccttttaaaaatggctgacaagaaggaaact

>#14 HM803689 1236 nt

cagtggcactccctagtaaaaatcatatgtataaaaggaaagaagaagcaagagaatgggaatatgtacccc  
atttcaaagtaccttgggggtggtggtctcattcagaggtccacattcccttgggaaataacactaagataaa  
ggtgaccacctatttgaatctaacaacagaaaaggggtggttgggaacttatggggcagctcttgccttatata  
gaccagaaatgtgaccctccctacttcacagatatagacccaatagtggcagacagcttaatacataagatat  
atttccctgttttacagataaggcaattagacaagctatattgggagaaaaggttttgcctgtgtggattcca  
gaggggacatagagatcaggttagggacactccaatacctagcaatacaagcttgggctagagagcaagtaaag  
aaaatggagatgcccccggaagatgaaggccctcagagagagccaatgaatgaatggctactagacacgctta  
tgagctacaggaagaagcagctaagcattttacaatggagcttttacatgcagtagggaattacatatatga  
gcaatatggggatagcttagagggagtttagagtactaattactttgcttcaaagggctctgttcttgcactat  
agaaaaatgttattgcaagaaatgtgcatatcactgccagctttgctttcttcaaaggcatttaggcattaacg  
gaggaataacaatagaaacacagcaaaagtgtagatgctatagatttggtatgaggagacagatgataccttggg  
aggtttcccagtgaaaccacaagtaccattaagacctatgacttttaaattggcaatagatctctcacatttt  
ttaaagaaaaggggggactggaagggatttattactccaccaggagacatagaatcttagatatatacttag  
aaaatgagcatggaattatccctgattggcagaattacacaaaaggaccaggtattagatacccaatgatgtt  
tgatggctgtggaatttagtaccagtagatgtgattgatgaggctaaggaagatgaagagcatagcctgcta  
caccagctgagacttgtgggatggaagaccctggggagaggtccttagcttggaagtttgatcctatgctag  
caatagattatgtgggctataaaactgcaccagaggactttggagagaagaagaacaagacccaataa

>#15 HM803690 1236 nt

caatggcactctctagtaaaaataccatcagtagcaaaaggaaaaaaggaagcaaaaggaatgggaatatgtgcccc  
attttaaagtaccttgggggatggtggtctcattcagaaatccacgttcccttgggaaaaaacactaaggttaa  
aattaccacttatttgaatctcacagcagaaaagggatggttaagtacttatggagttagggatagcctatata  
gataacacttgtgacccttgctactttacagatatagatcctattctggctgacaagatgatacataatgtct  
atttccctgttttacagatcaggcaattaggaaagctcttttaggagagaaaagtgttagtgtgtggctttca  
gcgaggacacagagatcaggttagggactcttcagtaccttgctttacaagcttgggttaaattcccagttacag  
aaaatggaaattccccaggaggatgaaggccctcaaagggaaccatatgataaatggccttttagacacgctta  
tgagctacaagaagagggcagctaagcattttaccatggagcttttgaggcagtaggaaattacagttatga  
gcagcatggagaaagtatagaaggggttaagaaaatgataactttgttgaatagagctttgtttttgcactat  
agagcttgctattgtaagaagtgtgcttaccactgtcagctttgctttcttcaaaggcaataggcatacaag  
gaggtttactatagaacacagcagtcagtagatgctatggatttggtatgaggagacagatgacaccttggg  
aggatttccagtcagaaccacagtagtaccattaaagagcaatgagttcaaattggcaatagacatgtcccacttt  
ttaaagaaaaggggggactggaagggatttattattcaataagaagacatagaattctagatatatacttag  
aaaatgagcatggaataattcctgattggcagaattacactccaggacctgggtcccaggtaccgcaccttctt  
cggatggttgtggatgctggtaccagtggtatgtgagtgtgaggcaaaagaggatgaggaacatagttctcctg

catccagcagaaagtagtgggattgaggacccttggggagaaacattggccttgggaagtttaatcctatgttag  
cagtagattacataggctatagactgcaccctgacttctttggagagagaaagaacaagacccagtaa

>#16 M58410 963 nt

caattgccttgggaatacagacatcattggcaggtgcaatggcagttttggacctacagccagttcattatcc  
ccttatcaaaagatgattacatagaagtgaatatcacaacctcaccacagaaagaggatggctctcaag  
tcatggagtagggttatcctattaccatcaaaagggatataagacagaagtagatccaggaacagcagacaga  
atgatacacctatattattttaactgttttacagatagagccatccaacaggctatcagaggggagaagtata  
cgtggtgcacattcaaggaaggacataaaggctcaggtacaatcactgcaacttttggcactagtgtcatatac  
aaccatggaatgagataggctacaagtactatagaattgttcaaaagtctatgtttgtacatttcagatgt  
ggttgtagaaggagaggacctttaggctatgttaaaataggattttttagtgatagtgtatttctaggattaa  
gatttgcattgggtattatggggatgtatcagaaatattaggcagggatataatcctctccccagggtaaaat  
gactccagacggccgcgcctgcaagaaggagacacctttgatgagtgggatgatgatgaagaagaagtaggc  
ttccctgtgcaacctcgagtccccttaagacagatgacctataaatttagcagtggacttttccacttttttaa  
aatcaaaagggggactggatgggatataattactctgaaagaagagaaaaagatcctgaatttgtatgccttgaa  
cgagtggggaataatagatgattggcaagcttactcaccaggcccggggataaggtacccgagagtctttggc  
ttctgctttaagctagtcccagtgacctgcatgaggaggcacgcaactgtgagagacactgtctgatgcac  
cagcacagatggg

>#17 LC114462 1155 nt

catataagtagatggcaaggcatagtaagatactggatggaaaaaggggaatacagtgggaatataagatgc  
actataaaattcattgggcatggtacactatgtgtcaatacattatccctctggaaacaggagacatctatgt  
agacatgttctggcacttgacccacagacgggatggctctccacatatgcagtagggatagatatttaagt  
taccaggggaattataggacagaattagatccaggggacagctgacagtatgatccacctccactacttcaatt  
gctttacagaaagagccatccagaaagccatcaggggagaaaggttcgtcttctgcaactaccagaaggaca  
caaacagacagggcaagtacagacccttcaattccttagccctacaagcagtacaagtgccaatgagtgcgga  
gcctataggtattataggattgttcagaaagctctgtttgtacatttcagggtgtggatgtagaaggaggacac  
catttgaaccttacgaggagaggagaaatttacaaccctgtaataataagtgccttttgcaagcgctgctgtta  
tcattgccagctttgtttcctacaaaaaggattgggtataaataagagaccaacaaagggtaggatgactccg  
gaaggacgacgtctgcaagagggagacacttgggaagaatggagtgtatgatgaagaagaataggcttcccag  
tcaagcctagagtgcctctccgccaaatgacttacaaacttgcaagtggatttctcgcaactttttaaaagaaaa  
gggaggactggaagggatttattactcagaaaggagagataagatcctgaatttatatgccttaaatgaatgg  
ggaatcttggatgattggaatgcatggacaccaggaccaggaataagatatccgcgctgctttggcttctgct  
ttaagctagtaccagtagagttacatgaagaagcacagaattgtgagaggcactgcctggtccaccccgcca  
gatgatagaagaccccgatggaatcaaccatggagaagtctgggttggaaagttgacccaatgctggcggt  
gagtttaaggcagggatatacattttcagacatgcatgacagtttggttaaaggaaactag

>#18 KR862336 1032 nt

tggcaaggaatagtttaggttttggatgaaaaaacgaggattaaattggcaatatcagatgcattatcagatac  
attgggcatggtatacaatgagcagatacacaattcctcttacttcaggagatatagaagtagacatctattg  
gcacttgacaccagaaaaaggatggctctctacttatgcagtaggaatacagtatctttccaagataggacaa  
tatagaacagaattagaccccaaacagctgacagtatgattcactgtcattactttaattgttttacagaaa  
gagccattcaaaaggcaatcagaggggaaagattcgtcttctgcacttatccagagggacataaacagacagg  
gcaagtacaaaccttcaatttcttgcttggtagcagtacaaagagcatacaaatattatagactgggtgcaa  
aaagccctgtttgtacatttcagatgtggatgtaagcgcagtacagcctttgatccttacattataggattga  
gattactctatacagtatacttgtgcatctctagggttaggcagggttatacccctttgtctcaacagaaagc  
ttggcagtaccttcacggagaagaaaaaggcagaccaaggaatggaaaaatgagaccagaaggtagatatcta  
caggaaggagacacctgggatgaatggagtgtatgaggagggaagtaggctttccagtgaagccaagagtac  
caataagacagatgacttacaagcttgcaagttgatttttcgcactttttgaaagaaaaggaggactggatgg  
gatttattactccgagaggaggaataagatcctggatctgtatgcctgaatgaatggggaatcattgatgat  
tggaatgcctggacaccaggacctggcattcgttaccgcgctgctttgggttctgctttaagttggtaccag  
tagatctgcatgaagaagcacaacatgtgaaagacattgccttggttcaccagctcagatgggagaagaccc  
cgatggaata

>#19 KR862356 1065 nt

tggcagggaattgttagattctggatgacaaaaagacaactcccatggaagtatgaaatgcattaccaaatc  
actgggcatggtatagatgagcaggtacaggtatccactcaaaatggagaaattgttatagatctctattg  
gcatttaacccagaaaaaggatggctctcaacttatgcagtagggatatacaatatttaggtaatacaggacac  
tatagaacagaaaatagaccccatagacagatagtatgatacatagagtagtttcaactgttttacagaaa  
gagccatccaaaaggcgatcagaggagagagattcatcttctgcaactaccagagggagacataaacaactagg  
gcaggtacagaccctacagtttctagccttacaggtagttcaaatccttagactagagaggcatataagtat  
tacagactgggtgcaaaagccttggtcgttcaacttcagggtgtggctgcaggcgagacaccttttgaacct  
acgaagagagaaggatggacaagggggaggcggtttatcatcataggcataatagggttaagattgctttacac  
agtatacacatgcatagctagggttaggcagggttattctcctctgtctccacagacagctttacagcttcta

caaccaagaaaaaggaatggaaaacttacagaggacggaaggagactacaagcaggagataactgggaagatt  
ggactgatgacgaagatgaagtgggcttcccagtgagaccacaagtcctctgagacaaatgacttacaaatt  
ggcagtggtttctctcattttttgaaagaaaagggaggactgagtgggatttactactcagaaagaagagat  
aagatcctgactctctacgcactcaacgaatggggaatcatagatgattggaacgcttggaaccccgaggacctg  
ggatccgctatccccggaccttcgggttctgcttcaaattggtacctgtaaacctgcatgaggaggcagagac  
ttgtgagagacattgccttgtccaccccgccagctgggagaa

>#20 KR862363 1005 nt

ttttggatgaataagaggggctcccatggcaatatacaatgcattacaaaattcactgggcatgggtacacaa  
tgagtagatacacaaatccctgtagggaggggacaaatagtaatagatctttattggcatttgaccccagaaaa  
aggatggctctctacatatgcagtaggcatacagtatTTTggacttgcaaagctcctactggacagaagtggac  
ccagaaacagcagacagtatagtacattgtcactattttaattgctttacagagagagccgtccagaaggcaa  
tcagaggggaaagattcatcttctgcaactacccagagggacataaacagacagggcaagtacaaactctcca  
actcctagctctcattaaagttcagagagcatataaatattacagattagttcaaaaggccttgtttgtccat  
ttcagatgtggtttagtagacgtaggggaccttttgatccctacataaataggcttaagggtgctatatagtgtgt  
atctttgcatagcaagggtaggcagggttattctcccttcttccgcagacagcttttcaatacttgcagaa  
gcccaggaagaaaaatgggaacatgactgcagaagggaggagattacaacaaggagatgagtggagcgaatgg  
tccgatgatgaagaagaagtcggcttcccagtcacacccagagttccacttaggcagatgacctataaacttg  
cagtggtttctctcactttttaaaagaaaagggaggactgagtgggatttactactcagaaagaagaaataa  
gatcctgaccttttatgctctcaatgaatggggaatcattgacgactggaatgcctggaccccagggtccagga  
atcaggtacccgcgcaccttcgggttttgctttaagcttgttccagtagtcctgcacgaggaagcagaaacat  
gtgagagacattgcctcgctccaccccgcgagatgggagaagacccggatgggata

>#21 M29975 1260 nt

tattggatgaataaaaggaatctgaaatgggaatacaaaatgcattatcaaatcacttgggcatgggtacacta  
tgagcagatatgtaatacccctcccaggaagtggagaaatccatgtggatatctattggcatttagctccaaa  
acaaggatggctctcaacttatgcagtaggaatacaatatgttagcctagttaaatagataaatatagaacagaa  
ttagatcccaatacagcagactccatgatacattgtcattattttacctgttttacagatagagccatccaac  
aggcactaaggggaaacaggttcatcttctgtcaatttccaggaggacataaaactaacaggtcaggtaccttc  
cttgcaatatttagcattactagcccatcaatattatcgcttagttcagaaagctctctttgtgcatttccgg  
tgtggatgtcgcaggagacaacctttgagccatacagaggagaggagacaatacaggaacccgtaataggcg  
ttatagggttaagattgctttacacattatatacttgcatagttagggttaggcagggttactctcctttatc  
tcctcagcaattggttcttgacactcagcatctggttacacaacagctgcctgacctccttctcaagcttag  
atgggcttggggagctcaaagccgcagcacaagaagcagttaaccatctggcgagctttgcacgcaacgcggc  
acaccagatatggcttgccttgcatccgcttatcgggcaatcatcaactctccaagaagagtgcgacaaggg  
cttgaggaagtctttaattaggaagagaaatggcaacatgactccagaaggaagacgtctacaggacggggac  
caatgggatgaatgggtcagatgaagaagatgaagtgggatttccagtaagaccaagagtgccactaagacaaa  
taacatacaaacttgacagtagatttttgcactttttaaaagaaaagggaggactggatgggattttactc  
cgataggagaaataagatccttaattctgtatgccctcaatgaatggggaatcattgatgattggaacgcatgg  
tcaaaaggacctgggataagatacccaggggtgctttggcttctgcttcaagctagtaccgggtgcctgcatg  
aggaagcagaaacatgtgaaaggcattgcttgggtacaccagcacaactgcatgaagacctgatggtataaa  
tcatggagaaatattggca

>#22 AF301156 963 nt

aagcagtttccagaatgccaatattattatttaggaaaaacagagtcacccgaatggtggacagaaggtaaaa  
tagagttttacttagggctcagctattaagttaagcataataacttgggcactttaaccccagatagatatca  
tagaggaccaccagctctcttatgaattacagataggtaagtgggaaacagatttaagctggcaacaagcagta  
gggtacatgcacatcataagggggaagtgtgtacgcatagaggagaagcaagaaaagctataaggggcttac  
cctggaatccttgtgatttccaggtaggacacctaggagtgttgaagttgcaagaaaacataacccgggaggc  
cagaaggcacttccctttagactcacatctcagtgataatgtggggtgtactagaaggcactgggggagaccg  
tgagcggctggctgtgcttatgtgagaatcatggagtgtgcctctacttgcacgttcatgcgggggcgtgtt  
gcccttgcccgcctttagctatagacatccagatgtatattaccacaaccagaaaccagaggacgtagaagatgt  
agaagcaggatgttatgtgatgtctcagactgccagtacgacaggcgaccattaagctactggtggacatctct  
tgctttttgaaagaaaaggggtgactggaggggattattagaacccctgagagagatgacctgatagagcagt  
atgcctacattgagtggggctgcttaaaaggttggttgagatgaagatgagctgggagaggatggagcatt  
aaaagaggacagaaagcctctggttgctggatggctttggaaattagtctacatagagcaacttgagagatg  
gcatacagctattgagctgttgagcgttacaagcaggaagaagaagaaaccacaacaggttgccatag  
agatggtggactga

>#23 AY159322 1293 nt

caggacgtcaagttgagagattggaattcaatagtaaaatatcataagtataaaggagagaaacatttagaaa  
attggcaattataccccattttcaatgctcaggatggtggacacactctcaaaagaagatcccctttaagga  
tggttcaaagattatcatcaccgtcttgtggaacttgaccccagaaaaagggtggtgtctcaatacgccttt  
acagtagaatatcaaaaggaaaattatttcacttacatagaccagtgacggcagatagaataatccacgggg

aatatttcccatggttttacagatcaagcaataagaaaagccttggttgagaaagactggtagcttggtactt  
cccctggggacatagaggtcaggtagggaactctacagtttttggccttacaagcctatctcagaggtagaaag  
atggaacagccacctgaggatgaggtccccagagaggaccatataataaatggctggtaggtactttggcag  
aaatacaagaggaagctttaaagcatttccgatagggcgttgctacatgcagtaggctcatgggtgatgagca  
acaaggagacactttagaaggtgtccaacagctaataagcattttgcaaagagcactgttcttacactttaga  
aagtgttctgttaaagtttggtgctatcattgtcagctgtgcttcttgcaaaagcctttaggggtacattatc  
gggatctaaggcaccagcaggtatgtaactctcccctcagaaaaagagcaaccaagtgatgaagaggaagaggt  
aggctttccagtctacccaacgcagccagtgctgaagcaacctacaaggacttgatagacatgtcccacttt  
ttaaagaaaaggggggactggaagggatttggtggtctaaaagaagagaagagatcttgacactttatgcac  
aaaacgagtggggactaatacctaattggcagaactacacaaagggaccggggataaggtatccgaagacttt  
cgggttcttggttaagctggtcccgtggcagtgctcgccccctggaggaggatgaatgcaacaggctgcta  
aactcttctcaaattgggaatccaggaagaccagagggagagaggttgatgtggaagtttgattcagggcttg  
cttatacgttctatgctcctataattaggccagaggaatacaagtggtgtgacaagtctgagctatgaagccta  
caagaaggaggaaaagcctgactgctgcaagaggaagtgggtggcagttctag

>#24 AF367411 1023 nt

agacatgcagtagaaagatggaattcactggtaaaataaccacaaatataaaggagaaaaacatttggacaaat  
gggatttaaaggcacattttcaatgctcaggatgggtggacacactcacaaaaatatattcccctagaagaaga  
tgaacagatcataatcaccatcctgtggaacttaaccccagaaaaaggatgggttatcaacttatgccatgaca  
atagaatataagttcacaaactactacactcacatagacccccaaacagcagacaggtatgatacatttgaaat  
atctcccctgttttacagaacaagcaataagacaagccctgctaggaaagagactaacagtggtgctacttcca  
ctggggacataaagggaaggtaggagcctgcagtagcttggctttgctaagttatacagcctactgtaacatg  
gagcaaccacccgaggacgaggccctcaaagagaaccatacaatgaatggctaattgacaccttagcagaag  
ttcaagaagaagctttaaagcattttgatagacgcttattgcatgcagtaggaagctggatctacaaaacct  
tggggatacattagaaggggtgacagcttatctcaattcttcaaaaagctctgtctatgcactatagagaa  
gaggaagaaacgggctttccagtatatccacagtgccagtaagagaacccacctacaaggacttgggttgata  
tgccccactttttaaaagaaaaggggggactggaagggatttggcattctaaaagaagagaagagatcttgga  
cttatatgctcaaaatgaatggggattcattcctacctggcaatcttatactgatggcccaggagataagatac  
ccgaagacatttaggttcttattcaagctttgcccgtggcagtgctccagaccaggagaacaatgagtgta  
acaaattgctccagtcctctcagctgggaatccaggaagaatccttggggagagaggctagtggtggaagttg  
a

>#25 AF328295 1230 nt

aaatggaattcattagtc aaataaccacaaatataaggaagaaaaacacttagataagtgggaactattccacc  
actttcaatgctcaggatgggtggacgcactctcaaaagattatccccttcaaagatggctcaaagattattat  
tactgccctatggaacttgaccccagaaaaaggatgggttatctcaatatgcaatcacagcagaatacaacaaa  
ggggactattatactcacatagaccagtaacagcagacagaatgattcattgggaatatttcccatggtttta  
cagctgccgtgtgagaaaaggtgctgtacggagaaaagaatagtagcgtgttacagcccctggggacataaagg  
tcaggtagggaactctacaactcttggttttaagagcctacatcaagttttgcagaatggaacagccgccagag  
gatgaggctccacaaagagaaccatataatgagtggtgatagatacatttagcagaattcaagaagaagctt  
tgaagcattttgataggcgcttattgcatgcagtaggaagctggatttatgaaacatatggggacaccttgga  
gggggtgcagaagcttatcaccctcttacagagagctctatttctgcatttttagacatggatgcagggaaagc  
cgaattggacaagaaggaggcaaatataacccccttagatcctttccaaggccgaacaaccccttgtaaatgt  
tattgcaagaaatgttgctatcactgccagtggttgcttcttgcaaaagcctttagggatacattatcatgtct  
acagaaccaggagaactcggaagagacttctgggaaaaatatcacagtagatgatgagcaaaaagaagaaagg  
ggctttccagtttatcccacacagcctgtgctggaagcaacctacaaaaacctgatagatatgtcccactttt  
taaaagaaaaggggggactggaagggatttggttctctagaagaagagaagagatcttaaacctgtatgctca  
gaatgaatggggattcataccagatttggaagaatacacttcagggccaggagataagatacccgaagagattt  
gggttcttattcaagttaatcccagtaagaatccatggggggagaggctgatgtggaagtttga

>#26 KM378564 1305 nt

aggtagatggttagagagatggaactccctgtgtaaatatcacagtagataaggagagaaaagtatttagaaagat  
ggcattatgcacctcacttccaatgctcaggttggtggactcatagtcagtggaacctccccttccaagacaa  
aagtaaaatagtagtaacagtcctgtggaacctcaccagacaaaaggggtggttaagtaagtagccataaca  
atagaacatattcaggagaagttttgcaccttcataagaccaaacagcagataaaaataatccacttggaaat  
atttcccctgttttacagatcaagcaatttagaggtgtcctgctgggatttagaattcaagcttgctatttccc  
tagagggcataaagggtcaggtaggagtccttcagtagtcttgcttgcaagcacacataaaaatatcttaagatg  
gaaaggccacctgaggatgaaggaccgccaagggaacctatgatgagtggttagtagacttttagtagaaa  
tacaagaggaagctttgaagcattttgataggcgcttactgcataatgtaggatcaggtctatgaaagata  
cggagattcattagaaggagtacagcagcttataacaatcttgcaaaagagcgcttttcttgcattttagaatg  
gatgccaggaaggtagacttgaccagcaggacgctggaatccatttccgaaccttccaagggcgaaccagca  
attgtagcttagatactactcttatgcaagcagcagcagcagcagagaaaagatgtcaccccttcccactgaaga

agaacaaccctcagaagaagaagaagaagtaggctttccagtatatcctcgatgtcctctaagagaaccaaca  
tataaagatctggtagacttttcccacttttttaaagaaaaggggggactgaaggggatttgggtggtctcaca  
agagagagacaatcttgacttatatgctcaaaatgaatggggcttcataaaaggctggcaagctacaccag  
aggacctggtatcaggtacccaaaagtgttgggttcctgttcaagctgggtccctgtggaggtagatgaagat  
gtggtaaatcagccgtgcaacagcctgttaaactccagccaaatgggtcctattgatgacccaaacggagaaa  
gactcatgtggcagtttgatccaaccctggcatattccttcaaggcttgtattcaccatccagaggagtgttg  
acatgctagaagtataagacacatagcagaggagccagcctgctgcaagaggaagtgggtggcag

>#27 KM378563 1302 nt

aggtacatggttagaaaaggtggaactccctgtgcaaatatcataagcataaggggagaaaaagtatttagaaagat  
ggtattatgcacctcacttccaatgttcaggttggtggactcatagtcagtggaccatccccttcaaagacaa  
gagtaaaatagtagtaacagtcctgtggaacctcaccagacaaaaggggtgggttaagtaaatatgccataaca  
atagaacatattcaggagaagttttgtaccttcatagacccaacaacagcagatagaataatccacttggaat  
atttcccttgttttacagatcaagcaataagaggtgtcttactgggatatagaattcaagcttgctatttccc  
tagagggcacaagggccaggttagggagtcttcagtatcttgcttgcaagcacacataaagtaccttaggatg  
gaaaggccaccggaggatgaaggaccgccaaggggaacctatgatgagtggctagtagatacttttagtagaaa  
tacaagaggaagctttgaagcattttgataggcgcttattgcataatgtaggatcatgggtctatgaaagata  
tgagagattcattagaaggagtgcagcagcttataagaatcttgcaaagagcacttttcttgcattttagaaaa  
tgctggtgcaaacactgctgcttaccactgtcagctttgctttcttcaaaaaggcttagggatacgttatagct  
tagatactactcctatacaagcagcagcagcagcagagaaaagatgtcaccccttcccacagaagaagaacaacc  
ctcagaagaagaagaagaagaagtaggctttccagtatatcctcaatgcccgttgagagaaccaacttaca  
gagtttagtagacttctcccacttttttaaagaaaaggggggactgaaagggatttgggtggtctctcagaagag  
aatcaatcttgatctttatgctcaaaatgaatggggcttcataaaaggctggcaagctacaccaagggacc  
tggtcatcaggtacccaaaggatttgggttcctgttcaagttgggtccctgtggatgtagatgatgacctgata  
gatcagccgtgtaacaggctgttgaactccagccagatgggtcctattgatgactcagaaggagaaaagactca  
tgtggcagtttgatgcaagcctggcatacacctttcaggcttgtattcaccatccagaggagttcggacatgt  
tacaagtataagacatgataaaagagaagagccagattgttgcaagaggaagtgggtggcag

>#28 M27470 1362 nt

cagagaatagaaaagtggcactggttagtaagaagacagatggcatggggccactgcaaataatgaggaaggat  
gttggtggctgtatcctcattttatggcttataatgaatggtatacttgcagtaaagtagtgattataataaa  
tagggacataagattaatagttagaagctattggcatttgcaaataagaggtaggatgcttaagtacttatgca  
gtaagcatagaagcagtagtttagaccgccaccctttgagaaagagtgggtgtacagagataactccagaggtag  
cagatcatctaatacatttacatttttatgactgcttcatggacagtgcagttatgaaagccatcaggggaga  
agaagtgttaaaagttttagatttccagctggccataaagcacaaggtgttctctctttgcagtttctctgc  
ttgagagtcattcaagtatcagaagatcaaggacctcccagagagccatacaatcagtggctagcagatacta  
tgagaggaataaaaggaagaagcaagaagcacttccctctcattatcctaaatgcagtatcagaatattgtgt  
gcaaaacacagggagttaggaagaggcctgtgagaaatttattaccttaatgaatagagccatttgggtccac  
ctagctcaaggtgtcaactgctagaagagtattatcagcctttgcaagcttgtgagaatatgggttccctgc  
agtccaagaagcgatcagaagcttgggttcgctactcgtcagctttgcggaatttagttggagggccgggttac  
accgatggctacaagcaaatagaatcttcacaggggtgcagagaagcaatcattgctgcggggacgtgcata  
ggcacatactcagaaggattagacaaagtgcagaacgaccccttaactaaagatgagaaacttgacttaacac  
agcaggatccagaagaggaggaagaagttggatttccctgtgtgcgccaagtttcccttaagagtgccatcata  
caaagatctgatagacttctctcattttataaaagaaaaggggggactgggagggatataattatagcaggaga  
agagaagaaatcctagatctctatgcagagaatgagtgggatttgaacctggatggcaacagtatacgacag  
gtccaggaaccagatatcctaagacatttggatttccctgttgaagctggaaccagtgcagcagagctataggaga  
tgagtatgcagctaacaatcatctgttacactcctcccagttatgtcctcaggaagatccagaaggagagacc  
ctcatgtggtctgggaccctcatcttgcttatgactttgcagcattaa

>#29 AF131870 1023 nt

agagaatgggaagatagaagacagtataagatagttagaatagtatggcttatagatagaattgctgtagaga  
aatttttagatttaagaagaatgcatagggaaacaaaagatgattgggtatctatgtatggaacaggtactgg  
atgggagtggtagacatacaataaaattatttccagtaacttatgggacagtagtagtaaggatctatgga  
cacctcacaccagcaaaaggggtgattaaccagtggggatgtagtatggaatggatttataacagttatcaaa  
cagaaatagatcctcttgtggcagatcagatgatccactttaagtattttgattgttgacctctagggtgat  
cagaagagctatgttaggggaaaaataactacatcagtgagtcagaaatcaagtagctcacaaaggcctgttctc  
tctttgcagtttctctgcttgagagttctcgcttgccttcatctgccaatgtgtccttcttacatcagaa  
tcagaagtggtatcaggattggaggcctgtgataacaaatgctgggtgtaggagatgtgctttcactgtcaact  
ttgctttctgcagaaagggtagggatccactatccaacataaagcagctaatagatctctcacattttata  
aaagaaaaggggtgactggaaggctctgggtactccagaaccagagaagaaatcttgatttgtatgcagaaa  
atgagtggggcttcataactggctggcaagattacaccaagggcctggagtgcagatatccaaaggcctttgg  
ctggctatggaagctagcaccagtcaccattgatgaagacagggatcctaataatccttgtcaagccctactg  
cattccagccagcaaggggttaatgaagacccttggggagagagacttatctggacatttgatcccactctgg

cctatgatttttagggccatacaaaaagcacccctgaagagttcaagcatgttactagtctgcagtgaggaggtgta  
g

>#30 AF075269 876 nt

tccttaatagaaaagtttttagacatagtcagggttaaacacagaggcaaaaagaaaattgggtaggcttacatg  
gaacagggtgtagggttgggaattctatacctatcataaattagtgatacctctagagtcaggaaacttttagtagt  
cagaatatatgcacatttggcagcaggaaggggatggatctcacaaatgggcagtttccatagaatgggtctat  
agagactatcaaacagaaatagaccccatactagcagaccaaatgatccactataaataattttaactgcttca  
taciaagagacattagaagggcacttctgggagaaaagaataactatgtgttgccagcctttaggacataaagg  
ttgtgttctctctttgcagtttatctgcttgagacaactacaagctttgtttcttcacctcccaacttgtccc  
agcgccctgcaagcgtgtcagaatacccctacctataagactccttatagacctctcacattttataaaaagaaa  
aggggtggactggaagggctataattgggtcccagagaagacaggacatcttaattctctactgtgagaatgagtg  
gggtctcattggagacttcatgaactacacagatggaccaggaacaagatacccctctgacattttggatgggtg  
tggcagttagaaccagtggcttgtgatgagtataaagatccctcagatgagacacaatgccttttgcattcaa  
gccagctgggggtcctggaagacccctggggagagaggttatctggcacttcaatccaatggttggcagtgga  
ctttatagccctcaaaaagcagcctgccaagatacaaaaatactgctttcgcttttgactgcaagaggaagtag  
>#31 AF188116 951 nt

agcttagtagagaaaatttctagatatcaaaaaggaatcattcagaaaagtaaaaaatgattgggttagtttacatg  
gtacaggagtaggatgggagttttatacttacaataaattactaattccattagatacaggaaacttttagtagt  
aagaatttatgctcatctggcagcagggagaggatggatttcacagtgggcagtatcaatagaatggatctat  
ggaaactatcagacagaagtggatcccattctagctgatcaaatgcttcatgtgaagtattttgactggtggg  
tgcatagggacatagtttagggccataaggggagaaaagattctgcacagctgtaaaatgcctactggacataa  
aggttgtgttctctcattgcagtacctctgcttgagacaactacaaagagctctctattttacatctgcctcaa  
tgtcccagctccactccaatcctgccagaataagtgccactgcaaagtttgttgctttcactgtatactttgct  
tccagcagaaggcgtagggatacggatattctacctataaaaaccttgatagacctctcacattttataaaaaga  
aaaggggtggactggaagggctataattgggtcccagagaaggaatgacatcttaacactctactgtgagaatgaa  
tggggctctcattggagacttcatgaactacacagatggaccaggaactcgttaccactcgcctttggatggc  
tgtggcagttggagccagtagcatgtgatgagtttaaagatccctcagatgagagacaatgtttgctacattc  
aagccagttgggggtcctagaagacccctggggagaaaaggctcatctggcactttaatcccagtttagcagtg  
gactatgtagccctgagaaaagcaaccagcaagtgttcaagcaactgctatgagatttaactgcgagaggaagt  
ag

>#32 AF188115 948 nt

aacctgatagagaaaattcctagatattaggagagcacataaagaaaactcagggttgattgggtaagcttacatg  
gaacaggggtaggctgggaattttatacttataataaaaatagtaataccttttagagataggaaccttagtagt  
aagatgctatgcacacttggcagcaggaagaggatggatctctcagtgggcagtatcaatagaatggatttat  
gggaactatcaaacagaaatagatcccattctagcagatcaaatgatacactgtaaaataattttaactgctttt  
ctacaagggatattaggaaggctttatggggagaaaagataatggcaatctgcgctatgccactggacataa  
aggttgtgttctctcattgcagtttctctgcttgagacaactacaagcactctttattcatttgccctacctgt  
cccagcccactgagtgctgtgacaacaagtgtgtgcaaaaagggtgttgctttcattgtattctttgctttc  
agcagaagggattagggatacगतatcctacttataaagactctgatagacctctcacattttataaaaagaaaa  
gggtggactggaagggctataattgggtcccagagaagacaggacatcttgtgtctttactgtgagaatgaatgg  
ggtctcattggagacttcatgacctacacagatggaccagggacacgttaccattaacatttggatgggtgt  
ggcagctggaaccagtggcctgtgatgagtacacagatccctcagatgccagccaatgcctgctgcactcaag  
ccagctgggggtccaggaggacccctggggagagaggttatctggcacttcagtcctatgctagcagtgga  
tttgtagccctcagaaaacaacctaagagcatacaagcatcatctcttagcttgaactgtaagaggaagtag  
>#33 AY523867 1101 nt

aaaatgcagcatatattaaagggtacacaagtataaaaagcaaacaattagagaaaagccacatataaacatcatt  
atcagattacatgggagtggtggactcgagcaccaatgggaaataccagtaggacaagggtgtattaattataaa  
attctatcataatttgacaccagagaaaaggcctgttaagaacagagggagtaggattaatttggggcccatccg  
tctggatggagtacagaagtaacaccacaaacagcagatgcattagtagcatagtcataacttcccttggtttt  
cagatagggcagtccaacaagcacttagagggggagaagttgacttcgcactgctggaatttccataaagaaca  
ggtactttcattgcaatatttggctttacaaaagtatttaagcaagtgcagtgctagatatgcataagagcactc  
aactttatgctttttgaacattttgctgcatttagaaggaacatttctctcaaatgggcctcagactccttgta  
gcagatgctattgcaaaaagtgttgctatcattgttatagatgctttcttcaaaaaggcttagggataaacacc  
catcttggatcccaaaagagactttgactctgggggggaaaaaatggaatgcgggagacatctgcatgatgag  
ggagatgaggatcattagtgctttcctgttttaccacaagtacccttgagacccttaacttacaacttgcca  
tagatctctcccattttataaaaagggaggactgcagggcagtggttttctgtcaaaagagacatgagat  
tctacagctgtattttaagaatgagcatgggtgtgatagatgacatcacctatacgagtgggccaggaacaaga  
taccgctgatcttcgggtgggttatgggaattggccctaatgaaatagaagggtagcttggtagatgaggaag  
acacactgatgatgcaccagcagcaggagtgggggccttcagaagaccacatagggagaatctcatgtggaa

cttcaatccacacttagcctatacaccaggctgggaaatggctcgtcagcaattagagagacaaacaggaaag  
cgctag

>#34 AY655744 1143 nt

tttcacatacataaaaccaagtacttacaaaagttgatttgggttcactttcaattgagacacgcctcct  
atacacaagcaaagtggatactcccgttagaagaaaaggacaccagagtagaataatttaaccataacacagta  
ttggtgttttagcaccagaccatggatatacgtccgattgggacacaatatccattgagtggtcagtcctcgat  
atagtccgagacgaaaaggtgtacgccactgaagtaaccccaaagtgtggcagatcacttgattcataccaaat  
atthcccatgttttacagcgtcagcagtcagacaagccatcagaggggaggtgctactagcagtttgtggagt  
cagacacaaaggttagggacacgccaccgtctctacagttcctagccttgacagcagcagttagatggacagga  
gaacaggcatgggctgcctcagtcataagattttgctaggaagggtaatcaaagtgtactcctacatttccagc  
aaggtgtctattgtctattgcaagaaatgttggtaccactgccagctttgtctctgcagaaggggttaggtat  
ccgggaagaatggcaagcaacaggagcggactacatgggcaaggcattaacacaaggagaggtttgggtatgaa  
aaagaacaagaagaaaatgacatggaactagtgggcttccctgtgagggcctaaagtccgttgagaacctgta  
cttataaaactaggtatagacttctcgttctttttgaaagaaaaggaggactgaaggggatattttacaacaa  
acgtaggcatgcaatcttgaatctgtatgccacaatgaatggggcatactgccagactggcagaactacaca  
gagggaccaggaacaagatacccatgtgtttgggtatcctgtggaaactctgccagtagagatccatgagg  
atgacacggaggacggacatctctcccgcatccagcatatgatgggcaggcagaagacctatggggagaatc  
cctggtctgggtctttgatgagaagctggcctacacccccggagcgaagatggccgagtgggacaggttgagg  
agagagaagcggatgctgctagctccaccgcaaaccgcatcctcttga

>#35 AY523865 1197 nt

ttagataggtggtgtagtgcctataaaaaagagaaaaatacaagaccaagaattagatactgtacaatggatac  
accattttgaattaaggaactcatattatacacaacaaaaatagattccccatcacaaaagaagggggagt  
agtagtagaattactatggtgcttgacccagagaaaggatggctaccactatggcagtagcaatagcatgg  
gaaacaaaaacatggaagacagaactaacaccagatttagcagatcaccttatacacctaagatactttccat  
gtttctcccaacaggcagtgagacaagccataaggggagagatcctactgcaacagtgtcagcagtagcatag  
gggaccagaaggtaaaggaccaccttactacagtagcatagcacttagagtagcagtaaaatacataaaaaata  
gttcaaaaaatgttatggttgacactgagagaagcttgctttcacagggagagagaggctaccagaggggtatc  
ctaacattagggcattgacaggaagaaatagagaagtttagggacggagaataaatggagagcatagatccatt  
tgaagaaagagctaatacacccccaccccgcttgatgtgcaaagcctgcattctacattgccagctgtgtttt  
atacaaaagggcttagggatttcttctgggggaagtcctagaagagaaataaagtgcaccaataagcaacaac  
aagacttagatcagacagaagcagtaggcttcccagtagcccccaggtatccatccgagacccccacatataa  
gttaatgatagactactctcattttttgaaagaaaaggggtgactggaggatgtttttactctgccagaagg  
catgctatttttagagcttcatgccagaatgaatggggaattataaccaggctggctacagtacacaaaggac  
ctggagttaggtatccaatttacttccgggttccctctttaaactgggtgccagtagaaaatagcagaccagatta  
tgagaatgatgagaggaacatcttggtacatgatgccaccaggggatgatggaagacccccatagagagagg  
ttggtttggaagtttgacagcactctggcctattgttataaaggcaggccatgctgaacaaagagagcacta  
gaagatgtatgttccctaagaggaagtag

>#36 AY523866 1206 nt

ttagataagtgggtgtagtgccataaaaaagaggaaagtataagaccaagaattacaagcaataaagtggatac  
accattatgaattaagaagggcattctacactcagacaaaaatagtcttccccgtcacagaagaaggaaaagt  
agtagtggaatatctctggagcctggctccagaaaaaggggtggatgccctctatggcggtaggaatctcttgg  
gagcagacagggtggcagacagaattaacacctgacctagctgatcatttgatacacttaagatacttccctt  
gtttctcccaacaggcagtcacacaagccctaaaggagagaaactactacaacagtgtcagcaataccatag  
gggaccagaaggtaaaggaccacctcattacagtacttagcactaaggacagcagtaaaatatataaaaaata  
gtacaaagaatgctttggcttcatctgagagaagcatgcttccatagagagaggggaagctactaggagatacc  
ccaatattagaccctaacaggaagaaacagggaaggtcagggatggagaataaatggaagaaatagatccatt  
caaggaaacagctaatacacccccatcctaattgtatgtgcaaagcctgtactatgcattgccagctgtgcttt  
atgcaaaaaggcttagggatctacgaaccactctatgcagacccccacagagagataaaatgcactcagagag  
cccaggagtgttatgatgaggaacatgggataggctttgtgtcagaccaagggtcccaattaggggaaccac  
ttacaaattgatgatagactactctcattattttaaagaaaaggggtggactggaggatatttttactctgct  
agaagacatgctatattagaaatccatgccaccatgaatggggaataataaccaggttggttgaagtacacag  
aaggcccaggaccaaggtatccaacatacttgggttccctatttaagctagtgcagtagagatagcagatcc  
tgactatgagaatgatgagagaaatatctcttcatgatgcccaccaaggacaagcagaagacccccataag  
gagaggctagtattggaagtttgattcctccttgcctatttgctataaagcaggacatgaagcccataaaccag  
agcataacagaagatgcatgttccctaagaggaagtag

>#37 FJ919724 1158 nt

ttagatagatggtgtagtgcctataaaaaagggaaaatataaaaccaaagaattggctcctataacatggcaac  
atcactttgaactcagaaatagttatttttactcagacaagaataatatttccctatcacaaaagaaggaaaagt  
agtagtagaactcttctggtgcctagcgccagaaaaaggatggttgccaggaatggcagtaggtctcagttgg  
gagcagggaaaactggcagacagagctatctccagaattggcagaacacttaatacacttaagatatthccccct

gttttactcaacaggcggtgaggcaggccattctgggggagaagctgctcacgtgctgccagcaatatcatag  
gggagcaggaggtaacggaccaccttcattacagtacatttgcttaagggtagccataaaaagggcagcagct  
tcaagacattaccctaacatcagaccactgtcaggaagaaatcaggaggttagggatcaggaataaatggagg  
aggaaatggacctattccaaggagaggaggagaggaagcaaatcacctagttgctattgcaaaatctgtac  
ttttcattgctacttgtgcttcacgcaaaaaggcttagggatcacggaaacctttataggaaatccaagaaga  
gaaatcaagtgtacacagagacaacaacaagattttgaccaacaagaggaagtgggatttcctgtcaaacca  
gggtcccaatttagagacccccacctataaattaatgatagactactctcatttttttaaagaaaaggggtggact  
ggaggatattttttactcagccaggaggcatgcaatcttggaactgcatgccccaaatgaatggggaataata  
cctggttggctccagtacactgagggcccagggttagatatcctaagtactttgggttcctctttaagctag  
tgccagtagagatagcagaccagactatgagaatgatgaaaggaacatcttggttacatgatgccaccaggg  
tcagatggaagacccttataaggagaggctggtatggaagtttgattcacaactagcctactgctataaagca  
ggccatgaagctcatactaaagagacacatactaggagatgtatgttcctaagaggaagtag

>#38 AF208027 1230 nt

ctgataaaattcttaaagtttaaacaacaaagacctacagaaggcggtttatgttcctcatcacaagttggat  
gggcttgggtggacttgcagcagggttaatatcccatatacaaaaagaagcacatttggaatataaggggtattg  
gaacttgaccctgaaaagggtatggttaagccagtatgcagtaagattaacctgggtacacaagaaaattttat  
acagatgtgacaccagagacagcagatcaattattgcatggatcttatttttgattgctttacagctgggtgaag  
taagaagagccatcaggggagagcagatattgtcctgctgcaactatccaacagctcataaaaggcaggtgcc  
tagcttgcaatttctagccttacaagtagtgcaaaaaggaatggcagaagaaatccccccagaagatgaggcc  
ccccagagagagccatgggtatgaatgggtagtagaagttctggaagaaatcaaagaagaagccttaaaacatt  
ttgaccctcgcttgctaactgcgcttggttaactatatctatgataggaaatgttattgcaaaaaatgctgcta  
tcattgtcagttatgctttcttaacaagggactcggagtatgtgggcaacaatacacgcagggtcaattttatg  
aataccccatggagaaaaccagcaacagaaagagcaaaagtttagcatacaggyagcaaaataatgatgatgtag  
atagtgatgataatgacttagtaggagtaccagtctacccccaaagtcccgctaagagtaatgagttacaaatt  
ggcaatagacatgtcacattttataaaaagaaaaggggggactggaagggatttattacagtgaagaagacat  
agaatcctagacatatacatggaaaaggagcaaggtataattccagattggcagaattacacagcaggaccag  
gtataagatatccartgacgtttggctggctatggaaactagtaccagtacgggtctctgatgaggcacagga  
ggacgagactcattgcttggtagatccagcacaactagcccatgggtatgacccggagaccgaagtgttggcg  
tggaagtttgaccctacattagcctatgactacagggcatttatattgcatcctgaggagttcagggtggaagt  
cagggctaccagaagcagtatggaagagaaaactaaaacagagaggactgcctatagaataa

>#39 M30502 1029 nt

acttatttctcttgctttacggcaggtgaagtaagaagagccatcagaggggaaaagttattgtcctgctgca  
actatccccagctcataaagcacaggtaccatcacttcaatacctagccctagtagtagtacaacaaactga  
agcaccaacagagtttccccagaagatgggacccacggagggttagggagttagctgggttaatagaaact  
ctgagggaaataaaggaagaagccttaagacattttgatccccgcttgctaattgctcttggtactatatcc  
ataatagacaaggagaagaactccttgcccagctgcaccgacccctagagccatgcactaacaatgctattg  
taagcgatgcagtttccattgcccagctgtgtttctcgaaaaaggggctcggaatatcaggacagcagtatcag  
caggagagtagatgaacagcccatggagaaaaccagcaacagaaagacagaaagatttgtataggcagcaaa  
atatggatgatgtagattctgatgatgatgacctaataggagttcctgttacaccaagagtaccacggagaga  
aatgacctataaattggcaatagatatgtcacattttataaaaagaaaagggggactgcaagggatgttttac  
agtaggaggagacatagaatcctagacatatacctagaaaaagaggaagggataataccagattggcagaatt  
atactcatggggcaggagtaaggtacccaatgtacttcgggtggctgtggaagctagtagtagtagaactctc  
acaagaggcagaggaagatgaggccaactgcttagtagcacccagcacaacaagcagacatgatgatgagcat  
ggggagacattagtgtggcagtttgactccatgctggcctataactacaaggccttcactctgtacccagaag  
agtttgggcacaagttaggattgcccagagaaagaatggaaggcaaaactgaaagcaagaggggataccatatag  
tgaataa

>#40 AF082339 1182 nt

cttgtcaagtacctaagtagacaacaaaagatctagaaaagggtgtgctatgttccccaccataaggtgggat  
gggcatgggtggacttgcagcagggttaatatcccatatacaggaagaagtcattctagagatacaggcatattg  
gaacctaacaccagaaaaaggtatggctctcctcttatgcagtaagaataacttggtatacagaaaagttctgg  
acagatgttaccacagactgtgcagactccctaatacatggcacttatttctcttgctttacggcagggtgaag  
taagaagagccatcagaggggaaaagttattgtcctgctgcaattatccccagggccataagtcacaggtacc  
gtcactccaatttctggccttagtggttagtgcaacaaactgaagcaccaacagagtttccccgggcccgaatg  
ggacccaccaggagccagggtatgagtggttagtagaagtcctgagagaaataaaaagaagaagctttaaggc  
atattgaccctcgcatgctaattgctcttggtggcttatctatactagaggacagcggtatcagcagggaga  
ttttatgaataacccatggagaacccagcaacagaaagagagaaagaattgtacaagcaacagaatatggat  
gatgtagatatttagatgatgatagcctagtaggggtctctgtcacaccaagagtacaattaagaacaatga  
catacaaatggcagtagatatgtcacatttaataaaaagaaaggggggactggaagggatgttttacagtga  
gagaagacatagaatcttagacatatacttagaaaaaggaagaagggataattccagattggcagaactatact  
catgggccaggaataaggtacccgatgttctttgggtggctgtggaagctagtaccagtagatgtcccacaag



aaggggaggacactgagactcactgcctgctacacccagtacaaacaagcaggcatgatgacacgcatgggga  
gacattagtttggagatttgaccctaagctgggtcatgattacaaagcctttattctacacccagaggaattt  
gggtacaagtcaggcctgccagaagatgagtggaaggcaagactgaaagcaagagggataccatttagtaaga  
acaggaacagctga

>#41 U27200 1188 nt

tacctgaaatataggacaaaagacttgcaacaggtctcttatgttccctaccataaggtaggatgggcttggt  
ggacttgcagtagagtaatatattcccctgaaagaaggagcacatctagaagtccaaggatactggaacctgac  
cccagaaaggggatttcttgagttcctatgctgtaagactaacatggtatgagaggagcttttatacagatgta  
actcctgatgtagcagaccgattactgcatgggtcttatttctcttcgtttacagctaataagtaaggagag  
ccatcaggggagaaaagatatattgtcccactgcaactacccatcagctcatacaggccaggtaccaagtttaca  
gtttctagccctaagagttgtacaagaaggaaaagcagaagcagtcacagagattcctccagaggataaaaac  
ccacaaagagaaccgtgggaacagtggttagtgagcgtcctggaggaaataaaacaagaagccttaaagcatt  
ttgacccccgcttattaactgcacttggaattttatctacaatagggcatgcagtaatacatgctactgtaa  
aaaatgttccctaccattgccagctttgctttcttaaaaaggcctggggatatgtggacaaaagactttggga  
gcagaagggggaggaaaacaagattcagatgaggatgatgaggacaatgaagtaggggtccgtgtaagacccg  
gggtcccactgaggccaatgacattcaaactagcagtagacatgtctcattttttaaaagaaaagggggaact  
ggaagggatttttctatagtgtagagaaggcataaaatactagacacatacttagaaaatgaagaaggcattgtg  
tctggatggcagaactacacacatgggccaggagtaagatatcccaagttctttggctggctatggaagctag  
tgccaataaatatgatagcagaaccagaggacgaggaaaccattgtctggtgcatccagcacagacctccgc  
atgggatgacccccacgaagagaccttgtctggcagtttgactccctcctagcatatgactatgtggccttc  
agcaggttcccagaggagtttgggtatcagtcaggaatgccagagaaagagtggaaggctaaactgagagcaa  
gaggaatacctacagagtag

>#42 KP004991 1380 nt

tataggtccaaaaaggccaaagattgggttttacagacaccattatgaagccacaaatccaagagtcagttcag  
gtgtatatattccagtaggtggtgcttgcataatagtgaccacatatgggggttgatgccargggaagmagc  
tgarcaattgggaaatggggtagtatagaatggcagctaaggaattatagaacacagattgatcctgaaaca  
gcagacaggatgatacacctgtattatytctcmtgttttacagagtcagcaatcaggaaagccatcttagggc  
aaaaggtgttaccacttgtgaataccctgcaggacatagttaggtagggaccttcaattccttagctttgag  
ggtattagtaaaaacaagaaaatttagacctcccttaccagtgctccagaagttagcagaagatgcagaagca  
ttaaaccattttccttagaccttggtacacgccttgggacaacacatttatgaaacttatggagacacttggg  
agggagtaacagccattataaggatcttacaacaattaatatttaccattatagaattggctgccatcatag  
tagaataggaattatcccatctaacgcaagaggaagaagaagaagagtgcccccttggcatcatcctgggagt  
caaccccaaacccttgtataactgctyttgcaaaaaawtgccctatcattgctatctttgtttcaciaaga  
agggtttggggatctccatggggaatgcctggaagaaaagcagctttgtgggatggccagcagtaagggatag  
aatgaggcaaacttcccctgacctgagccatgtgcccctggggtaggaatagtttctagagaatttagcacag  
aaaggaggcataccaagctcatacacacctcagaacaatgcagcccttgcgcttcctagacagtcatacagagg  
aagaagtaggtttcccagttacacctcaagtgcctctaagaccaatgacctttaaggagcgtttgacctcag  
cttctttttaaaagaaaaggaggactggatgggctaatttactcccacagagagcagagattctggatctt  
tgggtcyatcacactcagggattcttccctgattggcagaactacacaccaggggccaggaaytagatacccac  
tgacctatgggtggttgtttaagttagtaccagtatcagaagctgaggcagaagaaatgggcaataagaatga  
gagggttaaactcctacaccagcttgyaatcatggctatggggatgagcatggacaaataactaaagtggcag  
tttgatagatcactaggcaacaacatgttgctctgccccttaccacagagtagctttaagaactaa

>#43 FJ424866 1401 nt

taccataaatatagaactaaacaagcaaaacagtggttctatagggcatcactatgaagcagtcattcctaggg  
taagttcaggggtatacataccagtagggccccgctgaaattatagtaaccacatatatggggactcatgccagg  
agaaaaggaagaacaattaggccatggggtaggcatagaatggagacaggggaaaatacataacacaattagat  
ccagaaacagcagataggataatccatctttattactttcaatgttttacagaatctgcagtgaggaaagcaa  
ttgtgggggaaaaactcctgtacaagtgtactacccggcaggacatagtcaggtagggacattgcaatactt  
agcattaagagcttttagtagggaaagtcagggtaagaccaccttttccaagtgttcagaaatttagcagcagat  
atgttagaagaacttaagcaagaagcagtaagacactttcctaggccctggttgaccaattgggacagcatg  
tttatgatacttatggagacacttgggaaggagtgcagcaataatcagaatcttacagcaagtaattctttgt  
tcattatagaattgggtgtcatcatagcagaatagggttttgccacctctagaagagggaagaagactgcc  
ccatggcagcaaccaggggagccagcccccaacccctgcaacacatgctattgtaaaaagtgtgttatcact  
gctatgtttgtttcacaaagaagggtttgggaatctccatggggaacacatggaaaaagagttagcttcatagg  
atggccagcagtaagggaagaatgagacaaaccaacctgagccaaagccgggtccaggggtggaagtgtg  
tctagagcatttagcacaagaaggagggtatcctgcaaaataactccacaaaacaatcaagcttttagcattcc  
tagaagctcatgaagatgaagaggttaggtttccagtcagacctcaagtgccgttaagaccaatgaccttaa  
aggggcatttgacctcagcttctttttaaatgaaaaggggggactggaagggttagttttctctcaggccaga  
agtgatattcttagacctctgggtttatcatactcagggtacttccctgactggcagaattacacaccagggc  
cagggtataagatatccctgacctttggatggctgtttaagtttagtgccagtcctcagaggcagaagcgggagga

gatgggaacatcaaattgagaaggccatgctgctgcatccagcgtgcagccatgggagagacgacccatatgga  
gagatccttgtctggagattcgatagagcattgggaacaactcatgttgccttacagaagcaccagaactgt  
tcaagagagactaa

>#44 KP004990 1392 nt

tacagggtctaaaagagcaaagaattgggttttatagacatcattatgaggcagttaatcctagagttagttcag  
gggtctatattccagtagggacagcaatgattattgtaaccacctactgggggctcatgcctgggtgaaaaaga  
agatcagttggggcatggagcaagtgtagtagtgaggtagcaaggcaatacagcacacaaatagatccagagaca  
gcagatagactaattcacctccactacttccaatgtttttcagattcgggtgtgaggaaggcaataactagggg  
atagattactgaccaggtgtgaatattcagcaggacatagtcaggtagggtccctacagtacttagccttaag  
agtgttagtaggaaaagtaagaagggaagccacccctccctagtggttcagttattgacagaggacaccttgag  
gaactcaaagcagagggctgtgaagacactttcctaggccttggttacactccctaggacaacatatatatgata  
cctatggggacacctgggaaggagtaactgcaattattagaatcctacaacaattaattttttatccactatag  
aattggatgccctcatagcagaataggatagcgccacacccctcaaagggggagaagattgcctccatggcaa  
cagccagggagtcagccctcaagcccgtgtaacaattgtttctgtaaagcttgctgctatcactgctatgttt  
gtctcgtaaagaagggtttgggaatctccatgggggaatgcatggaagaaaagtagtttagtaggggtggccagc  
agtcagagacagaatacaccagactacccagagatagaccagcacctgggggtggggaaaatctccagagaa  
ttggcaaaaagagaaaagcaatacctagcaagtacaattcaagaaataatgaggcattagctttcttagagggtc  
atgaagatgaggaagtaggggtttccagtgaaagcccaagtacccctaaggccaatgactttcaaaggagcatt  
tgatctcagcttcttttttaaataaaaaggaggactggatgggttagtttattcacctgagagagccgagatt  
ctagatctctgggtctatcacactcagggttcttccctgattggcagaattacaccccaggtccaggagtc  
gatggccctgacctttgggtggatgtttaaactagtagccgtctctgaggcagaagctgagtacatgggaaa  
taaggatgagagagctaagttgttacacccagcttgccacctatgggttttcagatccacacaaggagatccta  
gtctggaagtatgacagatcactaggaacacagcatgttgcctgatgaaacacccagagctgtttatcaaag  
actaa

>#45 KP004989 1389 nt

tatagatctaaagaagcaaaaaattgggttttataggcaccactatgaggcaactaatcctagagttagttcag  
gagtttacataccagtaggaacagcaactattattgtaactacatattggggactcatgcctgggggaaagaaa  
agarcaattagggcatggggcaagtgtggagtggagacaaggtagatacatcacacagatagatccagaaaca  
gctgataggctaattcatctccactacttccaatgtttttcagattcgggtgtgaggaaggcaataactagggg  
acagattattgcacaggtgtgaatactcagcaggacatagtcaggtaggatccttacagtacctagccttaag  
gggtgttagtagggaaagtaaaaaaggaggccaccccttccctagtggtccaggtgttgacagaagatacactagag  
gaactcaaggcggaagcagtgagacacttccctaggccttggttgcaattattagggcagcacatctatgata  
cctatggggacacctgggagggagtaactgcaattattaggatcctacaacaattgggtctttgttcattatag  
aattggatgccagcatagtaggataggtatattgccaccctcacgaagaggaagaagactgcctccatggcag  
cagccagggagtcagccctcaagcccgtgtaacacttgcttctgtaaagtctgctgctatcattgctatgttt  
gtttcgtaaagaagggtttgggaatctccatgggggaacgcattggaagaaaagtagtctggtaggatggccagc  
agtcagagacaggatgcaccagactacccagaagaagcagcacctgggggtgggggaagtctccagagaattg  
gcaaaagggaagaagaatacccgtagtaatacaatgcaaggaacaatgcagccttagctttcttagatgctcata  
gagaggaagaagtaggattccccgtcagacctcaagtgccttgagatgcatgaccttcaaaggggcatttga  
cctcagcttcttttttaaataaaaaggaggactggatgggttaatttactcacctgagagagcagaaatccta  
gatctctgggtctatcacactcagggttcttccctgactggcagaattacactccagggccaggggtcagat  
atcctttgacctttgggtgggtgtttaagctagtgccagtcctgaggcagaagctgaggaaatgggaaataa  
gaacgagagagctaagctgttacacccagcctgtgcttatggattctcggatccacataaggagattttgatg  
tggaagtttgacagatcactaggaatcacacatgttgcctacaaaagcaccgggaactgttttctaaagact  
ga

>#46 FJ424863 1401 nt

taccataaatatagaactaaacaagcaaaacagtggttctataggcatcactatgaagcagtcattcctaggg  
taagttcaggggtgtacataccagtagggccccgctgaaattatagtgaccacatattggggactcatgccagg  
agaaaagggaagaacaattaggccatggggtaggcatagaatggagacaggggaaaatacataacacaattagat  
ccagaaacagcagataggataatccatctctattactttcaatgttttacagaatctgcagtgaggaaagcaa  
ttgtgggggaaaaactcctgtgcaagtgtactacccagcaggacatagtcaggtaggacattgcaatactt  
agcactaagagcttttagtagggaaagtcagggttaagaccacctttccaagtgttcagaaattagcagcagat  
gtgttagaagarcttaagcaagaagcagtaagacactttcctaggccctgggtgcaccaattgggacagcatg  
tttatgatactttggagacacttgggaaggagtgcagcaataatcagaatcttacagcaagtaactctttgt  
tcattatagaattgggtgccatcatagcagaataggattttgcccacctctagaagaggaagaagactgcc  
ccatggcagcagcgggagccagcccccacccccatgcaacacatgctattgtaaaaagtgctgttatcact  
gctatgtttgtttcacaaagaagggtttgggaatctccatgggaaacacatgggaaaagagtagcttcatag  
atggccagcagtaaggggaaagaatgagacaaaccagccctgagccaaagccgggtccgggggtgggtgaagt  
tctagagtgttagcacaaggggagggatacctgcaaaatatactccacgaaacaatcaagcttttagcgttcc  
tagaagctcatgaagatgaggaggtaggatttccagtcgyacctcaagtgcctttaaggccaatgaccttta

aggggcatttgacctcagcttcttttttaaagaaaaggggggactggaagggtagttttctctcaggccaga  
agtgagatcttagatctctgggtttatcatactcagggatacttccctgactggcagaattatacaccagggc  
cagggataagatatccctgaccttggatggctgtttaagtttagtgccagtctcagaggcagaagctgagga  
gatgggaacagcaagtgagagagctatactgctgcatccagcgtgcagccatgggagagacgacccacatgga  
gagatccttgtctggagattcgatagagcattgggaacaactcatgttgcattacagaagcaccacagaactgt  
tcaagagagaataa

>#47 FJ424864 1401 nt

taccataaatatagaactaaacaagcaaacagtggttctataggcatactatgaagcagtcaatcctaggg  
taagttcaggggtatacataccagtagggccccgctgaaattatagtgaccacatatattggggactcatgccagg  
agaaaaggaagaacaattaggccatggggtaggcatagaatgggagacagggaaaatacataacacaattagat  
ccagaaacagcagataggataatccatctttattactttcaatgttttacagaatctgcagtgaggaaagcaa  
ttgtgggggaaaaactcctgtacaagtgttaactacccggcaggacataggcaggtagggacattgcaatactt  
agcattaagagcttttagtagggaaagtcagggtaagaccaccttttccaagtgttcagaaattagcagcagat  
atgttagaagaacttaagcaagaagcartaagacactttcctagggccctgggttgaccaattgggacagcatg  
tttatgatactttatggagacacttgggaaggagtgcagcaataatcagaatcttacagcaagtaatctttgt  
tcattatagaattgggtgtcatcatagcagaatagggtattttgccaccctctagaagaggaagaagactgcca  
ccatggcagcaaccagggagccagcccccaaccccatgcaacacatgctattgtaaaaagtgctgttatcact  
gctatgtttgtttcacaaagaagggtttgggaatctccatgggaaacacatggaaaaagagtagcttcatagg  
atggccagcagtaaggggaaagaatgagacaaaccaaccctgagccaaagccggctccaggggtgggtgaagtg  
tctagagcatttagcacaaagaggagggtacctgcaaaaatactccacaaaacaatcaagctttagcattcc  
tagaagctcatgaagatgaagaggtaggattttccagtcacaaactcaagtgccgttaagaccaatgaccttaa  
aggagcatttgacctcagcttctttttaaatgaaaaggggggactggatgggttagttttctctcaggccaga  
agtgatctcttagacctctgggtttatcatactcagggatacttccctgactggcagaattacacaccagggc  
cagggataagatatccctgaccttggatggctgtttaagtttagtgccagtctcagaggcagaagcgggagga  
gatgggaacatcaaatgagaaggccatgctgctgcatccagcgtgcagccatgggagagacgacccatgatgga  
gagatccttgtctggagattcgatagagcattgggaacaactcatgttgccttacagaagcaccacagaactgt  
tcaagagagactaa

>#48 FJ424871 1398 nt

taccataaatatagaactaaacaagcaaacagtggttctataggcatactatgaagcaatcaatcctaggg  
taagttcaggggtatacataccagtagggccccgctgaaattatagtgaccacatatattggggactcatgccagg  
agaaaaggaagaacaattaggcaatggggtaggcatagaatgggagacaaggaaaaatacataacacaattagat  
ccagaaacagcagataggataatccatctctattactttcaatgttttacagaatctgcagtgaggaaagcaa  
ttgtgggrgaaaaactcctgtgcaagtgttaactacccagcaggacatagtcaggtagggacattgcaatactt  
agcattaagagcttttagtagggagagtcagggtaagaccacccctttccaagtgttcagaaattagcagcagat  
ttgttagaagaactaaaacaagaagcagtaagacactttcctagggccctgggttgaccaattgggacagcacg  
tttatgatactttatggagacacttgggaaggagtgcagcaataatcagaatcttacagcaagtaatctttgt  
tcattatagaattgggtgtcatcatagcagaatagggtattttgccaccctctagaagaggaagaagactgcca  
ccatggcaacagccagggagccagcccccaaccccatgcaacacatgctattgtaaaaagtgctgttatcact  
gctatgtttgtttcacaaagaagggtttgggaatctccggaacgcagtggaaaaagagtagctttgttaggatg  
gccagcagtaaggggaaagaatgaggcaaaccagccctgagccagatccggctccaggggtgggtgaagtgtct  
atagcattagcacaaagaggagggtacctgcaaaaatactccaaaaacaatcaagcttttagcattcctag  
aagctcatgaaaatgaggaagtaggctttccagtcgtacctcaagtgcctttaaggccaatgacctttaagg  
ggcatttgacctcagcttcttttttaaagaaaagggaggactggaagggtagttttctctcaggccagaagt  
gatctcttagacctctgggtttatcacactcagggatacttccctgactggcagaattacacaccagggccag  
gggtaagatatccctgacctatggatggctgtttaagtttagtgccagtctcagaggcagaagctgaggagat  
gggaacagcaagtgagagagctatattgctgcatccagcgtgcagccatgggagagacgacccacatggagag  
acccttgtctggaggttcgatagagcattgggaacaactcatgttgccttacagaagcacccggaactgtttc  
agagagactaa

>#49 JN091690 1374 nt

ttagttaaaccacatatattcacaagtaaatgttgcagcagctggaaatatagacaccattatgaaactgata  
taccaaaaagagcaggagaaatacatattcccattaatgagaaagcaaaaatagtagttacactattgggg  
tctagcctgtggggagagaccatggcatttaggacatggagtaggattgggaatggagacaaggaaaatatgtc  
acacaactagaccctgcaacagctgaccagtttaattcatactaaagtattttgcatgctttactgcaggagcaa  
ttcgtcaagcaatcttaggagagagaattctgacattctgccaatttcgatcaggacacagacaggttagaac  
tttacaatatttagcctttttgaaggtagtgagattcaatacaagacagctccaagacacagcaggagggcgttg  
ccatctgtactaaagtttaacagaggacattctagaagaaataaaacaagaagctgttaggcattttccaaggc  
aaatattacaaggagtaggggaattgggtctttacagtgcagtgagactcctgggaaggagtacaagaattaat  
cagaattctgcagaaagctttgttgcactatcgacatggttgtgttcacagcagaataggacctatagat  
cctcaagtagcccatggaatcatccaggagctgcacctaaagacaccatgttcaaatgttattgtaaaaagt  
gctgctttcattgcccgttttgctttacgaaaaaagcattaggaatctccatgggaaacatctttggcaagtg

gcctggagcccaaaggggcaatccaagcgatacatgagagtaatcctacaataaaaggggaagcatcacaggac  
ctccaggcaaggggagggttgactactagcactctaggaacatcagcagatgtaataaattactctcatgacc  
actctgaagaggaagtcggcttcccagtttaggccagcagtagccaatgagacccatgacagaaaaactagcagt  
agatctgtcatgggttcctaaaagaaaaggggggactggatgggttacctttctccacaaagagagcagccatc  
ttagatatgtggatgtataatacacaaaggaatattcccagactggcagaactacactcctggaccaggaatca  
gataccactatgcagaggggtggctgtttaaactggtagcagccacctgaagatgatgagaggaacat  
cttgctacacccttactgttctcatggaagagaagatcctgcaggagaaggagagaatctgatctggtgcttt  
gacagcagtcctatcaagaagacacatagccagagagagatatccggagtacttcaaataa

>#50 AF447763 1380 nt

acatggacaagcctagttaaacatcatatctttacaaccaaagtctgtaaagattggaagtatagacatcatt  
atgaaactgatacaccaaaaagagcaggggaaatacacatacctctaacagaaagatcaaaattagtgggtttt  
acattattggggtctagcctgtggagaaagaccatggcatctaggtcatggcataggattagaatggagacaa  
ggaaaaatacagtacacaaatagaccctgaaacagcagaccaattgattcacactaggtattttacctgttttg  
ctgcaggagcagttcggcaagcaatattaggagaaagaatattgacattctgccactttcaatcaggacacag  
acaggtagggactctgcaattcttagctttcagaaaaggtagttgagagccaagataaacagccaaagggacca  
aggagggccttgccatctgttacaaaactaacagaggacatcctagaagaaataaaacaagaagcagtgaaac  
actttccaagaccaatattacagggggtaggaaattgggtcttcaccatttatggagactcctgggagggagt  
acaggaattaatcaagatcttgcagagagctttgtttaccactatcgccatgggtgtatccacagcagaata  
ggacctatagatcctcaggtagcaccatgggaacatccaggagctgcacctgaaacaccttgtacaaaactgtt  
actgtaaaaaatgctgctttcattgccagtttgctttacgaaaaaagcattaggaatctccatgggaaacat  
atgtgtagatggcctggggcccgaaagccatcgaagatcttcataacacctcaagttagcctgtaggacag  
gcctcacaagacctccagaataaaggaggtctcactactaacaccttaggtacctcagcagatgtgttagaat  
actctgcagaccatactgaagaagaagtaggttttccagtcagaccagcagtagccatgagacctatgacaga  
gaagctagcaatagatctgtcatgggttcttaaaagaaaaggggggactggatgggtctattttctctccaaaa  
agagcagccatcctagacacctggatgtataatacacaggggtgtctttccagactggcagaactacacctctg  
gaccaggaatcagataccactgtgtaggggatgggtatttaagttggtaccggttagaccaccagaagatga  
tgagaagaacatcttgctacatccagcctgtagccatggaactaccgatccagatggagagactctgatctgg  
cgctttgacagcagcctagcaagaaggcacatagccagagagaagatatccggagtacttcaaataa

>#51 JQ768416 1383 nt

acctggaatagtctagtgaacatcatatctttacaactaaatactgcaaagagtggaaatatagacaccatt  
atgagacagatgtgccaaaaagagcaggggaaatacacatacctcttgaaggaaaggcaagaatagttgtgct  
acattattggggattagcttgtggggagagaccatggcatttgggacatggagtagggatagaatggagacaa  
ggaagatatagcacacagatagaccctgaaacggcagaccagcttattcacactaagtactttgcatgtttta  
ctgcaggagcagtgcggaagcaatcttaggagaaaggatactgacgttctgccattatcaaacaggacatag  
acaggtagggactttacaatatctagcttttctaaaagtagttgaagctcaatacaagacagcaaagaaacct  
ggaagacctttgccagctgtagttaaattaacagaagacgtgttagaggaattaaaacaagaagcagttaggc  
actttccaagaccagtagctgcagggagtaggaaattgggtgtttacagtttatggagattcctgggaaggagc  
tcaagagttaatcaaaattctgcaaagggccttgttttctcattatcgacatgggtgtgttcacagcagaata  
ggacctatagatcctcaggtagccccatggatgcatccaggagctgcacctgagacaccttgtacaaaattgtt  
actgtaaaaagtgtgcttcttattgcccgctttgttttacgaaaaaagcattaggaatctccatgggaaacat  
ttttggcagatgggctggtgctactgaggtcctacgcagattgcatgctgcacctgctcatgatgggcaggcc  
tcaaaagaacttcatgaaagaggagggtcactaacaataccataggaacagaaaaagatgttgcccattact  
ctcaagaccatacagaagaggaagttgggttcccagtcagaccagctgtaccaatgagacctatgacagaaaa  
attagcaacagatctgtcatgggttcttaaaagaaaaggggggactggatgggttaattactctacacgtaga  
gcagctatcctggatacctggatgtataacacacaaggagatttcccagactggcagaattacacctctgggc  
caggagtaagatacccactctgcagaggggtgggtattttaagctagtaccagtaactccacctgaggacgatga  
aaggaaacatcttgctgcatccagctaactctcatggaagagaggaccagatggagacggcgagactctcatg  
tggcagtttgacaccagcctagcaagaagacacatagccagagagagacatccggagtacttcaaataa

>#52 JQ866001 1368 nt

gcttggaaacagcctagttaaaacaccatattttataagagtaaacattgttaaagaatggaaatatagacatcatt  
atgatatagaccaccccagaaaggaggagaagtgcatatacccataactgagaaagcaaaatttggaataac  
aatatatattggggcctacactgtggggaaaaagcttggcatcttggacatggggcaagcatagaatggagacaa  
gggagatactggacagaagtagaccagaaaacagctgaccaaattatacatagtagatattttcttgtttta  
cagaaagggccataagacaagctattttgggagaaaagatcctacagcattgccatttccctacaggacattc  
taaggttagggagcctaactagtttctagccttttaaaaagtgctagaacagaaacagaagcctcatagacct  
ccattaccctcagtaactgtcctggcagaggatcacattggaagaaataaaaaatgaggcaatgagacattttc  
caagaaatacactacaaaacataggcaactgggtgtttcagaactatggagattcatgggaaggagtacaagt  
gcttataactctcttacaanaagccctgtttactcattatagatacgggtgtgcccatagcagaatagggata  
ggaccaaggaggccttggttacaccaagctctacaccaagcacgcctgcaattcttgctattgtaaagtat  
gctgttatcactgccaactttgctttaccaagaaggctctcgcatctcaatgggagctgtactaggaaccag

attcccagggatagacaacatgttgaacagaattagaaacacaccagcagcagatgcaccaggggtcacaagat  
ttgcataacagaggaggccttacaacaaacaccataggaacagaacatgatgtattacaacattcaggagacc  
atacagaagaagcagtaggcttcccagtaagacctcaagtgcgaatgagacctatgacagaaaaattggcagt  
agacctctcatgggtttttaaagaaaaggggggactggaagggtatattgggtctccaaagagagcagcaata  
ctagatacctggatgtttaacactcaaggaatattccctgattggcagaattacacaccagggccaggagtta  
gatatcctctgtgtagagggttggttatttaagtttagtaccagcagacccaccagaagaggatgaaaggaatct  
actcatgcaccctgcttgctcctatggaagagatgaccctaattggagaactggttggtatggaagtttgactct  
gaactggctagaagacacatagccagagagagacatccggagtacttcaaataa

>#53 DQ373065 1389 nt

ttggtaaagcatcacatgtatgtgtcaaagaaggcacgaggttggttctatagacatcattatgaaacagata  
atccaaaaataagttcagaaatacacatcccattaggagaagcaaaattagtaatagtacatttggggatt  
aatgccaggagaaaggccatggcatttaggacatggagtatccatagaatggagacaaggaatatacaggaca  
caaatagatcctgaattggcagacaagctaatacacctttattatttttgattggttttacagcctctgccatca  
ggcaagcggctcttagggagaccagtaatacctaagtgtgaataccctgcagggcataaacaggtagggtccct  
acaatatctggcattaatagcctgggtgggagtagcagaagagaagaccaccttacctagtgtgaccaagtta  
acagaggatttgttggaagacctaaagaatgaggctctgcgccactttcctcggccttggtacatggactag  
ggcaatacttctataatacatatggagatacctgggagggagtagaggccatcattaggacactacaacaact  
gttggtttatacattataggattggctgtcaacatagcaggataggaatcactcctcaaaggagaagggttagag  
ccctggaatcacccaggaagtcaacctaagacagcttgcaataattgccattgtaaagtttgttgctatcact  
gtgtgtattgtctcacaaaaaaaggcttaggcatctcaatgggaaaagtttgggtcaaagagtagccttgtggg  
gtggccacaagtcatagatagaatgagaagacagcaagatccagcagaaggggtaggagcagtttctcaagat  
ctagctaatcgaggggctattaccataagaaataactaaggagaataatcaagccctagcttggctagaagagc  
aaaaagaggaagcagtaggctttccagtatgtcctcaggtaccattaagaccaatgacatacaaagaagcttt  
tgatctttccttctttttaagagaaaaggggggactggaagggttagtttgggtcaaaccaagagacaagaaatt  
ctagacctctgggtttatcatactcaaggaatcttccctgactggcagaactacactccaggaccaggcgtca  
gataccccctgacctttggatgggtgcttcaagctagtaccactgtcacctgaggaggtagaagaagctaatca  
aggagacaacaatgtcctgttacatcccatgtgccaacatggaatggaagatccagacaaagaagtgtcgtgtg  
tggcgctttgacagctccctagcaagagtagacacagagcaagagagctgcatccggagtcttaccagaactgct  
ga

>#54 AF103818 1422 nt

gcttggaatagtctggtaaaaatatcacatgtatagatcaaagaaagctaaaggatggttctacaggcatcatt  
atgagagcactaatcccagagtaaattcagaagtacatatccctatagataaagcaaaaatagtgtattataac  
gtattgggggttgaaaaacaggagaacaagcctggcacttagggcatggagtagatcaatagaatggagacaagga  
acttacaagacacaaatagatcctgagatggcagacaagctaattcatctgtattattttgattgttttacag  
cctctgccatcagaaaagctgttttagggagaccagtaattcccaaagtgaataccctacagggcacaataa  
ggtaggctctttgcaattcttggttttaaaggccttagtaggacagagcaaaaagaagaccaccttacctagt  
gtgactaaattgacagaagatgtcttagaagaactaaaagaagaggctttgcgccattttcctagacctggc  
tacaaggcttaggacagtagatctacagtacttatggagacacttgggagggagtagaagcaattataaggat  
cttacaacaacttttgtttatccattataggattggctgtaatcatagcaggatagggtttccttggaagg  
agaactcctcaaggggagaaggatagagccctggaagcagccaggaagccagcctaagactgcttgcaataatt  
gctactgtaaaaagtgttgctttcactgtgtggtttgttttacgaagaagggttaggaatttcgggtaacaa  
gtggtctaagagtagcatagtaggtagggcagaagtcagaaacagattgagacaaactcagacaacagcagca  
gcagaaggagtaggacctgtctctcaagacttagcagaacatggggctatcactactagaataacaccacaga  
acaaccaaactctggcatggttagatgagatgactaatcatgaaagtgaagtaggcttcctgttcgccctca  
agtaccattaaggcccagtagcttacaacaagcattcgatttaggcttctttttaaagaaaaggggggactg  
gaagggttagtttattccagaagaagacaagagatcctagatctctgggtttaccatacacaaggaatcttcc  
ctgactggcagaattacaccccagggtggtgagtagaatatccctaacatatgggtgggtgctttaagttagt  
ccctctcacagaagaggaagtagagcaggccaataaaggagagaccaacatactgctgcaccccatgtgccag  
catggaatggaagatgaacatggcgaagtcttaactctggcagtttgacactgaactggctcgagagacacagag  
ctaaagagctgcatccagagtacttccggaactga

>#55 EF535993 1392 nt

ctagtaaaataccatatgtacagaacaaagaaagcaagaaaaatgggttttataggcaccattatgaaagttcta  
accccagagtaagttcagaaatacatatccctttagaaaaagcaaaattagtgggtcaccacctattggggatt  
aatgccaggagagcatgaatggcacctaggacatggagtgccatagaatggagatatgggtcatacagaaca  
caaatagatcctgaaatggcagatagactaatcaccttgcattatttttgattgttttgagcttctgccatca  
gaaaagctgttttaggggacacaagtagttcctaagtgtgagtaccagcagggcaccaacaggtaggggtccct  
acaatattttagccttaaaggcctgggtaggagtagaaaagaaaagaccaccttgccatagtgtcgccaagtta  
gcagaagatctattggagggaactgaaaaatgaggctgtacgacactttcctcgagcatggttacatggattag  
gacaacacatatatgacacatatggagatacatgggcaggtgtagaagctatcattagaatactgcaacagct  
cttggtttattcattataggattggctgtcaacatagcagaatagggattaacctgggaggaggagactagag

ccctggcaacatccaggaagccaacctagaactgcttgcaataattgctattgtaaatgttgctgctttcatt  
gcatggctctgttttgagaaaaaaggcttaggaatctccatgggcaacaaatgggtcaaaaagcagcctggtagg  
atggccagaagtaagagctagaataagacaagctcaaccagctgcaccaggggtaggatcagctctcacgagat  
ttagaggcacatggagcaataaccactagaaataccccacaaaacaatcaaactctagcatggctagaagaaa  
tgcagggacatgaagaggaggtaggctttccagttagaccacaagtacccttagacatgatgacatttaaagg  
agcttttgatttaggctactttttaaaagaaaaggggggactggaagggctaatttactccagaagaagacaa  
gagatcttggatctctgggtctatcacacacaaggattcttccttgattggcagaattacacaccaggaccag  
gagtcagatatccactaacatttgggtgggtgctttaaaactgggtccactgacaccagaagaagtggaaaaagc  
caatgaaggagataccaacatactgcttcaccccatctgccagcatgaaatagaagatgaacatggagaagtc  
ttggtttggagatatgacagcaggctagctttgagacacattgctagagaacaacatccggagtactaccagg  
actga

>#56 AY169968 1410 nt

gcatggaaatagcctagttaaatatcatatgtataaaacaaagaaaagcaaaaagattgggttctacagacaccact  
atgaacatccctaataccaagagtttcttcagagggtacacattccttttaagataattcaaaattaataatcac  
aacctattgggctttaaccacaggagaaaagagcgtggcatttaggtcatggagtctccatacagtgaggagatg  
ggatcatatgttacacaggtagatccttatgtagcagataaattgatccactctcaatattttgattgttttg  
cagactctgccatcagaagagctatattagggcatattgtagaacccccgggtgtgcttacagagaaggacacag  
gcaggtaggcacccctacaattcctagctttaaaagctttagtaaaagaaaaaaggccttagaccacccttacc  
agtgtagctaaattaacagaggatatattagaagacttaaagaatgaagctgtaaaacactatcccagaagtt  
ggcttcaccaattaggccagcatatttataccacctatggggacacgtgggaaggggtggaggcaattataag  
aatcctacaacaactactgtttgttcatttttagagttgggtgccaccatagcagaatagggtataataaccacaa  
aggagaagagcattggagccatggaagcatccaggcagccagccaaaaacagcttgtaataattgctattgta  
aagcttgttgtttccattgtatgtattgcttcacaaagaaaaggccttaggaatttccatgggagctcagtggtc  
taaaagtagcctagtaggatggcctgaaatcagaaaaagaataaaagaggctccaatagcagcagaaggagta  
ggagagggtttctaaggatctagaaaaatatggagctatcactagtagacatacaccaagtactaatcaaactt  
tagcatggttagatgaaatgaaacatcatgaagaagaagtggtgtttccagtttagaccacagggtgccattaag  
accaatgacttacaaaggagcctttgacctttcccactttttaagaggaaaaggggggactggaaggggttagtt  
tactcccagaaaaaggcaagaaatcttagatctctgggtttatcacacacaaggcttcttccttgactggcaga  
actacaccccaggaccaggagagatacccacccctgctttggatgggtgctttaaaactagtacctttgacaac  
tgagcaagtggaaagcagccaatgaggagagataacaactgcttactgcaccctatatgtcagcatggaatggag  
gatgaaagtaagaagtccttaatatggcgctttgacagcagactggcctttaagacatatagcaagagagaaaac  
atccggagtattacaaagactga

>#57 AF382828 1392 nt

ttagtaaagtttcatatgtacaagtcaaaaaaggccagaggatgggttttataggcaccattatgatagtccca  
atcctaaagtaagttcagaagtccacatacccataagagatgcaaaaatagtgggtctgtacatactggaattt  
aatgccaggagaacaaccatggcatctaggccatggagtgtccatagagtggaggcagagaacatatagaact  
cagatagatcctcaaacagcagatcggctgatacactgttattattttgattgttttgagcctctgctgtca  
gaagagccatcctaggggagattgtgacaaaggtgtgtgaattccctagggggcatcctcaagttcagtcact  
acaatatctggccatagtacaagtagtaaaagacaaaagaaaaagaagccaccctacctagtgtcactatctta  
gcagaagatatattggaggacttaaaaaacgaggctgtcagacattttccttagaccatggctacatcagttag  
gacaattaatctacaataattatggagatacatgggaaggagtagaggccataatcagaatacttcaacactt  
gctgtttgtgcatttttaggattggctgtcaacatagcaggatagggttgaaacgacagaggagaagaaggaga  
cttgagccctggaatcatccaggaagtcagccaaaaacagcttgcaattcatgctactgcaaaaggtgctgct  
atcattgtatgctttgcttcaccagcaaaaggcttaggtatttccatgggcaacaaatgggtctaaaagcagcat  
tgtaggatggcgcagggtcagagagagacttaggcggactcaggaagcagcagaaggagtaggagaagtgtct  
caggatttagcaaggcgtggagcaataacttccagacatacccctcagactaatcaaactcttgcatggctag  
aagaaatggaacaggaggatgtagggtttccagtaagacctcaggtacctttaagaccaatgacatataaagc  
agcctttgatctcagccactttttaaaagaaaaggggggactggaaggggttagtttattccaagagaagacaa  
gagatcctggacctctgggtttatcacaccaaggatacttccttgattggaataactatactcctggaccag  
gagtgcgttatccgttgacctatggatgggtgcttcaagctagtgccagtatcaccagaggcagtagaagaagc  
caacaagggagaggataatctcctattacatcccctgtgcactcatggatttgaggatgaagagaaggaggtt  
ctgatatggaagtttgacagtcaactagccctgcggcatcttgcaagagaaaaacatcctgagtattacagag  
actga

>#58 EF535994 1404 nt

gcatggaacagtttggtaaaacatcacatgtatgtgtctaaaaaggcacagggttgggttttacagacatcatt  
atgaaagtgagaatccaaaagttagttcagaaattcacattccagtaggagatgccaaattagtaatatgaac  
ctattggggactcatgccaggagaaagagactggcatttaggacatgggggtctctatagaatggagacagaaa  
agatatagcacacaaatagatcctgaattggcagaccacctaattcatttgcattattttgattgttttgag  
agtctgccataaggaaagccatactaggacaaatagttagccctagatgtgaattcccagcaggacacacaaa  
ggtaggcactctacaatatattggcaatctcagcactgctaaaaaggaagccaaagaaaccacctctacctagt

gttagtaaattagcagaagacttattagatgaactcaaacaggaagcagtaagacattttcttagacagtggc  
ttcatgatttaggacagcacatttataacacatatggagacacttgggcgggggttgaggctatcataaggat  
cctgcaacaattgctgtttattcattacagaattggctgccaacatagcagaataggcattctgccacaagga  
agaaggagattagaaccttggaatcatccaggaagccagcctaaaacccctgtaacaattgctattgttaaaa  
tgtgttgctatcactgtcaattttgcttcacaagaaaaggcttaggaatttacatgggaaacaaatgggtcaaa  
aagtagcctggtaggatggcctgcagtaagggacagacttagaaggacacctccagcagcagaaggagtaggg  
ccagtctcgcgagacctagagagacatggggctataacaagtaggaatactccacagacaaatgagactcttg  
cctggttagaggagcaaagggacgaagaagtaggatttccagtaagaccccaagtgcctttaaggcccatgac  
ctataaagcggcctttgatcttagccactttttaaaagaaaaggggggactggaagggctaactctactcccaa  
agaaggcaagagatccttgatctctgggtctatcatacacaaggcttcttccctgattggcaaaactacacac  
caggaccaggggtcagatacccggtagccttcgggtgggtgcttcaagctagtgcctgtagatccaacagatgt  
ggaggaagcaaatgaaggagacaacaatgtgctattacatcctatgtgccagcacggacaagaagatgaacac  
agagaagtgtgatgtggcagtttgacagccacttggccctgacacacagagcccagagagctgcatccggagt  
actacaaagactgctga

>#59 DQ373066 1401 nt

acctggaatagtttagtgaaatatcatatgtacagatcaaagaaagcaaaaaattggttctatagacatcact  
atgatggcaccaaccctaggatggcttcacagatatattccaataaatcaggctaagctaattgtcacaaac  
atattggggactaatgccaggagaaagagattggcatctgggacatggagtagcaatagaatggagagaaaaga  
ggttacagtacccaggtagaccctgaaacagcagataggctaatacaccttcattattttgattgttttacag  
caactgccatcaggaacgctatcttagaaaaggcagtcctccctaagtgtgaattcccagaagggcacagcaa  
ggtagggctctttacaatactgggctctaaagcagttgggttaaaaccaagaaaaatagaccacctctgccctca  
gtagcaaagtttagcagaagatacattggaagaaattaaacaagaagcagtttagacactttccagaccctgggt  
tacatgcactaggagaacatatattatgaaacatatggagactcctgggcgggagtacaagctataataagaat  
tttgcaacaattactgtttgtccatttcagaattggctgccatcatagcagaataggcataaacctcagaga  
agaaggagattagaacctggaacctccagggagcaaacctagaacagaatgcaataagtgttttgcaaaa  
agtgttgttatcattgtatactttgctttacaaagaaaggcttaggcattctccatgggagccaagtgggtcaaa  
aagtagccttagtaggatggccagaaataagagagagaataaaaagagctccaacagcagcagatggagtaggg  
gaagtatcacaagacatagcaagccgtggagcagtcacaattagaaataccccacaaaccaatgagacttttag  
cttggttagaagaaatgcaggatgaagaagtgggatttccagtcaaaccacaagtgcccttaagacctatgac  
ctttaaggggtgcctttgatctctctcactttttaaaagaaaaggggggactggaagggttaatctgggtcaagg  
aaaagacaggagatccttgatttatgggtttatcacacacaaggttacttccctgactggcaaaactacaccc  
cggggccaggagtgcgctacccactaaccttcgggtgggtgctttaaactgggtccctttgccacctgaggaggt  
ggagaaagccaatgaaggagaaaacaactgcctgctacatcccatgtgccagcatggaatggaggatgaggaa  
agagaagtactgggtatggacttttgatagcaagctgggtctcagacatctagcaagagagaaaacatccggaat  
attacagagactga

>#60 DQ373064 1404 nt

gcatggaacagtttggtaaaatatcatatctatgtatccaggaaagcaagaggctggttttatagacatcatt  
atgagagtgaaaatccaaaagtaagttcagaaatacatatcccactaggggaggccaaattagtaatagtaac  
ttattggggacttacaccaggagaacgggactggcacttaggtcatgggggtatctatcgagtggaaacagaag  
aaatatagtacacaaatagaccctgagttggcagatcatatgattcatttatattattttaattgttttgtag  
aatctgccataaggaaggccatattaggacgagtagtttagccctagatgtgaatttccagcaggacacaagaa  
ggtaggaacctacaaatatttggaatctctgccttattacaaagacagccaacaaggccgcctttgcctagt  
gtcagcaaatttagcagaagatgtattagaagaactcaaacaggaagcagtaagacactttcctagaccatggc  
tccaccaattgggacaatatatatatgacacctatggagacacctgggaggagggttcaagctatcataagaat  
cctgcaacaactcctgtttattcattacagaattggctgtcaacatagcagaataggcattacaccacaaaga  
agaaggagactagatccctggaatcatccaggaagtcagcctaaaactcctgtaacaattgcttttgtaaaa  
agtgttgctatcactgtccattttgcttcacaaagaaaggcttaggaatttccatgggaagcaaatgggtcaaa  
aagtagcctggtaggatggcctgaagttagaagaagaattagacaagaaactgtagcagcagaaggagtagga  
ccagcctcacaagacctagctaggcatggggcaattacaagtagtaataccccacaaactaatgagaccattg  
cctggttagaggagcaaaaggaggaagaatatggtttccagtaaaacctcaggtaccattaaggccaatgac  
ttttaagaggcttttgatcttggtactttttaaaagaaaaggggggactggaagggttagtttactctaaa  
aagagacaagaaatccttgacctcgggggtttatcacacacaaggaatcttccctgactggcagaattacaccc  
cagggccagggttagatatccaataacctttggcggggtgcttcaagctagtaccactaacccagaagaggt  
ggaggaggctaataaaggagagagaacaatctactactgcaccaatattgccagcatggaatggaagatgaagac  
aaagaagtgtgatgtgaaatatgacagccagctcgccttaagacacatagctcgagagctgcattcgggagt  
actacaagaactgctga

>#61 KP861923 1389 nt

ttggtaaaacaccacatgtatgtgtccaaaaagcaaaaaattggttttatagacatcattatgaaagtacaa  
gtccaaaagtaagctcagaaatacacattccaataggagatgctaaattagtaatagtaacttattgggggtct  
gcaaccaggagaaagagactggcatctgggacatggagtgcttatagaatggagacagagaagatatagtaca

cagatagatcctgagttggcagaccacctgattcattttgcattattttaattgttttgcagaatctgccataa  
ggaaggccctattaggacacatagtttagccctaagtgtgaatatccagcaggacacttaaaggtaggctcctt  
acaatattttggcaatatcagccttgttcaaaagcaacccaaaaagaccacccttgcttagtgtaagtaaacta  
acagaggatgtgctagaagaacttaaacaagaagcagtaagacattttcctagacagtggcttcatggccttag  
gacagtacatatacaacacatatggagatacctgggcgggagttgaagccataataaggattctgcaacaatt  
gctgtttattcatttcagaattggctgtcaacatagcaggataggcattgtggttcgaagaaggacaatagag  
ccctggaatcaccaggaagccaacctaactgcatgtaacaattgttattgtaaaagctgtagctttcatt  
gtccactttgcttcatgaaaaaaggccttaggcatttccatgggagccaaatgggtcaaagagcagccttagtagg  
atggcctgaggtgagagaaagaatcagacaaacacaaccagcagcagaaggagtaggaccagtgtcaagagac  
ctagacaatcatggagcaatcacagtcagaaatactccacaaactaatcaaacccttgctgggttagaagagc  
agaaagaggaagaagtaggtttccagtaaggcctcaggtaccattaagaccaatgaccttcaaagggtgcgtt  
tgatctcagccacttttttaaaagaaagagggggactggaagggttaattttattccagaagaagacaagagatc  
cttgatctctgggtttatcacacacaaggccttcttcccagactggcaaaactacacaccaggaccaggcgtca  
gatatccactgaccttttggtggtgcttcaagtttagtaccagtgcctccagaggaagtggaaagagccaatga  
aggagagaacaatgtgctgctgcatccaatgtgccagcatggcatggaagatgaagatcgagaggtcctgcaa  
tggcgctttgacagtcacctcgccctgagacacatagccagagagcaacatccggagtactacaaagactgct  
ga

>#62 AJ302647 1401 nt

tacaggtcaggaagaccagagactggtattacagacaccattttgaatctaaaaatccaagagtcagctcag  
gtgtatatattccagtagggaggccttggatagtagtgaccacatatattggggattgatgccaggggaaagaga  
tgaacattttgggacatggggtagcatagactggaggtacaggaagtatacaacacagattgaccctgaaaca  
gcagacagaatgatacatatattattttgcctgttttacagagtcagcaatcaggaaagccatcttagggc  
agagagtactgaccaggtgtgaatactctgcaggacatagtcaggtagggacactgcaactactagctctaag  
agtggtagtaaaagaaaaagacataagcctcccctacccagtggtccagaagttaacagaagatctcctagaa  
gaactaaaagcagaagcagtaagacatttccctagaccttggctacaggccttgggacaatacatttatgaca  
cttatggggacacttgggtaggagttatggccattataagaatcttacaacacctgctattttgccatttttag  
aattggatgccaacatagtagaataggaattaacccatctaacacaagaggaagaggaagaagaatgccccct  
tggcatcaccttggagtcagccccagacccttgttaataagtgtctattgcaaagcgtgctgctaccattgct  
atgtttgttttgcaagcaagggtttgggactctccatgggaaacgtattgggtaaagataaatttaagggtatg  
gtcagcagtcagagaaagaatgagaaaaacttcccctgagcctgaacctgtgcacctggagtaggacaagtc  
tccagggaatttagcagctagaggaggatatacaattcccatactcctcaaaacaatgcagcccttgcatcc  
tagaaagtcaccaagatgaagacgtaggcttcccagtaagacctcaagtgcctctaaggccaatgacctataa  
aggagcatttgacctcagcttcttttttaaaagaaaaggaggactggatgggttaatttactcccctgaaaga  
gcagagatcctggatctttgggtgtatcacactcagggtattcttcccctgattggcagaattacacaccaggac  
caggaacaagattcccactgacatttgggtggctatttaagctagtaccagtgtcagaagctgaggcagaaga  
actaggaataagtgtgacagggctaaactcctgcatccagtttgcaacctggctttgaagatccacacaag  
gagatgctgaaatggcagtttgatagatcactaggcagcacccatgttgctctgataaccacccagagctct  
ttctcaaggactaa

>#63 AJ302646 1422 nt

tacaggtcaggaagaccagagactggtattacagacaccattttgaatctagaaatccaagagtcagttcag  
gtgtatatattccagtagggggccttggatagtagtgaccacatatattggggattgatgccaggggaaagaga  
tgaacattttgggacatggggtagtatagaatggaggtacaagaagtataaaacacagattgaccctgaaaca  
gcagacagaatgatacatatattattttgcctgttttacagagtcagcaatcaggaaagccatccttagggc  
agagagtactgaccaggtgtgaataccctgcaggacatagtcaggtagggacactgcaactactagctctaag  
agtggtagtaaaagaaaaaagaaataagcctcccctacccagtggtccagaagttaacagaagatctcctagaa  
gaactaaaagcagaagcagtaagacatttccctagaccttggctacaggccttgggacaatacatttatgaca  
cttatggggacacttgggtaggagttatggccattataagaatcttacaacaactgctattttgccatttttag  
aattggatgccaacatagtaggataggaattaccccatctaacacaagaggaagaggaagaagaatggatcc  
agtagatcctgaatgcccccttggcatcaccttggagtcagccccagacccttgttaataagtgtctattgca  
aagcatgctgctaccattgctatgtttgttttgcaagcaagggtttgggaatctccatgggaaacgtattggg  
taaagatatatttaagggtatggtcagcagtcagagaaagaatgagaggaacttcccctgatcctgaacctgt  
gcacctggagtaggacaaatctccagggaatttagcagctagaggaggataccaagttcctataactcctcaaa  
tctaaggccaatgacctataaaggagcatttgacctcagcttcttttttaaaagaaaaggaggactggatggg  
ttaatttactcccataaaaagagcagagatcctggatccttgggtatatcacactcagggtattcttcccctgat  
ggcagggctacacaccaggaccaggccaagattcccactgacatttgggtggttatttaagtttagtaccagt  
gtcagaagctgaggcagaggaactaggaacaagtgtgagagggctagcctcctgcatccagcttgaacctat  
ggctttgaagacaaccacgggcaaatactgaaatggcagtttgatagatcactaggcagcacccatgttgcta  
tggttaaccaaccagagctctttaacaaggactaa

>#64 AY169812 1407 nt



tacaggtctgggaagggccaggaactggtattacagggcatcattttgaatctagaaatccaagattcagttcag  
gtgtacatatattccagtagggatggcttgtatagtagtgaccacatatattggggactgatgccaggggaaagaga  
ggatcagatgggacatggggtagtatagaatggcagtagacaacagtagtataacacagattgaccctgaaaca  
gcagacaggataatacatctgtactattttacttgttttacagagtcagcaatcaggaaagccattctagggc  
agagagtattgccaggtgtgaatacactgcaggacatagtcaggtagggacactgcaactattagctctaag  
agcagtagtaaaagcaaaaagaaataagcctcccctaccagtggtccagaaattaacagaagatactctagaa  
gaactaaaaacagaagcagtaagacattttcctaggycttggctacakagcttrggacaatacatttatgaga  
cttatggggacacttgggtaggttatggcaattataagaatcttacaacacctgctattcaccatttttag  
aattggatgccaacatagtagaataggaattaacccatctaaccacagaggaagaggaagaagaatgccccca  
tggcatcaccctggaagtcagcccygacccttgcaacacttgctattgcaaaagatgctgctatcattgct  
atgtttgtttcacaagaaaggggttgggaatctccatgggaaacgtattggggaaagataaatttaaaggatg  
ggcagcagtaagagagagaatgagaaaaacttccctctgatcctgatcctcaaccatgtgcacctggagtaggg  
ccagtggtccaggggaactagcagctagaggaggagtaccaagttcctatactcctcaaaacaatgcagcccttg  
cattcctagaaagtcataagatgaagatgtaggtttccagtgargacctcaagtgcctctaaggccaatgac  
ctataaagcagcattttgacctcggtttcttttaaaagaaaagggaggactggatgggttaattttactcccat  
argagagcagagatcctagatctttgggtvtatcacactcarggatttttccctgattggcagaactacacac  
caggaccagggactagatacccactgacattttggatgggttatataagctagtaccagtgwcagaaacygaggc  
aaargaactaggaacacatgtgagagggctatgctcctgcatccagcttggtgcacatggctttgahgatcca  
cacggagaaatactgaaatggcagtttgatagatcactagcctccacccatgttgctagataaactcaccag  
agctcttccccaaggactaa

>#65 AY169816 1407 nt

tacaggtctagaaagaccaaggactggtattacagacatcattatgaatccagaaatccaagagtcagttcaa  
gtgtatatattccagtagagaragcctatatagtagtgaccacatatattggggattgatgccagggagaaagaga  
tgwacatmtgggacatggagtttagtatagaatggcagtagataaaaaatataaaacacagattgaccctgaaaca  
gcagacaggatgatacatctgcattattttcacctgttttacagacacagcaatcaggaaargccatcctagggc  
agagagtactgaccaagtgtgaataccctgcaggacatagtcaggtagggacactacagctactagctctaac  
agcaatagtaaaaaacaagaaacagtagggccccccctaccagtggtccagaaattaacagaagatctcttagaa  
gaattaaaarcagaagcagtaagacattttcctagggcctggctacatgccttgggacaatacatttatgaga  
cttatggggacacttgggaaggagtkatggcaattacaagaatcttacaacaactgctgtttaccattatag  
aattggatgccaacatagtagaataggaatttaccctaataacamgaggaagaggaagaagagtgctgct  
tggcaccaccctggaagtcaaccccagacccttgtaataagtgtctattgcaagaatgctgctatcattgct  
atgtttgtttcacaagcaaggggttgggaatctccatgggamacgtattgggaaaaataaatatgagggatg  
ggcagcagtaagacaaagaatgaggagaacwagaatttcccatgagcctgaaccatgtgcacctggagtagga  
cagatttccagggacttagcagctagaggrgggataccaatttcccatactcctgaaaacaatgcagcccttg  
cattcctagaaagtcaccaagatgaagaagtgggtttccagtaaggcctcaagtacctctaaggccaatgac  
ctataaaggagcattttgacctcagcttcttttaaaagaaaagggaggactggaagggttaattttactcccat  
aagagagcagaaatcctggatctttgggtgcatcacactcagggtattcttccctgattggcagaactatacac  
caggaccaggaactagattcccactgacattttgggtggctatttaagctagtaccagtgacagcagaagaagc  
agaaagactaggaatacatgtgagagggctcatctcctgcacccagcgtgttcccatggctttgggtgatcca  
catggggaaatactaattgtggaagtttgatagatctctaggcaacacccatgttgctcagataaccacccag  
agctcttccagaaggactaa

>#66 KU168282 1458 nt

tacagatctagaaaggctaagagatggaattatagacatcattatgaaacaaggcatccaaaaattagttcag  
ttatatacatttcaatagcagaagctgagataatgggtaccacatatattggggattaatgccaggggaaagaga  
ggaacacttgggacatggggtagtatagaatggcaatacaagaagtataaaacacagattgatcctgaaaca  
gcagacaggatgatacatctgcattattttacctgttttacagagtcagcaatcaggaaagccattctagggc  
agagagtgtgaccaggtgtgaatacactgcaggacatagtaaggtagggacactacagttcttagccttaa  
agcattagtgaagtaaaagaaaaacaagcctcccctaccagtggtccaaaagttaacagaagacagatggaac  
aagcaccagagaatcaagggccagctagagagcaatccaatgtgtggacatctcctggaggagctaaaacaag  
aagcagtgagacatttccctaggaacttgggtacaagccttagggcaatacatttatgatacttatggagacac  
ttgggagggagttatagcaattataagaatcttacaacaaatactgtttatccattatagaattggatgccag  
catagtagagtaggaattattccatctaatacaagaggaagaggaagaagaatgcctccttgccattcaccctg  
ggagcagggcccaaaccccttgtaataattgtctatttgcaaacgctgctgctatcactgcctcctttgtttcac  
aaagaagggtttgggaatctccatggggaggtgcttgagcgaagcaaatgtgcaggatgggtcagaagtaaga  
aggagaatgagacaaacctcccctgagcctcagccatgtgcacctggagtaggagaagtcctcagggttag  
cagacagagggggaattaccaaatcctacaactcctcaaaacatgcagctctcgactcctagaaagccacac  
agatgaggaagtaggtttccagtaaaacctcaagtgctccttaagaccaatgacctacaaagcagcggtgac  
atcagcttcttttaaaagaaaagggaggactggaagggttaattttactcccataagagagcagaaatcctgg  
atctctggatatatcacactcagggttttccctgattggcagtggttacacaccgggaccaggaactagatt  
cccactgacattttggatgggtatttaagtttagtgccagtgtaagagagggaggcagaaggactgggtaataca

cgtgaggatgctagctctgctacatccagcttgtaatcatggcgctgaggatgaacacggggagatgctaaaat  
ggcagtttgatagaacattagggcagcacacatatagccctgcaaaagcaccagagctcttccccaagtaa  
>#67 AY169809 1407 nt

tacaggtctagggaaaccaaggactgggttttacagacatcattatgagtcctagaaatccaagagttagttcag  
gtgtatatattccagtagggtaggttgatataatagtgaccacatatattggggattaatgccaggggaaaggga  
tgagcagttgggacatggagttagtatagaatggcagtcacaagaggtataaaacacagattgaccctgaaaca  
gcagacaggatgatacatctgtattatttcacctgttttacagagtcagcaatcaggaaagccaccctagggc  
agagagtgcctgaccaggtgtgaataccctgcaggacatagtcaggtagggacrcctgcaactattagckctgag  
aatagtagtaaaagaaaaaaggaataagccccccctaccagtggtccagaagttaacagaagatctcctggaa  
gaactgaaagcagaagcagtgagacatttccctaggaattgggtacaagacctgggacaattcatttatgaga  
cttatggagacacttgggtaggagttatggccattataagaatcttacaacagatactatttaccatttttag  
aattggatgccracacagtagaataggaattaacccatctaacacaagaggaagaggaagaagagtgtccccc  
tgggcaccaccctggaagtgcagcccagacccttgtaatgcttgctattgcaaaaagtgcctgctatcattgct  
atctttgtttcacaagcaagggtttgggaatctccatgggaaacgcatttraagaaaagtagctttgtgggatg  
gccagcagtaagagaaagaatgagaaaagctcccagtagtgatcctgagccatgtgcacctggagtagggagaa  
ctctccagagaattagcagctagaggaggataaccaggctcatatactcctcaaaaataatgcagcccttgcat  
tcctagaaaagccaccgagaagaagaagaagtaggtttccagttaaacctcaggtgcctttaaaaccaatgac  
ctataaaggagcatttgacctcagcttctttttaaaagaaaagggaggactggatgggttaatttactcccat  
actagagcagagatcctggaccttgggtgcataacactcagggattcctccctgattggcagaactacacac  
caggaccaggaaccagattcccactgacatttggatgggtatttaagctagtaccagtgtcagaagctgagggc  
agaagaattaggcaataagtggtgaaagggctagactcctccatccagcttgtgatcatggtttgggatcac  
cacggggaaatactgaaatggcagtttgatagatcactaggcaacactcatgttgctatgataaccacccag  
agctcttccacaaggactaa

>#68 KU168283 1401 nt

tacagatctagaaagaccaaggaatgggtattacagacaccattttgaatccagaaatccaagattcagttcag  
gtgtacatatcccagtagggaaggcttgggtagtagtgaccacctattggggattgatgccaggggaaaaaga  
tgaacatttgggacatggggtagtatagaatggcagtcacaagagatatacaacacagattgaccctgaaaca  
gcagacaggataatacatcagttatttttacctgttttacagagtcagcaatcaggaaagccgtcctagggc  
acagagtgcctgaccaaagtgtgaatactctgcaggacatagtcaggtagggacattgcaactactagctctaag  
agcagtagtaaaagaaaaaagaaataagcctcccctaccagtggtccagaaattaacagaagataccctagaa  
gatctaaaagcagaagcagtaagacattttcctagaccatggctacatgccttgggacaatacatatatgaaa  
cttatggagacacttgggtaggagttatggcaattatgagaatcttacaacaactgctatttaccatttttag  
aattggatgccaacatagtagaataggaattaacccatctaacacaagagaaagaggaagaagaatgtccccc  
tggtatcacctggaagtcaaccccagacccttgtaataagtgcctattgcaaaaagatgctgctatcattgct  
atgtttgtttcacaagaaagggtttgggaatctccatgggaaacgcattgaggaaaagcccatttccaggatg  
ggcagcgataagagagagaatgagaagaacctcccctgagcctgaacctgtgcacctggagtagggacaaatc  
tccaaggaattagcagctagaggaggataccaagttcctatactcctcaaaaacatgcagcccttgcatcc  
tagaaagtcaccaagaggaagaagtaggtttccagtaagacctcaagtgcctctaaggccaatgacctataa  
agcagcatttgacctcagcttctttttaaaagaaaagggaggactggaagggctaatttactcccacagaga  
gcagagatcctggatcttggatttatcataccaaggattcttccctgattggcagaattacacaccaggac  
caggaaactagattcccactgacatttgggtgggtatttaagctagtaccagtgtcagaagctgaggcagaaga  
actaggaaataaatgtgagagggctaactcctgcacccagcttgaacctatggctcggaagatgcacacgga  
cagatactgaaatggcagtttgatagatcactaggcaacacccatgttgctatgataaccatccagagctct  
tcaacaaggactaa

>#69 AY169813 1422 nt

ctgggtgaaataaccataagtagcaggtctaaaaaggcccagagatggcatttatagacatcattatgaaaccagaa  
atccaagaatttagctcaggtgtatatattccagtaggtacagctaataatagtggtgactacatatattggggatt  
aatgccaggggaaagagatgagcatttaggacatggagtcagtatagaatggcaatacaaaaaatatagtaca  
cagattgaccctgaaacagcagatagamtratacatctgcattatttcacctgttttacagaracagcaatca  
ggagtgccatttttagggcagagagtgcctgatcaggtgtgaataccctgcaggacatagccaggtagggacact  
gcaactcctagcatttaagagcagtggttaaaagacaaaagaagtaaacctcccctaccagtggtccagaagtta  
acaggagacaccctggaagaactaaaagcagaagcagtaagacactttcctagccttggctacaaaacttag  
gacaatacatctatgatacttatggagacacctgggaaggagttatggcaatcataagaatcttacaacagtt  
gatatttatccatttttagaattggatgtcaacatagtagaataccctatcctaacgcaagaggaaga  
ggaagaagagtgtccccctggcatcacctgggaagtgcagcccccaaccccttgcaacgcttgctatttgcaaaa  
aatgctgttatcatttgctatctttgtttcacaagaagggtttgggaatctccatggggagtgcatggagtaa  
aagtaaattttcaggatgggtcagcagtaagagatagaatgagacaaacctcccctaatcctgagccmtgtgca  
cctggggtagggaaaatttcyagacagttatcagaaagaggggggataacaaattcttatactcctcaaaaaca  
atgcagcccttgcatcctcgaaagccaccaagaggaggaagaagtaggggtccagtaagacctcaagtgcc  
tctaaggccaatgacctataaaggagcatttgacctcggcttctttttaaaagaaaagggaggactggatggg

ttaatttactcccatagaagaaaagagatcctggatctttgggtgtatcacactcagggattcttccctgatt  
ggcagaactacacaccaggaccaggaaccagatacccattgacatttggatggccatttaaactagtaccagt  
gacarmagaagaggcagaaagaatgggcaatcagtggtgaaagggctatgctcctacatccamtttgaaccat  
ggtagtgaggatgaagaaggggaaatactacaatggaagtttgatagttcattagcgcgcacccatgttgctt  
taataactcaccagagctcttcaacaaggactaa

>#70 AY169805 1401 nt

tacaggtctaggaagaccaaggactggtattacagacatcattatgaatgtagaaatccaagaatcasttcwa  
gtgtatatattccaatagggccggcttttatagtagtgaccacatattggggattgatgccaggagaaagrga  
tgaacatatgggacatgggggttagtatagaatggcagtacaagaagtatgcaacacagattgaccctgaaaca  
gcagacaggatgatacatctgcactattttacctgttttacagaatcagcaatcaggaaagccatcctagggc  
aaagagtactgaccaagtgtgaataccctgcaggacatagtcaggtagggacactacaactactagctctaag  
agctgtagtgaagaaaaaagacataagcctcccctacccagtggtccagaaattaacagaagatctcctagaa  
gagctaaaagcagaagcagtaagacatttccctagggccttggctacagggcttgggacaatacatttatgaya  
cttatggggacacttgggaaggggttatggcaattataagagtcttacaactactgatatttggccatttttag  
aattggatgccaacatagtagaataggaattaacccatctaacacaagaggaagaggaagaagaatgccccct  
tggcatcacccctggaagtcagccccctgaccccttgtaactaagtgtctattgcaaaaaatgctgctatcattgct  
atgtttgtttcacaaagcaaggggttgggaatctccatgggaaacgcattgaggaaaagcaaatttgcaggatg  
gccagcagtaagagaaagaatgagaagggcttcccctaaacctgaagattgtgacactggagtaggagaagtc  
tccaggggaattagcatctagaggaggaataccaagttcctatactcctcagaacaatgcagcccttgcatctc  
tagagagccaccaagatgaagatgtaggtttccagtaaacaccccaagtcctctaaggccaatgacctwtaa  
aggagcatttgacctcagcttctttttaaaagaaaagggaggactggatgggttaatttattcccagcaaaga  
gcagagatcctggatctttggatctatcacactcagggattcttccctgattggcagaactacacaccagggc  
caggaactaggttcccactgacatttggatgggtattttaagctagtaccagtgacagaagatgaggcaaaaag  
actaggaatgtgtgtgagagggctcatctcctgcatccagcttgaaccacggcttgaagatccacacgga  
gagatactgaaatggcagtttgacagatcactgggcaacacccatgttgctaagataacccacccagagttct  
tcccccaaggactaa

>#71 HQ179987 1413 nt

tatcacaatataggtctaaaaagacaagaaagtgggttttataggcatcattatgagacaacccatcctagga  
ttagttcagcagtttatattccagtaggaacagcaaccattattgtgactacytattgggggctcatgcctgg  
ggaaagagaagaacaattaggacatggagcaagtgtggagtggagacaaggtaaaatacaccacacagatagat  
ccagaaacagcagataggctaattcatctccactactttcaatgtttttcagattcggctgtgaggagggcaa  
tactagggggacaggggtattgaayamatgtgaatactcagcaggacatagtcaggtaggctccttgcagtat  
agccttaaaagtggtagtagggaaggtaaaraggaagccacccctccttagtgtccagatattgacacaagac  
gaactcaaggaggaagcagtaagacacttccctagggccttgggtacactcattaggacagtatatctataata  
cctatggggacacctgggagggagtaactgcaattattaggatcctacaacaattaatytttatccattatag  
aattggatgccaacatagtagaataggatatcttgacacccctctcgaagaggaaggagactgcctccatggcaa  
cagccagggagtcagccctcaagcccattgtaacaattgtactgcaaagcctgctgctatcattgctatgttt  
gtttcacaaagaaggggttgggaatctccatggggaatgcatggaagaaaagtagcttagtgggctggccagc  
agtcagggaaaaaataaagcagactaccccgactacccctgacccgactaccccagtaaacacctgcacccggg  
gttggggaaatttccaaagaatttagcacaaggaaaaggaatacccagtaaaatttagttcaaagaacaatgcag  
cattggccttcttggatgctcatgaggaagaagaagtaggrttccagtcaggcctcaagtacccttaagatg  
catgacatacaaggcagcatttgacctcagcttctttttaaagaaaagggaggactggatgggttagtttac  
tcacctgagagagcagagatcctagatctctggatctatcacactcagggattcttccctgactggcagaatt  
acactccagggccaggagaaagatatcccctgaccttgggtggctgttttaaactagtaccagtcctctgaggt  
agaagctgaggaaatgggagataagcaggagaaaagctaagctgctacatccagcctgcacttatgggttttca  
gatcctcataaggagatcctagtgtggaagtttgacagctcacttgggaagagaacatgttgcccttacaaaagc  
accgggaactgtttattaaagactaa

>#72 GU111555 1395 nt

ctgggtcaaatatcacaaatataggtctaaaaagacaaagaattgggttttataggcatcattatgagacagtcc  
atcctaggttagttcaggagtttacattccagtaggagcagcaaccattgttgtagtacttattgggggct  
tatgcctggggaaagagaagaacaattaggacatggagcaagtgtggagtggagacaaggtaaaatacaccacc  
cagatagatccagaacagcagataggctaattcatctccactactttcaatgtttttcagattcggctgtga  
ggagggcaatactatggggacaggggtattgaacaagtgtgaatactcagcaggacatagtcaggtaggctcctt  
gcagtttttagcctttaaagtggtagtagggaaagtaaaaaggaagccacccctcctagtgtccagatatg  
acataagatgaactcaaggcggaagcagtaagacccttccctytgcaatacttacactcattaggacaataca  
tctataataacctatggggacacctgggagggagtaacctgcaattattaggatcctacmacaatttaattttat  
ccattatagaattggatgtcaycatagtagaataaggatatattgccaccctctcgaagaggaaggagactgcct  
ccatggcagcagccagggtcagccctcaagcccattgtaacaattgtactgcaaagcctgctgctatcatt  
gctatgtttgtttcacaaagaaggggttggggatctccgggaatgcatggaagaaaagtagcttagtgggctg  
gccagcagtcagagaaagaatgaatcagactgccccagaaacacctgcatctgggggtggggagatttccaaa

gaattagcacaaggaaaaggaatacccagtaaatataattcaaagaacaatgcagcattagccttcttagaag  
ctcatgaagatgaagaagtaggattcccagtcaggcctcaagtaccgtaagacccatgacatacaaggcagc  
atttgacctcagcttcttttttaaagaaaaggggggactggaagggttaatttattcacctgggagagcagaa  
atactagatctctgggtctatcacactcaggggttcttccctgactggcagcattacactccagggccaggag  
aaagattcccactgacctttgggtggctgtttaaactagtaccagtcctctgaggtagaagttgaggaaatggg  
agatgagcaggagaaagctaagctgctacatccagcctgcacttatggggattcagatcatcatagggagatc  
ttaatgtggaagtttgacagatcactgggagaaagacatgttgccttacaaaagcaccgggaactgtttacta  
aagactaa

>#73 DQ017382 1407 nt

ttagtaaaacatcatatgcatgtgtcaaaaaaggcaaaaggatgggtattatagacatcattatgaatcaaggc  
atccaaaaacaagttcagaagtacatatcccagtaggtcaggcaacattagtgatagtcacttattggggatt  
aacaacagggagaacagccttggtcatctaggacatggagtatccatagaatggagactaagaaaatacaagaca  
caggttgatcctgaaatggcagacaagctaatacatctttattattttgattgttttacagattctgccataa  
ggcaagcggctcttagggagacaagtatttcctaggtgtgaatatcctgcagggcacaaccaggtagatacctt  
acaatatctagcattaacagcttgggtgggaataaagaagagaaaagccacccttacctagtgtggccaagtta  
acagaagattttattagaagacttaaaaaatgaagctgtgcgccattttccaaggatttggtacatgggttag  
ggcaacacatctatgacacttatggagacacctgggagggagtagagggcaattatcaggatgytacaacaatt  
actgtttatccattataggattgggtgccagcacagcagaatagggattactcctcaaaggagaagattagag  
ccctggaatcatccaggaagtcaacccaaaacagcttgcaataagtgctatttgtaaaaattgctgctatcatt  
gtgtggtttgcttcacaaagaaaggcttaggcatctcaatggggaagagttgggtcaaagagcagtgtagtagg  
atggccagaaatcagagaaagaatgagaagacaaagacaaactcaagcagcagcagcagcagtaggagtagga  
gcagcttctcaagacctagctaatacgaggggccatcaccacaagcaatactagagataataatgaaactgtag  
cttgggtagaagcacaagaagaagaagggaagtaggctttccagtagccctcaagtaccattgaggccaat  
gacctttaaagcagcttttgatctttccttcttttttaaagaaaaggggggactggaagggttagtttggtcc  
agaaaaaggcaagagattctagacctctggattttataacacacaaggctacttccctgactggcagaactaca  
caccagggccaggagtcaggatccccctgacatttggtggtgcttcaaactagtaccattgtcagctgaagc  
agtagaagaagctaatagaaggagacaacaatgccctcttacatcccataatgtcaacatggagtagatgatgat  
cacaaagaagtgtggtgtggcggtttgacagctccctggcaagaagacacatagcaagagagctgcatccgg  
acttctacaagaactgctga

>#74 AY532635 1410 nt

ttagtaaaagcatcatatgtatgtgtcaagaaaggcagaagggtgggtattatagacatcattatgaaacaaatc  
atccaaaaataagttcagaagtacatatcccagtaggtctggcaagggttagtgataaccacttattggggact  
aacaacagggagaaggtcttggtcatctaggacatggagtatccatagaatggaaactaggaaaatacaagaca  
caagttgatcctgaaatggcagacaagctaatacatctttattattttaattgttttacagcctctgccataa  
ggcaagcggctcttaggggagaccagtattccctaggtgtgaatatccggcagggcacaatcaggtaggcacttt  
gcaacatctagcactcacagcctgggtgggagtaaaagaagagaaaagccacccttacctagtgtgactaagtta  
acagaagattttattagaagaattaaaaaatgaagctgtgcgccattttccaaggacttggtacatgggttag  
ggcaacacatctataacacatatggagacacctgggaggggtagaggcaattattaggataactacaacaatt  
actgtttatccattataggattggctgccagcatagcagaatagggattactcctcgggggagaagggttagag  
ccctggaatcatccaggaagccaacccaagacagcttgcaatggatgctatttgtaaatattgctgctatcact  
gtatgtgttgcttcacaaagaaaggcttaggcatatcaatgggaaaaatttggtcaaagagcagcatagtagg  
atggccagaaatcagagaaagaatgagaagacaacgcacctcacgagccagcagtagagccagcagtaggagta  
ggagcagcttctcaagatctagccaatcgagggggccctcaccacaagcaatactagaaccaataatccaactg  
tagcttgggtagaagcacaagaagaagaagggggaagtaggctttccagtagcgcctcaggtaccattgaggcc  
aatgacctataaagcggctgttgatctttccttcttttttaaagaaaaggggggactggaagggttaatttg  
tcagaaaaaggcaagacgttttagatctctgggtttatcacacacaaggcttcttccctgactggcagaact  
acacaccagggccaggaactagattccccctgacctttggatgggtgtttcaaactagtaccattgtcagctga  
agcagtagaagaggctaatagaaggagacaacaatgccctcttacatcccctatgccaacatggagtagatgat  
ggacacaaagaagtgtgctgcagtgaggtttgacagctccctggcaagaagacacatagcaagagagctgcatc  
cggacttttacaagaactgctga

>#75 AJ006022 1407 nt

ttagtaaaacatcatatgtatgtgtcaaaaaaggcaaaaggatgggtattatagacatcattatgaaacacatc  
acccaaaaaataagttcagaagtacatatcccagtaggtcaggcaagattagtgacagtcacttattgggggct  
aacaacagggagaacagctcttggtcatctaggacatggagtatccatagaatggagactaagaaaatacaagaca  
caagttgatcctgaaatggcagacaagctaatacatcttattattttgattgttttacagcctctgccataa  
ggcaagcggctcttagggagaccagtattacctaggtgtgaatatccagcagggcacaacaggtaggcaccct  
acaatatctagcactaacagcctgggtgggagcaagaagagaaaagccacccttacctagtgtgactaagcta  
acagaagattttattagaagaattaaaaaatgaagctgtgcgccattttccaaggatttggtacatgggttag  
gacaacacatctataacacatatggagacacctgggaggggtagaggcaattatcaggataactacaacaatt  
actgtttatccattataggattggctgccagcacagcagaatagggatcactcctcaaaggagaagggttagag

ccctggaatcatccaggaagccaacctaataacagcttgcaataattgctattgtataaagatggttgctatcact  
gcttatattgcttcacaaagaaaggcttaggcattctcaatgggaaagatttggtcaaagagcagcctagtagg  
atggccagaaatcagagaaagaatgagaagacaaacgcaagaaccagcagtagagccagcagtaggagcagga  
gcagcttctcaagatctagctaattcgagggggccatcaccataagaaatactagagacaataatgaaagtatag  
cttggttagaagcacaagaagaagaaggaggaagtaggctttccagtagcgcctcaggtaccattaaggccaat  
aacctataaacaggccttttgatctttccttcttttttaaagataaggggggactggaagggctagtttggtcc  
agaaaaaggcaagatattctagacctctggatgtatcacacacaaggcatcctccctgactggcataactaca  
caccagggccaggaattagataccccgtaacctttggatggtgcttcaaactagtagcattgtcagctgaaga  
agtagaagaggctaattgaaggagacaacaatgcctccttacaccccatatgtcaacatggagcagatgatgat  
cataaagaagtgttggtgtggcgatttgacagctccctagcaagaagacatgtagcaagagagctgcatccgg  
agttttacaagaactgctga

>#76 MF7672 1407 nt

ttagtgaaacatcatatgtatgtgtcaaaaaaggcaaaagggtggttctatagacatcattatgaaacaaatc  
atccaaaaataagttcagaagtacatatcccaatgggtgaggcgaaatttagtgataatcacttattgggggct  
aacaacagggagaacagctcttgcatctaggacatggagtagtccatagaatggagacaaggaaaatacaggaca  
caagttgatcctgaaatggcagacaagctaatacatattgttatttttaattggttttacagcctctgccataa  
ggcaagcggctcttaggggagaccagtagttacctaggtgtgaatatccagcagggcaccaacaggtaggcactct  
acaatatctagcactaaaagcctgggtgggaataaaaaagagaaagccacccttacctagtgtttctaagcta  
acagaagacttactagaagaattaaaaaatgaagctgtgcgccattttccaaggacttggttacatgggttag  
gagaatacatctatcacacatatggagacacctgggaggggtagaggcaattatcaggatactacaacaatt  
actgttcatccattataggattggctgtcagcacagcagaatagggtactgttcaaggagaagggttagag  
ccctggaagcatccaggaagccaaccaagacagcttgcaataattgctattgtataaataatgctgctatcact  
gtgtgtgttgcttcacaaagaaaggcttaggcattctcaatggggaagagttggtcaaagagcagaataaccagg  
atggccagaaatcagagaaagaatgagraacaaacgcaagaatcagcagtagagccagcagtaggagtagga  
gcagcctctcaagacctagctaattcgaggagccctcaccaccagcaataactaaagataataatcaaactgtag  
cttggttagaagcacaagaagaagaaggaggaggtaggctttccagtagcgcctcaagtaccgggtgaggcctat  
gacctataaagcagcctttgacctctccttcttttttaaagaaaaggggggactggaagggctagtttggtcc  
agaaaaaggcaagagattctggacctctgggtttatcacacacaaggcttcttccctgactggcagaactaca  
caccagggccaggaatcagataccnctgacctttggatggtgcttcaaactagtagcattgtcagatgaagc  
agtagaagaagccactgaaggagacaacaatgcctcctgcatcccatatgtcaacatggagtagatgatgat  
cacaacaagtgtggtgtggagggttgacagcgccttggaagaagacacatagcaaaagagctgcatccgg  
acttttacaagaactgctga

>#77 KY498771 1395 nt

ttagtaaagcatcatatgtatgtgtcaaaaaaggcaaaagggtggtattatagacatcattatgaaacaactc  
atccaaaaataagttcagaagtacatatcccagtaggtcaggcaagatttagtgataaccacttattggggact  
gacaacagggagaacagccttgcatctaggacatggagtagtccatagaatggagactaagaaaatacaggaca  
caagttgatcctgaaatggcagatcagctaatacatttttattatttttaattggttttacagcctctgccatca  
ggcaagcgtatcttaggggagaccagtagtcacctaggtgtgaatatccagcagggcataaacaggtaggcacctt  
acaatatctagcactaacagcctgggtggaagtaagaagagagaaagccacccttacctagtgtgactaagtta  
acagaagattttattagaggaattaaaaaatgaagctgtgcgccaytttccaaggatttggttacatgggttag  
gacaatacatctacaacacttatggagacacatgggaggggtagaggcaattattaggtgctacaacaatt  
actgtttatccattataggattggctgtcagcacagcagaatagggtactcctcaaaggagaaggatagag  
ccctggaatcatccaggaagccgacccaagacagcttgcaataattgctattgtataaataatggttgctatcact  
gtgtggtttgcttcacaaagaaaggcttaggcattctcaatggggaagagttggtcaaaaagcagcatagtagg  
atggccagaaatcagagaaagaatgagaagacaaccagcagagccagcaataggagtaggagcagcttctcaa  
gacctagctaattcgaggggcaatcaccacaagtaatactgcaagcaataatgaaactgtagcttggttagaag  
cacaagaagaagaggaagaagtaggctttccagtagcgcctcaggtgccattaaggccaatgacctgaaagc  
ggctgttgacctttccttcttttttaaagaaaaggggggactggaagggctaccttggtcccagagaaggcaa  
gacattctagacctctgggtttataacacacaaggcttcttccctgattggcagaactacacaccagggccag  
gagtagataccccctgacctttggatggtgcttcaaattagtgccaatgtcaactgaagaagtagaagaagc  
taataaaggagaaaaacaatgccctattgcatcccatatgtcaacatggagtagatgatgtcacaagaagtgt  
ctggtgtggcagtttgacagctccctggcaagaagacacgtagcaagagagctgcatccggaggttctacaagg  
actgctga

>#78 DQ017383 1410 nt

ttagtaaaacatcatatgcatgtgtcaaaaaaggcaaaaggatggtattatagacatcattatgaaacaaggc  
atccaaaaataagttcagaagtacatatcccagtaggtcaggcaagatttagtgatagtcacttattggggact  
aacaacagggagaacagccttgcatctaggacatggagtagtccatagaatggagactaagaaaatacagaca  
caggttgatcctgaaatggcagacaagctaatacatctttattatttttgattggttttacagcgtctgccataa  
gacaagcaatcttaggggagacaagtatttccctaggtgtgaatatcctgcaggggcacaatcaggtaggcacctt  
acaatatctagcattaacagccttggtgggaataaagaagagaaaaccacccttacctagtgtggctaagtta

acagaagattttattagaagacttaaaaaatgaagctgtgcgccattttccaaggatttggctacatggattag  
ggcaacacatctatgacacatatggagacacatgggaaggagtagaggcaattatcaggatgctacaacaatt  
actgtttatccattataggattggttgccagcacagcagaatagggattactcctcaaaggagaagattagag  
ccctggaatcatccaggaagccaacccaaaacagcttgcaataattgctattgtataaaaaatgctgctatcatt  
gtgtggtttgcttcacaaagaaaggcttaggcattctcaatggggaaaattttgtcaagaacagagtagcagg  
atggtcagaaatcagagaaagaatgagaaggcaactcaagagccagctcaagagccagcagcagtaggagta  
ggagcagcttctcaagacctagctaatacgagggggccatcaccacaagcaatactagagataataatgaaactg  
taacttggctagaagcacaggaagaggaagaggaagtaggctttccagtacgccctcaagtaccaataaggcc  
aatgacctataaagcagcttttgatctttccttctttttaaaagaaaaggggggactggaagggctagtttgg  
tccagaaagaggcaagagattctagacctctgggtttatcacacacaaggcttcttccctgactggcagaact  
acacaccagggccaggagttagatacccccctgacctttggatggtgcttcaaactagtaccattgtcagctga  
agcagtagaagaagccaatgaaggagacaacaatgccctcctgcaccccatatgtcaacatggagtagatgat  
gagcacaagaagtgtgtgtgtggtgttgacagctccctggcaagaagacacttagcaagagagctgcac  
cggacttttacaagaactgctga

>#79 AJ271370 1392 nt

ttagtaaaacaccatatgtatgtgtcaaaaaaggcaaaagggtggtattatagacatcattatgaaacaaagc  
atccaaagacaagttcagaagtrcatatcccagtaggtcmggcaarattagtgatagtcacttattggggact  
aacaacaggagaacagccttggtcatctaggacatrgagtatccatagaatggagacaaggaaaatacaagaca  
caagttgatcctgaaatggcagacaagctaatacattgttattattttaattgttttacagcttctgccataa  
ggcaagcggctcttaggggagaccagtgttacctaggtgtgamtatccggcaggggcacaamcaggtaggcactct  
acaatatctagcamtaacagcctrgggtgggagtaaaagaagagaaggccacccttacctagtgtgactaagtta  
acagaagattttattagaagaattaaaaaatgaagctgtgcgccattttccaaggatttggctacatgggttag  
gacaacacatctataacacatatggagacacctgggagggggttagaggcaattatcaggatactacaacaatt  
actgtttatccattataggattggctgccagcacagcagaatagggattactcccaaaggagaagggttagag  
ccctggaatcatccaggaagccaacccaagacagcttgcaataagtgtattgtataaaaaatgctgctatcact  
gtatgtgttgcttcacaaagaaaggcttaggcattctcaatgggaaaaattttggtcaaagagcagcctagtagg  
atggccagaaatcagagaaagaataagaagacaaactccagagccagcagtaggagtaggagcagtttctcaa  
gacctagctaatacgagggggccatcaccacaagcaatactaaagataataatcaaactgtagcttggctagaag  
cacaagaagaasaggaggttaggctttccagtacgccctcaagtaccgctgaggccaatgacctataaagcggc  
ttttgatctttccttctttttaaaagaaaaggggggactggaagggttagtttgggtccagaaaaaggcaagaa  
attctagacctctgggtttatcacacacaagggtttcttccctgactggcagaactacacaccagggccaggag  
ttagatacccccgtgtgctttggatggtgcttcaaactagtaccattgtcagaggaagcagtagaagaagctaa  
tgaaggagacaataatgccctcctgcacccatatgtcaacatggagtagatgatgatcacaaacaagtgtg  
gtgtggcgggttgacagctccctggcaagaagacacgtagcaaaagagctgcacccggacttctacaagaact  
gctga

>#80 DQ314732 1386 nt

ctagtaaaacatcatatgtatatctcaaagaaagctaaaaagtggttttatagacatcattatgaaagtcagc  
atccaaaggtaagttcagaagtacatatcccactaggagaggctacattagtaataagaacatattgggggtct  
gcagacaggagaaaaaggactggcaattgggtcatggagtctccatagaatggaggcaaagaaaatatagcaca  
cagatagatcctgacctagcagaccaactgattcatctacattattttgactgtttttcagaatctgccataa  
ggaaagccatattaggacaagtagtttagacgttaggtgtgaatacccatcaggacataacaaggtaggatccct  
acaatatttggcactgaaagcattaacaacacccaaaaaggataaaagccacctctgcctagtgttaagaaatta  
acagaagatctgttagaggagcttaaaaaacgaagctgttagacatttttccctagggccttggcttcatggcctag  
gacagcacatctatgacacttatggggatacttgggaagggttgaagctataataagaattttgcaacaact  
actgtttgttcatttcagaattgggtgtcaacatagcagaataggcattatacgagggagaagaggcaggcta  
gagccctggaatcatccgggaagtgcgctacaactgctttagcacgtgttactgtaaaaatatgttgctggc  
attgccaactatgcttttcaaaaaaaggcttaggcattctccatgggaggcaagtgggtcaaaaagtagcatagt  
gggatggcctcagatcaggagagaaaataaagcaaaactcctccagcagcagaaggagtaggtgcagtatctcaa  
gatctagataaaacatggagcagtaacaagtagtaatatgaataatgctgattgggactggctgaaagcacaag  
aggaagaggaggttaggctttccagtcaggccacaggtaccttaagaccaatgacatttaaggggagctttcga  
tctaagcttctttttaaaagaaaaggggggactggaggggttaatttactccaagagaagacaagagatcctt  
gacttgtgggtctatcatcacacaagggtttcttccctgattggcacaactacacaccaggggccagggatcagat  
atccactatgttttggatggtgcttcaagctagtaccagttgacccaagagaagtagaggaggacaacaaagg  
agaaaacagcagcctgttacaccccataagccagcatggaatagaggacgaagaaagagaagtgtgtgtg  
aagtttgatagtgccctagccagcgaagacacatagccccgagaaatgcaccagaggttctataaaaaactgctga

>#81 AF377956 1404 nt

acatggaacagtttagtaaaacatcatatgtatgtttcaaggagagctaaaggatggtttttatagacatcact  
atgaaagcaggcatccaagagtaagctcagaagtacacatcccactaaaggatgattctaaattagtaaatagt  
aagctattgggtctacatacaggagaaagagattggcatttgggtcaaggagtctccatagaatggaggcag  
aaaagatataggacacaagtagaccctggccttggcagaccaattaattcatttgtattactttgattgtttt

cagaatctgccataaggaaagccatattaggacagagagtttagtcctaggtgtaactatcaagcaggacataa  
caaggtaggatccctacaatatatttggcactaacagcattaataaccccaaagaagataaagccgcctttgcct  
agtgtcaggaaactagtagaggatcttttagaggagcttaagcatgaagctgtagacatttccttagggagt  
ggctccatggccttaggacagcatatctacaacacctatggggatacttgggagggagttcaagctataataag  
aacactgcaacaactactatttatccatttcagaattgggtgtcatcatagcagaataggcattattcgacaa  
agaagactaagactagagccctggaatcatccaggaagtcagcctgagactccttgtaataaatgttactgta  
aaaagtgttgctttcattgccaatgtgtgctttacaaggaagggttaggcattctccatgggtggcaagtggc  
aaaaagtagtaaaagtgtgatggcctactataagggaagaataagacaaacccctgcagcagcaccaggggtg  
ggagcagtgtctcaagacttagataaacatggggcaattacaagcagccagactagggtactaatagtact  
tggcatggctagaagcgcaagaggatgaggaggtaggtttcccagtcagacctcaggtaccttaagaccaat  
gacttataaggagctttcgatctcagtttcttttaaaagaaaaggggggactggaagggttaatttactcc  
aagagaagacaagaaatccttgatctgtgggtctaccacacacaaggctacttccctgattggcagaactaca  
caccagggccagggactagatatccactgacctttggatggtgcttcaagctagtaccagttgagccagagga  
ggtagaaaaggccaatgaaggagagaacaactgtttattgcaccctatgagccaacatggaatggaggacgaa  
gacagggaaagtgttaaagtggaagtttgacagctccctagcacggagacacagagccagagagatgcatccgg  
agtactacaaagactga

>#82 AB254156 1425 nt

acatggaatagtttagtaaagcaccatattgtatgtttcaaagagagctaagggatggttctacagacatcatt  
ttgaaagcagacatccaagagtaagttcagaagtacacatcccattaggggatgctagattaatagtaaagac  
atattggggtttgcagacaggagaaaagagattggcatttgggtcatggagtctccatagaatggagattgaga  
aggatatgcacacaagtagaccctagcctggcagaccaactaattcatatgcattattttgattgttttgag  
actctgccataaggaaagccatattaggacatatagtttagccctagatgtgactatcaagcaggacataacaa  
ggtaggatctttacaatacttggcactgacagcattgataaaacaaaaagagaaaagccacctctgcctagt  
gttagcaaattggttagaggatcttttagaagagctcaagcaggaagctgtcagacactttcctagaccatggc  
ttcatggcttaggacagcatatctatgagacctatggggatacatggacgggagttagagtataataagaat  
cctgcaacaattactgtttactcatttcaggattgggtgccagcatagcagaataggcattttgcaacagaga  
agagcaagactagagccctggaagcatccaggaagtcagcctagaaccgcttgtaattcatgttactgcaaac  
gctgcagctatcattgtccagtttgctttctgacaaaaggcttaggcatttccatgggggaacaagtggcaaa  
aggcagtatagttggatggcctgctgtaagagaaaagattaagacgagccagaccagcagcagagggagtagga  
acagcagcagagggagtaggaacagcatctcaagacttagataaacatggggcacttacaaccagcaacacag  
ccaccaacaatgctgattgtgcctggctggaagcacaagaggaagaagaagtaggctttccagtcagacctca  
ggtaccttaagaccaataacttataaggcagcattcgatctcagcttcttttaaaagaaaaggggggactg  
gaagggttaatttactccaagaaaaggcatgagatccttgatttatgggtctatcacacacaaggcttcttcc  
ctgattggcaaaactacacaccgggaccaggggtcagatatccactgacctttggatggtgcttcaagctagt  
gccagttgaccaagtgaagtagaagaggccaatgaaggagagaacaactgtttgctacatcctataagccag  
catggaatagaggatgaagacagagaagtcttaaagtggcagtttgacagcagcctagcacgcagacacctgg  
cccgcgagctacatccggagtactacaaaaactgctga

>#83 MF373132 1407 nt

acatggaatagtttagtaaagcaccacatgtatatctcaaagagaaccaggggatggttttatagacatcatt  
ttgaaagcagacatccaaaaataagttcagaagtacacatcccattaggggaggctaaattagtaataataac  
atattggggtttgcaaacaggagaaaagagattggcacttgggtcatggagtctccatagaatggagactgaga  
agatatagcacacaagtagaccctagcctggcagaccaactaattcatatgcactattttgattgttttgag  
actctgccataaggaaagccatattaggacatatagtttagccctaggtgtgactatcaagcaggacataataa  
ggtaggatctctacaatatctggcactgacagcattgataaaacaaaaaggattaagccacctctgcctagt  
gttaagaaattagtagaggatcttttagaggaactcaagcaggaagctgtcagacactttcctagaccatggc  
tccatagcttaggacaacatatctatgaaacttatggggatacttggatgggagttgaagccataataagaat  
tttgcaacaattactgtttatccatttcagaattgggtgtatgcatagccgaataggcattatgcgacaaaga  
agaacaagactagagccctggaaccatccaggaagtcagcctaaaactccttgcaataattgctattgtaaat  
actgtagctatcattgtctagtttgctttcagacaaaaggcttaggcatttccatggggggcaaatggcaaa  
atgtagtccagtaggatgggtctgagataagagacagaataaaaagaactccccgcgagcagagggagtagga  
gcagcatcccagacttagagagacatggggcactgacaaccagcaacacaccagcaataatgctacttgtg  
cctggctggaagcgcaagaggaggaaggagatgtaggctttccagtcagacctcaggtacctttaagaccaat  
gacttataaggcagcattcgatctcagcttcttttaaaagaaaaggggggactggaagggttaatttactct  
aagcaaagggaagacatccttgatttgggtctatcacacacaagggttcttccctgattggcaaaaactaca  
caccaggaccaggggtcagatatccactgacctttggatggtgcttcaagctagtgcagttgacccaaagga  
agtggaaagaagacaataaagatgagaacaacagcttgctacaccctgtgagcctgcatggagtggaggatgaa  
gacaaagaagtactaatgtggaagtttgacagtcacctagcacgcagacacatggccccgcgagctacatccgg  
agtattacaaagactgctga

>#84 KP109483 1407 nt

acatggaatagtttagttaaacacccatatgtatatatttcaaagagagctaaggggatggttttacagacatcatt  
atgacagcagacatccaaaagtaagttcagaagtacacatccccttaggggatgctagactagtaataaaaac  
atattgggggttgcaaacaggagaaagagattggcacttgggccatggagtatccatagaatggagattgaga  
ggatatagtacacaagtagaacctggcctggcagaccagctaattcatatgcattattttgattgttttgcag  
actctgccataagaaaagccatattaggacacatagttattcctaggtgtgactatccagcaggacataataa  
ggtaggatctctacaatacttggcactgacagcactgataaaacaaaaaagataaggccacctctgcctagt  
attaggaaatttagtagaggatcttctagaggaactcaagcaggaagctgtcagacactttcctagaccatggc  
ttcatggcttaggacaatatgtctatgagacctatggggatacttggacaggagttgaaactatggtagact  
actgcaacaattactgtttattcatttcagaattgggtgccagcatagcagaataggcatttttgcgacagaga  
agagcaagactagagccctggaacctccaggaagtcagcctaaaactgcttgcaataactgttattgtaaaa  
aatgtagctaccactgtctagtttgctttcagaaaaaaggcttaggcatttccatggggggcaagtgggtcaaa  
acgcagcatagttggatggcctaataaagagagagaatgagacgagctgagccagcagcagaaggagtagga  
gcagcatctcaagacttagataaacatggagcgcttaccagcagcaacacagacaccaataatgctgattgtg  
cttggctgagagcgcaagaggaggaagaagatgtaggcttccagtcagacctcaggtgcctttaagaccaat  
gacttttaagggagcattttgatctcagcttcttttaaaagaaaaggggggactggaaggggttaatttactct  
aagaaaaggcaagagatccttgattttgtgggtctatcacacacaaggctacttccctgactggcaaaactaca  
caccaggaccaggggtcagatacccactgacctttgggtggtgcttcaagctgctaccaattgacccaaggga  
agtagaagaggccaacaaagaagaagacaaccgcttgctacaccctatgtgccagcatggaatggaggatgaa  
cacagagaagtattaaagtggaagtttgacagtcacttaaacacaggggcccgagctacatccgg  
agttttacaagactgctga

>#85 KY658708 1422 nt

acatggaatagtttagttaaagcaccatatgcatatttcaaaaagagctaaggggatggttttacagacatcatt  
atgaaagcagacatccaaaagtaagttcagaagtacacatcccattaggggaggctagattagtaataaaaac  
atattgggggttgcaaacaggagaaagagattggcatttgggtcatggagtctccatagaatggagattgaga  
aaatatagcacacaagtagaacctggcctggcagaccagctaattccatagcactattttgattgttttgcag  
actctgccataagaaaagccatattaggagaaatagttattcctaggtgtgactatcaagcaggacataatca  
ggtaggatctctacaatacttggcactgacagcattgataaaacaaaaacagagaaaagccacctctgcctagt  
gttaggaaatttagtagaggatcttctagaggaatcaagcaggaagctgtcagacactttcctagaccatggc  
ttcatggcttaggacaatatgtctatgaaacctatggggatacttggacaggagtagaaaactctaataagaat  
actgcaacaactactgtttattcatttcagaattgggtgccaacatagcagaataggcatttttgcgacagaga  
agagcaagaatggagccagtagatcctaacctagagccctggaacctccaggaagtcagcctagaactgctt  
gtactaaatgctattgtaaatactgttgctaccattgcctagtttgctttcagacaaaaggcttaggcatttc  
catggggggcaagtgggtcaaaatgcagtggatggcctgctgtaagagaaagaatgagaagaactgagccagca  
gcagagggagtaggagcagcatctcaagacttagataaatatggagcacttacaagcagcaacacaagcacca  
ataatgctgattgtgcctggctggaagcgcaagaggaggaaggagatgtaggcttccagtcagacctcaggt  
gcctttaagaccaatgacttataaaggagcatttcgatctaggcttcttttaaaagaaaaggggggactggaa  
gggttagtttactccaagaaaagacaggaaatccttgattttgtgggtctatcacacacaaggcttcttccctg  
actggcaaaactacacaccgggaccaggggtcagatatccactgacctttggatggtgcttcaagctggtgcc  
agttgacccaggggaagtggaagaggccaacaagggagaagacaactgtttgctacaccctatgagccagcat  
ggaatggaggatgaacacggagaagtattaaagtggaagtttgacagtcacctagcacgcagacacatggccc  
gcgagctgtatccggagtattacaaagactgctga

>#86 KC156114 1413 nt

acatggaatagtttagttaaagcaccatatatgggcctcaaagaaagctagtggatggttttacagacatcatt  
atgaaagcagacatccaaaagtaagttcagaagtacacatcccattaggggatgctagattaataataacaac  
atattgggggttgcaaacaggagaaagagattggcatttgggtcatggagtctccatagaatggagattgaaa  
agatatagcacacaagtagaccctggcctggcagaccagctaattcatatgcattattttgattgttttgcag  
actctgccataagaaatgccatattaggacacatagttttcctaggtgtgactatcaagcaggacataataa  
ggtaggatctctacaataatttggcactgatagcattgataaaacaaaaaaggataaagcctcctctgcctagt  
gttaggaaatttagtagaggatcttttagaggaactcaagcaggaagctgtcagacactttcctagaccatggc  
tcataacttaggacaacatatctatgaaacctatggggatacttggacaggagtcgaagtataataagaat  
tctgcaacaactactgtttatccatttcagaattgggtgccagcatagcagaataggcatcttgagacagaga  
agagcaagactagatccctggaacctccaggaagtcagcctaagactgcttgtaataattggttattgtaaag  
gctgcagctatcattgtctagtttgctttcagaaaaaaggcttaggcatttccatggggggcaagtgggtcaaa  
aagcagtatagttggatggcctgctgtaagagaaagaataagacaagctaggccagagccagcagcagaggga  
gtaggagcagcgtctcaagacctagataaacatggggcacttacaaccagcaacacagtttataacaatgctg  
cttgctgctggaatgaagcgcaagaggagggagaagaggttaggcttccagtcacaaacccaggtgcctttaag  
accaatgacttataaaggagcattcgatctcagcttcttttaaaagaaaagggggactggatgggttaatt  
tactcccagcaaagacaggatatccttgattttgtgggtctataacacacaaggctacttccctgattggcaaa  
actacacaccaggaccagggatcagatatccactgacctttggatggtgctacaagttagtgcagttgaccc  
aaggacagtagaagaggccaacagtgagagaaaacagctgcttgctccaccctatgagccagcatggaatggag



gatgcagacagagaagtattaatatggaagtttgacagcagcctagcacgcagacacctggcccgcgagctac  
atccggaggtattacaaagattgctga

>#87 AF005496 1404 nt

acatggaaaagcttagtaaagtaccatatgcatatttcaaggaaagctagaggatgggttttatagacatcatt  
ttgaaagcactcatccaaggataagttcagaagtacacatcccattaggagaagctaggttagtcataaccac  
atactggggtctgaatacaggagaaaagagaatggcatttaggccaggagctccatagaatggagactgaaa  
aggtatagcacacaagtagagcctggcctggcagaccaactaattcatatgcattattttgattggttttcag  
aatctgccataaggaagcccatattaggacgtgtagttagacctaggtgtaactatccagcaggacataaaca  
ggtaggaactctacaatacttggcattaacagcatttagtggcaccaaaaaagataaagccacctttgcctagt  
gttagaaagctagtagaggatcttttagaggagattaagaatgaggctgttaggcattttcctagagtatggc  
tccatcaattaggacagcatatctataacacctatggagatacttgggtaggagtgaagctttaataagaac  
gctgcaacaactactgtttattcatttcagaattgggtgccaacatagcagaataggaattactcgacagaga  
agagtaagactagagccctggaacctccaggaagtcagcctcaaactgcttgtaacaattgttattgtaaaa  
agtgtgtctatcattgccaaatgtgctttttaagaaaggcttaggaatttccatgggaggcaaatgggtcaaa  
aagtaggatgggtgggtgggtctactataagggaaagaatgaggcgagctgaaccagtagcagaaggggtagga  
gcagtgtctcgagatttggatagacgcggggcagtcacaattaataacagcatctactaatcgatgccc  
cctggctggaagcacaagaggacggggagggaagtaggctttccagtcaggcctcaggtacctttaagaccaat  
gacctataagggagcttttgatctcagccattttttaaaagaaaaggggggactggatgggttaatttactcc  
aagcaaagacaggacatccttgatttatgggtctataacacacaaggctacttccctgactggcagaactaca  
caccagggccaggggagagatttcccctgacctttgggtgggtgcttcaagctagtagcagtaaatccacagga  
ggtagaacaggccaatgaaggagagaacaacagcttgctacccccatgagcctgcatggaatggaggatgac  
gggagagaagtgtgtatgtggaatttgacagtcgactagcattgacacacttggcccgagtaaagcatccgg  
agtacaaagactgctga

>#88 FJ389367 1407 nt

acatggaacagyttagtraaacatcatatgtatgtctcaaagaaagctaaaggctgggttttatagacatcact  
atgaaagcaggcatccaaaagtaagttcagaagtacacatcccaataggagatgctaaaatagtagtaagaac  
atattggggtctgcatacaggagaaaaagattggcacctaggtaatgggtctccatagaatggaggcagaga  
agatatagcacacagatagatcctgacctagcagaccaactgattcatctacattattttaactgtttttcag  
actctgccataaggaagcccatattaggagaaatagtttagacctaggtgtgaatatcaagcaggacataataa  
ggtaggatccctacaatatattggcactgaaagcatttagtaacctcaccaagggcgaagccacctttgcctagt  
gttaggaatttaacagaagatctgttagaagaacttaaggctgaagctgttagacattttcctagggccctggc  
ttcatggcttaggacagcatatctataacacttatggggatacttgggaaggagtgaagccataataagaat  
actgcaacaactattgtttgtccatttcagaattgggtgccaacatagcagaataggcattgttccacaaaga  
caaagaagagtaaggctagagccctggaatcatccggggagtcagcctaaaactgcttgtagccaaatgctatt  
gtaaagcgtgttgctggcattgccaaagtttgctttctgaacaaaggcttaggcattccatgggaggcaagt  
gtcaaaaggatgcatggccggatggcctgaggtaagggaagaatgagacaaaccactccagcagaaggagta  
ggagcagcatctcaagatttagctaggcatggagcgatcacagtagcaatacaccatccactaatgtgtgctt  
gtgctggctagaagcacaaaggaagactcagaggtaggctttccagtcagaccacaggtacctctgagacc  
aatgacttttaagggcgcttttgatctcagcttctttttaaaagaaaaggggggactggatgggttaatttac  
tccaagaaaagacaagatatccttgacctgtgggtctataatacacaaaggattcttccagattggcaggact  
acacaccagggccagggactagactcccactgacctttgggtgggtgcttcaaactagtagcactggaaccaac  
agagatagagggaagccaataaaggagagaacaacagtttattacccccatctgccagcatggaatggaggac  
gaggacagagaagtgttagtatggagatttgacagtagcctagcacggagacacttggcccgagagctgcac  
cggacttctacaaagactga

>#89 FJ389365 1413 nt

rcatggaacagttttartaaaacatcatatryatatctcaaagaargctaaagrytggtcttatagacaccact  
atgaaagcaggcatccaagagtaagttcagaagtacacattccactaggagaagctaaaatagtagtaagaac  
atattggggtctgcatacaggagaaaaagactggcarttgggtcatggggtctccatagaatggaggcagggga  
aggtatagcacacaaatagatcctgacctagcagaccaaytgattcatctgcagtattttgattgttttacag  
actctgcmataagacaagccatattaggacaaagagtttagacctaggtgtgaatatcaagcaggacataataa  
ggtaggatctytacaatatytggcactgcaagcatttagtaaaaycaaraaagagaaggccacctttgcctagt  
gttaggaaatttaacagaagatgaacttaaaaatgaagctgttagacattttcctagaccctgggtccatggct  
taggacaatatatctataacacttatggagatacttgggaaggagtgaagccataataagaatgtctacaaca  
cttgctgtttatccatttcagaattgggtgccaacatagcagaataggcatttagtctctacgggagaagagta  
aggctagagccctggaatcatccrgggagtcagcctaaaactgcttgtaacaactgctattgtaaagtgtgct  
gctggcattgtcaagtttgctttctgaacaaaggcttaggcattctccatgggatgcaagatgtcaaaagaatg  
gtccagagtaagggaaggatgagacgaaccccccaacagcagatggagtaggagcagaagcagcagcagat  
ggagtaggagcagcatctcaggatttagcttaggcattggagcactcacagcagcaatacagcatccaccaatg  
ctgcttgtgctggctagaagcacacaggaggactcagaggtaggctttccagtcagaccacaggtaccttt  
gagaccaatgaccttttaaggtgcttttgatctcagcttctttttaaaagaaaaggggggactggatgggtta

atttactccaagcaaagacaagatatccttgacctgtgggtctataatacacaaaggatacttcccagattggc  
agaattacacttcagggccaggaattaggtacctactgacctttgggtggtgcttcaaactagtaccaatgga  
tccagcagaggttagaggaagccaatagaggagagaacaacagtctattacaccccatctgccagcatggaatg  
gaagatgaagacagaaccgtgctggtatggaagtttgacagtggcctagcacggagacacttagccccgagagc  
tgcacccggagtagttataaagactga

>#90 MH705151 1512 nt

acatggaacagtttagttaaacaatcatatgtatgtttcaaagaaagctcaagggttggttttatagacatcact  
atgaaagcaggcatccaaaaataagttcagaagtacacatcccactaggtgatgctaggatagtggttaagaac  
atattggggtctgcatacaggagaaagagactggcacttgggtcatggggcctccatagaatggaggcagaga  
agatatagcacacaaatagatcctgacctagcagaccaattaattcatctgcattattttgactgttttgag  
actctgccataagaaaagccatcttaggagaaatagtttagacctaggtgtgaatatcaagcaggacataacca  
ggtaggatctctacaatatttggcactgaaagcatttagttaaaccaaaaagggcaaagccacctttgcctagt  
gttaagaaattaacagaagatctgttagaagagctgaagcatgaagctgttagacatttccctaggccgtggc  
tccatggattaggacaacatatctataacacctatggggatacttgggaaggggttgaagctataataagaat  
gttgcaacaactactgtttgttcatttcagaattgggtgccaacatagcagaataggcattgttcgaggggaga  
agagtcagggttagagccctggaatcatccgggaagtcagcctaaaactgcttgtaataaatgtcattgtaaaa  
agtgttgctatcattgccaaagcttgctttctcaagaaaggcttaggcattctcctatggcaggaagaagcggag  
accccgacgaagaactcctcagggcagtaaggatcatcaaaatcctatacaaaagatgggtggcaagtgggtca  
aaaagcagcatagtaggatggcctgatgttagggaaagaatgagacgatgtcctgaagttagggaagaatga  
gacgagctcctccagcagcagaaggagtaggagcagtggtctcaagatttagataagcatggagcaatcacaa  
caggaatacagcaactaccaatgctagttgtgcctggctggaagcacaagaggaagaaggggaggtaggcttt  
ccagtcaggccacaggtacctttaagaccaatgacttataaggcagctgtggatctcagccactttttaaaag  
aaaaggggggactggatgggttaatttgggtcccagaaaagacaagacatccttgatctgtgggtctacaacac  
acaaggcttcttcccagattggcagaattacacaccagggccaggccctagattcccaataacatttggatgg  
tgctttaagctggtagcaggtgatccagctgaagtagaagaggctactgaaggagagaacaacagcttattac  
accctatatgccaaatggagcggaggacactgagagagaagtagttaaaagtggaaagtttgacagtcgcctggc  
attaaaacacagagctcaagagctgcatccggagttctacaaagactgctga

>#91 KF716478 1425 nt

acatggcacagtttagttaaacaatcatatgtatgtctcaagaaaagctaaagattggcattatagacatcact  
atgaaagtaggcattccaaaagtaagttcagaagtcacatcccactaggggaggctagaatagtagtaagaac  
atattggggtctgcatacaggagaaaaggactggcaattgggccatgggtctccatagaatggagactaaaa  
agatatagcacacaaatagatcctgacctggcagatcaactaattcatctgcattattttaactgtttttcag  
aatctgccataaggagagccatattaggacaagtagtttagccctagttgtgaataccaagcaggacataacaa  
ggtaggatccctgcaatatttggcactgaaagcactagtaaacaccaacaaggacaaaagccacctttgcctagt  
gttaagaaactaacagaagatctgttagaagagcttaagcatgaagctgttagacatttccctaggccatggc  
tccatggactaggacaacatatctatgaaacctatggggacacttgggaaggagttgaagctataataagaat  
tttacaacaattactgtttgttcatttcagaatcgggtgccaacatagcagaataggcattaacatttcgcagg  
agacgaggcaggctagagccctggaacctccagggaagtcagcctgcaaccgcttgtaataagtgttactgta  
aaaagtgttgctttcactgtcaagcgtgctttctgaacaaaggcttaggcattctccatgggtagcaagtggc  
aaaagcagcatagtggttgccctcaggttagggaaagaatgagacgagctcctccacaagctcctccaact  
cctccagcagcaaaaggagtaggagcagtatctcaagatctagagaaacatggagcaatcacaaagcagtaata  
taaatacccgagttgcacctggctggaagcgcaagaggaagaggaggaggtaggctttccagtcaggccaca  
agtacctttaaggccaatgacttacaaggagctcttgacctcagccactttttaaaagaaaaggggggactg  
gatgggctagtttactccaagaagagacaagagatccttgatctgtgggtataacaacacacaaggctatttcc  
ctgattggcagaattacacaccaggggccagggggtcagatacccactaacatttggatgggtgtttcaagctagt  
accagtagatccagaggaagtagagaaggctaagtaggggagagaaacatagcctgttacacctgtgtgccaa  
catggaatggatgatgaagagagagaaaacattgatatggagatttgacagccacctggcttttaaacacagag  
cccaagagttacatccggagtactacaagaactgctga

>#92 AJ320484 1404 nt

acttggaagtttagttaaacaacacatcatatgtatgtttcaaagaaagctcaaggatgggtgtatagacatcact  
atgacagccctcaccacaaaaataagttcagaagtacacatcccattaggagacgctagactggtagtaaaaac  
atattggggcctgcatacaggagaaaagagaatggcatctgggtcaaggagctccatagaatggagaaaaag  
agatatagcacacaagtagaccctggcctagcagaccaactaattcatatgtattattttgactgttttgag  
aatctgctataagaaaagccatattaggacaatttagttagtcctaggtgtgaatatcaagcaggacataacaa  
ggtaggatccttacagtagtttggcactaacagcattataaaaaccagaaaaaacaagccacctttgcctagt  
gttaggaagctaacagaagatcttttagaggaacttaagagtgaagctgttagacatttccctaggatatggc  
tccatggattagggaataatatctatgaaacttatgggatacatgggcaggagttgaagctctaataagaac  
cctgcaacaactactgtttattcatttcagaattgggtgtcaacatagcagaataggcattattcaacagaga  
agaccaagatttagagccctggaacctccaggatgtcagcctaggacttcttgtaacaattgtcattgtaaaa  
agtgttgctatcattgccaaaaatgcttcttaacgaaaggcttaggcattctcaatgggtggcaaatgggtcaaa

aagtaaaattgggtggcctgctgtaagggacagaatacaaagaactagtccagcagcagaaggggtgggagca  
gcattctcgagacctggaaaaacatggggcaatcacaagtagcaatacagcagagactaatcctgactgtgcct  
ggctagaagcacaagaagaggaagaggaggtgggttttccagttagacctcaggtaccgttaagaccaatggc  
ttacaaggcagctttttagatctaagccactttttaaagaaaaggggggactggaagggttaatttactccaag  
aaaagacaagaaatccttgatctttgggtctaccacacacaaggctatttccctgattggcaaaactacacac  
cagggccagggattagatacccactgacctttgggtgggtgcttcgagctagtaccagtggtaccagaggaggt  
agaagaggccaataaaggagagaacaactgcttggttacaccctatgagccagcatggaatggaggaccggag  
agagaggtgttagtgtggagatttaacagcagactagcatttgaacacaaggcccgaatacagcatccggagt  
tctacaaagactgctga

>#93 KT200357 1407 nt

acatggaaaagtttagttaaaccacatatacatgtttcaaagaaagctaagaaatgggtttatagacatcact  
atgaaagcattaatccaaaaataagttcagaagtagacatcccactaggggatgatacattagtagtaacaac  
atattggggtctgaacacaggagaaagagaatggcatttgggccagggagtctccatagagtggaggaaaagg  
agatatagaacacaagtagacctgacctagcagaccaactaattcatctgtattattttgattgtttttcag  
aatctgctataagacatgccatattaggatatagagtttagccctaggtgtgaatttcaagcaggacataataa  
ggtaggatccttacagtacttggcactagtagcattaataacacaaaaaggacaaaaccacctgtgcccagt  
gttagcaaaactaacagaggatcttttagaagaacttaagagagaagctgttagacattttcctaggacatggc  
tccatgacttaggacaatatatctatgaaacttatggggatacctggactggagtggagccataataagaat  
attacaacaactactgtttattcatttcagaattggatgtcatcatagcagaataggcattatttcgacagaga  
agagcaaggctagagccctggaaacatccaggaagtcagcctaagactccttgtagccaaatgctattgtaaaa  
agtgttgctttcattgccaagtttgtttcataacaaaaggcttaggcattctccatgggtggcaagtgggtcaa  
acttagtaggggatgggaggtgtgaagggaaagaatgagacgaaccacaccagtagaaccagcagcaagaggg  
gtgggagcagtatctcaagatttggaaaggcatggagcaatcacaagtagcaatacagcagctactaatcctg  
attgtgcctggctagaagcacaggaggaagaggacgtgggttttccagtcagacctcaggtacctttaagacc  
aatgacttacaaaggagcacttgatcttagccactttttaaagaaaaggggggactggaagggttaattcac  
tccagagaagacaagatatccttgatctgtggatctaccacacacaaggctacttccctgattggcaaaact  
acacaccagggccaggggtcagatttccactgacctttggatgggtgtttcaagctagtaccagttgatccaga  
tcaggtagaaaaggccaatgaaggagagaacagctgcctcttacaccccatgggcctgcatggaatggatgac  
ccagagaaagaagtgttaatgtggaggtttgacagccgcctagcatttcatcatgtggcccagagagctgcac  
cggagtactttaaaaactga

>#94 AY331292 1404 nt

acatggaaaagtttagttaaataccatatgtatagatcaaagaaagctaggggatgggtttatagacatcatt  
atgacagcactcatccaaaaataagttcagaagtagacattccactaggggaatgagagattggtaataacaac  
atattggggtctgcatacaggagaaagagactggcatttgggtcagggagtctccatagaatggagggaaaagg  
aaatatagaacacaagtaacccctgacctagcagaccgactaattcatctgtattactttgattgtttttcag  
aatctgctataagaaaggccatattaggacatatagtttagtccctagttgtgaatatcaagcaggacataacaa  
ggtaggatctctacagtacttggcactagcagcattaataacacaaaaaagataaagccacctttacctagt  
gttacaaaactgacagaggatcttttagaggagcttaagagtgaagctgttaggcactttcctaggatatggc  
tccatggcttagggcaatatatctatgaaacctatggagatacttgggaaggagtggagccataataagaac  
tttgcaacaactgctgttcattcatttcagaattgggtgtcaacatagcagaataggcattactcgacagagg  
agagcaagatttagagccctgggagcatccaggaagtcaacctaagactgcttgtagctcttgctattgtaaaa  
agtgttgctatcattgccaagctgtgcttcataacaaaaggcttaggcattctccatgggtggcaagtgggtcaa  
aagtagtatgggtggatggcctgctgtaagggagagaatgagacgagctgaaccagcagcagaggggggtggga  
gcagctctctcgagatctggaacgacatggagcgatcacaagtagcaatacagcaaaaaacaatgctgctcttg  
cctggctagaagcacaagaggagaggaggtgggttttccagttagacctcaggtacctttaagaccaatgac  
ttacaaggcagctatagatcttagccactttttaaagaaaaggggggactggaagggttaatttactcccag  
aaaagacaagatatccttgatctgtgggtttaccacacacaaggctacttccctgattggcagaactacacac  
cagggccagggaccagattcccactgacctttggatgggtgcttcaaactagtaccagttgagccagagaaagt  
agaagcagccaatgaaggagagaacaactgcttggttacaccctatgagcctgcatgggatggaggactcggag  
ggagaagtgtacagtgggaagtttgacagccgcctagcgcttcgtcacatggcccagagagaagcatccggagt  
actacaaggactgctga

>#95 KP109514 1398 nt

acatggcacagtttagttaaaccacatatacatgtttcaaagaaagctcaggggatggatttatagacatcatt  
atgaaaacactcatccaaaaataagttcagaagtagacattccaataggggaagctaaattgggtgataaagac  
atattggggtctgcatacaggagaaagagactggcatttgggtcagggagtctccatagaatggaggaaaagg  
agataaacacacaagtagacctgggttagcagaccaactaattcatctgtatcactttgattgtttttcag  
aatctgctataagaaatgccatattaggaaatagagtttagtccctaggtgtgaatatcaagcaggacataacaa  
ggtaggatctctacaatatatttggcactaacagcattaataacaccaaagaagacaaagccacctttgcctagc  
gttacaaaactgacagaggatcttttagaggagcttaagcatgaagctgttaggcattttcctagaccatggc  
ttcatggcctagggcaacatatctatgaaacttatgggaatacttgggcaggagtggaggctataataagaat

actgcaacaactgctggtttattcatttcagaattgggtgtcaacatagcagaataggcattattccacagaga  
agagcaagactagagccttggaagcatccaggaagtcagcctaaaactgcttgtaacaattgctattgtaaaa  
agtgttgctttcactgccaaagtttgtttcacaaaaaaaggcttaggcattctccatgggtagcaagtgggtcaa  
attgggtggatggcctactgtaagagagagaatgagacgagctcaaccagctcaaccagcagcagatggggtg  
ggagcagcatcgcgagacctggaaaaacatggagcaataacaagtagtaatacagcagctaacaatcctgaca  
gtgcctggctagaagcacaaagaggaagagcaggaggtgggctttccagtcagacctcaggtaccattaagacc  
aatgacttacaagggagcttttagatcttagccactttttaagagaaaaggggggactggaagggttaatttac  
tcccagaaaagaagagacatccttgatctgtgggtctacaacacacaaggctacttccctgattggcagaact  
acacaccagggccagggactaggtggccattaacctttggatgggtgcttcaagttagtaccagtgaggccaga  
gaacagtgaaggagagaccaacagtttgctacaccctgcaagcctgcatgggatggaggaccagaggggagaa  
gtattagtgtggaagtttgacagccgcctagccttccatcacatggcccgcgagctgcatccggagtactaca  
aggactgctga

>#96 AF146728 1395 nt

acatggaaaagtttagtaaaacaccatctatataagtcagggaaagctaggagatgggtttatagacatcact  
atgaaagcactcatccaagaataagttcagaagtacacatccctctaggggaagctagattggtaataacaac  
atattgggtctgcatacaggagaaaagagactggcatttaggccaggagctctccatagaatggagaaaaaga  
agatatagcacacaagtagaccctggcctagcagaccaactaattcatatgtattattttgattgtttttcag  
aatctgctataagaaatgccatattagaacgtatagttagtcttagttgtgaacatcaagcaggacataacaa  
ggtaggatctttacagtacttagcactagcagcattaataacaccaagacagacaaaagccacctttgcctagt  
gtcacgaaactgacagaggatcttttagaggaactcaagagtgaagctgtcagacattttccctaggatatggc  
tcatggcctagggcagcatatctataacacctatggggatacttgggcaggagtggaaagccttaataagaag  
tctgcaacaactgctggtttattcatttcagaattgggtgtcgacacagcagaataggcattaatcctcagagg  
agagcaagactagagccctggaagcatccaggaagtcagcctaagactgcttgtagccaattgctattgtaaac  
aatgttgctttcattgccaaagtttgcttcatacgaaaaggcttaggcattctccatgggtggcaaggggtcaa  
acgtattaggtctgaatggcctactgtaagggaaagaataatacaagctgagccagcagcagctgggggtggga  
gcagcatctcgagacctggaaaaacatggagcaatcacaaagcagcaatattaataacgctgattgtgtttggc  
tacaagcacaggaggaggagggtgggttttccagtcagacctcaggtacccttaagaccaatgactttcaa  
ggcagctcacgatcttagcttctttttaaaagaacaggggggactggaagggttaattactcccaaagaaga  
caagatatccttgatctatggatctatcacacacaaggctacttccctgattggcagaattacacaccagggc  
cagggacccgatatccactgacctttggatgggtgcttcaagttagtaccagttgagccagatcaggtagaaaa  
ggccaatgaaggagagaacatcagtttgttacacctatgagcctgcacgggatggaggacaaagagaaaagaa  
gtgttaatgtggaatttgacagccgcctagcagttcatcacatggcccgcgagagctgcatccggagtattaca  
aaaactga