

Band 1

>TRINITY\_DN244\_c0\_g1\_i1.p1 type:complete len:3019 gc:universal  
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>TRINITY\_DN1369\_c0\_g1\_i1.p1            type:3prime\_partial            len:1577            gc:universal  
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>TRINITY\_DN1676\_c0\_g1\_i6.p1 type:complete len:1631 gc:universal

TRINITY\_DN1676\_c0\_g1\_i6:206-5098(+)

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>TRINITY\_DN319\_c2\_g1\_i3.p1 type:complete len:2588 gc:universal TRINITY\_DN319\_c2\_g1\_i3:165-7928(+)

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type:complete

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gc:universal

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type:complete

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gc:universal

TRINITY\_DN982\_c0\_g1\_i3:29697-142(-)

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>TRINITY\_DN161\_c0\_g1\_i3.p1 type:5prime\_partial len:399 gc:universal  
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>TRINITY\_DN1616\_c0\_g1\_i6.p1 type:complete len:3855 gc:universal  
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>TRINITY\_DN121418\_c0\_g1\_i1.p1 type:complete len:259 gc:universal  
TRINITY\_DN121418\_c0\_g1\_i1:1061-285(-)

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LNKDTIVSFWFGSQFKAMYPWVLA AFNMILGQGGLMEIIGICVGHLYFFLMFKYPQDFGGRRFI  
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>TRINITY\_DN1936\_c0\_g1\_i3.p1 type:internal len:1070 gc:universal  
TRINITY\_DN1936\_c0\_g1\_i3:3208-2(-)

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TTGPSNDHSTQTALGQYMFVESSYPRLPHETAIGSETIPVSGSGKCLQFWYHMYGEHIGSLEVNM  
RVANDLSETIVWKLEGNQGNKWLQGGAPLLSRGQNMEVRFEGIRGTGYKGDIAIDDDITVVDYSG  
ACAITPKSAKPWGCNFDCKWQQSRADKFDWLRNQGATGSAGTGPADHTTNTTQGYAY  
VETSFPRQPNDAAIISPTIKGNGTKQTYCMWFAYHMYGPHVDTLKVYTRSQGS DKPVLWRRRGS  
QGLNWNHAEVQVTVLYDTKVIIAEVRGKDYKGDIAIDDDIWFGDCFSGICTFEGADLCFWYVP  
KNGQLYWQRASGATPSVKTGPKNDHTYGTSSQGHYMYIETSNAPAKATAYMYS PWYYNTGQKC  
VQFFYHMYGQQIGQLEVIYRYSNSRYLRQFIRSGNQNNTW HMGQVTVKRNNVYFQIIVRGTKG  
NGYQGDIAVDDFRIRDGACPAPGDCDFEHADFC SWMQEDNDDFDWIIGSGSTNSFLTGPSIDHT  
TQSNGGYYAFIEASSPRQPGHKARFKSMVFAPTTGSGRCFSFWYHMRGYSIGNLTIYLRKVSNTKT  
LSEEV MWLLGGNQ GKAWNQGRFTLKSSTLHEVVIEGVRGSSYDGDIGIDDIEFTSGSCSFLPKGA  
WPSGRSTPAPTQASTTLGPTIGNKGFD CNFDKEFCKTWMRNSTRTNFQWKRHQGSTSSVGTGPH  
HDHTTNTDQGYVYIESSSPAQPNDTAYLIGKDIPNNNGFCLSYWYHMYGPHVGSFRVYV VNK  
NAEARFVRVGTQGD KWKHGQLYISPKAGNPITIRFEGVRGSSFMGDIALDDISVRYGNQCPAPRE  
CTFEHDNNGSSSTCGWTQEKQKDSFDWSIGSGDTPSVLTGPNFDHTLETQKGHYFYIETSYPRK  
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>TRINITY\_DN1386\_c0\_g1\_i1.p1 type:complete len:596 gc:universal  
TRINITY\_DN1386\_c0\_g1\_i1:2419-632(-)

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MKIHFENNSPFLV VNMTRWIEISHWGNIAVEETYHMTHEGALLKGHF SRYDYQRSPTHSVIKSF  
KTVLPAAARDVYYRDEIGNISTSNMLVNDDSV EIELRPRFPLFGGWQTRYMLGYNVPAYQYLYNK  
GDNYILKMRLIDHVFDEFVIDDLNVKIILPEGSTNIEVVKPYEEEGKRDIHKTYLDTSGRTVIVLSK  
KNVVENHIQDIQVHYTFKKLQLLQEPVICVAVFYILFLSVIILVRLDFSITKDAAKESRMKVASLLEE  
LLSSCGRRGSLYYSYDSAIDKLKQNRNQNDFAVSLK KLNQDYNTLTQSINELCSLLIKEDPEIGDKV  
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>TRINITY\_DN2490\_c0\_g1\_i1.p1 type:complete len:1044 gc:universal  
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QTFLLLLLLVAAILC VAVGCVYPAPQESREKALAWGLPGYKSKSFADNFVPDYRDGEEFFGVFAIFFP  
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FGKEYGKNGEPRNGYLLTLVISACFIAIGELNVI APIISNFFLMAYALINYSVFAASIAKSPGWRPSFK  
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RRLEDTDEHVKNFRLQVLCLTGQPSLRPNLVHFC SHITKHLGLLVCGEVNVTDKILSPSGNEGKW  
LKKQKIKAFHQIHSATLRNGAQSM LQSVGLGKLKPNTLIMGYLN RWQSIEVAKVDEYVHIIHDA  
FHLRYGVGILRLQDGF DITDGVVDDQIENG VVENHEPDWYTEDWDENQKDTRGSDGDGSDQA  
KEERQETFKPPDIVSAFPKKRKG YIDVWWLYDDGGLTILAPHLLALSSHWRGCKLRIFTPASDKKI  
KANQIRMANLLKKFRIDFSSVVEFRGINKHPKEDSINQFKQLRRGEHLPQDGLLDKKT LRQIRLGE  
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>TRINITY\_DN17721\_c0\_g1\_i2.p1 type:5prime\_partial len:364 gc:universal  
TRINITY\_DN17721\_c0\_g1\_i2:2-1093(+)

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DFLEMASMGS LGGAAYQVLLQSKLLITALMMWG IKGAKQSSLQWNILILVMLSMCVYMIGGSSD  
SGSGGGIPIMGVNVLLKVTVSCFCAVLSDKYM KDFKSEPIYMQLVQFKCAWCATILALS FVDGK  
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>TRINITY\_DN15584\_c0\_g1\_i1.p1 type:complete len:275 gc:universal  
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 ATAIRGAIHQAKLSIIPVRRGYWGNKIGKPHTVPCKVTGKCGSVTVRLIPAPRGTGIVAAGVSKKLL  
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 NVGGKPVPATATA\*

>TRINITY\_DN1785\_c0\_g1\_i1.p1 type:complete len:615 gc:universal  
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 MMGVVATVLLQSSSTTSIVVTMVASGILEVDPAPIIMGANIGTSVTNTIVAIGQIADKEQFRRFAFA  
 GATVHDMFNLLCVLILLPLELVSGYLFRLTDAISSLHLKDGDGSLKKEFLKAITKPFTNVIIQLDKKI  
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 YVAILVGAGLTILVQSSSIFTSALTPLVGLGIVSLDRVYPLTLGANIGTTATGVLAALASSSSKLGSAL  
 QIALCHLFFNISGIAIWYPIPKLRRPLIKLAKKLGNNTAEYRWFAIAYLIFVFFLLPAFIFLLSLAGWK  
 VFVGIMVPIVTILLIIIIINVIQSKPSLLPSKLQDWSWAPRACRSLEPYDRVACKIQKVLRIKKKKAT  
 VNA\*

>TRINITY\_DN2487\_c1\_g1\_i3.p1 type:internal len:317 gc:universal TRINITY\_DN2487\_c1\_g1\_i3:1-  
 948(+)  
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 YKDPELAAAQFRRRLVELQHGRVSMIACIGYIVPEYFRWPGFISPSEKLAFEDIPNGLGAAAKVPI  
 LGWGQMIGFAGAIEISNLSSPSSKTPGDYAGYGAFGLPFGKGIDDPKREKSLAEINNGRLAMVA  
 IIGMWFQNGLTGSAWGDWALYTDSPLRAAAPDFSKEIGACPPLGFWDPPLGFSVYKDPELAAAQF  
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 PRNWPVKVRGRCDVADFKINGTNPIKEEAAKGRVVLLYLMKRTCLSCYAQLATLNDYAAAYRKV  
 NMPISIIALNHRKQPLPDTVLKKFPLVKFYDEPVDQNIFGKLKSKWRSTMVFDICGRQQYKFGYPY  
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 RV\*

>TRINITY\_DN17714\_c0\_g1\_i1.p1 type:complete len:644 gc:universal  
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 GNVWRFPYLCQQNGGGAFLIPYFIMMVIEGIPLFYIEFAIGQRFRRSAIGCWSKIHPALMGVGISCV  
 VISLLLCIYYIAVIAWCFYFFVSFTSKLPWNINKCPEYDRYKLLDNACKANGTATSCNATKTFTSDC  
 CVHDPQLYYFYRKALNISPSIEDLGDGWQWKLFGCLVLSWIVVYACIVKGVKSSGKAVYFTATFPY  
 LILVILFFYGVTLLEGADIGIVTLFKPDFSKLLEPSIWMDAATQMFFTLSLGFGALISFASYMPIKNNC  
 VRDAYTVVLINCGTSIFAGIVVFSILGHRELMLGEKADKVGCGPLAFITFCDAFLQMPISPLWSILF  
 FTMLILLGIDSEFGTLEGLITPFYDMKWVKMRKELFTALVAFGMFLIGIGLVSSSTGFYIFQIFDDFSVS  
 LGLLFIAFFQVIAVSWVYGNDKFANDIEYMTGSRPNLFWMICWKYISPLAIFVIFVSNCIKMASNSP  
 KYAAAYVGCEFQSVDFSSVAKGIKGSIAKVDYPGWASIIIFVTASMPVPIIFLVKDFVSNRQGWIDGF  
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>TRINITY\_DN12627\_c0\_g1\_i1.p1 type:5prime\_partial len:1061 gc:universal  
 TRINITY\_DN12627\_c0\_g1\_i1:3456-274(-)  
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 VKDSKPCPAGYRKFMKACYRVVHTPMTYDDAVKDCRTSVGGELGDLVSLHNQFEQSFVFSQFAK  
 FDFHWSIGLKKIKGEKEFKWSETPYDYRYWLSLRDNTVYNDDKCTTQEFSSKVDGKWKVTDCC  
 TQKHPYMCKIERDFDQPHLTFIGNCTDGWTKFYDKCYKLQNYFSNWPAAAREKCKGFGGNLVTIT

NSDIQKQMEYLARDAYRSVWIGLNDRAKEYVFEWSSGIPLLPDSYQNWGPNPNNDNSGTENCV  
HMTTESSGGKWNLDLSCSQRMPIYCEHPLECNLSALGMEDGSIPDTNINATSIVGTYPKYARLNAK  
SDNNRNTAWCTNITTGAESLTINLGEVMQITRISTQGLLDSSLGFSRGGYVVSYMLEYSNDGTTW  
MTYISEDAYDQKPIALPGNIDASKIDGTTINLKAAYLRFPKLYKNIICMRVELYGCKSVCSRALGM  
TNFAISDKQLSVSSSQAGSEKAQLRPNIDGSWCAKDDDYSPFVRIDLPRLTKITRVTAISSSKVQYKI  
AYSDDGELFTRFQTLTNEERVSTVPSTHDLTAISAKHVKFDLLKKDQGKLCCLKVELYGCKDKCD  
AVLGMETKIIPDRLITASSAKPSNPARNARLSVGVYGDNSWCSSETDNAQYLQLDFVQEAHLTEIA  
TQGFNGDSAKYVSKYINVQFSDDGDFWHQYSEELPGNSNGYSIQRNKLKEPIIARYIRINPTEWKN  
GICMRVEFYGCPMKPFTAPKILTQKTYNGAIRILNEDFNENLLNANSIEYIELANKVETDITSYLLLE  
ESFKDGFNSVTVNKFREGSVITEFTIKTHTSDASLDAAEPLRKAVQTGRVGTFDVDPNFFEIVTAST  
DKSTATNDDSGGLSNGGKIALIVFFVILICIVLAGGVVYYLRSRRNGFRLQFQHRAFENPTHVDDL  
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>TRINITY\_DN4927\_c0\_g1\_i10.p1 type:3prime\_partial len:1754 gc:universal  
TRINITY\_DN4927\_c0\_g1\_i10:5260-2(-)

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DFNNNSKNIEYALRFPANPRTSMLGALAKWFTNFIFPYTFDGLGPRNPSKADPMYGGPPPYFAEG  
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VIEKERKLKESMKMMGLTGWLHWTAWFIRYFIPLLSISITILLTVNFNGSNSKMLNHSDGSLIFVF  
LVIYMLSVISFCFFISTCFYRASVAAAGIGVLWFLSYFPYFFWMNYNLLPTIAKILSCLDFQLAMAF  
GANLVGRFEGQGAGVQWSNLMEGVTVDDTFTFGHILGMLLLDTVLYGLMAWYIESVFPGEYGIP  
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VDGVQLKFYQGQITSLLGHNGAGKTTTISMLTGLIPPTSGNARVGGYDIKNNMNGIRGSLGICPQ  
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SSLFLKKRYGVGYHVMVMVKEKGCDVEKVTVDLKKYVPTAEVESDVGLELSFALSSDYSHRFEELFS  
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VNPQRLSQNQKNNSTSNPISWENAIGFTLKELDHMPNYSQDGDVQLPSLTGSISKYNYANNMG  
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VPLYIHEGTPLSEELSNFQQYLGSLLQSSNVPQFVDSNMTKYLIEQEIHFQFNRHNLVGLFEKE  
KYSRSYSTVWFNNEALHSPAVAMNTLSNTLLNFTNNQEKKIITINEPLPTTASEGLLDLKLNPNG  
FQIGFALCFGMSFLASSFIVFLVQERASKAKHVQFVSGVDPLSYWTSAYAWDVINFFLPTIVIVLIFFII  
KVDAFQGVIRIGYAMLVLLYGWGIIPVMYIFSFLFNVA STAYTRMTMLNIITGLIMLLVVFIFNIPVV  
NLLDEAKILSNIFIIFPNFSLGQALINIFNNYSIIHQYDNTFKLCVDTAHKMYPFLPIEQINKQCKTMI  
EEFIPDNLYTRNYFSWDEPGIGRYLLAMAIEGFVYFAIVLMIEYGVFRPIGRCCRTIKRTATTVAISN  
DINNEILDDDVKREQLVASKDYNGNEVLVLENLMKSFNTNQGELTAVNNISLRVPHGECFGLLG  
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RLRGVPEKHIQKLVEDLASNLGVFYIDKCTKYSGGNKRKLSTAIALAGDPPLIFLDEPSSGMDP  
AARRNLWDSLSDAIAAGKSIVITSHSMEECEALCTRLAVMVNGQFKCLGSPQHLKAKFGDGYTLI  
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>TRINITY\_DN4927\_c0\_g1\_i9.p1 type:3prime\_partial len:1754 gc:universal  
TRINITY\_DN4927\_c0\_g1\_i9:5260-2(-)

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FLKIQKIVDFSIIQMTNSSFDPSHFVSMNRYPPPHVKDPFIVILQNTFPLFLMLSIFTALNMVKDI  
VIEKERKLKESMKMMGLTGWLHWTAWFIRYFIPLLSISITILLTVNFNGSNSKMLNHSDGSLIFVF  
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HNVLFDALTVEEHLWFFTCLKGINDSLEIEKEVERMIESLGLIDKRYAPSKTSLSGGMKRKLSVGIAL  
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 KVDAFQGVIRIGYAMLVLLYGWGIIPVMYIFSFLFNVASTAYTRMTMLNIITGLIMLLVVFIFNIPVV  
 NLLDEAKILSNIFIIFPNFSLGQALINIFNNYSIIEQYDNTFKLCVDTAHKMYPFLPIEQINKQCKTMI  
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>TRINITY\_DN598\_c1\_g1\_i1.p1 type:5prime\_partial len:745 gc:universal  
 TRINITY\_DN598\_c1\_g1\_i1:2-2236(+)

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 AKAIAKQIISATRDYEVYILSPFSDPGTGPVTHRSASERASFVSDIDRLRARGGDCPELSFGGML  
 NALNNDPQYGSPMFVFTDATAKDDTDANVASLKAADATDATINFFTNLAGCNGRRDRKRGIE  
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 SKLVISVGVQQLASQVALVDPNGKKVYPSTTLALSILYQVSHPSPGQWKLDFTPSVGKYSYNVQAV  
 SSSAIAFAHNFIYQQSVRKNSPPIPLANPLKGVKNMMVRLGGTKNFDLNSIKIDLVDTSNGVLQ  
 KGIGTDRLDSDEV RHATIDPPSGPFKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAK  
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>TRINITY\_DN2963\_c0\_g1\_i1.p1 type:complete len:116 gc:universal  
 TRINITY\_DN2963\_c0\_g1\_i1:1072-725(-)

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>TRINITY\_DN1172\_c0\_g2\_i2.p1 type:internal len:264 gc:universal TRINITY\_DN1172\_c0\_g2\_i2:790-  
 2(-)

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 TFPGLSPSAGVKFADVPNGLAALGKVPALGWVQIIFAGIVEGAFGFDDYKSGAPGDYGWKVLT  
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 TKGGTE

>TRINITY\_DN1559\_c0\_g1\_i1.p1 type:complete len:311 gc:universal  
 TRINITY\_DN1559\_c0\_g1\_i1:221-1153(+)

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 CFVYSLDFARTKLANDTKSSKKGGSREYNGLVVDVYRKTLSKSDGVAGLYRGFVLSCVGIFVYRGCFY  
 GFYDTLKPVLGADASLFMSFILGYGVTVTAGLISYPIDTIRRRMMMTSGQAVKYKGSIDCATQILK  
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>TRINITY\_DN33328\_c0\_g1\_i1.p1 type:3prime\_partial len:1422 gc:universal  
 TRINITY\_DN33328\_c0\_g1\_i1:4264-2(-)

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GCVLDIGKDKCKIKFIPKKQSCHNKLALGKLFDFKVPKGKIKTLFKKYAPVDVFQVTRFEVDKCQ  
GDLDfETEAKEAFNVINDKLKVNsgKLSVSFDYKkFMAAPSFdKLgIDIDGEVQlFGKKVPLTLK  
KKRDSGEGIFSIKTASIKASDFAKLFSTKSVANAQSPpQTKMFTDAVIQNPsisGSRDDdGGfELVVK  
GQVTGIKGIGAIslFvIIQSSdSPVSvAIvADIKKIQPTVLLSSLTGKNLNSIPIIKDITANLAVEFANN  
DMMMLKdPELNKLLGKYIANGKTIASGTkIKVELPIKEILTkvKTTASLSHVPSTIYMqMfLNGGK  
VCfKfPDNIAMDLANVLVALLPKVPDLLfSKVLKTPPKIVIEKFDVNVATKYVDMVLEAPEEIVLG  
SdLfkIKNAKfELKHEENKPWDFNIEATKQIGKTMIDINVKSEAKNYIFKATIDSLTTKELATTfGS  
KATADGILTKMSfLNFgIRTLTVTAefGdKfTLNikGNPVLfNwEgAffEGfIVGSGLNKKMAfGI  
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EFYLEGEVQMKNPNVKfIGKLGVGVTGIVELSLIMEGMWRTPfGLSYIAFGNLQLAVAIQPGVPVP  
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GFPEGLAAGYTTNPKGKTISHLKVNLKTGfFFRGAINILGYKLECEILVQIPKAIKVSVDMGPIKIAK  
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ANVTVNAPYGNdLAKSEfSVSSISAGISDIQNTAFEEVDEGAKESQKIQKVADDEVKDASSWY  
NSAMDKLLSYEKkLEEKTAIINRKSgKLEKLKEYLDASCVdHCPDVCQGGPVMRKRKGRFFNKK  
PGWDDCKEMVKSIVCLGKCKGKKAYYQgKAaKKVVTMEIIeGSVKIAKKLIVIAKGFAERSKGL  
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NKKLQYEGEVCFNADFFKNMAKQVADKVfPGIISIKDKIMQAKNLFSDSDSKKKELEEYEkQSAQ  
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>TRINITY\_DN191687\_c0\_g1\_i1.p1 type:internal len:241 gc:universal  
TRINITY\_DN191687\_c0\_g1\_i1:1-720(+)

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GARGRRRCRGRVLLADAVAHAglGRQVQPERPGRRVDHQGGGVRGGGGRRWPVLRGARDG  
GRPRHRDGEAPRWGHVAGKSRGPRGPLRARQGRPQRGVQRRLGRAGAGRQGLPDAGDPGV  
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>TRINITY\_DN5554\_c0\_g1\_i1.p1 type:complete len:316 gc:universal  
TRINITY\_DN5554\_c0\_g1\_i1:223-1170(+)

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FPAEIHfVHFNSKYPTIGDAVPQPDGLMVLGfFIKVQENAVVPSILQKfFGSLDQIKfEDQKVKLDF  
GGRALGDMLPPRGTSKYfNYPGSLTTPTCDESVNNWNVMSTENAIVITEKQMTQLRSLSAGKKNE  
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>TRINITY\_DN195348\_c0\_g1\_i1.p1 type:internal len:311 gc:universal  
TRINITY\_DN195348\_c0\_g1\_i1:1-930(+)

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KVLIVISDGNEdfKEKQNLVDRAIDQLKAGViiYTVSIGNNVNWDRVfRYASRESSIINGANfDD  
VfNRFFDfAKMLCEDSKVPIPATRTTASTTTVSINTTKLTTTTTTTELVPVTISTTTTmSTTLRPIQACy  
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>TRINITY\_DN113\_c0\_g1\_i1.p1 type:complete len:1417 gc:universal  
TRINITY\_DN113\_c0\_g1\_i1:4413-163(-)

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NPGQRGPQGSQGLTGAMGLVGAPGAPGDMGVAGLPGQQGRKGTRGLAGPTGQRGLRGEGL  
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 PGSPGKEGARGLIGRPGAEGIRGEAGTSGSTGRLGRKGELGPKGFPKRGKDGDTNGKRGEMGVS  
 GADGIRGSKGNSGKDGSAIAGEDGVEGQIGEAQYQSGRGRVGRDTGAPGDSGQPGDNGPNA  
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 GFKGDEGEPPVGPVGPVPHGPRGSPGEDGPSGKKGASGITGTNGRKGNGRQSGANGDTGTPGIP  
 VPGSPGRPGPPGEIAGMSGAFARFFSAGGMGMKGPNGYNNYQYRYKAGNEKIRNQIKPH  
 LSTFKQYYELLKDVDDMMKATGTSKPARSCKDLFTDYPNKITNDYWIDPNGGSTDDAVKVFCD  
 KMKNETCIPKSYRAELENHYTGKDKFRFMYEDIKEDGEIEYAADITQTKILHLMSSKVRQEFSYN  
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>TRINITY\_DN761\_c0\_g1\_i2.p1 type:complete len:830 gc:universal TRINITY\_DN761\_c0\_g1\_i2:87-2576(+)

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 ILKKTQSFFEEEGYAETQARLQADHEPGVTGGGQLGFVAGVINRERIPTFERLLWRACRGNVFFK  
 QAEIDTALYDPGTGDLTHKCVFVFFQGEQLKIRVKKICEGFRATLYPCPETPNERREMAIGVKTRIE  
 DLETVISQTQDHRHRLQTIKNIRVWLKVKKIKAIYHTMNMFNLDVTQKCLIAECWAPVADL  
 DSIQAGLRRGTERSGAQVSSIVNRMSTKQDPPTFNRTNKFTKGFQAIIIDAYGVASYQEVNPAlyTVI  
 TFPFLFSVMFGDCGHGAIMALFALWLMNERKIANWKAGGEMFDTVFQGRYIVFLMGLFSIYSGL  
 LYNDIFSLSLNIIFGSAWVPTLNRTKYDYQPENYKEWSDGDRMLNPLDAPRETYPYFGIDPIWQLTS  
 NKLTFTNSLKMKLSVIFGVTHMIFGVILSLFNHLHFQYVNIFFCEFIQLLFISCFYLVILIFYKWIA  
 FSIHSPSQPSILLGLLAMFLNFAKKKTDADRLYNGQDFLEPFLVVAVICVPWMLLIKPFYLRWQH  
 NKKKQHGTNFARLHEDTAPLQDNEVNHHDDSGISSKNEEEEFDFGEVVFVHQCIIHTIEYCLGCIS  
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 HTLRLHWVEFNSKFYVGAGSKFVPFSFKDIMNDEAF\*

>TRINITY\_DN163801\_c0\_g1\_i1.p1 type:complete len:298 gc:universal TRINITY\_DN163801\_c0\_g1\_i1:55-948(+)

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 CNEVLKSVVAQFNASQLITMRQEVSLMIRDLTERAKDFDIILDDVSITDLFSFAQYTAAVESKQVA  
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>TRINITY\_DN1739\_c0\_g1\_i1.p1 type:complete len:400 gc:universal TRINITY\_DN1739\_c0\_g1\_i1:86-1285(+)

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 LQYQYMTFVMAAFALLYAPYAFIRWINVDLVSLKGSIQDNSAEKIIIGNYFNHRVNSPNKMRMRV  
 MGNIVVKILYIVVNIAAFLLLDSILNGGFTTYGTLWTQWAKLDNDLAYDYMGIHSPKPNALLP  
 TFGFCEVYMSAKDIKTTVNKFKFICEISQHILYQYVFIVVWFAMVFGIVLSIVGLLMQLIEHALTIT  
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 QDTQA\*

>TRINITY\_DN581\_c1\_g1\_i1.p1 type:5prime\_partial len:481 gc:universal TRINITY\_DN581\_c1\_g1\_i1:2139-697(-)

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 NMMRVTFKKKDLVDNFRFNEISLIGNGGECEPNFNGTHFEFKVPLYGCGTRRRYINDAIIYSN  
 MIIDRIASIFIVRKNSLRIPITCYPTSGKASASSNEIEQVANLLDQKDAYGDFTTYVKLFTDDTFSTSL





GDMMSGAFSGNYWDFVNAAGGLQKGPRYYGGRSKRSLDQQDNSIEKVFKSNYETFKNFDTVWNQI  
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>TRINITY\_DN31906\_c0\_g1\_i1.p1 type:5prime\_partial len:595 gc:universal  
TRINITY\_DN31906\_c0\_g1\_i1:1953-169(-)  
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GLEFAYSQSPPSMKSCIMAAWLLTVSVGNLLVILAGFKLTEDMAEEFFFFSVLLAVVTIIFAIMAWF  
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>TRINITY\_DN5854\_c0\_g1\_i1.p1 type:complete len:464 gc:universal  
TRINITY\_DN5854\_c0\_g1\_i1:1435-44(-)  
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PVGCFSVHFISGFWSMVATGFFAEDNASDDLTGIFRGNGKLLGWQLAACVTVTLWNGVLSGLIF  
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NGTNNELVIMA\*  
>TRINITY\_DN64\_c0\_g1\_i1.p1 type:complete len:468 gc:universal TRINITY\_DN64\_c0\_g1\_i1:1555-  
152(-)  
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TVPVGRVETGIKPGMVVTFAPSNTITEVKSVEMHHEALLEAVPGDNVGFNIKNSVKDIKRGV  
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>TRINITY\_DN7102\_c0\_g1\_i1.p1 type:5prime\_partial len:1263 gc:universal  
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DREGLLRKQVLRTLRSMSSHDAEEDKIEEKITKEFRRRSTFRKSAKDIRSLERQKSKINEEETDEDV  
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MVLGNVVGVSFYFAQYMFATAGEALTTRLREMAFRSLLRQEIGYFDLPQHNTGALTSRLASDASA  
VQGATSTRNLTLTQVLVMGLSSLIIAFVFSWKLTLVILAFVPFLAFGGAVQTKLNTSFATDEQKKMG  
EAGSIATESIMQIRTVASLGKEDYFYQRFLKLLKPSQESRRSAHLFGLSFGFSMAIMFFNNAAFR  
MGGYLVNDGLSLADMIKVIISIQFGSMTAGQIASFAPDYAKAKVAAGRILDLFDRVPPIDSYSQE  
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FITTLPPQGYDTNVGDKGALISGGQKQRIAIARALIRNPKILLDEATSALDSESEKVVQDALDVAM  
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# Band 2

>TRINITY\_DN982\_c0\_g1\_i3.p1 type:complete len:9852 gc:universal  
TRINITY\_DN982\_c0\_g1\_i3:29697-142(-)

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FKWSEGMSITLQIHSSNGANFKVLKSSWSMSFIGETTANFQEFVFLMADQFLQPSQFPQRINIDL  
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ISISYIGPQWAVNSFHAVANQDLNYDGKPDTRPDIPSPLNFWKTEAADEFISPFVLESFDGTRYT  
SVDDGLYVVSLLILKNVDCDRSALFKLDFVTTGGSRASDKSNGFADSHFFIADSKGTEFTLSVTTA  
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VPNNGQIKLAQPLDYEIKKQYQFNVIATDGGSLQTTSSVIVNVEDWNDNRPIFDQPQKLAINVPE  
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LNRFRIDSNGNIIVQQSVVLENNPNQYILTITAFDTQRTQSLNNTQVTINIIDLSDKQPPFIQNSYI  
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>TRINITY\_DN61668\_c0\_g1\_i1.p1 type:5prime\_partial len:453 gc:universal

TRINITY\_DN61668\_c0\_g1\_i1:2-1360(+)

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>TRINITY\_DN477\_c0\_g1\_i7.p1 type:3prime\_partial len:1130 gc:universal

TRINITY\_DN477\_c0\_g1\_i7:3387-1(-)

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>TRINITY\_DN554\_c0\_g1\_i4.p1 type:3prime\_partial len:319 gc:universal

TRINITY\_DN554\_c0\_g1\_i4:956-3(-)

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>TRINITY\_DN74720\_c0\_g1\_i1.p1 type:internal len:124 gc:universal TRINITY\_DN74720\_c0\_g1\_i1:3-  
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>TRINITY\_DN113\_c0\_g1\_i1.p1 type:complete len:1417 gc:universal  
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 EDAQYTFYTKNYQPLDEDP SLFSKTLEQVNISFNIDGPESSEALMQVIVCRNDIKWKDKRKARRI  
 VIITTDADFHYS GDGLLGQVIPNDAQCYLSKGNYTAWNQFDYPSLSQIRSVMIENQIVPIFAITGN  
 FELYKKVAEFFGAGSGAVADRLSKNSDNVPLIKEAYEKIAKIVNINS DAPKGIDMKYTAICGTGK  
 NVEAREGTD FCD DVEIGETVVFKVEMTA KDCELVGEDLKFKIKTNFDDVNVAVKLLCECPCEQD

KSKIVIDSEHCNSRGNLTGQCQCQLDFYRGRFCQCTVEEAKNQTLCLRPGEVGPVCSDDQGFCEC  
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>TRINITY\_DN199\_c0\_g1\_i1.p1 type:complete len:229 gc:universal TRINITY\_DN199\_c0\_g1\_i1:207-893(+)

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>TRINITY\_DN1043\_c0\_g1\_i2.p1 type:complete len:700 gc:universal  
TRINITY\_DN1043\_c0\_g1\_i2:2410-311(-)

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KVSLSNWKWNTFKLKFPRITAAMNRMSNSKIGKALGKAMGKVKGIAGVVGKGA VVAFFIAFEVW  
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RNNPTKKQLVCEKWDVDDVSDADILANPDLTKDDVTYFISTCPPAPVNDQTKTTICVKKNNELA  
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>TRINITY\_DN1910\_c0\_g1\_i1.p1 type:complete len:447 gc:universal  
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NTDETFCIDNEALYDICFRTLKLTPPTYGDLNHLVSATMSGVTTCLRFPQQLNADLRKLAVNMVP  
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>TRINITY\_DN761\_c0\_g1\_i3.p1 type:complete len:845 gc:universal TRINITY\_DN761\_c0\_g1\_i3:129-2663(+)

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>TRINITY_DN71276_c0_g1_i1.p1      type:5prime_partial      len:1201      gc:universal
TRINITY_DN71276_c0_g1_i1:1-3603(+)
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>TRINITY_DN28022_c0_g2_i1.p1 type:internal len:915 gc:universal TRINITY_DN28022_c0_g2_i1:1-2742(+)
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>TRINITY_DN1559_c0_g1_i1.p1      type:complete      len:311      gc:universal
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>TRINITY_DN64_c0_g1_i1.p1 type:complete len:468 gc:universal TRINITY_DN64_c0_g1_i1:1555-152(-)
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>TRINITY\_DN1936\_c0\_g1\_i4.p1 type:3prime\_partial len:1762 gc:universal

TRINITY\_DN1936\_c0\_g1\_i4:5283-1(-)

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TRINITY\_DN2720\_c0\_g1\_i6:2-8131(+)

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VGQELDLDLWGNIVSPPVEENVFYAADFDDMYNGIRQLAEDSCKYAAAITPPPIIKQKGEPPGP  
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>TRINITY\_DN7946\_c0\_g1\_i1.p1 type:complete len:995 gc:universal TRINITY\_DN7946\_c0\_g1\_i1:83-3067(+)

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 ANMPNTTYRYLPERDMIYNEFETTPSMPTYLVAFVCDGSKTITANTRTPTKMTFYAPKDQVEQL  
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>TRINITY\_DN661\_c0\_g1\_i10.p1 type:complete len:253 gc:universal  
 TRINITY\_DN661\_c0\_g1\_i10:1712-2470(+)

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 SAMDQVQEKIVKCCGVSNYTDYFNGKTCATVSKNETLRVPVTCCKSEDRSGCQYKDICKAAGDL  
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>TRINITY\_DN118\_c1\_g1\_i5.p1 type:5prime\_partial len:203 gc:universal  
 TRINITY\_DN118\_c1\_g1\_i5:620-12(-)

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 SSH\*

>TRINITY\_DN106\_c0\_g1\_i9.p1 type:3prime\_partial len:1309 gc:universal  
 TRINITY\_DN106\_c0\_g1\_i9:137-4060(+)

MPSNSKLAVLLLILGIGITLSKAQDL DDEF LDRPGQCPVPPIEPNCDRERSPD ESVQGCLMDMDCA  
 TGQKCCSDGCNLFCTSVNIPQPPQIVKGLPGDPGEPGIPGTSGADGDDGIDGVAGPIGNKGATGG  
 RGKKGRRGRPGPPGPAPVDGSSLPEVGPIAGGDNKGPGPNAGAIGEEGMGADGFVTPKEGPAG  
 PAGPVGRLGPRGPYGERGDPGLPGPDGDMGPKGPDGPPGSGVGENGRDGLNGDRGDPGQVGAI  
 GAQGVQGDQGPTGANGAAGYKGLKGDRGASGEKGAFGPDGEKGETGDNGLDGEVGPSPGQ  
 LQGSPPRGPDGAVGPTGPIGARGPPGPTGLSGLPGAPGDEGAVGAVGEKGLGPRGERGEQGE  
 RGPTGDAGAKGETGAMGLVGRDGTAGKKGALGSPGPQGLRGEAGPPGIQGLPGSDGAIGATGA  
 RGEPEQGFGDAPGFKGTNGDSGPPGKPGEAGPQGKKGRSGRDGPAGPAGRDGDRGLQGIPGA  
 PGIPGRPGSKGSRGDRGTGLKQGTGTAGAPGSPGETGPQGSRGAPGGIGKSGRPGKQGARGAS  
 GKDGRPGAPGQQGLRGKAGQLGLQGPKGAQGPSGGNGEPGIPGSKGQQGADGQKGSVGPQGS  
 PGASGATGERGTPGPPGDNKTGPAGPIGEAGAPGRDGE PGKAGQRGDDGKAGDPGIRGPPGV  
 KGPNGLRGSPGLPGERGEQGS DGVPGNKGPVGPNGQPGPSGKPGSPGASGTKGPDGAKGQHGI  
 RGPKGLPGDNGKDGKRGKDGLPGAPGGETGPKGESRPGSNGLPKGRGDPGQQGNRGPAG  
 MPGESGPQGLQG DGP KGERGPRGDKGEPGPVGP SGEDGMSGPGGLDGSVGNKGGRGLSGPP  
 GGQGP PGMEGIRGRRGPPGNRGAVGALGPAGRDGPKGSSGEIGLPGRPGDNGAPGLPGKD GKN

GDPGEDGAPGIQGLMGAQGPLGPRGRPRVGMPPGPGPQGNVGAKEGPGVPGVAGRKKGKSGP  
 PGPQGMMSGATGLPGQAGKDGASGIDGKPGTPGVRGAKGEAGQAGFTGSQGVGTGMPGNPGAA  
 GAKGGRGDGGEPIAGEEGNAGSPGQQRPNNGNRGRKGYKGNKGNNGAKGDKGWRGMTGPT  
 GLPGPIGTQGDVGVDGPKGRGGPVGPPGPRGRSGREGAPGDEGMQGTDLKGSVGNRGRDGD  
 DGINGPPGPPGPPGLPGGFGGAGAINMFPPMGNVEKGPSYYGYQYYKSQDGKDFKTAQEEAK  
 NTVFAYTNKLDEVLQGLDKPDGSEVYPAKTCADLKLCHPDIKSGNYVLDPNLG

>TRINITY\_DN12627\_c0\_g1\_i1.p1 type:5prime\_partial len:1061 gc:universal

TRINITY\_DN12627\_c0\_g1\_i1:3456-274(-)

YGENNRLKFNDARQYCQQWKDDQGDVLAHNSNYENSFIMSQLYDVNEPMYIGLTDSFSERTFLW  
 VDQSSVVYTNWYARQPSFVGNEDCVEMMPYFKTHGRWNDIGCSAERGFCQRTPSKTPLPTPEP  
 VKDSKPCPAGYRKFMKACYRVVHTPMYDDAVKDCRTSVGGELGDLVSLHNQFEQSFVFSQFAK  
 FDFHSWIGLKKIKGEKEFKWSETPYDYRYWLSLRYDNTVYNDDKCTTQEFSSKVDGKWKVTDC  
 TQKHPYMCKIERDFDQPHLTFIGNCTDGTKFYDKCYKLQNYFSNWPAAREKCKGFGGNLVTIT  
 NSDIQKQMEYLARDAYRSVWIGLNDRAKEYVFEWSSGIPLLPDSYQNWGPNEPNDNSGTENCV  
 HMTTESSGGKWNLDLSCSQRMPIYCEHPLECNALGMEDGSIPDTNINATSIVGTYPKYARLNAK  
 SDNNRNTAWCTNITTGAESLTINLGEVMQITRISTQGLLDSSLGFSRGGYVVSYMLEYSNDGTTW  
 MTYISEDAYDQKPIALPGNIDASKIDGTTINLKAAYLRFIPKLYKNIICMRVELYCKSVCSRALGM  
 TNFAISDKQLSVSSQAGSEKAQLRPNIDGSWCAKDDDYSPFVRIDLPRLTKITRVTAISSSKVQYKI  
 AYSDDGELFTRFQTLTNEERVSTVPSTHDLTAISAKHVKFDLLKKDQGKLCLKVELYGLKDCD  
 AVLGMETKIIPDRLITASSAKPSNPARNARLSVGVYGDNSWCSSETDNAQYLQLDFVQEAHLTEIA  
 TQGFNGDSAKYVSKYNVQFSDDGDFWHQYSEELPGNSNGYSIQRNKLKEPIIARYIRINPTWKN  
 GICMRVEFYGCMPMKPFTAPKILTQKTYNGAIRILNEDFNENLLNANSIEYIELANKVETDITSYLL  
 ESFKDGFNSVTVNKFREGSVITEFTIKTHTSDASLDAAEPLRKAVQTGRVGTDFDVPNFFEIVTAST  
 DKSTATNDDSGGLSNGGKIALIVFFVILICIVLAGGVVYYLRSRRNGFRLQFQHRAFENPTHVDDL  
 QNDDMKVEFMNDDY\*

>TRINITY\_DN195348\_c0\_g1\_i1.p1 type:internal len:311 gc:universal

TRINITY\_DN195348\_c0\_g1\_i1:1-930(+)

SGCNSIDLGLLVDFSSSKDYDSKQLTKFVREFIDKITNVFAFSATKSHLAYLPFSSRINENITGQWFD  
 NKYMKTIGDWDYQELTQYLDREVIVPYTPVTGYETGKANAEAFQATNDKMFNALYGMRYNMT  
 KVLIVISDGNEDFKEKQNLVDRAIDQLKAKGVIIYTVSIGNNVNWDRVFRYASRESSIINGANFDD  
 VFNRFFDFAKMLCEDSKVPIPATRTTASTTTVSINTTKLTTTTTTTELVPVTISTTTTMTSTTLRPIQACY  
 EDIDLGFVVDFSKMNANDMKERQTANDIVKVIKKIASSFNIAANK

>TRINITY\_DN1119\_c0\_g1\_i1.p1 type:5prime\_partial len:949 gc:universal

TRINITY\_DN1119\_c0\_g1\_i1:2934-88(-)

FFFNPTVMHEKKFSRMKFILLFSFFAISLGQNCNRMHKKIGCFWNDKNAKVLFNDRDSINNSTY  
 GALSDKLACKCNAVARSNGFKFFALRHFGICIGYNKITTGSKSIEHCIDTKSNGVCNLDGMTCT  
 GTQNTADMMYQIVPEKCPSRHKKVGCYTEDRNATFLFNDRSNIDWPNEFKFLVELACKCNKVAL  
 EKGFFFGIRFYGVCVGFKNISTEEKSAFHCKDPNYPYRPNMKSNSVCAGDHFLTDMIYKTER  
 QNVDKLFSEWSGWSTCSKSCGGGTQKRTRECKDKKSCSDAGGEEFKSCSNSFCCKGSTGVAKAQE  
 VVETFLETFFHKVEFPDIKPSGKYLKTIFEIQKAVGEEFNSVDPVSKGVPLEKRLTELEHFLKIAVEGG  
 SIDFARSTLGKGMFVFMKKKIKEGLPINDIDTAAKGFLNKLTDIGSKKMNEILSSKGDATLMFTID  
 TTGSMQEIAAAIAIAKQIISATREYEVYILSPFNDPRTGPVRYRSTNDRANFVSDINKLLASGGG  
 DCELSIKGMLNAFDKGPKYGSPMFVFTDASPKDATPSNMAALKAAASSNNAKITFTNLKGCC  
 KELGIESYKEIASHTGGQVFPLKNEAELINFTEYVKSSLQQDTIIAAGGSLNSRISKRAAPRSHIFMV  
 DQSITRLIISVAFEKQNTGKHIKLLDPNNKNVDSSTMLAMSLIYDIKNPKVGLWGLSFPHIVGEFGY  
 NVQAVTENAIEFAHSFLHQHNVKGS DVTVSLNPIKGIRNMMVIRLGGADHIDLSTIKVHLVDHS  
 GNKLVSNVMTDRDLSDEIRNASIVPPTVQFKVLLTGKTKSGQQFQRMSSQGSSTPVSAFMRTISAGY  
 DFTATMGKDWISIQIEIVNKGSAESFNFAQKTKYGTCLKNPNQTKTVNKESMITFSYKPPNRHDLK  
 GKTDKVTVIKASGEKINHIFISILLIK\*

>TRINITY\_DN193641\_c0\_g1\_i1.p1 type:internal len:173 gc:universal

TRINITY\_DN193641\_c0\_g1\_i1:2-517(+)

GSKQTGPTGDHTSGKGKYIFIEASSPRKPND SAILQSPPIRPSYGAVCFKFAYHMHGAHVNALYIK  
NVNGKRTRVWKRGTGTQGNQWRNGQANIRGLSGVFNIEVKGLRGVNYQGDISLDDFVVKDGKC  
PRPKYCDFENGRCGWREAKNLDFKNWKR SNGGTPSKGTGPATD

>TRINITY\_DN1821\_c0\_g1\_i4.p1 type:complete len:637 gc:universal

TRINITY\_DN1821\_c0\_g1\_i4:304-2214(+)

MKLLIKFIVVFIFYDFALATTPEEFLKEYNAKIGQQGW PSSDASFAKATNISDENSEKAQEESKKYT  
KIAQAWRANASLINLDGADADTKRQFKLLLSATPKCESVIADISKVGS DLENIYSLGRIPNDRTKI  
KTINSDKASLSLDEHLYLILANSRDPDELLYAWKGWRDAVGPKLKDKYTKYVELNNIGARENGFK  
DKGEYKRKVYEVDNLKEIAEKFWDELKPFYQEVHAYVRYRLSNVYKDLVKDGEPIPAHLLGNM  
WAQSWDNIFPLVKPFKDKPALDVTSTLKKYSVKMFEVAEEFFKSIGWEELPPSFWTKTLFEKPA  
DRNVTCHASAWDFSIVKDGSKDVRVKMCTVINQEDFITIHHELGHIIYYLLYWDLP SVYRTGANP  
GFHEAVGDTLVLSVQTPDHLHKIGLLEKVEDSKESDINFLKTAMERIAFLPFGYLM DQWMWGV  
YSGDILPNEYNKRWWEMRLKYQGKPPVSRSENFDPGAKYHIPADTPYIRYFFAHILQFT FHKYA  
CKAAGNTKPLHKCSIYQSKEAGKALGDMLRLGSKSRWPLALKNLTGSEELSADPIKEYFQ PLLVF  
LKEQRKEHKYTLGWSGTDDNSNSSPNCQVSIALFIMCILFFLFGNKHF\*

>TRINITY\_DN5500\_c0\_g1\_i2.p1 type:3prime\_partial len:1183 gc:universal

TRINITY\_DN5500\_c0\_g1\_i2:3546-1(-)

MEIKNFLILLSLSLTSQLKAGLVFNETGVDQPVDLFFVIDGSGSVGYELFDGQLQFVTELT DQLGG  
VSPFNHVHVAIAVITTSPTYQAIGLTQYQVNSEFKQAVSEIFYPRGATRIDKALLAVERELLPTS RAGVP  
KVLVILTDGIQARWPGVYNTHVIERLFNAGVSPVVVGIGSDYRDLDRLNKLAIKENHHLNEPIEK  
LFLTDDMEVGSPALVQKAAS TVKKILSNVARFGYEVRSDF AFLD GSTYAEDQLKLMEGLASYFQ  
INRELSRFAVASSQGGGRTYIEFNEAQLSRDFKAMLMKLNVDSESIDIGIAAKYAYEEIFRIEGERYS  
TPRTLVI FSGNAEAKDSTLFGKYSSLKKANVNLVMIAVGGGKGRSNLRNFPVDYYLPDFNDEVS  
FTEECNIIAREMHNYIIRFASDTQRSKKCLHDGDLFFSIDVSGSAGAYYQENLNIIEKIISFEISNED  
SRVGFAIDRDGNTQVTPLDKHNSLES LMRDFDSLPHYPRGRSDMVAKLKAAYNQFLTSSRIHFQDI  
LFIFTDGYLNRKSESESKELIDKLKAFGVEVFVVS LGYDVNFPFLMTLSSDKGHFFHV NQLPKDSDS  
FVNSIINKVCDYTETFQDKYEIPINVALVLDGSHCSEKFHEAQKTF SNVIIDGLDNSPLAKNYLFSYS  
SGVQQLDSSSSLAINFGSDGNRLDLALNEVVKLFQSISSNEVNMAIFVTNAGLESEFNATMSQAR  
KLRLSLGVITMVICIGDNFNVDVIRTLASSRQLIYMIPSPSQLTDTKFLRHII SAAFEMAESMPPPRLEA  
GKSWYPAFFGNWVDSNSLEGEVPDAPLKAYHF GPTVLWSKPIQQKNYIESTIIPAGESEGRFGTCG  
HIFKHKGATKKEKYISKSWG YFLWSNSFLYITTDGTETSPRIEFDYSSRDKLN LKTIVDGSVKIYI  
DGVFIRSIELEGTEADSQSHMFVGVWCHRLSAVTVEDFKVSALS NPCTVNNGGCSQICSADPYEF  
KCSCIPGYRLVEDESTCVAESTCPELITTTVITTTLS SSPPTTNQSKFISTTTK PDELIDTTATIISTRES DI  
TTTLILSTKSTEKPIEKIEKTTTSAIGDILEQTTVAPIKTSTVFVPTTKEEVILTTKEMAETTLTVPTTASP  
VEETTTVAPVSTA AKTEATTQAVITTLAATTK

>TRINITY\_DN4770\_c0\_g1\_i1.p1 type:5prime\_partial len:1635 gc:universal

TRINITY\_DN4770\_c0\_g1\_i1:5012-108(-)

FMSDYGNSRIKVDLKANKMNTFTVYRISRTFFGIPISRERIGSRATGLAIDKIENRLYFCDDKVSSL  
ESVRLDLTDHQVLYHNTKYSSGKFVLQTNKGEVVQPFNIEVFGDKMFWTDLYHGAIFSADKW SG  
TNVQYVSGGLGRP KDLHVFNKPKQGKIKIYLFNYLTDSSNK TALCFTSNKENVTEISDPPRC PKG  
YIEKQFSSAFSNC SVTRGSDFVCKCENWMTCAQRSHAGVVACRSPSRPFMF FKVRECEQVVEAGF  
CPLNITTSCSDDSKNCTVDDDCVSGEKKCYSKICERNRCHRKVSKRENPC LINNGGCSHFCLAVG  
DSFRDCDPTMELNETNPLMCQKIPPTCDPPCLYVRNTTSIYRIPLNSTDGLLIRRRSVAQVLFHT  
KSSIESFALDP IQKEIYWIDSSSGMINKSMLNGTNIKVVFSNRKEAAKFLAVDWTSDMLYWCDVDI  
KAIMVGNTDGS AEKKLIQFDYKKKILGMTLDPVNGYIFWVLTSGSSELYGSSATIERSNLDGSRK  
TIVSKNVNYVKDLSIDSKRKRLWVHYNPNIIESVALDGSDRKTEFALDNIASSMTLHDQLQVAYIS  
QMQTIYAVKVGSPISNKSVIHINKQRGSLDQIDIHEFDISIA PRPCFAAKCSHMCLRSMDTTVCACP  
TGMVLVNETKCIVAETGSEIIFYQNLDIKLVKYYNKEGYDMVTKLLTAPVNSSLDSAPLDYDSVEN  
VVYFASGVTYVKLNIEDQNIEPVM TLDWIESKQIRFVKYDIISQLFAVMEYKSSKIFIVSTDGKIVSQY  
NNFPSDMKQIEIEFFDGKLFYAVKDSITKLDILNDKKTNYNSENLEIESISIDVKDRHIYWSNIDGLV  
KRSDFD FKNQAVINS DKT KHSISYIQILGNRLFYHSRWYGVIFSVNKNFLDNKGITS AVKFNSKW

IAVKVSGDKDICNLPKDTGPKALIPKWYNNKEKQQCEQFNYGGCLGNLNRFESQKECNDHCQ  
SKNAGYCPYITNNSTTKCSLDKDCSLQEKCCGDKIKSCVKSVPKPDYPCRQNNGGCTHFCIGNSK  
MFKCSCPSNMVLNMTDEKSCVKAVESGCMLPKDSGPCEALIPKWYNNQEKHKCEKFNYGGCLG  
NKNRYDSEKECNRYRCQDGCMLPKDSGPCEALIPKWYNNQEKHKCEKFNYGGCLGNKNRYDSE  
KECNRYRCQKSSCTDNPCKNNASCISRSDGTFDRMCYGRGFFGRYCEIDKETEAVTIRLQQNDE  
VTKVTVTEIKDEIKKSFNIYCKENECKMEDGSASSVETRKKRKRSSDKELTFESEDVDVLSFNEDN  
GEVNVKFVIEKVQDGDYLMSSSSVRSGFDEFSGDSFGESLGLSYLGMTSDRQVAKSQSEDEDGNG  
SVTIADVIVLLLIACVIGFAAYKYRQRNAKGPSFGIPGFKKTQMSYRDLDKSSGEQTIPNDYHNPR  
EFSNPVFEALETEKAEPMACSIDYSDNNKYKVGLEDSSIVPATEKKPIVDFVEVNESGKLVSSNGEEI  
PELLPPPYSSRPVTPKTQGTQQAYPPPYNSRNRPLRGTVLSTHGIGNTDATPNSFLPGDEDLFPSTL  
SLQNSVSLEDSYGSELSDSLSSSMNRMLKSEANITAPKTIQIQDVKGNSC\*

>TRINITY\_DN1071\_c0\_g1\_i1.p1 type:internal len:660 gc:universal

TRINITY\_DN1071\_c0\_g1\_i1:1977-1(-)

DPKVAMRVEFYVCPPCGVTTPAITTTEQTTMPTTTTTTESTTTTPTTTPATTTESTTTTTLPTTTTTPTTT  
QSTTSKETIIITEEPKPTTGLPQKKTTPRTTTESPTTTEATTTTPATTTEATTTTQATTTTTKATTTTP  
ATTTTKATTTTEATTTPTTKPCECKVLQPVGVSDGRIPDNQMTANSVLNVVSGPTFTGASQARLN  
NKPSKDGVGAWEPAQQEEIYLEVHFNKIEDVREIRIQGHPTDKKFTKNFFLSTSQDGVNFETDEN  
LYEGNKDGNSTIKSTKVSFKTKAVQIHPFNDVSVGDPKVAMRVEFYVCPPCGVTTPPTTTTLPTTTTE  
KPTTTAATTTEVVTKIITEPPKTTTAEPQTKCPPGQIEGNCSSSEFDCHNRDICKPQITNGCCCPDGL  
YKSYEICVKQEECGCIYNETKKNEGEVWYPNDYEVCCLNNKQVCSEPCPNTFKCAKHEKKIFK  
KKADKCCDCVKNCQYCNHHGKYYPNDTWTVSINDMECKTGRCVLDEEECAEVEIDTVKCP  
SECPKGKKRVGSADKCECEVCEECTVKSQDDCETNEEYVKAEGDCCGACLIKMTTEPKISGTTEI  
KTFPSTTEESTTPKTFRPVTTATTRGTFPLPPTTTTEKPTTTTTEKPTTTTTTTEKPTTRGTFF

>TRINITY\_DN14015\_c0\_g1\_i3.p1 type:5prime\_partial len:2566 gc:universal

TRINITY\_DN14015\_c0\_g1\_i3:2-7699(+)

PNEGTVIVFSNGDYELKKDYAMIEAKSNGTLYKGKTVVHVTLTDKNDNPPRHQNLQVDIAISES  
TKPGTIVTILYADDADDKQNGEIFFMLESASSDFSISFNNTGVIRLSKELDNEQETSYKLMILLKDF  
GSPSSKFSNMATVNIDVIDENDNTPLSEKTFDTIQVSRKANGVIYQVKFTDADSGLNGQIEYDIEP  
FKSFDDYFTINKTTGEVSLIKSLETTTEDNFWLFIIATDKGNPRRKGSTLQVNVNEPSSLNPIFNPD  
TYDIEIYENRPLNSLVARINVLNVDPNKDSLTFKIVSGNDGDRFLITNKGDLVLKQNVDFEQQNL  
NLVLSVRKNQNSVESVNQATVKIKVLDVNDNPLFEKTDYTFIVTENTPINTFIGGVS AVDQDFGE  
NSKVSYTIFDTTKTFIIDSSTGRITVVGQLNSFVENEYNFVVYA FDNNGNPRRASSANVKVIVEDINE  
APQFSPPSYNLNVSELLHPGDHIITPKVIDNDIGINSQVRLTLDASGNIDDTFLENGKLKLNKQLD  
FETRSTYDLTLVATDSGRLPLSTNAKVKINVMNVNEHRPIFNINPYMTEINEDQFSTPIFQVKASDK  
DALSKVRYVIEDGLDYSLSINQITGEITNSRLNANFKKEYSIQIKAFDLNPPQFYSHTVLVVKVIDI  
NDNAPIFNKAQYSFTISDQTPVGTHIGKVFANDADTGFFGQVTFYFLDNNFNPGPFLSGNDILINGD  
LDFTKVSSYEFVIKARDSPGSSQGFRTTSTNISVNIVETNGTMPIFSREYYEVTIFSNISTQYTVVKVSA  
TDNDGNEFGEIKYSLSDSSNLFQVDELIGIVSLKDGVLQTRSFKYTNLQVRATDGAGLFSTAYL  
VIHVIPVSGNPPVFLQIQYLSRVSYLSKGESIVSVIATDPEGAAVSYEIKSGNELKKFGITNSGIYL  
EDQVENPEVNVYRLGIEAIDENGLRSDPDAQVIIQILYFNSTFQCKLIPTFSSNLYISQVEENKAPTII  
TSVQANGSSQNDSIAYSIAATKDVTDQNDFEINSTNGVITSQRTFNYEMKNSYQFEVIKDTNSLKE  
GRTIIMVNIIDVNEPVSFESSNIVRSLSQSSPVGTFVGLAETSDADKNDLITFSFVPANIGNIFQVDA  
NGIIRTKSSLNAADSPYNFTLIASDKVGLTANKNIKVTVIKTNVPEFSQNAYLFSISESLNSVRIGQLS  
TKQILEPVGYRIPNNNNYNNLFIISDGGIISSSKGIDYESDDRKYNLCEVFLQSNPSLFDTC DVTININ  
DINDNRPVNKKDGQYTVEVSENVVMVGKMIITLDVEDIDSGEKGFLNYLITSGNNGNEFRINNKG  
EIYTLKPLDYEVKRSYSLTINVQDNGVPVKTIETAPLTVVINLVNENDNNPIFNPSYITISIEQQALTT  
ILKVTASDKDALIKSTYSILENEDTFSIDANGNINLVKAVDFEISSKYQFTVVANDGSRSGYAIVTVDI  
TNINEKPSFGQNYAIEVSESTPVDTVILT V SATDVDIGVEGDLEYSIESGNDENTFSIQSNGQIKLLEE  
LDYETKTEYTLSIKATDKGQPQLSATTIVNIKVRNINDNKPVFSKQKYELTVKENSQSLTVSVTDA  
DNLGNMKFSPSSKAAGMFKIEINTLNTNEAVVSNIKPLDRETGAGHQFLIKVEDDVGNQGLSEF  
VIVVEDENDNNPIFTSEEYNVTLFSKLVNDAVVTVTATDADATYGVVSYAIIISGNNDNMFRVNT  
KGEILINKQNYDSRANYVLTIEASDNFETPKKSLTNTNVKIQIQSSGLTFEFAQDQYKYTKSEINIGD

TFGPITGTSSTSLDQIVYEIKDSSGTFEVTSNRNIKVLKKVTTDQNFCAATTNGGTLTDLTQIHIL  
LAKTNENRPIFQFTNPKVVKISQNTLVNSVVAVTTASDSTGSTITYSITEGGEFFNITNEGAILTKN  
TLQTSTVNQFNVTHIANDGTFNSAPANVVINVKKENNFPKLSFSSLNLSITEGNKVSQVLTDDTD  
DADGDQLNFKIVGKTANNYFIINNTVLESKSPLDYEQVRSYEFCEIKDSIDTNSRSVILPVSISVTNI  
NDSNPVFTSKSNEVEVPYTWPDPITIEASAEDSEGDRIEFSIVNSSFSLSIGKTSQVILNQLKEA  
KVYNLTVTATGVQSGKSSNDNFILFTAVEAMSQTMPITFSDVTDNTMKVTLNAKEEFGEADYEK  
MNTIYVYAQEYLPNLDEFVTRTLMEPVSYDANTFESFRGRRFMIKVDMERPTQRRKRRDTSLD  
EKNGLTILIGNNQCAN KYDPTIPCNGPLKAGQSYRYQLEGDLLNKRKLSSTFEPKTTTSAQAQSV  
QFSASNYTFNIYYIIGLVMLGLLLAVSIWVIAVLLLYKRRGKTKLMQLRESMLPPAINNAQTIANGKF  
GSNARRYTNPVYGDYDDDRNFTSDFNLPRGQNNQELAQLKQQIIPNQNNGRANYNNRSEMV  
NRVPRHFDNPGYREEERKPTYTATVMSSPTVPNPPPPPPPPMENTRLPSSGTARSTNQPRLRRTSS  
GRVIVQHLSGHQ\*

>TRINITY\_DN942\_c0\_g1\_i5.p1                      type:complete                      len:5116                      gc:universal  
TRINITY\_DN942\_c0\_g1\_i5:15664-317(-)

MKMKLALLVLFTGTTLAAPFWVLDDNLPRAEIKEVGCSSGKRFQNGKSHVYEGVTYNTIEGST  
DKKTGIKLTATATITPMSECKFMMQLKSVELMSKSMNQDTFTTNAESAKLKDELEKLMVGFTMK  
GNQIVTIHASENEPHTVLNKRSLSSLQDDESTKETDINGICDVEIVTKSGKIVKSKTLSECTERAQ  
NEIGFQSTSISATTLKPLDSTKCEYVMEGDVKSVCCEKHIFKPFSAKYKTPSGAMTTVKQSLSF  
KEYTVAAISAVPSDFTVETNLLFDHSTEEPTATSTINDQVEKVMLRLVDPAQKSDLSAKENSAQEFK  
NLVTLFRRMDEKRMEATWTKYFDCIKSGVCTDANTRDLYRQYLLDGISHCGTSTCIAMVRNVIV  
NGQITGERMNMFLRSIPFVTKTKMKMIGHVLEICEKNPSRQAYLTLGTLVRHCKQNPEDCSEN  
RNPVTMAEEHLVKKLGQCEGQDDHERVEELLRLVKAIGNAQRPARVQEKLMKCAEKSKHSNI  
TTSIFDAFRGFSCDALKQGELLRVFEDINNEDETRIHAFITIMKCPTVEILEKVTMMLEKELSNQVA  
SYMWSYLTNLMESSDPRHQVARDILTKMTAQKPLREVNLPVHQFSKAFESKLSHSEFLKSGLTTEG  
HIIFNKDKYIPKMGMLNMKANMMGNSLDMLETIGLGDGIEPIETLVGPNGMLPKDLNIDLSY  
GKFNSEFLRKMLEKNNKRKLFNDNLTKMHLKANKQFEPCAHLSVKIMGQEVSVLSYDDILW  
MIDQIDNMNAVQLLTNIAKGGHKTFKSLMFLEMSHNVP TGMGLPLKLTGSAGVTVEFNGKF  
DIRNLFWGTPAVNIKGHMKPSTVVELSGQMGEVGHYVSTGMFVKSSMFTSQIVKGAIEYKHGQIL  
KINMDVPEEPLAAVKFSSSPFLFMNEESELVEGTSRFVNPEHCTKSALLGYGLCASMRLPIAFREYE  
APYYPLSGPAHFVRAIRGDEKLTTWQFLVELNKQSGTTFGNIEFSTPGAAYERKLNGKVSQKQ  
GKMNMFTLSTEGYDRKASVELNFKETYSTAITKNNIFTTKDMTTKLAIFNEEIDSGRQYGIQAL  
ATMDWYTFDHITKFVRKPNVYMFQTSTTYYPKKVVMGTIVYDTKENKLSTRIQANQFQQAYEFS  
GKFSDDGQEKGVTVTGKCVTSGKSITLYGGIQTNTKQTKQILFTADV LGYSAKQYIRYENNNDVHT  
VSQFLSVNGKIISLNGELSSFTEMKRLKFVADIIGRKADTTFLLTNNKGEKLSVDMNAMQKHAN  
FKTGCYQAKDSNECKFNFKIGTKEGEILMKQIMRDGNVITTLTFLDKYVAGFRNVYSNKNANA  
KSLCSSIFYGTEEKEHEPVNVCLKYNAASDEKKILAITFDIVDRNQQGEINMELTKQTEFVKMQTE  
VVYNKNSLAKAMQSMKYSKDLNNEIKMEVNVGKYNAGFRWFTLKTNGANVGIEGYAMDKKI  
QFVNKYVKDVVSGTTESKVTSELYINDKLVPVTTETIFLNGKGIAGPKFQVNIGKHSVSYATLVTYG  
KGVYGIDLEFLVAKESNMLFKLFNGAAASVTPKKMDQYKFGFGINGKQYTYGGDMSYNNLGN  
DEKMEHSVKLGLQYSINRRSSMTFVLSNDKTKAALNMEFEYIPTKSVSHSIEYTKNDRILQVSVEFL  
PKMFYTFKSQLVKNEGYSLASSVTLNWKNNRVLKMINSMVNNDKKFELSTVFGKDLTFTFTFG  
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PALKENYVKLIELITKLTALNTNLKEWKIFAKPLTNYMKLVALSTKKHFGPILTKSMDKILPLITGI  
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>TRINITY\_DN1189\_c0\_g1\_i1.p1 type:5prime\_partial len:449 gc:universal  
TRINITY\_DN1189\_c0\_g1\_i1:1554-208(-)

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>TRINITY\_DN3182\_c0\_g1\_i3.p1 type:complete len:784 gc:universal  
TRINITY\_DN3182\_c0\_g1\_i3:2869-518(-)

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DQYIIVPALSYLKKMMGLVRNTSAETLSNYIVWSVIQDEVYLSKPFLQIRMRYKEKVLG  
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IGSILGHELTGFDNTGRKFNGHSELKKQWWSNKSAAAFKEKSQCMIDQYNSYKVRGKFQ  
INGKLTGGENIADNNGFKTALRGYNDWLCQNKADNLIEGLPFDNEQLFFIAFAQAYCSNS  
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>TRINITY\_DN984\_c0\_g1\_i1.p1 type:complete len:1485 gc:universal  
TRINITY\_DN984\_c0\_g1\_i1:4558-104(-)

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>TRINITY\_DN1613\_c1\_g1\_i2.p1 type:internal len:1068 gc:universal  
TRINITY\_DN1613\_c1\_g1\_i2:3201-1(-)

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WSNYGVCSEKCGGGVQTATRSTNPRPLFGGKACVGS  
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SRSCTNPAPAHGGKSCV GALVDSRKCNT HKCPVDGGFTKWSSYGSCSKSCGGGSQTSTRSCTL PK  
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>TRINITY\_DN2028\_c0\_g1\_i1.p1 type:complete len:274 gc:universal  
TRINITY\_DN2028\_c0\_g1\_i1:1608-787(-)

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CGAAGTPKSDKPCIFD TLLGECAPSKNTTYGLREKKPCIFIKINKVFGWTPADDGTGYLTL SCTG  
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IEGISATD\*

>TRINITY\_DN5633\_c0\_g1\_i1.p1 type:complete len:848 gc:universal  
TRINITY\_DN5633\_c0\_g1\_i1:2881-338(-)

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>TRINITY\_DN598\_c1\_g1\_i1.p1 type:5prime\_partial len:745 gc:universal  
TRINITY\_DN598\_c1\_g1\_i1:2-2236(+)

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YPDREPSGKFLKAIFAIQKAVAEFISVDPYVRSKTLEQRLKDLENFLKVATEGGSIDFARTLLGKG V  
FTFMKQKIKDGLPIDDIDKAAEGFLEKL RGDLDGDKMDEILSSQGDATLMFTIDTTGSMKQEINA  
AKAIAKQIISATRDYEV DYILSPFSDPGTGPVTHRSASERASFVSDIDRLRARGGGDCPELSFGGML  
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KGIGTDRLDSDEV RHATIDPPSGPFKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAK  
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>TRINITY\_DN581\_c1\_g1\_i1.p1 type:5prime\_partial len:481 gc:universal  
TRINITY\_DN581\_c1\_g1\_i1:2139-697(-)

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SGEKTSPDVAYQDRIYFEVGLNTKDERLSVFAENC SVTPTNNKHDP RRYFLIERGCKNDETVEFHA

STKHKQRISYEAFSVGTTEPVTYLHCDLLVCDINATDKRCLNRECAYMNGKAKRRRKRAALPSA  
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>TRINITY\_DN106\_c0\_g1\_i11.p1 type:internal len:621 gc:universal TRINITY\_DN106\_c0\_g1\_i11:2-1861(+)

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>TRINITY\_DN36\_c0\_g1\_i16.p1 type:complete len:224 gc:universal TRINITY\_DN36\_c0\_g1\_i16:829-158(-)

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>TRINITY\_DN495\_c0\_g1\_i2.p1 type:complete len:655 gc:universal TRINITY\_DN495\_c0\_g1\_i2:152-2116(+)

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YIRPKFVRPHKGIRLPHPNRIIPGSWKRAHGIFALKGKKAIFCEHKGIKRISCSNDKVIKVSALY  
GRTAGNVCGRSRVTCRALNSFAIVQKKCNHNSCDLNPSNSVFGDPCVGTVKYLNIEYFCVKR  
TPPTINTPTLTPVTLVIPVQSSYQGDGKSLTLKWNLGLTEKDRIIAVYLYDDIKPCKTKIIFSSSTGFNT  
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DKVDGGYTGWVSVYGPCSKACGGGVQERNRSCNPNAPANGGKACDGPSETRACNTNQCPEAS  
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>TRINITY\_DN3698\_c0\_g2\_i3.p1 type:complete len:710 gc:universal TRINITY\_DN3698\_c0\_g2\_i3:78-2207(+)

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FGMYASDEHYGCKKVKWNNLGNMGMSFVFIYGIPIFLLQSDEEIAFLIKCYEDYNKPVNNSARDYP  
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VTAHLLYCLVYAANCPFFKEVLGKKTALPKVPFSRYISVQQLDNPTQIFHRLLSYTTGDWLPED  
CVKKRTRKKLPFVYNYAIVRGSEENYTCYRASVYQTPAVSPAFELMDYASTEYSTWAESMWNSDI  
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>TRINITY\_DN10485\_c0\_g1\_i1.p1 type:5prime\_partial len:604 gc:universal TRINITY\_DN10485\_c0\_g1\_i1:2-1813(+)

NYSRLKSYFVAMKRRTTKRIALAAAFLVIVVVVVVAVVVTRDDDEDEILTAKHEPVEAREYSK  
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FKISKAVGDKIERESTNKLYLNEGFKFLQKDDKTWYKTGEMLKATLLADTLKRIKANPHDFYNG  
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 MSEANIKDNAELIKTTHKIEALKFAFARRPLLGDPSFVADVSKVLTAMLNKTFAEELRHKIKDTPY  
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 LQNLWGYLPAKSNFIKPGKRPLSSMSPTIVTNSDGDVVMVVGASGGSRIITATALTLIRTLYLNEL  
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>TRINITY\_DN8155\_c0\_g1\_i1.p1 type:internal len:249 gc:universal TRINITY\_DN8155\_c0\_g1\_i1:744-1(-)

DPDSEECQEEEEEGGEEEEATEGEEGNSTSKTSEGGNKKKKKKKTQKKKVGVKVLGKGQRKLRNKR  
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 AIPEDCKKDKLCEWLKNKVGAEAKLTIEGTFDTNGFKIAAGITMNLALSDDLFLTEAAELELEFTKS  
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>TRINITY\_DN3655\_c0\_g1\_i1.p1 type:internal len:536 gc:universal  
 TRINITY\_DN3655\_c0\_g1\_i1:1605-1(-)

FWFHMYPHVDTLNVYKKVSGSLQLVWTRVGDNGDQWKYAQVDMTSKYSYQAVIEGVRGSSY  
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 QGYMYAEASGRRKNGDKALLVGPVLPGSAPMCLEFWFHMGRWHIGQLNVYIKTSNGGKVL  
 WRRSGNHGMQWKIGRVTVRPRSGRQVFEAIRGLSFGDIAIDDIKTVSGYCPPPGDCSFEKGMCS  
 WNNVKRTKLEQFDWILGSGDPYRFNDHTSGKLEGKYVYIESSAQGGQDRAWLISEDYFPTNGRC  
 VQFWAYMSGTNVGDNLNVYIRDQNGTNSMIWTLGSGQQGRPAKWFNGHAPIYSSGDYQIVFEAVR  
 GGSFGFIGLDDILFTSFRCNPLNSVPPVTTKAPPTTLATTQPPTPAPNYTCTNFYDYCNWHN  
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>TRINITY\_DN1030\_c0\_g1\_i2.p1 type:complete len:1426 gc:universal  
 TRINITY\_DN1030\_c0\_g1\_i2:4483-206(-)

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 AVGARGSPGSPGIAGAAGPPGTRGEPGKPGPRGLQGGQGEQGSTGVQGSVGGGRGEKGRGLTG  
 QAGVPGPPGDSGTDGRPGPPGPPGNNGQRLAGLPGSPGLPGFPGIKGHVGERGFNGPRGEKGS  
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 QGPQGRQGKRGSPGLPGARGNDGLPGRQGERGFPGESGNPGAPGRPGASGRKGPSRPGQKGS  
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 GNPGLPGPRGEKGDRGTGKGKGAAGNKGTAAGVGPQPGARGDRGPAGTPGADGEKGADGIKGE  
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 DGESKGPVVEREEDAPEDENEELPPNEVNPFYRVYQFYSSKKTTPDNDVNVNENKFKTKVEEL  
 KTEFSRIDKPDGTDYPARTCRDIHAYHPEAKSGLFWIDPNQGCKDDAIQVTCTFSVNEDDEPTV  
 TTCVDPAEQSVQRTWASKMHSRAQKWFEDDEHAKLKYANLSQLRYLGLLSKTATQDVKV  
 HCKKYVVWHDKMNRNFRDRAMRFMGTQEQEFLYKDVDKSSKSRFVPEVITDGCNSNSVAHT  
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>TRINITY\_DN6221\_c0\_g1\_i8.p1 type:5prime\_partial len:855 gc:universal  
 TRINITY\_DN6221\_c0\_g1\_i8:1-2565(+)

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 SPAIQSSRIISSVERSSSVITSSSYTAPSTMVSETTPVTSSYPVMTESVSASSVSTVVKSVSSNVGPITTSV  
 KPLSSVSSLTNPATVSTSTPSVSSSSAIKSVVSSAVVATPASSMTVYSSSSSVLKSSIAPETSTEQTVLVES  
 SSSRPGESQLLTAAARTRPSERTVLVSTSYPSSSLSSIEFTIVKSSGKPVTFTFPPVPSKTSVNSISSSQS  
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 TLRSIQSSSVVESRKESSASSISRMVAVSSSSPLITASSGMSSTILSSVSSMRPSASVVYSTVAPSLPSTTVY  
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 TKCMNYTCVEVDNPCYPSNKSQIEVSTPVCQTCPKGYKSVQNKNCPCDCVPTENVPNMCN  
 MKQYGNEYLSENDNKHGVCTSKQKYQVTGCGGFCESSVKAKLGAGIYSPTCQCCQPAQVKEHN  
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 HALLNDLAMIHVNKKRK\*

>TRINITY\_DN27058\_c0\_g1\_i1.p1 type:internal len:188 gc:universal TRINITY\_DN27058\_c0\_g1\_i1:2-562(+)

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 WFGNLVTCKWWNDLWVQEGMASYLEYYAQDYAHPEWNIIDSFIVNDWKTGISLDSLASSHPISQ  
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>TRINITY\_DN149493\_c0\_g1\_i1.p1 type:internal len:148 gc:universal  
 TRINITY\_DN149493\_c0\_g1\_i1:2-442(+)

EVKKAGVNVTKGIAICKYGRGSRNAKTRFSEARDVIGLVLYSDPREHTYPGLEYPKGWMLNKDG  
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 GGDNLNVTYRLQSGAGRE

>TRINITY\_DN4900\_c0\_g1\_i1.p1 type:complete len:246 gc:universal  
 TRINITY\_DN4900\_c0\_g1\_i1:153-890(+)

MAELTCGMKCLKMLLFAFNFIWVCGIVVLGVGIWSRIESKDWDSSLGDDGTIVNAANIMIAAGI  
 FVMIIIGFLGCCGAMRENKVLLMLYAILLILFVLEIAAGIFAYTKKDTVIEKFEENITKGVKNSYGKT  
 DKASEAMTKAVDWFQENAECCGVDGPNWKAWSWGKSKNTTKIPGSCCEKVDADTCDIKDSY  
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>TRINITY\_DN8597\_c0\_g1\_i1.p1 type:internal len:124 gc:universal TRINITY\_DN8597\_c0\_g1\_i1:369-1(-)

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>TRINITY\_DN187759\_c0\_g1\_i1.p1 type:internal len:544 gc:universal  
 TRINITY\_DN187759\_c0\_g1\_i1:1629-1(-)

FNKSPCTSCLCEPSGINCYTQPQCYLFAVPAVYQNKPIILNPAEIVTSCMYPGFGGNSGHGCCFFPY  
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 SGVQSRWREAMWEDLGNYINIPQYQTRECNTFKCPKESNCTAWSEFTECSKTCGGGLQERVRCI  
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>TRINITY\_DN18\_c0\_g1\_i1.p1 type:complete len:256 gc:universal TRINITY\_DN18\_c0\_g1\_i1:53-820(+)  
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 AFGHISGGHINPAVSLGCVVGGRISIIRGVVYIVAQCIGAIIGSAITYACTEDSNRDKLGVTSLGPNV  
 SVGQGFGLELIFTLLVFFILSATDPKKNTEPYGTTLGIGIMIVVAHVSIIPFTGSSINPARSLGPAVMM  
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>TRINITY\_DN168145\_c0\_g1\_i1.p1 type:internal len:186 gc:universal  
 TRINITY\_DN168145\_c0\_g1\_i1:556-2(-)

RCGWREAKNLDKFNWKRNSNGGTPSKGTGPATDHTTGVALGSYMFIE TSRPRREGDNALLFGPKY  
PGSKTGYCFNFWYHMFSGIGSLNIYQDSIKSKIWNRTDDQGNQWRHGRITVKSMRRFRLIFEGI  
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>TRINITY\_DN1535\_c0\_g1\_i1.p1 type:complete len:779 gc:universal TRINITY\_DN1535\_c0\_g1\_i1:86-2422(+)

MMKYFMLIVFTICLKNIHAQDKNLCTSAETCGKCLLKGGDCFWCIEEDFKFNRTRCNTEANLAA  
QGCTDYGMGRGKKTNDADLDFTSVRQVKPQKVTLEIRPEEEQSFRIQVKSADYPVDLYLMDL  
SKSMENDLDKQLTGTNIAAEIGNITKNYRLAFGSFVDKTVIPFVENDDANYKPCAECPTFSFKH  
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IAGDGRIGGIIRPNDGQCYLTEDGDIKMYTEATKMDYPSIGFLRSKLKDNAVIPLFAVTKNVTEVYK  
SIAAELKDLQAVTGILEGDSSNIVEVIRDKVREISRTVTLTDDSSPDITVTVYRVQNDPTKPNVCPSPV  
APNRCEDVEIEQTVDFDVYVKASAKNCETKEKQDQFTVNIPAFGKVEVNVKMICDCDCAKTSE  
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CNIRENPEERIDGNYCQCNNFNCPRHQNVCGGPERGSCECGTCVCREGYLGENCEGKTD CRIGV  
KKCLDAKGQNC SLNGICECDRCLCDKGYEGKQCQTCVSCPGKCEYKTCVLCKAFGETGEQCD  
GCELIQHVLVNRTNEECVVPVDENCFVIYRFEIDPVSMNETLYIQRDKRCHIVKTKPPILAIVLTIG  
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>TRINITY\_DN10094\_c0\_g1\_i1.p1 type:complete len:264 gc:universal  
TRINITY\_DN10094\_c0\_g1\_i1:1210-419(-)

MRHILKVF AVAFVLHCIDRTLSPVSPVPLLNLKLDQNVTLGFILKGLQGPPGRDGAPGSSGLP  
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MPGLPGLPGSSGPSPIRYNGTVKCEEDTAWLRCNEYKHISIMSAFWGRRNFGLC TEHTGNLITNK  
YCPTTPLFLT KVKDACEGTTMCEIRCTKFFHHDQSCLDVYKYLEVYK CIEVINGHEVVNEDNLL  
MANFLG\*

>TRINITY\_DN172571\_c0\_g1\_i1.p1 type:complete len:104 gc:universal  
TRINITY\_DN172571\_c0\_g1\_i1:30-341(+)

MSGRGKGGKGLGKGGAKRHRKILRDNIQGITKPAIRRLARRGGVKRISGLIYEETRGVLKVFL  
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>TRINITY\_DN2490\_c0\_g1\_i1.p1 type:complete len:1044 gc:universal  
TRINITY\_DN2490\_c0\_g1\_i1:354-3485(+)

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ANGDMRPTLDQLHKGQGLDEARKRHW DALNEEDEQQDAERGTSNTKT KLGWIKGVLFPTLLN  
IWGVILFLRMPWIVGQAGIGLSSVIVLLATVVTVTALSMSAVCTN GEVKGGGAYFLISRSLGPQFG  
GSIGIIFSVANAVAVALYLVGFGETVQALMARS DTYMV DATNDIRIIGLIALILIFVIAMIGLEWVIHT  
QTFLLLLLVAAILC VAVGCVYPAPQESREKALAWGLPGYKSKSFADNFVPDYRDGEEFFGVFAIFFP  
AATGIMAGSNLSGDLKDPQKA IPLGTLLAIGMTSTSYVALSWILGSFVMRDASGIIPVINVTVNGTT  
MNSHTCEIGSCEYGSVNDLQIIEKISLWGPLVLIGIFAATLSSALASLV SAPKVFQAVCKDKIFPHIEL  
FGKEYGKNGEPRNGYLLTLVISACFIAIGELNVI APIISNFFLMAYALINYSVFAASI AKSPGWRPSFK  
YYNKWCALVGFFLCIVIMFMINWWAALITIIVVAALYKYVDVRKPDINWGSSGQAHTYLKALRFT  
RRLED TDEHVKNFRLQVLCTGQPSLRPNLVHFC SHITKHLGLLVCGEVNVTDKILSPSGNEGKW  
LKKQKIKAFHQIHSATLRNGAQ SMLQSVGLGKLKPN TLIMGYLNRWQSIEVAKVDEYVHIIHDA  
FHLRYGVGILRLQDGF DITDGVVDDQIENG VVENHEPDWYTEDWDENQKDTRGSDGDGSDQA  
KEERQETFKPPDIVSAFPK KRKG YIDVWWLYDDGGLTILAPHLLALSSHWRGCKLRIFTPASDKKI  
KANQIRMANLLKKFRIDFSSVVEFRGINKHPKEDSINQFKQLRRGEHLPQDGLLDKKT LRQIRLGE  
LLHEHSSEAKLIVLT LPIPKEGMVTSLMYLSWLEVL SADLPVLM LRGNQTSVLTFFYS\*

>TRINITY\_DN6920\_c0\_g1\_i3.p1 type:5prime\_partial len:411 gc:universal  
TRINITY\_DN6920\_c0\_g1\_i3:2124-892(-)

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YKSQRKAFTKASKKWSDDD GKKSIERDLEKMKKYCTVIRVLVHTQQKLIK LKQKRAHIMELQIN

GGTVADKVDWAKKSLESKLSVSTVFGQDEMIDVIGITKGKGFRGVTFRWGTTKKLPRKTHKGLRK  
VACIGAWHPARVGFSPRAGQCGYHHRVERNNKKIYRIGRGIHTKDNKVIKNNAAATDYDITNKITIT  
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>TRINITY\_DN776\_c0\_g1\_i1.p1 type:5prime\_partial len:201 gc:universal  
TRINITY\_DN776\_c0\_g1\_i1:692-90(-)  
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RDLLTLPEKDNRRRLFEGNALLRRLVRIGVLDEGRMKLDYVLGLKVDDFLERRLQTQVFKLGLAKS  
IHARVLRQRHIRVRKQLVNVPSFIVRLDSQKHIDFSTNSPYGGGRPGRVKKRNMKKGTGGGDG  
DEDED\*

>TRINITY\_DN2963\_c0\_g1\_i1.p1 type:complete len:116 gc:universal  
TRINITY\_DN2963\_c0\_g1\_i1:1072-725(-)  
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>TRINITY\_DN61742\_c0\_g1\_i1.p1 type:complete len:349 gc:universal  
TRINITY\_DN61742\_c0\_g1\_i1:1073-27(-)  
MDNKTGFTFFVFTILLIGTILINHSRIEELKSHIETSKESVHKSRSKRDIKPDDMITLLQNADFKQYFQ  
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GNPKTLSGRWINLFTQQDIPFTKRISNDEVSITAGVEKQGQYQCLFTDGKDQVSAVTFVQKVSFNV  
RYLSKKKASILLNELAKYGRVSDFKLCFSYTGSRNYQNDINNDEVLVIRNEQNEDLGFYQSGNY  
FQLNSFLFKFNDTDNITIVASGVKQLSCFTSSTTCNANFEFKSESVSLRRYNTARNWKYSAESLQSK  
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>TRINITY\_DN564\_c0\_g1\_i1.p1 type:complete len:563 gc:universal TRINITY\_DN564\_c0\_g1\_i1:2018-  
330(-)  
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KNSKVQFQKAMEFLKNDVSCCEKILGLEQCEKLLSAKTLKENIKTVHQALVAALQKHLSKTKDIL  
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DFLLIDARNMTCEDLIKAETCQKIKDFAKKVHARASDVALAVREAIVQGAQSTQDTLKKAEFLK  
AEISCKDVFSIDTCDKIRKLADSFHVSLKTVNEAMREAIANGVTKVSDLYKAAVKYTEKWGGIFG  
DEPQIEKRSVDEKLTNIGELLKQKITKMAMDLLDMLKVTNEKIREKVKELIENGKIKITNIKEKVN  
DLLALVNSNDEDTMNDVNMIYKRSTEDSLVDLLKSIKGSQEFIEKLLKLSKDKLEQIKEWIKQLK  
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>TRINITY\_DN4781\_c0\_g1\_i3.p3 type:complete len:183 gc:universal  
TRINITY\_DN4781\_c0\_g1\_i3:2965-2417(-)  
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>TRINITY\_DN18348\_c0\_g1\_i1.p1 type:complete len:2565 gc:universal  
TRINITY\_DN18348\_c0\_g1\_i1:90-7784(+)  
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 SKAAVPTVGDNAVAYQLSNAGKNTQNALNELRVAAEKAAEVCGSLEIDNALAAVKDLEKELED  
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 VSNALNNVNCPLPGQRVVEDAIEDIANSSQVLASPHIRFPVTDEPFSQVQEKLNQSSLNLNAAAN  
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 ACKAASTKTDNPVAKRHFVQSAKDVANNTANLVKFIKVYAGDMSDPNREKCAVATEPLLEAVD  
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>TRINITY\_DN194261\_c0\_g1\_i1.p1 type:internal len:124 gc:universal  
 TRINITY\_DN194261\_c0\_g1\_i1:1-369(+)

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>TRINITY\_DN12542\_c0\_g1\_i1.p1 type:internal len:226 gc:universal  
 TRINITY\_DN12542\_c0\_g1\_i1:676-2(-)

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>TRINITY\_DN624\_c0\_g1\_i1.p1 type:complete len:884 gc:universal TRINITY\_DN624\_c0\_g1\_i1:218-  
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QLGDVEDKGEHTFNRIIAMVDPNETGYVSFQAFLDYMTREMADTDADQVMESFRILAGDKPYI  
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>TRINITY\_DN329\_c0\_g1\_i2.p1 type:5prime\_partial len:320 gc:universal  
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GKARRIVLLATDALPKIAGDGRLIGDLLQNDETCHLSPLNSDRSVLEYSSESLTMDYPSISQLREAM  
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FICSNQGICLCGVDCDFRVAAPRIISGKYCECKNFGCPKSRGQECGGDERGTCVCGQCKCKKEYA  
GVDCGNFNCTEIEGPRCTKDGVCQSNRGFCCTLGGCNCNQGYQGKYCEKCVTKNCKCNDLR  
NCVLCKAYDRDDLNTGCEYLDLQRVNDTQKTCTVQFNETCSAYYHIEIDPTQNTQTQNTVTV  
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>TRINITY\_DN16079\_c0\_g2\_i1.p1 type:5prime\_partial len:396 gc:universal  
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CEKENCSSFFSNHSVCMKHENYGSICQCNNYTYDNETRKCEDIDECVVNNPCNLTTQYCVNVI  
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DIYLSGTSKPNEVLTELNDIASGDMKGLDIDTQALASIEVTRTCALGNDECPTNSKCISGDGFDY  
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DYVVEFFSNSILMSNKTIPVGNTLDICSPSVVNASGVIVFAIYMGRYNGEKSIVLSPLLTTPPTTTTT



ATPETTPKGGGSFAADDDEGSSTPMIIGIVCGIFFLLLLLVVLVAFLVKRKKKNDDDDGTKLSNATED  
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YSTTVNRDRSRHSLSADIEDNSEVIV\*

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FKHLPHKDVKKTA VYVGATAGMRLLCERDKDSCDKILEAIRRVLNGFKFRQLKNRVRVLTGSEEG  
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NITKGDMMVEDFKTKGEKLCQEDWNKVVREHEDVKKKYLRNYCFEALYSYMFLTYGLNFPPNSN  
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>TRINITY\_DN1386\_c0\_g1\_i1.p1 type:complete len:596 gc:universal  
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KNVVENHIQDIQVHYTFKKLQLLQEPVICVAVFYILFLSVIILVRLDFSITKDAAKESRMKVASLLEE  
LLSSCGRRGSLYYSYDSAIDKLKQNRNQNDFAVSLKKNQDYNLTQTSINELCSLLIKEDPEIGDKV  
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>TRINITY\_DN144214\_c0\_g1\_i1.p1 type:internal len:154 gc:universal  
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>TRINITY\_DN11435\_c0\_g1\_i1.p1 type:complete len:430 gc:universal  
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VAVTVTGVAQVKVIKEDDLLKTACEQFLGKDPHEIEDILLQTLEGLHRAILGTLSEAIYKDRDQF  
AQLVREVASPDVGRMGIEILSFTIKDIVDEVS YLDSL GKTQTAEVKKNADVGVAEANRDAGIREAE  
CDTQRQDVRFKADTTIADAARAYEMEKAEFDKEVQTKNAEAKLAYELQANKEQQRIRNEEIQIE  
VIERRKLIEVEEKEIQRREQELQATVKLPAAESYKVQTIAEANKSAKVYLAQAEAEKIKMIGSAQ  
AAAIEAIGKAAEAERMQRKAAAYKQYGDAAALMSLILEAMPKIAAEVAAPLRKTEEIVLINDDNGN  
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>TRINITY\_DN144508\_c0\_g1\_i1.p1 type:internal len:265 gc:universal  
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TRGNAGTASWGTGPRTDHTYGTKQGIFYMYEASTPRSKGHKAWLKSEEYKPTLGRCLSFYWHMF  
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DVMISEGP

>TRINITY\_DN3655\_c0\_g1\_i2.p1 type:internal len:494 gc:universal  
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QGYMYAEASGRRKNGDKALLVGPVLP GSAPMCLEFWFHMARGWHIGQLNVYIKTSNGGKVLI  
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WNNVKQSSLDQFDWVLGNYPARQGDHTSGTIAGKFVFARSSSKGKGERAWLISEDYPTNGRCV  
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GSYGSIALDDILFTNFKCKNLPSGSTPPVTTKPPPTTLATTQPPTPAPNDYTCNFTYDYCNWLNS  
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>TRINITY\_DN113\_c2\_g1\_i1.p1 type:5prime\_partial len:1207 gc:universal  
TRINITY\_DN113\_c2\_g1\_i1:4425-805(-)

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QVVNDKITRKTSGSSKNPAVTCADLFKNHHIGSGDYWVDPNEGSPDDALLVYCNAENNETCIY  
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>TRINITY\_DN66856\_c0\_g1\_i1.p1 type:internal len:443 gc:universal  
TRINITY\_DN66856\_c0\_g1\_i1:1327-2(-)

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EQLVWSLSGNQANSWKYATVSLKSRKGFIMVIEAIAAGGGHKGDIADIDIVFGRRFCAISPPEAKPT  
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>TRINITY\_DN6304\_c0\_g1\_i1.p1 type:complete len:348 gc:universal  
TRINITY\_DN6304\_c0\_g1\_i1:1626-583(-)

MGCCRKRAPEEEDQNKSNRPSDSKFKQQKLPWQPILTASTVLPLFFFIGIVFLPIGITLLVTSNNIK  
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DNQLHGELVDSVNSDCKPFDKDGNGTIYAPCGAIANSMFNDTFTLVKEDSDQEVPLTSEGITWDS  
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TRINITY\_DN2356\_c0\_g1\_i1:194-1003(+)

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LAESRQESRSIFAGPLSLDNQNKPKTYMQLTGRVLLLLMYLTLLKFDMSLFHIVFNLLGTVLIMLV  
VGYKTKLSALVMVMFLMMINVYENAFWMIPQWKAMRDFLKYDFFQTMSVIGLLLLIVAFGPGG  
ASLDEKKKW\*

>TRINITY\_DN7674\_c0\_g1\_i1.p1 type:complete len:661 gc:universal  
TRINITY\_DN7674\_c0\_g1\_i1:117-2099(+)

MDYYASEKKGLVVDWLIACYFVICLGLGIYSKFRRKQDESAESYFLAGRSMWWAVGGSLYAS  
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 YLTVVSLISYVTTKIAVDIYAGGLFLKTAVGLNIYVSSIILSFTALYTLLGGLTAVIYTDVMQCVLMV  
 FGALALTIIGFDKIGGINALWDKYPFAFPLTTLATNGTIVSAALTANTLNAANSVTSNSTAASYDA  
 HCYQVDPYWEHMFRRPFDDGEFPWIGIMFSAPITGIWYWCTDQVIVQRTLGAKNLANARLGTIVA  
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>TRINITY\_DN738\_c0\_g1\_i1.p1 type:3prime\_partial len:338 gc:universal

TRINITY\_DN738\_c0\_g1\_i1:1011-1(-)  
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 YEIGRDGGYGEWGSFGLCSVTCGEGTSKRQRKCDNPTPLANGNKCDVLGSSNELKKCERKPCIV  
 VTDGGGFEWSSFTCSKSCGGGVQYSVRKCDNPKPSNGGKNCVGDTRRTRQCSTNSCPPEKVDG  
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>TRINITY\_DN2796\_c0\_g1\_i1.p1 type:5prime\_partial len:521 gc:universal

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 MVNTVLAESLKGFDVSQQEALDKKMNELDGTPNKSGLGANAILGVSLAAAKAAAQKGKIPLYR  
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 KKKFGGDATLIGDEGGFAPPCDARGGVELVMEAEKAGYKDQCRIGMDVAASEFKVEGKDCYDL  
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 DLTVTNVTRVQKAIDEKACNALLLKVNQIGSVTESIAAVKLCKGSDWGVMCSSHRSGETEDVTIA  
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>TRINITY\_DN5\_c0\_g1\_i15.p1 type:3prime\_partial len:578 gc:universal

TRINITY\_DN5\_c0\_g1\_i15:1731-1(-)  
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>TRINITY\_DN2885\_c0\_g1\_i2.p1 type:complete len:114 gc:universal TRINITY\_DN2885\_c0\_g1\_i2:31-372(+)  
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>TRINITY\_DN17714\_c0\_g1\_i1.p1 type:complete len:644 gc:universal  
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>TRINITY\_DN250\_c0\_g1\_i6.p1 type:complete len:452 gc:universal TRINITY\_DN250\_c0\_g1\_i6:131-1486(+)  
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>TRINITY\_DN20282\_c0\_g1\_i1.p1 type:internal len:202 gc:universal TRINITY\_DN20282\_c0\_g1\_i1:3-605(+)  
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>TRINITY\_DN6049\_c0\_g1\_i1.p1 type:complete len:156 gc:universal  
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>TRINITY\_DN3332\_c0\_g1\_i1.p1 type:complete len:336 gc:universal  
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>TRINITY\_DN8926\_c0\_g1\_i1.p1 type:complete len:307 gc:universal  
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>TRINITY\_DN163801\_c0\_g1\_i1.p1 type:complete len:298 gc:universal  
TRINITY\_DN163801\_c0\_g1\_i1:55-948(+)

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>TRINITY\_DN124859\_c0\_g1\_i1.p3 type:5prime\_partial len:237 gc:universal  
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GLAGRAALQRSAGRHLRLRIARAGLREARGDDQRGPFGRILPEGAALHRQMHQHRLRDEDHA  
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>TRINITY\_DN141338\_c2\_g1\_i1.p1 type:complete len:720 gc:universal  
TRINITY\_DN141338\_c2\_g1\_i1:2850-691(-)

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HSQFIGYPIYLETQKTRDKEVSDDEADEEESTDKKEDENEDKEDDGPKIEDVGDEEKEKEKKKKKT  
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MERIMKAQALRDTSTMGYMAAKKHLEINPEHQIMIALKKKIEADKNDKSIKDLIILLYETSLSSG  
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>TRINITY\_DN2532\_c2\_g1\_i1.p1 type:internal len:466 gc:universal  
TRINITY\_DN2532\_c2\_g1\_i1:1396-2(-)

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>TRINITY\_DN1214\_c0\_g1\_i1.p1 type:complete len:752 gc:universal TRINITY\_DN1214\_c0\_g1\_i1:19-  
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 TRINITY\_DN72753\_c0\_g1\_i1:95-505(+)  
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 LPFQRLVREIAQDFKTDLRFQSAAGALQEAAEAYLVGLFEDTNLCAIHAKRVTIMPDKDIQLARRIR  
 GERA\*

>TRINITY\_DN49617\_c0\_g1\_i2.p1 type:internal len:100 gc:universal  
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 CNRQCCGPARSFDLKILDNNNQEVHLNRPLRCATCCFPCCLQELEVTSPPGTPIGYVIQKWSLCA  
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>TRINITY\_DN20671\_c0\_g1\_i1.p1 type:5prime\_partial len:1266 gc:universal  
 TRINITY\_DN20671\_c0\_g1\_i1:4791-994(-)  
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 QPTHKNPCENSGCKSLCMISPGGTSYKCGCADNVHLGSDSKTCFSNCTTGQFKCNNHICISKAW  
 YCDGEDDCGDNDELNCKERKCKPDLFQCDNGDCTRRFYVCDGENDCRDNSDETDCHSRQCFS  
 FQYRCKNHNCILHNLKCDQKDDCGDNSDEEDCKKSTECSSSSFRCEDGECITKYWKCDGEYDCA  
 DRSDKEELCKNTVCKPGFFKCHNSSKCISEHHVCDGDRDCSDNSDESIETCSNKTCTQSQFLCD  
 KKLCLNGWKCDGDQDCSDGTDEKDCKVPTACHSSEYQCKNGECINEQWRCDGDNDCGDND  
 EGHLANCTKSMCSRNNNGFQCEKSAICIRRKWRCDGETDCRDGSDERDCSYGKRDCNPNEFTCK  
 DQSGCIRSDWVCDNTTDCLEDESDEGYEFCSTHECNPEKQFRCKDDYTCIANRYVCDGQSDCND  
 GSDEKDCRPSCQWTFDKCGDGTDCIDGAKRCNFYQDCKNNKDEEGCGRAENPITCNGTRGHRLC  
 NQLRCSPIQNNTYIKCHCDEGYKVVDSECVDVNECIEESSTCDHICVNLQGSYECKCAKGYKEY  
 NFCKAKGDPSILMLPTADKIMILTHHSSPRPTASYFDPTDTSWPHMGSFDFDFGYGSIMLVIADSK  
 RQHSLTGYLKENFFRVGDPARRKRRTSEPIYEQSFKKTGMSPDHVSIDYINNNTYFADQNPNNRG  
 IFMMNLLNTLWIKKVIQLFRKVTGLTVNPDKGTLYWCEDAFEPIIYQANMDGTQVRSFVDNKL



YPVSLVMDIPSQRLYWADYKKNSESMSVDDTDEKTRMTVINQRSFPTLNRPI SIDVFEGYVFGVM  
NVTGTLFKVDKFRVRRHTPKGSEKTKPKYEDYVLKADIQKITKLRIYQQNRQQAMASASPCSTA  
YCPQLCVSLYEKPSKSLQAKCLCQSSGSAVQSDCKKRNCDRSCNGNGECREVNDRYTCSCDK  
GFTPETNCKTGINDQCMCENGGECHKGMQCICPKGYHGKLCQHSCDEFMVRSNCVNGICHYD  
DTNDKLMCRCKEGYSFSIEANLCEPVCNLTCPAKYTCVINRNGMPSCNCTTDDCETKTNPVGSIS  
KTMTVVVPIIIIVIIIVCIVIAVILKRLMRNKFAPYKMEIETENPAFEYRYFRNNVHDDSMPESDREF  
FETKNFANPYAFEDQYEQSAFDDNYAEDAALVRDDDD\*

>TRINITY\_DN101992\_c0\_g1\_i1.p1                      type:internal                      len:139                      gc:universal  
TRINITY\_DN101992\_c0\_g1\_i1:414-1(-)  
AERYDHHSGIVESMDSNKSNDLKLRLPHPPGRSRNKLGDMLADFWQNEGMDKIEFKYNI  
YLSYPEKPSTILLFGGAKTEKYTIEAEPVDESEKGGTPVVPFNAFSANDIVKAELFVNHCRESDF  
DEVKKAG

>TRINITY\_DN191650\_c0\_g1\_i1.p1                      type:complete                      len:239                      gc:universal  
TRINITY\_DN191650\_c0\_g1\_i1:957-241(-)  
MRGKGATCIRYLLFSFNVAFWLAGACAVAIGIWMLFDPGRFDDYLGKYSFVIPASILIGAGLFVFFV  
GFCGCAGAFQEKKCLLGTFTMLVLIFCVEIAAGVLAFLFRHKIKDEITKESQEVVKLKFGTGDPKI  
DHAVNLVQQELKCCGAKSGDDYKTSRWKDNQLATKTVPESCCSDPSKCTKVTQTQYVYKQGC  
DELVEYTKENLMILGGIGIGLACIQLFGMCFACCLFFSIED\*

>TRINITY\_DN21554\_c2\_g1\_i1.p1                      type:5prime\_partial                      len:348                      gc:universal  
TRINITY\_DN21554\_c2\_g1\_i1:2-1045(+)  
WYKANYGASGYIVNYEDENWIQLLNIFNTDHLILSAVDRANILSDLTFIENSGRRRINLTLEFTKY  
LKKERHYIPWEMGIKQVELIESVFRETEIGTCLKGYILDLTSHVLGELSLYKNHSFLEQQLINVLVRK  
AVHYGKNDIIIQLQNLFLKWLIAEGGSELPSNLRVILRVGVENGNSNIWEKLLSILKTTMSQNDR  
GLIIDALASTKNSTILQRMTNKITGISLLGESGYIAGLAKVCSNKYGRDNAWRDIKNNWNWISER  
NSADEIKYLVESCFSLGPNIDAAYLEINLEKLDDLLDNYEIGPFKRSLYQVKEKMMRTIEFRKRKDEI  
AEWMEINMPGCFL\*

>TRINITY\_DN72625\_c0\_g1\_i1.p1                      type:complete                      len:1964                      gc:universal  
TRINITY\_DN72625\_c0\_g1\_i1:173-6064(+)  
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ENGNRLGVVITYSETAEVDFNLNEIYDSQYGREALTRLSVRPREFKTNHYAGLKVGSDLLFNKAA  
GARDNAAKFLIFTTDDGRNNFDETNNRNRASQLATQLKADGVNIYVIKAEVMSDNNGRDLSRLYS  
TDPNKFYRFINRFGITNENFLDEVGLEFCELVQLPDNQQATVREDRNI GTLVTTIRAPGLNNPTFE  
LIPQDNLPFIVDPLTGEIKTIGLLDFEQVQQYVFQVRVRATNP DVEKIITVTINVLVDVNDNDPIPET  
NYRMSVAETTPGLQRILTVKANDPDGGTNGNVEYFLISGGDGKFEVDQATGEIRLIGQLNKRIKD  
TYLLTLEARDMGIPTRKAPITVAIDVTSLN NFPPQFNEMSFVRTIPENFGAGTVINAAATDRDGD  
MVYSLIGENIPFSIDQNLITVSGNIDFETIPNNVFQFQVQAEANGDLVTQDVIITITDINDNVPVYS  
MTTYSGSINENSAAGTVVNFNDNVIIATDADKTNANNMITYNIIDGNDGDRFQVTKNERGEAVISL  
KSTPLDQETQGGYRLTLQAIDNGVDPRSLEMNSLLIIDVIDQNDNDPIPEESVYSIAVAETSPVGQSI  
LTVRANDADSGMNGKVEYFLISGGDGKFQVDQATGQITLIGMLNKRVKESYTLNIEARDMGVPT  
RNAPITVNI DVTSLSNLFPEFAGAGDAFERTIPENFGSDTVIKAAATDGDGDMVFYSLVGDNL PFA  
IDQNGMITISGSIDFETIPNNPIRFQVKA EANGDMTLKDVVITITDVNDVTPEFTQQVYAGKIEENS  
QTETVVRFDQPVIATDGDKSPANNVVTYRIVDGNVDNIFKIVKNAQGEAVISVNNAGLDREILNQ  
YTLTIEAKDNGVDPGSLSTTQVIIDIEDVNDIPPLINTSENKAVGEADFTATISEDSPIGTSVVKVEA  
TDPDSNNDLIFTIANDVPVPFTIDPKTGLITVSGPLDADDQDEFI AVTVSDGVNNSTAIVKV NIA  
DLNDNKPIFTTDTDRDITIPLDTPNGQEIIKFTGSDADKTSPNNQFEFSLVDGDGKPF TITPDGSLIIN  
GPLMPGDYMLTVKIMDKGTNPGLSNVVIYNVKVVD TNDPPTFQNN EQTVTISENTADGTDVITF  
AATDPNGDAITYEIVNPGSVPF EIDPITGVIRKMGLIDFESPVRSYTL DVKATDAKGKSTMGRVFVQ  
ITDFNDNTPTFGPGNTDNFILTEGVYSNQLVSSFTATDLDATSPNNVF EYTLVGAPSMFLLTNPNT  
GAADLTVNGDIDAEQNMSFNFIIRATDKGNPALSM DYPTITVGDINDNAPVFAANTPESIDLME  
GDFNNQIVATFTANDDDTTAPNNLVDFELVGAPDFFKLIVNPETGTADLVIDGNVDIDGLDPTINF  
IVRAKDGGNPALVKEFPLTVNIADINDNAPVFTLEAYNQVINENTPIG TKVVEVRATDS DSGPNG  
DITYRIVDGDGTFGIDPKTG DITVLKNTDFESGVRSYEFTVEASDNGNPKQSATAKVKIDIRNLND

NDPIFTSIPITGNINENRPAGSVVQNIQPVNGILNQNNVKILREPPPGAQETEGVGFDAPFEIDPVT  
GEVKSTRPFDIEEEKVFTMMVQAADGDNNPMLTTMTVMVNNLNDNDPIMKKANFEITLNQDT  
PVGTFVLQVQATDIDQENQTKITYSIINIDGGNMNDFTINPDTGVITLNTDLSMNTVDIYNITIQA  
DQEIQGVIRRSTALAEIKILRPAAEAPDISTLCTNSCDIPEERLKCLDYSKFEITRKFNCTCYVDKLKA  
AIADVKNNTMEIMNLNASFLECRNKVQNEITNPNTQFPVNGLFDLHRKCTVAIECKLEQLAFNL  
MRKTTELTTNNLKAEEEGFSMYDMSLSAFFQHISKMVSMSSSRVD\*

>TRINITY\_DN1628\_c0\_g1\_i2.p1 type:complete len:556 gc:universal TRINITY\_DN1628\_c0\_g1\_i2:81-1748(+)

MADINVAGLISIIIFYLAILLIGIFAAYVKNRKQAEAQTNQEKTNEVILAGRNIGLFIGCFTMTATWV  
GGGYINGTAESVYTKGLVWAQAPWGYATSLAMGGIFFAKKMREAHEYITMLDPLQHRYGKYMGA  
VLYIPAFLGESFWSASILSALGATLSVILKLEMNLSVIVSACIAVGYTFFGGLYSVAYTDVVQLFCIGIG  
LWLTVPFALTNNFVENISANNHLWLGTIKSNEAGKWIDYAFLLIGGGIPWQVYFQVRVLSKSPGR  
AQVLSFVGSFGCFLMAIPAVLIGAAKTADWDKVNITDADLVVNGTLTDARLVLPVVLQYLSPA  
WVSFIGLGAISAAVMSSADSSVLSASSMFGYNIYKLLIRPKASPKEIVWVIRAGIVCVGIFATSIGLTV  
KSIYILFHLCSDLVFVILFPQLVGAVHISFVNTYGSVAAYIVGLFFRLTGGEELIGFKPLIKYPFYNNN  
HQNFPPRTLAMLLSFATLLGVSWLSNYLFDNGYVSEEKDYLGVLERRDKNKRRNAEDVLMTEVY  
KKREEDDVHYTKNGKGMPNHEDM\*

>TRINITY\_DN21554\_c1\_g1\_i1.p1 type:3prime\_partial len:650 gc:universal  
TRINITY\_DN21554\_c1\_g1\_i1:1947-1(-)

MFPNNALKQQLFYHHYMFMTKKDDDDNNIESETNDEEDNQEGEEDSPVNQLFPKKKSNVNSTS  
NHYFTIPEFLSFGTMLLFIAGVALLASYQSFTKKKVDDIHFNVRLMDIPENVIYDEVKLPKNIKPL  
NYVIYLYPNLEFRNMTGVVKVTFQCIENSTDIVIHSSKHSVNRIELKNMSGGNIETNIVRNEKRGY  
LILSLKTALVSSLKYDLFLGFYKLTLEYNPSGGVYLSQYLDVEMKTNLILTSMFEPFARYAFPCFDEP  
NLKAVFKIIVRHNSSDGYKAIANMPVEKRITVTETDVETHFEQTPLMSTYLIATVCNYGYKETYSK  
YGVPIRVYAPKDRLKEVDFAIKVAPLALDFYVDKLGMYNITLTKLDLISVTDLISSGEENWGLINLQ  
EMYVLYNENITSSDWVPNIATSITHEISHLWFGDLVTPTWWRDMWLKESFAEYMEYLPINQYFPQ  
FDLKTsfyKTNVVRAMTTDLGNYSHPLFTDETPVILETYDDITYLKGVAISMLSDFLGDEDDFF  
KGINYLLKEHEYGNANVTQFWQAISAAQNNTNIAEMMNQWTVKTSFPLITLKIEKGKLYTKQER  
FEFSKVNNESSFWHVPLLVGFQDNDIIFRHLKNLSDSYSSLQNKPSWYKANYG

>TRINITY\_DN86076\_c0\_g1\_i1.p1 type:internal len:210 gc:universal  
TRINITY\_DN86076\_c0\_g1\_i1:628-2(-)

IAQNAIHDSDWQVGHTKIFLKDAQDQELEIKRDRVVTAGVVLIQKTFRGHRYRKQYVKLRESTIV  
LQKHWAFTAKRRYKRMVRGFERLQAMVRSRQLHSSYKEMRVRIMAFQSRCRGYLARREFKIKL  
GAIITIQAAFRMVLGKKKVMKIRQERMIQAEAERVRRREEEARLRKKLGAAEAQRRANKAAEERA  
NVLHMQMQQNALKEKQ

>TRINITY\_DN16533\_c0\_g2\_i1.p1 type:3prime\_partial len:396 gc:universal  
TRINITY\_DN16533\_c0\_g2\_i1:1185-1(-)

MEEEKIEDTVEARLKKIRQRNIEELQNEYMKRCLHVDWKLGPLRIYLNPLTTIVSALVIWGLVIYCI  
EKEEANSKFAILNEWITLRTWLYVGTQDVWAVFVFWLYFSKYGSIKLGRDDEKPEFSDGTFTM  
LFSAGIGIGLFYFGVAEPIQHYSSPKGYKSNRYFNRYNMNVQAQDAINVTLFHWGVHGWIVYVVI  
GLLLGILCYRRGLPMTMRTCFYPIIGDKIFGIMGDIIDIFCICTMFGVCTSLGLGVIQLNSGLNRLNS  
DIAENNDVRVVIWCVTAVATISVISGVKVGIRRLSEICFGLGCLILFICTFADDTWYLLNLFQSTGY  
YIQWIIQLGFHTDAFAQLGIAPDGKENPTWMRNWTIFYWGWWSWAPFVGMFIKISPG

>TRINITY\_DN33467\_c0\_g1\_i1.p1 type:5prime\_partial len:243 gc:universal  
TRINITY\_DN33467\_c0\_g1\_i1:788-60(-)

LGAGSDYYAFYKFVGIPSIDISYRQKDLDNKFNTSYYPMYHSLHDTIHWVENFVDKEYKIHITAGK  
VAIQYLLQLADLPLLPRTKKYGEVHRVVKIVNKFNGTKVKGNESMHFLFTSGLLSMKMNEL  
DDYLSVVKDKPSEMKLRLVNDKLMQLEKGFTYPNGLPGKPQHRHYIMISSSSAVDSEYPPPGVC  
DLLPKINETDTYKEIRKQISITASLLDGVKIHLQRYLKSPLPYTPDVN\*

>TRINITY\_DN15542\_c0\_g1\_i1.p1 type:internal len:195 gc:universal  
TRINITY\_DN15542\_c0\_g1\_i1:584-3(-)

[illegible]

>TRINITY\_DN794\_c0\_g1\_i2.p1 type:complete len:250 gc:universal TRINITY\_DN794\_c0\_g1\_i2:72-821(+)  
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VGCVGAATENSCLLLLHFLLLFLIFVLQIIACVLAYVNRGKVEDGLESDFRKSIKEYGEPEYEAVT  
KVIDKFQNEFKCCGFSSYKDWMSKYNNKRTASIPKSCCIESQKESKLCGSPNPSGLLVYEKKGCYN  
EVLDFLKENLLVVGAFALAMAIVQVFGLIFAIYLYILVVRANKGTFA\*

>TRINITY\_DN14729\_c0\_g1\_i1.p1 type:complete len:698 gc:universal  
TRINITY\_DN14729\_c0\_g1\_i1:45-2138(+)  
MKDVYIKRFAALFTVLLIFQECNGLLKNHLVQNVNEAKDVYHDKSAAVAVSRQKRAIFGGILIG  
LSIASAGIDIYKQVRGCKEVTPELEPKIEQAKRMQKNLISYKDSVNLAWVPAESKEVYAQRLASDM  
VVLRESITFFKATLVDILKLLDQNILDEMNRKLTDLENDIENNKDVGVENFEQLEQKFFTKTQFAL  
SLTFKLLPVAFLGGKFIYSKIVKNFARETASDWAQRNPGKVKKMLGNAAERAGKMKSWTKAKIN  
SFKNGLKAKWGSFKAKYPRFTNGLNKLTSRFGQFLSRNMGKIKAGCKALAKGLVVALFVGIEIW  
NLVKFINGCKENLKKVNNAIESLSNGKKELDVIKSKIDRLQRDADKYWGLMKGNITSDGYLNVV  
AEVAKLGENAKDQTTEIVKASKEIRRYVNEIKNAGVEKTDDLNMVISAFRKINYKLDCLYSKTAI  
VADLIDNCAIGWGKNEELYKRAKDKQKKITDDCIKGKYMMDKNEVLRMMRGAMELKKKQTCIR  
NNPAKTIVCEKWDVSDILKVVSDLTLDVKYMSVCPPEVVSQKLKDEICMKKNQDLITV  
DEIRKQLHKYNQYKVAAYFTCQLSSSVNDICNSKSGYDFNHVYKKYNVFSKIVKTAFDGCK  
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>TRINITY\_DN51907\_c0\_g1\_i1.p1 type:3prime\_partial len:421 gc:universal  
TRINITY\_DN51907\_c0\_g1\_i1:1262-3(-)  
MITRGVTSITLQLQDLQRNFNGSYKCIKNLLGKREKILTIVFDNPDPPINLKTESSTSTSILVTWES  
PIFIGNSPITNYTVYYRLSNESIVINRTTALYFNLTLPVPAQEYIIKVMTSNRYFDSDFSGVIRNTGE  
AVPGEPTNFSAKHNNQSQQLYLNWDTPNPTNGMVSSYNYCYQMTGEKAWICKDTTNDNSTMI  
NIKNLEKYTLNVKQVARTSAGFGNFAVLNDIRTREEVDPDNVCGIRKYIESRKIIVRWKPLNFKFG  
ELRNYKVDFKNDSSDYFNICDTLETSCITAKYILPFQKYVVRIETRNLYFSNSTTIAVTTQAEPPP  
APSESLPAPSDDYVKEKHFTIKLVEFNESNGPIQKFDVIVVKRENSSPVDSPPSYTNNDIASGVNG  
LYIALRKNGAPKQNQEVSQ

>TRINITY\_DN1850\_c0\_g1\_i3.p1 type:5prime\_partial len:164 gc:universal  
TRINITY\_DN1850\_c0\_g1\_i3:659-168(-)  
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KVLILKVNFGWLIRSLHRWSSSLMVLAILLHISRVFLTGGFSKPRELIWVSGVLLSVASVSFGVTGYS  
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>TRINITY\_DN32804\_c0\_g1\_i1.p1 type:5prime\_partial len:746 gc:universal  
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NELPSWLHFDYKKKRLLGVP TKQDISNGLKIEFHVKNNNEALNGDRQPNHYITIDVYQPF RDPLKC  
MNSEAASIASIIFNSDIEMDGLGRVELIKNIARAFGKRKKELFFEAGNRMDSTDSLANSVQVAG  
PGDKVVEDSSGFTVSFIIRCSDITGSPEVASLKGSLQQGDFRSLSKESVLGWVSTSKTNRVKRAVG  
VGGTPGVKPTAVQGTPVLPSSSISAKSSVMVKPTPSKSVEIVMSSTAVATTETPTTETPATETSSTEA  
PATKPVTTEEISTEITSTESSTETTTPELSTTDSTTEPPTTMKATTTEDRSTPAVPSGNKPPVKSGEIG  
IIYLFENQFFLERLELDLSDPNGDELTVELRHIQNFEGGERETKVDKGNWIEYKNKMLYFSPSAK  
HVGSHRFSLVATDPYYESVKALFEVRVQKDQSYKYVFNTLDMDYAALSNDVEAKFELLNLANA  
LDLESYNELRAVRILPGSVIVQFSPEELKSDCNDPKIEAFKNKLKSEFKEKFAPSRYRLDVGATER  
QECVSQPIEDDSEGLVQHILIPHIIVVIVLIILIVLCCVCRRKRKYNKAPINEDDKLYLNHKKPIIFQEE  
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GA\*

>TRINITY\_DN7849\_c0\_g1\_i1.p1 type:complete len:251 gc:universal  
TRINITY\_DN7849\_c0\_g1\_i1:1417-665(-)  
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NERKTIAIDNLQINYKCCGDVDYKSWERSDWYKQNTGNPVPDSCCITPSTLCGKRVHPSNIWRN  
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 >TRINITY\_DN99404\_c0\_g1\_i1.p1 type:internal len:112 gc:universal TRINITY\_DN99404\_c0\_g1\_i1:2-334(+)  
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 >TRINITY\_DN129928\_c0\_g1\_i1.p1 type:internal len:154 gc:universal  
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 KGQVADSETGIGIPKAKISVEGINHDIKSVSNGDYWRLLLPCKYVVTVKAANYETIMKGGIIVSKE  
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 >TRINITY\_DN76789\_c0\_g1\_i1.p1 type:internal len:381 gc:universal  
 TRINITY\_DN76789\_c0\_g1\_i1:1140-1(-)  
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 NTKTSKDKSVNKKASSDICSYSKEAQRINLHDFLHNVSSEYFNMFPEEIAWHPFADTQMIVKRFV  
 VHDPRANIKRITDKAKSLDQGVGLKADLSKLKPREHKAYLQVLHFLESTFGASYLNYTAGLWL  
 MGPSGFCSEPICYVEYSIYNALGSMVIYKQKDIDNLMFHLKAFNESIFNYIDVLNSGIKKGMVVRTK  
 VECVAGINALKGKHQNISEFGGEGIRVEWYGERFFVSSFYQNVTKELDAQSIKKYGKNVTQYIKDS  
 VIKYIGRSLVHLLKYLENDHIRYCRPNDIGPGGLSALPLDFVYLDGKKTNE  
 >TRINITY\_DN4295\_c0\_g1\_i1.p1 type:complete len:245 gc:universal  
 TRINITY\_DN4295\_c0\_g1\_i1:1031-297(-)  
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 AITVTLCSTITPIYVLVKLQESNLIIMLISRFLQVFENYRNIGHTGQLSMITILLVFFGGIARIFTTIQETG  
 DWLIASQYMLSTMNAILLAQILWYWNAAKVDEKKTQ\*  
 >TRINITY\_DN63421\_c0\_g1\_i1.p1 type:internal len:278 gc:universal TRINITY\_DN63421\_c0\_g1\_i1:1-831(+)  
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 TCLSTQYACLSGECIPKHWKCDLENDACDGSDESARICSTCPPNRFRCS DGRCILSSYRCDGEFDC  
 TDKSDEANCTAPTASTCSSDNKIVCPNGRCINKNWLCDGDNDQCQDNWDEDPKQCPNKNITTTV  
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 >TRINITY\_DN1280\_c0\_g1\_i1.p1 type:complete len:426 gc:universal  
 TRINITY\_DN1280\_c0\_g1\_i1:195-1472(+)  
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 KSVFEVASSDLVNMGISVISYTLKDIRDDEGYLKALGQRRIAEVQCEARIGQAMAKMQSGIKEAQ  
 AEEVRIKAEYENKTEVARSRDFQLNKSAYDIEVNTKKATSELAFALQSAITNQKIKEEDMQIKVIE  
 RAQAINVQLQEIQRREKELEAQIRKPAAERYKIEKIAEANRMKVVLAEAEAEAEAEAEAEAE  
 VIQKKATAEAEQMSKKADAWRDYQEAAMVDMMLDTLPKVAEIAAPLSKVKKVTMISSGSSDV  
 GAAKITGELLDIVIRMPQAMEQLTGVDITKTFRREK\*  
 >TRINITY\_DN1172\_c0\_g2\_i2.p1 type:internal len:264 gc:universal TRINITY\_DN1172\_c0\_g2\_i2:790-2(-)  
 GDYGFVKLTSSDPAEKEKKLAAELANGLAMVAIIGMFFQDGLTGSAGWDWALYTASPLRFFGG  
 DSGPSYKAFDPATELGVEPLGFWDPLGFTSDNDEAAFKRRRSVELKHGRVCMAASIGYIVPNYY  
 TFPGLSPSAGVKFADVPNGLAALGKVPALGWVQIIFFAGIVEGAFGFDDYKSGAPGDYGWKVL

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>TRINITY\_DN172717\_c0\_g1\_i1.p1 type:internal len:213 gc:universal  
TRINITY\_DN172717\_c0\_g1\_i1:1-636(+)

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>TRINITY\_DN45008\_c0\_g1\_i1.p1 type:3prime\_partial len:388 gc:universal  
TRINITY\_DN45008\_c0\_g1\_i1:1161-1(-)

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>TRINITY\_DN5397\_c0\_g1\_i1.p1 type:internal len:161 gc:universal TRINITY\_DN5397\_c0\_g1\_i1:2-  
481(+)

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>TRINITY\_DN71928\_c0\_g1\_i1.p1 type:complete len:202 gc:universal  
TRINITY\_DN71928\_c0\_g1\_i1:73-678(+)

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### Band 3

>TRINITY\_DN982\_c0\_g1\_i3.p1 type:complete len:9852 gc:universal  
TRINITY\_DN982\_c0\_g1\_i3:29697-142(-)

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>TRINITY\_DN244\_c0\_g1\_i1.p1                      type:complete                      len:3019                      gc:universal  
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LFARSWEVRGISLNASYLNDVMTPLVGLNSAVGTD F DALSEYVYFSDVKTDKIGRTFIGNDK  
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TRINITY\_DN2113\_c0\_g1\_i2:5257-146(-)

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1405(+)

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>TRINITY\_DN4815\_c0\_g1\_i1.p1 type:complete len:595 gc:universal TRINITY\_DN4815\_c0\_g1\_i1:79-  
1863(+)

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>TRINITY\_DN4595\_c0\_g1\_i4.p1 type:5prime\_partial len:1639 gc:universal  
TRINITY\_DN4595\_c0\_g1\_i4:5857-941(-)

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>TRINITY\_DN942\_c0\_g1\_i3.p1 type:complete len:5105 gc:universal  
TRINITY\_DN942\_c0\_g1\_i3:15631-317(-)

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 KKLQCGKVTKQCKKLFENPKSELAGFFNIINAEPFIKACERDLVSCEKSKEAKHCSSVNAYLSMIKS  
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 LQRFRRGAHKIFVMFNSEPHTSHKYGATLKEAIFTLEKESHASLFFVDEINFKSLNKKGLTIGQTNS  
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>TRINITY\_DN6542\_c0\_g1\_i3.p1                      type:5prime\_partial                      len:545                      gc:universal  
 TRINITY\_DN6542\_c0\_g1\_i3:2-1636(+)

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 PGDKQKFTELCKELLEAFVEDAKTTGTERLLLTSAVAAGTSTIATAYEISELTXYLDALHLMYSYDLS  
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 GYGSPGKYTKEKGFISYYEICEMKNAGMTVIRDPIAKAPYGVKGNQWIGYDDEESLRYKVQHFFV  
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>TRINITY\_DN5584\_c0\_g1\_i3.p1 type:complete len:962 gc:universal  
 TRINITY\_DN5584\_c0\_g1\_i3:2920-35(-)  
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 KSSYTTRSSEKRYLATSHFEPTAARAAFP CFDEPAMKANFIIIVRDPQHVALSNMPIERNVTRRDG  
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>TRINITY\_DN172571\_c0\_g1\_i1.p1 type:complete len:104 gc:universal  
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>TRINITY\_DN71276\_c0\_g1\_i1.p1 type:5prime\_partial len:1201 gc:universal  
 TRINITY\_DN71276\_c0\_g1\_i1:1-3603(+)  
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 GLDERLT TQRKRDMMTTFQDNANELFEFFIKTIRDKVTALKTESSLLIRLSEATLFTMMEFVSWA  
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 LVHFLKNGFAGVFFRANKEISED TISKNEIITLLIHYKCEVPLFTIPVINLLESVFIKHSRDHLLPT  
 MQLLSIIRLPQND EPLRDHVFKLKRHVCEAYAALCKEIPHCLVDYFKQLEEFVAVYQMMHNASL  
 TGQEKCR LIEGVL RISKHVTVKEEQDHCINAIFDMIDSMFDKEPVRRACESPISLIQYIGLDQEGTV  
 AADSELRTRELLFAINLWTAACKALAMSKEEEVKDEITEEEMRTQIETYGWIKRMVTMLPKMLSL  
 LQSYSLIWQH QDKICDKRILVHKIITEINPTIQVFQPKCADEVNEKRGLGQYYLCTFYESAYTSLGSV  
 SKSVGPSLFSIGGLAEAMNEKLVQHWNNLPNYRLGRITRTFIKDICLACPKKYFETFIGPFVSQVLR  
 LYFERISNEWAKLAQLKENPREVTDKLQEQIEIAEERMIYLM SKDLLDLLSLLTFRKRHLRSTTKP  
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 LLLILQGLNIHGGDEF GRAALTNNVLQFYHLRMQYRGIVQVMLMIPTCEEQHLREFDLAVFVQE  
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>TRINITY\_DN118\_c1\_g1\_i3.p1 type:internal len:200 gc:universal TRINITY\_DN118\_c1\_g1\_i3:599-3(-)  
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 CSKADKVCSPEDSHCTFTQICTPFFVKCKCKVVSVEKKCVVVRNCIPKFSYEKVCEDVKRCPPRKR  
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>TRINITY\_DN540\_c0\_g1\_i1.p1 type:complete len:480 gc:universal TRINITY\_DN540\_c0\_g1\_i1:1503-64(-)  
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 DNDMVTLEQKLRAAFNAHKDLLTIAARNGKPSPKDLPELVKPLSAAIGEVQS FREKSRTSKKFNH  
 LSAVSEGVAFLGWVSPSKPGQHVIDMKDSAEFYTNKILKEFKETDKVQVEWARGRLRKMLMDFA  
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ALFSALNQSGSVTAGLKKVSDDMKTHKNPALRNAQPVPGKTSSLNPRPYAPPQLKKFNAPVAEK  
PPVFELQMKKWIIEHQNNQSLVIDETNDKQTIYMYKCNNSVLQVKGKVNISITLDGCTKCGVVF  
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>TRINITY\_DN15584\_c0\_g1\_i1.p1 type:complete len:275 gc:universal  
TRINITY\_DN15584\_c0\_g1\_i1:874-50(-)

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ATAIRGAIHQAKLSIIPVRRGYWGNKIGKPHTVPCKVTGKCGSVTVRLIPAPRGTGIVAAGVSKKLL  
QMAGIDDCYTSACGTTATVGNFAMATYMAIARTYSYLTTPDMWAENQFQKTPYQEFTDYLAKNH  
NVGGKPVPATATA\*

>TRINITY\_DN101992\_c0\_g1\_i1.p1 type:internal len:139 gc:universal  
TRINITY\_DN101992\_c0\_g1\_i1:414-1(-)

AERYDHHSGIVESMDSNKSNDLRELTRLPHPPGRSRNKELGDMLADFWQNEGMDKIEFKYNI  
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DEVKKAG

>TRINITY\_DN413\_c0\_g1\_i3.p1 type:complete len:350 gc:universal TRINITY\_DN413\_c0\_g1\_i3:1286-  
237(-)

MVLSVTCLSLLLFVTVNAEESDHCGYDEKSWYKAMGWCYHSGSRLLLGDFFNGDKRTDFFCHD  
SNGKNWVAVSNSDGSFGSTTWQSKERWCASPNILLTGDFNGDGVTDLCHGTATGKKWIKYFN  
KYGVPSGKSFYRAMSWCNHKGSQLYIGDFNGDKRDDLLCHDTSGRYWTSYAGTDESKVFHHTS  
WYKALEWCRHATSKLYLGDFNGDKKTDVLCCTDGKGYKWIMYAKTSGNLFTGTDWHTNLDWC  
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>TRINITY\_DN97809\_c0\_g1\_i1.p1 type:internal len:184 gc:universal TRINITY\_DN97809\_c0\_g1\_i1:2-  
550(+)

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>TRINITY\_DN1280\_c0\_g1\_i1.p1 type:complete len:426 gc:universal  
TRINITY\_DN1280\_c0\_g1\_i1:195-1472(+)

MGFETCGPNEAMVISGCGQERPLLISGGRKFVWEFFQKVQRISLNVMTLNVESQRVYTVQGVPI  
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KSVFEVASSDLVNMGISVISYTLKDIRDDEGYLKALGQRRIAEVQCEARIGQAMAKMQSGIKEAQ  
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RAQAINVQLQEIQRREKELEAQIRKPAAEARYKIEKIAEANRMKVVLAEAEAEESIRMAEAEAE  
VIQKKATAEAEQMSKKADAWRDYQEAAMVDMMLDLTPKVAEIAAPLSKVKKVTMISSGSSDV  
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>TRINITY\_DN5633\_c0\_g1\_i1.p1 type:complete len:848 gc:universal  
TRINITY\_DN5633\_c0\_g1\_i1:2881-338(-)

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DELSVKIKADKENNVLHITDTGIGMTKDDLIKQLGTIAKSGTSEFFQKIQDAGTTDQASDLIGQFG  
VGFYSAFLVADRVTTSKNNDKQHIWESDSVEFSISEDPRGDTLLRGTQISLYLKEEASDFLEPNT  
LKDLIKKYSQFINFNIYLWSSKTEEEVEPIEEPEKKEDEKKDDDKEDADDKKDEEKDDDED  
AKVEEDKEEEKPKTKKVEKTVWDWELMNSSKPIWLRKPKEVTDDEYNEFYKAISKESDGPLTKT  
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DLPLNVSREQQLQHKLLKVIKKLVKALDMIKKIPDEDYIEKFWKEFSTNIKLGMEDHSNRTR  
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DEYCIQSLPEFDGKKFQNVAKEGLKIGNEAKEKARVDELEKEYEPLLKWLKEDALKDLIEKAAVSS  
RLTESPCALVANSYGWSGNMERIMNSQAYAKSKDAGANFYATQKKLLEINVYHPLIQELQKRVKT

DKEDQTA KDLARVLFETATMRSGYTVKDSSDFAGRIERMLRLSMGVDVDAKVELPEEDDEEKEEE  
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>TRINITY\_DN775\_c0\_g1\_i1.p1 type:complete len:635 gc:universal TRINITY\_DN775\_c0\_g1\_i1:1927-23(-)

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RLYNNMCAQEAQKRVLVMDVILEDGDTKITLDTDESIDLTLADDEITVSINAQNFFGARHAME  
TVSQLAAFSSESYNAMQIVSSAQVKDDKPSYAYRGLLLDTSRNYFSVDSILRLIRAMSYNKMNTLH  
WHITDTHSFPIEIKSLPEMLRYGAYSSKRIYTHDDVRKIVSYASINGIRVLPEFDEPAHCGEGWQWG  
PKAGLGNLAVCVNRQPWQKYCPEPPCGQLNPTNDNVYDVLGKIYKEYFQLFDPDIFHAGGDEI  
NENCWNTTTEITNWLKQNYGGVSEKNFMDMWGMFLDKSSSKIYEANNNKELPMILWTSKMTS  
EEYLTQYMDPKKHIVQIWTASKDKELSNVIESGFRTILSTYDTLYLDCGYGNWLVEGNNWCSPYK  
DWKLLYDNDPVKILESFNVTVDKIRSTILGQEAAMWSEQVDEFSSSEGKIWPRTAALAERLWTNP  
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>TRINITY\_DN144508\_c0\_g1\_i1.p1 type:internal len:265 gc:universal  
TRINITY\_DN144508\_c0\_g1\_i1:1-792(+)

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ATVDITSASVFKVVVEGTASSGYMGDIALDDLFLTPGACPPSAECTFEDPQLCGWTNIAGDDFDW  
TRGNAGTASWGTGPRTDHTYGTKQGFYMYEASTPRSKGHKAWLKSEYKPTLGRCLSFYWHMF  
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DVMISEGP

>TRINITY\_DN71243\_c0\_g1\_i1.p1 type:internal len:422 gc:universal  
TRINITY\_DN71243\_c0\_g1\_i1:1265-3(-)

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VEALDGGQPRRKSRLPVSVIVGDMNDNVPLFSQDVYNVSISDLTAIGSSLIKLSASDADDGLNGEII  
YDISNGNFGTTFIIDKSTGVISLSRKQLSELRKFTLVKSTRDKSPISPRNGETATVHVNFIEASANEP  
FFSTTFQKLVLENQAAGIKIGQSKVINSKMEAVYLIVSGSKTRITDYFGINYRTGEITAKQSFDRS  
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LVSLDKIEMQLLNSQE

>TRINITY\_DN278\_c0\_g1\_i1.p1 type:complete len:470 gc:universal TRINITY\_DN278\_c0\_g1\_i1:3091-1682(-)

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KLNFKGDVLQCLERRNEYVSYKLQLWLHKFFLSKLLPELLHARSQDKEQVCDHYDRGNDFYNA  
YLGPLMVYTSGRYSESDTLEDQMNMNKLKAVCEKVQLKEGDRHLDIGCGWGTLVNYAAENYNS  
QSEGVTLAKEQVCWAEKAKSKEIMDRVNYLCMDYRDIPKKKYDKITCLEMSEHVGIKRYHHFL  
KDVRNMLEDDGIFFLQIAGLRRAYQWEDFLWGFFMDTYIFPGADASLPLQFPFAELEAAGFEVES  
VKTVGIHYSDTIKYWYHNWVKSDDSHDKMIQKYGRRMVRVWDIFLAWSTIARQGNSTCYQIVAH  
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>TRINITY\_DN2963\_c0\_g1\_i1.p1 type:complete len:116 gc:universal  
TRINITY\_DN2963\_c0\_g1\_i1:1072-725(-)

MSATGNLVTVLRLKLYDEYNDKTPSRLKIVDGFLLYVMLTGIFQFLYCCLVGTFFPNSFLSGFISCVGT  
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>TRINITY\_DN1559\_c0\_g1\_i1.p1 type:complete len:311 gc:universal  
TRINITY\_DN1559\_c0\_g1\_i1:221-1153(+)

MAEKKATFKLGFAENFALSGAAVISKTAAAPIERVKLLVQNQDEMIKQGKLSEPYKGVIDCTTRT  
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CFVYSLDFARTKLANDTKSSKKGGSREYNGLVVDVYRKTLKSDGVAGLYRGFVLSVGVIFVYRGCFY  
GFYDTLKPVLLGADASLFMSFILGYGVTVTAGLISYPIDTIRRRMMMTSGQAVKYKGSIDCATQILK  
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>TRINITY\_DN1682\_c8\_g1\_i3.p1 type:internal len:117 gc:universal TRINITY\_DN1682\_c8\_g1\_i3:348-1(-)  
VKEFLLSKKCIFSPILNLFMFMMKKWTQFC SRLSLVKTTCSDTKSCIETRFLYLIVIFITEYLGRSLKFC  
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>TRINITY\_DN195348\_c0\_g1\_i1.p1 type:internal len:311 gc:universal  
TRINITY\_DN195348\_c0\_g1\_i1:1-930(+)  
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KVLIVISDGNEDFKEKQNLVDRAIDQLKAKGVIIYTVSIGNNVNWDVFRYASRESSIINGANFDD  
VFNRFFDFAKMLCEDSKVPIPATRTTASTTTVSINTTKLTTTTTTTELVPVTISTTTTMMSTTLRPIQACY  
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>TRINITY\_DN113\_c0\_g1\_i1.p1 type:complete len:1417 gc:universal  
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GYGFKGDVGPVGVKGVPLPGPPGSYGERGEPGEAGLDGVKGD RGDAGQTGPPGKKGVAGAV  
GFPGLQGPFYKGERGGAGPVGDEGVSGRKGEKGYAGEKSGRGDQGDAGFQGVQGPTGPIGPL  
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PGSPGKEGARGLIGRPGAEGIRGEAGTSGSTGRLGRKGELGPKGFPGKRKGDGTNGKRGEMGVS  
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KMKNETCIFPKSYRAELENHYTGKDKFRFMYEDIKEDGEIEYAADITQTKILHLMSSKVRQEFYN  
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>TRINITY\_DN4781\_c0\_g1\_i3.p3 type:complete len:183 gc:universal  
TRINITY\_DN4781\_c0\_g1\_i3:2965-2417(-)  
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>TRINITY\_DN113\_c3\_g1\_i1.p1 type:3prime\_partial len:1162 gc:universal  
TRINITY\_DN113\_c3\_g1\_i1:3485-3(-)  
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LKCTARERRSITPDGFTPEDEKL CRVPVDLGF IIDVSGSIGQTNFDKIKKFIEKIVDAFHIADDGTHV  
GAVFYSDNASLAFDFNHLQGDQLNEMNVVREIEKIQVTDGQTRIDLGLELASRELFNPAAGMRI  
HKPKIALVLTDGKQTRGELAPDAKDLHQASRLKQTVGVQVYSLGIGLDYDIGELLDIASDDASVF  
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MSGSVFGDVGTLVFDK SQATEINEFENEVENMPYLG DATGNMDKVLKMISNEVFNFDFGTRQSS  
PKVIVLLTSSNCDTCQESLEDLARPLKAEGIHIVAIPIGDPLFDEM QVLASHPIDQYAIPRATHQELL  
NAEFIQKVSEMV CAGKPGICAEPVKGECAEII NECSVDMRCPEDQKCCIKNCVASCVLPLAACIT  
PIEIAFAFETTKYGIADFN NVKNFAINLLDHF KVGPSKAHVSLSTFSEDVTS LTKFIDDFDMESIKQSI

KDLKHDGGEESNLGNFLEIINTEVFSVRGGIRQQTPRVLVIFANGDINDEQAVKAQEEALHLKAD  
 GKDVKIIIVNIGSSTKTLDVLNEVATEGSFYEFFGSAELDSTAIETEISEKICSTKVRRSKCQRRIRSSCA  
 VKDDLCDSDFDPCPGHQECFSDGCRRLRCQTCEFRCKDKVDLLFVMDTSARIGRDNFERGKKNIKK  
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 VGQELDLDLWGNIVSPPVEENVFYAADFDDMYNGIRQLAEDSCKYAAAITPPPIIKQKGEPGPPG  
 PPGIPGTNGTDGRNGTDGRRGPKGERGDTGLKGFKGEVGLVGPFGGGAEEQKGPDPPLASAVGIV  
 NVTDLPGGGRIVFDLREGPVGQQGLTGIIKPKGPIGDTGEVGIKGRNGTTGPGGFFGLPGPKGQP  
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>TRINITY\_DN61668\_c0\_g1\_i1.p1            type:5prime\_partial            len:453            gc:universal  
 TRINITY\_DN61668\_c0\_g1\_i1:2-1360(+)

FDGSDELGCVTVPATTKVLHCDDDHAYCEDNLECYPKEGRCDNTYDCRDRSDEKNCGAIKTD  
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 CDGSTNCRDETDDEKEICGVTKRVKNLRSKLDDLSTGGIQVRLFWADPDVSLSKVKGAVSFIDD  
 KFVQKALKVPLSPSRVTIPSLKRCRKYVFAVAVDHTDLKADKLLYESTEEIETPGRRSPNAPALISTH  
 GNKVLWKEDVGDCIDHYDIYNRFLSCMEMDSKTIVVKNRLKSANVLFDIQSMLNSNSNDTKLYN  
 CSIYINYIRKSDGTFPNLQTDYFTFPHTHDHHHKTAASTGGKGKRNTLVWAMPVAVVVIVLCIGL  
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>TRINITY\_DN25375\_c0\_g1\_i7.p1            type:complete            len:811            gc:universal  
 TRINITY\_DN25375\_c0\_g1\_i7:112-2544(+)

MNVNEKMNIYFCIGTLLFQSLVLKVEGIFNDCQTKGSCGKCISSSPECAWCEDIYKRSLSNSKSY  
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 IDLYYLMDSL LSMKDDLEQIKDLGDILGEEMKNVTTNFR LGFGGFVDKPINPYTTIKPDEIEAYIRD  
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 VIITDADDFHYSGDGLLGGQVIPNDAQCYLSKGNYTAWNQFDYPSLSQIRSVMIENQIVPIFAITGN  
 FELYKKVAEFFGAGSGAVADRLSKNSDNVPLIKEAYEKIAKIVNINS DAPKGIDMKYTAICGTGK  
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 GECICDEPKLNRFGIEIYYGDQCQCSNTSCGRTTNENLLCGGPSHGRCDGECTCFSDWQGPTC  
 EVECVKSSAACIDEEGIECSGKGKVCNRCVCDPGYIGDLCQECVSNCPDPCQDYRECVKCRVFK  
 MSDLSDEECKSECLKH NITSHIVTDKVPEDKRCIARDEDDCSFVFTFVKSNITDEVQLIVQQEKICP  
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>TRINITY\_DN77\_c1\_g1\_i1.p1            type:3prime\_partial            len:1965            gc:universal  
 TRINITY\_DN77\_c1\_g1\_i1:2-5893(+)

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 DVNCPANRKCCKICKASCEVPAAACITPIDLAF AFETTGFIEENFDEVKSFASSLLDHFVRVEPAKT  
 HISISTYGESVNAKTAFYESYDKSALKQFIKDLEPDGGRQANIGDFLKTANDEIFNITNGIRQSSPR  
 MLVLFTNGVYSNDQIAKAQEESLKLKAEGQDVN ILVINIGSIVEGNSVLRDVVSTPDRNLHNVT  
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 TCENRCGDKVDLLFMIDTSSRIGPEGFKNAKENIKKMLEWFTIEANNTNVAAITYS DNANYAMQ  
 LPAAGSNDPPQTLFDVQGR LDSIPYSGGSKSNLDKALKMAAAQVFYQNSLRLRKDSKKAIVIVTD  
 GVDDSTSRLEIASWPLRKQRVVVDGNDYAAIRLLAVTVGN NYNLD TLEKVVSPIDKNIFLAADF  
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LTGEKGETGDIGELGPKGAQQGQKQKGTGKIGPRGQQGPLGFQGLQGQTGDPGQNGRQGP  
KGNLGPTGEKGADGPKGSLGSAGLTGPKGLVGEPGNVGRPLGRDGNKNGPQGANGKDGDPGA  
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GKDGRPGKPGINGTDGDPGNNGPKGDPGERGDSGDSGLGASGDKGKTGSEGPAGFVGPRGSN  
GKAGVPGKRGRGDQGRDGPGRNSGPDGIDGSKGFGNMGFRFGIQGPPGDAGLKAGLGPDPGT  
VGHTGPQGNTPGDPGPEGSPGSKGPAGNAGQIGNAGYPCSPGDGGIPGTAGLPGPPGPPGPP  
GDMSGAFSGNYWDFVNAGGLQKGPYYGGRSKRSLDQQDNSIEKVFKSNYETFKNFDTVWNQI  
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>TRINITY\_DN64\_c0\_g1\_i1.p1 type:complete len:468 gc:universal TRINITY\_DN64\_c0\_g1\_i1:1555-152(-)

MPPKEAEKIHINIVVIGHVDSGKSTSTGHLYKCGGIDKRAIEKFEKEAQEMGKGSFKYAWVLDKL  
KAERERGITIDIALWKFTGKYVVTIIDAPGHRDFIKNMITGTSQADCAVLIVASSTGEFEAGISKNG  
QTREHALLAYTLGVKQLIVGVNKIDNTEPPYSEKRFDEIVKEVKTYVKVGYDPKTVAFPVPSGWH  
GDNMLEASKNMGWYKGTWTERKETTTTTGKTLLEALDNILPPKRPTDRPLRLPLQDVYKIGGIG  
TVPVGRVETGIKPGMVVTFAPSNITTEVKSVMHHEALLEAVPGDNVGFNIKNSVKDIKRGV  
ASDSKNDPAKEAKSFYAQVILNHPGEIHSGYQPVLDCHTAHVACKFSEIKQKIDRRSGKVLEEMP  
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>TRINITY\_DN55094\_c0\_g1\_i1.p1 type:internal len:107 gc:universal  
TRINITY\_DN55094\_c0\_g1\_i1:319-2(-)

LTLDMLAQKPMNVIALIDEESRFPKGSDETMLNKLIRQHSKNPAFITVKSHAEEKFKGIKHFAGSVY  
YNTVGMMLDKNRDTFSADLNHVIAQSRCKFLLHLFDKELKM

>TRINITY\_DN247\_c0\_g1\_i1.p1 type:complete len:373 gc:universal TRINITY\_DN247\_c0\_g1\_i1:38-1156(+)

MKLVLVIFVILVYTNVVSAGGKKCISNKDFMTPYPTNFWTEHYPKFVNNRPTIGIVAMEVLGQKM  
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ERISKQAIAFSKKMAKKNVTFPVLGICRGAQMMMMAEAGKDFLEVTDLSNLSIPLDFTSEQKESR  
LFGNAPQGLIKSLSEDAITFNAHAMGIPTLNFYNNGLQKAFRAISTNYDRNGTKFISTFEGRDAPI  
YGLQWHPEKSLFVFNPLAVDHSIKGVMAQYIANFFISEARKNNHTFRDRVEEEEHLLMSYYP  
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>TRINITY\_DN141561\_c0\_g1\_i1.p1 type:internal len:248 gc:universal  
TRINITY\_DN141561\_c0\_g1\_i1:742-2(-)

RQWRKLEESLFSRPPVLLIVMIVFLFISYLLKETLSEECGPFYKTDTLSPKYWYFDTTNCPIIP  
YGAQAGGENQTCRIYFNLCVQLYQCSGTVCGRYLDLDRDLVLLMGEYKYEPFSEGDSFFVSYQ  
GEEVACTSKTEVSKINTKMNFMCNHTAKWNNNTIKRIHGGAAQAPKPKSIWNNKTCEYEISFDY  
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#### Band 4

>TRINITY\_DN982\_c0\_g1\_i3.p1 type:complete len:9852 gc:universal  
TRINITY\_DN982\_c0\_g1\_i3:29697-142(-)

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DEKLTIEIYSDDINANYVVLESATFVFHFIGVTGSVPAYLAHTAQDQYASDSIIPWVTLGDSRVYE  
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FKWSEGMSITLQIHSSNGANFKVLKSSWSMSFIGETTANFQEFVFLMADQFLQPSQFPQRINIDL  
NGVFQFLQSNPDQYNKGQLVSGADTKFKDNLDIFVDSTDLFYVSANIIIEGEAEDLEITIAVSQIDID

VLPEDGLSGRLTKISNSRRSISLSGIIFIREKQYLSFFVRSRDSSKSFTVSKDSFISVINMRYTVSSVSARQ  
NENIDVTAGSWYDISGRFAEQKNGLYSFGKDFNINNGVFRTSHSGIHSVHANIQFSLDSDAFGDN  
DDNKIVLRVVIDGQEDKISLMSIRKNPEKTATLKLFGSIYLRAGVTISFQVKS LMPNTVQYKILQRSS  
ISISYIGPQWAVNSFHAVANQDLNYDGKPD DTRPDIPSPLNFWKTEAADEFISPFEVLESFDGTRYT  
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ANEFFAATVQIDSEDIESGLYAAVINQGSTEMSLTFGGTIY LKSGARVRVVVKGGRTFNIAAGSSFSL  
LKLQPDYKTPGIIVSIIDEKITQAITRYEHKDLRADIHRTL TIGNLGFVESTGVYTIQVDGVYMDYT  
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VDGGLTVYFLEPKEHV KDGHRSKQTSPQALPVRSEKVTGFAAQSPDFAGGADSVDYTPETGVY  
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SGMSLDGSTRSILKIDEVNTIRNVTEGLSAYKL RDQKVNGQQETIVEEWDTSVTEGTF LAKNVSFT  
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TTKKLDYETQNEYNLTIKATNLEETALTTKGPYETTINYIVRVIDVNDHPPVFSQSIYSRSPEDYPI  
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GIFVISCTVNDGTSNSAQNAIVRVEVVDVNDNQPVFPTSEYFIQVNEGSSIGTILQ NIAATDKDNT  
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DQNDNPNVLSPSGVINLNISEGTIAPANIITIFATDKDSTINA EVQFTLTGDPTNTFTINQNTGEIML  
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TVKDRGSFNQVQFTTVVSGQAGIQNLITVSQNGVITNGQRRADFEARKRHDFLVQAENERGAKAY  
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LNRFRIDSNGNIIVQQSVVLENNPNQYILTITAFDTQRTQSLNNTQVTINIIDLSDKQPFFIQNSYI  
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VQVIDTNNGKTNKALVVVRITDENDNKPFEVSGNLHFNITEHTLLGSTIGSLNGKDNDAGINKEF  
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NNPTIPEDKNTGEEITRVTAIDPNTGSSNGFIYSLVGTLSNSQFTIDAKTGAISLLASVDFETDRHT  
AVVKAEGPTSTGVTEVIVRVTDINDNKPIFDPTNFNLNINENFVVGQEIVLVRATDKDSSLNDNNV  
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5942(+)

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TRINITY\_DN1653\_c0\_g1\_i3:180-3248(+)

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TRINITY\_DN8008\_c0\_g1\_i2:4205-312(-)

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159

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SGVQQLDNSSSLAINFGSDGNRLDLALNEVVKLFQSISSNEVNMAIFVTNAGLESEFNATMSQAR  
KLRLSLGVITMVICIGDNFNVDVIRTLASSRQLIYMIPSPSQLTDTKFLRHIISAAFEMAESMPPPRLEA  
GKSWYPAFFGNWVDSNSLEGEVDPAPLKAYHFQPTVLWSKPIQQKNYIESTIIPAGESSEGRFGTCG  
HIFKHKVGATKKEKYISKSWGYFLWSNSFLYITTDGTETSPRIEFDYSSRDKLNLTIVDGSVKIYI  
DGVFIRSIELEGTEADSQSHMFVGVWCHRLSAVTVEDFKVSALSNPCTVNNGGCSQICSADPYEF  
KCSCIPGYRLVEDESTCVAESTCPELITTTTITTTTSSSPPTTNQSKFISTTTTKPDELIDTTATIISTRESDI  
TTTTLILSTKSTEKPIEKIEKTTTSAIGDILEQTTVAPIKTSTVFVPTTKEEVILTTEMAETTLTVPPTASP  
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>TRINITY\_DN4040\_c0\_g1\_i1.p1 type:complete len:402 gc:universal  
TRINITY\_DN4040\_c0\_g1\_i1:1386-181(-)

MNIICFIILLSLGSFATPHPYHMCCKRWEKVGCYHDPVAPNRPYPFQLVNHDPSTSNKWDGNLI  
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DTLRECVGKGHTNYIYKLLDEKPPHIGKWSEWGDWGACSKSCECGIKHRERKCNAPKPQNGGR  
ECKGLSKEYSECNNGDCPKVCDKQVEIGILLDFSGSVRQVWNWATIDFVIRYSKGFMISSPAKVHFG  
VLSFSHFHRIDFKISNEKYWNRAAFEKKVKTLSYRFGYTNTDIALKAAKKEFFCDSCGNRKGALK  
YLLVFTDGSNGVTTTELKVLSDSIKMGVEIISVGTGYQINHEELEIATDDSHVFYVKNYAYLMDS  
MNAITKLTCGK\*

>TRINITY\_DN1320\_c0\_g2\_i1.p1 type:complete len:260 gc:universal TRINITY\_DN1320\_c0\_g2\_i1:97-  
876(+)

MRCLSMIFAILLVYLFQVSSRACRDYVNYQCRKYLCHVPKYHRFVNMYCKATCGLCPVIHGLQ  
MSTMSTPTTTATTTTTTTTTTTTCTTTTTTTTTTTTTTTTTTTTTTTTAAIVLLSGGKTISGTPEDAS  
GPAVRCTDGDVTTLCTTQAIDAYFQVDLGSQKKVSRMEIKNYFHYENQLELKLFLVSNVDVTFATST  
ICDTWDVRSVNEGDVQDKKRDCNSNVSSQTFRYARVQTVNNANEPEHLRVGEFEVYGA\*

>TRINITY\_DN413\_c0\_g1\_i3.p1 type:complete len:350 gc:universal TRINITY\_DN413\_c0\_g1\_i3:1286-  
237(-)

MVSLSVTCLSLLLFVTVNAEESDHCGYDEKSWYKAMGWCYHSGSRLLLGDFFNGDKRTDFFCHD  
SNGKNWVAVNSDGSFGSTTWQDSKERWCASPNILLTGDFNGDGVTDILCHGTATGKKWIKYFN  
KYGVPSGKSFYRAMSWCNHKGSQLYIGDFNGDKRDDLLCHDTSGRYWTSYAGTDESKVFHHTS  
WYKALEWCRHATSKLYLGDFNGDKKTDVLCCTDGKGYKWIMYAKTSGNLFTGTDWHTNLDWC  
HESSTVFLRIGDVNGDGKDDLCHSTAGNSWVAYTQPKGGFGNFCHLAKWCAAGKESFFLGYP  
NQDSRADILCHDTKYGKKWIRYAECSFAEESDHCG\*

>TRINITY\_DN278\_c0\_g1\_i1.p1 type:complete len:470 gc:universal TRINITY\_DN278\_c0\_g1\_i1:3091-  
1682(-)

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LYPVLVLLFFIPVFAGYIGLNNVIYCLYERHNQVSKIDNYIEFLDEDLKKKFTGRFIPIRDLYELYAEG  
KLNFKGDVLQCLERRNEYVSYKLQLWHLKFFLSKLLPELLHARSQDKEQVCDHYDRGNDFYNA  
YLGPLMVYTSGRYSESDTLEDQMNMNKLKAVCEKVQLKEGDRHLDIGCGWGTLVNYAAENYNS  
QSEGVTLAKEQVCWAEKAKSKEIMDRVNYLCMDYRDIPKKKYDKITCLEMSEHVGIKRYHHFL  
KDVRNMLEDDGIFFLQIAGLRRAYQWEDFLWGFFMDTYIFPGADASLPLQFPIAELEAAGFEVES  
VKTVGIIHYSDTIKYWYHNWVKSDDSHDKMIQKYGRRMVRVWDIFLAWSTIARQGNSTCYQIVAH  
KNFNHYPRRRFIQPKN\*

>TRINITY\_DN598\_c1\_g1\_i1.p1 type:5prime\_partial len:745 gc:universal  
TRINITY\_DN598\_c1\_g1\_i1:2-2236(+)

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TCGGGAQKRRARQCNSPPPSGDGKDCAGAREEFKGCNSNDFCKGPTGVAKAQEIIERFLENFHKKY  
YDPREPSGKFLKAIFAIQKAVAEFISVDPYVRSKLTLEQRLKDLENFLKVATEGGSIDFARTLLGKV  
FTFMKQKIKDGLPIDDIDKAAEGFLEKLRGDLGDKKMDLSSQGDATLMFTIDTTGSMKQEINA  
AKAIAKQIISATRDYEVYILSPFSDPGTGPVTHRSASERASFVSDIDRLRARGGGDCPELSFGGML  
NALNNDPQYGSPMFVFTDATAKDDTDANVASLKAADATDATINFFTNLAGCNGRRDRKRGIE  
SYKEIASYTGQVFPLKNEAELIKFTSYVKTSLQQDVTITSGGTLNSKSKRSLYSMQARHFMVDDGI



SKLVISVGVQQLASQVALVDPNGKKVYPSTTLALS LIYQVSHPSPGQWKLD FPTS VGKYSYNVQAV  
SSSAIAFAHNFIYQQSVRKNSPPIPLANPLKGVKNMMVVR LGGTKNFDLNSIKIDLVD TSGNVLQ  
KGIGTDRLDSDEV RHATIDPPSGPFKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAK  
LGKGPYAAQMLFINRGAHENFYFYAKANYGSIPNYKQTKRVTSQGFVTFTYKAPRQYNLKGKSD  
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>TRINITY\_DN113\_c3\_g1\_i1.p1 type:3prime\_partial len:1162 gc:universal  
TRINITY\_DN113\_c3\_g1\_i1:3485-3(-)

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LKCTARERRSITPDGFTPEDEKLCRVPVDLGFIDVSGSIGQTNFDKIKK FIEKIVDAFHIADDGTHV  
GAVFYSDNASLAFDFNHLQGDQLNEMNVVREIEKIQVTDGQTRIDLGLELASRELFNPAAGMRI  
HKPKIALVLTDGKQTRGELAPDAKDLHQASRLKQTVGVVYSLGIGLDYDIGELLDIASDDASVF  
RSQDFDELVSIVDILIEQTCKGCTRAVDVHFALDASANVGEENFVFMKDFVKAIGYNFISETGAH  
MSGSVFGDVGTLVFDK SQATEINEFENEVENMPYLG DATGNMDKVLKMSNEVFNFDGFTROSS  
PKVIVLLTSSNCDTCQESLEDLARPLKAEGIHIVAIPIGDPLFDEM QVLASHPIDQYAI PRATHQELL  
NAEFIQKVSEMVCAKGPGICAEPVKGECAEIINECSVDMRCPEDQKCCIKNCVASCVLPLAACIT  
PIEIAFAFETTKYGIADFN NVKNFAINLLDHFVKVPSKAHVSLSTFSEDVTS LTKFIDDFDMESIKQSI  
KDLKHDGGEESNLGNFLEIINTEVFSVRGGIRQQTPRVLVIFANGDINDEQAVKAQEEALHLKAD  
GKDVKIIIVNIGSSTKTLDVLNEVATEGSFYEFFGSAELDSTAIETEISEKICSTKVRRSKQRRIRSSCA  
VKDDLCDSDFD CPGHQECFSDG CRLRCQTCEFRCKDKVDLLFVMDTSARIGRDNFERGKKNIKK  
MLEWFTIDSNNTNVGVITYSDTANVAMPLPSRGNNNPAQSLIDVQDRLDSIPYSGGSVSHLDNAL  
QLAAEKVFPDNGPNLRRDSKKAVVVITDSLDD SASQLELASWPLRRQRVQTEDGDASNIRILAFN  
VGQELDLDLWGNIVSPPVEENVFYAADFDDMYNGIRQLAEDSCKYAAAITPPPIIKQKGEPGPPG  
PPGIPGTNGTDGRNGTDGRRGPKGERGDTGLKGFKGEVGLVGPPGGGAEEQKGP DPLASAVGIV  
NVTDLPGGGRIVFDLREGPVGQQGLTGII GPKGPIGDTGEVGIKGRNGTTGPGGFFGLPGPKGQP  
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>TRINITY\_DN165490\_c0\_g1\_i1.p1 type:internal len:171 gc:universal  
TRINITY\_DN165490\_c0\_g1\_i1:2-511(+)

LKHDEKCFLAGWEGAIAAKHIGWWNKGR TLAKKAMQSLPPGPQHRAQRETASTLFLLLAEEEEQ  
EEKSRKVREMTAKEAAPAPIDPKEHDWARS IAGQLNDALKCEDFRRPHHQLWKLVGPGLLKQ  
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>TRINITY\_DN1505\_c0\_g1\_i1.p1 type:complete len:154 gc:universal TRINITY\_DN1505\_c0\_g1\_i1:98-  
559(+)

MSLVIPEKFQHILRVMNTNIDGKTKIMYAMTSIKGVGRRFSNICLKKADIDMTKRAGELSDEEVER  
LVTIMQNPRQYKIPDYFLNRKKDIKD GKFSQLANGLDNKLREDLERLKKIRAHRLRHYWGLR  
VRGQHTKTTGRKGRTVGVSKKN\*

>TRINITY\_DN1936\_c0\_g2\_i1.p1 type:3prime\_partial len:1894 gc:universal  
TRINITY\_DN1936\_c0\_g2\_i1:5680-2(-)

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GYMYIEASSKRGNPRNKGDNAVLLSPVISKGPKCLQFWYHMYGPHIDTLNVYKKVSNNMTKL  
WSLTGTQGNRWISANVTFNGGSQFQMAIEAIRGVEYKGDIAIDDITVDDGSCNADNGQKGNVTS  
YGKCTFEKDKCGFKDGNTSTLTWTRHKGKTPSKGTGPLVDHTFGTGLAYMYVEASNNPMQSA  
RLYTTYTNLDSTGSCLSFWYHMFGRPTGELKVYINPPEIGKEIPSFVSGGEQGNLWIRGEVTVNTTT  
ALVVFE GTTKYSYLGDLAIDDVSMERGKCEDPDSCSFQKDLCAWYNLPKSSGLDDFDWIVGAGV  
TPSRFTGPTSDHNGDIAGKYLFMESSPVKMGDKTWLSSELFNSTGKGKCFVFFYHMYGRDVGSL  
NIYVNTSSGVELVWTQSRSGKQWQNGQVDVERPGTYKVLVEGVVGKGYLG DIAIDDFKFKPGK  
CQIVPSNASPKKPQTTMRPTTKRPTQPPTPILDCDFEFGVCS DWRQDYKNDTDNWKVGKGTST  
AGTGPSFDHTKGTIYGKYIYLEASYGR LNETARLISTSIPATGDTGGKCLTFWYHMYGPHINRLNIY  
VMIGGHTGKPIWSRVGTQGNKWNKGQVTLVGRQP FQAVIEAVKGAKYQGDI AVDDVSLSSKKC  
PQPGATTCTFENSQC GYIDDTSSDVQFQWTWQS QATSSLNTGPKFDHTLQSVSGFYMYTEASNA  
KQGDKARLISPVNPGTSGSCLKFWYHMYGAGMGTLSVRLLVNNKLQSVPLWSETGNKGNEWK  
VATTTIKTKDAYQVVFQGVIGTTYASDMAID DVKLSDGECQSPGFCNFEDGLCTYANSKTDDFDW

LVGSSNTPSSFTGPKVDHTFGNASGSYLFLEVSKPIKAGDVAVLESQQFNAVGGKTRCLNFWYHM  
YGSIDIGTLQVIYKVFSGSQQERVLWKLTGQQQITEKDPWKYARVPVMDADHMMVFKGIAGSG  
YAGDIAIDDIQFTTLACRVEPSIANPTPTTPKPPTTFPKTAPPTAAPTFFSCNFEKDFCSLTSDSTAVF  
NWTRSQGYTASQNTGPSTDHTYGRGFVKTYGPGSIRHAAGMCIHISMGGHTKPKDETALVLYNG  
CGQDRTEFKYDNGLIKSTQYNMCFKLKGASTSAGTKVVISDTCTNKWKMLANGAFQDAKTNLC  
LAPSGKLAYPQNN SPLIVSKDCKAKGVIFTFSPTMGFYALIEASAPQKPNDTARLISPVLNPKPKCLS  
FWYHMYGANINQLNVYTKSPNGVYGNPVWSKFGSHGDKWRPAHVYMNPKSSSYAYAIEGVRG  
NGYEGDIAIDDVSVSDKCPAPVECTFEETNPVACGWTNLKTDDFDWSIGQGATSSQNTGPSNDH  
TYNDQRGKYLIETSSNLKAGAKALIQSPVYRGNGRQQGQCFQFWYHMYGASIGRLSLHLDQVG  
STTKNRAWIQESDQGNRWSIGQITIKSQA AFQLTFEGIRKSFTGDIALDDFRMFDGPCNNIATCD  
FENEKCTWKNSYHKDDFDWIIGQGTTL SLNTGPVTDHSTNSGDGHYIFIDASRKKQGA KARLYSE  
IIPRGFFTFIPYCIYFWYHMSGPDIGTLNLI AKHGKGKALEKVIWSLSGNQGSKWLQGTAPVTSSVD  
FHLVF EAI VGDGYKGDITLDDIVYKLG LCSI SPKAADPKLISTTSAPTPIPTTAVPAMYDCNFEKNSL  
CQWKQDLTDQFNWTLVQGGTPTLGSGPSVDHTTG NKTGYLFIETSNPRKAGDKARILSPSMDS  
DKDHGHPHCLKFWFHHMYGPHV

>TRINITY\_DN925\_c0\_g1\_i1.p1 type:complete len:261 gc:universal TRINITY\_DN925\_c0\_g1\_i1:826-44(-)

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GDYATVVSHNRDSKVTRVKLPSGVKKAIPSFNRASVGIVAGGGRIDKPLLKAGRAYHKYKVKRNC  
WPKVRGVAMNPVEHPHG GGNHQHIGFPSTVRRDTSAGRKVGLIAARRTGRIRGTA KVKDVGGD  
KE\*

>TRINITY\_DN624\_c0\_g1\_i1.p1 type:complete len:884 gc:universal TRINITY\_DN624\_c0\_g1\_i1:218-2869(+)

MANQEEEEHFGYYYGEEEDRGLLDPAWEKQQKKTFTAWCNSHLRKNVNVQIEELNVDFCDGLKL  
MLLLEVISGERLPKPERGRRLRFHLISNVNKA LDFIASKGVKLVGIGAEIIVDGNLKM TLMGIWTHIL  
RFAIQDITVDEFSAKEGLLLWCQRKTAPYKNVNVQNFHMSFKDGLAF CALIHRHRPDLIDYDKL  
AKDDPMYNLNYAFDVAEKELDIPKMLDAEDMVNAV KPDERAVMTYVSCYHAFSQQQAETA  
AKRILKALNVNQNEKAIEDYENLASDLLDWLNNKIPTLDDRTDSSLDTM QNKLNEFRDYKGT  
EKPPKVDKSKLENLNFNTLQTKLRLSNRPLYMPAEGKMINDIDKRWKDLEQSEKDFQEWILNELR  
KLERLDHLAMKFKHKCDIHEAWSTGQDDYLRSDDITDASLASLLASRKRHEAFESDLAAQQDRV  
EQIVAIAQELNTLGYSKIDEINTRCKGICDGWDTLGELTTQRSEKLAKAIEIAERLDNLWLEFAKKA  
SPFNNWMDGAKEDLMDMFNVHTIEEVNDLKDAQLKFKANMPAAQEEFNTIMGLQNAISSMSS  
QPNPYTNTKAEDLQEKWQEVLELIPKRDSLLESETQKQQNNERLRVQFAQMANQVGAWIKQRM  
GRMTDIGMNAQGTLERQLEELNNAEINGFKQNVLDLDASARNVQEAMIFENPHTPYTMEVI  
RIQFEQLLTGVTRNINEVENQILMRDSIGITEEQVKELRTSFNHFDKNSNGRLDYKEFKQCLVSLG  
QLGDVEDKGEHTFNRIIAMVDPNETGYVSFQAFLDYMTREMADTD TADQVMESFRILAGDKPYI  
TADELRRELPEQA EYCIARMSAYNGPDGVP GALDYRSFSTALYGESDL\*

>TRINITY\_DN495\_c0\_g1\_i2.p1 type:complete len:655 gc:universal TRINITY\_DN495\_c0\_g1\_i2:152-2116(+)

MDFHWNTVIAGLIIVQVYSLAEYGT LNGKDSYRNAYPWL ANDRNNNELGREDARSIYRSSDEID  
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NTDDLDAEDAEREETINDSLDAENAQR RYTSIDELDGEDTQRVISKTITL PRLGAGRIYKSRFIHGP  
YIRPKFVRPHKGIRLPHPNRIIPG SWKRP AHGIFALKGKKAIFCEHKG IKRISCSNDKVIKVSALY  
GRTAGNVCGRSRV TNCRALNSFAIVQKKCN GHNSCDLNPSNSVFGDPCVGT VKYLNIEYFCVKR  
TPPTINTPTLTPVTLVIPVQSSYQGDFGKSLTLKWN LGLTEKDRII AVLYDDIKPCKTKIIFSSTGFNT  
PMLQESYAQLIFGNRISATISKSSYQLTIKGLKASDARSFTLEMFVSGPGRSSCKPILSVIKISKINNINS  
DKVDGGYTGW SVYGPCSKACGGGVQERNR SCTNPAPANGGKACDGPSETRACNTNQCP EAS  
MSYASTKYPASNCIDGDINTRCHSKKGVNPWLKVDFHKKVLFKSVELIKYFKYVCCDAVIKISAIQ  
SDGTTKLCATDDQAEKGVQDLEIELSDNCVGH SIELQLDTHGKKSALRLFEIKFNAE\*

>TRINITY\_DN10485\_c0\_g1\_i1.p1 type:5prime\_partial len:604 gc:universal  
TRINITY\_DN10485\_c0\_g1\_i1:2-1813(+)

NYSRLKSYFVAMKRRTTKRIALAAA VFLLVIVVVVVVAVVVTRDDDEDEILTAKHEPVEAREYSK  
ASVAADRLECSNIGRDM LKRNGSAIDA AVASLFCIGLLNMHSCGIGGGGFINFYKRSEKKAYIYDF  
RETAPLSASENMYVNKSQERLSTVGGMSIAVPGNVKGLHYVWQKHGKLPWGDLLDPTIKIATDG  
FKISKAVGDKIERESTNKLYLNEGFKFLQKDDKTWYKTGEMLKATLLADTLKRIKANPHDFYNG  
TMADEIVLDINEAGGSFSKKDLEDYKVTEREPVTTNVKGYTIYSMPPPGSGAVIEMTMNILEGFN  
MSEANIKDNAELIKTTHKII EALKFAFARRPLLGDPSFVADVSKVLTAMLNKTFAEELRHKIKDTPY  
PNQTFYGGFY SQHQDPYGTSHLSILSEDGDAVGATDTINYGFGSGVRSTRNGIYNNEMDDFSTPG  
LQNLWGYP LPAKSNFIKPGKRPLSSMSPTIVTNSDGDVVMVVGASGGSRIITATALT LIRTLYLNEEL  
GRAVSEPRVHTHLLPYEVYINDPYTVSEELQDGLKDLGHKLVMSKYWAAIQAIYRKDISSPILAKC  
DPRKGGLPAGY\*

>TRINITY\_DN585\_c0\_g1\_i10.p1 type:3prime\_partial len:236 gc:universal  
TRINITY\_DN585\_c0\_g1\_i10:705-1(-)

MQIFVKTLTGKTITLEVEPSDTIENVKSKIQDKEGIPPDQQR LIFAGKQLEDGRTLSDYNIQKESTLH  
LVLRLRGGMQIFVKTLTGKTITLEVEPSDTIKIQDKEGIPPDQQR LIFAGKQLEDGRTLSDYNIQKES  
TLHLVLRRLRGGMQIENVKSKIQDKEGIPPDQQR LIFAGKQLEDGRTLSDYNIQKESTLHLVLRRLRG  
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>TRINITY\_DN12632\_c1\_g1\_i1.p1 type:complete len:504 gc:universal  
TRINITY\_DN12632\_c1\_g1\_i1:165-1676(+)

MGNCLRKPKKQRQKEEKKLDATSLEPSLVEPNPQPPNSFPAPAPLGNSNGVQGATVFVALYDYD  
ARINEDLSFRKGERLQIINTADGDWWYAKSLQTGREGYIPSTYVAPEKSYEAEDWYFGDIKRAEAE  
KRLMMRSLPTGTFLVRKAESAPGNFSLSVRDGDSVKHYRIRKLDSGGYFITARAPFSSLHEL VQHY  
SRDADGLVCALNIPCPNNDKPLTMGVAKDVWEIPRESRLTKKL GAGQFGEVWAGVWNNTTQV  
AVKTLKEGTMSPAGFLEEASVMKNLRHKHLVQLYAICSDCEPIYIVTEFMCHGSLLDYLSKGEQG  
NLQLPTLIDMSAQVAAGMAFLEAQGYIHRDLAARNILVGENYVCKVADFLARLIEDTEYTAHE  
GAKFPIKWTAPEAAALYNKFTIKSDVWSFGILMTEIVAKGRIPYPGMTNAETIHQVDRGYRMPQPP  
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>TRINITY\_DN1058\_c0\_g1\_i1.p1 type:complete len:2639 gc:universal  
TRINITY\_DN1058\_c0\_g1\_i1:134-8050(+)

MVKYI IWILLLSIFKEAYGGDWAQWQNWWSACQDSSGAPIGCGRGNQHRSRTCADNNCGAGAIIE  
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DEEIEGVSQ LKRYCGDQAISCTGTVLNRTCLCNPATSYPSKDGQCYEATCKTSQEFMTNCGAEN  
SCQGTNTSFVCECNGFGYGYEVVANVQNRKKCKLLSCEDGDLNPLEICGQGATACTGNVHNLT  
CACNVTAGYIPSEDKKSCIPMPCNTDPAVG VQCLPRNTCEGSKIDWRCICSAYGFRNDPTDPKKCI  
EAKCDDPNIDILGLCGTGVTSCTGFLSKRRCVCNTTENYIPTLDGSHCMPAPCNANENATKDCG  
GENSCIGSFDSYMCVCNGYGFQKNATINKCEEVPCSSLPTAEVQRICGFGALSCDGTIRNPVCNC  
NNDLQYYASEDMKSCIEASCSSKADYDSHCGNENSCVGNITHFECICETEGYKPDP SNKKKCI  
LES  
CELNEVDVLNVCGKGAISCKGNVRDLECVCDASKGYVQSPDTNKCEPSSCYGNATVSEQCGEEN  
HCLGDLSDWICVCDAYGYKVNATNSMTCDKVMCGDTGADAVTVCGKETTSCSGHIAKPVCTC  
NETAQYLPSPDSTRCVKASCKENDAARKACVPGNSCSGSYDEFICICDQFSYHQDPADNRKCIRE  
KCEDLAADYDYEKICGVGGISCTGYVNQPVVCNSTESYHPSNDRTSCVKASCSTSDAVRTQCGL  
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SAKGYVPSADMKRCVPNSCKDNPDVYIKCGMENTCLGSYADWFCVCSGAGYEANPADPKSCQL  
MECSKDDAIHVCGYGAIDCKGPVLAPTCSNYS DHYASEDGTSCVPITCRKNDTARAQCGEENT  
CKGHTDNFKCICDAYGFKADNV DHQKCV ERQCTDGDADIIRICGHGGIRCTGPIRSAVCECNSTE  
YYPNADR SRCILASCKANETIMKSCGEFNSCEGNMESHICVCNPGYKHHP SDDKQC VKETCE  
MGEIDPIYLCGKGAVKCNGTYDIYTCECDNAMGYVQAPDGN SCKPFDCHANATMHKQCGDG  
NRCIGSLTDWICVCDVAWYKPDPSNLMRCKEKTCKEADLELICGTGATGCSGSATNPTCECDSA  
NYFVSSTDRRSCIKASCKTNITAVQQCGDGN SCYGTDPDNYVCNC DAYGYRLDDNNNQACVEKK  
CDDVGANYVEICGLGGIGCKGT VKNPVCECDQTKHYVASPDSTSCVLSNCRGNKTVMAACGNE  
NKCFCGSASSFICVCDGPGYKRNP SNLQECLPETCEAGEIKPHMVCGRGATACKGTM YHFECECN  
NTLG FIRSPGHESCIPVND CYANATMHEQC GEGNGCQGSVADWICKCDAPGYKPHKTNFQMC  
HQRMCSDADIDLVEVCGVGVE SCVGPIANPTCNC DTSKHVLSADSTSCIPGSCKTNETIMAQCG

EGNSCSGTSENFVCICNGYGYRPHETDKQTCVLKKCSHSDVNAVDVCGQGALSCIGTMRDPICQ  
 CNNDMFFIPSDDSRSCVLASCSANSDVAVACGKVNCGCFGSKSSWICDCSSPGTMLNPNNIRECLH  
 ETCESGKLDPIIVCGKGALGCNGTMSNVTCECDNSMGYVQSPNGMSCVASDCKTNSTMHELCH  
 DGNSCVGS LTDWMCVCDAPGYHHPSPDPMRCLQKMC SHANINPVDVCGIGATKCVGSITEPRC  
 TCDTAAAYVPSPDGTYCIPGSCQTNKTALEQCGNGNTCTGTADNFVCICNAPGYKLDDSNKRC  
 IEISCNDADVDLVEICGQGSIGCIGTARQPVCQCDHSHKFVPSLESTSCQLASCRANDTIMDRCRM  
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 KKKCTDNPIGSCGIGATSCSGNVNIHKCTCNLTAGYMP SKDEQSCIPIDCKMNPKMNCGFGNTC  
 RGSFFSYVCECNTLGTMRNISNPKQCEIVDCSTD AVSICGVGATGCAVTP TNDVNCTCGEFYHPA  
 HDYHSCVLDDCKFNKLVPDAGVENECTGSISSWMCVCKGPKYIQDIKSTQLCAPGPCRIEQCGS  
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 WLSSIFS\*

>TRINITY\_DN65215\_c0\_g1\_i1.p1 type:5prime\_partial len:383 gc:universal  
 TRINITY\_DN65215\_c0\_g1\_i1:1336-188(-)

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>TRINITY\_DN165536\_c0\_g1\_i1.p1 type:complete len:249 gc:universal  
 TRINITY\_DN165536\_c0\_g1\_i1:851-105(-)

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>TRINITY\_DN165469\_c0\_g1\_i1.p1 type:complete len:2668 gc:universal  
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STYDRVPICTYGVHSLGHLLMFSKDNADVAPQIVVSSIKKTLNSSVDIRLASLSTIKHVSNTPEV  
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>TRINITY\_DN2003\_c0\_g1\_i1.p1 type:complete len:370 gc:universal TRINITY\_DN2003\_c0\_g1\_i1:89-1198(+)

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SEDEDFTIEKTYIGFGAVVGLLLLVIIIVLFVSCICPNACGKQEDPYLIEDRPSRFTNVNTHRDAYS  
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>TRINITY\_DN8903\_c0\_g1\_i1.p1 type:5prime\_partial len:447 gc:universal  
TRINITY\_DN8903\_c0\_g1\_i1:1546-206(-)

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>TRINITY\_DN11377\_c0\_g1\_i1.p1 type:complete len:804 gc:universal  
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NCVLCKAYDRDDLNCTGCEYLDLQRVNDTQKTCTVQFNETCSAYYHYEIDPTQNQTQTNVTV  
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>TRINITY\_DN2472\_c0\_g1\_i1.p1 type:complete len:344 gc:universal

TRINITY\_DN2472\_c0\_g1\_i1:311-1342(+)

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DSGRFTVSGACDASAKVWDIRDGMCRQTFIGHDS DINAVSYFPSGLSFGTGSDDATCRLFDIRSDQ  
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>TRINITY\_DN123121\_c0\_g1\_i1.p1 type:internal len:127 gc:universal

TRINITY\_DN123121\_c0\_g1\_i1:3-380(+)

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>TRINITY\_DN26392\_c0\_g1\_i1.p1 type:internal len:469 gc:universal TRINITY\_DN26392\_c0\_g1\_i1:2-1405(+)

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>TRINITY\_DN1030\_c0\_g1\_i2.p1 type:complete len:1426 gc:universal

TRINITY\_DN1030\_c0\_g1\_i2:4483-206(-)

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>TRINITY\_DN4494\_c1\_g1\_i10.p1 type:5prime\_partial len:462 gc:universal

TRINITY\_DN4494\_c1\_g1\_i10:2120-735(-)

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>TRINITY\_DN11635\_c0\_g1\_i1.p1 type:complete len:705 gc:universal  
TRINITY\_DN11635\_c0\_g1\_i1:2148-34(-)

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>TRINITY\_DN48767\_c0\_g1\_i1.p1 type:complete len:533 gc:universal  
TRINITY\_DN48767\_c0\_g1\_i1:2135-537(-)

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TFGWITANLVNNALNLKVP AENNPKLIGALDMGGGSTQISFIPEHYNFPNKEDMSNLKLYGVNY  
TVYTHSYLCYGFREAQRKLMAHLVEASNYSSKAHPCWQKGYNETIPASWIWLSPCSKRPQASIFP  
LKNSTMYKFVGNGTSDACENRIKGLFNKTNCEAPNCTFNGVYQPPLRGHFMHSGFGHIGTFL  
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>TRINITY\_DN3016\_c0\_g1\_i5.p1 type:complete len:406 gc:universal  
TRINITY\_DN3016\_c0\_g1\_i5:2713-1496(-)

MAPPNLKKMIQVKIKPRQDSYSDQFSRILMVKMLMLTAAFTGITWMKDKVKCIVPKNHADGG  
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LQYQWFPLVIAAIAFLYLYPYLMFRIVNTDLQEIKDIIKGRNANDVDAKAIVKRFFVRKNNSTSR  
KARVLLNVVVKVLYVVVNVLGMIFVDSSTNSEFMQYGANWSSWTALKNEDMHDTNREHEKA  
GHRLLPSFGLCQVYT TAQDIKTKVANDHTYICELSQHVYQYILIVMWYMFVFGIIISIIGLIQHMLV  
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GATAPEKENMMME\*

>TRINITY\_DN79126\_c0\_g1\_i1.p1 type:complete len:115 gc:universal  
TRINITY\_DN79126\_c0\_g1\_i1:397-53(-)

MVARLVLRRLSYNTKSNRRRISKTPGGKLVYLYTKKAGATPKCGDCKCKLRGLKAVRPKKLAKL  
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>TRINITY\_DN11522\_c0\_g1\_i3.p1 type:5prime\_partial len:855 gc:universal  
TRINITY\_DN11522\_c0\_g1\_i3:2878-314(-)

FSAQLFKGSSKSILGGIPNIQLNRGRIGLGNIRDPSISLTRGSKIDYNGYMGFSATSGYFGNDKHIHF  
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Y PDLAVGAFKSNHAIVFKSRPVYITVGRSLGGVKRLDLVNKENLCPNGMKCLDKVQACLMFKE  
EESEGEVDYTLVDSGRDSPKRAYLLDSDGKQVTKINKQTTVSKDEECDDYTIYVKNTTDLVSDLV  
IKLSWKVFVPTTCDGVCPVANELCQFVDTKSIIFVKGCSDDGNDTCSSDLKIEKKEFPKLVGNR  
LVGTEEISAGATDGILTFNIKNLGENAFDNLKLEYPGKGDMKLVNIDDAKVISDYGTPIWDS



VTREKDVTTLSVMLSSPIVKGKPEQVQVKMSLNPIPKGTKFLKFKVYLETDSEETDTSNDFQEITIP  
VELVSNLLVSGQSIPEILTWKDKVDVQDKGAEITYNFLQNGQPSNVDTSSEAILIPEKFKGSYFLN  
IYNYDVKGSKSGSDPGSCRIEGLNPLKLDYYGRRIGNNTRKRRDTRGVPALCEGADTTCREIICN  
FNENRNSATVTVKATLVDANFDSVIGAGREIHVTAEFSSDAVTPPSGLEFPVKSMVTTTVNSPYLT  
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>TRINITY\_DN1194\_c0\_g1\_i1.p1 type:complete len:555 gc:universal  
TRINITY\_DN1194\_c0\_g1\_i1:101-1765(+)

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SLHDAIMIVRRALKNDVAVAGGGAEMELSKHLREHSRSIAGKEQLIAAFKALEIIPRQLCDNA  
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>TRINITY\_DN1783\_c0\_g1\_i1.p2 type:5prime\_partial len:473 gc:universal  
TRINITY\_DN1783\_c0\_g1\_i1:1460-42(-)

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KSPDFWKVKVELPDGADVEYVCIGVKASNYFMPKETLSDKGPGGGGWIFHNKYMVQVTKKDGT  
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>TRINITY\_DN38399\_c0\_g1\_i1.p1 type:internal len:876 gc:universal  
TRINITY\_DN38399\_c0\_g1\_i1:2625-1(-)

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CRCFLSGTVQRLNICHKDFFGQCPCKSNVKQRDCSICKDGYDLRNDDESCKWDCDVGASIS  
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VQFELRTRLSPMLQLELKLDGTTKFLRSNNNLPYALIKVCDTGCFSYFRHDSTQNFFLNAGLYEV  
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CDPVTGDCVCPNSQGRVCDPCECNGNSKRCNRQGICFRCGFNTEGDHCERCKVGFYGNALKS  
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CSAIGQCTCLVAAGREKCDKCDPGFYGLPKMACKECSCNTTGSVLNTNCKNDEFGQCTCKNGV  
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>TRINITY\_DN3991\_c0\_g1\_i1.p1 type:3prime\_partial len:219 gc:universal  
TRINITY\_DN3991\_c0\_g1\_i1:84-737(+)

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>TRINITY\_DN5584\_c0\_g1\_i3.p1 type:complete len:962 gc:universal  
TRINITY\_DN5584\_c0\_g1\_i3:2920-35(-)

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VKIFSNSAAFNQKSESLATEIPTQEFLHSSKLEMLHIALNENEYLDAGEYVIYISFKGSLSGGLEGFY  
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>TRINITY\_DN941\_c0\_g1\_i3.p1 type:internal len:363 gc:universal TRINITY\_DN941\_c0\_g1\_i3:3-1088(+)

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>TRINITY\_DN106\_c0\_g1\_i2.p1 type:3prime\_partial len:1309 gc:universal  
TRINITY\_DN106\_c0\_g1\_i2:137-4060(+)

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>TRINITY\_DN1386\_c0\_g1\_i1.p1 type:complete len:596 gc:universal  
TRINITY\_DN1386\_c0\_g1\_i1:2419-632(-)

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>TRINITY\_DN6428\_c0\_g1\_i2.p1 type:3prime\_partial len:303 gc:universal  
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>TRINITY\_DN2390\_c0\_g1\_i2.p1 type:complete len:467 gc:universal TRINITY\_DN2390\_c0\_g1\_i2:82-  
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>TRINITY\_DN1071\_c0\_g1\_i2.p1 type:internal len:339 gc:universal  
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>TRINITY\_DN4815\_c0\_g1\_i2.p1 type:complete len:638 gc:universal TRINITY\_DN4815\_c0\_g1\_i2:79-  
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>TRINITY\_DN187147\_c0\_g1\_i1.p1 type:complete len:1223 gc:universal  
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GHSDAIVKHVLEGHDRGVNWVTFHPTMPLIVSAADDRQVKLWRMNSKAWEVDTCRGHYNN  
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>TRINITY\_DN4781\_c0\_g1\_i3.p1 type:5prime\_partial len:1859 gc:universal  
TRINITY\_DN4781\_c0\_g1\_i3:8547-2971(-)

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>TRINITY\_DN118327\_c0\_g1\_i1.p1 type:5prime\_partial len:702 gc:universal  
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>TRINITY\_DN3034\_c0\_g1\_i1.p1 type:complete len:1941 gc:universal  
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>TRINITY\_DN360\_c0\_g1\_i1.p1 type:5prime\_partial len:476 gc:universal  
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>TRINITY\_DN25375\_c0\_g1\_i7.p1 type:complete len:811 gc:universal  
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>TRINITY\_DN141338\_c2\_g1\_i1.p1 type:complete len:720 gc:universal  
TRINITY\_DN141338\_c2\_g1\_i1:2850-691(-)

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>TRINITY\_DN11096\_c0\_g1\_i1.p1 type:complete len:557 gc:universal  
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152(-)  
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TRINITY\_DN118520\_c0\_g1\_i1:1895-153(-)

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DAMEKVGKDGVTVDGKTVDYDELEVIEGMKFDRGYISPYFINTAKGQKVEYQNVLVLICQSKIS  
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KGAKGPPGLPGPRGRTGREGPSGPIGDPGINGTKGFVGIRGNPGEDGSPGPAGPPGPTGNPGFPG  
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LKMRMEAEIKPDGSEEFPAKTCKDIQMCFPDAKSGSYWLDTNNGSKTDAYVATCNFTDDVTETCI  
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>TRINITY\_DN123\_c0\_g1\_i1.p1 type:5prime\_partial len:1231 gc:universal

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DKEDQTAKDLARVLFETATMRSGYTVKDSSDFAGRIERMLRLSMGVDVDAKVELPEEDDEEKEE  
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>TRINITY\_DN775\_c0\_g1\_i1.p1 type:complete len:635 gc:universal TRINITY\_DN775\_c0\_g1\_i1:1927-  
23(-)  
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RLYNNMCAQEAQKRVLMVDVILEDGDTKITLDTDESIDLTLADDKEITVSINAQNFFGARHAME  
TVSQLAAFSSEYNAMQIVSSAQVKDDKPSYAYRGLLLDTSRNYFSVDSILRLIRAMSYNKMNTLH  
WHITDTHSFPIEIKSLPEMLRYGAYSSKRIYTHDDVRKIVSYASINGIRVLPEFDEPAHCCEGWQWG  
PKAGLGNLAVCVNRQPWQKYCPEPPCGQLNPTNDNVYDVLGKIYKEYFQLFDPDIFHAGGDEI  
NFCWNTTTEITNWLKQNYGGVSEKNFMDMWGMFLDKSSSKIYEANNNKELPMILWTSKMTS  
EEYLTQYMDPKKHIVQIWTASKDKELSNVIESGFRTILSTYDTLYLDCGYGNWLVEGNNWCSPYK  
DWKLLYDNDPVKILESFNVTVTDKIRSTILGQEAAMWSEQVDEFSSSEKGIWPRTAALAERLWTNP  
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>TRINITY\_DN71243\_c0\_g1\_i1.p1 type:internal len:422 gc:universal  
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VEALDGGQPRRKSLRPVSVIVGDMNDNVPLFSQDVYNVSISDLTAIGSSLIKLSASDADDGLNGEII  
YDISNGNFGTTFIIDKSTGVISLSRKQLSELRKFTLVSTRDKSPISPRNGETATVHVNFIEASANEP  
FFSTTFQKLVLENQAAGIKIGQSKVINSKMEAVYLIVSGSKTRITDYFGINYRTGEITAKQSFDRS  
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>TRINITY\_DN1172\_c0\_g2\_i2.p1 type:internal len:264 gc:universal TRINITY\_DN1172\_c0\_g2\_i2:790-  
2(-)  
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TFPGFLSPSAGVKFADVPNGLAALGKVPALGWVQIIFAGIVEGAFGFDDYKSGAPGDYGWKVLT  
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>TRINITY\_DN564\_c0\_g1\_i1.p1 type:complete len:563 gc:universal TRINITY\_DN564\_c0\_g1\_i1:2018-  
330(-)

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DEPQIEKRSVDEKLTNIGELLKQKITKMAMDLLDMLKVTNEKIREKVKELIENGKIKITNIKEKVN  
DLLALVNSNDEDTMNDVNMIYKRSTEDSLVDLLKSIKGSQEFIEKLLKLSKDKLEQIKEWIKQLK  
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>TRINITY\_DN14015\_c0\_g1\_i3.p1 type:5prime\_partial len:2566 gc:universal  
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GSPSSKFSNMATVNIDVIDENDNTPLSEKTFDTIQVSRKANGVIYQVKFTDADSGLNQGIEYDIEP  
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TYDIEIYENRPLNSLVARINVLNVDPNKDSLTFKIVSGNDGDRFLITNKGDLVLKQNVDFEQQNLY  
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VIHVIPVSGNPPVFLQIQYLSRVSYLTSKGESIVSIATDPEGAASVYEIKSGNELKKFGITNSGIIYL  
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GRTIIMVNIIDVNESPVFESSNIVRSLSQSSPVGTFVGLAETSADKNDLITFSFVPANIGNIFQVDA  
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DINDNRPVNKKDGQYTVESSENVMMVGKMITLDVEDIDSGEKGFLNYLITSGNNGNEFRINNKG  
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VIVVEDENDNNPIFTSEEYNVTLFSKLVNDVAVTVTATDADATYGVVSYAIIISGNNDNMFRVNT  
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TFGPITGTSSTSLDQIVYEIKDSSGTFEVTSNRNKVLKVTDDQNFCVAATTKNGGTLLDLTQIHIL  
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DADGDQLNFKIVGKTANNYFIINNTVLESKSPLDYEQVRSYEFCEIKDSIDTNSRSVILPVSISVTNI  
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GKFSNARRYTNPVYGDYDDDRNFTSDFNLPRGQNNQELAQLKQIPIPNQNNGRANYNNRSEMV  
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>TRINITY\_DN4781\_c0\_g1\_i3.p3 type:complete len:183 gc:universal  
TRINITY\_DN4781\_c0\_g1\_i3:2965-2417(-)

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AGTSSSGTGPRFDHTYGTAAQGFYVYIEASNPRSKGHKAWLKSGEYKPTLGRCLSV\*  
>TRINITY\_DN73457\_c0\_g1\_i1.p1 type:complete len:467 gc:universal  
TRINITY\_DN73457\_c0\_g1\_i1:1435-35(-)  
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KKPKKHIDRAFYLDTFTQFPFCGFHYEFTFYTND AFLADLNAV VVVELFGEKDSEVLR LPHKYYES  
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IDYNPLNCPIAHPs\*  
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17(-)  
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AALNVLFESAIRSAYPQIPNPPVALTIAHNPKFGDYQCNSAMAISKMLQKLTGEKIGPHVVAKTIV  
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GHLRSTIIGESLRLLEFVGHDVLR LNHVGDWGTQFGMLIAHLEDKYPDYKT VSPPIGDLLL FYKA  
SKKRFDDEEDFKKRAYQRVVDLQGGNPDVRKAWQMICEVSRNEFQKIYDRLDVT LIERGESFYN  
DLMSKVVENMKKSGICQKSDDGRWVAFAPNMKVPLIILKSDGGYTYDTS DMAALQQRLQEEHG  
DWLIYVVDAGQGDHFKQIFGVGEAAGWYNSSITRVDHVAFGVVLGEDKKKFKTRSGD TVRLIDL  
LDEGLKRSMEKLLKGRDKELTKEELLA AQESVAYGCIKYADLSHNRVMDYVFSFDKMLDDKGN  
TAVYLLYAYTRVRSIQRNAKKGRSEIEEYMKSNLSLHFDHEKEWKLAKLLCRYPEIVVRCLDDLTLH  
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>TRINITY\_DN67\_c0\_g1\_i2.p1 type:5prime\_partial len:474 gc:universal  
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VYNMRSQCIFKYRHTDKESQMVG VSEKLN FVGGNNAPLQGH LALTGYPDEM RVIWNSAEINT  
PPVVRYGLTKKLDMAEYEVEIRTYEANDMCTGPANTTDGFWHPGFIYDVVLNGLEAHTKYYYSY  
GTEGHMSEIRNFTTQILPGDPTPFKFIVYGDMGVDSFPQGVTT SKQILDEIRENDIKLVFHNGDISY  
ARGYAYIWEQWFHMI EPYATAVPYMI GIGNHEYDHR TGGEKDPSHAEGTGGFRPKWFNGGDDS  
GGE CGVPMYNRFHMPDN GHSIWWYSFEVGLVHLIMISTEHDFSPNSPMYNWLENDLRNVDR TK  
TPWVIIAGHRAMYCSQS IASDYLVALNMQRLFEPLLYKYDV DLAFWAHYHSYERTCKVYQNKCR  
PDGITHIVVGSAGKNRDPDVWYKKDWSVFHFADYGYGRVT VANKTHLGYEWIANRYDKVMDS  
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>TRINITY\_DN5397\_c0\_g1\_i1.p1 type:internal len:161 gc:universal TRINITY\_DN5397\_c0\_g1\_i1:2-  
481(+)

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>TRINITY\_DN247\_c0\_g1\_i1.p1 type:complete len:373 gc:universal TRINITY\_DN247\_c0\_g1\_i1:38-1156(+)

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ERISKQAIASFKKMAKKNVTFPVLGICRGAQMMMMMAEAGKDFLEVTDLSNLSIPLDFTSEQKESR  
LFGNAPQGLIKSLSEDAITFNAHAMGIPTLNFYNNNSGLQKAFRAISTNYDRNGTKFISTFEGRDAPI  
YGLQWHPEKSLFVFNPNVLAVDHSIKGVMAEQYIANFFISEARKNNHTFRDRVEEEEHLLMSYPS  
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>TRINITY\_DN17292\_c0\_g1\_i1.p1 type:3prime\_partial len:534 gc:universal  
TRINITY\_DN17292\_c0\_g1\_i1:38-1636(+)

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TINLLDKDSKILSSNVTDIEGGFQYDNVMMPGNIAQASHPTWTLKQDKVHFTVENDNVETQTDI  
VIAGYDVKGHVLSSGDPIQGVSFILFANGQIDKDAVSGCEKVPEDLLSKLKENGNEKPLCFVLSK  
DGLFSFPTVPTGNYILVPYYTTQNIVFDIVPSKLSFAVNFRSVMFKTPFQVYGFSVTGKVIDSKNGI  
PDVKVTATSQKGEKRSVSNVDGHYLLNVTSNHYKFLLEKPHYHFIEESIHTPNTPNVKDIMST  
RYSVCGKILAYQLPPGVLKVHQBKVLTLFAEKVTSSNIKSTNPDMDGNFCFSTEPGKYKLEVHTT  
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VEGSG

#### Band 5-6

>TRINITY\_DN982\_c0\_g1\_i1.p1 type:5prime\_partial len:6412 gc:universal  
TRINITY\_DN982\_c0\_g1\_i1:19377-142(-)

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VPCQLTTNMVVEVQDEPDVITNFKPFNYVISIPESTLIGTKLLELKVDSESSSITYTLQAKNQPGDLD  
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RRMPENQQVNTTTSVLATDSDQGINSNISYSLIKDSSCENNFEINEITGAISLTSSLNVEVRKEHYCII  
KATDNGSPVLSSYSCLKVIVENVNDNSPVFLPKELEITVLESKPVNSFVIRVFATDKDEGNSITYSIV  
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RVLDVNDKQPVFVKSEYIFEISENQPLNSPIGLVQANDDSTSPNNIIQYTIVPSKDSINFTMINNQI  
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LVGTLLFDIQATDKDNGENARLTYTISSGDTSTFRINENDGRFYLSKKLDFYNKNEYSILIVVNDNG  
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LDNGKYLVRVSETTPIGSVMFSVNTGDEDFGSLPNGQKTYSIKAKPGEEMFLFLVDSYGRITNTTLD  
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IDSTSINNGIKYSIQPAGFLNISNTGTLTSVGSALDYKQKVTLYVTATDTGSPYLSATTSLQLDIINI  
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GVGELVVNVKDINDNPIFDPPQVYQVTVSESANIGLSIVSVTATDKDIGVNGEVTYSIEDGDQTIFSI  
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EPGELGKEYLKLGITDNDNGRNQLFTCSIDEPLAEKYFEMINDCRLRLIKELDYEEFTSFRFVVKAT  
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RSYEFQVRAKDRGTPSLESNLVSVVITVLVDYNDNHPIFNIQEPLSEIKELVNNTDVGTVTATDKDG  
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WNDVHPSFSTLNIYNFTIPEDKPVGEIIEILTANDGDATSPNNEVTYKLLTTEDDFILRRNDKGHGS  
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TRINITY\_DN140702\_c0\_g1\_i1:94-6201(+)

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>TRINITY\_DN3078\_c0\_g1\_i1.p1 type:complete len:1109 gc:universal  
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>TRINITY\_DN602\_c0\_g1\_i3.p1 type:complete len:851 gc:universal TRINITY\_DN602\_c0\_g1\_i3:3046-494(-)

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>TRINITY\_DN624\_c0\_g1\_i1.p1 type:complete len:884 gc:universal TRINITY\_DN624\_c0\_g1\_i1:218-2869(+)

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204

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KTEFSRIDKPDGTDYPARTCRDIHAYHPEAKSGLFWIDPNQGCKDDAIQVTCTFSVNEDDEPTV  
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>TRINITY\_DN3347\_c0\_g1\_i1.p1 type:5prime\_partial len:924 gc:universal  
TRINITY\_DN3347\_c0\_g1\_i1:2-2773(+)

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EKNIKTRQGCFLNLTFLVGLPSGLTEHIDKIMPGIHFICITDRNSTSNMKIDTSLFLGCILQHIKAEV  
FYPHIHQFLPAVVECIHDPFYKITSEALTVAQNTIKVMRPTGTENYFDFKPYINDLYQSILHRLRATD  
IDQEVKEKSITCMGQLLRNMGDNLSKQLPECLPIFLDRLRNEITRLTTVKSLTTIASSPLHIDL SILL  
DGIPLMATFLRKNHRGLKLHLLTCLDLLMQNYGNVMSTKHFEAVLDELNLISSETDLHVSQSLN  
LLTTMISKQQLLLKKVSVSTVLSHIVLTRSPLLQGHALNSMVSFLTTLVRYSSSGLGYTDLLQMLTEV  
YGSTTENIHKSAYHSIARCASALTACPSAEAEAVVTKFIKDIKNSGTNDSIRLFSLLTIGEIGAHL DLS  
SKAELKNVIVNSFSADSEDIKTAASFSLGHITIGNMDAYLPFILKEIESNAKRQYLLHSLKEIIVCQS  
TDPSSVKSLEQYVPSIWSLLTHCENKEEGTRNVVAECLGKLTMEVPQKLLPELKSYSDDL YSAQ  
MRSTVLTAFKFTITDQPQSIDILLKDHLQAFLOPITDNDLNVRRVALTTFNSAAHNKPGLRD LLLTK  
ILPHLYNETKVKKELIREVEMGPFKHTVDDGLDIRKAAFECCMYTLLDSCLDRDLIFEFNLHVENGL  
KDHYDIKMLTYLMLVRLSKLSPNAVVFQHLERIIDPLRTTIQAKVKANSVKQEYEQDELKRSALRA  
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>TRINITY\_DN59572\_c0\_g1\_i1.p1 type:internal len:725 gc:universal TRINITY\_DN59572\_c0\_g1\_i1:3-  
2174(+)

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TMVAVNHNGTANLYISNPEGTKYSLSLGNILYKNKDEGQKSYFEHSFVDLHRIKGISGIYIATSLTTG  
AVGTRHLQSYITFNKGGYWSLLKAPEDTKNCSIWRGCSLHISQEFGYHNPLLNFSPITSKESAPGFL  
IGTGNVGD SLKTKPNVYLSRDAGLSWRKV LQGHHYYNMLDHGGIIVAVEKFGLTETFTYSYDEGK  
TWHSEVFSKERVRYGLLTPGEKSLVITIYASYNKAHAWEVFEIDMTKVLGRKCSIDRDYNLWAV  
ADQRNDTERCVLGKKQIFERRKAKSRCYNGYNYDRPINVSACLCTREDYQCDYGFKEKMILWFR  
WDCVHDSDFEDYSKKPPSWCKPGLTYNISSGYVKAPGDACYGGEESKYVSTRKMCPIPKVDDYL  
LYATRKSFFGYDFESKKSIEFKLDGYSNIVALEVAYDDGVLFADKDRDSIVKIDTNNGNISTLLGFD  
ESSTHIESMSYDWLSGNLYYCDSGNSTIGIINLAGKHKKEIMKFADADKPRAMMVHPTKGYLFWT  
DWGAKPRIGRATMNGKNIKTIIDTEIYWPNGLTIDYDADLLYFADANKDRIEACGMMDGENRRVIL  
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>TRINITY\_DN160\_c0\_g1\_i1.p1 type:complete len:1145 gc:universal  
TRINITY\_DN160\_c0\_g1\_i1:4810-1376(-)

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DFYDFDLMVSN TENTHYDLSMKSIDGKDWKHFHIMKVEGAGVTSIDLKFTARSYGAFADY AID  
NIVIEDYPDAGPCKDNRCLANEYCTITSSTQTVCAKCTQQACGENAECILDSLAINCKCKRQGY  
LPRVSNYGDKLCYRPDASCDIEYNSLGQCRISTSIPI MYGHPSLWHGRYSPVSGNGYVFKYDNT  
ITLDAVSSQKLSFFYLVDNPNMINS LTV EYGSRKFEVPINREKTNIWTLYEVLILASTNQGVQIKASF  
YAEGGVIGIDNIQFTQQNEVVVEKIYKESMMAATFEDGSVPTDLKVAMLFVTRYGKIDFGCLPGIE  
LETRNGKLYCKDGVVQRQSACSQSDCIGSNARCVL RNCVCNTNSYQISIGTYGEKATSCAVYPC  
EINSPRCHSTAICSNIKTPGQNFYNDYTCKCGRSLNNVETIINPFIGGDKSTQCLAATPSDSYVCND  
NNFKPSRTTEYCLKGNQATVEYSLRATNFGNYALFKHCDDPDDEYRSSFN DPGSFWRPIDLVAAA



NENLAVSVTYKTSLSNKFICNFQARFGSKLTLAVNVNSNSRVLTFTNTQTSVNKQNPVYQQQV  
 FQSDNPTPGAEMSVTFTVTGNQAVDQNVDAILLDNVVCCKGFDDVASVNTPCGNNACASNQYC  
 NPLLSNSEKECLCPTGQKDQNCPPVPSGSVVSADGPKCIGHHEKYMNGACVCDDGFEKTGDT  
 CTVKINCGCNDGLCLSGDKCSCPLNLLKVNQACVRTNKDCAKDCVSTLNGGGYCDVTTGMCD  
 CLTGFKVSKGRDDGSYRCDKHAVVQKINDPKGICSATCGTGFVNEIEVCVGATGTGFECMTNIVQG  
 TLGVCSLPACPATSSQCSIQKECACNNVRVPIGSDGKLRLDFDHEAKLNMIFRFLSKHNQKDLEFK  
 FREARCDNTKLDIARTIEDDLKQLEFDTLQAAITTMKSILDCSPSGNDHNAAYWDVFDMLIELS  
 SYRPHAVSDLQLKKELMHEQSRGMRNLHKVVDGYAFWNKK\*

>TRINITY\_DN15847\_c0\_g1\_i2.p1 type:5prime\_partial len:166 gc:universal  
 TRINITY\_DN15847\_c0\_g1\_i2:3-500(+)

NRQGATQYKMSEQTERAFQKQPTIFQNKRRVVGESKGEQRFKSVGLGFKTPREAIEGTYIDK  
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 LVTVGQCRPLSKTVRFNVLKVNKSTSAKKSFEKF\*

>TRINITY\_DN3016\_c0\_g1\_i5.p1 type:complete len:406 gc:universal  
 TRINITY\_DN3016\_c0\_g1\_i5:2713-1496(-)

MAPPNLKKMIQVKIKPRQDSYSDQFSRILMVKMLMLTAAFTGITWMKDKVKCIVPKNHDADGG  
 FVSKSCWINGFYVFKGLKEKDTSYYYGIPKDVLSGDYDKYGALCSTKNQQGRLNQGCTPLEKTFF  
 LQYQWFPLVIAAIAFLYLPYLMFRIVNTDLQEIKDIIKGRNANDVDAKAIVKRFFVRKNNSTSL  
 KARVLLNVVVKVLYVVNVLMIFVDSSTNSEFMQYGANWSSWTALKNEDMHDYTNREHEKA  
 GHRLLPSFGLCQVYTAAQDIKTKVANDHTYICELSHVYQYILIVMWYMFVFGIISIIGLIQHMLV  
 KTMALISMNAEGDSVRKIYSDLTVREKEYLDFIRRNLPVFTKVLDEISQLKGVSRSYATSESDRSSF  
 GATAPEKENMMME\*

>TRINITY\_DN11522\_c0\_g1\_i3.p1 type:5prime\_partial len:855 gc:universal  
 TRINITY\_DN11522\_c0\_g1\_i3:2878-314(-)

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 AGGSPRSNALKGRVIMYKDSAGYEISQYLDPSDQIGTYFGSAMASADINGDGLADLVVGAPYYT  
 GTVSNEGIAAYVLNKNNGIVELVQTLRQPEGKDVKENGFMFGISIGSVGDLNNDGFADIAIGAPWGG  
 EDGKGIVFVYQGQRDPAQLKLMQTIKPSDLSGIDVDGFGYSFAEFYPYSGGPDQYGFENDPDYNI  
 YPD LAVGAFKSNHAI VFKSRPVYTIVGRSLGGVKRLDLVNKENLCPNGMKCLDKVQACLMFKE  
 EESEGEVDYTLVDSGRDSPKRAYLLDSGKQVTKINKQTTVSKDEECDDYTIYVKNTTDVLSDLV  
 IKLSWKVFVPTTCDGVCPVANELCQFVDTKSIIFVKGCSDDGNDTCSSDLKIEKKEFPKLVGNR  
 LVGTEIISAGATDGIILTFNIKNLGENAFDNLKLEYPGKGDMLKLVNIDDAKVISDYGTPIWDS  
 VTREKDVTTLSVMLSSPIVKGKPEQVQVKMSLNPIPKGTFLKFKVYLETDSEETDTSNDFQEITIP  
 VELVSNLLVSGQSIPEILTWKDVKDVQDKGAEITYNLFQNNQGPSNVDTSIAIILPEKFKGSYFLN  
 IYNYDVKGSKSGSDPGSCRIEGLNPLKLDYYGRRIGNNTRKRRDTRGVPALECGADTTCREIICN  
 FNIENRNSATVTVKATLVDANFDSVIGAGREIHVTAEFSSDAVTPPSGLEFPVKSMVTTTVNSPYLT  
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>TRINITY\_DN840\_c0\_g1\_i1.p1 type:complete len:409 gc:universal TRINITY\_DN840\_c0\_g1\_i1:1437-  
 211(-)

MAMVATDIKSMLSINIKSRHDSHTDQYNRIFMVKLLLVSSLIMGLSWFQDSINCMIPDTHGINGGF  
 VSATCWIQGVYVFKELQTRVDKVAYFGIPKDMNNDGMLPDGQLCTTRKRFDEEPNPLCKEMHK  
 TYFLQYQWMPFLIAALSILFYAPYVFFRTANTDLISLKNLTKTEEPDAEKIVKSYFNHRVNPQRTMY  
 LRLIFNLLVKILYLVANLVAFLGLDSSLNGEYVGYGNKWWVSWSKMDNAVAYDYLGMRDFFPKPGN  
 LLLPPFGYCEVYESAKDVKQSMANKHKFVCELSQNILYQYCLIVMWFAIFGIVISVLGIILLIIHYA  
 LNIMGIKSRGGAACKLYKALTFRELEYEFIRKRNILLFGEVLEQLRNEILGPNAPDDRAPLYPNLP  
 KDEYDAKRPGYQL\*

>TRINITY\_DN1936\_c0\_g1\_i3.p1 type:internal len:1070 gc:universal  
 TRINITY\_DN1936\_c0\_g1\_i3:3208-2(-)

GEYKPTLGRCLSFYHMYGSHVGELNVLVLQNKSRSAPIWNLKGNQGNVWRPSRVTIKSAVNH  
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 TTGPSNDHSTQTALGQYMFVESSYPRLPHETAIIGSETIPVSGSGKCLQFWYHMYGEHIGSLEVNM  
 RVANDLSETIVWKLEGNQGNKWLQGGAPLLSRGQNMEVRFEGIRGTGYKGDIADDDITVVDYSG

ACAITPKSAKPWGCNFDCKWQQSRADKFDWLRNQGATGSAGTGPKADHTTNTTQGYAY  
VETSFPRQPNDAAIISPTIKNGTKQTYCMWFAYHMYGPHVDTLKVYTRSQGS DKPVLWRRRG  
QGLNWNHAEVQVTVLYDTKVIIIEAVRGKDYKGDIADDDIWFGDCFSGICTFEGADLCFWYVP  
KNGQLYWQRASGATPSVKTGPKNDHTYGTSSQGHYMYIETSNAPAKATAYMYSWPYYNTGQKC  
VQFFYHMYGQQIGQLEVIYRYSNSRYLYRQFIRSGNQNNNTWHMGQVTVKRNNVYFQIIVRGTKG  
NGYQGDI AVDDFRIRDGAC PAPGDCDFEHADFC SWMQEDNDDFDWIIGSGSTNSFLTGPSIDHT  
TQSNNGYYAFIEASSPRQPGHKARFKSMVFAPTTGSGRCFSFWYHMRGYSIGNLTIYLRKVSNTKT  
LSEEVWMLLGGNQGKAWNQGFRFTLKSSTLHEVVIEGVRGSSYDGDIGIDDIEFTSGSCSFLPKGA  
WPSGRSTPAPTQASTTLGPTIGNKGFD CNFDKEFKCTWMRNSTRTNFQWKRHQGSTSSVGTGPH  
HDHTTNTDQGYVYIESSSPAQPNDTAYLIGKDIPNNNGFCLSYWYHMYGPHVGSFRVYVVKNT  
NAEARFVRVGTQGD KWKHGQLYISPKAGNPITIRFEGVRGSSFMGDIALDDISVRYGNQCPAPRE  
CTFEHDNNGSSSTCGWTQEKQKDSFDWSIGSGDTPSVLTGPNFDHTLETQKGHYFYIETSYPRK  
FGENATIISQSYQQTLGKCFSWYHMYGSTIGNLTLFLRRD

>TRINITY\_DN6542\_c0\_g1\_i3.p1 type:5prime\_partial len:545 gc:universal  
TRINITY\_DN6542\_c0\_g1\_i3:2-1636(+)

SSTTEAPATTAPTQSTTTT VATTATSAATTA APEITSTASSTTEAPVTETPETTVITSKPSTTAAPTGY  
RVCCYTNWSQYRNGAGKFFPSDIDPFLCTHIAHSFAKIEGLNLAPYEWNDIDVLYPQMISLKLAN  
PKLKILLAVGGWNHERQGVARFSDMVQTKSNRATFISNTIGFLKLHQFDGLDL DWEYPASHPGSR  
PGDKQKFTELCKELLEAFVEDAKTTGTERLLLSAVAAGTSTIATAYEISELT KYLDALHLM SYDLS  
GGWNPTTGHHTAVNADSGNSVTNGLNAWISGGFERNKIVLGMGTYGRSFELSNPASNGIGAPAS  
GYGSPGKYTKEKG FISYYEICEMKNAGMTVIRDPIAKAPYGVKGNQWIGYDDEESLRYKVQHFVV  
KEQLAGAMFWALPLDDFKGQFCGKGNYP LMNAVKEELAKHENMATTTQSPAITAATTA APEITS  
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HNSNARDNFNKKFNN\*

>TRINITY\_DN80458\_c0\_g1\_i1.p1 type:5prime\_partial len:157 gc:universal  
TRINITY\_DN80458\_c0\_g1\_i1:519-49(-)

SKSAKMGRMHANGKGISGSALPYRRSVPTWLKLTEEDVKDQIYKLAKKGLTPSQIGVILRDSHG  
V AQVRYVTGNKILRILKAKGLAPSLPEDLHCLIKKAVAVRKHLEARNRKDRDSKFRILILIEARIHRLAR  
YYKVKRVLP PNWKYESTASALVA\*

>TRINITY\_DN6428\_c0\_g1\_i2.p1 type:3prime\_partial len:303 gc:universal  
TRINITY\_DN6428\_c0\_g1\_i2:906-1(-)

MLSSKLERNKNLRYRYRSCCNIRVPSTSQKILNPFTLVVGGNAIYLDRQNVQCPGSAVITQLLL  
RRYKSTIRYTYSCSTIPRKM ECQNMKTPLNFDGKG DARYLDRHPVSCPNDYGLNKMRLQRGSNL  
KTYAYHYRCKPLYSVQFQENKVDGGFTNWSKYGTCTKSCGGGIQERSRSCENPKPLNGGKQCI  
GVSVETRSCNTDPCPVDGGFSNWSNYGTCTKSCGGGIQERSRTCTNPKPMNGGKQCVGVS VETR  
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>TRINITY\_DN1377\_c0\_g1\_i1.p1 type:complete len:878 gc:universal TRINITY\_DN1377\_c0\_g1\_i1:68-  
2701(+)

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FKVIKMPNFKGLYQYNVSFDPEINSSKLKNALLYQMADVLGQTKCFDGM TFLPKRLPDQITTRS  
VTTHQGN AIVIKIMFTNVIPEISPQVLQMINIIFRRQLRCIKMELIGRNYFNSSRKIEVKAHKMEVW  
PGFSTSILQYEKDVMLCADVQHKVVRQQSVLSMMYELHQKTREKNRFYELAAKKLIGETVITRYN  
KKNYKIDIEWNKNPNSTFDKNGTQITFKEYFEKTYDAKVGD DQQLLVSLPKAKNRKSGIVGPI  
LLLPEFCLISGLSDEIRSNFSIMKDLAQHTRINPAERAKNLEQFVQDLQTNEESKKELEQWNLKFES  
KLLQMTGRAYGSEKMFQREDQFSYKIQDADWSRETRGKKLIHTVNMTDWLLVY YERDEPIATDF  
KQTLVKVCGPMGMNVAEPQLCRLKDDTARSYFRALSEQIRPTTQIVVCIVPNNR KDRYDSIKKLC  
CVEKPIPSQVIVSRTL SKKQMLMSVCTKIGIQLNCKLGGEIWAVDIPISKNPKDPPSLMVVGFDVYH  
DSASKGKSIGGFIASNRHLTKYYSRITQQQSHQEIADQLRVCMTGALKKFNELNGTMP SRIIVYR  
DGVGDGQLRQVFDHELPQFKA AFNAISQGYDPKFTMIVVKKRISTR LFLSERGMKTNPLPGTVVD  
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QYAHKLAFLVGQSIHAEPDVQLADRLYYL\*

>TRINITY\_DN118\_c1\_g1\_i3.p1 type:internal len:200 gc:universal TRINITY\_DN118\_c1\_g1\_i3:599-3(-)  
KVLFLCGFILLSGLAFAYEIEEIVEDAPKPEPEHVPEPEPEPVKEPEPEPEHKPEPEPEQCSTVKHQK  
CSKADKVCSPEDSHCTFTQICTPFFVKCKCKVVSVEKKCVVVRNCIPKFSYEKVCEDVKRCPPRKR  
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>TRINITY\_DN149493\_c0\_g1\_i1.p1 type:internal len:148 gc:universal  
TRINITY\_DN149493\_c0\_g1\_i1:2-442(+)  
EVKKAGVNVGTGKIAICKYGRGSRNAKTRFSEARDVIGLVLYSDPREHTYPGLEYPKGWMLNKDG  
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GGDLNVTYRLQSGAGRE

>TRINITY\_DN2217\_c0\_g1\_i2.p1 type:complete len:254 gc:universal  
TRINITY\_DN2217\_c0\_g1\_i2:884-123(-)  
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KCTLNNVPPAVCPIEKGYCVKGNHGDQNSGVIKMNSVDGNTENAQKECLELCQRNPKATGCEV  
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KCNL\*

>TRINITY\_DN1071\_c0\_g1\_i2.p1 type:internal len:339 gc:universal  
TRINITY\_DN1071\_c0\_g1\_i2:1016-3(-)  
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NKPSKDGVGAWEPAQEEIYLEVHFNKIEDVREIRIQGHPTDKKFTKNFFLSTSQDGVNFETDED  
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>TRINITY\_DN77\_c0\_g2\_i3.p1 type:internal len:1381 gc:universal TRINITY\_DN77\_c0\_g2\_i3:4141-2(-)  
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SVGKVGPIGLSGDDGKKGQIGQKGPSGRGGFGNIGEKGKRGTDGVPGNPGEKGPKGTAGRKGE  
LGGDGRPGVQGAFGHKGNDGTIGLDGETGDPGLKGAKGYAGEKGDQGDIGGAGLPGPKGEDG  
PIGPPGQRGLRGPAGPLGDPGLAGDKGQQGTRGNPGYTGKPGESGPNGEKGLSGSIGPVGE  
QGPISGPGEQGRNGNDGTQGARGPRLAGPDGPTGPQGPRGESGPQGSAGGPGNAGLKGVRG  
KPGLRGLTGPKGESGDIGDPGARGPQGQVGKQGKTGPPGASGEPGLTGNQGPQGPGDGPNG  
NKGLMGSQGPVGEKGLGPKGSPGRAGLTGPKGLLGEQGSQPGLTGRDGKNGLQGVNGKD  
GEPGASGPQGMQAPGLIGTTGPPGDNGDFGDDGPAGADGDKGSRGDSGVRGPAGAPGDEGQ  
TGMRGERGDKGPQGNPGSQGSPGRGTPGLDGLGAEGRKGTAGRNGNPGLTGAQGVVGN TG  
LPGSQGSRGVPGEQGDSDGAPGEMGLPGLPGLKGSIGRQGLTGRRGQQGVPGPKGYGLQG  
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PVGLRGPVGTSLRGPKGPA GDKGDSETGAIGIAGELGTPGVTGQSGPRGQIGEIGLRGENGPQ  
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GTLGEKGVDSGPGSTGTNGGNGVPGDNGPKGYIGERGEVGEPEGEGLGEKGVKGEEGSEALKG  
VRGPNGKSGASGKRGRDGTGGNGPKGEDGSKGSGVGLKGFGKNIGFTGFIGPIGAKGYKGDMG  
PDGPEGHTGPQGNTGDPGVDGDPGAVGSKGPAGNPGQIGSEGNQKPGDGPKGPEAGLSGPPG  
SIGQPGDMTGAFAGMYWNYIHSAGMRSQRYKGNKEEVEDSDNSIDKLFKTTYETFNFDV  
WNQVVDDLVLKTLGTMKNPAVTCADLFKTNPYFQSGDYWIDPNEGSPDDAILVHCNATNYET  
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>TRINITY\_DN4815\_c0\_g1\_i2.p1 type:complete len:638 gc:universal TRINITY\_DN4815\_c0\_g1\_i2:79-  
1992(+)  
MVSSLLLVLICTVVYTAGISAFFQCDFEKVDICGFKSSSSNYTDTGEAPNWRRTHTGTTPSAKDQNN  
AHVTGPLEAQSGDYMYFEASNLPASSTGTLSRLFDATQFGVTDIVFHVSSKGESLSLLVLDLFI  
DYTTNDIFDEKVVFPRNKA AWQKYTFNLDEKIFKRKFYMQFIGYVREVNKGKDNWDWAIDNLRI

DGIAIVEKCEENVKCNVNTNCKDTSNGPNCECLPGYSTKAGTSGKNTECIETCQAFTCNLNAECS  
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GKTTRCEDDTCSNFQCSNNTNCENTVSGPNCTCKEGYRPVNGTRGRDTICEDINECAIKNICGGL  
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APHGRDCPNEPTERAACNSGPCLAGCPRNKTCTCENVRQYKTGEEPKKDFSSFNGLSITDGETS  
RRYVHTYNREFIEKTIKDVNCNNNQLKSVYKNITDIIGILEGINKKYSSTKMEMQDIIDCNANIDIE  
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>TRINITY\_DN15584\_c0\_g1\_i1.p1 type:complete len:275 gc:universal  
TRINITY\_DN15584\_c0\_g1\_i1:874-50(-)  
MADSGSAGADRGRGGFGRGGRGGRGGRGGRGGRGKPEDKEWTPVTKLGRVLKDLKIKTLE  
QIYLYSLPIKEFEIIDFFIGPSLKDEVLKIMPVQKQTRAGQRTFRKAFVAIGDYGGHVGLGVKCSKEV  
ATAIRGAIIQAKLSIIPVRRGYWGNKIGKPHTVPCKVTGKCGSVTVRLIPAPRGTGIVAAGVSKLL  
QMAGIDDCYTSACGTTATVGNFAMATYMAIARTYSYLTTPDMWAENQFQKTPYQEFTDYLAKNH  
NVGGKPVPATATA\*

>TRINITY\_DN187147\_c0\_g1\_i1.p1 type:complete len:1223 gc:universal  
TRINITY\_DN187147\_c0\_g1\_i1:3708-40(-)  
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LTGHNHYVMCAQFHAVEDYIVSASLDQTVRVWDISGLRKKYCAPGAKPKEDITAPKTPGQMDLF  
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>TRINITY\_DN101992\_c0\_g1\_i1.p1 type:internal len:139 gc:universal  
TRINITY\_DN101992\_c0\_g1\_i1:414-1(-)  
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>TRINITY\_DN2885\_c0\_g1\_i2.p1 type:complete len:114 gc:universal TRINITY\_DN2885\_c0\_g1\_i2:31-  
372(+)  
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>TRINITY\_DN79\_c0\_g1\_i1.p1 type:5prime\_partial len:478 gc:universal  
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>TRINITY\_DN12627\_c0\_g1\_i1.p1 type:5prime\_partial len:1061 gc:universal  
TRINITY\_DN12627\_c0\_g1\_i1:3456-274(-)

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>TRINITY\_DN1936\_c0\_g1\_i1.p1 type:3prime\_partial len:1224 gc:universal  
TRINITY\_DN1936\_c0\_g1\_i1:3669-1(-)

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FLEVSQPIKAGDIAILESQQFNAVGGKTRCLNFWYHMFSGDIGSLQVVYKVFSGSQQERVLWNL  
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GFVPKYGPGSLRHAGGKCVHVLNNGGFNKPKEGNPLVLYQCGQTRLEFVFKYGYLKLTRLNMC  
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KSRIFFTSPTMGHYAIYETSPPRQPNDTARLISPILKTPRCLNFWYHMYGAHVNMLNVYVKTSNGP  
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VYFQIIVRGTKGNGYQGDIAVDDFRIRDGACPAPGDCDFEHADFCSWMQEDNDDFDWIIGSGST  
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>TRINITY\_DN144508\_c0\_g1\_i1.p1 type:internal len:265 gc:universal  
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PRRPNDTARLVSSDVPATSQMCFEFWYHMYGDHIGNLTVFKRIGKAMTMLWAKSGTQEPRWRH  
ATVDITSASVFKVVVEGTASSGYMGDIALDDLFLTPGACPPSAECTFEDPQLCGWTNIAGDDFDW  
TRGNAGTASWGTGPRTDHTYGTKQGFYMYEASTPRSKGHKAWLKSEEYKPTLGRCLSFYHMF  
GLHIGELNVLISQNNSMSAPIWQMKGNQGRPWRPSRVTVKSSLNHNIVFEGRTGDGYRGDIAID  
DVMISEGP

>TRINITY\_DN2626\_c0\_g1\_i2.p1 type:internal len:219 gc:universal TRINITY\_DN2626\_c0\_g1\_i2:2-  
655(+)

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VGAGFIGVEWITELQHFFPK

>TRINITY\_DN1559\_c0\_g1\_i1.p1 type:complete len:311 gc:universal  
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CFVYSLDFARTKLANDTKSSKKGGSREYNGLVDVYRKTLKSDGVAGLYRGFVLSVGVIFVYRGCFY  
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>TRINITY\_DN3986\_c0\_g1\_i1.p1 type:complete len:446 gc:universal  
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CLQGFQLTHSLGGGTGSGMGTLISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVE  
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FPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMMAACDPRHGRYLTVAAMFRGRMS  
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>TRINITY\_DN195348\_c0\_g1\_i1.p1 type:internal len:311 gc:universal  
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KVLIVISDGNEDFKEKQNLVDRAIDQLKAKGVIIYTVSIGNNVNWDVFRYASRESSIINGANFDD  
VFNRFFDFAKMLCEDSKVPIPATRTTASTTTVSINTTKLTTTTTTTELVPVTISTTTTMMSTTLRPIQACY  
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>TRINITY\_DN3034\_c0\_g1\_i1.p1 type:complete len:1941 gc:universal  
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GEFHKSITKPKVKVGTEFVNKGQNVSVLYSVAALSKALYERMFVWVSRVNAKALDTKERRSYFI  
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ANDEALASTKHKFNAQLSEAQEELESVKKAKSKSDKERSQLAGDLEDVQGGQLDQVKKQRASSD  
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WKNKYDMEGASRVEELEDKRKLAARVQEMEEALAAESKAASMEKVKNRMNEEVEDLLLDL  
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 KANRAMNECARLSSELNGAQENASNAEKSLSMARQITELQQQLEEAESMGGKSLKNQIRKLE  
 QKVMEVEGELDNEARKSTESIKIARKADKRVKELQFQLEDEHKAVERAQEVSDKLNQKMKKMR  
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>TRINITY\_DN1704\_c0\_g1\_i1.p1 type:5prime\_partial len:190 gc:universal  
 TRINITY\_DN1704\_c0\_g1\_i1:1-570(+)

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>TRINITY\_DN163801\_c0\_g1\_i1.p1 type:complete len:298 gc:universal  
 TRINITY\_DN163801\_c0\_g1\_i1:55-948(+)

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>TRINITY\_DN761\_c0\_g1\_i1.p1 type:complete len:830 gc:universal TRINITY\_DN761\_c0\_g1\_i1:129-  
 2618(+)

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 DLETVISQTQDHRHRLQLTIAKNIRVWLKVKKIKAIYHTMNMFNLDVTQKCLIAECWAPVADL  
 DSIQAGLRRGTERSGAQVSSIVNRMSTKQDPPTFNRTNKFTKGFQAIIDAYGVASYQEVNPAlyTVI  
 TFPFLFSVMFGDCGHGAIMALFALWLMNERKIANWKAGGEMFDTVFQGRYIVFLMGLFSIYSGL  
 LYNDIFSKSLNIFGSAWVPTLNRTKYDYQPENYKEWSDGDRMLNPLDAPRETpyYFGIDPIWQLTS  
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 FSIHSPSQPSILLG LLAMFLNF AKKKTDADRLYNGQDFLEPFLVVAVICVPWMLLIKPFYLRWQH  
 NKKKQHGTNFARLHEDTAPLQDNEVNHHDDSGISSKNEEEEFDFGEV FVHQCIHTIEYCLGCIS  
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>TRINITY\_DN1739\_c0\_g1\_i1.p1 type:complete len:400 gc:universal TRINITY\_DN1739\_c0\_g1\_i1:86-  
 1285(+)

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 MGNIVVKILYIVVNIAAFLLLDSILNGGFTTYGTLWTQWAKLDNDLAYDYMGRHSPK PANALLP  
 TFGFCEVYMSAKDIKTTVN NKFKFICEISQHILYQYVFIVVWFAMVFGIVLSIVGLLMQLIEHALTIT  
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 QDTQA\*

>TRINITY\_DN141338\_c2\_g1\_i1.p1 type:complete len:720 gc:universal  
 TRINITY\_DN141338\_c2\_g1\_i1:2850-691(-)

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 DKVEVVTKNNDDEQYIWCSSAGGSFTVKRDTINEPIGRGTKLVLYMKEDQLDFLDEKKLKDIKK  
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 IKENYTEMEQINKTKPLWTRNPDDISTEEYAEFYKSLTNDWEEHLAVKHFSVEGQLEFRAILFVPK  
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IRKNLVKKCLELFAEISEDKDNYKKFYEQFSKNVKLGIHEDTQNRNKVAELLRYSSSASGDELTSFK  
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TKEGLELPEDEDEKKRQEELKAQFEDLCKVIKDILEKKVEKVVSNNRLVDSPPCIVTSTYGWSAN  
MERIMKAQALRDTSTMGYMAAKKHLEINPEHQIMIALKKKIEADKNDKSIKDLIILLYETSLSSG  
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>TRINITY\_DN118520\_c0\_g1\_i1.p1 type:complete len:581 gc:universal  
TRINITY\_DN118520\_c0\_g1\_i1:1895-153(-)

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IARSGFEAVSKGANPNEVRKGVMAAVEVVTQGLKDLARPVTTEEIAQVASISANNDAAIGKLIS  
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SDYEREKFQERLAKLVGGVAVIKVGSSEVEVNEKKDRVTDALNATRAAAAEGIVPGGGTALIRC  
AKLLDTFQVPTEDQKWGVDIIRAALFKPCSTIVANTGIESAVVVEKVSSSKDPEYGYDAASGEFAN  
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>TRINITY\_DN1043\_c0\_g1\_i2.p1 type:complete len:700 gc:universal  
TRINITY\_DN1043\_c0\_g1\_i2:2410-311(-)

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IIIREQVSTFDSLQADLVKLLDQKLLDKLNNVTKHLENQIDRNNETEIGSFEDLEGKYMDTTTFALT  
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KVSLSNSKWNTFKLKFPRITAAMNRMSNSKIGKALGKAMGKVKGIAVGVGKGAVVAFFIAFEVW  
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LAIKGVVDDCGIGLVYDDIYARALAKQKKITETCIEGSYMDKNEIKGLMVAAMDLDKKQSCIV  
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>TRINITY\_DN108993\_c0\_g1\_i1.p1 type:3prime\_partial len:180 gc:universal  
TRINITY\_DN108993\_c0\_g1\_i1:538-2(-)

MGNTATAKKGDSENAVKAFLTQAQEEFKKKWDNPSHNTASLDEFERIKTLGTGSFGRVMLVRHR  
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>TRINITY\_DN1613\_c1\_g1\_i2.p1 type:internal len:1068 gc:universal  
TRINITY\_DN1613\_c1\_g1\_i2:3201-1(-)

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QFSTRCTDPKPKFGGEPCTGLTKKSRCNTHPCPVNGNWGAFGSFTTCTRTCGGGIQKRYRKC  
DSPAAAHGGKKCPGLSFQFKACNTVHCPVDGGYTQWSSFGSCTATCGGGSQTSTRCTNPSPKY  
GGEGCVGPSEKTRTCGTPCPVNGGYTEWGEYSKCSSEECGGGIKTKSRCTNPAPAHGGKGCQG  
PSES DVCNEQPCPVDGNWSA FGPLSVCSRTCGGGSLSKRTCTSPSPKYGGKSCSGSRYRIVACN  
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GFSDWSAYGKCSKSCSGSIQVSSRTCTNPAPAHGGKSCAGPLQQSRVCNTLPCPVNGNWGSFGR  
FEECVS CGGGVQKRFRPCNNPSAHGGKACRGLSFEIQACNTKHCPIDGKYGSWSSYSKCSVTC  
GGGTQVKTRKCN SPAPAYGGKNCVGVASHIQACSTHHCPVNGGLTSWSSFDECSEECGGGIQER  
SRSTCTNPAPAHGGKSCV GALVDSRKCNTHKCPVDGGFTKWSSYGSCSKSCGGGSQTSTRSCTL PK  
PAYGGDACVGPTIKTRGCNSQACPVNGNWGGFGVYGTCSKSCGGGTQKRYRRCN NPAAAHGG  
KQCSGLSYQIKACNTHHCPVNGNWGSWGSFATCSKPCGKGVQKRVRCNNP SAAYNGKACPG  
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SCNTQHCPVHGKVGWGTWGSYGAC SARCGGGIQKRYRSCNKP SAAYGGKACPGASYNKSCNTQ  
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GNWGSWGSYACTKSCGGGTQKKYRTCNSPTAKYGGKACSGSNYYLKTCNTHHCPVNGNWGS  
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>TRINITY\_DN598\_c1\_g1\_i2.p1 type:5prime\_partial len:742 gc:universal  
TRINITY\_DN598\_c1\_g1\_i2:2-2227(+)

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YPDREPSGKFLKAIFAIQKAVAEFISVDPVSRGKTLEQRLKDLEKFLKVATEGGSIDFARTLLGKGIF  
TFMKKKIQEGLPIDDDIDKAAEGFLEKLRGDVGEKKMNEILSSQGDATLMFTIDTTGSMKDEINAA  
KAIKQIISATRDYEVYILSPFNDPRTGPVTHRSSSNRASFTVDIDRLRATGGGDCPELSFTGMLN  
ALNQGPQYGSPMFVFTDASAKDDASNIDSLKAAADLTATINFFTNLNGCKGAKSVESYKEIAS  
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FAHNFIYQQSVRKNSPPIPLANPLKGVKNMMVRLGGTKNFDLNSIKIDLVDTSNVLQKGIGTD  
RLDSDEVHATIDPPSGPFPKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAKLGKGPY  
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>TRINITY\_DN5001\_c0\_g1\_i1.p1 type:complete len:1575 gc:universal  
TRINITY\_DN5001\_c0\_g1\_i1:40-4764(+)

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LPSLKELNRAIGQADYLVGPKLTVADLSVWSALHGNSKWKNLLDSGKAGEPVSKWFKTCMQQG  
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LLNQYYKDHYKGLIMRFDDTNPAKENSHEYKIILEDIKLLEMTDPDIYSRTSDYFEEMFVYAEQLIK  
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KSNVHMEWDKIWAFNKKVIDPIAPRYNALLKEEVVPVTVHGVVEESTAQYPQHPQNPNGSEKKTVY  
YSNKVFVEGADANLMKEGDLVTFINWGNLRIAKVNKSDDKVTSLEANLELDNKDFKTLKVTW  
LAEHSEAPFIPTKCGFFENIIEKADMTREDDFKQHIRKDTKKVSDMMGDQCLANLKKGDIIQLQR  
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GIWERIKAFFDTRIKSIGVENCYFPMFVSQA ALEKEKEHIADFAPEVAWVTKSGQSELAEP IAIRPTS  
ETVMYPAYAKWIQSHRDLPLRLNQWCNIVRWEFKHPQPFLRTREFLWQEGHTAFATREEACEEV  
HIILDWYEVYTDLLAIPVVKGRKTEKEKFAGGDFTTTVEAFIAASGRAIQGATSHHLGQNFSKMF  
DIVIEDPNNPD SKDKIHVHQNSWGLTTRTIGVMVMVHGDNKGLVIPNVSNVQV VIVPVGV TAN  
TSDDQRKLIKDTLSYRDLLDSGVRVKVDDRENYS PGWKF NHWELKGVP IRIELGPRDIEKNEYV  
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GRSY\*

>TRINITY\_DN785\_c0\_g1\_i1.p1 type:complete len:289 gc:universal TRINITY\_DN785\_c0\_g1\_i1:1062-  
196(-)

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YNNRMINWKKFDTYLPGFICRAEAAFKKGYRVIGMQFWGECWSGPEAHLHFDSLGAADTCSN  
QKFEREYDNITQCVSAIGMDSTNYVYRIAPTVCDTHYEPVGC FKDEQKVPRPMPHYISTDRDYSL  
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>TRINITY\_DN11097\_c0\_g1\_i1.p1 type:complete len:730 gc:universal  
TRINITY\_DN11097\_c0\_g1\_i1:2348-159(-)

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VYKSYQNSIVVEISAILPGGILRCISLGQTEGFNSYNTVGLINYQPIVYPVGRNVLGRLFNVTGSCID  
LYNEVTMDMPFVRSVSTEETHTPQKTTLIKTGANADTSSDSDCVKANALFKECTSHINVKETS LD  
HLISLYCGCYMGMTSAPIAPISRLPIEAESSRAPEHMOVQKLQECMGTYSGSADPSTPNQIGSKKQPF  
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RNLAIEHKGISIFCGVGERTREGNDLYSEMAEAGIICKDYTTMKPSDPSSNNGGPTGSIDQHSVTFTR  
SSVTLVYGQMNESPGCRMVHAHAGLTVAEFFRDVFKQDVLVFDNVFRFLQAGSELSTLLGRMP  
AVGYQPTLATMGAFQERIIAALWGSITSIQAIYVPADDLTDPAPVTIFTHLDAVSSLSRELAAKGIY  
PAVDPFNSTSRMLDPQCLTSEHFRVALEVQQILQRYRELQDVIAILGIEELSEEDLKTVERARKIERF  
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>TRINITY\_DN61\_c0\_g1\_i1.p1 type:complete len:625 gc:universal TRINITY\_DN61\_c0\_g1\_i1:2929-1055(-)

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GMHEDYDYMMCKNRQNRNPGLFLADQEGTS AKYTRQNPDPGDRYGYECPEERDHYPYWLPT  
PWIDIAIMTRDLRRCNYYRENSQNNNAKYCKPPQKYDELKKRDPPSNLPRIPISQDDCERFHY  
PANDKTDRGVWTRHDSWNVDPECIAAPPSRDNHNGEDGYFNSYNFTIPNAPHKNCAIRM  
RYNISTS DYDVNLDADGNGDPA RAINIHDLVGIDTKKEATERGYVFKDYPKVYPMKGEIGKKLGL  
ALAINTAQYFRTFEDRSHRTSFKARTPELEGVEIRNLNVKGRGNIVQVYPAVEYGFVPDRMLAE  
VGDMIHIQWTGSDRNPRNNDGEGPAGEDRSNIAELDQPRVAQVVADYNEYGDLTRSYP AHLDN  
ATFLGLSRDELISLALAKGDCEFD RQGARSRTPYFDMGPVALTKKGIYNLCTINNNTNRSQKGT  
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>TRINITY\_DN2028\_c0\_g1\_i1.p1 type:complete len:274 gc:universal  
TRINITY\_DN2028\_c0\_g1\_i1:1608-787(-)

MGQSDGDDLTFGQKISREWRDFREFLYNSETGKVMGRSGTSWAKIGGFYLLFYGFLAGFFTALLFI  
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CGAAGTPKSDKPCIFDTLLGECAPSKNTTYGLREKKPCIFIKINKVFGWTPADDGTGYLTL SCTG  
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IEGISATD\*

>TRINITY\_DN26249\_c0\_g1\_i1.p1 type:5prime\_partial len:477 gc:universal  
TRINITY\_DN26249\_c0\_g1\_i1:1733-303(-)

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GSSDHWKGMGLFFDSFDNDGEQNNPYVMVMLNDGTKQYDHF KDGNSQQLG GCMRDFRNRP  
HPIRAKIRYYNNILTVFYHSGMSERSDDYELCMRAENVVLPKEGFFGITAATGGLADDH DVIKFLT  
HSLTPPLTDEQKQKILSEEQRKKYEEQYGEYTQKLETKKEEFQKEHPDKKAPEEKFESVYDRD VRL  
IYENQNTIHHVVRALHEKV GELTNQLNNLHVTINN NNQLAQQQQPKGDGVTRQEVNTIINLQN  
QVHNAIQELKQQSGGGGGDNTKT VQMEKTLQTVLEQVGHVLSKNNDRRPSCTVSCVTPSILILF  
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>TRINITY\_DN17117\_c0\_g1\_i1.p1 type:5prime\_partial len:345 gc:universal  
TRINITY\_DN17117\_c0\_g1\_i1:1183-149(-)

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KFLGQVDKWINEDDNRNDVVVLHFN RDHEAGDEVQKKIGKSIKLEDLWKPSSGNIRAGNVV  
MQSHLYAKLKNVQENKRIYVFLH HRLQTTRS YLFHENKVGYTWKSMGFVGSNKCKQLADDIS  
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>TRINITY\_DN17358\_c0\_g1\_i1.p1 type:3prime\_partial len:125 gc:universal  
TRINITY\_DN17358\_c0\_g1\_i1:42-413(+)

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QRYHDQLSTMEAKLPITEDQIRLSLTWYDAFDKGSIFGSTKCALSSGAYERFGVLFNI

>TRINITY\_DN7299\_c0\_g1\_i1.p2 type:5prime\_partial len:345 gc:universal  
 TRINITY\_DN7299\_c0\_g1\_i1:1201-167(-)  
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 VRVEFNSDKAYNLTVTRESLATVAGAELDAKVRATNAGVTGRFGLRRQLPRGAALTYTVENPVG  
 VYDLGKSTHIGRLSAPVAGGEAALRVEGDASAQDYEGSYRRGLAGGQADLRLSHKDGALGYNV  
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>TRINITY\_DN5500\_c0\_g1\_i2.p1 type:3prime\_partial len:1183 gc:universal  
 TRINITY\_DN5500\_c0\_g1\_i2:3546-1(-)  
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 VSPFNHVAIAVITTSFYQAIGLTQYQVNSEFKQAVSEIFYPRGATRDKALLAVERELLPTSRAGVP  
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 LFIFTDGYLNRKSESESKELIDKLKAFGVEVFVSLGYDVNFPFLMTLSSDKGHFFHVNLQPKDSDS  
 FVNSIINKVCDYTETFDQKYEIPINVALVLDGSHCEKFHEAQKTFSNVIIDGLDNSPLAKNYLFSYS  
 SGVQQLDNSSSLAINFGSDGNRLDLALNEVVKLFQSISSNEVNMAIFVTNAGLESEFNATMSQAR  
 KLRSLGVITMVICIGDNFNVDVIRTLASSRQLIYMIPSPSQLTDTKFLRHIIISAAFEMAESMPPPRLEA  
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 DGVFIRSIELEGTEADSQSHMFVGVWCHRLSAVTVEDFKVSALSNPCTVNNGGCSQICSADPYEF  
 KCSCIPGYRLVEDESTCVAESTCEPILITTTVITTTLSSSPPTTNQSKFISTTTKPELIDTTATIISTRES  
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>TRINITY\_DN61707\_c0\_g1\_i1.p1 type:3prime\_partial len:417 gc:universal  
 TRINITY\_DN61707\_c0\_g1\_i1:1250-3(-)  
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 TEEVNDRFTDMKSYVDLELMNVVKERINVEYKHMFTMFSNCIKDVSLERVLECQEDANQYITSGS  
 GKFMFLFNMDYSDSSPPTANEIKKMELTFLPFREYVSLNLMQLQVLTDTYKDLQNSVKDGPLIYR  
 KHLSELSEEAALIVYARNMFKWIDKTYDEFQRCKETKTYWSRCTTEGSWSGNTACYATAQCQ  
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>TRINITY\_DN1668\_c0\_g1\_i1.p1 type:complete len:220 gc:universal  
 TRINITY\_DN1668\_c0\_g1\_i1:748-89(-)  
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>TRINITY\_DN97809\_c0\_g1\_i1.p1 type:internal len:184 gc:universal TRINITY\_DN97809\_c0\_g1\_i1:2-550(+)  
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 VRRVRHPRPSSRDQCHRDCHAPGRVEGRAQVDRGRRLGRRRVEHEVHGAAQPAARGQEKGR  
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>TRINITY\_DN773\_c0\_g1\_i1.p1 type:complete len:440 gc:universal TRINITY\_DN773\_c0\_g1\_i1:1608-289(-)  
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GGEPLNMILDDGGDLTNLVHEKYPELMKDIRGVSEETTTGVHNLYKMFKEGRLKCPAINVNDVSV  
TKSKFDNLYGCRESLVDGIKRAITDVMIAAGKICVVAGYGDVGKGCAEALRAFGARVMITEIDPINA  
LQAAMAGYEVTMDEACSKARMFVTSTGCSGIIIEPHHFQQMPEDAIVCNIGHFDCEIDAKWLN  
DNCERETVKPQVDRYTLPNGRHIILLAEGRVLNLGCAHGHPSFVMSNSFTNQVLAQIELWQNHK  
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>TRINITY\_DN5633\_c0\_g1\_i1.p1 type:complete len:848 gc:universal  
TRINITY\_DN5633\_c0\_g1\_i1:2881-338(-)

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LKDLIKKYSQFINFNIYLWSSKTEEVEEPIEEPEKKEDEKKDDDKEDADDKKDEEKKDDDED  
AKVEEDKEEEKPKTKKVEKTVWDWELMNSSKPIWLRKPKEVTDDEYNEFYKAISKESDGPLTKT  
HFVAEGEVTFKSVLFVPKNSPDMFQDYGKRRESIKLYVRRVFITDDFQDMMPKYLSEFIKIVDS  
DLPLNVSREQQQHKLLKVIKKLVKALDMMIKKIPDEDYIEKFWKEFSTNIKLGMEDHSNRTR  
LAKLLRFRSSNDPEKLTSLTDYVERMKEKQETIFFMAGASLDEVKNSPFVERLLKKGYEVLYLIEPV  
DEYCIQSLPEFDGKKFQNVAKEGLKIGNEAKEKARVDELEKEYEPLLKWLKEDALKDLIEKAAVSS  
RLTESPCALVANSYGWSGNMERIMNSQAYAKSKDAGANFYATQKKLLEINVYHPLIQELQKRVKT  
DKEDQTAKDLARVLFETATMRSGYTVKDSSDFAGRIERMLRLSMGVDVDAKVELPEEDDEEKEEE  
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>TRINITY\_DN775\_c0\_g1\_i1.p1 type:complete len:635 gc:universal TRINITY\_DN775\_c0\_g1\_i1:1927-  
23(-)

MKQMIFLLAVSLAILNFDGHVVDAITCKSNSVWSWECQNSRCVKVLASSNSDAIELNTCKLTGCG  
YSMLFPKPSGEIQLGKKTVPFIPTQARLSVKVKKSNPKATWLQVQNAISLFLNTLEHSYKRYSGSTS  
RLYNNMCAQEAQKRVLMVDVILEGDTKITLTDDESIDLTLADDKEITVSINAQNFFGARHAME  
TVSQAALAFSESYNAMQIVSSAQVKDDKPSYAYRGLLLDTSRNYFSVDSILRLIRAMSYNKMNTLH  
WHITDTHSFPIEIKSLPEMLRYGAYSSKRIYTHDDVRKIVSYASINGIRVLPEFDEPAHCGEGWQWG  
PKAGLGNLAVCVNRQPWQKYCPEPPCGQLNPTNDNVYDVLGKIYKEYFQLFDPDIFHAGGDEI  
NFCNCWNTTTEITNWLKQNYGGVSEKNFMDMWGMFLDKSSSKIYEANNNKELPMILWTSKMTS  
EEYLTQYMDPKKHIVQIWTASKDKELSNVIESGFRTILSTYDTLYLDCGYGNWLVEGNNWCSPYK  
DWKLLYDNDPVKILESFNVTVDKIRSTILGQEAAMWSEQVDEFSSGKIWPRTAALAERLWTNP  
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>TRINITY\_DN71243\_c0\_g1\_i1.p1 type:internal len:422 gc:universal  
TRINITY\_DN71243\_c0\_g1\_i1:1265-3(-)

PFVGIRIDSNTGSVFLAQHLDYETAQQHNVSIFAVEKDPPTRYVSSYFLINVLNVNEHSPQFQNN  
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VEALDGGQPRRKSLRPVSVIVGDMNDNVPLFSQDVYNVSISDLTAIGSSLIKLSASDADDGLNGEII  
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FFSTTFQKLVLENQAAGIKIGQSKVINSKMEAVYLIVSGSKTRITDYFGINYRTGEITAKQSFDRS  
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LVSLDKIEMQLLNSQE

>TRINITY\_DN33065\_c0\_g1\_i1.p1 type:3prime\_partial len:663 gc:universal  
TRINITY\_DN33065\_c0\_g1\_i1:1986-1(-)

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GASYSYSESSEISITGNHEVIERSTNEAKQIEVTFEKGKDTSNFVVKMNIPSMKLETFATVFLASETE  
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>TRINITY\_DN598\_c1\_g1\_i1.p1 type:5prime\_partial len:745 gc:universal  
TRINITY\_DN598\_c1\_g1\_i1:2-2236(+)  
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KGIGTDRLDSDEV RHATIDPPSGPFKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAK  
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>TRINITY\_DN128406\_c0\_g1\_i1.p1 type:5prime\_partial len:150 gc:universal  
TRINITY\_DN128406\_c0\_g1\_i1:474-25(-)  
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>TRINITY\_DN564\_c0\_g1\_i1.p1 type:complete len:563 gc:universal TRINITY\_DN564\_c0\_g1\_i1:2018-  
330(-)  
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>TRINITY\_DN4781\_c0\_g1\_i3.p3 type:complete len:183 gc:universal  
TRINITY\_DN4781\_c0\_g1\_i3:2965-2417(-)

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>TRINITY\_DN3052\_c0\_g1\_i1.p1 type:complete len:362 gc:universal TRINITY\_DN3052\_c0\_g1\_i1:45-  
1130(+)

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>TRINITY\_DN5397\_c0\_g1\_i1.p1 type:internal len:161 gc:universal TRINITY\_DN5397\_c0\_g1\_i1:2-  
481(+)

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>TRINITY\_DN247\_c0\_g1\_i1.p1 type:complete len:373 gc:universal TRINITY\_DN247\_c0\_g1\_i1:38-  
1156(+)

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>TRINITY\_DN5153\_c0\_g1\_i1.p1 type:complete len:862 gc:universal TRINITY\_DN5153\_c0\_g1\_i1:61-  
2646(+)

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Band 7

>TRINITY\_DN982\_c0\_g1\_i3.p1 type:complete len:9852 gc:universal  
 TRINITY\_DN982\_c0\_g1\_i3:29697-142(-)

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>TRINITY\_DN477\_c0\_g1\_i7.p1 type:3prime\_partial len:1130 gc:universal  
TRINITY\_DN477\_c0\_g1\_i7:3387-1(-)

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TRINITY\_DN477\_c0\_g1\_i7:3387-1(-)

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>TRINITY\_DN5818\_c1\_g1\_i1.p1 type:complete len:282 gc:universal TRINITY\_DN5818\_c1\_g1\_i1:49-  
894(+)

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PLPIEMLSKAISS\*

>TRINITY\_DN15584\_c0\_g1\_i1.p1 type:complete len:275 gc:universal  
TRINITY\_DN15584\_c0\_g1\_i1:874-50(-)

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>TRINITY\_DN11435\_c0\_g1\_i1.p1 type:complete len:430 gc:universal  
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>TRINITY\_DN3078\_c0\_g1\_i1.p1 type:complete len:1109 gc:universal  
TRINITY\_DN3078\_c0\_g1\_i1:3628-302(-)

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TRINITY\_DN2113\_c0\_g1\_i2:5257-146(-)

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TRINITY_DN6390_c0_g1_i1:5820-1(-)
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TRINITY_DN691_c0_g1_i1:5662-485(-)
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243

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>TRINITY\_DN428\_c0\_g1\_i1.p1 type:complete len:1949 gc:universal TRINITY\_DN428\_c0\_g1\_i1:96-  
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TRINITY\_DN1199\_c0\_g1\_i2:164-1051(+)

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>TRINITY\_DN3986\_c0\_g1\_i1.p1 type:complete len:446 gc:universal  
TRINITY\_DN3986\_c0\_g1\_i1:252-1589(+)

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>TRINITY\_DN199\_c0\_g1\_i1.p1 type:complete len:229 gc:universal TRINITY\_DN199\_c0\_g1\_i1:207-  
893(+)

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>TRINITY\_DN64\_c0\_g1\_i1.p1 type:complete len:468 gc:universal TRINITY\_DN64\_c0\_g1\_i1:1555-  
152(-)

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QKATGKKK\*

>TRINITY\_DN244\_c0\_g1\_i1.p1 type:complete len:3019 gc:universal  
TRINITY\_DN244\_c0\_g1\_i1:9748-692(-)

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AGSPGSIGTPGPPGSKGEPGDIQIGLSGDPGAIGPRGRGDNGISQPGMRGDSGPKGAKGNQGP  
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PKGFKGTIGERGRRGLQGEKGDMLTGETGEDSGRLEGAKGDLGDGLRGAKGDKGNIGQEGN  
QGVVDVGLQGPKEQGAPPTDELKNVKATKSGSKGEIGSTGDAGEIGDIGPAGPRGPKGFDGA  
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GKSGKKGADAPPIGCFKFNEPTDIGFILSSSSVDDDNFLRQLQFVKNIVRQYPVGPDPQTQVGIIK  
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GDGFISGGGTPSKTLMNNAMQYAEDLRGAGVSIFALAVGPEKNKALFHEFVSEKEYYLDIESYSQL  
DNELGALQLSLQTGCISVGPGRDGLPGYTGPKGQKGGDGPKGFSPPQGPRIKGIKGVRTIGIG  
VKGLPGDPGLQGPQGEKGRDGEDGSADPGPKGRPGDKGSRGDQIKGASGEDGDIGPIGPPGFDG  
RKLCDNVLAVDLLFVLDTSVGVDNFNKMLKFIESIINVFDVDNQLTRVSVMTYDSDARLVIRFS  
DYNDPDKLDAIDNIPYANGDETRIDKALLASSNAFDTSNAGAREGVNKAVILMTDGQQSFAVD  
QVALKDAVKPLVDANVLMYAIGIGSEISPVDLKTIAAERVLIADDFDGLSLKIEDQIVLLGRVGCQG  
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AGPLGLPGCEIKNQNEVIDLGFAIDASGSLYEEGFNREKEFIKTIVDRVGRVSEQGIRIGVIVSDTAS  
IEIRFDDHFNEDLKNIDIDNLPFFAKNTRMDLGLLEEAKKMFGEQFGGRGSSKKVLILLADGQQTY  
VPGVTEPSEVAKELAAAGVDIFAIGIGQEIDRTELESISKPEHIFLASDISKLIDELTPEVTSALECEG  
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AGVPGKRGAVGPKGFPNGEKGDRGDEGFIFEGARGLEGPKGQRGDSSDNGVAGVKGSTGD  
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GQPGRVGEDGDQGEKGYAGFVGMPGKKGDQGEVGPVQGPQQIRNEILDNIRPGPKGYPGSTGPA  
GDEGEDGEVGEGETVGAQGMNGDFGERGSQGPKEQGDQGLQGMIGVIGDKGVKGRVGTG  
GNPGTVGLRGLTGAPGEVIFGSEKGNKGDLGIIGLRGRAGQKGKAGAIGPRGRGRNGAKGERG  
PPGFPLSGIEGDSGNEGDKGPRGDPGSGVGNRGKGVPGESGIAEGNYIVHSQTHIIPDCPRDFKK  
LWHGYSLMYVVGNGHSHSQDLGDAGSCSQKFSSKIFLCEIHKVCKHASRNDFTYWLADVDHP  
MMPVSNAAVEPFISRCVCEAHSSHITVHSQDTYAPECPPNWSSLWSGYSFLMVAGAGKTGAGQ  
SLSSSGSCLESFRPKPFVECCQARGTCHFFSDKHSFWLVTIDPNKQFEVMKPQTLIKDKNHDLTSR  
VSRRCVCIKRTGTKNNTVEPNIAIRRSIASWIL\*

>TRINITY\_DN250\_c0\_g1\_i3.p1 type:3prime\_partial len:402 gc:universal  
TRINITY\_DN250\_c0\_g1\_i3:131-1333(+)

MRECISVHVQGAGCQIGNACWELYCLEHGIQPDGQMPDKTIGGGDDSFNTFFSETGAGKHVPR  
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TGLQGFLIFHSFGGGTSGSFTSLLMERLSVDYGGKSKLEFAIYPAPQVSTAVVEPYNSVLTHTTLE  
HSDCAFMDVNEAIYDICRRNLDIERPTYTNLNLRMGQIVSSITASLRFDGALNVDLTFQTNLVPY  
PRIHFPLATYSPVISAEEKAYHEQLTVAEITNACFEPANQMVKCDPRHGKYMCCLLYRGDVVPKD  
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DHKFDFLMYAK

>TRINITY\_DN3036\_c0\_g1\_i2.p2 type:internal len:548 gc:universal  
TRINITY\_DN3036\_c0\_g1\_i2:1643-3(-)

AFAGAARASPARQGSVARRALDQSSRYADLSLTEEDLIRNGKHVLVAYIMKPKAGYDYLATAAHF  
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NQGMGDVEYGKIYDFFLPPEYLRLFDGPSCNVIDMWRILGRGTSNGGLVVGTTIKPKLGLQPKPFG  
EACYAFWQGGDFIKNDEPQGNQVFCQMNECIPEVVKAMRAAVKETGVMKLFSANITADDPVE  
MISRGKYVLSQFGPLSENCAFLVDGYVAGGTAITVARRNFPKQFLHYHRAGHGAVTSPQTQRGYT  
AFVHTKISRVIASGIHVGTMSFGKMEGDASDKNIAYMLQGDVADGPYYQQDWQGMKETTPIIS  
GGMNALRLPAFFENLGHSNVILTAGGGAFGHKDGPQKQATSCROGEEAWKLWKAGTYGDITLS  
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>TRINITY\_DN73067\_c0\_g1\_i1.p1 type:complete len:831 gc:universal  
TRINITY\_DN73067\_c0\_g1\_i1:3714-1222(-)

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GVTNFKDFFIAVNIRHDKQKPSLLSLQTKTTGKQKFTLWINAEEEEKIGIRSHSKESKKGKKNLTFR  
KVPLNTGQWHRIVLNFKKIDTDEPVVDLYVDCKFHDSKTFPFSIGHALIEDALISELRLGQLKHL P  
EKDPIRFIGAMQDFRLVSNRDVHWYNRPQHHCYNMMIEVKGMKAYHEPVSTISHDVDNMAAAM  
KNMQKQLKLQLDEIRDIKNWLQQCTACKTAAENVLGGEIPKACSQNRCNENANCIESNGGSAF  
RCECKAGYAGNGEKCGLDSDSDGVPDNKLDCLGKECSQDNCPGFPNAGQEDADEDGSGDACD  
IDDDNDGVLDDGDDNCQFLSNRDQKDSADNRGDACDNCPFESNYNQLDNNDGLGDACTRD  
ADGDGIRDKSDNCPRVYNRDQIDRSDGIGDADCNCIDIYNPIQKDVNDNLGDACDSNV DID  
NDGIQDNKDNCLYIANANQQDIDNDGIGDADPDDNDNDNIIDENDNCRLIYNPDQSDSDGDG  
QGDACEDDADKDETVDLKDACPENPEIQNTNFTNYKHIMLDPEGTSQVDPEWEILNKGAIEIKQ  
WRNSDPGIAIGDKVFGGVDYSGTFYVHDDKDDDFAGFVFSFQSNKSFYALMWKKDKQTYWFET  
PYKVTGHAGIQLKVVTSSSTGPGHEMRNALWSSISIPGQTKIIWSDPSKEGWKPKTSYRWTLMHRP  
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>TRINITY\_DN477\_c0\_g1\_i9.p1 type:complete len:306 gc:universal TRINITY\_DN477\_c0\_g1\_i9:1840-  
923(-)

MTRQCLGATLNENCGNAALVQFEVCNFBQVPCPGLLTNWGPYTQCSATCQKDANSMPQTQSRQR  
FCTGGSFGNCGGVQLLQTIGCNQLIICPVYGYWLQWSAFGECSKTCQDQGTHVRYRNCTKSIPA  
NAGNNCTGPAQEVKPCQVKPCPVTCLTKKCDCRNMNYLAAAPGISQTVTNDVMGVAAFLDY  
WTL DILKQICEGCRMTQLDQSKATVDSQILRTQAVLDRLNIEKRVYRDMITCENNPYITDDLKQVY  
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>TRINITY\_DN1280\_c0\_g1\_i1.p1 type:complete len:426 gc:universal  
TRINITY\_DN1280\_c0\_g1\_i1:195-1472(+)

MGFETCGPNEAMVISGCGQERPLLISGGRKFVWEFFQKVQRISLNVMTLNVESQRVYTVQGVPI S  
VTGIAQVKVQGGQNEEMLHAACQQFLGKHENEIRNIALETLEGHQRAIMGTMTVEEIQDRKKFS  
KSVFEVASSDLVNMGISVISYTLKDIRDDEGYLKALGQRRIAEVQCEARIGQAMAKMQSGIKEAQ  
AEEVRIKAEYENKTEVARSQRDFQLNKSAYDIEVNTKKATSELAFALQSAITNQKIKEEDMQIKVIE  
RAQAINVQLQEIQRREKELEAQIRKPAAEARYKIEKIAEANRMKVVLEAEAEAESIRMKAEAEAE  
VIQKKATAEAEQMSKKADAWRDYQEAAMVDMMLDLTPKVAEIAAPLSKVKKVTMISSGSSDV  
GAAKITGELLDIVIRMPQAMEQLTGVDITKTFRREK\*

>TRINITY\_DN909\_c0\_g1\_i1.p1 type:5prime\_partial len:313 gc:universal  
TRINITY\_DN909\_c0\_g1\_i1:1-939(+)

RRVLFRSLTFIESLRLSRLVNKKNKTFMEMSEKGGIYNDNEREMNFTGNSDYESGDLGFCGWFLTV  
LSFIIAVCTFPLSLFFCIKIVQEYERAVIFRVGRLLSGGARGPGLFFILPCIDTYLKVDKRVISFDVPPQE  
ILTRDSVTVSVDVAVTYFKIQNPVASVCNVEDAQIRSTKLLAQTTLRNELGTKNLSELLERE AISRNI  
SNILDQATDPWGKVERVEVKDVRLPPMLQRAMAAEAESSREARAKVIAAEGEMNAARALKEA  
SDVISESPQALQLRYLQTLTTISAEKNSTIIFPLPINMLQSM MNK\*

>TRINITY\_DN413\_c0\_g1\_i4.p1 type:3prime\_partial len:463 gc:universal  
TRINITY\_DN413\_c0\_g1\_i4:1388-3(-)

MVSLSVTCLSLLLFVTVNAEESDHCGYDEKSWYKAMGW CYHSGSRLLLGD FNGDKRTDFFCHD  
SNGKNWVAVSNSDGSFGSTTWQDSKERWCASPNILLTGDFNGDGVT DILCHGTATGKKWIKYFN  
KYGVPSGKSFYRAMSWCNHKGSQLYIGDFNGDKRDDLLCHDTSGRYWTSYAGTDESKVFHHTS  
WYKALEWCRHATSKLYLGDFNGDKKTDVLC TDGKGKWKWIMYAKTSGNLFTGTDWHTNLDWC  
HESSTVFLRIGDVNGDGKDDL VCHSTAGNSWVAYTQPKGGFGNFCHLAKWCAAGKESFFLGYF

NQDSRADILCHDTKYGKKWIRYAECSEAEESDHCGYDGKSWHKAMRWCYHSGSRLLLGD FNG  
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>TRINITY\_DN113\_c3\_g1\_i1.p1 type:3prime\_partial len:1162 gc:universal  
TRINITY\_DN113\_c3\_g1\_i1:3485-3(-)  
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LKCTARERRSITPDGFTPEDEKLCRVPVDLGFIIDVSGSIGQTNFDKIKKFIEKIVDAFHIADDGTHV  
GAVFYSDNASLAFDFNHLQGDQLNEMNVVREIEKIQVTDGQTRIDLGLELASRELFNPAAGMRI  
HKPKIALVLTGKQTRGELAPDAKDLHQASRLKQTVGVVYSLGIGLDYDIGELLDIASDDASVF  
RSQDFDELVSIVDILIEQTCGCTRAVDVHFALDASANVGEENFVFMKDFVKAIGYNFISETGAH  
MSGSVFGDVGTLVFDKSQATEINEFENEVENMPYLG DATGNMDKVLKMISNEVFNF DGFTROSS  
PKVIVLLTSSNCDTCQESLEDLARPLKAEGIHIVAIPIGDPLFDEMQVLASHPIDQYAI PRATHQELL  
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PIEIAFAFETTKYGIADFN NVKNFAINLLDHFKVGPSKAHVSLSTFSEDVTS LTKFIDDFDMESIKQSI  
KDLKH DGG EESNLGNFLEIINTEVFSVRGGIRQQT PRVLVIFANGDINDEQAVKAQEEALHLKAD  
GKDVKIIIVNIGSSTKTLDVLNEVATEGSFYEFFGSAELDSTA IETEISEKICSTKVRRSK CQRRIRSSCA  
VKDDLCDSDFD CPGHQECFSDGCRLRCQTCEFRCKDKVDLLFVMDTSARIGRDNFERGKKNIKK  
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QLAAEKVFPDNGPNLRRDSKKAVVITDSLDD SASQLELASWPLRRQRVQTEDGDASNIRILAFN  
VGQELDLDLWGNIVSPPVEENVFYAADFDDMYNGIRQLAEDSCKYAAAITPPPIIKQKGEPGPPG  
PPGIPGTNGTDGRNGTDGRRGPKGERGDTGLKGFKGEVGLVGPPGGGAEEQKGP DPLASAVGIV  
NVTDLPGGGRIVFDLREGPVGQQGLTG IIGPKGPIGDTGEVGIKGRNGTTGPGGFFGLPGPKGQP  
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>TRINITY\_DN1189\_c0\_g1\_i1.p1 type:5prime\_partial len:449 gc:universal  
TRINITY\_DN1189\_c0\_g1\_i1:1554-208(-)  
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LREAIADGSEQAKQLYQRAVSFLVNDVPNLKCEDFFKKDDTCDKIRNFATKVNAKAKDVTA AVK  
KAIVENLENAKDGLKKAQQLKAKISCDQVLNEKMCNTIQSIGDKFSVSMKKIDAALREAYANG  
VRKWSELYEAAIKYIMDKWSIFGDDEPQRRERREIQPENVKAIKNLLDSLKVKS KKVRAAIMKLIE  
SGKVKFGNLRKTVKQLLASLKGDKKSEDAVTAVYKRSVVDTLKETLQKLKEQIKDLAGKAKEQA  
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>TRINITY\_DN36\_c0\_g1\_i16.p1 type:complete len:224 gc:universal TRINITY\_DN36\_c0\_g1\_i16:829-158(-)  
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GNCARKYQGAMCQFMRNPHKAMTDCEETICQGDSCNKDVYDAEQAERKRVGPYKNTL KCTT  
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>TRINITY\_DN2636\_c0\_g1\_i1.p1 type:complete len:314 gc:universal  
TRINITY\_DN2636\_c0\_g1\_i1:986-45(-)  
MSAIAVVVIVIAAVLLHFSVHKIEEGHVAVYYRGGALLSSVSGPGYHLMAPMLTKYKSVQTTLQT  
DEVKNVPCGTSGGVVIYFDRIEVNLLSVDKVHDIVKNFTADYDKALIFNKIHHELNQC SVKSL  
QEVYIDLFDQIDENLKRALQQDLNEMAPGLKILAVRVTKPKIPEQIRKNYELMEAEKTKLLIRIQH  
QKVVEKEAETERKLAVIQAEKQSQVAGIQYEQKIMEKESMKRMSEIEDLTHLAKRKAMADA EFY  
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>TRINITY\_DN495\_c0\_g1\_i2.p1 type:complete len:655 gc:universal TRINITY\_DN495\_c0\_g1\_i2:152-2116(+)  
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YIRPKFVRPHKGIRLPHPNRIIPGSWKRAHGIFALKGKKAIFCEHKG IKRISCSNDKVIKVRSA LY  
GRTAGNVCGRSRVTNCRALNSFAIVQKKCN GHNSCDLNPSNSVFGDPCVGT VKYLNIEYFCVKR



TPPTINTPTLTPVTLVIPVQSSYQGDGFKSLTLKWNLGLTEKDRIIAVYLYDDIKPCKTKIIFSSSTGFNT  
PMLQESYAQLIFGNRISATISKSSYQLTIKGLKASDARSFTLEMFVSGPGRSSCKPILSVIKISKINNINS  
DKVDGGYTGWVSYGPCSKACGGGVQERNRSTNPAPANGGKACDGPSETRACNTNQCPEAS  
MSYASTKYPASNCIDGDINTRCHSKKGVNPWLKVDFHKKVLFKSVELIKYFKYVCCDAVIKISAIQ  
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>TRINITY\_DN3545\_c0\_g1\_i2.p1 type:5prime\_partial len:236 gc:universal  
TRINITY\_DN3545\_c0\_g1\_i2:3-710(+)  
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HCDGVSFETRECINQCPVDGGYTMWSVYGSCSKSCGGGAQKRVRSTNPAPANGGKPCDGV  
FETRECINQCPVCPEIVGTYDISSRHYYGGAKYGTVVFKLSNSKTVEAYYTINDGRRGVLTCKIE  
SAQPDQCSGHGYYGKYFTYYKNRCQIWSNDVIYTKQNC\*

>TRINITY\_DN120478\_c0\_g1\_i1.p1 type:complete len:544 gc:universal  
TRINITY\_DN120478\_c0\_g1\_i1:2674-1043(-)  
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DMLDVLKEQISIPVDVDNDEEMINILKSCLGTFVNQWSKLACNMALKASRTVSTEASGRREIDI  
KRYAKVEKVPGGSLLEESCVLDGIMLNKDILHPRMKRYIENPRILLDCNLEFKKGESQTNIELSGE  
DFNRILQLEEEFIKKMCDAIKHNPTLVFTEKGVSDLAQHLYLVKAGIAVIRRIKTDNNRIARAVGA  
TIVNRPEEIREEDLGLKCGLFVKKIGDEYFSFLTCKEDPKACTILLRGASKDILNEVERNLODAMH  
VARNVMDPRLVPGGGAEMALSCALEEKAKSITGVVQWPYKAIKAVEVIPKTLIQNCGVNAI  
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>TRINITY\_DN165536\_c0\_g1\_i1.p1 type:complete len:249 gc:universal  
TRINITY\_DN165536\_c0\_g1\_i1:851-105(-)  
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GDYYRYLVEVTTGEDRANLSAQSKAEYDKATETATGLATTHPIKGLALNFSVFHYEIMNDGKKA  
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>TRINITY\_DN8903\_c0\_g1\_i1.p1 type:5prime\_partial len:447 gc:universal  
TRINITY\_DN8903\_c0\_g1\_i1:1546-206(-)  
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PRNTRQCIEAPCNVQNCGHGFENELYVSFADSCIGHADYTCQCKEGYTGTTSRCIPDGKECGK  
SYCHANATCAPLGKGEFDCCKPGYSGDGLYCFLDGGWSDFVNTRECNASCGTHGYAEVTRYC  
NNPVAERFGKQCGAKSPEQLEVPENRFDCLGCTVKKDCRCTSVVKPLIVEGYNEPEETLKFFTDL  
HPDDVKKAKDTLLKWKAFSNNENLCRKYNKTTLHAKFFGVRDAAKEVNKMKSSYGSARDSMRI  
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>TRINITY\_DN2472\_c0\_g1\_i1.p1 type:complete len:344 gc:universal  
TRINITY\_DN2472\_c0\_g1\_i1:311-1342(+)  
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EGNVRVSRRLPGHTGYLSCCRFLDDSQILTSSGDTTCCLWDIETGQQLTQFVGHTGDVMSLSLCN  
DSGRFTVSGACDASAKVWDIRDGMCRQTFIGHDS DINAVSYFPSGLSFGTGSDDATCRLFDIRSDQ  
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MAVGTSWDSFLRIWN\*

>TRINITY\_DN11522\_c0\_g1\_i3.p1 type:5prime\_partial len:855 gc:universal  
TRINITY\_DN11522\_c0\_g1\_i3:2878-314(-)  
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GTVSNEGIAYVYLNKNGIVELVQTLRQPEGKDVKEGNGMFGISIGSVGDLNNDGFADIAIGAPWGG  
EDGKGIVFVYQGQRPDPAQLKLMQTIKPSDLSGIDVDGFGYSFAEFYPYSGGPDQYGFIE NDPDYN  
YPDLAVGAFKSNHAI VFKSRPVYITIVGRSLGKVKRLDLVNKENLCPNGMKCLDKVQACLMFKE

EESEGEVDYTTLEVDSDGRDSPKRAYLLDSDGKQVTKINKQTTVSKDEECDDYTIYVKNTTDLVSLDLV  
IKLSWKFFVPTTCDGVCPVANELCQFVDTKSIIFVKGCSDDGNDTCSSDLKIEKKEFPKLVGNRR  
LVGTEEIIISAGATDGIIILTFNIKNLGENAFDNLKLEYPGKGDMLKLVNIDDAKVISDYGTPIWDS  
VTREKDVTTLSVMLSSPIVKGKPEQVQVKMSLNPIPKGTFKFLKFKVYLETDSEETDTSNDFQEITIP  
VELVSNLLVSGQSIPEILTWRKDVKDQDKGAEITYNFLFQNNQGPSNVDTSIAIILPEKFKGYSFLN  
IYNYDVKGSKSGSDPGSCRIEGLNPLKLDYYGRRIGNNTRKRRDTRGVPALECGADTTCREIICN  
FNIENRNSATVTVKATLVDANFDSVIGAGREIHVTAEFSSDAVTPPSGLEFPVKSMVTTTVNSPYLT  
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>TRINITY\_DN602\_c0\_g1\_i3.p1 type:complete len:851 gc:universal TRINITY\_DN602\_c0\_g1\_i3:3046-494(-)

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PPPGVTPPGPPGPPGSENNTSSGSECKEKETKPIIKVYCPNCPCCPPPCPCCKCPCIKVAPPPPAP  
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>TRINITY\_DN118\_c1\_g1\_i5.p1 type:5prime\_partial len:203 gc:universal  
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TRINITY\_DN163801\_c0\_g1\_i1:55-948(+)  
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CNEVLKSVVAQFNASQLITMRQEVSLMIRDLTERAKDFDIILDDVSITDLSFSAQYTAAVESKQVA  
QQEAQRAAFLVERAVQERQQKIVASEGEAKAATLLGEAMNENPGYKLRRIRAAQKVARVIAQS  
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>TRINITY\_DN360\_c0\_g1\_i1.p1 type:5prime\_partial len:476 gc:universal  
TRINITY\_DN360\_c0\_g1\_i1:2237-810(-)  
FQELLNCKNSKQQTIRLPANRENLTMALPYSSAEDFYQSVVKRTPNEVEFHQAVKEVAFALWDFL  
VKNPEYAKEGVLQRLTEPERTIMFRVPWVDDTGNIQVNRGYRCEFNSAIGPYKGGLRFHPTVNLG  
ILKFLGFEQIFKNSLTSLPMGGGKGGSDFDPKGKSDAEVMRFCQSFMTLSRHIGPDTDVPAGDIG  
VGGREIGYMFGQYKRLRNEFTGVLTKGYNWGGSLRPEATGYGCVYFTKEMLETKGHSFKDKIV  
VISGSGNVSLFACEKCTELGAKVVTVSDSSGYVYDKDGIDKEKLAFLMDLKFTRRGRVIEYTQKYP  
SATFHAGERPWGVKCDIALPSATQNEISGEEAATLANNGVLAVAEGANMPSTPEAIEVFLKHKVL  
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ANVGGFVKIADAMIAQGIV\*

>TRINITY\_DN141338\_c2\_g1\_i1.p1 type:complete len:720 gc:universal  
TRINITY\_DN141338\_c2\_g1\_i1:2850-691(-)  
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IIANKDEKTLTLFDTGIGMTKADLVNNLGTIAKSGTKAFMEALTAGADISMIGQFGVGFYSAYLVA  
DKVEVVTKNNDDEQYIWCSSAGGSFTVKRDTINEPIGRGTKLVLYMKEDQLDFLDEKKLKDIKK  
HSQFIGYPIYLETQKTRDKEVSDDEADEEESTDKKEDEENEDKEDDGPKIEDVGDEEKEKEKKKT  
IKENYTEMEQINKTKPLWTRNPDDISTEEYAEFYKSLTNDWEEHLAVKHFSVEGQLEFRAILFVPK  
RAPFDLFENKKQKNSIKLYVRRVFIMDNCEELMPEWLNFBVKGVDSEDLPLNISRETQQSKILKV  
IRKNLVKKCLELFAEISEDKDNKKFYEQFSKNVKLGIHEDTQNRNKVAELLYSSASGDELTSFK  
DYVSRMKENQKDIYITGESKEIVAASAFVERVKKKGFEVLYLVDPIDEYAVQQQLKEYDGKKLVCV  
TKEGLELPEDEDEKKRQEELKAQFEDLCKVIKDILEKKVEKVVSNNRLVDSPCCIVTSTYGWSAN  
MERIMKAQALRDTSTMGYMAAKKHLEINPEHQIMIALKKKIEADKNDKSIKDLIILLYETSLSSG  
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>TRINITY\_DN495\_c0\_g1\_i5.p1 type:3prime\_partial len:407 gc:universal  
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 NTDDLDAEDAEREETINDSLDAENAQRRYTSIDELDGEDTQRVISKTITLPRLGAGRIYKSRFIHGP  
 YIRPKFVRPHKGIRLPHPNRIIPGSWKRAHGIFALKGKKAIFCEHKGIKRISCSNDKVIKVRSA  
 LYGRTAGNVCSISCSKDEEIKVKNALYGRTAGDVCGRSRVNTNCRALNSFAIVQKKCNHNSCDLNPS  
 NSVFGDPCVGTVKYLNKIFCVKRITPTTTPNGKTAIFCEHKGISCSKDEEIKVKNALYGRTAG  
 DVCGRSRVTN

>TRINITY\_DN785\_c0\_g1\_i1.p1 type:complete len:289 gc:universal TRINITY\_DN785\_c0\_g1\_i1:1062-  
 196(-)  
 MIIESKMLSSIMLKMIFVVVFLCGITLSEGIEKCDLQLEPIGCFKDDVWKRTMPEQILNERDPLNKV  
 YNNRMINWKKFDTYLPGFICRAEAAFKKGYRVIGMQFWGECWSGPEAHLHFDSLGAADTCSN  
 QKFEREYDNITQCVSAIGMDSTNYVYRIAPTVC DTHYEPVGC FKDEQKVPRMPHYISTDRDYS  
 LKIFSGKTIDWRNWN TYSPEMICRCATLAKSKGHALFSIQFWGECWSGPETNGYMRDGVTTDCRG  
 KDFEMCPCNGYHCVGKAYTNYVYRLGHHH\*

>TRINITY\_DN7659\_c0\_g1\_i2.p1 type:complete len:359 gc:universal TRINITY\_DN7659\_c0\_g1\_i2:82-  
 1158(+)  
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 LHLHYGDLTDSSCLLHVVS KAQPTEIYNLGAQSHVKVSFDLAEYADVDAMGTLRLLEAVKICGL  
 MHKVKFYQASTSELYGKVHEIPQTETTPFHPRSPYGA AKLYAYWIVQNYRESYNLFGCNGILFNH  
 ESPRRGETFVTRKITRAVAKIHLGLQEELVLGNIDSVRDWGHARDYVEAMWLMLQQEQPETYVIA  
 TGETHTVREFVEKSFLIDVKIRWEGTGENEIGYDAASNKVRVRIS SKYYRPAEVEYLHG NPAKAE  
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>TRINITY\_DN140702\_c0\_g1\_i1.p1 type:complete len:2036 gc:universal  
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 AGGATGGGGDDRQAARELEGEDEGDPNAMPDGTPIPEGPAGDAMRAEKRMKKKNKKRR  
 EHNLPDKPTDFQIRIKIIEGRQLPGGNINPTVRVHLGEETKQTRVKHSSNKPFYDETFFFNFNERPN  
 ELFDKLVTFEVHNSKNVLSEAMIGA FQFDVGTIYFEDSSHAIRKWLLLTAPEDNDKKDGEETKGA  
 SLQPGGPPAGYLKITAIVLPGDELPEKAKGSGKSEGGEEDIESNLLRPAGVTLRPATFLVKIYHAE  
 DIPQMDSA AFDGVKKLFSSGSAQKD HVDPYATFSFAGKTQKTEIKYGNNHPDFNQELRVA FKFPS  
 MCERLKLQMFWDWRIGNDDCIGTSFISLTAISNGDGEFLPCFGPCYVNFYGSTREFSDLPDEHDN  
 LNKGRGEGCGYRGRALVEIDTRFGDHTAKPVQDIMAQELVRVQAYMRRRKYKLFASF LSANMIS  
 EADGLVEFEVSIGNYGNKLDPDTEPQSSSTPTNPVYDGCAYYFLPWQESKPCCVVESHVEDVIFR  
 LEPINCLLKIIDKMEKNIKSVELGLKAKAQA EVAALLIALLDQFISDVSM DLPKFAATDNGVNEL  
 DLKIQEIRSEDELLNLKEEASTLREQATDVQEAMDTIDGYLKRMRDLCVEPQNSMPDVVIWMIAGS  
 KRVAYHRIPAYDIFYSENPLARGRK CASLQNFILKYPGKKGHDMEDHPEIPASVS VILWLGLEKHQ  
 AAWTDTEQMEGEYSVYAETYENQ GKPPMFDWTAKIIKRPGFS DSEGKIRLNKEYYEPPEGWKWD  
 DPPDGDWFIDPEMSSNFDADAGHKKFMQDCFENESRVPAGNWGKSTPHYTNVQGD EIDHRDE  
 TSLPEGWSWTDDWKVDVNRACDEEGWEYCIEATGGGWGAVFRSYHFCRRRRRWVRNRQLEADP  
 QKVMKQKKEEAKQGE GWEYAPVFGMKYHVKEHKFDFVRRRRRWHRK MCVCKPGAVPMFKIPD  
 DDDKKGKFHQIMPRIFLAYDEPHKWQFRAYLFQARDILGLDSEGTS DAYAKVCFQDQSQITDVIEET  
 LCPEFNQTL LFEDMQLYGSPSVFAENPPFVSIELFDKDKVGKDEFLGRVLAQPIVRLNGLKPPATRL  
 MWYDIHHGERTCGELLA AFELFLDEGADLPLPPWLEKEKKFQVPSGIRPILVKTGVEILNWGVR  
 NMKKYQLASCTSPSVTYEIGREIITDVIKNTKKNPNFLKNIFYKEVYLPKDP LYMPPIVIKVRDHR  
 TFGRKPVVGRHVIKSIDFVQPPKADPVVELPPADLVGEPEEKDVTLDIEEKKKKKEIPVDDNLDW  
 WSKYFASADEIEKCGNYLKKGHKTIQIYDSELEEIKDFNGFSDFIVSYPLER GKEDDDDDNNVGE  
 LKGLVKVYPLQDPK DQTKIRYFTPKLKEKSKIVKCIVRVYVIRARDLQPKDPNGKADPFIVVQLG  
 KKKISTKDNYPNEINPFFGSFFEMKADVPLDKDLKIKVMDYDFMSGDDLIGETMIDLENRFLSNC  
 RATCGLSPAYYTS GAYQWRDAKSPKEILDQVCRTKPQWLSNEQVVVNGQLVKIEDFEESPPTDPHI

GPVEQRLALHVLNNEDIIGHRLVPEHVESRSLKNPLQPSMDQGGQLEIFVDIFPIANGVPGPLDIAT  
RKPKEYVLRVWNTAEVPPSETSITGEEMSDLYLKGWMEGQDDEKQKTDVHYRSMGDGEGMFN  
WRFVFPFKYMPEERVMMVEKKEHFWSLDTTKQTLPPRMNLQVWDNDLFSANDFIGNLELDLSK  
LPRPKKAAKKATLAMLDTEGDDVMDLFQAKIAKGWWPMLSENEGTRTMQKGKVENTLEIVTD  
LEHEAKPAGQGGQEEPNNMNPCLDPPNRPETSFLWITSPWKTCLKHIIWKNYKWIIGFFLFIILIFIGL  
VLYSVPGSIVHKIFGFQ\*

>TRINITY\_DN57\_c0\_g1\_i1.p1 type:complete len:712 gc:universal TRINITY\_DN57\_c0\_g1\_i1:140-2275(+)

MGHDGSTLPFLPKMSFERQTTLKLLILSIAAILSFSTRLSVLRFSFESVIHEFDPYFNRYRTTRFLAEEG  
FYEFHNWFDDRAWYPLGRIIGGTIYPGLMITSALVLYHFMHFFHVTIEVRNVCVFLAPLFSSLTALVT  
YQLTKELKDAGAGLIAASMAIIVPGYISRSVAGSYDNEGIAIFCMLLTYYLWIKSVKTGSLFWSTFCS  
IAYFYMVSSWGGYVFLINLIPMHVFALITGRFSHRIYVAYSTVYCIGTILSMQISFVGFQPVQTSEH  
MAALGIFGLCQIHAFVDYLRYLTPSYFEILFKSLVIIISATIAIGAILTVTGKVAPWTGRFYSLDPS  
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LMLVLAPVACILAGIGISSVLTTYMRNIELSNDKPKPIKKAKQADPSYPIKSEVARCMVALITFFLITY  
TFHCTWVTSEAYSSPSIVLSAKQSDGSRVIFDDFREAYWLRQNTPEDAKVMSWWDYGYQITAM  
ANRTILVDNNTWNNTHISRVGQAMASPEDKAYDIMRELDVDYVLVIFGGLTGYASDDINKFLWM  
VRIGGSTDTGRHIKEHDYYTPAGEFRIDKDGSPVLLNCMMYKCMCFYRFGSVYTEQGQPSGYDRVR  
NAEIGNKEFELDVLEEAYTTEHWLVRIYKVKDLNDRGQ\*

>TRINITY\_DN140696\_c0\_g1\_i1.p1 type:complete len:260 gc:universal  
TRINITY\_DN140696\_c0\_g1\_i1:43-822(+)

MPRGPKKHLKRLNAPKHWMLDKLSGNFAPRPSSGPHKLRESLPLVIFLRNRLKYALNYTEVMKI  
MKQRLIKVDGKVRTDICYPAGFMDVITIEKTGEFFRLLYDVKGFRVCHRISSESLYKLGKVKRVA  
GKNSVPYLVTHDARTINYPDPSVNVNDTVVIDIKTGKINDFIKFDTGNTVMVIGGRNTGRVGIITH  
RERHASSYDIVHIKDAAGNQFATRLSNIFLVGKGKNAKAMVTLPRGKGVRLTIAEERDRRLASK\*

>TRINITY\_DN98968\_c0\_g1\_i1.p1 type:3prime\_partial len:424 gc:universal  
TRINITY\_DN98968\_c0\_g1\_i1:1269-1(-)

MEYKNILTSCIFLISVITNTQQTSYVNYFNDQSDLLRSFNIPVKPERSFNTGLPASYMKYARTNDFY  
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VNNLVNTENRKRERLVQTANEPNSCWREVNNSCFNVKGKTKFTLHIQLVPPSTGIVSTNGAIALDSVI  
VTDDKRIESTACTRRVGRRIKRDVSFTNLVSNPAAIPGMNLIFHNYDASKTTQDFECGDDLGLCGN  
KYLGWTLTNQCSSSCGNGFIIESRTYRGQAIIAQYRQNFQQACNRGSCSTGPPQPPGNNLGPEQL  
ATCSVDQCGVNTGTQVVFVRCNAALCQYQGTDSLNNQQVTIRVQSCTVACDYTAWQDTSACSK  
TCDGGVLVQRRTERAFNKVETRNGNTPCNTQA

>TRINITY\_DN319\_c2\_g1\_i3.p1 type:complete len:2588 gc:universal TRINITY\_DN319\_c2\_g1\_i3:165-7928(+)

MVLLKGQLWILGFILSTKYVMGDVPECSNNATVAVHCRFDEGNTCVDDPHPMHYVCVCNNL  
GYMNDTDSVEGYSICKERDCSNSNETPTDLLKRICGVNTKTCTGKILQRECNCNTDSYRSKNGQY  
CFFAPCQASPTIQNCQPGNQCYGNAPNYICDCSARGYKRSAADNRHCELKSDEELTPIEEYCGK  
GSLYANGTINNITCTCDTDKGFFPSATGETCISPSCYLNPMQMEKCGPENTCLGGKDDYVCLCSNP  
NYKRNATDLQHCIRRTCADTSPAIDFKSICGEGATGCSGYVDKPLCSCDVSNHYVPAADGRSCIK  
ATCKGNKKALEQCGQANSCTGSFDNFLCVCDANGYYLNTTNTCVERECTDPLVITDICGVGS  
LSCNGKAGSPECIDKDKFYASEDLRSCVKANCLSETISKKCGKENSICYGSMESYVCNCNAPG  
YLLNTTDNQGCVLGMCEDNGLEYDKVCGEGAISCNGTIKNLECNCGMNYVQSPDKKSCIRADC  
RANQTMHEQCGEDNDCVGSLEDWMCICSTYGYKPDPMMDMMCKKVMCEEVNNVTVCGL  
GTTGCKGHILKPECTCDIAADYVPNEDASRCIKGSCENNMAMKDCGIANSTGSYNNYVCVC  
NGFGYKKLDDTHCVEQMCSDPDIDIRNVCGEGAHYCNVTNQRVCSCNETEYFYPSADSKSCV  
KATCAVSPMVMEQCGVENSCQGSQESFICNCNALGYLLNTTTNQHCVLGTCEGDFDLMQAC  
GDGALYCNGTIKNLECCQDESKGYVQAPDKMSCIPNDCRGNLTMYRQCGQLNKCVCVSIDDWR  
CICDSPYYVAHSDIMKCKLLHCSDEVDHVEVCGKGTIGCSGSTLHPTCHCNTTENYFASKDGMR  
CVAGSCKTNQTAVKKCGNANSCAGSHSEWTCICDGIGYKHPADPQNCLLKTENDADIDIVATC  
GVGAISCEGYQLMPKCECNDRDYIYPSDDRTSCELASCRANRTAMRACGEMNDCRGFSSSHICL



CHDPAYKSDPSDSRVCLEKTCEAGDFELVRVCGKGATGCSGSMKNIMCECDNAKGYVASADHT  
 QCIPSDCNNNNVTMHLQCGEGNGCVGSLTDWYCVCSAPGYEPHASDHMKCHLKTACDPGVDH  
 VQICGMGATSCMGVPINPVCYCNESSMYIIPSMDRTSCIKASCMSNKTAAQCGSENSCSGSPDNF  
 VCLCQAYGYRQDTNNNQACIPSQCEDAGIDFVEICGQGGVGCSSVLPVCMCDHMKHFVPSF  
 DQNSCVLSTCRGNETAMTSCGEQNKCFGSSSSYICVCDAVGYKPHPTNLQECVLQTCEANELNP  
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 EDWSCVCDGIGSKPHPTDHMSCIAIDCSDPNVDIKSVCGYGATGCMGLARDPICHCDTSKYYYVQ  
 SEDGRTCVPATCHTNKTAQMQCGPDNSCIGPPNDFICECTGFGYRHHETDKQKCVPIQCNETAL  
 FDIERVCGKGATGCRGNIRQPICDCDHAMYFHPSEDRTTCIEASCRNNSIRADCGVENTCFGSTR  
 SWICDCNSYGSILNPSDVKKCMLATCEAGQLDPVAVCGKGALSCKGSMRDVQCTCNNELGYVH  
 SPDGKKCLPSDCSGNVTMHHQCGDANKCMGSLTDWVCVCDAPGYKPHAKDKMKCHQISCAD  
 NNVPDVPDVCIGIGATSCCKGPITNPLCQCDTDNYYITSSDGASCIPATCKTNKTAIHQCGEANSCEG  
 PADNFICVCNAYGYKLDDNDHQRCVEISCDDPNAHESICGTGSTGCRGTARDPICECDHTQHfV  
 ASSDLTSCLLASCRANDTVMNHCGDGNTCFGSLTSHICVCEAFGYKLNPNNHKHCLEETCEDD  
 MLNPVAVCGKGAVSCSGPLKSVKCECDNNAAGFFRSPGGMKCESTSCRQNPASQMMCGSQNQCY  
 GSYDDWYCDCSAPGYMANQTNAAECLKVMCDDMAVDVCGLGATGCTGHTLNPICTCDSMSG  
 YMMAKDKHSCVPMDCSMNPASSQCGYGNTCHGSYFSYVCVSTAGTVMNKTNPMECINVACP  
 ADAHVHVCGEATNCSVTSTNNVECSCEEGYHPADDLHSCVLDDCRFNPKALKACGLLNKCVGS  
 YKSWKCNCHYPEFTQDPMDHQTCVVGPCMVEQCGKGNAPGSFQHYAVNCSGLYDDPICNCQP  
 EYTNDKAGGKIPKICSENPAVAVQACSGGYCEGTYFKYTCKCDEPAFVQTPDKMQCVPKACNIQQ  
 CGHGFDRGLYIDFAESCSGTADPMCQCKTGFSGTNTSKCGPAIDGCKLDCDPLATCQTLDVD  
 GNVKCTCKEGYSGSGMMGECYLDGGFSAYEGTKECSEVCGVNGVAEVTFRFCNNPTADPKGKPC  
 NGTSPETIQVPCNRFACSSCTVRKTCGCGGLKPIFVEFYHEPNSTLEYFTDLKADDVQTALGFLTK  
 WKELSQQDLCLMYSKIELTVFVTLMGDSETQVSTMKSSLSARDIMRKKLDCNINLGKKAQYYEA  
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>TRINITY\_DN773\_c0\_g1\_i1.p1 type:complete len:440 gc:universal TRINITY\_DN773\_c0\_g1\_i1:1608-289(-)

MVSPPGPQDNKPPHKVADMSLADLGRRIEMSENEMPGLMSMRKQYGEKKPLKGARVAGCLH  
 MTIQTAVLIETLTTELGAEVQWSSCNIFSTQDHAAAAIAKTGVPVYAWKGETDEEYLWCIEQTLIFP  
 GGEPLNMILDDGGDLTNLVHEKYPELMKDIRGVSEETTTGVHNLYKMFKEGRLKCPAINVNDV  
 TKSKFDNLYGCRESLVDGIKRATDVMIAKGICVAGYGDVGKGCALRAFGARVMITEIDPINA  
 LQAAMAGYEVTMDEACSKARMFVTSTGCSGIIPEPHHFQQMPEDAIVCNIGHFDCEIDAKWLN  
 DNCERETVKPQVDRLTPNGRHIILLAEGRVLNLGCAHGHPSFVMSNSFTNQVLAQIELWQNHK  
 NYEIGVVMPLPKRLDEEVARLHLDHLSVKLTLSKSKQADYLNLPADGPFKPDHYRY\*

>TRINITY\_DN5633\_c0\_g1\_i1.p1 type:complete len:848 gc:universal TRINITY\_DN5633\_c0\_g1\_i1:2881-338(-)

MRRSNFLTIGIIAFLIFSYVSADETSDEEVEPPKVDDDVGKSRDASKTDDEVVQREEEAINIDGLSV  
 AEMKQMRESAEKHAFAEVSRRMMKLIINSLYKNKEIFLRELISNSSDALDKIRFLSLTDTEALAAT  
 DELSVKIKADKENNVLHITDTGIGMTKDDLIKQLGTIAKSGTSEFFQKIQDAGTTDQASDLIGQFG  
 VGFYSAFLVADRVVVTSKNNDDKQHIWESDSVEFSISEDPRGDTLLRGTQISLYLKEEASDFLEPNT  
 LKDLIKKYSQFINFNIYLWSSKTEEVEEPIEEPEKKEDEKKDDDKKEDADKKDEEKKDDDEDD  
 AKVEEDKEEEKPKTKKVEKTVWDWELMNSSKPIWLRKPKEVTDDEYNEFYKAISKESDGPLTKT  
 HFVAEGEVTFKSVLFVPKNSPSDMFQDYGKRRESIKLYVRRVFITDDFQDMMPKYLFSIKGIVDS  
 DLPLNVSREQQLQHKLLKVIKKKLVRKALDMIKKIPDEDYIEKFWKEFSTNIKLGVMEDHSNRTR  
 LAKLLRFRSSNDPEKLTSLTDYVERMKEKQETIFFMAGASLDEVKNSPFVERLLKKGYEVLYLIEPV  
 DEYCIQSLPEFDGKKFQNVAKEGLKIGNEAKEKARVDELEKEYEPLLKWLKEDALKDLIEKAAVSS  
 RLTESPCALVANSYGWSGNMERIMNSQAYAKSKDAGANFYATQKKLLEINVYHPLIQELQKRVKT  
 DKEDQTAKDLARVLFETATMRSGYTVKDSSDFAGRIERMLRLSMGVDDVDKVELPEEDDEEKEEE  
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>TRINITY\_DN1355\_c0\_g1\_i1.p1 type:complete len:333 gc:universal TRINITY\_DN1355\_c0\_g1\_i1:132-1130(+)

MGDGENSVLNIDSIIITRLLLEARGRPGKTVQMSEAEVRGLCVKSRELFLSQPILLELEAPLKICGDIH  
GQYSDLLRLFYGGFPPEANYLFLGDYVDRGKQSLETICLLLAYKIKYPENFFLLRGNHECASINRI  
YGFYDECKRRFNIKIWKFTFTDCFNCLPIAAIVDEKIFCCHGGLSPDLQSMEQIRRMRPDTPDTGL  
LCDLLWSDPDKEIQGWGENDRGVSFTFGVDVVARFLNRHDLDLICRAHQVVEDGYEFFAKRQLV  
TLFSAPNYCGEFDNAGGMMSVDDTLMCSFQILKPAEKKAKYQYGGLNAGRPITPPRNQQQNK  
AKGK\*

>TRINITY\_DN1505\_c0\_g1\_i1.p1 type:complete len:154 gc:universal TRINITY\_DN1505\_c0\_g1\_i1:98-559(+)

MSLVIPEKFQHILRVMNTNIDGKTKIMYAMTSIKGVGRRFSNICLKKADIDMTKRAGELSDEEVER  
LVTIMQNPRQYKIPDYFLNRKKDIKDGKFSQVLANGLDNKLREDLERLKKIRAHRLRHYWGLR  
VRGQHTKTTGRKGRTVGVSKKKN\*

>TRINITY\_DN925\_c0\_g1\_i1.p1 type:complete len:261 gc:universal TRINITY\_DN925\_c0\_g1\_i1:826-44(-)

MGRVIRGQRKGAGSIFKAHVKKRKGAAKLRLSLDFAERNGYVKGVVKDIIHDPGRGAPLAIVAFR  
DPYKFKLRKELFIATEGMHTGQFIYCGKKATLQIGNILPVGTMPGTIICNLEEKSGDRGKLARAS  
GDYATVVSHNRDSKVTRVKLPSGVKKAIPSFNRASVGIVAGGGRIDKPLLKAGRAYHKYKVKRNC  
WPKVRGVAMNPVEHPHGGGNHQHIGFPSTVRRDTSAGRKVGLIAARRTGRIRGTAKVKDVG  
GDKE\*

>TRINITY\_DN1819\_c0\_g1\_i5.p1 type:complete len:432 gc:universal TRINITY\_DN1819\_c0\_g1\_i5:79-1374(+)

MILQLLLLSIWNVAEGLDNGLALTPPMGWLQWERFRCITDCKKYPKQCISDSLFRKTADRLVSDG  
YRDVGYEYVNIDDCWAELQRTKKGEMVANHERFSQGIKALADYIHSQDLKMGYTDFTGKTCCG  
GYPGSIFYMKEDTMSFADWGDIMIKVDGCYVCGDLYADGYKAFGFHMNQATARPLYSCSWPAY  
LNDKGKPYKEIAEHCNIWRNWADIQDSWDSVLSIINYNGEHQDEIVPYVGPNGFNNDIDMLLIGD  
FGLSQEQCKTQFALWAILAAPLFISADLDTMQDWQKEILLNKEIIDVNQDVLGKMGKRYNNENN  
QQTWMRPLSNGEMAVAMMSTRTDIPVQMGFTLQQLSLNGIYNVRDLYTHEDKGNITQGYEAEV  
NPTGVVMLKLTPVKSEEVEPAVIHSGYENAEVNEIKEIEEMYEYIIY\*

>TRINITY\_DN624\_c0\_g1\_i1.p1 type:complete len:884 gc:universal TRINITY\_DN624\_c0\_g1\_i1:218-2869(+)

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RFAIQDITVDEFSAKEGLLLWCQRKTAPYKNVNVQNFHMSFKDGLAFCALIHRHRPDLIDYDKL  
AKDDPMYNLNYAFDVAEKELDIPKMLDAEDMVNAVKPDRAVMTYVSCYYHAFSQQQAETA  
AKRILKALNVNQNEKAIEDYENLASDLLDLNKNKIPTLDDRTDSSLDTMQNKLNEFRDYKGT  
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KLERLDHLAMKFKHKCDIHEAWSTGQDDYLRSDDITDASLASLLASRKRHEAFESDLAAQQDRV  
EQIVAIAQELNTLGYSKIDEINTRCKGICDGDWDTLGELTTQRSEKLAKAJEIAERLDNLWLEFAKKA  
SPFNNWMDGAKEDLMDMFNVHTIEEVNDLKDAQLKFKANMPAAQEEFNTIMGLQNAISSMSS  
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>TRINITY\_DN11248\_c0\_g1\_i1.p1 type:3prime\_partial len:1700 gc:universal TRINITY\_DN11248\_c0\_g1\_i1:111-5207(+)

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CYQINAHPGQKVTWEDARKNCLDFNKAWRKSVAQADLVSITNLEEQKMLQKEFSKVNIN  
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NYVCKVGRGQDRCYNPLGIQSFAPVNPAMTSNSVLGPSTPALAGRLYMKAGNSLDGAWCAGN  
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>TRINITY\_DN151\_c0\_g1\_i4.p1 type:complete len:317 gc:universal TRINITY\_DN151\_c0\_g1\_i4:106-1056(+)

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>TRINITY\_DN6397\_c0\_g2\_i4.p1 type:internal len:115 gc:universal TRINITY\_DN6397\_c0\_g2\_i4:343-2(-)

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>TRINITY\_DN123301\_c0\_g1\_i1.p1 type:complete len:272 gc:universal TRINITY\_DN123301\_c0\_g1\_i1:90-905(+)

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>TRINITY\_DN585\_c0\_g1\_i10.p1 type:3prime\_partial len:236 gc:universal TRINITY\_DN585\_c0\_g1\_i10:705-1(-)

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>TRINITY\_DN3589\_c0\_g1\_i1.p1 type:3prime\_partial len:548 gc:universal TRINITY\_DN3589\_c0\_g1\_i1:63-1703(+)

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 DFKLLKEFLSQEDFKFVASGMNGVTGPYLKRIFCVELGAPETSLMNAEPLDFGGEHPDPNMTYA  
 ASFVDKMRTGEYNIGAAFDGDGDRNMILGHKGFFVNPSSDSVAVIAAHHHSIIPYFKKTGLKGLARS  
 MPTSGALDRVAEKLEIKLYEVPTGWKFFGNLMDSGKISICGEESFGTGSYHVREKDGIIWAFLAWS

ILASTKKSVEQILEDHWATYGRNFFTRYDYENVEDESGNKMMTKLRELICTNELKGQQLGAYVVD  
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>TRINITY\_DN384\_c0\_g1\_i2.p1 type:complete len:314 gc:universal TRINITY\_DN384\_c0\_g1\_i2:1018-77(-)

MRI AVALFLVFYLYPTEACKDYLNPTVCRIGVKQKGDCEYYKRLCMKTCGGCGGVIRPTQGP GPG  
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VVLGEHDRRRRRSGHEQEIRVSRAIVHPRWNKRSFEYDYALLRLSQPARMNQYVKPVCLPTGEPRP  
GQSCYITGWGKTSSRGQMHYILQQAPMQVIDSNTCNRKNYRAIRAIRPSMVC GGGSGRISGCQG  
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>TRINITY\_DN146208\_c0\_g1\_i1.p1 type:5prime\_partial len:284 gc:universal  
TRINITY\_DN146208\_c0\_g1\_i1:876-25(-)

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RLTQLAETKAAGKQESSRKKPVTIKYGINHITNLVESKRAQLV VIAHDVDPIEIVVWLPALCRKM G  
VPYCIVKGKARLGKLVHKKTATAVCLTAVRQEDRHSLEKVS DAVRTNYNERFDEIRRHWG G GIM  
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>TRINITY\_DN852\_c0\_g1\_i1.p1 type:complete len:589 gc:universal TRINITY\_DN852\_c0\_g1\_i1:92-1858(+)

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KRLAQGDWFTSRTSACGLFASCYPRVGSNTRGELRGAFKTLCCDDTPMVRRAAAGKLGEFSKT V  
EMEYLKSDLIPSFTSLANDDQDSVRTLTVEACVSIAGILPDADKETLVLPILRNAAQDKSWRVRYM  
VAQKVVDLQKALGPDL SKQDLVPAYAALLKDCEAEVKTASAERVKDFSENLPEDIREDAIMKNLL  
PCVKDLVIDPNMHVKSALAGVIMGLAPMLGKDNTIEHLLPLFLTMLKDEYPD VRLNIISNLDSVN  
KVIGIHQLSQSLLPAIMELAEDPKWRVRLAII EYMPLLAGQLGVQFFDEKLSSLCMGWLVDHVYAI  
REAAAINLKNLVEKFGLEWAQKNVIPQVLQMAKGANYLHRMTTLFAINTMIDVCGPDITTKLILP  
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>TRINITY\_DN1058\_c0\_g1\_i1.p1 type:complete len:2639 gc:universal  
TRINITY\_DN1058\_c0\_g1\_i1:134-8050(+)

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 WLSSIFS\*

>TRINITY\_DN4726\_c0\_g1\_i1.p1 type:5prime\_partial len:670 gc:universal  
 TRINITY\_DN4726\_c0\_g1\_i1:2906-897(-)

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>TRINITY\_DN803\_c0\_g1\_i1.p1 type:complete len:330 gc:universal TRINITY\_DN803\_c0\_g1\_i1:1049-  
 60(-)

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 IFGKK\*

>TRINITY\_DN13813\_c0\_g1\_i6.p2 type:5prime\_partial len:370 gc:universal  
 TRINITY\_DN13813\_c0\_g1\_i6:1389-280(-)

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 HHELQALVAGGQRHRVRMERGAPAQR LCLEVLLDVAPHRHHGQGQIRARQPLGTRHNVGHD  
 VVMLEAPELARAPEAH HDLVANHQD TVLVAQSPHTLHVPLRCLVHAARP DHRLEHDCRDGPG  
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>TRINITY\_DN69276\_c0\_g1\_i1.p1 type:internal len:887 gc:universal  
 TRINITY\_DN69276\_c0\_g1\_i1:2659-2(-)

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462(-)  
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>TRINITY\_DN140996\_c0\_g1\_i1.p1 type:internal len:109 gc:universal  
TRINITY\_DN140996\_c0\_g1\_i1:326-3(-)  
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TRINITY\_DN1030\_c0\_g1\_i2:4483-206(-)  
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DGESKGPVVEREEDAPEDENEELPPNEVNPFYRVYQFYSSKTTPTDNDVNV MENKFKTKVEEL  
KTEFSRIDKPDGTDYPARTCRDIHAYHPEAKSGLFWIDPNQGCKDDAIQVTCTFSVNEDDEPTV  
TTCVDPAEQSVQRTWASKMHSRAQKWFEDEDHELAKLKYNANLSQLRYLGLLSKTATQDVKV  
HCKKYVVVWHDKMNRNFRDRAMRFMGTQEQEFLYKDVDSDSSKSRFVPEVITDGCSANSNSVAHT  
HLRFTSRKFIRLPVDFAPTYESPKESEFGIELGPVCFKV\*

>TRINITY\_DN1194\_c0\_g1\_i1.p1 type:complete len:555 gc:universal  
TRINITY\_DN1194\_c0\_g1\_i1:101-1765(+)

MAARLGGGMMQPQIILLKEGTDSSQGIPQLISNINACEVVAEAI RTTLGPRGMDKLIVDKNGKSTI  
SNDGATIVNLLDIVHPAARTLVDAKSQDAEVDGTTSVILLAVEFLHQIKSLVEENVHPQILIKGY  
RKATKMALEKIKEINVQIKKDDQEEMRKLQRC AETALSSKL VAGHKEFFGKMVCEAVMHLDEL  
LPLNMIGIKVKKGGALEESQLITGVAFKKTFSYAGFEMQPKKYKDPKIALLNVELELKA EKENA EV  
RVDNVEEYQKIVNAEWNILYEKLEKIVASGAKVVL SKLPIDVATQYFADR D VFCAGRVVEEDLL  
RTMKACGGS IQTSIHNLVDNLGTCEDFEEVQIGCERYNL FQGCPRSKTVTLILRGGA EQFIEETER  
SLHDAIMIVRRALKND AVVAGGGA IEMELSKHLREHSRSIAGKEQLIIAFAKALEIIPRQLCDNA  
GFDSTTVLNKL RQKHAQGGKWFGVDILKEDIADNF EAFVWEPAIVRINALTAASEAACLVLSIDE  
TVQNPKSDMSGDDNPITGKRGRMPQMGR\*

>TRINITY\_DN79\_c1\_g1\_i1.p1 type:5prime\_partial len:450 gc:universal  
TRINITY\_DN79\_c1\_g1\_i1:3268-1919(-)

EFYAPWCGHCKRLAPEYETAATKLKKN D PPVPLAKVDCVGE GKETCGKHGVSGYPTLKIFRGGQ  
VSQDYDGP RDGAGIVNYMKKNSGPSSVEIKDNEHLEKKLNEAEDPLVVG YFKEENDLYKRFMKA  
ADKQRASFAFAHSLNGDVNSKQGHENVIVLHRPNHMH SKHEDPKEFLSNENANTNQIIDFIKEK  
QNGLVGQLTAANQESFTSPLLTVYYKVDWKRNP KGSRYWRNRVLRVAKKFVGAATFAIAAKSE  
FARQIGDWGFDVDNDVYAIGTNAKKQVFKMEDKFSVNNLEKFVNEFKDGLLKPYIKSEPLPEN  
NDGPVKVVVGENFDKIVNDPTKDV LIEFYAPWCGHCKSLEPKYTELG EKL TN NKDIVIAKMDAT  
ANDVPHPHYEVQGFPTIFWAPMGSKDNPKKYEGGREVS NFVDYIKREATNPVEIESKKKKKKKKEL  
\*

>TRINITY\_DN310\_c0\_g1\_i1.p1 type:complete len:298 gc:universal TRINITY\_DN310\_c0\_g1\_i1:1091-  
198(-)

MFKIFNIYLILAVLILPTTVLFSGQAYAKEDAVEDEVVTDDV ENDEDSKVETEEEVKEETAPSGKDA  
EDEEEKTADGIRTSPDAETA VLFDPDYPDKELPAGKPLHVLVGFN NKGSSSEFV VDSIDASFRYPQDYS  
YHIQNFTGTTFN RVVKPGEEATFRYSFHPHESYGGRPFG LTVMILYKDVDGNQYASGVFNETVTFK  
EVDESFDGETFFLYVLLVA VALLVVFGLNYAFSNSKLKKA VTSKPTTEYGTQNGRHDVDYEWLPKE  
TTTDFSKGSPSPRRSPRQRVRKRNAGSSGDE\*

>TRINITY\_DN2637\_c0\_g1\_i7.p2 type:internal len:233 gc:universal TRINITY\_DN2637\_c0\_g1\_i7:3-  
698(+)

GYCARDALVACRAQLSDAGVPSAEETDAHIEELKAAAQRLVAGAAA AVVFATTAAGDAFAYPIF  
AQQNYKEPRDATGKIACANCHLASKLIEAKMPSEVL PD TIFKATIEIPAKY EKRYQPIADGSKAKM  
NVGAIAIMPEGWK LAPRDRLPKSLKEMKGLAWAPYSKEQPNILVAGPV PGERYETMVLPI LAPD  
PATNPNVVF D KASIFFGGNRGRGQVYPEGNQSNNNQF

>TRINITY\_DN5584\_c0\_g1\_i3.p1 type:complete len:962 gc:universal  
TRINITY\_DN5584\_c0\_g1\_i3:2920-35(-)

MASEMSSPFDEEETLLDEKRSKSNDYEGGFCKKNWPVVITGFGV VVLICLG VVIGTAFKSDINSSN  
SRLAREEKFPYKNIRLPGNVPIKYRIY LHPNISDNEFGFSGNVRILV NVLNKTNSVLLH SKDLN ILK  
VKIFSNSAAFNQKSESLATEIPTQEFLH SKKLEMLHIALNENEYLDAGEYVIYISFKGSLSGGLEGFY  
KSSYTTRS GEKRYLATSHFEPTAARA AFPCFDEPAMKANFIIIVRDPQHVALSNMPIERNVTRRDG  
KVTVHFQESVKMSTYLVAFVVCDFAYVSAKTKKN NIEVRVWAPKELIAQAEFAIQVAPNILNYEE  
FFKVDFPLPKQDLIAIPDFGAGAMENWGLITYRLTSLYDENESSANKQWVAVVIAHELAHQWF  
GNLVTMEWWNDLWLNEGFAAFVEYIGSDYHDKSWRMMDQFIIDDVQNSLALDSHANSHPI SVP  
VHDPAQINEIFDSISYDKGASIIRMMKNFIGSDAFHTGLTNYLT KYKFKNAKSDDLWACL TDAAK  
DKDIDVKRVM D TWTLQMGYPVLNVKRDGEKVTLTQTHFLKDQDKPAKSIYNYKWDVPV TYFT  
NGENTTQFDW FYKDNKSIVIKIDENADWFKINRDEIGFYRVNYDKDTWAALKAQLLNDHMKLS  
ASDRSNLMDDAFELARAGQLDQIEALNMTEYLHKEKEYVPWITALSGIAFCGKMLQGREGYKYY

EKYIVQQVKPLVDELGWEDKGTHLQKYLRGSVLRSVVDHNYTKAKNQALEIFKDFKENNKAIKP  
NIRSAVYLAGIKYGTKDDWDFMYNRYKTSQFPSEQRKIMFALTDTEDKNILKKYLSWTLNDKIR  
SQDSCGVIEHISMNPKGTEMAFKFVKKNWPEIYKRYGTSSFDMSSLIKTIIGTRKTKSGKEEAKEFL  
DTHKLGSGRLAGKQALASVQNHNWLEKNEKKVVEWLKNNINNNKKITK\*

>TRINITY\_DN1821\_c0\_g1\_i6.p1 type:complete len:638 gc:universal  
TRINITY\_DN1821\_c0\_g1\_i6:297-2210(+)

MMKLLIKFIVVFIFYDFALATTPEEFLKEYNAKIGQQGWPSDASFAKATNISDENSEKAQEESKKY  
TKIAQAWRANASLINLDGADADTKRQFKLLTSATPKCESVIADISKVGSLENIYSLGRIPNDRTK  
IKTINSKASLSLDEHLYLILANSRDPDELLYAWKGWRDAVGPKLKDKYTKYVELNNIGARENGF  
KDKGEYKRKYVEVDNLKEIAEKFWDELKPFYQEVHAYVRYRLSNVYKDLVKDGEPIPAHLLGNM  
WAQSWDNIFPLVKPFKDKPALDVTSTLKKKYSVKMFEVAEEFFKSIGWEELPPSFWTKTLFEKPA  
DRNVTCHASAWDFSIVKDGSKDVRVKMCTVINQEDFITIHHELGHIIYYLLYWDLPVYRTGANP  
GFHEAVGDTLVLSVQTPDHLHKIGLLEKVEDSKESDINFLKTAMERIAFLPFGYLMQWMWGV  
YSGDILPNEYNKRWWEMRLKYQGKPPVSRSENFDPGAKYHIPADTPYIRYFFAHILQFTFHKYA  
CKAAGNTKPLHKCSIYQSKEAGKALGDMLRLGKSKRWPLALKNLTGSEELSADPIKEYFQPLLVF  
LKEQRKEHKYTLGWSGTDDNSNSSPNCQVSIALFIMCILFFLFGNKH\*

>TRINITY\_DN71276\_c0\_g1\_i1.p1 type:5prime\_partial len:1201 gc:universal  
TRINITY\_DN71276\_c0\_g1\_i1:1-3603(+)

LTFIESLRLSSIKNIFKMMISFETFPSTTPYAEDYNTNPQVMMLSNKIKETIDTSLNPLASQIDROKA  
FQVQEEFKSSSPHCAEVGLYLYSVERKNSDAVRLCALKFVDHFIETKWNDLTYERKTFYKKESLKL  
VEQMTFENETYLKEAAAQIVVEIIRKRTWPQSWADLFKNLEELQAKGDAQLELVLIILMRLSEDVN  
GLDERLTTQRKRDMMTTFQDNANELFEFFIKTIRDKVTALKTESSLLIRLSEATLFTMMEFVSWA  
HFDCLFNNEKIIFQILFWLLEVKYLRYYAAACLDNIFQRKGTPEKRIEFMVVLSDDVLNIVENVVR  
LKKTPENVLPEEGYKFLKLAEMLVSFQKIQLSLWGDGERGFNEKPVGYDRYLRLMLLLFQHESM  
KLTYDVSKFWHALSIHPHGKLDLDFKELMPDLLDCAIMKIAKISDPKIPNNPSSHYSTMDFFDKE  
NYAEYFANCRGHMTDVCRKITIISYTVVLDHCLAKIKQATSKPPPDVSGIPKNQIQITQHYLYWDA  
LVHFLKNGFAGVFFRANKEISEDISKNEIITLLIHYKCEVPLFTIPVINLLESVPFIKHSRDHLLPT  
MQLLSIIRLPQNDEDPLRDHVFKLKRHVCEAYAALCKEIPHCLVDYFKQLEEFVAVYQMMHNASL  
TGQEKCRILIEGVLRIKSHVTVKEEQDHCINAIFDMIDSMFDKEPVRRACESPISLIQYIGLDQEGTV  
AADSELRTRELLFAINLWTAACKALAMSKEEEVKDEITEEEMRTQIETYGWIKRMVTMLPKMLSL  
LQSYSLIWQHODKICDKRILVHKIITEINPTIQVFQPKCADEVNEKRGGLGQYYLCTFYESAYTSLGSV  
SKSVGPSLFSIGGLAEAMNEKLVQHWNNLPNYRLGRITRTFIKDICLACPKKYFETFIGPFVSQVLR  
LYFERISNEWAKLAQLKENPREVTDKLQEQIEAERMIYLMKDLDDLSSLLTFKRKHLRSTTKP  
ADGSLETGELGHFLDCEETNFIIVQIIFTSLTWPDTSAAIKVSQIILAVLKKIFTDTSKLNPELQKQ  
LLLILQGLNIHGGDEFGRALTNVQLFYHLRMQYRGIVQVMLMIPTCEEQHLREFDLAVFVQE  
LPLTEQQQKKIFRRFVAGACGTVISKLHEKDVVIQDLPALMPRQKEKTLNKNGDADDDLGLCSLF  
GV\*

>TRINITY\_DN6428\_c0\_g1\_i2.p1 type:3prime\_partial len:303 gc:universal  
TRINITY\_DN6428\_c0\_g1\_i2:906-1(-)

MLSSLKLERNKNLRYRYRYSCCNIRVPSTSQKILNPFTLVVGGNAIYLDRQNVQCPGSAVITQLLL  
RRYKSTIRYTYSCSTIPRKMECQNMKTPLNFDGKGDAARYLDRHPVSCPNDYGLNKMRLQRGSNL  
KTYAYHYRCKPLYSVQFQENKVDGGFTNWSKYGTCTKSCGGGIQERSRSCENPKPLNGGKQCI  
GVSVETRSCNTDPCPVDGGFSNWSNYGTCTKSCGGGIQERSRTCTNPKPMNGGKQCQVGVSVETR  
SCNTNTCLGPKQCKLFTAYNKDGKGQVFYLDHRNVACKPDEM

>TRINITY\_DN1272\_c0\_g1\_i1.p1 type:complete len:262 gc:universal  
TRINITY\_DN1272\_c0\_g1\_i1:957-172(-)

MRCQLFLLVACMAIATCSAYDWRNKVQNMLKYAKVNIFDRAAYILGDKRQHQLGKPFWFCHKL  
DCPAFQVVGNYTNKKDGFEEERCYPETAWVMTSKEVDANENDIETRDMFMKLFKYIQGENEKQE  
KIEMTVPVFTYSQLKKDDPSKRYISMHFFVPPSQEKNIPKPTRDDVTIMDVKADCYYVRSFGGYV  
MSFGSKIMNEEKIHAALAEKNNLDFAARKTMAAGYDSPFRLFNHNEVWVAKRKTMDSGCCTP  
RKSTNVMY\*



>TRINITY\_DN1377\_c0\_g1\_i1.p1 type:complete len:878 gc:universal TRINITY\_DN1377\_c0\_g1\_i1:68-2701(+)

MTGRARGRSRGRGAAQDASQRPQGAQGGPPQAAAPQQGGGGRGRTRGQPAPQQVAPQQR  
PAAQTAVPPTARMAQMSVKDQKPATEERQPRRRRLDPAPDVLVTRPEGRTKEGTGTPVNIVSNF  
FKVIKMPNFKGLYQYNVSFDPEINSSKLKNALLYQMADVLGQTKCFDGMTLFLPKRLPDQITTRS  
VTTHQGNNAIVIKIMFTNVIPEISPQVLQMINIIFRRQLRCIKMELIGRNYFNSSRKIEVKAHKMEVW  
PGFSTSILQYEKDVMLCADVQHKVVRQQSVLSMMYELHQKTREKNRFYELAANKKLIGETVITRYN  
KKNYKIDDIEWNKNPNSTFDKNGTQITFKEYFEKTYDAKVGDDQQPLLVSPLKAKNRKSGIVGPI  
LLLPEFCLISGLSDEIRSNFSIMKDLAQHTRINPAERAKNLEQFVQDLQTNEESKKELEQWNLKFES  
KLLQMTGRAYGSEKMFQREDQFSYKIQDADWSRETRGKKLIHTVNMTDWLLVYERDEPIATDF  
KQTLVKVCGPMGMNVAEPQLCRLKDDTARSYFRALSEQIRPTTQIVVCIVPNNRKDRYDSIKKLC  
CVEKPIPSQVIVSRTLSSKKQMLMSVCTKIGIQLNCKLGGEIWAVDIPISKNPKDPPSLMVVGFDVYH  
DSASKGKSIGGFIASTNRHLTKYYSRITQQQSHQEIADQLRVCMTGALKKFNELNGTMPRIIVYR  
DGVGDGQLRQVFDHELPQFKAAAFNAISQGYDPKFTMIVVKKRISTRFLSERGMKTNPLPGTVVD  
TVVTRPEWYDFFLVQSQRQGTVSPHYNIIADTSGWKPDIFQRLTYKLCHLYYNWPGTIRVPAPC  
QYAHKLAFLVGQSIHAEPDVQLADRLYYL\*

>TRINITY\_DN16120\_c0\_g1\_i2.p1 type:5prime\_partial len:232 gc:universal  
TRINITY\_DN16120\_c0\_g1\_i2:734-39(-)

GFFLKGLNGPPGPPGPPGSGEPGPPGLPGAPGAPGHVGEDGAPGPMGPPGPPGPGGPPGFPGE  
KGDGPVAGLPGSAGLPGAPGLPGPQGPPGIAGPEPITPNFTVICEGEKGWVQCKQYELIKITKAF  
WGRDDYETCPKVPAGLTAGRLCETNTANTEAKVNGQCKNEQGCEVVASNIFFDDNSCGNVYKY  
LKIGYECIPDESNAVDVLREGGRRKRKRATKDKRSFRDS\*

>TRINITY\_DN2217\_c0\_g1\_i2.p1 type:complete len:254 gc:universal  
TRINITY\_DN2217\_c0\_g1\_i2:884-123(-)

MNSVDGNTDNAQKECLELCQRNAKATGCEVIWNRHNRGCYIHTQEVARGNNVDRHFCWVFS  
KCTLNNVPPAVCPIEKGVCVKGNGHDQNSGVIKMNSVDGNTENAQKECLELCQRNPKATGCEV  
IWNQHNRGCYIHTQEVARGNNVDRHFCWVFSKCTLNNVPPAVCPIEKGVCVKGNGHDQNSGV  
IKMNSVDGNTENAQKECLELCQRNPKATGCEVIWDRHNRGCYIHTQEIARGNNVARHFCWVFS  
KCNL\*

>TRINITY\_DN730\_c0\_g2\_i3.p1 type:complete len:235 gc:universal TRINITY\_DN730\_c0\_g2\_i3:1019-315(-)

MPKKDRTELNRELEAFVQIPANSFGFRMQLGETFIQNVKDGKIKGFEYKVRDPYRNDLFHDTSR  
IDLYTDYELIMDNLYVKNRSSYKVEVEDEKGLLAFKEKLLSKPFMCHAKLHMLKEDLTQKLSND  
FFVTVPENPDVKAIEKGFQHALDCVKNKKHYKVWFTPEIWFYKDFVTNATKTQFEFGDLRY  
SKIELNDKKGFFSSSKDLNCPIKPSIIELVTTAIMPDPGY\*

>TRINITY\_DN187147\_c0\_g1\_i1.p1 type:complete len:1223 gc:universal  
TRINITY\_DN187147\_c0\_g1\_i1:3708-40(-)

MLTKFETKSARVKGLTFHSKRPWVLASLHNGVIQLWDYRMCTLLERFDEHDGPVRGIDFHENQP  
LFVSGGDDYKIKVWNYKQKKCIFTLGLHDYIRTSFFHKEHPWIISSDDQTIRIWNWQSRNCISV  
LTGHNHYVMCAQFHAVEDYIVSASLDQTVRVWDISGLRKKYCAPGAKPKEDITAPKTPGQMDLF  
GHSDAIVKHVLEGHDRGVNWWTFHPTMPLIVSAADDRQVKLWRMNSKAWEVDTCRGHYNN  
VSSVIFHPRELEILSNSDKSIRVWDMSKRTGVQTFRREHDFWILGAHPTLNLFAAGHDSGMIVF  
KLQKERPAYAVHQNTLYYIKERYLRMYELGTSKDIPIMQLRKSSGRSTPLKLIFNPAERCILITYNND  
TSAGESQVYELHTLPKDIRSTDPEQSEGRRAAGTAAVWVARNRFAVLDDKQQNVVIKNLKNVTK  
KVQTPACDMLFYAGTGSLLLDAEQVMLFDVQQKRVMATVKIAKAKNVIWSSDMSYAAAILAKH  
SIAICNRKMENLCTVHESVKVKS GGWDDSGVFYTTSNHIKYTLTNGDAGIIRTLDLPIYITRVKGS  
NVYCLDRECKTKVLNIDPTEFKFKLALVNHRYDEVLYMVRNAKLVGQSIISYLQKKGYPEVALHF  
VKDEKTRFGLALECGNLEIALEAAKTLLDDKACWEKLSEMAALLQGNHQIVEMCYQRTKNFDRLS  
FLYLTGNSDKLRKMLKISEIRKDVSGHLHNALYCGDVEERIKVLKQVGGQSLAYLTAATHGLVEE  
CEEIKATFDLNPKEKLPPINPNAKLLRPAVPILKNEGNWPLLSVSKTLFEGAAAMKDAGTSNMAAA  
VDMDEGEGWGSDSLVLEEDAGFVDPEEKLDIDEEGGGWDVDDDDLELPPDLVGVPVSSGGED  
YYVPPTRGNSQAQVWCTNSQIPVDHLVAGSFDSAARLLNEQLGVVSFEPYKQLFMLAYARGRVA

APGLPSTPPLFYYPHRNWKEAGAKAGLPAAVAIKLNDLVQRLQTAYQLTTGGKFADAVERLHQILL  
SVTLLSVESRQDVTEAQQLLGICREYILGLQMEINRRELKPKQNAQQQKRICEMAAAYFTHCNLQPV  
HLVLTALRTALNLAFAIKIKNYKLASSFARRLLELGPKEVSSQTRKILLACEKNPTNAVQFDYDELNP  
FSICAVSYTPPIYRGKPEEKCPCLQASYKPEYKGTICKICRVAEVGRPGSGLKISMGR\*

>TRINITY\_DN101992\_c0\_g1\_i1.p1 type:internal len:139 gc:universal  
TRINITY\_DN101992\_c0\_g1\_i1:414-1(-)  
AERYDHHSGIVESMDSNKISDNLRELTRLPHPGRSRNRELGDMLADFWQNEGMDKIEFKYNI  
YLSYPEKPSTILLFGGAKTEKYTIEAEPVDESEKGGTPVVPFNAFSANDIVKAELVFVNHCRESDF  
DEVKKAG

>TRINITY\_DN2885\_c0\_g1\_i2.p1 type:complete len:114 gc:universal TRINITY\_DN2885\_c0\_g1\_i2:31-  
372(+)  
MAQPVRLYSKGIFVGYQRGLRNQHEQTSLIKIEGVNTKADTSFYLGKRVAFVYRVSKKTVAKGDK  
KPSRIRVVWGKVTRPHGASGVVRAKFRHNLPKAKAIGGSVKVMLYPSRI\*

>TRINITY\_DN923\_c0\_g1\_i1.p1 type:complete len:442 gc:universal TRINITY\_DN923\_c0\_g1\_i1:53-  
1378(+)  
MAEKYDLTYKVGAYLDRHMFPLLEFLSSKEIYDDTELLRGRLELLQGTNMLDFVKDEYQRLHQT  
DEVPDELANKRQEVIRQMRELEAATESITA AFEDPDFQKEASSARDGAQLFKYLNFTGIRSENLD  
TLYQYAKFYECGNYNGASQYLYFYRVLVHDDDKNASAAIWGKLACEILTQNWDPALIEINRLK  
EVIDGDHFSHPLQLLQQRWLIHWSLFVFFNHAKGRDLLIDMFLYSPNYLNAIQTSCPHVLRYLTT  
AVITNKRKQILKDLVRVVIQESYTYRDPITEFLECLYVNFDFDGAQKKLLECETVLLNDFFLVACL  
EDFIENARLFIFETFCRIHQCSIQMLAEKLNMTPEEAERWIVNLIRNARLDAKIDSKQGHVVMGT  
QAAAVHQQVIERTRSIMFKTQAITTNIDKKLASLQKQPYTEPFGLAW\*

>TRINITY\_DN32270\_c0\_g1\_i1.p2 type:5prime\_partial len:309 gc:universal  
TRINITY\_DN32270\_c0\_g1\_i1:1-927(+)  
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RECGYIYQFGPVFQSEGGRTVMVARAGLDGGVSGRIIQKFGTGFEVKASSQTNLKNQQQNIHDA  
AAEYTGKDWTCGAKLAWQGAWLGGSTQRLPSLQLGGDLTCVAVNNLMTIWQLSARWTEG  
KNVFTAGLNRQDPKSPVGANLHEIRLQYVRKLSDRSLGTEFKLSHPDKDSGLSMGYEYAFRNA  
RVQGLLETDRVSCCVSDYQGLGFSGMIDYVQGNKFGVLMHVMPEQGPQ\*

>TRINITY\_DN1936\_c0\_g1\_i1.p1 type:3prime\_partial len:1224 gc:universal  
TRINITY\_DN1936\_c0\_g1\_i1:3669-1(-)  
MVCPAVITIFLSVLGSSSSQNCFEDVKSCKWTQYAADKFDWSRASGSTGTGTGPVNDHTTLV  
KTLKVNTTGGNANGASCVFPFIYQSKKYFKCLQYYNTEWCATVPNYDKQAKWGYCVPTGFYMF  
IEASNPRKKGDNAILVSPFVPGPKCLKFWYHMYGPHINRLNIYVMIGGHTGKPIWSRIGTQGNK  
WNKGQVTLVGRQPFQVVVEALSGISYKGDIAVDDISVSSTKCTQPSSTTCSFEDSQCGYIDDTSSDV  
QFQWTRSSLSTSSSGTGPKTDHTMQSETGFYMYTEATRKTGSKARLMSPVKNKATSGSCLQFWYH  
MFGADMGTLSIYLKVNNKLQSTPLWSEQDGKNEWKVATATITTQDSYQIVFEGKIGRGYRSDM  
AVDDIKLTDGNCPPGFCDFETGYCTYFNSKNDKFDWLIGSSRTPSRFTGPNFHDHTYGNANGSYL  
FLEVSQPIKAGDIAILESQQFNAVGGKTRCLNFWYHMFSGDIGSLQVVYKVFSGSQQERVWNLNLT  
GQQQITEKDPWKYARVPVDMADHMMVMFKGIAGSGYKGDIAIDDVQFTSLACTIDPPEANPNG  
KTTMKPPTTYPRAPSTPVPTEFSCNFEKDLCKLTQDSKGTFNWTRIQGYTGSPGTGPSTDHTYGR  
GFVPKYGPGSLRHAGGKCVHVLNNGGFNKPKEGNPLVLYQCGQTRLEFVFKYGYLKLTRLNMC  
ATLEGSSTSSGTVVLSNTCMNKWKMLDNNTIQDVKTGLCLSPFKGSDYPSNNSPLVVDKDKCP  
KSRIFFSPTMGHYAIETSPPRQPNDETARLISPILKTPRCLNFWYHMYGAHVNNMLNVYVKTSNGP  
YVSPAWAKYGSBGDTWKAAYIYMNMTGPYVYAFEGVRGIGWQGDIAIDDTLSESCAPVECSFE  
ETSPIMCGWTNLKNDDFDWSIGQGKTASTKTGPKNDHTYGTSGHYMYIETSNAPAKATAYMYS  
PWYYNTGQKCVQFFYHMYGQQIGQLEVYIRYSNSRYLYRQFIRSGNQNNTWHMGGQVTVKRN  
VYFQIIVRGTKGNGYQGDIAVDDFRIRDGACAPAGDCDFEHADFCSWMQEDNDDFDWIIGSGST  
NSFLTGPSIDHTTQSNNGGYAFIEASSPRQPGHKARFKSMVFAPTGTSGRCFSFWYHMRGYSIGNL  
TIYLRKVSNTKTLSEVMWLLGGNQKAWNQGRFTLKSSTLHEVRFIYLRFLHCKICLPCY

>TRINITY\_DN81944\_c0\_g1\_i1.p1 type:5prime\_partial len:222 gc:universal  
TRINITY\_DN81944\_c0\_g1\_i1:3-668(+)

VHQVIARYSINMLPQILSTFVILTVSTALADKPWFCHDLDCPSYKVAGAFTEKKDGFVRCYPKTV  
WAMTQAEFSAKSSSYSTGSLFMKLFKYISGNNKEGKKVAMTAPVFTYSDLKKGDNSTRVIKMHFF  
VPPAQESTIPAPSGDDIEIVTPADCYVHSFGGFVFSMGRKIRRETGNLVKSLEKAGIKSYDLSKSM  
YAGYDSPFRLFGRHNEVWLAKM\*

>TRINITY\_DN1559\_c0\_g1\_i1.p1 type:complete len:311 gc:universal  
TRINITY\_DN1559\_c0\_g1\_i1:221-1153(+)

MAEKKATFKLGFAENFALSGAAVISKTAAAPIERVKLLVQNQDEMIKQGKLSEPYKGVIDCTTRT  
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CFVYSLDFARTKLANDTKSSKKGGSREYNGLVDVYRKTLKSDGVAGLYRGFVLSVGVIFVYRGCYF  
GFYDTLKPVLLGADASLFMSFILGYGVTVTAGLISYPIDTIRRRMMMTSGQAVKYKGSIDCATQILK  
NEGAMSLMKGAGANILRGVAGAGVLGAGFDKFKEVYIAMRKRQMGLE\*

>TRINITY\_DN144181\_c0\_g1\_i1.p1 type:5prime\_partial len:309 gc:universal  
TRINITY\_DN144181\_c0\_g1\_i1:2-928(+)

INVLAKRFDVKVMQIDVTFPINSEKEVLELFENTLKENKHIKIAVFDHISSATAVKMPIHDIGRLCR  
KYEVISIVDAAHAPGQIILDLDNIPVDIYVGNLHKWYYTPKSCAIMHVNPKLHDVMOPTVVSHG  
CYGNFHWRFKKQATKNYSAQMTAGFAVQYMEKLGIRHLHEYITPFVEWAVELFKRDWGTKELS  
IPDSMKAPYMRVVYLPDIFTQVYGTDAAGADRLIIDLIKYNLSMFVNPAQGKLATRVSAQIFSLK  
SEYYYASRCIMDEAKILQEGVNVKIMNEAKILQEYENIKIKDEAKPL\*

>TRINITY\_DN3034\_c0\_g1\_i1.p1 type:complete len:1941 gc:universal  
TRINITY\_DN3034\_c0\_g1\_i1:6289-467(-)

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EEFGYTTNAIEVLGFDEEEKQSMFKICAAILNFGNMKFKQKPRDEQAEVADPADGERVAYLLGLPI  
GEFHKSLTKPKVKVGTEFVNKGQNVSVQVLYSVAALSKALYERMFWWIVSRVNKALDTKERRSYFI  
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>TRINITY\_DN7504\_c0\_g1\_i1.p1 type:complete len:414 gc:universal TRINITY\_DN7504\_c0\_g1\_i1:87-1328(+)

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HAHADQYKATDFLVPEAGTLEMKFTPKGQTEPTISYVVNNFAGAGVAMGMYNTDKSIRDFAHSS  
FQCALEKNYPLYLSTKNITLKKYDGRFKDIFQEIYDNEYKGKYEAKGIWYEHRLIDDMVAYALKVE  
GGFVWACKNYDGDVQSDTVAQGYGSLGMMTSVLMCPDGKTIEAEAAHGTVTRHYRLHQKGQ  
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>TRINITY\_DN1119\_c0\_g1\_i1.p1 type:5prime\_partial len:949 gc:universal  
TRINITY\_DN1119\_c0\_g1\_i1:2934-88(-)

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QNVDKLFSEWSGWSTCSKSCGGGTQKRTRECKDKKSCSDAGGEEFKSCSNSFCCKGSTGVAKAQE  
VVETFLETFFHKVEFPDIKPSGKYLKTIFEIQKAVGEEFNSVDPVKGVPLEKRLTELEHFLKIAVEGG  
SIDFARSTLGKGMFVFMKKKIKEGLPINDIDTAAKGFLNKLTDIGSKKMNEILSSKGDATLMFTID  
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KELGIESYKEIASHTGGQVFPLKNEAELINFTEYVKSSLQQDTIIAAGGSLNSRISKRAAPRSHIFMV  
DQSITRLIISVAFEKQNTGKHIKLLDPNNKNVDSSTMLAMSLIYDIKNPKVGLWGLSFPHIVGEFGY  
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>TRINITY\_DN761\_c0\_g1\_i1.p1 type:complete len:830 gc:universal TRINITY\_DN761\_c0\_g1\_i1:129-2618(+)

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TFPFLFSVMFGDCGHGAIMALFALWLMNERKIANWKAGGEMFDTVFQGRYIVFLMGLFSIYGL  
LYNDIFSksLNIFGSAWVPTLNRTKYDYQPENYKEWSDGDRMLNPLDAPRETPPYFGIDPIWQLTS  
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FSIHSPSQPSILLGLLAMFLNFAKKKTDADRLYNGQDFLEPFLVVAVICVPWMLLIKPFYLRWQH  
NKKKQHGTNFARLHEDTAPLQDNEVNHHDDSGISSKNEEEEFDFGEVfVHQCIHTIEYCLGCIS  
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>TRINITY\_DN25375\_c0\_g1\_i7.p1 type:complete len:811 gc:universal  
TRINITY\_DN25375\_c0\_g1\_i7:112-2544(+)

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EVECVKSSAACIDEEGIECSGKGKVCNRCVCDPGYIGDLCQECVSNCPDPCQDYRECVKCRVFK  
MSDLSDEECKSECLKHNITSHIVTDKVPEDKRCIARDEDDCSFVFTFVKSNTIDEVQLIVQQEKICP  
AEPDILAILLGVIAIVGIGLALLLIWKLLATIQRREFAQFQKDRQDPKWDSGVNPIYQQATSTFQ  
NPLYGNKGEETEKILDSQ\*

>TRINITY\_DN124859\_c0\_g1\_i1.p3 type:5prime\_partial len:237 gc:universal  
TRINITY\_DN124859\_c0\_g1\_i1:884-174(-)

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GLAGRAALQRSAGRHLPLRLIARAGLREARGDDQRGPF GIRLPEGAALHRQMHQHRLDEDHA  
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>TRINITY\_DN77\_c1\_g1\_i1.p1 type:3prime\_partial len:1965 gc:universal  
TRINITY\_DN77\_c1\_g1\_i1:2-5893(+)

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HISISTYGESVNAKTAFYESYDKSALKQFIKDLDPDGRQANIGDFLKTANDEIFNITNGIRQSSPR  
MLVLFTNGVYSNDQIAKAQEESLKLKAEGQDVNINIGSIVEGNSVLRDVVSTPDRNLHNVT  
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LPAAGSNDPPQTLFDVQGRLD SIPYSGGSKSNLDKALKMAAAQVFYQNSLRRLRKDSKKAIVIVTD  
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NGVQGAR GPDGLPGAPGLVGNRGTGPN GIPGLDGNPGPAGKQKQKMGTPGMTGPAGLR  
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>TRINITY\_DN3452\_c0\_g1\_i1.p1 type:complete len:466 gc:universal  
TRINITY\_DN3452\_c0\_g1\_i1:139-1536(+)

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>TRINITY\_DN15151\_c0\_g1\_i3.p1 type:internal len:560 gc:universal TRINITY\_DN15151\_c0\_g1\_i3:1-1677(+)

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 GTALLYSAQKLEALTLDSDLQQVGVD AKAALSQPCVQIAQNAGEEGAVVVRALLQEGNAARGF  
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>TRINITY\_DN38657\_c0\_g1\_i4.p1 type:3prime\_partial len:302 gc:universal  
 TRINITY\_DN38657\_c0\_g1\_i4:181-1083(+)

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>TRINITY\_DN9413\_c0\_g1\_i1.p1 type:complete len:419 gc:universal  
 TRINITY\_DN9413\_c0\_g1\_i1:1414-158(-)

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 LHEFSHQIEQAVVRGGGIPGYFSRLTSAYNYARSRLWRSTYAMSTVQEYFAEGVQSFFNVNDYSR  
 TPNGIHGPVNTRSKLRITYDPTLFRLIKEVFCMNIKDRCDKSSTASFRMNCDSRPPVRTVRPPSG  
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>TRINITY\_DN119684\_c0\_g1\_i1.p1 type:complete len:662 gc:universal  
 TRINITY\_DN119684\_c0\_g1\_i1:2182-197(-)

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 DEAVAYGA AVQGGVLGGEEDTGEIVLLDVNPLTMGIETVGGVMTKLIGRNTVPTKKSQIFSTAA  
 DNQQTVTIQVFEGERPMTKDNHLLGKFDLNGIPPAPRGVPQIEVTFEIDVNGILRVS AEDKGTGK  
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>TRINITY\_DN1335\_c0\_g1\_i1.p1 type:5prime\_partial len:651 gc:universal  
 TRINITY\_DN1335\_c0\_g1\_i1:2201-249(-)

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 VMVEDVEVAAGDKDHTLTRTTQLAYPNKLSSKIEADYHQKIVMTFNLKDVHTKELVTAHQTFIR  
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VVLTFAGEPKKTKRQERITQPKPTIDHMFVRPEKRPVKVSTAFTILVLSPLLIMFAMWVKIGANIS  
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>TRINITY\_DN941\_c0\_g1\_i10.p1 type:5prime\_partial len:114 gc:universal  
TRINITY\_DN941\_c0\_g1\_i10:3-344(+)  
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>TRINITY\_DN34481\_c0\_g1\_i1.p1 type:complete len:802 gc:universal  
TRINITY\_DN34481\_c0\_g1\_i1:2487-82(-)  
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>TRINITY\_DN8008\_c0\_g1\_i2.p1 type:5prime\_partial len:1298 gc:universal  
TRINITY\_DN8008\_c0\_g1\_i2:4205-312(-)  
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LRNANWLSKLLLPIYRMFKQQSYFYMYKHSVPSNSFGSFSSETGFQERIVSYLQQQTSGFDIYKKIST  
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>TRINITY\_DN1320\_c0\_g1\_i1.p1 type:complete len:229 gc:universal  
TRINITY\_DN1320\_c0\_g1\_i1:105-791(+)  
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>TRINITY\_DN945\_c0\_g1\_i1.p1 type:complete len:468 gc:universal TRINITY\_DN945\_c0\_g1\_i1:151-  
1554(+)

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>TRINITY\_DN1653\_c0\_g1\_i3.p1 type:complete len:1023 gc:universal  
TRINITY\_DN1653\_c0\_g1\_i3:180-3248(+)

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>TRINITY\_DN286\_c0\_g1\_i4.p1 type:complete len:224 gc:universal TRINITY\_DN286\_c0\_g1\_i4:40-  
711(+)

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CAKRYGQAMCQFMRNSHKAMTDCEESLCKGHNCNSDVNDAEQVERKRVGPYENTLKCTTGL  
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>TRINITY\_DN14781\_c0\_g1\_i1.p1 type:complete len:1181 gc:universal  
TRINITY\_DN14781\_c0\_g1\_i1:4332-790(-)

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QQQNGESWIELGFDRANDMFRSANPPRDDVRKVLVMTDGDLTSGDHDSLKDMIKSQQSNNIE  
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DCSQENNLKSSESQNSSSTTNQAISSSSIDQNNQNDKYHPNSFNCNNENAKTPPYKLGAMRYQ  
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KFIKGFVCKCAKETRNRGFFTFGIQNYAQCYSGPDEGRYAEDREA AEGMCINEDQEPCKTNDKQ



FCAGISKQDPHTNKTMHANFVYMIMTETHQEIKYIEYDRKKRSVNKRGNHHVFNQRLVQRYR  
QK\*

>TRINITY\_DN118520\_c0\_g1\_i1.p1 type:complete len:581 gc:universal  
TRINITY\_DN118520\_c0\_g1\_i1:1895-153(-)

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IARSGFEAVSKGANPNEVRKGVMAAVEVVTQGLKDLARPVT TTEEIAQVASISANNDAAIGKLIS  
DAMEKVGKDG VITVKDGKT VYDELEVIEGMKFDRGYISPYFINTAKGQKVEYQNVLVLICQSKIS  
NVQDIVPVLELANQH KRPLLIIAEDVDGEALTALVINRLKIGLQVVAVKAPGFGDN RKNTLKDVA  
ISTGAEVFGDDLNLKLDEVQLSDLGQIGELVVT KDDCLMMKGRGNTDLVNQRANHIHDEIKATN  
SDYEREKFQERLAKLVGGVAVIKVGGSSVEEVNEKKDRVTDALNATRAAAAEGIVPGGGTALIRC  
AKLLDTFQVPTEDQKWGVDIIRAALFKPCSTIVANTGIESAVVVEKVSSSKDPEYGYDAASGEFAN  
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>TRINITY\_DN3271\_c0\_g1\_i1.p1 type:complete len:399 gc:universal  
TRINITY\_DN3271\_c0\_g1\_i1:218-1414(+)

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GKFEMSFTPLEGSEKVTNVNVEFEKENGCGMMGMYNTDDSIKDFAHSCFNAYAIGKKWPLYMSTKN  
TILKKYDGRFKDIFEEIFQDQYKSQFDALGIWYEHRLIDDMVAQCLKSSGAFVWACKNYDGDVQS  
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>TRINITY\_DN1043\_c0\_g1\_i2.p1 type:complete len:700 gc:universal  
TRINITY\_DN1043\_c0\_g1\_i2:2410-311(-)

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IIIREQVSTFDSLQADLVKLLDQKLLDKLNNVT KHLENQIDRNNETEIGSFEDLEGKYMDTTTFALT  
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NFVQFHGACTEKR NKAIEGIATMNANKKNMTDLLTEIHD MKAKADEYYNLMKSNVTNDEFLN  
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RNNPTKKQLVCEK WYDDVSDADILAANPDLTKDDVTYFISTCPPAPVNDQTKTTICVKKNNELA  
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>TRINITY\_DN729\_c0\_g1\_i1.p1 type:5prime\_partial len:723 gc:universal  
TRINITY\_DN729\_c0\_g1\_i1:2179-11(-)

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LKT VNLKKLEKAESKISKLEKRDKDGLPNGDLNCAGPTTNQVIQKKDLKSDQSGKLVDIRIENF  
DLAYGSKILMQNCNLVMAFGRRYGFVGRNGMGKTTLLRAISRREL FIPSHVTVLHVEQE VIGDDT  
LAVDSVLEADTVRASLLKEEAELAKNIEKSTNNAAAARLSEIYAKLSEIEADKAPAKASLILFGLGF  
STEMQKMTTKEFSGGWRMRLALARALFTKPDLLLLDEPTNMLDVKAILWLENYLQTWSTLLV  
SHDRMFLDAVATDIIFLHKS LDCYKGNYTQFEKTREEKLKNQQREYEAQKQYRDHLQAYVDRW  
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VDLTANMDCRIAVLGENSGSKTTLLKILLGELEPTDGVKHVHRNLRMGYFSQH HVDLSLMNQTS  
LGLFRDRFP GKQDVEYRTHLGRYGVSGELAMRPITSLSGGQKSRVAFAMTWHEPNFFILDEPTN  
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INAT\*

>TRINITY\_DN1907\_c0\_g1\_i2.p1 type:complete len:210 gc:universal TRINITY\_DN1907\_c0\_g1\_i2:53-  
682(+)

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>TRINITY\_DN31399\_c0\_g1\_i2.p1 type:complete len:819 gc:universal  
TRINITY\_DN31399\_c0\_g1\_i2:85-2541(+)

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QEA AKLIAKIEASKRKNYGYRVGALRSIGGGRKVVPAVTPKLQGIIDGGSTLNVNAETNVNDSV  
PDNKATIEFTATAVSVMENNKVVQLGVERSGNMSSQVSVNFETIDGTAEAGSDYIAAKDTLVFEID  
EIRKSIEIIVIDDYEWEPDETFFVKLHVPEGANDRVQIGHHSICEVTIINDDEPGTFSFNKPSNIVKES  
CGQAELEVERVNGADGKVEVVWTKDQSA LHGKDFIGGEGTLVFEHGETLKSISIEIIDDHMF EK  
DETFMVELLEVKN EGAKFGRLKRTVVTIVSDDEYQHMFD RVVNMAH MNLHQFQLGSSTWGQQ  
FREAMNVNNGDLESASFMDYVMHFITFFWKILFALVPPCTWYGGWLSFFIILGMIGCLTAVVG DIA  
TIFGCLVGLRKDVTAITFVALGTSPLDFASRNAAMNEKYADASIGNVTGSNGVNVFLGLGIPWLI  
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>TRINITY\_DN1613\_c1\_g1\_i2.p1 type:internal len:1068 gc:universal  
TRINITY\_DN1613\_c1\_g1\_i2:3201-1(-)

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SRSTNPAPAHGGKSCV GALVDSRKCNTHKCPVDGGFTKWSSYGSCSKSCGGGSQTSTRSCTL PK  
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LDYQLQACNTHHCPVNGNWGAFGPYEACSKSCGGGTQKRHRRCN SPSPAYRGKTCSSSYQQR  
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HCPVNGNWGSWGSYTTCTKSCGGGTQKKSRS CN NPAAKYGGKACSGSNYYLKT CNTHHCPVN  
GNWGSWGSY TACTKSCGGGTQKKYRTCNSPTAKYGGKACSGSNYYLKT CNTHHCPVNGNWGS  
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>TRINITY\_DN3180\_c0\_g1\_i1.p1 type:complete len:1889 gc:universal  
TRINITY\_DN3180\_c0\_g1\_i1:5857-191(-)

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YSLETRVAFMEAIKTSMAFFGGGNLEFGKSGDVPLTLKLQWTEHDHSSAWDPSDIQVELETTKV  
VLSAASFHFKA KKSYPHDPDFHMFIEKFD TQGVGNFRVSAYTS AIAGLDNTAFGADFSQDKYGALT  
WNDFRGYGFFDPAENFQLVLHPSTYVRNSRLFNNEETSQFIILSNPVSDDTTYVTLMAQFGQSTNI  
KDTLNGIMTSVNADIGIIRINSRAFCLTVSSGEYDFLFTPPYTKDRNL MNPCFPLEYQDARDNQ N  
DL SKQKKKMTADINIHTVINFKENVGSCNDDSSIDTSSLPPKMTINGNENWKGFWSFPEQAKGP  
MMAIMKCMWQNSAAFQGLPYSLPFGDSEVVSISDFLDSPTTEKTIGLKITPPEQWRTIPGIDLTFNYL  
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FQKIDVDAILKHIFQDESVPWLSNLDCKLVIGNSEGFKDVSKKKKKIKKIKKAKSNKKVSKKQR  
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>TRINITY\_DN598\_c1\_g1\_i2.p1 type:5prime\_partial len:742 gc:universal  
TRINITY\_DN598\_c1\_g1\_i2:2-2227(+)

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>TRINITY\_DN29322\_c0\_g1\_i1.p1 type:5prime\_partial len:776 gc:universal  
TRINITY\_DN29322\_c0\_g1\_i1:2-2329(+)

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CFPKTCTESDVLVIHKYLETTINPSLPGYLA FDTICEEPT EYDTGTIITIVIFS IILLCLVGSLTEILQD  
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>TRINITY\_DN123\_c0\_g1\_i1.p1 type:5prime\_partial len:1231 gc:universal  
TRINITY\_DN123\_c0\_g1\_i1:2-3694(+)

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>TRINITY\_DN2357\_c1\_g1\_i1.p1 type:complete len:1733 gc:universal  
 TRINITY\_DN2357\_c1\_g1\_i1:5452-254(-)

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>TRINITY\_DN135129\_c0\_g1\_i1.p1 type:internal len:155 gc:universal  
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>TRINITY\_DN1614\_c0\_g1\_i1.p1 type:complete len:218 gc:universal TRINITY\_DN1614\_c0\_g1\_i1:56-  
 709(+)

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>TRINITY\_DN1143\_c0\_g1\_i1.p1 type:complete len:629 gc:universal  
TRINITY\_DN1143\_c0\_g1\_i1:2539-653(-)

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AQAIIDHAASRTQFGQKINNFGVIEQKIARMAVRHYVTESMAYVICGMMMDKGFKDFQLEAAISKI  
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>TRINITY\_DN5229\_c0\_g1\_i1.p1 type:complete len:728 gc:universal  
TRINITY\_DN5229\_c0\_g1\_i1:2363-180(-)

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>TRINITY\_DN11097\_c0\_g1\_i1.p1 type:complete len:730 gc:universal  
TRINITY\_DN11097\_c0\_g1\_i1:2348-159(-)

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>TRINITY\_DN61\_c0\_g1\_i1.p1 type:complete len:625 gc:universal TRINITY\_DN61\_c0\_g1\_i1:2929-1055(-)

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>TRINITY\_DN1366\_c0\_g1\_i1.p1 type:3prime\_partial len:4702 gc:universal  
TRINITY\_DN1366\_c0\_g1\_i1:236-14338(+)

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Band 8

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>TRINITY\_DN36\_c0\_g1\_i20.p1 type:complete len:223 gc:universal TRINITY\_DN36\_c0\_g1\_i20:1172-504(-)

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>TRINITY\_DN6390\_c0\_g1\_i1.p1 type:3prime\_partial len:1941 gc:universal  
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>TRINITY\_DN2113\_c0\_g1\_i1.p1 type:complete len:1704 gc:universal  
TRINITY\_DN2113\_c0\_g1\_i1:5257-146(-)

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>TRINITY\_DN477\_c0\_g1\_i7.p1 type:3prime\_partial len:1130 gc:universal  
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>TRINITY\_DN286\_c0\_g1\_i2.p1 type:3prime\_partial len:106 gc:universal  
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 152(-)

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>TRINITY\_DN804\_c0\_g1\_i1.p1 type:complete len:240 gc:universal TRINITY\_DN804\_c0\_g1\_i1:125-  
844(+)

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>TRINITY\_DN477\_c0\_g1\_i9.p1 type:complete len:306 gc:universal TRINITY\_DN477\_c0\_g1\_i9:1840-  
923(-)

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>TRINITY\_DN2636\_c0\_g1\_i1.p1 type:complete len:314 gc:universal  
TRINITY\_DN2636\_c0\_g1\_i1:986-45(-)

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>TRINITY\_DN3545\_c0\_g1\_i2.p1 type:5prime\_partial len:236 gc:universal  
TRINITY\_DN3545\_c0\_g1\_i2:3-710(+)

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>TRINITY\_DN602\_c0\_g1\_i3.p1 type:complete len:851 gc:universal TRINITY\_DN602\_c0\_g1\_i3:3046-  
494(-)  
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>TRINITY\_DN730\_c0\_g2\_i3.p1 type:complete len:235 gc:universal TRINITY\_DN730\_c0\_g2\_i3:1019-  
315(-)  
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>TRINITY\_DN1199\_c0\_g1\_i2.p1 type:complete len:296 gc:universal  
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QECNDSSELLKSPGFVTNCLIENRHAVSEAKCKSFLQKMSAIVFEDYRLIKGFYDSCVEDVKTLCG  
 TVAKPTDEEYQHDQTEVISCLEEQLDLVSEKCAQLVKVATMQADDYHLDRPLFYACQEARERF  
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 GISEHGAASSLLLCLQGKVAEGLPVDQSCQAEMRTFAIELFENYKISPVIVSKCDVEINQFCHHLIG  
 KTDDGDMMDCLMTQAATNNESVSKKCYDAVSDVIKETGAGNNYKIDRALYLACEPVITTLQCG  
 KEDAMILGCLMDNAHNSKMPEKCAAQVFHLQYFLSRDFRLDASLYKDCKDAEEICSandfNA  
 ESESKVPDNFVIACLYRNALDRKVDDRKVSQTCAEHVFRVMHQQRATNIHLMPELERPCMADLG  
 KHCIDKGDKEGEEIDCLQTNYEKLSAKCQNAIKVFTIQEAKDFDLDKHLVDKCAPMVQQFCQRE  
 LEDGNGEKVLPLVDHKNIDMDHQCANAVEHWQLIEMKDFEFSPALTEMCLLDIRKHCQKSK  
 AKIEALHCLSENIVKDASSVTEKCRACLKNELIEQSENIKNPELYEACTKDIELFCRDVVPSSGGQL  
 EECLKRNHKKLTDPKCKSLLFKEEKESFDPELDYLMLHVCKPIIKRYCTQYHQPVIMECLRQV  
 THDRDMSRECAITERQIEQAESFELDPESKFCQDDVNRYCKEEIKHAEKGDDGAIIFGLVNA  
 MIDNKPIKNDCEMYIRREAEAAQELDLNPQFLQCRDEITKICPNMDEDEIIECMKMNIPIQSK  
 GCVQEVKKLIVEGIEDVHVDPHLQEQCARDIRTFQSVPSKSGNVVLCIDVHKAKNLHLQPNC  
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 EIKNR\*

>TRINITY\_DN19237\_c0\_g1\_i1.p1                    type:complete                    len:209                    gc:universal  
 TRINITY\_DN19237\_c0\_g1\_i1:128-754(+)

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>TRINITY\_DN3036\_c0\_g1\_i3.p1                    type:internal                    len:548                    gc:universal  
 TRINITY\_DN3036\_c0\_g1\_i3:1643-3(-)

AFAGAARASPARQGSVARRALDQSSRYADLSLTEEDLIRNGKHVLVAYIMKPKAGYDYLATAAHF  
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 NQGMGDVEYGKIYDFFLPPEYLRLFDGPSCNVIDMWRLGRGTSNGGLVVGTIKPKLGLQPKPFG  
 EACYAFWQGGDFIKNDEPQGNQVFCQMNECIPEVVKAMRAAVKETGVMKLFANITADDPVE  
 MISRGKYVLSQFGPLSENCAFLVDGYVAGGTAITVARRNFPKQFLHYHRAGHGAVTSPQTQRGYT  
 AFVHTKISRVIASGIHVGTMSFGKMEGDASDKNIAYMLQGDVADGPYYQQDWQGMKETTPIIS  
 GGMNALRLPAFFENLGHNSVILTAGGGAFGHKDGPQKQATSCRQGEEAWKLWKAGTYGDITLS  
 DGVIEYAKTHEEIKGAFLTFQKDADQIYPGWKEQLGYTGESSVQAASFDWKRKAGAAAFAGAAR  
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>TRINITY\_DN22492\_c0\_g1\_i1.p1                    type:complete                    len:1026                    gc:universal  
 TRINITY\_DN22492\_c0\_g1\_i1:171-3248(+)

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 TDPQRAYASSYPGFKPSYAFDGNKTSWYPSGWGLHDNNDWIGFEFPVAVRVHAIRMVLDL  
 MHRTAAPQRIFVEASDKKDGPFITTKWKISNPTYEVDNVYKLLQCPVLWRKFESDEGSWCFRLIAK  
 FETWEVARNECTVEGGDLATIEEERFLTDELNLGGFAWIGLNHKDQAYYWQDRANSSYKN  
 WKAGWSYSEVQKQNLNCVATDQDGFWYNFHCNTKYYFVCKKKLEPQAAPREDLILKAWPYEP  
 EIPPMIFLYPNITVPVINTKNLEPGVFPDENGKVPPEEEEEETTADDLFYEQTVHLKEKGLKPSSEEIS  
 NDVDKEETDYTQQLNKIALKTQSRDDFRNETESDKLKFNSTEAVKQAKDLEEQKSVNLDQNFN  
 QYNSTDGVKQQSQPVVAAPSDGPSGNSGDNNLPRIVNGKPVESPSVNPNNVGKPNTPVASPES  
 PENTDFAQPGDTTFTTPTTVQSGDPGNAEKSNNPQKATNDQQAGGQQPNQESGSNANQSQVQ  
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 KEGTKDNDSEKSVGGQADVMPDDAPSNDNDGGDETTTGTNEENNDESNNNNNNNNNNNMNNV  
 NNNNDNNQSRITLDPNLPNQGNSSSETVDKATNVGGTNKQENNDFMKLQKAKPGIRTHKIGHK  
 KSAGLKKTHMKNVVSPLKKVKTEKKINKQVKTVKKIKAVKVKHHKKALKKEVVIHKSDEDEE  
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>TRINITY\_DN5500\_c0\_g1\_i2.p1 type:3prime\_partial len:1183 gc:universal  
 TRINITY\_DN5500\_c0\_g1\_i2:3546-1(-)  
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 VSPFNHVAIAVITTSFYQAIGLTQYQVNSEFKQAVSEIFYPRGATRDKALLAVERELLPTSRAQVP  
 KVLVILTDGIQARWPGVYNTHVIERLFNAGVSPVVVGIGSDYRDLDRNLKLAIKENHHLNEPIEK  
 LFLTDDMEVGSFALVQKAASVKKILSNVARFGYEVRSDFAFLLDGSTYAEDQLKLMGLASYFQ  
 INRELSRFAVASSQGGGRTYIEFNEAQLSRDFKAMLMKLNVDSESIDIGIAAKYAYEEIFRIEEGERYS  
 TPRTLVIKFGNAEAKDSTLFGKYSLKKANVNLVMIAGVGGGKGRSNLRNFPVDYYLPDFNDEVS  
 FTEECNIIAREMHNYIIRFASDTQRSKKCLHDGDLFFSIDVSGSAGAYYQENLNIIKIIASFEISNED  
 SRVGFAIDRDGNTQVTPLDKHSLSLEMRDFDSLPPYPRGRSDMVAKLKAAYNQFLTSSRIHFQDI  
 LFIFTDGYLNRKSESESKELIDKLKAFGVEVFVVSGLYDVNFPLMTLSSDKGHFFHVNLQPKDSDS  
 FVNSIINKVCDYTETFDQKYEIPINVALVLDGSHCSEKFHEAQKTFNSNVIIDGLDNSPLAKNYLFSYS  
 SGVQQQLDSNSSLAINFGSDGNRLDLALNEVVKLFQSISSNEVNMAIFVTNAGLESEFNATMSQAR  
 KLRSLGVITMVICIGDNFNVDVIRTLASSRQLIYMIPSPSQLTDTKFLRHIIISAAFEMAESMPPPRLEA  
 GKSWYPAFFGNWVDSNSLEGEVDPAPLKAYHFGPTVLWSKPIQQKNYIESTIIPAGESSEGRFGTCG  
 HIFKHVKVGATKKEKYISKSWGYFLWSNSFLYITTDGTETSPRIEFDYSSRDKLNKLTIVDGSVKIYI  
 DGVFIRSIELEGTEADSQSHMFVGVWCHRLSAVTVEDFKVSALSNPCTVNNGGCSQICSADPYEF  
 KCSCIPGYRLVEDESTCVAESTCEPILTTTITTTLSSTPPTTNQSKFISTTTKPELIDTTATIISTRESDI  
 TTTILSTKSTEKPIEKIEKTTTSAIGDILEQTTVAPIKTSTVFVPTTKKEEVILTTKEMAETTLTVPTTASP  
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>TRINITY\_DN1121\_c0\_g1\_i1.p1 type:complete len:252 gc:universal  
 TRINITY\_DN1121\_c0\_g1\_i1:1155-400(-)  
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 VISSIEQKATDSKKQYAEAYRIVIEKELSDICNEVLHLLDDFLVKSASATYYEDPNLTAAESAVFYLK  
 MKGDYYRYLAEVAESEKQSVVDKASNAYKEASNIGIKSLAATNPIRLGLALNFSVFHYEICSEPSK  
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>TRINITY\_DN278\_c0\_g1\_i1.p1 type:complete len:470 gc:universal TRINITY\_DN278\_c0\_g1\_i1:3091-  
 1682(-)  
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 LYPVLVLLFFIPVFAGYIGLNNVIYCLYERHNQVSKIDNYIEFLDEDLKKKFTGRFPIRDLIELYAEG  
 KLNFKGDVLQCLERRNEYVSYKLQLWHLKFFLSKLLPELLHARSQDKEQVCDHYDRGNDFYNA  
 YLGPLMVYTSGIRYSESDTLEDQMNMNKLKAVCEKVQLKEGDRHLDIGCGWGTLVNYAAENYNS  
 QSEGVTLAKEQVCWAEKAKSKEIMDRVNYLCMDYRDIPKKKYDKITCLEMSEHVGIKRYHHFL  
 KDVRNMLEDDGIFFLQIAGLRRAYQWEDFLWGFFMDTYIFPGADASLPLQFPFAELEAAGFEVES  
 VKTVGIHYSDTIKYWYHNWVKSDDSHDKMIQKYGRRMVRVWDIFLAWSTIIARQGNSTCYQIVAH  
 KNFNHYPRRRFIQPKN\*

>TRINITY\_DN1653\_c0\_g1\_i1.p1 type:complete len:1122 gc:universal  
 TRINITY\_DN1653\_c0\_g1\_i1:180-3545(+)  
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 YAKQPKFANQKLENVSLVLRAMESDGVKLVSDSDHVNVNGNSKMLGLIWLQILRYQISGSDDKSF  
 KIALKLLLIWLQHVPEQGIRNLTTNWNNGIALCNLINVLPKGFPEYNNLDKRTPVENLAKGM  
 QLAESELDIPQIISPENMASPNVDELSMMTYLSYFTQDGGIGESWTVDLVNFVNSSLVTFNFTD  
 WNDGMRLGRLVETFLPGAMPIMESTDNLNCRIAMDVAHEKLGISKIITAEEMSNPQIPELAVMS  
 YIVQFTKVKRVERASDKFSASGPGLVEPKIGIVNEFYVRSADAGYPLDGLQVTIIGPNNNYIPIEIDDS  
 DPQLRNYSYSCEEQGYHINIIYEGEDIPRSPIIVTSQQDLNTRIVYGERLEVSHAYEETEFTVDVGS  
 NSYVTATIDGPEGSQPTPTQTNNDGTYTTRYIPSTVGTHRIYLAVNNQQLPGGPIETNITYPIVSEA  
 ELIETVAFSAKYEEDKHLAELYERIGISVDTSQSGDGRITSKTIGPDEKEIYSEVDAEGDGSYTVSFT  
 EVIGEYHTNVFWSGKPIHSGSPFVWVSDPNKVFARGKCLYETRVGVESSEFVATNGAGPGHITGY  
 AETNGVEYPINVRKREECLHDSFTANQVGIIYVYINYNVPIKDSPFQIKVGNPSLIEIEKHHEAIM  
 ESNQPQSFIVNLKDAGFGDVLGVVRGPAGEDVQCTIKDVNDLSKEMFLPNYPGTIEVFVYAG  
 GLVERSPFIFAISEPKLAIYPENIRVSGNGLSRAKLNELARFQVDTTNAGPGHLTVQIEDEKDDVEA  
 GIRDNNNGTYDVTYTPKRSKGYRVIKWSQDQHITDSPFEIIVDNRAEEVLVEGYGIKEGTAGQPVLF

TLDGRNAGPGQLSCRCRAPSGKMTYVLISDNKDGYTVDLNATEPGLHTVEVEWDNQAIPGSPF  
LVRIMQAPDVKKVRASGPGLRSGTLDSENGMFQVDSKGAGPGLTKVRIHGPKGAFKVEMSREN  
KDRINVRYNPTPEPGTYTANIIYWSDEHVQGSFPFIFVGQNDQEVDRWDRNKEELSKSQVNVY\*

>TRINITY\_DN1936\_c0\_g2\_i1.p1 type:3prime\_partial len:1894 gc:universal

TRINITY\_DN1936\_c0\_g2\_i1:5680-2(-)

MLSPA VTKVFIVLSVLGGLICQSCDFEVANACQWTQYAKDKFDWTRNFGNTGTGGTGPKTDHTS  
EVKILKANTTGGNSNGAPCVFPFKFRKRTYTKCVRSMQRGKSWCATVPDMNKKRQWGYCMPT  
GYMYIEASSKRGNNPRNKGDNVLLSPVISKGPCKLQFWYHMYGPHIDTLNVYKKVSNNMTKL  
WSLTGTQGNRWISANVTFNNGSQFQMAIEAIRGVEYKGDIAIDDITVDDGSCNADNGQKGNVTS  
YGKCTFEKDKCGFKDGNTSTLTWTRHKGKTPSKGTGPLVDHTFGTGLAYMYVEASNNPMQSA  
RLYTTYTNLDSTGSCLSFYHMFGRPTGELKVYINPPEIGKEIPSFSVGGEQGNLWIRGEVTVNTTT  
ALVVFE GTTKYSYLGDLAIDDVSMERKCEDPDSCSFQKDLCAWYNLPKSSGLDDFDWIVGAGV  
TPSRFTGPTSDHNGDIAGKYLFMESSSPVKMGDKTWLSSSEFNSTGKGKCFVFFYHMYGRDVGSL  
NIYVNTSSGVELVWTQSRSKGKQWQNGQVDVERPGTYKVLVEGVVGKGYLGDIADDFKFKPGK  
CQIVPSNASPKKPQTMTMRPTTKRPTQPPTPILDCDFEFGVCSDWRQDYKNDTDNWKVGKGTST  
AGTGPSFDHTKGTIYGKYYLEASYGRNLNETARLISTSIPATGDTGGKCLTFWYHMYGPHINRLNIY  
VMIGGHTGKPIWSRVGTQGNKWNKGQVTLVGRQPFQAVIEAVKGAKYQGDIADDDVSLSSKKC  
PQPGATTCTFENSQCGYIDDTSSDVQFQWTWQSQTSSLNTGPKFDHTLQSVSGFYMYTEASNA  
KQGDKARLISPVNPGTSGSCLKFWYHMYGAGMGTLSVRLLVNNKLQSVPLWSETGNKGNNEWK  
VATTTIKTKDAYQVVFQGVIGTTYASDMAIDDVKLSDGECQSPGFCNFEDGLCTYANSKTDDFDW  
LVGSSNTPSSFTGPKVDHTFGNASGSYLFLEVSKPIKAGDVAVLESQQFNAGGKTRCLNFWYHM  
YGSDIGTLQVIYKVFSGSQQERVLWKL TGQQQITEKDPWKYARVPVDMMDADHMVMFKGIAGSG  
YAGDIAIDDIQFTTLACRVEPSIANPTPTPKPPTTFPKTAPPTAAPTFFSCNFEKDFCSLTSDSTAVF  
NWTRSQGYTASQNTGPSTDHTYGRGFVKTYGPGSIRHAAGMCIHISMGGHTKPKDETALVLYNG  
CCQDRTEFKYDNGLIKSTQYNMCFKLKGASTSAGTKVVISDTCTNKWKMLANGAFQDAKTNLC  
LAPSGKLAYPQNN SPLIVSKDCKAKGVIFTFSPTMGFYALIEASAPQKPNDTARLISPVLNKPKCLS  
FWYHMYGANINQLNVYTKSPNGVYGNPVWSKFGSHGDKWRPAHVYMNPKSSSYAYAIEGVRG  
NGYEGDIAIDDVSVSDKCPAPVECTFEETNPVACGWTNLKTDDFDWSIGQGATSSQNTGPSNDH  
TYNDQRGKYLYIETSSNLKAGAKALIQSPVYRGNGRQQGQCFQFWYHMYGASIGRLSLHLDQVG  
STTKNRAWIQESDQGNRW SIGQITIKSQA AFQLTFEGIRGKSFTGDIALDDFRMFDGPCNNIATCD  
FENEKCTWKNSYHKDDFDWIIGQGTTLSLNTGPVTDHSTNSGDGHYIFIDASRKKQGA KARLYSE  
IIPRGFFTFIPYCIYFWYHMSGPDIGTLNLI AKHKGKGALEKVIWSLSGNQGSKW LQGTAPVTSSVD  
FHLVFEAIVGDGYKGDITLDDIVYKLG LSCISPKAADPKLISTTSAPTPIPTTAVPAMYDCNFEKNSL  
CQWKQDLTDQFNWTLVQGTPTLGSGPSVDHTTG NKTGYLFIETSNPRKAGDKARILSPSMDS  
DKDHGHPHCLKFWFHHMYGPHV

>TRINITY\_DN146208\_c0\_g1\_i1.p1 type:5prime\_partial len:284 gc:universal

TRINITY\_DN146208\_c0\_g1\_i1:876-25(-)

TDSHIRTSAFIPCAKPSKMPPKTKKIKVKKVAAAPFQTSKPAPKKS VNVLIERRPRNFGIGADVQP  
KRDLTRFVRWP KYVRLQRQKRILYQRLKVPPSINQFTQTL DQQTATQLFKLLHKYRPETKA EKKQ  
RLTQLAETKAAGKQESSRKKPVTIKYGINHITNLVESKRAQLV VIAHDVPDPIEIVVWLPALCRKMG  
VPYCIVKGKARLGKLVHKKTATAVCLTAVRQEDRHSLEKVS DAVRTNYNERFDEIRRHWWGGGIM  
GGKSQAKVAKAERAKAKELRV\*

>TRINITY\_DN165536\_c0\_g1\_i1.p1 type:complete len:249 gc:universal

TRINITY\_DN165536\_c0\_g1\_i1:851-105(-)

MSEQEISNLVEQAKLAEQAERYDDMVKYMKELTEKSTEGLSDEQRNLLS VAFKNVVGARRSAWR  
IIHSLEEKKGNEGNT ELISSYRKEIEKELKERCNEVLSLIDKYLLPSAQKEGQKGTEGKV FYEKMK  
GDYYRYLVEVTTGEDRANLSAQSK EAYDKATETATGLATTHPIKLGLALNFSVFHYEIMNDGKKA  
CELA KKAFFDDAIAELDSLKEDSYKDSTLIMQLLRDNLTLW TSENDNEENDAQ\*

>TRINITY\_DN13856\_c0\_g1\_i2.p2 type:5prime\_partial len:292 gc:universal

TRINITY\_DN13856\_c0\_g1\_i2:3-878(+)

GAGRQAWSPSVSRQHGAAGGGAWAGAPESAATLTSSLAVGLSAGVVVAGLSSRRARTARRAVE  
NKSQNGPFGELATVEPRTLELTEKV KAVIKQKGS LDRESYREIFLAPKPD AVFAGGLVGSEYHGWG

TYQWDPAGLATRYPEHLPWYREAELKHCRVAMLAWLGLIVPDFVRIPLDDFQDPTLTLENAHNK  
LIYGLSGPMWWLLLFCGIIESLRFKQLGLDFGKLTLENAGDLDFGKGFLPKTKEGIVQMKIKELK  
NGRLAMLAVSGALTQSMAYGVYTFPWTLSPN\*

>TRINITY\_DN3347\_c0\_g1\_i1.p1 type:5prime\_partial len:924 gc:universal  
TRINITY\_DN3347\_c0\_g1\_i1:2-2773(+)

YGDGSDDDMDSIDEDDEDEDEDDDDDEYSDDDDMSWKVRRASAKCLSAILGSRMDLLSEFYINVA  
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EKNIKTRQGCNLFTELGVLPSPGLTEHIDKIMPGIHFICITDRNSTSNMKIDTSLFLGCILQHIKA  
EYFYPHIHQFLPAVVECIHDPFYKITSEALTVAQNTIKVMRPTGTENYFDFKPYINDLYQSILHRLRATD  
IDQEVKEKSITCMGQLLRNMGDNLKQLPECLPIFLDRLRNEITRLTTVKSLTTIASSPLHIDLSILL  
DGIPLMATFLRKNHRGLKLHTLTCLDLLMQNYGNVMSTKHFEAVLDELNLISETDLHVSQSLN  
LLTTMISKQQLLLKKVSSTVLSHIVILTRSPLLQGHALNSMVSFLTTLVRYSSSGLGYTDLLQMLTEV  
IYGSTTENIHKSAYHSIARCASALTACPSAEAEVVTKFIDIKNSGTNDSIRLFSLLTIGEIGAHL  
DLSKAELKNVIVNSFSADSEDIKTAASFSLGHITIGNMDAYLPFILKEIESNAKRQYLLHSLKEIIVCQS  
TDPSSVKSLEQYVPSIWSLLTHCENKEEGTRNVVAECLGKLTMVEPQKLLPELKSYSLSLYSAQ  
MRSTVLTAFKFTITDQPQSIDILLKDHLQAFLOPITDNDLNVRRVALTTFNSAAHNKPGIRDLLTK  
ILPHLYNETKVKKELIREVEMGPFKHTVDDGLDIRKAAFECMYTLLDSCLDRDLDFEFLNHV  
ENGLKDHYDIKMLTYLMLVRLSKLSPNAVVFQHLERIIDPLRTTIQAKVKANSVKQEY  
EKQDELKRSALRAVCALQKIPDAESHPILSDFVSQIRNSDTKVMFESVQRDPSSSTSLDKMDTAS\*

>TRINITY\_DN1194\_c0\_g1\_i1.p1 type:complete len:555 gc:universal  
TRINITY\_DN1194\_c0\_g1\_i1:101-1765(+)

MAARLGGGMMQPQIILLKEGTDSSQGIPQLISNINACEVVAEAI RTTLGPRGMDKLIVDKNGKSTI  
SNDGATIVNLLDIVHPAARTLV DIAKSQDAEVDGTTSVILLAVEFLHQIKSLVEENVHPQILIKGY  
RKATKMALEKIKEINVQIKKDDQEEMRKL LQRC AETALSSKL VAGHKEFFGKMVCEAVMHLDEL  
LPLNMIGIKKVKGGALEESQLITGVAFKKTFSYAGFEMQPKKYKDPKIALLNVELELKA  
EKENA EVRVDNVEEYQKIVNAEWNILYEKLEKIVASGAKVVL SKLPIGDVATQYFADRDVFCAGRV  
VEEDLLRTMKACGGSIQTSIHNLVDNLVLTGTCEDFEEVQIGCERYNLFQGCPRSKTVTLILRGGAEQ  
FIEETERSLHDAIMIVRRALKND AVVAGGGA IEMELSKHLREHSRSIAGKEQLIIAFAKALEIIP  
RQLCDNAGFDSTTVLNKLRQKHAQG GKWFGVDILKEDIADNFEAFVWEP AIVRINALTAASEA  
ACLVLSIDE TVQNPKSDMSGDDNPITGKRGRMPQMGR\*

>TRINITY\_DN1386\_c0\_g1\_i1.p1 type:complete len:596 gc:universal  
TRINITY\_DN1386\_c0\_g1\_i1:2419-632(-)

MEYIEVKSFI VALVFVFSILGTAQSDLVINNVERTLDLSTQTAKYTTKIKFHNPGKKVEKS  
FLLALEK DQEKHLSYLEILDKQDDNSLEYAAENVEGQSGRFFKVSFSKPLKENDDVTLHIETV  
FTHVLT PFPKIGQTEKQLVLYKGNTV FYSPYEIKEQSTTVKLASSAIESYRLKPSRSSENTITY  
GPYKNSKPYRLHEMKIHFENNSPFLV VNEMTRWIEISHWGNIAVEETYHMTHEGALLKGHFS  
RYDYQRSPTHSVIKSF KTVLPAAARDVYYRDEIGNISTSNMLVND DSVEIELRPRFPLFCGWQ  
TRYMLGYNVPAYQYLYNK GDNYILKMRLIDHVFDEFVIDDLNVKIILPEGSTNIEVVKPYE  
LEEGKRDIHKTYLDTSGRTVIVLSK KNVVENHIQDIQVHYTFKKLQLLQEPVICVAVFYIL  
FLSVIILVRLDFSITKDAAKESRMKVASLLEE LLSSCGRRGSLYYSYDSAIDKLKQNRN  
QNDFAVSLK KLNQDYNLTQTQSINELCSLLIKEDPEIGDKVNDLQKKENERKVIVDQ  
LVTLATRVVTNKIGRQQYIESEKNSMAKREKLGEDIDNVLATL\*

>TRINITY\_DN102244\_c0\_g1\_i1.p1 type:internal len:304 gc:universal  
TRINITY\_DN102244\_c0\_g1\_i1:1-909(+)

LTFIESLRRLRYEILVDKMDLVFACQFFLLVLCNLVYSEEVCPT RINDEDKFETKKRFDALRSK  
LGDKKLEVRFRHTSKKRENDLYDYTITLCGENNSKAVTQFDVTKSTILSAGQHDSSSVVYGGV  
DWLMIEYLN GDKYTTAAHHCHGKPRKTLLTIRCEEDNEKPKLLAIEEARYD TDGAGRHPNTPC  
YLLFEYNH PAACSSSKVRRFHSENKLSGGAIFLIIVLSITAAYLLFGFIYKR FIVGAKGWEQIP  
NFSFWRKVGNASADGCD FVCRREERSTTYKGMADALDIETSDDDRDDGLL

>TRINITY\_DN22594\_c0\_g1\_i1.p2 type:internal len:268 gc:universal  
TRINITY\_DN22594\_c0\_g1\_i1:801-1(-)

DFQDPTLNLETAHNKLIYGLSGPMWWLLLFCGIIESLRFRQLGLDFGKLTLENAGDLDFGKGFL  
PKTEEGIVQMKIKELKNGRLAMLAVSGALTQSMAYGVYTFPWTL PAPNAVQSRTALRAVEFKGQS



GPFGALDVAEPKTLELTDRVKAVIKSKGSLDRESYREIFLQPKAETVFAGGLVGSEYHGWGTYQW  
DPAGLATRYPEHLPWYREAELKHCRVAMLAWLGLIVPDFVRIPLDDFQDPSLDLENAHNKLIYGL  
GSGPMWW

>TRINITY\_DN941\_c0\_g1\_i9.p1 type:complete len:3186 gc:universal TRINITY\_DN941\_c0\_g1\_i9:86-9643(+)

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ADDDDDPDQKTPPKQALMGWVKSCLPPELKCGNFNKDWNNDGIALASLVDSTAPGLFPEWEDL  
DPANKLDNAKEAMKRAEELGVPQVLTPEEITNPNVDEL SVMTYVSYPESKLKPGAPLKPKMN  
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>TRINITY\_DN79\_c1\_g1\_i1.p1 type:5prime\_partial len:450 gc:universal  
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>TRINITY\_DN1174\_c2\_g1\_i1.p1 type:complete len:323 gc:universal TRINITY\_DN1174\_c2\_g1\_i1:48-  
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>TRINITY\_DN2217\_c0\_g1\_i2.p1 type:complete len:254 gc:universal  
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>TRINITY\_DN8101\_c0\_g1\_i2.p2 type:complete len:820 gc:universal  
TRINITY\_DN8101\_c0\_g1\_i2:2597-138(-)

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>TRINITY\_DN30329\_c0\_g1\_i1.p1 type:5prime\_partial len:213 gc:universal  
TRINITY\_DN30329\_c0\_g1\_i1:1-639(+)

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>TRINITY\_DN153369\_c0\_g1\_i1.p2 type:5prime\_partial len:115 gc:universal  
TRINITY\_DN153369\_c0\_g1\_i1:2-346(+)

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>TRINITY\_DN7504\_c0\_g1\_i1.p1 type:complete len:414 gc:universal TRINITY\_DN7504\_c0\_g1\_i1:87-  
1328(+)

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HAHADQYKATD FLVPEAGTLEMKFTPKGQTEPTISYVVNNFAGAGVAMGMYNTDKSIRDFAHSS  
FQCALEKNYPLYLSTKN TILKKYDGRFKDIFQEIYDNEYKGKYEAKGIWYEHRLIDDMVAYALKVE  
GGFVWACKNYDGDVQSDTVAQGYGSLGMMTSVLMCPDGKTIEAEAAHGTVTRHYRLHQKGQ  
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>TRINITY\_DN163801\_c0\_g1\_i1.p1 type:complete len:298 gc:universal  
TRINITY\_DN163801\_c0\_g1\_i1:55-948(+)

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>TRINITY\_DN360\_c0\_g1\_i1.p1 type:5prime\_partial len:476 gc:universal  
TRINITY\_DN360\_c0\_g1\_i1:2237-810(-)

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VISGSGNVSLFACEKCTELGAKVVTVSDSSGYVYDKDGIDKEKLAFLMDLKFTRRGRVIEY TQKYP  
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>TRINITY\_DN761\_c0\_g1\_i1.p1 type:complete len:830 gc:universal TRINITY\_DN761\_c0\_g1\_i1:129-2618(+)

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FSIHSPSQPSILLG LLAMFLNFAKKKTDADR LYNQGDFLEPFLVVAVICVPWMLLIKPFYLRWQH  
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>TRINITY\_DN684\_c0\_g1\_i1.p1 type:5prime\_partial len:675 gc:universal  
TRINITY\_DN684\_c0\_g1\_i1:2-2026(+)

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FLT VVYKIADAFIDCEHFLSVENCRKIKDTASKVGAKLTEIRDAIKSAVTKGITEAEKIYSKTLKFLK  
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KSTVQGIIDSVLGTGDTKR DVENEMMDEAADELVKTKINDMTNDLNQQINDMAEDIVEDTAALI  
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>TRINITY\_DN77\_c1\_g1\_i1.p1 type:3prime\_partial len:1965 gc:universal  
TRINITY\_DN77\_c1\_g1\_i1:2-5893(+)

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ANMEEMDKMASYPTQDYVIPRAS YEELLNGVFIQKVSEMVC SGRPGVCEEPIEGECTEII NECTL  
DVNCPANRKCCIKDCKASCEVPAAACITPIDLAF AFETTGFIEENFDEVKSFASLLDHFRVEPAKT  
HISISTYGESVNAKTAFYESYDKSALKQFIKDLEPDGGRQANIGDFLKTANDEIFNITNGIRQSSPR  
MLVLFTNGVYSNDQIAKAQEESLKLKAEGQDVN ILVINIGSIVEGNSVL RDVVSTP DFRNLHNV  
DLRRLVNFGFENKIAEAICASKVRKTRCKPRT PQACSVRDDL CQTD FDCPGYQECYS DGCRLRCQ  
TCENRCGDKVDLLFMIDTSSRIGPEGFKNAKENIKKM LEWFTIEANNTNVAAITYS DNANYAMQ  
LPAAGSNDPPQTLFDVQGR LDSIPYSGGSKSNLDKALKMAAAQVFYQNSLR LRKDSKKAIVIVTD  
GVDDSTSRLEIASWPLRKQRVVVDGNDYAAIRLLAVTVGN NYNLDTLEKVVSPPIDKNIFLAADF  
DDMYNGIRQLAEDSKYTRQDVEPPVIAVKGD PGPKEGKRQGNPGTNGTDGMDGIEGPKGER  
GDDGPKGEKGDTGIAGPPGGDQGD LKGPDPMAEAVGII EGTAVKGTRGVTYDLRDGP IGPPIGP  
GVGKTGLPGDSGEQ GQKGRGGPPGLRGVFGGQGP KGNPGEDASPGLPGEPGPKGISGKKGPTGS  
PGMPGPQGPFGYKGEQGIIGQPGDPDGGKKGPKGYAGEKGDQGDIGDAGFP GPDGKVGPIGP  
PGQRGLRGPEGSSGPIGKTGDIGNKGLPGPRGSRGLKGQSGNAGPRGGKGR TG DVGLVGEKGTQ  
GSIGEAGQEGQPGVPKGE GPPGYPGPIGTGPMGSRGDIGPQGE EGPKGSLGLKGNRGEAGR RG  
LTGEKGETGDIGELGPKGAQQGQ GKGKTGKIGPRGQQG PLGFQGLQGQTGD P GQNGRQGP K  
GNLGPTGEKGADGPKGSLGSAGLTGPKGLVGE PGNVGRPLGRD GKN GPQANGKDGDPGA  
SGPQGLQGSPGSMGTPGSTGD P GSPGDRGATGAVGDKGTRGDSGVRGEPGAFGQQGPPGLRGE

RGEKGPQGTNGVQGSPPRGTPGLEGLDGIVGRKGTAGRPGNPGQSSEQGAVGSIGVPGPQGIS  
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 NGVQGARGPDLPGAPGLVGNRGTGPNIGPLDGNPGPAGKQKQKMGTPGMTGPAGLR  
 GPVGSPLRGQKGTGDRGDSGETGPIGVAGDIGPRGFTGELGLRGAIGEMGQIGETGPQGMPS  
 QGTPGAAGLTGPAGPSGLPGKDGNGKPIGDPGNAGNPGRDGGPGSPGKDGTGPEPGTPGSQK  
 QGLKGPFGPQAPGEQQRGLTGRQSGGKDGPKGFPGNDGSPGISGKRGRGKDGTPGSPGPI  
 GKDGRPGKPGINGTDGDPGNNGPKGDPGERGDSGDSGSLGASGDKGKTGSEGPAGFVGPRGSN  
 GKAGVPGKRGRGDQGRDGPGRNSGPDGIDGSKGFKGNMGRFGIQGPPGDAGLKAGALGPDGT  
 VGHTGPQGNTGDPGPDGPEGPSGSKGPAGNAGQIGNAGYPSGPDGGIPGTAGLPGPPGPPGP  
 GDMGAFSGNYWDFVNAGGLQKGPRYYGGRSKRSLDQQDNSIEKVFSNYETFKNFDTVWNQI  
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>TRINITY\_DN34481\_c0\_g1\_i1.p1 type:complete len:802 gc:universal

TRINITY\_DN34481\_c0\_g1\_i1:2487-82(-)

MTTPHMSPPQEEQKLLLEALQIVKNQAFQMKRCLDKAKIMDALKHASNMLGELRTSLLSPKSY  
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 DLVEMCRGVQHPLRGLFLRNYLLQSTRGQLPDSETESEGTIKDSIDFILLNFAEMNKLWVRMQH  
 QGHISKYKEKRERERQELRILVGTNLVRLSQLLEGIDVETYKKDVLPGILEQCICCRDPDIAQEYLM  
 QVFPDEFHLQTLNAFLKACAEHLQDVNVKNIIIALIDRLAMFAHRGDGPGIPNDIRLFEIFSQQVA  
 HVIQSRSDMPTEDEVVALQVSLINLALKCYPDRVDYVDKVLLEYTEEIFSKNLAYIDKNNAVSKELM  
 RLLRIPVDIYNNVLTILKLKHFAPLFDYFDYATRKEMAMYVINNALDNETLIPSQEEVDSVLQLAA  
 PLIMDQDDQPTPEPEDPEDFAEEQGLMGRFVQLLYSDNPDQQLILTARKHFGNGGGEQRIKLTLP  
 PLVFAAFRLAFIYRDAQEQDDKWDKCKQKIFQFCHQTICALSKAEYADLSRLFLQGALAADQQ  
 KFTNAETVAYEFMSQAFAYEDEISDSKAQLAAITLIIGTFEKTSCFTEENHEPLRTQCALAASKLLK  
 KPDQCRGVSVCSHLFWSGRVNEGESEKDAASNECRDGKRVMECLKKSLRIANQCMDPTVQVQ  
 LFVEILNRYLYYFERGNEAVNSTILNQLIDKIREDLPSLEVNDEMEIQINKHFQNTLSHIQSKKDSAD  
 ENEAAIKDFIL\*

>TRINITY\_DN95248\_c0\_g1\_i1.p1 type:complete len:124 gc:universal

TRINITY\_DN95248\_c0\_g1\_i1:197-568(+)

MAPKTKKVSKKKSTLNFNIDCTLPVEDGIMKVDDLKKFLQEKIKVDDKLNLDQITLEVAKTKVT  
 LVSERPFSKRYLKYLTKKYLKKNLRLDWLRVVASSHDTYELRYFQINNDEEEDDEEDNE\*

>TRINITY\_DN121236\_c0\_g1\_i1.p1 type:internal len:568 gc:universal

TRINITY\_DN121236\_c0\_g1\_i1:1701-1(-)

TCIMCAHDEYSPEHSSECIKRKSCPTSDYHQYWEPCDDKTRKSFQWNQPKICNEYTGKLPNSG  
 DFIECPPCNPGQYINGSECQFCPKGFYSNGKEACQRCPPETAPAPGLFYKFWNRIPKRPMLHFLCL  
 ARPMSCGRTLVGWVVDHDSYLATGLGHSDEAQLIMYIKIDRFIKKNSLFTMEFEISDCIGLTCRTKV  
 QTIDKHHSVQSIGVYEGNQPRRTTIRYTRYNDVGTEYSILFEKKYDQDAQTYHYQSAQLKIYSIEITD  
 VENGGTRQCEACTTRGSGDCVTCEPGHYLSPNSQNCWKCPRGTYMPEHLQDAVGLQSCIQCPIG  
 STSEPGSTKCHSDCMLAFGEGVNRKYFNLTALAGPQFVRGPLLFTSKGYKFFHGFSGHYPYKE  
 SLCVDNITSTQGFHASICRSTFIPEEHKLLSTQSHIGDTLQKINFISEESNANHTEQKQKRDIHRNEI  
 QYHFHAERITDVCNNGTSGVLRILCDPVASYSSKKPNIEFGNDECTSETCDGCNYAFTLSPYACA  
 KCTKDDFEAITTSCNNGEKHIKYVWKEPRACVGGMEKPE

>TRINITY\_DN3271\_c0\_g1\_i1.p1 type:complete len:399 gc:universal

TRINITY\_DN3271\_c0\_g1\_i1:218-1414(+)

MTRIIWHKIKSELIMPYLDLDCKYYDLGLPYRDETNDQVTVDAAEAILKYNVGIKCATITPDEERV  
 EEFKLKYMWRSPNGTIRNILGGTVFREPILCDNIPRLVPGWTSPIVIGRHAHGDQYKAQDLVAPGP  
 GKFEMSFTPLEGSEKVTNVVFEFKENGCGMMGMYNTDDSIKDFAHSCFNAYAIGKKWPLYMSTKN  
 TILKKYDGRFKDIFEEIFQDQYKSQFDALGIWYEHRLIDDMVAQCLKSSGAFVWACKNYDGDVQS  
 DTLAQGFGLSLMTSVLLCPDGKTIESEAAHGTVTRHYREHQKGNATSTNPIASIAWTRGLAHR  
 AKLDGNPELEKFSNSLELACVKAVEEGNMTKDLAGCIYGLKNVKREHYLLTNEYLDAVRDKLLQ  
 LWTPPSQV\*

>TRINITY\_DN1907\_c0\_g1\_i2.p1 type:complete len:210 gc:universal TRINITY\_DN1907\_c0\_g1\_i2:53-682(+)

MDMDTTFPLVISLLFSILCCSFAVELTFELPDNARECFHEEIHNA TKCTLEFQVVTGGHYDVDVSLK  
DPHGKVLVYDEKKKQYDSHTFEATVPGEYVFCFSNEFSSFTHKTVYFDFQSGDEPPLAPGMGKHHT  
ALTLESSAVTIHESLKVIIDYQTHHRLREGTSRDMAEYLNERVQYWSIGQSVIVVAMSIIQVYILRN  
FFSEKRDRL\*

>TRINITY\_DN850\_c0\_g1\_i1.p1 type:complete len:374 gc:universal TRINITY\_DN850\_c0\_g1\_i1:1261-140(-)

MAARPLVTVFNDQGEVSGQVTLPAVFKAPIRSDVNVFVHSNMAKNSRQPYAVHKKHAGHQTSAE  
SWGTRAVARIPRVRGGGTHRSGQGAFGNMCRGGRMFAPTKTWRRWHRPINQNQRRYAVCSA  
LAASSLPALVMARGHRVDGIPEVPLVISNAIESLTKTKAAVQVLKKVNAYDDIEKCKDSRKIRAGK  
GKLNRNRRYTMRRGPLVVYNEDHGKQAFRNLPVELISVDRLNLLKLAPGGHLGRFCIWSQSAFE  
KLDSIYGTWRKASTEKSNNLPRPKMTMPDLARLINSDEIQKVVRPAKPRARRASIKKNPLKNTQ  
VMIRLNPHAKSTKRAAILAQERRKAAKDNVLDKRGKIPAKETKAKKAKGKK\*

>TRINITY\_DN165\_c0\_g1\_i1.p1 type:complete len:598 gc:universal TRINITY\_DN165\_c0\_g1\_i1:147-1940(+)

MTFHTGFSYCICLAFIFTIVLGSESQSEASQAVEYVKPSLDNLDYIAEPFHSLEEFQSRWVLSSAKKD  
GVEENISKYDGKWAIVEPKENPLIGDKGLVFSSEARHGAVSGKLKTPFNFKPFIVQYEVRFQNK  
HECGGAYIKLLADAPELSLDTFNDKTEYAIMFGPDCKCGGDSKLHFIFQHKNPLNGKMEEKHAKK  
PSGDFSNIFFDDQKTHLVRLIVKPDNTFEIYVDKRRVNEGSLHNFEPVNPPEIDDPNDQKPD  
WDEREKIPDPDAVKPDDWDEDAPKQIEDPNAKKPEGWLDDEPELIPDPQTERPADWDDEEDGE  
WEAPQIDNPCKCEIGCGEWPKAVIDNPNYKGGKWTPLIANPKYKGIWSPKKIANPEFFEDNNPFA  
MKSIVAVGFELWSMQADILFDNLLVADDLSLADQWTLQTWDLKHTQEVNKEPGVVGGGLWNNI  
QEATQERPWLWVIFVVLVLLPFVLIYFFCFGGKEDEYAIRKKTDEPTQDDDLVENSEDEPVEDKKES  
DPEATEESVDSKKEDEESGKENEIEITDEKTKSEVSPNDNDNKVDTEKKLSEDSKKEEDESPPKT  
RASKRKTRKE\*

>TRINITY\_DN96161\_c0\_g1\_i1.p1 type:complete len:453 gc:universal  
TRINITY\_DN96161\_c0\_g1\_i1:1593-235(-)

MRECISIHVGQAGVQIGNNCWELCYCLEHGIQPDGQMPSDKTVGGGDDSFNTFFSETDSGKHVPR  
AVFVDLEPTVIDQIRIGPYRSLFHPEQMINGKEDAANNYARGHYTIGKIHIDNVIDRVRKLTESCTG  
LQGFFIFHSFGGSGTGSGLSSLLMERLSVDYGGKSKLEFAIYPAPHISTAVVEPYNSILTHTTLEHSDC  
AFLVDNEAIYDICKKLDIERPTYFNLNRLISQIVSSITASLRFDGSLNVDLTFEQTNLVPYPRIFPM  
ATYSPILCAEKANHEQITVADITNACFDPRNQLVKCDPTKGKYMSCCLLYRGDVPKDVNVAIQA  
LKSKRTVQFVDWCPTGFKVGINYQPPTVVPGGDLAKVSRVCMLSNTTAIGEAWARLDHKFDL  
MYAKRAVHVHWYVGEEMEEGEFSEAREDMAALEKDYEYVGGQDSNADEDGDDDGDDF\*

>TRINITY\_DN1339\_c6\_g1\_i1.p1 type:internal len:570 gc:universal TRINITY\_DN1339\_c6\_g1\_i1:1-1707(+)

GMFFQDGLTGSAGWDWALYVDSPLRFFGGGEASTYKTFDPATELGVPQEPVGFWDPLGFASDGDE  
ATFKRRRSVEIKHGRVCMAASIGYIVPEYYKFPGLSPSEGLQFADVPNGLAALSKVPALGWVQIIF  
FAGIVEGAFGVTDDYRNGTPGDYGWKVITSDDPAEKEKKLSAELANGRLAMVAIIGMFFQDGLT  
GSAWGDWALYTASPLRAFESLGVQAPVGFWDPAGYTNDGSMENFKRRRATEIKHGRVSMAC  
MGYMTPEITGKLPGLSPSMKVQFADIPNGLGALSVPVGVGWAQIFAYCAYCELSQDQSAASPGG  
AGDFGFKAITSSDPATLTKLNAEIANGLAMMAIIGMFFQDGLTGSAGWDWALYVDSPLRFFGG  
GEASTYKTFDPATELGVPQEPVGFWDPLGFASDGDEATFKRRRSVEIKHGRVCMAASIGYIVPEYYK  
FPGFLSPSEGLQFADVPNGLAALSKVPALGWVQIIFAGIVEGAFGVTDDYRNGTPGDYGWKVITS  
DDPAEKEKKLSAELANGRLAMVAIIGMFFQDGLTGSAGWDWALYTASPL

>TRINITY\_DN1374\_c0\_g1\_i1.p1 type:complete len:548 gc:universal  
TRINITY\_DN1374\_c0\_g1\_i1:1751-108(-)

MSMVLTHHIAIALVAQLEVEGKDFYIRTDSDVGECKYSGYIPGGKQINISPIKSTTASLETNILANIA  
GFGGNAGTDAIQFPKISSTIENIAPNLGPALALFTTVLSAALNSELLTTTQEGMEDITLTGLFKLIED  
VNDKFTDMENYVDQETLNVIKGRINTEYIHMFTLYSNCITEVSLQRAVEQCEDANQYIRSGPLKF  
MLFTDELKKFTMSSPPTADQIKKMELTFLPFREYATLSLMQLQVLKDTYRDNQNSLKNGPITYREL  
LGKLSSDAQKRIDYAQNMFKWIDLTDEFKAKNRCKDTKTSWSRCTNEGGWGSYTVCFGYTKCQF  
DMTSSKKYCTTRCTVRADGQKIYTKKTYPDSFSNQDTGKKFTAEEIDLKASAYLSQKSKDVKNYY

ESEVLSSIPVWQEIKNKADAELMALNDEPNINYNFEGRQFKRTHTFNPIQRKYMPVGDFFEEEN  
DEKNSDLENRKLNYRYEENYRRSEYPILKDAEYGEFNDRFENDLSLREKKIKDGRFSPRFKERYQR  
AFDTMRYFDDLNRARRF\*

>TRINITY\_DN495\_c0\_g1\_i5.p1 type:3prime\_partial len:407 gc:universal  
TRINITY\_DN495\_c0\_g1\_i5:152-1369(+)

MDFHWNTVIAGLIIVQVYSLAEYGTNLNGKDSYRNAYPWLANDRNNNELGREDARSIYRSSDEID  
AEYPQSDDEVDTDNDIPKSYTSRDELDAEFAQRTYKFADDLDIENAQKSYASSDELDRDDEQRTNK  
NTDDLDAEDAEREETINDSLDAENAQRRYTSIDELDGEDTQRVISKTTITLRLGAGRIYKSRFIHGP  
YIRPKFVRPHKGIRLPHPNRIIPGSWKRPAGHIFALKGKKAIFCEHKGIKRISCSNDKVIKVRSA  
LYGRTAGNVCSISCSKDEEIKVKNALYGRTAGDVCGRSRVTNCRALNSFAIVQKKCNHNSCDLNPS  
NSVFGDPCVGTVKYLNKYFCVKRITPTTTPNGKTAIFCEHKGISCSKDEEIKVKNALYGRTAG  
DVCGRSRVTN

>TRINITY\_DN135129\_c0\_g1\_i1.p1 type:internal len:155 gc:universal  
TRINITY\_DN135129\_c0\_g1\_i1:1-462(+)

SSFSYMSTSPSRSMDISASSDEALTPGGTLIIRDNDNRNRTSFYERLQEKDSFIAETSSALNTPQNSPRP  
STTTPLPRTPQQDRTPPKRSPLVRMKSDDSDIEKRAKFSKDNVSSTFRPVSMNLNSVFASNRPKRLH  
TGSEELSEHVPLSTHRR

>TRINITY\_DN1143\_c0\_g1\_i1.p1 type:complete len:629 gc:universal  
TRINITY\_DN1143\_c0\_g1\_i1:2539-653(-)

MLRSRTIITNTLPKLKSINRLEPSFSCISNARCFVSAAANKDASESFAMGIFTGQANVSQIFPYPDVL  
TDDQREFLSSLVDPVEKFMSEQNNAFNNDALIEEIESETLEGLKEMGAFLQVPAELDGVGLTNTQY  
ARLVEVVGRYDLGVGIVLGAHQSIGFKGILLVGNEEQKKKYLPSLATGEKFAAFCLTEPSSGSDAA  
SIRTNAKLSDDGKHWILNGGKLWISNGGIADVFTVFAQTPVLDEKSGETKNKVTAFIGVERGFGGIS  
SGPPEKKMGIKCSNTAEVHFEDVKIPVENILGGVGGQFKVAMHILNNGRFGMAAAALSGTQKGLI  
AQAIIDHAASRTQFGQKINNFGVIEQKIARMAVRHYVTESMAYVICGMMDKGFKDFQLEAAISKI  
YASEAAWEVADETIQVLGGMGYMKDCCGAERVMRDLRIFRIFEGTNDILRLFVSLTGLQGAGKELR  
KLQKSLSNPLSNMGTLLQGLLRSKRAAGISSGPDLSNVHPDLRKEADLASKGIGKFGSTSEALL  
VKYKKSIIIDQQMVC SRLSDSAIDLFGMVCVLSRATKSLNNNVPNAVHEALIAKTCSEAYKRINTN  
LESCKNEHNMATDKLKAQITSDITNHMGVVTTHPLGF\*

>TRINITY\_DN5229\_c0\_g1\_i1.p1 type:complete len:728 gc:universal  
TRINITY\_DN5229\_c0\_g1\_i1:2363-180(-)

MFKSLTISISVLTFILLFQEGSSSPVVAANSTNNAANATILIEEDESNGRQETEPKSFSDIEDVIKID  
SMENAGLIRDNTGAVNKAKTSRIAGKLREKARSIDSDSADSATEGVSGAGEGLLTLVEGKGGNW  
VDIVTGGLDMISSVLGMLGPMSSVIASSVLSLFSMAFGLFGGATGGEESTEDMMTRVIEKALLEAKA  
EELRSEVNGIKRLLQSFSSSIANFRETNLSLQEQALTYDQGFGRGVAQFGVLEHYIEKWCAVGD  
PN TYDTPVKKGELNDMVSRCLDMVNLYCDLSVFRQIMLADMASLIAEVGIEGTPEVFMHLLRKEQK  
SDKKLLKFLMDPANNRDKRFVITKYFTSLTKYTTITAYLKKLSTLDLSDVETKKSARAEISKDEKFFD  
KKFTLVCTDIELRGNCQFSELGAKRDASLKGWKKVVSLSYVSDGVEVQGFHRPDLQGS  
LFGPYY GPAVYGVKVS GSKDWESMNILASETSALDLLRVCENENMDTEGVCEAIETKNYPNLGAMDKRGT  
AMYYVSTIRKKAKCRYSKCDVWNTGKWWCERSKRRDWEECLIGRYWSEIKSMTIPKGYKIYGY  
SETDYGGVEYGPYGPSTVLKVHPSAAWKS LKMVKTTQSTTKMVQMCSEGLKGFCDYFIANS  
G QTDLSNVHGVNWSDSKRIKSMMVPGSITVYTYSEKSYGGMEMGPYDGPVTITKVDGADGEEQIK  
SFKIMRRY\*

>TRINITY\_DN167\_c0\_g2\_i1.p1 type:complete len:658 gc:universal TRINITY\_DN167\_c0\_g2\_i1:165-  
2138(+)

MSKGRAIGIDLGTYSVGVFQHGKVEIIANDQGNRTTPSYVAFTDTERLIGDAAKNQVAMNPV  
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LIFDLGGGTFDVSILTIEDGIFEVKSTAGDTHLGGEDFDNRMVDWFWVKEFKKNGGKDLSTNKRS  
LRLRLTACERAKRTLSASKQASIEIDSLFEGLDHYSSITRAKFEDLCADLFQSTMKPVTKAIADANY  
SKEQIHEVVLVGGSTRIPKIQALLKDHFSGKELNKSINPDEAVAYGA AVQAAILSGDKDEAVADLL  
LLDVAPLSLGIETAGGVMTTIIKRNSTVPTKQQQKFTTYADNQPGVLIQVFEGERAMTKDNNLLG



KFELSGIPPAPRGVPQIQVTFDIDANGILNVSAVDTSTGKENKITITNDKGRLSKEEIEKMOVQEA  
 YRNEDDALKEKVQAKNNLESYAYNMKSTIDDEKVKDKISDDDKKTIQDKCTEIIIGWLENNPTAS  
 KEEIDEKQKEIEKVCAPIVTKLYQGAGGMPGGMPGGMPGGMPGGMPGGMPGGMPGDGAPSGGSGGP  
 TIEEVD\*

>TRINITY\_DN11643\_c0\_g1\_i1.p1 type:complete len:187 gc:universal  
 TRINITY\_DN11643\_c0\_g1\_i1:1748-1188(-)  
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 EATTFISIFYTNTLYLFIIIIASFYVLRSFSPAVNFTLSTGMAAGTVALLSTGTQSS\*

>TRINITY\_DN333\_c0\_g1\_i1.p1 type:5prime\_partial len:384 gc:universal  
 TRINITY\_DN333\_c0\_g1\_i1:3-1154(+)  
 IFVKQIILSYRSRALITAKMDMRQLSPFIFTVIGFLLFITQECNAQRNNFCSHNGCRGIPLQTVPYLA  
 RRVSLKASRKQYDPDNIMRIATWNISGIPVDRVVNRNRRRPTGLCLSILKMGLTLFSLQGVDS  
 LKGLQQCLRSHVFLPNTLIGDGNLIGFRRQRRLVKHAAGQFYLSETPFERSKLRGASDYATCTWA  
 KLSFANVVGKRNVTETAYSKLLGLLKHYSNQRGSSRRVTRLRKIYRYFTFYTVNVAKVDEENKA  
 IAKEQMKICLSHLYNDIMERRRYPIIVTGRLNWESSFTTSNNVRTKNENFNLKNGMDDADMTYY  
 TFSNIDKERNTELKDYVTYNGFDSLTAVLVNRNRSERKKRNINRPVVSFLYHS\*

>TRINITY\_DN26249\_c0\_g1\_i1.p1 type:5prime\_partial len:477 gc:universal  
 TRINITY\_DN26249\_c0\_g1\_i1:1733-303(-)  
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 GSSDHWKGMGLFFDSFDNDGEQNNPYVMVMLNDGTQYDHFQKDGNSQQLGCMRDFRNP  
 HPIRAKIRYYNNILTVFYHSGMSERSDDYELCMRAENVVLPKEGFFGITAATGGLADDHVDIKFLT  
 HSLTPPLTDEQKQKILSEEQRKKYEEQYGEYTQKLETKEEFQKEHPDKKAPEEKFESVYDRDVR  
 LYENQNTIHHVVRALHEKVGELTNQLNNLHVTINNNNQLAQQQQPKGDGVTRQEVNTIINLQN  
 QVHNAIQELKQQSGGGGGDNTKTQVQMEKTLQTVLEQVGHVSKNNDRRPSCTVSCVTPSILILF  
 LVAQVLLVAGYNFYKEHQNKAAKKFY\*

>TRINITY\_DN172571\_c0\_g1\_i1.p1 type:complete len:104 gc:universal  
 TRINITY\_DN172571\_c0\_g1\_i1:30-341(+)  
 MSGRGKGGKGLGKGGAKRHRKILRDNIQGITKPAIRRLARRGGVKRISGLIYEETRGVLKVFL  
 ENVIRDAVITYTEHAKRKTVTAMDVVYALKRQGRITLYGFGG\*

>TRINITY\_DN140696\_c0\_g1\_i1.p1 type:complete len:260 gc:universal  
 TRINITY\_DN140696\_c0\_g1\_i1:43-822(+)  
 MPRGPKKHLKRLNAPKHWMLDKLSGNFAPRPSSGPHKLRESLPLVIFLRNRLKYALNYTEVMKI  
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 FGNKNSVPYLVTHDARTINYPDPVSNVNDTVVIDIKTGKINDFIKFDGTGNTVMVIGGRNTGRVGI  
 ITHRERHASSYDIVHIKDAAGNQFATRLSNIFLVGKGKNAKAMVTLPRGKGVRLTIAEERDRRLASK\*

>TRINITY\_DN8707\_c0\_g1\_i2.p1 type:complete len:564 gc:universal  
 TRINITY\_DN8707\_c0\_g1\_i2:2751-1060(-)  
 MSGFVRQSKYRHVFGSPARKDGCYEGFRVTNCAFDGNFIAANKHFIAVCVEVGGGGAFIIVPVGS  
 TGRLDVNIPKVSASKEYILDQLQWNPYNDFMLASCEDEGTIKIWEIPEKGLFMNIGDEKALLSLEYH  
 EKRCTQVLWHPASNVLMSSVSQEPKVCVWNLDEGSVEVEILEHPELIYNATWSQKGDIGTTCK  
 DKKIRIFDAREGTLVQGMGHEGAKPSRVIFTQDKYLFITGFSKMSERQYACWNAETIEQLGLEE  
 LDTANGCLVPTYDADSQVLFLNAKGDSNIRYELVDGDPYFYFYLSTYQSSAPQRGFGFIPKRCIN  
 VNAEISKGYKLHGKTGYIEPVSTVPRKSETFQQDLYPDAIGDEAALEPDDWFSKNAEPKRIA  
 MSTFFKGKTKPTGAAGGGLKKGGLKGLKAKKEAKTAAKSAKSEPAKPAPVKTESKDKVDAAP  
 PAAAAVEQKSSSTAVAAPAAAAPVVVSGVDEKVVKELQNEIKSLKDGDKKLQKEIISLKDGLKDY  
 DTLRSDIKLLCDAVKKNRITALESLVAEETDEEETGEGGDE\*

>TRINITY\_DN875\_c0\_g1\_i2.p1 type:complete len:606 gc:universal TRINITY\_DN875\_c0\_g1\_i2:2136-319(-)  
 MLRLVLFASASVVGSCNPLKLGCFIHSGSDRNLLHSDNSEDYITDFYSGTNIEWDKFSSYLQRAA  
 CRCDQAAAANAGYRFFSLRDFGECHGIGKGASSFDALKLKKSMYCIAPNLGQCDISEHQHCTGAE

EGEFIYETKAQPAEKVIDGGYSSWSAWSVCSKECDQGLQERQRTCTNPEPKGKDAKDCSKLGKPS  
ETRSCIKKDCPPSGETVIFCEHRGVKRIACENDQVVEILAANYGRTSTKHCVFGRTKVTNCRAAH  
SMSIVKSQCDGFNYCDLNPHNDVFGNPCGFYTKYLEVKFRCVARKTSSRRAVLCEHRGSPPLSCP  
NPDEVLSINKASYGRLSTHYCQYGHFKQTNCRALHSDALIKKTCNGLNSCSLNPSTVYGNPCG  
NVNKYISVEYTCKKTNAASRQAVFCEHQGGKTLKCANPDEVLSINKANYGRLSTDHCQFGHFK  
QTNCRAEQSDALIKLACNGLNECSLNPNDVYGNPCGNVRKYISVDYTCKKANAAASLRAVFCE  
HQGVKTLKCANPSQVLSITKAIYGRNSTDYCQLGLFKQTNCRAANS DGMIKKQCNGKNSCQLNP  
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>TRINITY\_DN540\_c0\_g1\_i1.p1 type:complete len:480 gc:universal TRINITY\_DN540\_c0\_g1\_i1:1503-64(-)

MATDKLEGLIARLEKVTGKLESVSVRGSGGGAAVEDDPAWYDEYIAIHEGQWESFLKATKENG  
DNDMVTLEQKLRAAFNAHKDLLTIAARNGKPSPKDLPVLKPLSAAIGEVQSFREKSRTSKKFNH  
LSAVSEGVAFLGWVSPSPKPGQHVIDMKDSAEFYTNKILKEFKETDKVQVEWARGLRKMLMDFA  
DHLKHCHPVHLLWNPDKPAATASTKASGSGGPPPPPPPPAAAPPPPPVAAAPSSAPSGGSEDSRA  
ALFSALNQSGSVTAGLKKVSDDMKTHKNPALRNAQPVPGKTSSLNPRPYAPPQLKKFNAPVAEK  
PPVFELQMKKWIIEHQKNNQSLVIDETNDKQTIYMYKCNNNSVLQVKGKVNISITLDGCTKCGVVF  
EDLISTCEFVNCQSIKAQANGKVPITISIDKTDGTQIYLNDKSLDTQIITAKSSEMNVCTKPDGDLN  
EFPVPEQYKTVWNGTKFVTTIMDLNL\*

>TRINITY\_DN3773\_c0\_g1\_i1.p1 type:complete len:504 gc:universal  
TRINITY\_DN3773\_c0\_g1\_i1:168-1679(+)

MAPVVGDLMDSLIDASKQHNQAVVRDYISQPRLIYKTVSGVNGPLVILDQVKFPKFAEIVTLTLP  
DGTRRSQGVLEVSGSKAVVQVFEGTSGIDAKHTTCEFTGDILRTPISSDMLGRVFNNGSGKPIDNGP  
PILAEDFLDIMGQPINPWSRIYPEEMIQTGISAITMNSIARGQKIPIFSAAGLPHNEIAAQICRQAG  
LVKHSKGTMDYSDDNFAIVFAAMGVNRETARFFEQDFKENGSMDNVCLFLNLANDPTIERIITPR  
LALTAAEYFAYQCEKHVLVILTDMSSYAEALREVSAAREEVPGRRGFPGYMYTDLATIERAGRVE  
GRNGSITQIPILTMPND DITHPIPDLTGYITEGQIYVDRQLQNRQIHPPINVLPSLSRLMKSAIGEGM  
TRKDHSDVSNQLYANYAIGKDVQAMKAVVGEEALTPDDLLYLEFLQKFEKEFISQGAYENRTIFES  
LDIGWKLLRIFPKEMLKRIPAKTAEFYPRDGRKEETD\*

>TRINITY\_DN32522\_c0\_g1\_i1.p1 type:complete len:235 gc:universal  
TRINITY\_DN32522\_c0\_g1\_i1:147-851(+)

MAAWLDSYRETEQLGHDIMELINERNTLKRSASNTSKVQSSIRIKMQQYSSGLQRLKDLLLRDSSS  
YNVTQQELQRRQNQLDVLVSKEQQLNQAFKPTQSNYDRSNLFGKEYGDDLNGRYGGASASNGL  
DDDLTQPQNFQQEQEILKEQDKGLDSLHEVIQRQKMMGKAIGNELEYQNLDLIDDITKGVSRVDN  
KVNATERKVKKVHRKTGSCAMIVVILLIAILVVAVFPTN\*

>TRINITY\_DN6920\_c0\_g1\_i3.p1 type:5prime\_partial len:411 gc:universal  
TRINITY\_DN6920\_c0\_g1\_i3:2124-892(-)

CKRHQGKMSHRKFSAPRHGSLGFLPRKRCKRHQGGIKSF PKDDAAQPCHLTGFIGFKAGMTHIV  
REVDRVGSKTHKKEVVEAVTIVETPPVVVVGIVGYVETPRGLRQLTTVWAEHLNEECLRRFYKNW  
YKSQRKAFTKASKKWSDDDGKKSIEDLEKMKKYCTVIRVLVHTQQKLIKQKQRAHIMELQIN  
GGTVADKVDWAKKSLESKLSVSTVFGQDEMIDVIGITKGKGFRGVTFRWGTTKLPRKTHKGLRK  
VACIGAWHPARVGFSPRAGQCGYHHRVERNKKIYRIGRGIHTKDNKVIKNNAAATDYDITNKITIT  
PMGGFPHYGEVNEDFIMLKGCVPGPKKRVLTLRKSLLAQTSRKALEKITLKFIDTSSKFGHGRFQH  
DQEKKNFMGLLKKDKERQAVEA\*

>TRINITY\_DN97809\_c0\_g1\_i1.p1 type:internal len:184 gc:universal TRINITY\_DN97809\_c0\_g1\_i1:2-550(+)

LGPDQVDVAGAGRDPRHLPRPLGRRLRVLD RHRGRVRQRHKA EADQDPKLETARLDVRRPGVQ  
VRRVRHPRPSSRDQCHRDCHAPGRVEGRAQVDRGRRLGRRRVEHEVHGAAQPAARGQEKGR  
LRAQQILAVAAGQEEAVDVGARNRQGPSSALAAVSRAPHAQFARLAQRDRRVARAKGW

>TRINITY\_DN909\_c0\_g1\_i1.p1 type:5prime\_partial len:313 gc:universal  
TRINITY\_DN909\_c0\_g1\_i1:1-939(+)

RRVLFRLSTFIESLRLSRLVNKNKTFMEMSEKGGIYNDNEREMNFTGNSDYESGDLGFCGWFLT  
VLSFIIAVCTFPLSLFFCIKIVQEYERAVIFRVGRLLSGGARGPGLFFILPCIDTYLKVDKRVISFDVPPQE

ILTRDSVTVSVDAVTFYFKIQNPVASVCNVEDAQRSTKLLAQTTLRNELGTKNLSELLEREAISRNI  
SNILDQATDPWGVKVERVEVKDVRPPMLQRAMAAEAESSREARAKVIAAEAGEMNAARALKEA  
SDVISESPQALQLRYLQTLTTISAEKNSTIIFPLPINMLQSMMNK\*

>TRINITY\_DN413\_c0\_g1\_i4.p1 type:3prime\_partial len:463 gc:universal

TRINITY\_DN413\_c0\_g1\_i4:1388-3(-)

MVSLSVTCLSLLLFVTVNAAESDHCYDEKSWYKAMGWCYHSGSRLLLGDFFNGDKRTDFFCHD  
SNGKNWVAVSNSDGSFGSTTWQDSKERWCASPNILLTGDFNGDGVTDILCHGTATGKKWIKYFN  
KYGVPSGKSFYRAMSWCNHKGSQLYIGDFNGDKRDDLCHDTSGRYWTSYAGTDESKVFHHTS  
WYKALEWCRHATSKLYLGDFNGDKKTDVLCCTDGKGYKWIMYAKTSGNLFTGTDWHTNLDWC  
HESSTVFLRIGDVNGDGKDDLCHSTAGNSWVAYTQPKGGFGNFCHLAKWCAAGKESFFLGYP  
NQDSRADILCHDTKYGKKWIRYAECFAEESDHCYDGKSWHKAMRWCYHSGSRLLLGDFFNG  
DKRTDFLCHDSRGINWVAVSNSDGSFGSTTWHDSEKERWCTSPNILLTGDFNGDGVTDMLCHDY  
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>TRINITY\_DN2776\_c0\_g1\_i6.p1 type:complete len:374 gc:universal

TRINITY\_DN2776\_c0\_g1\_i6:1221-100(-)

MLNTLIRTNANVFKLSSNSQKICSCTYMSGVGVRRLPHNTIIFVPQQESWIVERFGKFHKVLS  
PGLNILLPIVDEIKYVQSLKEIASEVPQQSAITKDNVTLHLDGVLYFRVIDPYQASYGVEAPQFAITQ  
LAQTTMRSELGKIALDDVFRERDTLNQNVIEAINSAATVWGIKRLYEIRDIQLPAKVRESMQMQ  
VEAERKKRAAVLESEGQREAIQINRATGEANAILAKAKARAEIDLISAALTQQSGNQAAGLSIAE  
QYIQAFSNLAKESNTVVLPAVTGDVSSMVAQAMAVYGSISKNLPNNDNNNDNDPNNSGHGGSIN  
SRKQSSVENETSTLGFSGYDELSKFALKSEDEFVTTSPTRKRDFV\*

>TRINITY\_DN2963\_c0\_g1\_i1.p1 type:complete len:116 gc:universal

TRINITY\_DN2963\_c0\_g1\_i1:1072-725(-)

MSATGNLVTVLRLKLYDEYNDKTPSRLKIVDGFLLYVMLTGIFQFLYCCLVGTFFPNSFLSGFISCVGT  
FILGVCLRVQTNPRNRTEFKGISPERAFADFIFANVVLHLVVMNFIG\*

>TRINITY\_DN201860\_c0\_g1\_i1.p1 type:internal len:221 gc:universal

TRINITY\_DN201860\_c0\_g1\_i1:1-660(+)

LTAITKVVCSTTSGSATGSKDGLSSGDDYISRDLSDKLSITFTDNETAQYCEVQIIDDSEFYEEEEQFT  
VKITPYFGGEVDEERADVNIILEDKNDEPKIYKSTLYEIDESDGVVKVAVQRTGSDLSFKSYVIIST  
KQTEPVSAKANVDYYPVVKLTLEFGIDEKEKLVDIGIIDDKGRPRIEGEESFEVLLGLAKNGELLDGQ  
SKGVVVIINDEESDK

>TRINITY\_DN5554\_c0\_g1\_i1.p1 type:complete len:316 gc:universal

TRINITY\_DN5554\_c0\_g1\_i1:223-1170(+)

MRHIALLFVCVGYCYSADWGYEAGNPVLEPKDWKQHFPKCGGRKQSPINIATRSAILSRLPKIL  
GEGWGTLLESADLSLANNGAKVSIKSSPTTKQGWTWNLAQFHLHWGKDSHSGSEHTINGMS  
FPAEIHVFHFNISKYPTIGDAVPQPDGLMVLGFFIKVQENAVVPSILQKFFGSLDQIKFEDQKVKLDF  
GGRALGDMPLPRGTSKYFNYPGSLTPTCDESVNWNVMSTENAIVITEKQMTQLRSLSAGKKNE  
AFKPQSGNFRPIQPRNGRTIRNRNFRATTKFRSVLRRYFPRIFSIFRVTPRFE\*

>TRINITY\_DN2077\_c0\_g1\_i1.p3 type:5prime\_partial len:238 gc:universal

TRINITY\_DN2077\_c0\_g1\_i1:2-715(+)

LAQAVSIVGPRKPGRPAAHRSSGSRHVARVGLRPPHHGLLAGGQVVPGGVRPRGGQEEPEHHV  
DRIAGERLRRGRNAEKGPRAHGQGLYHALVQHHAQHRLRHDGHAPRRAGARLPARRDRLEV  
PGPERLRDPGALSRIEARQHRTGVHAARLHAPVWRQHHAHAYEPGRRGGAISLPDRPRRDVQGFQ  
GLRGRFEGKRGDQRFKGHQUEEGGLHRGRDDPAGHRLSPAGVGHGLQVR

>TRINITY\_DN128406\_c0\_g1\_i1.p1 type:5prime\_partial len:150 gc:universal

TRINITY\_DN128406\_c0\_g1\_i1:474-25(-)

FGSTRKMSQTQSVQVFGRKKTATAVAHCKRGNLLKINGCPLHLVEPSTLRYKVQEPILLGKERF  
EGVDIRVRVKGGGVVSRIYAIRQAIAKSLVAYYQKYVDEVSKKEIRDILVQYDRSLLVADPRRSEPCK  
FGGPGARARYQKSUR\*

>TRINITY\_DN4781\_c0\_g1\_i3.p3 type:complete len:183 gc:universal

TRINITY\_DN4781\_c0\_g1\_i3:2965-2417(-)

MCTEPKAPSSCANDEFQCTKTKQCIKKHMLNLTAYTKVGSKMTKLWTKSGTYGPRWRHATVDIS  
SASTFKVVEGTASSGYMGDIALDDLFLNNGACPPSGECSFEDPKLCGWTNMNGDNFDWTRDN  
AGTSSSGTGPRFDHTYGTAAQGFYVYIEASNPRSKGHKAWLKSGEYKPTLGRCLSV\*

>TRINITY\_DN942\_c0\_g1\_i5.p1 type:complete len:5116 gc:universal

TRINITY\_DN942\_c0\_g1\_i5:15664-317(-)

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KEYTVAAISAVPSDFTVETNLLFDHSTEEPTATSTINDQVEKVMLRLVDPAQKSDLSAKENSAQEFK  
NLVTLFRRMDEKRMEATWTKYFDCIKSGVCTDANTRDLYRQYLLDGISHCGTSTCIAMVRNVIV  
NGQITGERMNMFLRSIPFVTKTTMKMIGHVLEICEKNPSRQAYLTLGTLVRHCKQNPEDCSENL  
RNPVTMAEEHLVKKLQCEGQDDHERVEELLRLVKAIGNAQRPARVQEKLKMKCAEKS KHSNI  
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GKFNSEFLRKMLEKKNNKRKLFNDNLTKMHLKANKQFEPCAHLSVKIMGQEVSVLSYDDILW  
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KINMDVP EEP LA AVKFSSSPFLFMNEESELVEGTSRFVNPEHCTKSALLGYGLCASMRLPIAFREYE  
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GKFSDDGQEKGVTVTGKCVTSGKSITLYGGIQNTKQTKQILFTADVLGYSAKQYIRYENNNNDVHT  
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FKTG CYQAKDSNECKFNFKIGTKEGEILMKQIMRDGNVIT TLETLFDKYVAGFRNVYSNKNANA  
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QFVNKYVKDVVSGTTESKVTSELYINDKLVPVTTETIFLNGKGIAGPKFQVNIGKHSVSYATLV TYG  
KGVY GIDLEFLVAKESNMLFKLFNGAAASVTPKKMD FQYKFGFGINGKQYTYGGDMSYNNLGN  
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KENQKSMTLSASGFKRSLKVIGTFVKPNVQLQVYKNGEKIMDV TTSFDGITNKFQFALTNGKDTY  
LKMMKSYNEFVLASGKETYLKMKKKYNEFVVTSGKETYLKMMKTYNEFKNQYKFQINGKIWTK  
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DFQIFGMSKEWVDLMAKYNKRNVLVKVSFSFGKELAMFTLNMKEKDTVSLTTCSDYWKKNIV  
LTGSLDRSQKSIAGNFQYGKTKVQLKL RADWNNMILENAFTFNDNVAKIGLLREQNSMVFRVKL  
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 ANKGAILIERGTVAMKASEKAIREFMDKAPAMMKDIVKKIKDQEYYNKIVNHEVVKKYIAKTQE  
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 KSLNKKGLTIGQTNSKIYTTKNLKLRLSGMELPKSEFKDMVESTNGGMFTNELMNKQNELATV  
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>TRINITY\_DN464\_c0\_g1\_i4.p1 type:complete len:717 gc:universal TRINITY\_DN464\_c0\_g1\_i4:2167-17(-)

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>TRINITY\_DN36471\_c0\_g1\_i1.p1 type:internal len:286 gc:universal TRINITY\_DN36471\_c0\_g1\_i1:2-856(+)

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>TRINITY\_DN67\_c0\_g1\_i2.p1 type:5prime\_partial len:474 gc:universal  
 TRINITY\_DN67\_c0\_g1\_i2:1488-67(-)  
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>TRINITY\_DN73587\_c0\_g1\_i1.p1 type:complete len:533 gc:universal  
 TRINITY\_DN73587\_c0\_g1\_i1:94-1692(+)  
 MLRQAVRRLSRGTNKRSLLRKSSERLLPACVNACQRFVSTDVTNNQAAAAAKAADKSPAAAVA  
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 RIVDTGNPISIPVGPETLGRIMNVIGEPIDERGPIETKSKAPIHTEAPEFVEMNVNQEILETGKVV DL  
 LAPYAKGGKIGLFGGAGVGKTVLIMELINNI AKSHGGYSVFAGVGERTREGNDLYHEFIETGVINL  
 KDDSSKVALVYGQMNEPPGARARVALTGLTIAEYFRDVEGQDVLLFIDNIFRFTQAGSEVSALLGR  
 IPSAVGYQPTLATDMGSMQERITTTTRKGSITSVQAIYVPADDLTDPAPATTFAHLDANTVLSRGIAE  
 LGIYPAVDPLDSNSRILDPNVVGEEHYQIARNVQKILQD HKSLQDIIAILGMDELSEEDKLTVARAR  
 KIQRFLSQPFQVAEIFTGHMGKLV ELKDSINGFKQILSGELDHLPEVAFY MVGDISEVESKATRLAE  
 EAS\*

>TRINITY\_DN247\_c0\_g1\_i1.p1 type:complete len:373 gc:universal TRINITY\_DN247\_c0\_g1\_i1:38-  
 1156(+)  
 MKLVLVIFVILVYTNVNSAGGKKCISNKDFMTPYPTNFWTEHYPKFVN NRPTIGIVAMEVLGQKM  
 LVNVPWSWNKDYFGSSFVKLVESAGGRAVPIKEDITEDDL DKLMRKLNGVVLPGGDADVGDSGY  
 ERISKQAI AFSKKMAKKNVTFPVLGICRGAQMMMAEAGKDFLEV TDSLNL SIPLDFTSEQKESR  
 LFGNAPQGLIKSLSEDAITFNAHAMGIPTLNFYNN SGLQKA FRAISTNYDRNGTKFISTFEGRDAPI  
 YGLQWHPEKSLFVFN PVLAVDHSIKGV MASQYIANFFISEARKNNHTFRDRVEEEEHLLMSYYP S  
 YVGNITETPYEQIYLFDFVKPFQNP KYTPGKVNKNDDDN SGDDDDDE\*

>TRINITY\_DN751\_c0\_g1\_i1.p1 type:complete len:227 gc:universal TRINITY\_DN751\_c0\_g1\_i1:731-  
 51(-)  
 MAMKIVLCTLAALMCCAYA QDGITAITDIINPENINTALDAAEKLKNLIHTTSES KIQSREKTQGFE  
 FLNMKAN AQYTRGMKKHHLMRMMNRYLV PFSRSSADMKEVVDTLKEFIEDDVEEHQE QFFGL  
 MTQGGGGTTEAIFVYYKLRDDGKYNFKRM TFRGTFRLAADLVITHSSKSGFFSSESKDVINWLP RR  
 GVTAQNVQELLDIIVPKLATVMSEFAPKDSI\*

>TRINITY\_DN1505\_c0\_g1\_i1.p1 type:complete len:154 gc:universal TRINITY\_DN1505\_c0\_g1\_i1:98-  
 559(+)  
 MSLVIPEKFQHILRVMNTNIDGKT KIMYAMTSIKGVGRRFSNICLKKADIDMTKRAGELSDEEVER  
 LVTIMQNPRQYKIPDYFLNRKKDIKDGKFSQVL ANGLDNKLREDLERLKKIRAH RGLRH YWGLR  
 VRGQHTKTTGRKGR TVGVSKKN\*

>TRINITY\_DN925\_c0\_g1\_i1.p1 type:complete len:261 gc:universal TRINITY\_DN925\_c0\_g1\_i1:826-  
 44(-)  
 MGRVIRGQRKGAGSIFKAHVKKRKGA AKLRSLDFAERNGYVKG VVKDIIHDPGRGAPLAIVAFR  
 DPYKFKLRKELFIATEGMHTGQFIYCGKKATLQIGNILPVGT MPEGTIICNLEEKSGDRGKLARAS  
 GDYATVVSHNRDSKVTRVKLP SGVKAIPSFNRASVGIVAGGGRIDKPLLKAGRAYHKYKVKRNC  
 WPKVRGVAMNPVEHPHGGGNHQHIGFPSTVRRDTSAGRKVGLIAARRTGRIRGTAKVKDVGGD  
 KE\*

>TRINITY\_DN97534\_c0\_g1\_i1.p1 type:complete len:563 gc:universal  
 TRINITY\_DN97534\_c0\_g1\_i1:138-1826(+)  
 MSATPAMDIRSPRYGYQSPNVRTRVQEKEELSDLNDR LATYIRRMQYLESQNNKLTAEITTSKESV  
 SREVQNVKALYESELADARRMVDELSKEKASLTLENDK LNGIIDDLRSKLEKETNGRSKAENDLR  
 HVERRLHEKEALSMSLSKERKALDEKCKDLESQ LQDALDQLDQEKAKLEEEILRRVDMENRYQT

LTEDKKFCDEIHEKELIDLRNVTDTFKFQMOTDGA PSDPDDILREKLEELREMFEDAEENAKQEL  
 RDAYGSKNDSLQKELDRSNTNRLRIIEKYDGVKTELDKADYGLLDAKNKQLKQIPELENLRE  
 MDKDEFARQIQDYIDKNKDLEEELSNLRDDYQKLLIEIKIALDIEIAAYRKLLEGEERLHLS PSSQP  
 RSQSTGGKRGTKRRRPEEEQVTPAEPVNSTAVGNVEIIECDNSGKFVKLVNKSETEDEALGGFFV  
 QRVVNGREDKAIEYKFTPKYVLKAGQSVTLWSFSSGVKHKSP TDLVLKN NEDWTVGQSM TTS LI  
 NQEA EVM AKHSMVKSPNSDRDLKRARRRRGGQDRESCFIM\*

>TRINITY\_DN4377\_c0\_g1\_i1.p1 type:5prime\_partial len:604 gc:universal

TRINITY\_DN4377\_c0\_g1\_i1:3-1814(+)

SFE EFQSFEALLCQTDAQYRILFEMFDLTGSGTVTFEEFKRTLE CQSHAKKYPFD FDFSEFVKNHFGQ  
 DKKYEVSYHEFTQIIKDLNKEYISHLFKQKAKSNEGDSITLLQFGEIIVGFRHKLTPYIYENMMAA  
 VTAQTGRRQVSITYCVAFYD LLSNMEQIAEIFKEATDNRKFS ELTKEELLQASFHHPQVTPMQIEIL  
 FDLCTAHNP SKGKISLIDTVKLIPKINPLTVFSKIHEVQQYDPSYAE EEEQNDQSVLMQVAESSYRFL  
 GSIAGASGAAVYPIDLVKTRMQNQRSVLATEVVYKNSWDCFRKVL SNEGVRGLYRGLIPQLVGV  
 SPEKAIKLT TND FVRGKFTDKDGEIRLVGEILSGGCGGAAQVMFTNPIEIVKIRMQVAGEAGQRP  
 AINLVKELGFFGLYKGARACLLRDVPFSAIYFPCYAHFKSSLADKNGYISPLSLLCAAAAAGVPAA  
 YLVTPADV IKT RLQVKARRGQQTYRGVIDCTRKIYVEEGGSAFFKGGVARIFRSSPQFGVTLLVYEL  
 LQRVFYVDFGGGYTKTQISPVNPDISLNP DHIGGLRLAVSSFSGIETKFGLLLPKFNTAPKTIPKVQP  
 NT\*

>TRINITY\_DN5263\_c0\_g1\_i1.p1 type:complete len:243 gc:universal

TRINITY\_DN5263\_c0\_g1\_i1:827-99(-)

MATPISKKRKFVADGVFKAELNEFLKRELAEDGYSGVEVRVTPLRTEIILATRTQNVLGEKGRRIR  
 ELTSVVQKRNFNPEGSVELYAEKVSFRGLCAIAQCESLRYKLLAGAPVRKACYGVVRFIMESGAKG  
 CEVVVSGKL RGQRAKAMKFTDGFMIHSGFP IQEYIDMAVRHVYLRQGV LGIKVKIMLPWDPTGK  
 TGPKKPLPDHVSIVEPK EEVLPTAPSS EQKGKPD IQAPAPTVP\*

>TRINITY\_DN5587\_c0\_g1\_i1.p1 type:complete len:809 gc:universal

TRINITY\_DN5587\_c0\_g1\_i1:196-2622(+)

MAQNKDDLSTEILKKKSKPNRLMVEEAVTDDNSVVTMSADKMEELQLFRGDTVLLKGKRRKET  
 VCIVLSNDEATSNDKIGMNRVVRQNLVRVLGDIVSVQPCPDVKYGKRVHVLPIDDTVEGLTGS LF  
 DVYLPYFLEAYRPVCKGDLFQIRGGMRSVDFKVVETDPSY CIVAPDTVIHCEGEPIKREDEEDA  
 LNSIGYDDVGGCRKQLAQIKEMVELPLRHPQLFKALGIKPPRGILLYGPPGTGKT LIARAVANETG  
 SFFFLINGPEIMSKLAGES ENLRKA FEEAEKNSPA IIFIDEIDA IAPKREKTHGEVERRIVS QLLTLM  
 DGLKQRSHV VIMAA TNRPNSIDPALRRFGRFDREIDIGIPDATGRLEIIRIHTKNMKLDDDEVDLEQI  
 AAETHGYVGSDMASLCSEAA LQQIREKMDIIDMEEETIDA EVLDSLAVSMDNFRFAMGATNP SA  
 LRET VVEVPTVTWGDIGGLE NVKRELQELVQYPVEHPEKFLKFGMTPSKGVLFYGP PGCGKTL LA  
 KAIANECQANFISIKGPELLTMWFG ESEANVRD VFDKARMAAPCVLFFDELDSIAKSRGGSAGDG  
 GGASDRVINQILTEMDGMGAKKNVFIIGATNRPDIIDSAILRPGRLDQLIYIPLPEPSRISILKANLR  
 KTPISKEVDLGYLAKVTHGFSGADLTEICQRACKLAIRESIEKDIQREKQREAAQGQNDADMEMDD  
 EDLVPEIRRDHFEESMRFA RRSVSDNDIRKYEMFAQTLQQSRGLGTNFRFP GSSNQSSSGTSQPAS  
 EQPSIYGND DDDDDLYN\*

>TRINITY\_DN166344\_c0\_g1\_i1.p1 type:complete len:360 gc:universal

TRINITY\_DN166344\_c0\_g1\_i1:93-1172(+)

MQKPKKYDWKDSNMALFGSDTEKKVKKESA ESEPAWQGAGADVGVQVWRINKFKVEHWDKE  
 QYGEFYNGDSYIVLNTYKEPDTDELKYDVHFWIGKYSTQDEYGTAA YKTVELDTFLDDKPIQHRE  
 VQGHES SKFKTYFPTLTLKGGADTGFKRVLP EAYEPRLFHVKKQNRTQITCTQISLKRGNL KSED  
 VFIIDLGDKIYQYNGSSCSADEKYKATQEVARLKSVRGKARAETIEERTVSDEHPALMV LKDGSSK  
 EKSTVEGEKKMLRVSDADG SIGMDEVASGDDISKDKLTSDDVYIINTGSHVYCWIGSGASIDERKN  
 GLSYASNYLNKTETPWLPI SVVGQ GKEDS QFQKAF\*

>TRINITY\_DN1272\_c0\_g1\_i1.p1 type:complete len:262 gc:universal

TRINITY\_DN1272\_c0\_g1\_i1:957-172(-)

MRCQLFLLVACMAIATCSAYDWRNKVQNMLKYAKVNIFDRAAYILGDKRQHQLGKPWFCHKL  
 DCPAFQVVGNYTNKKDGFEE RCYPETA WVM TSKEVDANENDIETRDMFMKLFKYIQGENEKQE  
 KIEMTVPVFTY SQLKKDDPSKRYISMHFFVPPSQEKNIPKPTRDDVTIMDVKADCYYVRSFGGYV

MSFGSKIMNEEKKIHAALAEKNNLDFEARKTMAAGYDSPFRLFNHNEVWVAKRKTMDSGCCTP  
RKSTNVMY\*

>TRINITY\_DN72959\_c0\_g1\_i1.p1 type:complete len:216 gc:universal  
TRINITY\_DN72959\_c0\_g1\_i1:54-701(+)  
MGRRPARCYRYCKNKPYPKSRFCRGVPDSKIRIFDLGKKKTGVDDFPKCVNLVSDEYEQLSSEALE  
AARICANKYMTKTAGKDAFHIRIRVHPFHIVRINKMLSCAGADRLQTGMRGAFGKPQGTVARV  
HIGQPLISVRCKDQHEATAIEALRRAKFKFPGRQKIFTSKKWGFTRWDREEYLERRQDGSIKPDGT  
NVQYYPCCKGPLKDWKWRESR\*

>TRINITY\_DN12390\_c0\_g1\_i1.p1 type:complete len:268 gc:universal  
TRINITY\_DN12390\_c0\_g1\_i1:826-23(-)  
MLASQVSIALIVFYLGCGNAYRPLSFYETNGPVQEILEDFFEFRDDFEDGFLDRDAGVSMAEACVH  
AHNVMRQRHQDTPNLVWDEGLAKAAQAYAEKLAAKDDGLHHDIKNNKKEGWGENLYFKDA  
ARVGTCADAVISWYNEIDYDFNLGMSRNHKAIGHFTQLVWKTITTKVGVGVATHKGQTDNDIK  
TYIVAKYKPPGNWFHGYHDYVKPLIPIKHRPTSVEELDRSVCTIDAFPSRFCRGFRREGRCGEFIVK  
DACYRTCHSCN\*

>TRINITY\_DN535\_c0\_g1\_i1.p1 type:5prime\_partial len:162 gc:universal  
TRINITY\_DN535\_c0\_g1\_i1:712-227(-)  
GKYLVEFFFYPLDFTFVCPTEIIAFSDRVEEFRALGCDVLACSVDSHFSLAWTQQSRKKGGGLGQMK  
IPILSDLTKSISRDYGVLENDGIALRGLFIIDDKGILRQITVNDLPVGRSVDETLRLIQAFKFTDEYG  
EVCAPAGWKPGADTINTGKAHEYFEKQ\*

>TRINITY\_DN98420\_c0\_g1\_i1.p1 type:5prime\_partial len:286 gc:universal  
TRINITY\_DN98420\_c0\_g1\_i1:1007-150(-)  
LHKEARSTVINKMASRLNLSLGKVGVLAVVGGVVNNALYNVDGGHRAVIFDRFRGVLPDVSG  
EGTHFLIPWVQRAIYDVRSKPRNPVITGSKDLQNVNITLRLFRPVASELPKIYMSLGEDYDERVL  
PSITTEVLKAIARFDASELITQRDNVSLNVQEALVERCKAFGLILDDISLTHLTFGKEFTEAVELKQ  
VAQQEAERARFLVERAEQQKQAAIITAEGDAVGAQLLSDAFKKAGNGLIELRKIEASEEIAQNLSG  
SRNVVYLPDQGQMLMNLPA\*

>TRINITY\_DN14830\_c0\_g1\_i1.p1 type:3prime\_partial len:834 gc:universal  
TRINITY\_DN14830\_c0\_g1\_i1:113-2611(+)  
MNKMASAALSRSFAQLYLWLLFQSVVGQSKVNVSPKAVSKKAKEPVYIDCSVVPKSTGIRVTWK  
KDNKAIPYYSKETSQKDAPYVFAENNTLYIASLKRRTGRYECEAFDQSGNTRTVGEATIEIKYIQK  
LAPIDPVRSYVGSDAEIVCLQPLANPFAQPSWQFNGVDIVQSDRVDPTGWTLRIKNVSLTDEGVY  
TCVATNDANVRTENATFTPVVSGPVEATPEDDVITEGEDAEFTCVSKANPPLEVWKRVGKTCED  
GVCNDEVTVENSDDGRINVENGVLSVTNAIPSDKGKYKCEASLGSSFNEAFVSLNVVELLKEDPQ  
MHQRFQSVDIRRENGTIFCQFRGDGRYDIWSRVNSTKPLRKGMNQFNNTLKITDITFEDGGTYRC  
TADGIKGTATADVTLNVYESPVFSIHPNNVSQNEGKPAWIDCKGEGTPAPRVSFHRNKQKESLNA  
SHFQQPLNGTLYIAELKKEDAGTFYCWLTKAKIEYSTFYIRVKDAEPISPGSSSPMGRTVGIAGC  
AGVYILLVIGLMIYCRARRARLLKKGLITEADDCDAKDPLVNGEDIPLPTNKSLDYLVKPKGEITEI  
CELGHGKMGRVYKGLVTNERYPNGVLSAVKEFNNGNNEQQNEEFNLEVEMFLQLNHDNVVKLI  
GIQNNTPHYLIEHSEIGNLKDHLVNSPDMTDAQRVNMSLDIANGMEYLISLRYIHRNLSTRNCI  
AMNNDNIKVTFLSLCEDVNKDDYLLNNILVPLRWLSPEAIANEVYSEKSDVWSFGVTLWEIFSN  
GQQPYSKFDDEQVRDQICKDLRLTVPDKCPSTVADLMKKCWIAETTER

>TRINITY\_DN81944\_c0\_g1\_i1.p1 type:5prime\_partial len:222 gc:universal  
TRINITY\_DN81944\_c0\_g1\_i1:3-668(+)  
VHQVIARYSINMLPQILSTFVILTVSTALADKPWFCHDLDCPSYKVAGAFTEKKDGFVRCYPKTV  
WAMTQAEFSAKSSSYSTGSLFMKLFKYISGNNKEGKKVAMTAPVFTYSDLKKGDNSTRVIKMHFF  
VPPAQESTIPAPSGDDIEIVTPADCYYVHSFGGFVFSMGRKIRRETGNLVKSLEKAGIKSYDLSKSM  
YAGYDSPFRLFGRHNEVWLAKM\*

>TRINITY\_DN828\_c0\_g1\_i2.p1 type:complete len:216 gc:universal TRINITY\_DN828\_c0\_g1\_i2:1021-374(-)  
MANSMIVSLFVLAACASISQAIKCHVGLSSKELTFEIGVRQVECGGKFTRCATTTFIADGKKAYRG  
YCASTYGPYLCILMKNSAKTMTECDTQICSGDLCNKQVEEASQREKSGKGVKCYTGIEMNLPPLD



IATGDVPASVDQCEDNTDTCMSVSFLHEVKDPVQDRVFVRVPTVMRLCKPSYSTCENHCERLSK  
HITIGDCKATCCKGDMCNPF\*

>TRINITY\_DN1559\_c0\_g1\_i1.p1 type:complete len:311 gc:universal  
TRINITY\_DN1559\_c0\_g1\_i1:221-1153(+)  
MAEKKATFKLGAENFALSGAAVISKTAAPPIERVKLLVQNQDEMIKQGKLSEPYKGVIDCTTRT  
FKTEGLAPFWRGNLANCIRYFPTQALNFAFKDKIKAAFKVSKSDGYALGFGKNIASGGCAGALS  
CFVYSLDFARTKLANDTKSSKKGGSREYNGLVDVYRKTLSKSDGVAGLYRGFVLSVGFVYRGCYF  
GFYDTLKPVLLGADASLFMSFILGYGVTVTAGLISYPIDTIRRRMMMTSGQAVKYKGSIDCATQILK  
NEGAMSLMKGAGANILRGVAGAGVLGAGFDKFKEVYIAMRKRQMGLE\*

>TRINITY\_DN10890\_c0\_g1\_i1.p1 type:5prime\_partial len:963 gc:universal  
TRINITY\_DN10890\_c0\_g1\_i1:3568-680(-)  
NEFFAGFQISPKILDSEKDKPRKIILENTVPIVCQDGTENCRVLVELAQTNNTDNFMDYCTISFKPGP  
AGQTNEVEVVAKRDFIDDGDQTMFLKLHIPDHIDPVDWNCYKNITDIKTTDVKTSRCLSTGDP  
HITTFDGHYYNHVLYGDTLVESKARKFKIHVRTWKCGSVSCNCGVAVQEGDDVIVVDMCRDR  
VPRARFASTVEPQKGTIERNNGKSFLSFPSGAFVRITCKRNYADFIQQLPSDDFQNTVGLCGTF  
DRNRNNDLTSKSGQVFNSRRGRNGPNGFTESWKLSSRDSLFYYRGGPKKCLATRPKSYCTCKETC  
CGKRTVNCDEYEGYSQRPKYKQGRGWKSLTFPGAHCGRKRRLDDSSVLPDDGDTAIYDYK  
PAPVIPNEGRFPTPKGKSESQARNTCTRKIKESTIGKACLKIITGFDVQDYIDQCVIDVRVLDFFIVP  
VESAVTNMASNCEEETLRDVKKYWKDAEGKDAPPQDIGDSACLNDSCDNGVCRNGTCICND  
GFITDDCSMTKGQQPVLLGIPNDGLCDIRRDQDCVTRVTDGYFIDSSTLQCKATEAKVSDTTPPEK  
FGSGVIEQGQLLSFREIGCLLPKVPLVINGNPDYSRGKPTGAFYISVNDGNNFSKEDTTPDSKSET  
VMVYVDSKCMDCTKEGTCWKKNSCKMNEYCFANGDPKPDDWCQVCDPDRSRTEFVKRLDN  
QPPVFNGGSTQYIFKGQQWKYELPAEDPEKQPLMYSFIGNHGMKISSAGILTWTPTTELKVYSFKV  
EIEDPCGLKASQEFKVDVRNCSEGGQNGGRCEWLKSNTPEDHKVCVCPDGCKGISCTDPIDGRICR  
VKVSPQSGDDSSNGAVIAVHILLIILIVIAVVGFLIIRYLKKENKDVNMKNIKTTIADAGKNAKD  
RVADAGRNAKDRVIPNKNKADDINANDKMRSSIRINLRPQSGTSAK\*

>TRINITY\_DN4439\_c0\_g1\_i1.p1 type:complete len:941 gc:universal TRINITY\_DN4439\_c0\_g1\_i1:77-  
2899(+)  
MTDSKYFTTTKKGEIYELKAELNQHKMDRKKEAVKKVIAIMTVGKDVSAFPDVINCMQTDNLE  
LKKLVYLYLMNYAKSQPDMAIMAVNTFARDCDDPNPLIRALAVRTMGCIRVDKITEYLCEPLRKC  
LKDEDPYVRKTAAVCVAKLHDINSTLVEDQGFELELLRDLLSDSNPMVVANAVASLHEIAESSPNAT  
QYFEMNSATINKLLTALNECTEWGQIFILDSLANYSPRDEKEAQSSISERVTPRLSHANA AAVVLSAV  
KVLMLKMEMMPTGGQLVQNLCKKLSPLVTLSSAEAEVQYVALRNINLIVQKRPDILKNEIKAFF  
VKYNDPIYVKLEKLDIMIRLASQQNIGQVLAELKEYATEVDVDFVRKSVRAIGRAIKVEQSAEKC  
VTTLLDLIQNKVNYVVQEAIVVLKDIFRRYPNKYESIISTLCENLDSLDEPEARASMIWIIGEYAERI  
DNADELLTTFLDGFSDENTQVQLQLLTAIVKLFLKRPTDTQELVQQVLSLATQSDSNPDLRDRGYI  
YWRLSTDPAAAKEVVLAEKPLISEETDLIEPSLLDELICYSTLASVYHRPPSSFVAGKTPARRAVLP  
RRTGSDTNENEEVSSISEETPTPTLSQVAGMPPISSQPATDTLIGDLLMDMGPA TPQPQSVFDAHR  
QQQAPSADLLAGDLSMLNTPVTPQQQPMGMGGGLNDLFSLQGALPGSGYCPPKQVWLAASKG  
KGLEIAGTFSRRQGQIFMDLTFTNRAMQQMGGLAIQFNKNSFGVAPAVPVPNTPLPPNQSAEVS  
LLNIAGPVQKMQPINNLQVAVKNNIDVFYFSCLI PHVLFVEAGKMDRKQFLDVWKEIPQVNEV  
QNTITTKGFNSDGIQNVLEANNMFTIAKRTVEGQDMLYLSLRFSGIDVLCELKIIPGNPVVQLSL  
KTKAMDVIPMVQEVIQLILQS\*

>TRINITY\_DN119684\_c0\_g1\_i1.p1 type:complete len:662 gc:universal  
TRINITY\_DN119684\_c0\_g1\_i1:2182-197(-)  
MKLEIILFTLLVALTVHCSEKKDDSKKDVGTIGIDLGTYSVGVFKNGRVEIIPNDQGNRITPSYV  
AFTEEGERLIGDAAKNQLTSNPENTVFDKRLIGREWGDKAVVHDMKFFPFKVVEKGKKPHVQ  
VNVKENEKKTFAAEEISAMVLVKMKEIAEAYLGKKVTHAVVTPPAYFNDAQRQATKDAGVIAGL  
NVMRIINEPTAAAIAYGLDKKEGEKNILVFDLGGGTDFVSLTIDNGVFEVVATNGDTHLGGEDF  
DQRVMDHFIKLYKKKKSKDIRKDNRAVQKLREVEKAKRALSTQHQA RIEVESLFDGEDFSETLT  
RAKFEELNSDLFKSTMKPVQKVIDDSGLKKKEIHEIVLVGGSTRIPKVQQLVKDFFGGKEPSRGINP  
DEAVAYGA AVQGGVLGGEEDTGEIVLLDVNPLTMGIETVGGVMTKLIGRNTVVPTKKSQIFSTAA

DNQQTVTIQVFEGERPMTKDNHLLGKFDLNGIPPAPRGVPQIEVTFEIDVNGILRVSAEDKGTGK  
KEKITITNDQNRLSPEDIERMVNDAEKFADEDKKVKEKVDKNEFESYAYSLKNQISEKDKLGK  
LSEEDKGVLEKAVDEAISWMDSHQDASVDELKEAKKKLEDVATPIVSKIYQQQGGAPPPPGGEG  
GEEKEDKEEL\*

>TRINITY\_DN794\_c0\_g1\_i2.p1 type:complete len:250 gc:universal TRINITY\_DN794\_c0\_g1\_i2:72-821(+)  
MGLTGCGAVTKWILVIFNSIFFILGIGVLGVGIWLKLEREDYEDISSYDFVTPSNIAIAIGVIVMVVSF  
VGCVGAATENSCFLLHFLLLFLIFVLQIIACVLAYVNRGKVEDGLESDFRKSIKEKYGEPEYEAVT  
KVIDKFQNEFKCCGFSSYKDWMSKYNKRTASIPKSCCIESQKESKLCGSPNPSGLLVYEKKGCYN  
EVLDFLKENLLVVGAFALAMAIVQVFGLIFAIYLYILVVRANKGTFA\*

>TRINITY\_DN598\_c1\_g1\_i2.p1 type:5prime\_partial len:742 gc:universal  
TRINITY\_DN598\_c1\_g1\_i2:2-2227(+)  
RWSGCSKSCGVGVKTSRECDNPRPSGGGRYCTGERTATEACKIQDCGVDGKFSHWSTWTACSK  
TCGGGAQKRARQCNSPPPSGDGKDCAGAREEFKGCNSDFCKGPTGVAKAQEIIERFLENFHKK  
YDPREPSGKFLKAIFAIQKAVAEFISVDPVSRGKTLEQRLKDLEKFLKVATEGGSIDFARTLLGKGIF  
TFMKKKIQEGLPIDDDIDKAAEGFLEKLRGDVGEKKMNEILSSQGDATLMFTIDTTGSMKDEINAA  
KAIKQIISATRDYEVYILSPFNDPRTGPVTHRSSSNRASFTVDIDRLRATGGGDCPELSFTGMLN  
ALNQGPQYGSPMFVFTDASAKDDASNIDSLKAAADLTATINFFTNLNGCKGAKSVESYKEIAS  
YTGGQVFLPKNEAELKKFTNYVKTSLQQDVTITSGGTLSKSYKRSLYSMQAHDFMVDDGIIMIS  
VAISVQKYASQVTILDPNRRVNPSTTSLSLVYQISHPPPGQWKINFPSSVGKYGYTVQAVSSSAIA  
FAHNFIYQQSVRKNSPPIPLANPLKGVKNMMVVRLGGTKNFDLNSIKIDLVDTSNVLQKGIGTD  
RLDSDEV RHATIDPPSGPFPKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAKLGKGPY  
AAQMLFINRGAHENFYFYAKANYGSIPNYKQTKRVTSQGFTFTYKAPRQYNLKGKSDRITVTVK  
RQSTGEIVSHHTSILLV\*

>TRINITY\_DN22219\_c0\_g1\_i1.p1 type:5prime\_partial len:427 gc:universal  
TRINITY\_DN22219\_c0\_g1\_i1:2-1282(+)  
YISKDYCKGKKNPSVCTLHHNEFSQIKHFQHQTPVTSENAPGIILAHGQAGDALTGAGNVWFSR  
NGGYNWTRIAKGSHHYAIGDNGNLIVLPKFNSTGKTLIYSLNQGRNWYHNEFDLFDENITIHG  
LAAEPHSKERSFSLWGHRLVKGKKLWHTFTVNFRKLITKECQEEDMKTWYPHINNGKDCFLGE  
RTIYKVP HKDSL CYLGRSYKPEKKVEKCSCTKDDLECDYGYERNRAGNCHRNEDIPLIEICKNGEE  
MQEAFSKGYRRVPGDNCIAQSSNDEVVRFIDEHKKCVPNKEDIFGDFNRERA EVIREEEEEKEKK  
MDETQKATKTKSKKKKGNWPVILSIILMCIIGGAYWYWRKNYRPNNVHHVMYNASSFDNVG  
MDNNDGDVDADDFDPRPKSLREYHDETDAEDEQLLLP\*

>TRINITY\_DN244\_c0\_g1\_i1.p1 type:complete len:3019 gc:universal  
TRINITY\_DN244\_c0\_g1\_i1:9748-692(-)  
MDARGQRLLYCLLIFLSLATLLVSQQVEKCKRPVDLVFALDTSGSVKDSGFRLIQKFAKDILKTFDI  
GVADSHVGVLTFSEQAEPQIKLTETFDKAELMQMIDSLVYQGYRTATDDALRVAKTDFSTAGGA  
RQGVPHVLVLLNDGKCTVCIEPVKEAAQKLKDMGVEIFTIGVTENIKKQELIDIASQPTAYHFFEL  
DDFDQLVDVVGDIQTRSCVKKGKCIPIPSPTEQCSGNEINETS DENCEGELKCCSDGCSRICKYP  
LLNCFTPIDIAFALDSSSSIQPETFQEMKKFSNDIVDSFAVSQKKTRFAALVYSDRAEIGFNFVRFDD  
ASSIKKAIQNLPKLDSKERIDYALELAKSDIFSLQGVTRRRPMVLFVFDGTVSSGMKDL SLVVEP  
LKNYGVKIVSMGVGPETNYYQMRKISSNNSDVFRATNFKELLPEIYNI AKRACTEKPGRCDASLN  
PLPKEACKNVKILNQCE NDFDCFGDAKCCRKGCCNNVCVIRGPVCPRKLDIALAVHQNMDSEF  
AATKFYLQSVVDQFNVGPSQTHFSLLSFGQEPKVFDFNSDQSSNEIVRRKIDNFQYQYIGIRISDV  
LALSCDAVFAAGGTRDDVPKMLVIVTSRTSPSSPSKLKEKLQTLNRGVNLMIGVGDVDTSLLQ  
AITSDDPLVEDRVLLSKRFDGIFQYTKDISDYACGMALPPPDNIKGDAKGECKGAPKSCYKGPKG  
SRGRPGTGLQQGESDGLGVGPKGIQGRRGDKGPDGQMGSKGKRGPDGLIGLPGFPGYNGIPGV  
PGIEGRRGRDGDGCLPGSSGEAGQAGLDGLSGPPGRAGPVGEKGEKGLPAPENPNIRIEPGDRGD  
TGSVGLPGFKGIKGEEGFKGPSGDSGVDGIKGV DGEAGEMGDIGTYIYQKGPEGDRGARGPPGD  
GDTQGATAGLVQGEKGEKGMERGEAGDGSIFPGIKGRRGDQGPKEEGSTGPAGPTGQRGPEG  
EEGPKGIKGEIGDRGKDGTGPGQPGQEGDLGEKGF DGLKGQDGDDAEGELGDSGGKGLKGENGL  
AGSPGSIGTPGPPGSKGEPGDIQIGLSGDPGAIGPRGPRGDNGISGQPGMRGDSGPKGAKGNQGP

RGDRGRNANMLAGKDGMTGPPGPKGFTGPVGDPGFPGPPGPPSVVECEVEGACPKGVPGAMGQ  
 IGKTGEPGPPGPPGPRGSKGVAGGPCPICPDGIQGDSDIGQPGMPGKEGSRGRKGNIGDAGSKG  
 LQGRNGDDGDQGPVGKKGFIGDIGPVGENGVDALGDSVAPDGEKGSTGDTGQIGSRGPVGNNDG  
 PKGFKGTIGERGRRLQGEKGMGLTGETGEDGSRGLEGAAGDLGDGLRGAAGDKGNIGQEGN  
 QGVVGDVGLQGPKEQGAPPTDELKNVKATKGSKEIGSTGDAGEIGDIGPAGPRGPKGFDGA  
 AGPKGPSGVKGRGNKGRAGDGEFGQFPGPRGPKRGPPGDPGKPGKRGFSEPGDAGDRGDP  
 GKSGKKGADAPPIGCFKFNEPTDIGFILDSSSSVDDDNFLRQLQFVKNIVRQYPVGPDPQTQVGIIK  
 YGEKAVTGINFYDYVTEEGLFNAIDLLEHTKESESRLDLALKLARDELFTESVGARGFDDAKKALVIL  
 GDGFISGGGTPSKTLMNNAMQYAEDLRGAGVSIFALAVGPEKNKALFHEFVSEKEYYLDIESYSQL  
 DNELGALQLSLQTGCISVGVPRDGLPGYTGPKGQKGGDGPKEGSPQGPRGIKGIKGVRTIGIG  
 VKGLPGDPGLQGPQGEKGRDGEDGSADPGPKGRPGDKGSRGDQIKGASGEDGDIGIPPPGFDG  
 RKLCDNVLAVDLLFVLDTSSTGVGVDFNFKMLKFIESIINVFDVDNQLTRVSVMTYDSDARLVIRFS  
 DYNDPDKLDAADNIPYANGDETRIDKALLASSNAFDTSNAGAREGVNKAVILMTDGQQSFAVD  
 QVALKDAVKPLVDANVLMYAIGIGSEISPVDLKTIAAERVLIADDFDGLSLKIEDQIVLLGRVGCQG  
 PPGKDGKPGANGEDGFPGLIGAKGQKGDGEAGTEGLKGNKGSQGEAFPLNRKGEKGDPSGS  
 AGPLGLPGCEIKNQNEVIDLGFAIDASGLYEEGFNREKEFIKTIVDRVGRVSEQGIRIGVIVYSDTAS  
 IEIRFDDHFNNDLKNNDIDNLPFFAKNTRMDLGLLEEAKKMFGEQFGGRGSSKKVLILLADGQQTY  
 VPGVTEPSEVAKELAAAGVDIFAIGIGQEIDRTELESISKPEHIFLASDISKLIDELTPEVTSALECEG  
 GPRGRPRAGTDGPPGSKGLLGPIDKGFPGEPSAGFGPKGDDGENGTAAGTIGDRGEKGRGPR  
 AGVPGKRGAVGPKGFPNGEKGDRGDEGFIGFEGARGLEGPKGQRGDSSDNGVAGVKGSTGD  
 NGFKGPKGDPGKLPPGNRIEDFKGETGGSGLEGDTGPKGKPGRALFEPGPQGLTGPKGEKGDQG  
 FFGMSGPIGNKGFQGLQGFRRGDDGAAGPVGEDGFGPMKGLPSSSGDQGDKGKNGRKGESGEV  
 GQPGRVGEDGDQGEKGYAGFVGMPGKKGDQGEVQGPQQIRNEILDNIRPGPKGYPGSTGPA  
 GDEGEDGEVGEGETVGAQGMNGDFGERGSQGPKEQGDQGLQGMIGVIGDKGVKGRVGTG  
 GNPPTVGLRGLTGAPGEVIFGSEKGNKGDLGIIGLRGRAGQKKGAGAIGPRGRGRNGAKGERG  
 PPGFPLSGIEGDSGNEGDKGPRGDPGSGVGNRGKGVPGESGIAEGNYIVHSQTHIIPDCPRDFKK  
 LWHGYSMLYVVGNGHSHSQDLGDAGSCSQKFSSKIFLCEIHKVCKHASRNDFTYWLADVDHP  
 MMPVSNAAVEPFISRCVCEAHSSHITVHSQDTYAPECPPNWSSLWSGYSFLMVAGAGKTGAGQ  
 SLSSSGSCLESFRPKPFVECCQARGTCHFFSDKHSFWLVLTIDPNKQFEVMKPQTLIKDKNHDLTSR  
 VSRRCVRCIRKTGTKNNTVEPNIAIRRSIASWIL\*

>TRINITY\_DN1614\_c0\_g1\_i1.p1 type:complete len:218 gc:universal TRINITY\_DN1614\_c0\_g1\_i1:56-709(+)

MHKTKICIWLVVRYRSNPFGRYNRRPDLKSAGAKMTKYSTEPENPSKSKARGSYLRVHFKNTHE  
 TAQAIAKMHIRKAYRYLKDVDMKQIIPFRRFNGGVGRKAQAKAHGCSQGRWPCKSAQFLLQL  
 LKNAESNADLKGLDVSVIDHIQVNRAPYMRRRTYRAHGRINPYMSSPCHIEMILAEKEQVVR  
 AEEVEVKVSKKKLAREKLSRE\*

>TRINITY\_DN74124\_c0\_g1\_i1.p1 type:complete len:183 gc:universal  
 TRINITY\_DN74124\_c0\_g1\_i1:100-648(+)

MLLYTFACLIVSTLAELETTAKLLASKTVENNVLVENIDITIKYTIFNVGTSSASNVKLVDATFPTT  
 DFETVRGQLSVEWQNIPVNGNVTHIVVVKPLKTGYFNFTSAYLSYVPRDGEIQNAYTSFPGEGGIM  
 SELDYARKHSPHLLLEWSVFALMCMPSLIIPFALWYRSHSKYTMKTKKN\*

>TRINITY\_DN1243\_c0\_g1\_i1.p1 type:complete len:929 gc:universal  
 TRINITY\_DN1243\_c0\_g1\_i1:2903-117(-)

MATDKEVKQTPSDDTKNKEKDEKDKKADKKKKEKEEAEMTEEDKQLLEELNMLVERLKETDTT  
 LYKPALESLSQIRASTSSMTSVPKPLKFLRAHFDTLKDLSKWPEDDNKHFLADIISVLGMTRPEE  
 RDCLKYRFLGSKESLESWGHEYVRHLAEIRLEYTEKSGGEVDHLIKLANDIIPYDMKHNAEIDAC  
 DLAMEIERLDLLEKCVDKSTFQRVCLYLASCVKYVPEPEDSELLKCAMNIFLKYDCYPEALNLAIQ  
 LNDLDKIKEIFKDCTGSEDKKLIQKQLAYVLGRLQIFLEIEDEIEESDELVEIISNSHLNNSFLALGRE  
 LDIMEPKIPEDIYKSHLDNRPFSSSSVSMDARQNLASSFVNGFVNATFGKDKLLTEDGNKWLYK  
 NKEHGMSTAASLGLLLLDVDVGGLTQIDKYLSNEDFIKAGALLACGIVNAGVRNECDPALAL  
 LSDYVEHNTNAMQIGSILGLLAYAGSNREDVISLILPVLADSKSSMEVVGVASFACGLIAIATCNS  
 EVTSVILQTMERSAIELKEHHAKYLALGLGLTFLGKQEAVDATVETLKVVQGPLSHWSSVMVDI

CAYAGTGNVLKIQNLLHICSEHYEDKETESDKDKKEKKDDKKKDDKTSKDEKKEKEKSSESNE  
TENEEKDGS HQGIAVVGIAAIAMGEDIGIEMALRAFNLHLLQYGEPAIRRAVPLALALLSASNPRLT  
VIDILSKFSHDHDAEVAHNSIFAMGVVGAGSNNARLANMLRQLALYHHKDANNLFIVRLAQGL  
VHLGKGTTLTVSPYQYDRTYMSPVAVGGLLGTLTAFDVKQTLGKSHYLLYSLVAAMQPRMLVTL  
DTNLKPLPCNVRVGQAVDVVGQAGKPKSITGFQTHHTPVLLAHGERAELATDEFIAMAPVLEGF  
VICKKNPNYDPGE\*

>TRINITY\_DN11097\_c0\_g1\_i1.p1 type:complete len:730 gc:universal

TRINITY\_DN11097\_c0\_g1\_i1:2348-159(-)

MVRPQGVQTQEHSSKPSTSERNSFVFSALSKSGCFETLPSIYDSIIIQRSHWLHTEGFSMRTSSTGSQQ  
TSRRAFYEELQAFSSTIPFYESLSWALLSLSGCLNPVSTPNIREEILADLEGRSVDESREVLVLFATLFD  
VYKSYQNSIVVEISAILPGGILRCISLGQTEGFNSYNTVGLINYQPIVYPVGRNVLGRLFNVTGSCID  
LYNEVTMDMPFVRSVSTEETHTPQKTTLIKTGANADTSSSDSCVKANALFKECTSHINVKETS LD  
HLISLYCCGYMGMTSAPIAPISRLPIEAESSRAPEHMOVQLQE CMGTYS GSADPSTPNQIGSKKQPF  
WLSKEALES GVSPIHSTPLPISKLRVDLSLFETGIKVVDLLTPYKKGKGIGLFGGAGVGKTVVIMEFI  
RNLAIEHKGISIFCGVGERTREGNDLYSEMAEAGIICKDYTTMKPSDPSSNGGPTGSIDQHSVTFTR  
SSVTLVYGQMNESPGCRMVHAHAGLTVAEFFRDVFKQDVLVFDNVFRFLQAGSELSTLLGRMPS  
AVGYQPTLATMGAFQERIIAALWGSITSIQAIYVPADDLTDPAPVTIFTHLDAVSSLSRELA AKGIY  
PAVDPFNSTSRMLDPQCLTSEHFRVALEVQQILQRYRELQDVIAILGIEELSEEDLKTVERARKIERF  
LSQPFSAEVFTKIKGIFVPLEATIRSFAMVLSGALDDVPEGNFYMKGGGLDTLKL\*

>TRINITY\_DN1534\_c2\_g1\_i1.p1 type:complete len:547 gc:universal

TRINITY\_DN1534\_c2\_g1\_i1:1914-274(-)

MHRVNSSFVKVAERTSKLCGNLGIKNSKIPSSLIARSSSTD TTDGVGESEPGFLEMVSIFTENAHSIT  
LDKLLSAKPAPGKRAEDTGVREKRIKGILDIKPTNTALAVNFPLRRDNGDYELITGYRAQHS HHR  
LPCKGGIRYAPDVNLDEVKALAMLMTFKCAVVDVPFGGAKGGICIKSDYSENEVEKITRRFTVE  
LARKGFIGPGIDVPAPDMGTGEKEMSWMADTYAMTLGYGDMNSSGCVTGKPI SQGGI HGRMSA  
TGRGVYHGIDNFANNEEYMNLI GLKPGKGT FIVQGF GNVGLHSCRYLHRYGARCIGVIEHDG  
SIMNPNGIDPKDLEDYKLDNGTIVGFP GATDTTEDLMVAECDILVPAANELQITAKNAPHIKAKII  
AEGANGPTTPQADKILQQRKRLVIPDLYINAGGVTVSYFEWLKNLNHVS YGRLTWKYEES SNYNL  
LSSVQESLEKHFGGNIPINPSSTFLQSIQGASEKDIVHSGLAYTMERSANRIMKTAKDYDLGLDVRA  
AAYVVALEKIFNTYSEAGLTFT\*

>TRINITY\_DN27859\_c0\_g1\_i1.p1 type:complete len:361 gc:universal

TRINITY\_DN27859\_c0\_g1\_i1:77-1159(+)

MKLELFYHILFFGVILTNVNSKKNRKKDNVEFN GRDNFLYSKRQH KFKALPQRSVKAVVNSNDY  
NNFKNSYLSNILRVRVPGTVGHHEVKRFLISKLQEYKWNVSLDEFEEKTPLGKTKFTNIMATLNP  
NADRRALVAHYDSKLVTPKDGRYFLAATDSAVPCAMLLDFAKILSEKYEKNKEALKDVSPMIILL  
DGEEAFVEWTKTDSIYGSRLADLLSKTKHHNPKLSEFSTTALDSLDAFVLFDLIGTSTTQFIDIYPA  
TSPLYQRLQQIEMSLRKS NLIASPRQYFKGQPYSPVYIEDDHVPFLEKGPILHLISVPFPKEWHTLD  
DNEKCLDETTISNLLIFKEFLLEYFHF\*

>TRINITY\_DN147947\_c0\_g1\_i1.p1 type:internal len:168 gc:universal

TRINITY\_DN147947\_c0\_g1\_i1:501-1(-)

VGKSALTIQFIQSHFVPDYDPTIEDSYRKQCVIDDRVAHLDILD TAGQE EFSAMREQYMRTGEGFL  
LVFSVTDRSSFDEIHKFHTQILRVKDKDEFPMILVGNKSDLENERTVSTAE AQELGRKLSVPYLESS  
AKQRINVDAAFHDLVRAIRRSNNVEALPIKNKKK

>TRINITY\_DN5643\_c0\_g1\_i1.p1 type:complete len:932 gc:universal

TRINITY\_DN5643\_c0\_g1\_i1:2894-99(-)

MAFNQWRKFNF FERELLQSPLSDHIKNLQITACTSGRGRLLFGDS DGDHLILNRDLQFKTIKIYMK  
SVTHLFQLKEHDILVTVGLEKSGVQHFIKVWKIDKVDGDITL KCLRVSIVPTKSDAIAVSCIAVHEN  
LSHIAVG FVNGTVVTMKG DITKMRNVEHRIHEDRYPVTGLGYKQVGENTFLFVTTTETVMSFNIS  
AKNYMTLLDHFGSNNHCSAVCDLSEENHFIIGRDDALYLYLPDVRTKCLPFEGTKEMVCWFQSY  
LVVVSKGGKQLPRTAGTGGVQS QLSLSVYDIENKFIAFSAPFPTIAGILGEWGS LHIITSEGKIFQLT  
EKDTNTKLQTLFRKNMYETAISLAKSQNYSDGLIPFRTYGDHLYAKGDHDGAIQQYIQTIGHLEP  
SYVIRKFLDAQRIPNL TNYLQALHEKGAANTDHTLLNLCYTKSKDINKLNDFITSDKDFDVETAI

KVCRRAGYFDHALSLAEKYEQHESYIKVQLQDLKNYKKALNYMKLLPFEEAENNLKLYGKTLIN  
HATEETTELLKQLCTDYKPASGKKEEVPNVTTGIVSVGDVIMSPIPARKIKRAYPDDFIHIFVHQKP  
KLKEFLEHVMKMRNDCSNVAHNTLLELYLHDASAAFSEKNIEKGSDEESKAYNLLTDIEARYDLD  
HAMVLTQMHNFRRGMLYLYEKSYSYRQILRCHMEHNEYDEIIEDCQKYGAQDPGLWSQALSIFYA  
KNEKDCKKHIIIVVLNHDKYNLLSPLMVIETLAHNSNVTLGVVKDYIIRRLQHENEQIAKDERMI  
RKYREDTEKMRVQMEELKTSAKIFQNSKCMICSRPLELPAVHFLCGDSFHQSCFESYADGENECPV  
CAPENRKFMIDILRAQEHNKDLHEQFNHQLERSTDGFSVVADYFGRGCFKKVSVFTDTKTQQPIL  
PSEAETERRTLNF\*

>TRINITY\_DN2028\_c0\_g1\_i1.p1 type:complete len:274 gc:universal  
TRINITY\_DN2028\_c0\_g1\_i1:1608-787(-)

MGQSDGDDLTFGQKISREWRDFREFLYNSETGKVMGRSGTSWAKIGGFYLLFYGFLAGFFTALLFI  
FYTTIDKPGIGGPKLIQYIENKPGLTRLDLDRSSKLQSYSASNNDRISSYKTVIDEFLDGYNTSDHSGAL  
CGAAGTPKSDKPCIFDITLLGECAPSKNTTYGLREKKPCIFIKINKVFGWTPADDGTGYLTLSTG  
HATVMPQGFLTAFPYNGHKVYQSPIVAVKIDATKGKKNVDCTLKGKNIEVSNNFNPSRAFGKIR  
IEGISATD\*

>TRINITY\_DN37295\_c0\_g1\_i1.p1 type:5prime\_partial len:195 gc:universal  
TRINITY\_DN37295\_c0\_g1\_i1:857-273(-)

LHSLDLIYRDLKPENLLIDEKGYLKVTDFGFGKRVKGRTWTLCGTPEYLAPEIILSKGYNKAVDW  
WALGVLIYEMAAAGYPPFFADQPIQIYEKIVSGKMRCPSHFSQDLKDVLSLLQVDLTKRFGNLKN  
GVADIKGHRWFSSTDWIAIYQRKIDAPFIPRCKGPGDPSNFDDYEEEEALRISSTEKCAKEFADF\*

>TRINITY\_DN1378\_c0\_g1\_i1.p1 type:complete len:443 gc:universal  
TRINITY\_DN1378\_c0\_g1\_i1:2151-823(-)

MLRFAVLVVVASIGVSALYDSSDDVVELTQSNFNNHVIGSDDIWLVEFYAPWCGHCRNLAPAWK  
QAATALKGIVKVGAVDMDQHQSVDGGPYNVRGFPTIKVFGANKMSPSDYNGARSAQAIVDEAM  
KVVQVRVSDRLGGRSSGGGRRSGGSSGGSGNKDDVIELTDSNFEKEVLNTKDMVLVEFFAPWC  
GHCQRLAPEWAKAATELKGKVKLAALDATVHGQTASRFQVQGYPTIKFFPAGDKDFSSAQDYQ  
GGRTASDIVAWALAKHAENVDPPEILEITSNSVLTECNCEKPLCVISFLPDILDSMAAGRNGYISTL  
KELGDKYKSKMWGWLWTAPGLHSNLEQALGVGGFGYPAMAVVNIRKKVYVLLRGSFGIDGIDE  
LLKSIAGRGRTEKLTQGLPTLKDVEAWDGKDGQLPEEEDIDLSDVELDDLDDDEPKQEL\*

>TRINITY\_DN6783\_c0\_g1\_i1.p1 type:complete len:314 gc:universal  
TRINITY\_DN6783\_c0\_g1\_i1:1018-77(-)

MVREDKSTWKANYFTKLEGLLDEFPRCFLVSADNVGSKQMQQIRVALRGKAEVLMGKNTMMR  
KAMRGQMOKHPSLEKLLPHIVGNVGFVFTNEDLTEIRDILLSNKKEAPARAGAIPLDVFPAGN  
TGQGPEKTSFFQALAIPTKITKGITIEILGDVHLIKKDEKVGASESALLNMLNIRPFHYGLVCRTVYD  
NGSVFNPSILDIKEEDLITKCEGVANVAASVAVGYPTAASVPHSMINGFKNIAAVCLEADIDIPQI  
ATIKEYLADPSKFAAAVAPAAGDSGAAAEVKKEEKEEESDDDDMGFGLFD\*

>TRINITY\_DN61707\_c0\_g1\_i1.p1 type:3prime\_partial len:417 gc:universal  
TRINITY\_DN61707\_c0\_g1\_i1:1250-3(-)

MNVIAAIIIRAILALVFQHEAEGKVYYIRTDADSGRCTYQGYIPGGKEINISPIKAPTAQLETNVLA  
NIAGFGGKAGTGVMHLSKFTETIGKIAPKLGPALGVFGVAFGVVADDFVKPSPADILAAATNEAIGKL  
TEEVNDRFTDMKSYVDLELMNVVKERINVEYKHMFTMFSNCIKDVSLEVLQEDANQYITSGS  
GKFMLFNMDYSDSSPTANEIKKMELTFLPFREYVSLNLMQLQVLTDTYKDLQNSVKDGPLIYR  
KHLSELSEEAAKLIVYARNMFKWIDKTYDEFQRCKETKTYWSRCTTEGSWSGNTACYATAQCQ  
FDITIPDNKKCKTKCTVRVDGKKIYDRYDFKNKNYGYEEAGQLFAGGKLDDKASSYLNQQAADV  
KNYWQAEVLSSIPVWEEMKKRADD

>TRINITY\_DN164351\_c0\_g1\_i1.p1 type:complete len:212 gc:universal  
TRINITY\_DN164351\_c0\_g1\_i1:694-59(-)

MEDWGEPEGQEAVGPTSIEVQDIKLFKWNVPDEVQVSDISLTDYIAVKEKHAVYLPHTAARYAVK  
RFRKAQCPIVERLTNSLMMHGRNNGKKLMTVRIVRHAFEIHLHTGGENPLQVLCDAIINSGPRE  
DSTRIGRAGTVRRQAVDVAPLRRVNQAIWLLCTGAREASFRNIKSIAECLADELINASKGSSNSYAI  
KKKDELERVAKSNR\*

>TRINITY\_DN773\_c0\_g1\_i1.p1 type:complete len:440 gc:universal TRINITY\_DN773\_c0\_g1\_i1:1608-289(-)

MVSPGPQDNKPPHKVADMSLADLGRRIEMSENEMPGLMSMRKQYGEKKPLKGARVAGCLH  
MTIQTAVLIETLTTELGAEVQWSSCNIFSTQDHAAAAIAKTGVPVYAWKGETDEEYLWCIEQTLIFP  
GGEPLNMILDDGGDLTNLVHEKYPELMKDIRGVSEETTTGVHNLYKMFKEGRLKCPAINVNDVS  
TKSKFDNLYGCRESLVDGIKRATDVMIAKGICVVAGYGDVGKGCALRAFGARVMITEIDPINA  
LQAAMAGYEVTMDEACSKARMFVTSTGCSGIIEPHFQQMPEDAIVCNIGHFDCEIDAKWLN  
DNCERETVKPQVDRLTPNGRHIILAEGRVLNLGCAHGHPSFVMSNSFTNQVLAQIELWQNHK  
NYEIGVVMPLPKRLDEEVARLHLDHLSVKLTKLSKSQADYLNLPADGPFKPDHYRY\*

>TRINITY\_DN58867\_c0\_g1\_i2.p1 type:complete len:354 gc:universal  
TRINITY\_DN58867\_c0\_g1\_i2:80-1141(+)

MVSLYGDMMFNIENGYLEGLVRGFRSGILNRTDYLNLIQCETLEDLKLHLQSTDYGNFLSNEAGP  
LTVSVIDEKLREKLVEFDHLRIQAVEPLSQFMDYITYSYMIDNIILLITGTLHQRSISELIPKCHPLGR  
FPEMASINIASTPAELYNALVDTPLAPFFVDCISEQDLDEMNIIEIRNSLYKSYLESFSRFCDSLGGT  
NSEVMKTIQFEADRRAIMITINSFGTELNKDDRSKLYPKCGKLYPDGLARLARAEDYDQVRQVA  
DCYAEYQPLFEGTGTNPBGDKTLEDKFFEYEVKLVNSFMQQFHFVGYAYVKLKEQECRNIVWIA  
ECISQRNKSIDNYINIFE\*

>TRINITY\_DN598\_c1\_g1\_i1.p1 type:5prime\_partial len:745 gc:universal  
TRINITY\_DN598\_c1\_g1\_i1:2-2236(+)

RWSGCSKSCGVGVKTSRECDNPRPSGGGRYCTGERTATEACKIQDCGVDGKFSHWSTWTACSK  
TCGGGAQKRARQCNSPPPSGDGKDCAGAREEFKGCNSDFCKGPTGVAKAQEIIFLENFHKK  
YDPREPSGKFLKAIFAIQKAVAEFISVDPYVRSKTLEQRLKDLENFLKVATEGGSIDFARTLLGKGV  
FTFMKQKIKDGLPIDDIDKAAEGFLEKLRGDLGDKMDEILSSQGDATLMFTIDTTGSMKQEINA  
AKAIAKQIISATRDYEVYILSPFSDPGTGPVTHRSASERASFVSDIDRLRARGGGDCPELSFGGML  
NALNNDPQYGSPMFVFTDATAKDDTDANVASLKAADATDATINFFTNLAGCNGRRDRKRGIE  
SYKEIASYTGQVFPLKNEAELIKFTSYVKTSLQQDTVITSGGTLSKSKRSLSYMQARHFMVDDGI  
SKLVISVGVQQLASQVALVDPNGKKVYPSTTLALSILYQVSHPSPGQWKLDFTSVGKYSYNVQAV  
SSSAIAFAHNFIYQQSVRKNSPPIPLANPLKGVKNMMVRLGGTKNFDLNSIKIDLVDTSGNVLQ  
KGIGTDRLDSEVRHATIDPPSGPFKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAK  
LGKGPYAAQMLFINRGAHENFYFAYAKANYGSIPNYKQTKRVTSQGFVTFTYKAPRQYNLKGKSD  
RITVTVKRQSTGEIVSHHTSILLVV\*

>TRINITY\_DN6008\_c0\_g1\_i1.p1 type:complete len:426 gc:universal  
TRINITY\_DN6008\_c0\_g1\_i1:1620-343(-)

MSLEDTQLRKRKGVSEKHYTELDGFTNLQENEEKSSPLMSITKVILKMMIATFVLLGIYIAITPSPIDP  
GVLELDTPLPRFEGVLAPNDKQARRIGEGKLLAPESLAMDKENIYSGLDGRIVKITKDEEIIIN  
ITRTGEPHPECGRKRLGSKCGRPLGIHFQDKQKNLIICDAFFGLLKLNIATKKLSTLVGANVINEKP  
LKFTNHISVSSKNVVYFSDSSSRWDLENVALLVLEGNGDGRMSYDMESGKLQILLEGIFYFANGVS  
LSPDEDFVLVCEMSRNRIIRYLLKGENKGNYDIFADNLPGSPDNIRRSPPNGGYWLALPSIRKAPFSP  
PDLIAPYPSIRNVIAKLLSPQTLEYLLGSMRYGMIKLDENGKVVESYHDKDGSKMYTISEVYEDSV  
NKVLYLGSYKNPFMGLQLSDSS\*

>TRINITY\_DN1761\_c0\_g1\_i1.p1 type:5prime\_partial len:251 gc:universal  
TRINITY\_DN1761\_c0\_g1\_i1:843-91(-)

IRWHKHLVSVCKMRTLLLSAILCFTSFQLSYQLAVGAGVAAGVMGAVLNPSNWITALDAAGRI  
KEMIKVTKDSRIAIREKNEGFEFLTMKANAQTSRGIKKHLLKILRKKLIPFASRSPDMKLMVQTL  
VEFIEDDVEEHQEQQFGLMSQGAGGSTQAMFVYYKIREDGKYNFKRMFTFYGSFRVAADLVITRSS  
RKGFSSSESKDLISYLPRRGMTAKHIKNLLTIIMPNLTKIMNEFVPQDDKPFTFE\*

>TRINITY\_DN26425\_c0\_g1\_i1.p1 type:internal len:414 gc:universal TRINITY\_DN26425\_c0\_g1\_i1:3-1241(+)

LSKSVKEDHNRFSACDFNANDVVISQSEIIDMWKDVKNKEISQEELIETLKKRSKSKDNCGSPQST  
PGASRRNLAKVDSLEGSKKIKDERSSSLRKAASATFYTPGKEDIKQDGINEELNISDDNKSVESELS  
PSPKTSPEKSGFFRGIRNSLRKKGRLQDESPTREPPVNLLKKDSSKLSNKSLSSESRSNSLSGSL  
SEEKEDGHDIDSIKYETSDNEETFSEVINKLTKKPAPPPPPRDRSITKELNDKTIELGKPIIPPRKHK

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>TRINITY\_DN3052\_c0\_g1\_i1.p1 type:complete len:362 gc:universal TRINITY\_DN3052\_c0\_g1\_i1:45-1130(+)

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>TRINITY\_DN5397\_c0\_g1\_i1.p1 type:internal len:161 gc:universal TRINITY\_DN5397\_c0\_g1\_i1:2-481(+)

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>TRINITY\_DN5153\_c0\_g1\_i1.p1 type:complete len:862 gc:universal TRINITY\_DN5153\_c0\_g1\_i1:61-2646(+)

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#### Band 9

>TRINITY\_DN982\_c0\_g1\_i3.p1 type:complete len:9852 gc:universal  
TRINITY\_DN982\_c0\_g1\_i3:29697-142(-)

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>TRINITY\_DN982\_c0\_g1\_i1.p1 type:5prime\_partial len:6412 gc:universal  
TRINITY\_DN982\_c0\_g1\_i1:19377-142(-)

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>TRINITY\_DN15274\_c0\_g1\_i1.p1 type:complete len:1822 gc:universal  
TRINITY\_DN15274\_c0\_g1\_i1:87-5552(+)

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>TRINITY\_DN332\_c0\_g1\_i1.p1 type:complete len:246 gc:universal TRINITY\_DN332\_c0\_g1\_i1:940-203(-)

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>TRINITY\_DN602\_c0\_g1\_i3.p1 type:complete len:851 gc:universal TRINITY\_DN602\_c0\_g1\_i3:3046-494(-)

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>TRINITY\_DN761\_c0\_g1\_i1.p1 type:complete len:830 gc:universal TRINITY\_DN761\_c0\_g1\_i1:129-2618(+)

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>TRINITY\_DN164271\_c0\_g1\_i1.p1 type:complete len:163 gc:universal  
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>TRINITY\_DN22492\_c0\_g1\_i1.p1 type:complete len:1026 gc:universal  
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>TRINITY\_DN4595\_c0\_g1\_i4.p1 type:5prime\_partial len:1639 gc:universal  
TRINITY\_DN4595\_c0\_g1\_i4:5857-941(-)

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>TRINITY\_DN477\_c0\_g1\_i7.p1 type:3prime\_partial len:1130 gc:universal  
TRINITY\_DN477\_c0\_g1\_i7:3387-1(-)

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>TRINITY\_DN1386\_c0\_g1\_i1.p1 type:complete len:596 gc:universal  
 TRINITY\_DN1386\_c0\_g1\_i1:2419-632(-)

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>TRINITY\_DN941\_c0\_g1\_i9.p1 type:complete len:3186 gc:universal TRINITY\_DN941\_c0\_g1\_i9:86-  
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>TRINITY\_DN1172\_c0\_g2\_i2.p1 type:internal len:264 gc:universal TRINITY\_DN1172\_c0\_g2\_i2:790-2(-)

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>TRINITY\_DN3190\_c1\_g1\_i1.p1 type:complete len:315 gc:universal TRINITY\_DN3190\_c1\_g1\_i1:68-1012(+)

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>TRINITY\_DN36\_c0\_g1\_i16.p1 type:complete len:224 gc:universal TRINITY\_DN36\_c0\_g1\_i16:829-158(-)

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>TRINITY\_DN1369\_c0\_g1\_i1.p1 type:3prime\_partial len:1577 gc:universal TRINITY\_DN1369\_c0\_g1\_i1:93-4820(+)

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>TRINITY\_DN2636\_c0\_g1\_i1.p1 type:complete len:314 gc:universal TRINITY\_DN2636\_c0\_g1\_i1:986-45(-)

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>TRINITY\_DN817\_c0\_g1\_i10.p1 type:internal len:186 gc:universal TRINITY\_DN817\_c0\_g1\_i10:556-2(-)

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>TRINITY\_DN123121\_c0\_g1\_i1.p1 type:internal len:127 gc:universal  
TRINITY\_DN123121\_c0\_g1\_i1:3-380(+)

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 104(-)  
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 >TRINITY\_DN79126\_c0\_g1\_i1.p1 type:complete len:115 gc:universal  
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>TRINITY\_DN691\_c0\_g1\_i2.p1 type:complete len:1673 gc:universal  
TRINITY\_DN691\_c0\_g1\_i2:5503-485(-)

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>TRINITY\_DN6044\_c0\_g2\_i1.p1 type:5prime\_partial len:661 gc:universal  
TRINITY\_DN6044\_c0\_g2\_i1:2126-144(-)

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>TRINITY\_DN10563\_c0\_g1\_i1.p1 type:internal len:307 gc:universal TRINITY\_DN10563\_c0\_g1\_i1:1-  
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>TRINITY\_DN95387\_c0\_g1\_i1.p1 type:complete len:169 gc:universal  
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>TRINITY\_DN194146\_c0\_g1\_i1.p1 type:complete len:190 gc:universal  
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 ACLRTICSHIENMMKGVRFGFLYKMRSVYAHFPINIIVNDGGKVVEVRNYLGENYVRVVKMREG  
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>TRINITY\_DN6397\_c0\_g2\_i3.p1 type:internal len:130 gc:universal TRINITY\_DN6397\_c0\_g2\_i3:387-  
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>TRINITY\_DN16548\_c0\_g1\_i4.p1 type:internal len:171 gc:universal TRINITY\_DN16548\_c0\_g1\_i4:2-  
 511(+)  
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 KFPGLSPSQGIEFADVPNGLA AISKIPSYGWFQIIAYCLYCEASALNFGYFNEAFDQKAPGDYGW  
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>TRINITY\_DN571\_c0\_g1\_i2.p1 type:complete len:186 gc:universal TRINITY\_DN571\_c0\_g1\_i2:192-  
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 AMRDLYMKNQGQFVLVYSITAQSTFNDLMDLRDQILRVKDTEDVPMVLVGNKCDLEDERVVGK  
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>TRINITY\_DN902\_c1\_g1\_i1.p1 type:3prime\_partial len:153 gc:universal  
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>TRINITY\_DN2885\_c0\_g1\_i2.p1 type:complete len:114 gc:universal TRINITY\_DN2885\_c0\_g1\_i2:31-  
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>TRINITY\_DN141214\_c0\_g1\_i1.p1 type:internal len:179 gc:universal  
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>TRINITY\_DN6132\_c0\_g1\_i1.p1 type:complete len:161 gc:universal TRINITY\_DN6132\_c0\_g1\_i1:95-  
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>TRINITY\_DN2487\_c1\_g1\_i3.p1 type:internal len:317 gc:universal TRINITY\_DN2487\_c1\_g1\_i3:1-  
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 LGWGQMIGFAGAIEISNLSSPSKTPGDYAGYGAFGLPFGKGIDDP AKREKSL LAEINNGRLAMVA  
 IIGMWFQNGLTGSAGWDWALYTD SPLRAAAPDFSKEIGACPPLGFWDPLGFSVYKDPELAAAQF  
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AVITNKRKQILKDLVRVIQQESYTYRDPITEFLECLYVNFDFDGAQKKLLECETVLLNDFFLVACL  
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>TRINITY\_DN6294\_c0\_g3\_i2.p1 type:complete len:134 gc:universal  
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SMKKN\*

>TRINITY\_DN20278\_c0\_g1\_i1.p2 type:internal len:154 gc:universal  
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>TRINITY\_DN902\_c1\_g2\_i3.p1 type:internal len:178 gc:universal TRINITY\_DN902\_c1\_g2\_i3:2-532(+)  
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TLSYKLDGMSVTQGCNATSGGQASCLFMKNSLQSMTECSEAICNGDHCNKAVKDAENAERARV  
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>TRINITY\_DN5188\_c0\_g1\_i8.p1 type:complete len:520 gc:universal  
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SKDAMVTNCPATCGFCGMLDNMKA AKAEGKKEEKEENETKPMQEQPQKL RADDKKEEELA EK  
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>TRINITY\_DN250\_c0\_g1\_i6.p1 type:complete len:452 gc:universal TRINITY\_DN250\_c0\_g1\_i6:131-1486(+)  
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RIHFPLATYSPVISA EKAYHEQLTVSEITNACFEPANQMVKCDPRHGKYM ACCLLYRGDVVPKDV  
NAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAVCMLSNTTAVAEAWARLD  
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>TRINITY\_DN1566\_c0\_g1\_i1.p1 type:complete len:4626 gc:universal  
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>TRINITY\_DN7504\_c0\_g1\_i1.p1 type:complete len:414 gc:universal TRINITY\_DN7504\_c0\_g1\_i1:87-  
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>TRINITY\_DN163801\_c0\_g1\_i1.p1 type:complete len:298 gc:universal  
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>TRINITY\_DN18025\_c0\_g1\_i1.p1 type:5prime\_partial len:225 gc:universal  
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>TRINITY\_DN198705\_c0\_g1\_i1.p1 type:complete len:190 gc:universal  
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>TRINITY\_DN199\_c0\_g1\_i1.p1 type:complete len:229 gc:universal TRINITY\_DN199\_c0\_g1\_i1:207-  
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>TRINITY\_DN77\_c1\_g1\_i1.p1                    type:3prime\_partial                    len:1965                    gc:universal  
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GNIDKALDMVSEDIFTDFGFSRQGVPKVLVLTASNCDSCSKSVEEAVKPLKAQGVHVVAIPIGSN  
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>TRINITY\_DN1222\_c0\_g1\_i2.p1                    type:5prime\_partial                    len:213                    gc:universal  
TRINITY\_DN1222\_c0\_g1\_i2:2-640(+)

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AGAREVDIGDKRKCHIFVPVPLLRQFQKIQVRLVRELEKKFSGKHVVVVAQRKILPKPSRKTRNQK  
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>TRINITY\_DN3078\_c0\_g1\_i1.p1                    type:complete                    len:1109                    gc:universal  
TRINITY\_DN3078\_c0\_g1\_i1:3628-302(-)

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AKIEALHCLSENIVKDASSVTEKCRAQLKNELIEQSENIKLNPELYEACTKDIELFCRDVVPSSGGQL  
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 GCVQEVKKLIVEGIEDVHVDPHLQEQCARDIRTFQSVPSKSGNVVLCLIDVHKAKNLHLQPNC  
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>TRINITY\_DN95248\_c0\_g1\_i1.p1 type:complete len:124 gc:universal  
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>TRINITY\_DN4762\_c0\_g1\_i1.p1 type:3prime\_partial len:542 gc:universal  
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>TRINITY\_DN801\_c0\_g1\_i4.p1 type:5prime\_partial len:182 gc:universal  
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>TRINITY\_DN3271\_c0\_g1\_i1.p1 type:complete len:399 gc:universal  
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>TRINITY\_DN651\_c0\_g1\_i1.p1 type:complete len:408 gc:universal TRINITY\_DN651\_c0\_g1\_i1:122-  
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>TRINITY\_DN33065\_c0\_g2\_i1.p1 type:3prime\_partial len:804 gc:universal  
 TRINITY\_DN33065\_c0\_g2\_i1:2409-1(-)

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>TRINITY\_DN1319\_c0\_g1\_i2.p1 type:complete len:134 gc:universal TRINITY\_DN1319\_c0\_g1\_i2:86-487(+)

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 RSEENE\*

>TRINITY\_DN3180\_c0\_g1\_i1.p1 type:complete len:1889 gc:universal  
 TRINITY\_DN3180\_c0\_g1\_i1:5857-191(-)

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 ENAKLEIDGRAGGGIKLSCQMIYTNSEIATNPLTFEGAIEIGFAGELTFRFTMGGTIDSAFGYNRIAL  
 GNILLGATIDFKAASFTIEFGVTVLMGLLNEDPITIRGYFGLSPTNWIDSWVYVKASKLTIGSLGKAF  
 DFSVPDTFKDEGFPEGFQFSLSRKVVNIESLGEIPSGLYLVGKFKFKFFELSADCTIDPANKAFDVKL  
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 LRGT PFPFIDAAALDINAALDPNTKSFNGGTFKITVSSSEFIPTLARKIRDWLEGLKSEGTQAKQDG  
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 YDIDITLFTWHITDGGHVCLDTLIRDLIYSLFGYNQDSKKALGMKDQIEEAKSKTLSIKEAAEELEE  
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 HNNHMLENLEKRSPWVVR SFKDG NRNLEPKRIADHEIVKRSLSFGDGSKPCSRRLRRSLATYDTI  
 VNVLIRSARNLENMEKNHFAHKEFHGHGIRKLDKRIAELELKNMTDEQREDAYFWYDKANEGY  
 EDFHNKVRNIDYHDNYALPLLHNQLNYILKKS GKEGGFLKRVEDMHSEALHDFKRSIKNEEDR  
 ADGQELLSKIKKSM LAIVTDENTPLSRYTRSINGMKNDITRMNKMVLAC\*

>TRINITY\_DN1995\_c0\_g1\_i1.p1 type:internal len:514 gc:universal  
 TRINITY\_DN1995\_c0\_g1\_i1:1539-1(-)



LTFIESLRLRTSKKRMGKEFKHQKNEKLEEDNEDISKTKGRLTNDTISYYKRVDVSVLTENNFESEDEL  
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ITYNGISDSTSDENFIKQFVSFCKVIRELIDHLIRDVFGCHVVSLLQVLGSKVSDRITKSKASINSK  
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SQCFKNIIVSLCIQPVANFLAQTFRLRLLEEKEQALFYVDKLFMYMEDILAVGNMGCISRLAELISRL  
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>TRINITY\_DN123\_c0\_g1\_i1.p1 type:5prime\_partial len:1231 gc:universal  
TRINITY\_DN123\_c0\_g1\_i1:2-3694(+)

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EPKDDMKNIKKNFKDPKVEPKNEKKPDTKAVTVKPEIKKESGPQNVTLDFNSLHLSIDADGL  
SAGNMKGEGFQYMWGGVRGTHGVKKGVKCYEVYLLNIKVHCPGENNPHVLRVGVSWDNDSD  
YQLGEDKLSWGYGGTAKSSYDSKFLDYGKKYTVGDTITCYIDFESNPKAIFFMLNGEYLGVAFRFG  
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MVGLPACGKSFWEKEYAKENPDKKYYILGTNNIERMKVSGLTRKRNHGRWEMLIKRASLVN  
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EGAVMEMKFNFTLPEKGPSFNEVWYLEETLPKAQELAANYRREGSNFKTKSKRKPESPSQPESPP  
SSEKKPKLDPKIISRGFDKPFKPNNTNSPQQSTFKAPSPAQNNANKTPNQDRFSKNEKSTSKVETNS  
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NAPNKGNFADKGNAPNKGNSSDRGAPNKGNASDSANKNSKNEKPKEESKTPKRAIRGTLT  
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GKNKESQSAGLMDIRNVPQGNQDYRGKAGILDSSRNTSQDYRGKPGILDSSRNTPDYRGKPGIL  
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QGSNGNRGGRGRGRSKHLGDVNKYDPVGNMGGYYSALKALPSVKDLIGNRSSFSYSTRIDEPSR  
FDQLYSSYEPYSFGRTQNANDSRSLNYSFGQTDSSYSLERDGGYRDSQNSKDFLGSYQQRKDSYS  
DNRGSQGGQRGYQDSSYNADGLDAKDQYQNDQYQESYSSQKDKSSYDQNTQSSRSYNQETS  
ESSDYGRSRNQEQDEYARSGTYERGDTSYGTDDANRSSRYEDDLQESEPMDGNYSTQDYGRSSQ  
SSQRARIW\*

>TRINITY\_DN495\_c0\_g1\_i5.p1 type:3prime\_partial len:407 gc:universal  
TRINITY\_DN495\_c0\_g1\_i5:152-1369(+)

MDFHWNTVIAGLIIVQVYSLAEYGTNLNGKDSYRNAYPWLANDRNNNELGREDARSIYRSSDEID  
AEYPQSDDEVDTNDIPKSYTSRDELDAEFAQRTYKFADDLDIENAQKSYASSDELDRDDEQRTNK  
NTDDLDAEDAEREETINDSLDAENAQRRYTSIDELDGEDTQRVISKTITLPRLGAGRIYKSRFIHGP  
YIRPKFVRPHKGIRLPHPNRIIPGSWKRPAHGIFALKGKKAIFCEHKGKIKRISCSNDKVIKVSALY  
GRTAGNVCSISCSKDEEIKVKNALYGRTAGDVCGRSRVTNCRALNSFAIVQKKCNHNSCDLNPS  
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>TRINITY\_DN135129\_c0\_g1\_i1.p1 type:internal len:155 gc:universal  
TRINITY\_DN135129\_c0\_g1\_i1:1-462(+)

SSFSYMSTSPSRSMDISASSDEALTPGGTLIIRDNDVNRNRTSFYERLQEKDSFIAETSSALNTPQNSPRP  
STTTPLPRTPQQDRTPPKRSPLVRMKSDSSDIEKRAKFSKDNVSSTFRPVSMNLNLSVFASNRPKRLH  
TGSESELSEHVPLSTHRR

>TRINITY\_DN34\_c0\_g1\_i1.p1 type:complete len:149 gc:universal TRINITY\_DN34\_c0\_g1\_i1:477-31(-)  
MDAAQAAEIKKKRTFRKFTFRGVDLDQLLDLSSEQLMELVHARARRRFSRGLKMKPLALMKKLK  
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VRHGRPGIGATHSSRFIPLK\*

>TRINITY\_DN56792\_c0\_g1\_i3.p1 type:5prime\_partial len:1003 gc:universal  
TRINITY\_DN56792\_c0\_g1\_i3:3453-445(-)

DNELKVIECNLRVSRSPFISKTLDHDFVAMATKVIAGLKVERVLNIMNNCNKIGCKVPQFSFSRL  
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MGFELYASMGTDGDFYQEHGVKIQVIDWPFEENGIEGQEQSIQEYLSRNKFDLVINIPMRQTSSKRN  
PHFITHGYRTRRLAIDHAVSLITNIKCAKLFCEALYRTIGQIKVKTHIDCVSSGNIIRLPGLIDVHVH  
MREPGAHEYKEDFQSGTAAALAGGITMVLCMPNTRPSITDTLSFKQAQKAAQKGARCDYALYAG  
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IILVAELFNRPVHIAHVARKEEIMVIRAAKLRGIQVTCVSPQHLFMTVDDIGGECEGKYRVKPPIV  
TAEDQKALWDNIDIIDCFATDHAPHHVDEKNSNPYPGYPGLETMLPLLFTAVHDGRLTVDDIIL  
RLHTNPRRIFGLPEQHDTYVEVDMDEEWVIPDAMTYTKSKWTPFAGRKVKGKILRVVLRGELAVI  
ENEVLAKPGMGEDVRTWEPTHCMPPVSTTGLVSSKDAVDPTRSAYLGVTAPSVPVEDIHKTIESPS  
SPARKLFGTQKDNEMHNIETIGPVSVAPSIQPSPLFAQTHLFHGQHILTVESLSKEQLYALFNL  
AGYMRQEVVRKKGKSFVDLKGRLALLFYEASTRTSCSFTTAMQRLGGSTIEIKPSDSSMKKGESLED  
TVQTMSCYSDVLAIHPKKGAVQNAAEHCKRPVINAGDGTGEHPTQALLDIFTIREEIGTVNGITI  
TMVGDLKHGRTVHSLARLLTMYRVNLQYVSPKSLKMPESVKEYVKQRGIPQVEISTLEDALTNTD  
VLYVTRIQKERFDNEEYKVVHGSYIVTPKLLTKAKEKMVMHPLPRVNEISTEVDSDPRAAYFRQ  
VECGMYIRMALLYMLVAR\*

>TRINITY\_DN1143\_c0\_g1\_i1.p1 type:complete len:629 gc:universal  
TRINITY\_DN1143\_c0\_g1\_i1:2539-653(-)

MLRSRTIITNTLPKLSINRLEPSFSCISNARCFVSAANKDASESFAMGIFTGQANVSQIFYPDVL  
DDQREFLSSLVDPVEKFMSEQNNAFNNDALIEESETLEGLKEMGAFGLQVPAELDGVGLTNTQY  
ARLVEVVGRYDLGVGIVLGAHQSIGFKGILLVGNEEQKKKYLPSLATGEKFAAFCLTEPSSGSDAA  
SIRTNAKLSDDGKHWILNGGKLWISNGGIADVFTVFAQTPVLDEKSGETKNKVTAFAFIVERGFGGIS  
SGPPEKKMGIKCSNTAEVHFEDVKIPVENILGGVGGQFKVAMHILNNGRFGMAAALSQTQKGLI  
AQAIIDHAASRTQFGQKINNFGVIEQKIARMAVRHYVTESMAYVICGMMDKGFKDFQLEAAISKI  
YASEAAWEVADETIQVLGGMGYMKDCGAERVMRDLRIFRIFEGTNDILRLFVSLTGLQGAGKELR  
KLQKSLSNPLSNMGTLLQGLLRSKRAAGISSGPDLSNVHPDLRKEADLASKGIGKFGSTSEALL  
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>TRINITY\_DN1339\_c1\_g1\_i1.p2 type:internal len:183 gc:universal TRINITY\_DN1339\_c1\_g1\_i1:546-  
1(-)

ENELGVQAPLGFWDPLGLSSDGDVYSFKRRRSVEVKHGRICMLATMGYITPEVAGKFGGYISPSK  
LAFQDIPNGLAAIGKVPVGVWLQIFAYCGWCELTYDFDEEVNTEPGNVGWKPPLLATSDPEVRK  
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>TRINITY\_DN11643\_c0\_g1\_i1.p1 type:complete len:187 gc:universal  
TRINITY\_DN11643\_c0\_g1\_i1:1748-1188(-)

MPAKGKLTQEEVLLQDFSRTVSKKSQALFYGNALMISVLPLWLFWKVHLM DPMSYAALFICGTL  
SAAYLVAFAYKNTKFALKHKVAQKREVAITREVNTELDSRPETKKLSRKEKDDRILWKKNNVADT  
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>TRINITY\_DN19618\_c0\_g1\_i1.p1 type:internal len:223 gc:universal TRINITY\_DN19618\_c0\_g1\_i1:3-  
668(+)

AEGRTRKLNAELANGRLAMVAIMGMLFQDGTMGTAGPEMWGFSPAFAKELGVQAPFGFWDPA  
GLTKDGDIDAFKRRRNTEVKHGRVSMIACLGIVPEFAKFPGYLSPSQGIAFADVPNGLAALSKVP  
GAGVAQWVLFGLIEKSLVYDPSRAAGDFANGGVLGVPNGSTMPEGEGKTRKLNAEIANGL  
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>TRINITY\_DN140702\_c0\_g1\_i1.p1 type:complete len:2036 gc:universal  
TRINITY\_DN140702\_c0\_g1\_i1:94-6201(+)

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AGGATGGGGDDRQAARELEGEDEGEDPNAMPDGTPIPEGPAGDAMRAEKRMKKNKKRR  
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ELFDKLVTFEVHNSKNVLSEAMIGAFQFDVGTIYFEDSSHAIRKWLLLTAPEDNDKKDGEETKGA  
SLQPGGPAGYLKITAIVLGPDELPEKAKGSGKSEGGEEDIESNLLRPAGVTLRPATFLVKIYHAE  
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LNKGRGEGCGYRGRALVEIDTRFGDHTAKPVQDIMAQELVRVQAYMRRRKYKLFASFLSANMIS  
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AAWTDTEQMEGEYSVYAETYENQ GKPPMFDWTAKIIKRP GFS DSEGKIRLNKEYYEPPEGWKWD  
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QKVMKQKKEEAKQGEWEYAPVFGMKYHVKEHKFDFVRRRRWHRKMVCVKPGAVPMFKIPD  
DDDKGKFHQIMPRIFLAYDEPHKWQFRAYLFQARDILGLDSEGTSDAYAKVCFQDQSQITDVIEET  
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MWYDIHHGERTCGELLA AFELFLDEGADLPLPPWLEKEKKFQVPSGIRPILVKTGVEILNWGVR  
NMKKYQLASCTSPSVTYEIGREIITDVIKNTKKNPNFLKNIFYKEVYLPKDP LYMPPIVIKVRDHR  
TFGRKPVVGRHVIKSIDFVQPPKADPVVELPPADLVGEPEEKDVTLDIEKKKKKEIPVDDNLDW  
WSKYFASADEIEKCGNYLKKGHKTIQIYDSELEEIKDFNGFSDFIVSYPLERKGEDDDEDDNVVGE  
LKGLVKVYPLQDPKDKQTKIRYFTPKLKEKSKIVKCIVRVYVIRARDLQPKDPNGKADPFIVVQLG  
KKKISTKDNYPNEINPFFGSFFEMKADVPLDKDLKIKVMDYDFMSGDDLIGETMIDLENRFLSNC  
RATCGLSPAYTSGAYQWRDAKSPKEILDQVCRTKPQWLSNEQVVVNGQLVKIEDFEESPTDPHI  
GPVEQRLALHVLNNEDIIGHRLVPEHVESRSLKNPLQPSMDQGQLEIFVDIFPIANGVPGPLDIAT  
RKPKKEYVLRVWIWNTAEVPPSET SITGEEMSDLYLKGWMEGQDDEKQKTDVHYRSM DGEGMFN  
WRFVFPFKYMPEERV MVVEKKEHFWSLDTTKQTLPPRMNLQVWDNDLFSANDFIGNLELDLSK  
LPRPKKAAKKATLAMLDTGDDVMDLFQAKIAKGWWPMLSENE DGT RTMQGKVEMTLEIVTD  
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>TRINITY\_DN57\_c0\_g1\_i1.p1 type:complete len:712 gc:universal TRINITY\_DN57\_c0\_g1\_i1:140-2275(+)

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YQLTKELKDAGAGLIAASMI AIVPGYISRSVAGSYDNEGIAIFCMLLTYYLWIKSVKTGSLFWSTFCS  
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MAALGIFGLCQIHAFVDYLRRLTPSYFEILFKSLVII SATIAGIIGAILTVTGKVAPWTGRFYSLDPS  
YAKNNIPIIASVSEHQPTTWSSFYFDLQMLVFMFPVGLYCYFAKLTDANIFIIIYGVTSIYFAGVMVR  
LMLVLAPVACILAGIGISSVLTTYMRNIELSNDKPKPIKKAKQADPSYPIKSEVARCMVALITFFLITY  
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ANRTILVDNNTWNNTHISRVGQAMASPEDKAYDIMRELDVDYVLVIFGGLTGYASDDINKFLWM  
VRIGGSTDTGRHIKEHDYYTPAGEFRIDKDGSPVLLNCMMYKMC FYRFGSVYTEQGQPSGYDRVR  
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>TRINITY\_DN371\_c1\_g1\_i1.p1 type:complete len:173 gc:universal TRINITY\_DN371\_c1\_g1\_i1:157-675(+)

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>TRINITY\_DN26249\_c0\_g1\_i1.p1 type:5prime\_partial len:477 gc:universal TRINITY\_DN26249\_c0\_g1\_i1:1733-303(-)

QMKMAASN MAGHVVRNNLIFLLSFVIII AEEGRHARFEYKFSFKGPHLANKQGTVPFWNHYGS  
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GSSDHWKGMGLFFDSFDNDGEQNNPYVMVMLNDGT KQYDHF KDGNSQQLG GCMRDFRNRP  
HPIRAKIRYYNNILTVFYHSGMSERSDDYELCMRAENVVL PKEGFFGITAATGGLADDHDVIKFLT  
HSLTPPLTDEQKQKILSEEQRKKYEEQYGEYTQKLET KKEEFQKEHPDKK APEEFESVYDRDVR  
LYENQNTIHHVVRALHEKVGELTNQLNNLHVTINNNNQLAQQQ QPKGDGVTRQEVNTIINLQN  
QVHNAIQELKQSGGGGGDNTKT VQMEKTLQTVLEQVGHVSKNNDRRPSCTVSCVTPSILILF  
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>TRINITY\_DN172571\_c0\_g1\_i1.p1 type:complete len:104 gc:universal  
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>TRINITY\_DN8707\_c0\_g1\_i2.p1 type:complete len:564 gc:universal  
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 EKRCTQVLWHPASNVLMSSVQEPKVCVWNLDEGSVEVEILEHPELIYNATWSQKGDKIGTTCK  
 DKKIRIFDAREGTLVQGMGHEGAKPSRVFTFQDKYLFTTGFSKMSERQYACWNAETIEQLGLEE  
 LDTANGCLVPTYDADSQLVFLNAKGDSNIRYELVDGDPYFYFYLSTYQSSAPQRGFGFIPKRCINV  
 NANEISKGYKLHGTKTYIEPVSTVPRKSETFQQDLYPDAIGDEAALEPDDWFSGKNAEPKRIA  
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>TRINITY\_DN2113\_c0\_g1\_i1.p1 type:complete len:1704 gc:universal  
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 SMEGDSSPVKMFDRHQSLAGCQIINYKVDHSGQWLLIGISAQQNRVVGAMQLYSVERKVSQPIE  
 GHAAVFSQFKVDGNPQTSNIFCFAVRGAAASKLHIEVGTPTGNQPFKKAENIFFPEADKDFP  
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 TQQTIRFQQLPSQQGQTSPLLQYFGILLDQCGQLNKYESVELCRPVLQMNRKQLMEKWLKEDKL  
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 RIGAYLYKGNNRWKQSVELCKKDHLKYDAMQFACESRDKAVAEDLLSWFLSIDKTDCFAATLYM  
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>TRINITY\_DN32763\_c0\_g1\_i1.p1 type:internal len:104 gc:universal TRINITY\_DN32763\_c0\_g1\_i1:2-310(+)  
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>TRINITY\_DN1130\_c0\_g1\_i1.p1 type:complete len:317 gc:universal  
 TRINITY\_DN1130\_c0\_g1\_i1:1199-249(-)  
 MDSSQRILVSFFCLIGLAYSASWNYDEGAATGPD AWQNSYPKCSGKSQSPIDIITADVITYDELPTIQ  
 FGSNWDMLLDNSSLELSNNGHTAVVNVKHPTQITTTQGGKTYILAQFHLHWGTTDDTGSEHKI

DGKFYPAEVHVFVHYNKYADLGTAVPKADGLMVLGYFIKVDNSALTSSFLHLIMEGLDDVVYKD  
 EKTSLPANGRSYDLFHPFSTTKYFHYSGLTTPTCDESAWNVMHPENGLTITSTMMAKLAMS  
 QNKRGEAMKVQSGNYRPVLALNGRSVRRNFDKSSASSIGSLLSITIPMLAIAIKLSS\*

>TRINITY\_DN116\_c0\_g1\_i1.p1 type:complete len:297 gc:universal TRINITY\_DN116\_c0\_g1\_i1:72-962(+)  
 MGFVKAIAKNKQYFKRFQVKFKRRREGKTDYYARKRLVTQDKNKYNTPKYRLIVRFTNKDIVCQIA  
 YAKIAGDVIVCAAYSHELPRYGVKVGLTNYAAAYCTGLLVARRLLHKLNLHETYSQGTEVDGDEY  
 NVESVDDGPAAFRCYLDIGLNRTTTGARVFGALKGAVDGGLEIPHSVSRFPFGFDESDDFNAEVH  
 RNHIFGKNVGDYMRALQDEDEDAFKRQFSKYIKEGVKPDNIEGMYKKCHAAIRADPAHKPSGK  
 EKFKGKRYGRKKMSFAQKMDSVRQKKEAFKRKMEQDED\*

>TRINITY\_DN4525\_c0\_g2\_i1.p1 type:internal len:111 gc:universal TRINITY\_DN4525\_c0\_g2\_i1:1-330(+)  
 RLAMMAIIGMFFQDGLTGSAGWDWSLYTDSPLRAYESEPGVQAPVGFWDPLGLSTSGNEFDYKR  
 RREVELKHGRVCMFATIGYIVPEYTRLPGFLSPSYGVKFFDDVPNGL

>TRINITY\_DN97809\_c0\_g1\_i1.p1 type:internal len:184 gc:universal TRINITY\_DN97809\_c0\_g1\_i1:2-550(+)  
 LGPDQVDVAGAGRDPRHLPRPLGRRLRVLDHRHRGRVRQRHKAADQDPKLETARLDVRRPGVQ  
 VRRVRHPRPSSRDQCHRDCHAPGRVEGRAQVDRGRRLGRRRVEHEVHGAAQPAARGQEKGR  
 LRAQQILAVAAGQEEAVDVGARNRQGPSSALAAVSRAPHAQFARLAQRDRRVARAKGW

>TRINITY\_DN41662\_c0\_g1\_i2.p1 type:complete len:289 gc:universal  
 TRINITY\_DN41662\_c0\_g1\_i2:168-1034(+)  
 MNNNYNNKQYPQIEDGNYSISTENDEKKFSKCTWVLTIISYVVVICLFPFSLFCLKIVQEFERAVI  
 FRLGRLLSGDARGPGIFFVLPCIDTYMKVDLRVVSFDVPPQEILTRDSVTVAVDVAVYFRISNPIWSV  
 VNVEDAQRSTKLLAQTTLRNELGTKNLSDLLLERESISQSIQRILDVATDPWGMKVERVEVKDVR  
 PQQLQRAMAAEAEASREARAKVIAAEGEMNAALALKQASEVIVESPQALQLRYLQTLQTISA  
 NSTIIFPLPIDILNAGLRDRKTQ\*

>TRINITY\_DN413\_c0\_g1\_i4.p1 type:3prime\_partial len:463 gc:universal  
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 MVSLSVTCLSLLLFVTVNAEESDHCGYDEKSWYKAMGWCYHSGSRLLLGDGFGDKRTDFFCHD  
 SNGKNWVAVSNSDGSFGSTTWQDSKERWCASPNILLTGDFNGDGVTDLCHGTATGKKWIKYFN  
 KYGVPSGKSFYRAMSWCNHKGSQLYIGDFNGDKRDDLLCHDTSGRYWTSYAGTDESKVFHHTS  
 WYKALEWCRHATSKLYLGDFNGDKKTDVLCCTDGKGYKWIMYAKTSGNLFTGTDWHTNLDWC  
 HESSTVFLRIGDVNGDGKDDLCHSTAGNSWVAYTQPKGGFGNFCHLAKWCAAGKESFFLG  
 YFNQDSRADILCHDTKYGKKWIRYAECFAEESDHCGYDGKSWHKAMRWCYHSGSRLLLGDG  
 FNGDKRTDFLCHDSRGINWVAVSNSDGSFGSTTWHDSEKRWCTSPNILLTGDFNGDGVTDM  
 LCHDYKTGKKWIKYFNKHGVPSGKSFYR

>TRINITY\_DN2963\_c0\_g1\_i1.p1 type:complete len:116 gc:universal  
 TRINITY\_DN2963\_c0\_g1\_i1:1072-725(-)  
 MSATGNLVTVLRLKLYDEYNDKTPSRLKIVDGFLLYVMLTGIFQFLYCCLVGTFFPNSFLSGFISCVGT  
 FILGVCLRVQTNPRNRTEFKGISPERAFADFIFANVVLHLVVMNFIG\*

>TRINITY\_DN6\_c0\_g1\_i1.p1 type:complete len:196 gc:universal TRINITY\_DN6\_c0\_g1\_i1:843-256(-)  
 MIFTVFLIGLQFVGIYNHAIPHLHPGFHPFHYYQPQGLLNQMDKEFTFSCPNGKAISFIGSVHDNR  
 KEDRQWTVYCANVMEPRGTSTWYTYVNDFDGEMDFACADGNIVTGIA SFHKNKYEDRRYKF  
 RCTYMPGTIRKGCSSWYSTYDAMFSEHIEPGRYLTGMRSSHDNNKEDRIFQIETCRFDHYEQQH\*

>TRINITY\_DN33328\_c0\_g1\_i1.p1 type:3prime\_partial len:1422 gc:universal  
 TRINITY\_DN33328\_c0\_g1\_i1:4264-2(-)  
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 PPNRKPSSNKPANQASNDQGGPGKPASNAQGGGKAQELPDLNAILRAFAGKQTDGSGSTQYEY  
 GCVLDIGKDKCKIKFIPKKQSCHNKLALGKLFDFKVPKGKIKTLFKKYAPVDVVFQVTRFEVDK  
 CQGDLDFFETEAKAFNVINDKLKVNKSVSFDYKKFMAAPSFDKLGIDIDGEVQLFGKKVPLTLK  
 KKRDSGEGIFSITASIKASDFAKLFSTKSVANAQSPQTKMFTDAVIQNPISISGRDDDDGGFELVVK

GQVTGIKGIGAISLFVIIQKSSDSPVSVAIVADIKKIQPTVLLSSLTGKNLNSIPIIKDITANLAVEFANN  
 DMMMLKDPPELNKLLGKYIANGKTIASGKTIKVELPIKEILTKVKTASLSHVPSTIYMQMFLNGGK  
 VCFKFPDNIAMDLANVLVALLPKVPDLLFSKVLKTPPKIVIEKFDVNVATKYVDMVLEAPEEIVLG  
 SDFKIKNAKFELKHEENKPWDFNIEATKQIGKTMIDINVKSEAKNYIFKATIDSLTTKELATTFGS  
 KATADGILTKMSFLNFGIRTLTVTAEFGDKFTLNIGKNPVLFWEGAFFEGFIVGSGLNKKMAFGI  
 VVKNIIRIDDIVFKLFKKRILQTTWMSSELTATFLISNTDPDDNIDFTLPELKEHVKLKQGVFFKSELT  
 PTDCRAEKICEVLRDKMKPGTKLYLEGEITLNGFKLTAGYKKGHGLNFATDLTSLAKLVLTVGST  
 EFYLEGEVQMKNPNVKFIGKLGVGVTGIVELSLIMEGMWRTPFGLSYIAFGNLQLAVAIQPGVPVP  
 KLEFTAEMWVGKIGNNQEIKTKTAVGINPSNPLDMYFYGEINKLTLAEVAKAFEFKSTLPKVQET  
 GFPEGLAAGYTTNPKGKTISHLKVNLKTGFFFRGAINILGYKLECEILVQIPKAIKVSVDMGPIKIAK  
 GLIKLAKGAKDLNNGPSLYVAISSNEVAVKIQAYAEELLGLGAENVIDVSDKGMKFFVYGNIFNLIE  
 ANVTVNAPYGNGLAKSEFSVSSCISAGISDIQNTAFEEVDEGAKESQKIQKVADDEVKDASSWY  
 NSAMDKLLSYEKKLEEKTAIINRKSGLKLEKLEYLDASCVDHCPDVCQGGPVMRKRKGRFFNKK  
 PGWDDCKEMVKSIVCLGKCKGKKAYYQGAACKVVTMEIIEGSKVIAKKLIVIAKGFAERSKGL  
 MDLTQKAANKVVSILTAKGKDALGALAKYTKENLINIHLLCFDITLAKAEGACFGVNVDLTVLG  
 NKKLQYEGEVCFNADFFKNMAKQVADKVFPGIISIKDKIMQAKNLFSDSDSKKKELEYEKQSAQ  
 EEKNLEGQLERQNEDDDDDDDEEFNGKYKASFD

>TRINITY\_DN201860\_c0\_g1\_i1.p1 type:internal len:221 gc:universal  
 TRINITY\_DN201860\_c0\_g1\_i1:1-660(+)

LTAITKVVCSSTTSGSATGSKDGLSSGDDYISRDLSDKLSITFDTNETAQYCEVQIIDD SFYEEEEQFT  
 VKITPYFGGEVDEERADVNIILEDKNDEPKIYLKSTLYEIDESDGVVKVAVQRTGSDLSFKSYVIIST  
 KQTEPVSAKANVDYYPVVKTLFEGIDEKEKLVDIGIIDDKGRPRIEGEESFEVLLGLAKNGELLDGQ  
 SKGVVIINDEESDK

>TRINITY\_DN76040\_c0\_g1\_i1.p1 type:5prime\_partial len:383 gc:universal  
 TRINITY\_DN76040\_c0\_g1\_i1:1-1149(+)

RTSSKAGHRFAEITKMASEQETDAEMIKECEDYVKKHNIQVLLKDAIVQLCINKPDNPYQFLRDH  
 FEKLENEHGGKTGKDDHVSATEPPQATRRRRGAVSAAVISEEDAASYVKKVIPKDYKTTAALS  
 KAIEKNILFSLHDESERSDIFDAMFMVKHSEGEVIIQQGDEGDNFYITDSGEVDVYVNDNLVVSISP  
 GGSFGELALIYGTTPRAATVKAKTDVKLWAI DRV TYRRILMGSTMRKRKMYETFLEKVSILES LDKW  
 ERLTVCDALEPCNFNDGEEIVVQGE PGNDFYIIEGQAAVLQRRSPNEDPIEVSRLNVSDYFGEIAL  
 VLNRPRAA TVVARGTLKCVKLD RQRFERLLGPCGDILRRNIQQYNSFVSLVV\*

>TRINITY\_DN10706\_c0\_g1\_i1.p1 type:complete len:213 gc:universal  
 TRINITY\_DN10706\_c0\_g1\_i1:122-760(+)

MNIFRLIGDLSHLLAILLLLWKIWKTRSCAGVSGKSQCLFALVFITRYLDLFTSFVSLYNTVMKCIFL  
 AATISTCYLILVKFKATYDSNHDSFRAEFLVVPVAGLSVLVNHESVMEVLWTF SIYLESVAI LPQLF  
 MISKTGEAESITSHYLFSLGSYRGLYLFNWVYRYFDGFFDLIAIVAGCVQTVLYCDFFLYITKVLK  
 GKKLSLPA\*

>TRINITY\_DN129732\_c0\_g1\_i1.p2 type:internal len:112 gc:universal  
 TRINITY\_DN129732\_c0\_g1\_i1:2-334(+)

WDPAGYTNDGSVENFKRRRATEIKHGRVSMACMGYMTPEITGKFPGYLSPLKLQFSDIPNGLG  
 ALSKVPGVGWAQIFAYCAYCELSQDQSAASPGGAGDFGFKAITSSD

>TRINITY\_DN464\_c0\_g1\_i4.p1 type:complete len:717 gc:universal TRINITY\_DN464\_c0\_g1\_i4:2167-  
 17(-)

MLLHFGKSLHYLKFGLFWRLKLVAIPRDTSNIIINIFLESKSQRYIRMSANILNEYSQNVGKMEDE  
 ISGLTSQNLALKRKLNGEIEDED CSDQLKELRSKNQKLHYQKNIIQRALKKEQE KADSKMLNVQ  
 AALNVLFESAIRSAYPQIPNPPVALTIAHNPKFGDYQCNSAMAISKMLQKLTGEKIGPHVVAKTIV  
 ENIPSN SFIKKVDVAGPGFINLHLEKEFLKGVLEKVIKEKVYPPGIGNKKKVVIDFSSPNI AKEMHV  
 GHLRSTIIGESL RLLFEVGHDLRLNHVGDWGTQFGMLIAHLEDKYPDYKT VSPPIGDLLL FYKA  
 SKKRFDDEEDFKKRAYQRVVDLQGGNP DVRKAWQMICEVSRNEFQKIYDRDLVT LIERGESFYN  
 DLMSKVVENMKKSGICQKSDDGRWVAFAPNMKVPLIILKSDGGYTYDTS DMAALQORLQEEHG  
 DWLIYVVDAGQGDHFKQIFGVGEAAGWYNSSITRVDHVAFGVVLGEDKKKFKTRSGD TVRLIDL  
 LDEGLKRSMEKLLEKGRDKELTKEELLAAQESVAYGCIKYADLSHNRVMDYVFSFDKMLDDKGN

TAVYLLYAYTRVRSIQRNAKKGRSEIEEYMKSNSLHFDHEKEWKLAKLLCRYPEIVVRCLDDTLHL  
LLCEYLYELSSLTTEFYDACYCIEKNRETGEIISVDMNRIALLESVARIFEAGFHILGIKIPISRM\*

>TRINITY\_DN1091\_c0\_g1\_i1.p1 type:complete len:212 gc:universal  
TRINITY\_DN1091\_c0\_g1\_i1:200-835(+)  
MKLILICLFAVLVYSIHCDQPSDPVWPVNLFQQSFREKFYYPVIGTHYTNNGTYYYDYKNLRYRLDRD  
NGRYDRYCGLNGIRAFQNTPTCTHLVLDGTRWLTVYPEKKECCECCHAANGCGVLKPTWLTGAEF  
VSKSNGIYKWNQKGLQDNFYSERVTDRIMTEIDQVPNDTQYYDPDSFKTKIENIEDVFKLPSYCKR  
GTKCSFFSACRAVGFF\*

>TRINITY\_DN1653\_c0\_g1\_i1.p1 type:complete len:1122 gc:universal  
TRINITY\_DN1653\_c0\_g1\_i1:180-3545(+)  
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YAKQPKFANQKLENVSLVRAMESDGVKLVSDSDHVVNNGNSKMILGLIWQLILRYQISGSDDKSF  
KIALKKLLLIWLQHVPEQGIRNLTTNWNNGIALCNLINVLPKPGIFPEYNNLDKTRPVENLAKGM  
QLAESELDIPQIISPENMASPNVDELSMMTYLSYFTQDGGIGESWTVDLVNFVNSSLVTFNFTD  
WNDGMRLGRLVETFLPGAMPIMESTDNLNDCRIAMDVAHEKLGISKIITAEEMSNPQIPELAVMS  
YIVQFTKVKRVERASDKFSASGPGLVEPKIGIVNEFYVRSDAGYPLDGLQVTIIGPNNNYIPIEIDDS  
DPQLRNYSYSCEEQGGYHINIIEGEDIPRSPIIVTSQQDLNTRIVYGERLEVSHAYEETEFTVDVGS  
NSYVTATIDGPEGSQPTPTQTNNDGTYTVRYIPSTVGTHRIYLAVERNQQPLGGPIETNITYPIVSEA  
ELIETVAFSAKYEEDKHLAELYERIGISVDSQSGDGRITSKTIGPDEKEIYSEVDAEGDGSYTVSFT  
EVIGEYHTNVFWSGKPIHGSFPVWVSDPNKVFARGKCLYETRVGVESSEFVATNGAGPGHITGY  
AETNGVEYPINVRKREECLHDSFTANQVGIYYVYINYNVPIKDSFPQIKVGNPSLIEIEKHHEEAIM  
ESNQPPQSFIVNLKDAFGDVLCCVVRGPAGEDVQCTIKDVNDLSLKEIMFLPNYPGTVEVFVYAG  
GLVERSPFIFAISEPKLAIYPENIRVSGNGLSRAKLNELARFQVDTTNAGPGHLTVQIEDEKDDVEA  
GIRDNNNGTYDVTYTPKRSGKYRVIKWSQDQHITDSPFEIIVDNRAEEVLVEGYGIKEGTAGQPVL  
TLDGRNAGPGQLSCRCRAPSGKMTYVLISDNKDGTYTVDLNATEPGLHTVEVEWDNQAIKPSF  
LVRIMQAPDVKKVRASGPGLRSGTLDNFNGMFQVDSKAGPGTLKVRIHGPKGAFKEMSREN  
KDRIINVRYNPTEPGTYTANIWWSDEHVQGSFPFIFVQNDQEVDRWDRNKEELSKSQVNVY\*

>TRINITY\_DN2230\_c0\_g1\_i1.p1 type:complete len:249 gc:universal  
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MKLNVAYPANGTQKLLIEDEIKLSFYEKMAQELSVDFLGDEWKGYVVRITGGNDKQGFPMK  
QGVLTTPGRARLLLSKGHSCYRPRRTGERKRKSVRGCIVDGNLSVLNLVVIKKGDNIEPGLTDRVIP  
RRLGPKRVGKIRKLFNLKEDDVRQYIIRPIATPEGKPKPKTKAPKIQRLVTPQRLQKRHRVK  
ALKRERANKAKLEAATYAKLLAKRHKEAKEKRHQEHMKRRRLSSLRESKSQ\*

>TRINITY\_DN109115\_c0\_g1\_i1.p1 type:internal len:125 gc:universal  
TRINITY\_DN109115\_c0\_g1\_i1:3-374(+)  
NEFLTRELAEDGYSVEVRVTPIRTEIILATRTQNVLGEKGRRIRELTSVVQKRFGEPTVELYAEK  
VATRGLCAIAQCESLRYKLIGGLAVRRACYGVLRFIMESGAKGCEVVVSGKLGRQ

>TRINITY\_DN247\_c0\_g1\_i1.p1 type:complete len:373 gc:universal TRINITY\_DN247\_c0\_g1\_i1:38-  
1156(+)  
MKLVLVIFVILVYTNVNSAGGKKCISNKDFMTPYPTNFWTEHYPKFVNNRPTIGIVAMEVLGQKM  
LVNVPSWVNKDYFGSSFVKLVESAGGRAVPIKEDITEDDLKLMRKLNGVVLPGGDADVGDSGY  
ERISKQAIASFKKMAKKNVTFPVLGICRGAQMMMAEAGKDFLEVTDLSNLISPLDFTSEQKESR  
LFGNAPQGLIKSLSEDAITFNAHAMGIPTLNFYNNNSGLQKAFRAISTNYDRNGTKFISTFEGRDAPI  
YGLQWHPEKSLFVFNPLAVDHSIKGVMAQYIANFFISEARKNNHTFRDRVEEEEHLLMSYYP  
YVGNITETPYEQIYLFDFVKPFQNPKYTPGKVNKNDDDNSGDDDDDE\*

>TRINITY\_DN751\_c0\_g1\_i1.p1 type:complete len:227 gc:universal TRINITY\_DN751\_c0\_g1\_i1:731-  
51(-)  
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FLNMKANAAQYTRGMKKHHLMRMMNRYLVPSRSSADMKEVVDLKEFIEDDVEEHQEQQFFGL  
MTQGGGGTTEAIFVYYKLRDDGKYNFKRMTFRGTFRLAADLVITHSSKSGFFSESKDVINWLP  
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>TRINITY\_DN3153\_c0\_g1\_i3.p1 type:complete len:196 gc:universal  
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 MANDKSIREKVDLHQNFTDGLVFIEQKTGINRLYLLVGCVVFLALYLTVGYASGFIVTLLGFL  
 YPAYASVKAIESSAKDDDTQWLTYWVVYTAFLSLEYFSDIFLSWFFLYFLFKCSFLAWCMAPFSWN  
 GSVLIYRRLIKPFVLKHESKVDEYLHKGEELAKKEYYGKAKKDVTKAVVEGMTADSDESKKDE\*  
 >TRINITY\_DN1505\_c0\_g1\_i1.p1 type:complete len:154 gc:universal TRINITY\_DN1505\_c0\_g1\_i1:98-  
 559(+)  
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 LVTIMQNPRQYKIPDYFLNRKKDIKDGKFSQVLANGLDNKLRDLERLKKIRAHRLRHYWGLR  
 VRGQHTKTTGRKGRTVGVSKKN\*  
 >TRINITY\_DN1189\_c0\_g1\_i1.p1 type:5prime\_partial len:449 gc:universal  
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 LREAIADGSEQAKQLYQRAVSFLVNDVPLNKCEDFFKKDDTCDKIRNFATKVNAAKADVTA  
 AVK KAIVENLENAKDGLKKAKQFLKAKISCDQVLNEKMCNTIQSIGDKFSVSMKKIDAALREAYANG  
 VRKWSELYEAAIKYIMDKWSIFGDDEPQRRERREIQPENVKKAIKNLLDSLKVSKKVRRAAIMK  
 LIE SGKVKFGNLRKTVKQLLASLKGDKKSEDAVTAVYKRSVVDTLKETLQKLKEQIKDLA  
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 >TRINITY\_DN925\_c0\_g1\_i1.p1 type:complete len:261 gc:universal TRINITY\_DN925\_c0\_g1\_i1:826-  
 44(-)  
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 DPYKFKLRKELFIATEGMHTGQFIYCGKKATLQIGNILPVGTMPEGTIICNLEEKSGDRGKLARAS  
 GDYATVVSHNRDSKVTRVKLPSGVKKAIPSFNRASVGIVAGGGRIDKPLLKAGRAYHKYKVKRNC  
 WPKVRGVAMNPVEHPHGGGNHGHIGFPSTVRRDTSAGRKVGLIAARRTGRIRGTA  
 KVKDVGDD KE\*  
 >TRINITY\_DN146208\_c0\_g1\_i1.p1 type:5prime\_partial len:284 gc:universal  
 TRINITY\_DN146208\_c0\_g1\_i1:876-25(-)  
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 KRDLTRFVRWPKYVRLQRQKRILYQRLKVPPSINQFTQTLDQQTATQLFKLLHKYRPETKAEKKQ  
 RLTLAETKAAGKQESSRKKPVTIKYGINHITNLVESKRAQLVIAHDVDPPIEIVVWLPALCRKMG  
 VPYCVKKGKARLGKLVHKKKTATAVCLTAVRQEDRHSLEKVSDAVRTNYNERFDEIRRH  
 WGGGIM GGSQAKVAKAERAKAKELRV\*  
 >TRINITY\_DN165536\_c0\_g1\_i1.p1 type:complete len:249 gc:universal  
 TRINITY\_DN165536\_c0\_g1\_i1:851-105(-)  
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 IIHSLEEKKGNEGGNTELISSYRKEIEKELKERCNEVLSLIDKYLLPSAQKEGQKGT  
 EGKVFYEKMG GDYYRYLVEVTTGEDRANLSAQSKAYDKATETATGLATTHPIKLGLALNFSV  
 FHYEIMNDGKKA CELAKKAFDDAIAELDSLKEDSYKDSTLIMQLLRDNLTLWTSENDNE  
 ENDAQ\*  
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 NKSQNGPFGELATVEPRTLELTKVKAIVKQKGLDRESYREIFLAPKPDVAFAGGLVGSEYHGWG  
 TYQWDPAGLATRYPEHLWPYREAELKHCRVAMLAWLGLIVPDFVRIPLDDFQDPTLTLEN  
 AHNK LIYGLSGPMWWLLLFCEIISLRFKQLGLDFGKLTLENAGDLDFGKGFLPKTKEGIVQ  
 MKIKELK NGRLAMLA VSGALTQSMAYGVYTFPWTLPSPN\*  
 >TRINITY\_DN21847\_c1\_g1\_i1.p1 type:internal len:133 gc:universal  
 TRINITY\_DN21847\_c1\_g1\_i1:397-2(-)  
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 W DPAGFTADGSVENFKRRRQTELKHGRVSMLATMGYITPEITGKLPGYLSPSAGLK  
 FADIPNGLAAI SKVP



>TRINITY\_DN166344\_c0\_g1\_i1.p1 type:complete len:360 gc:universal  
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 QYGEFYNGDSYIVLNTYKEPDTDELKYDVHFWIGKYSTQDEYGTAAAYKTVELDTFLDDKPIQHRE  
 VQGHESKFKTYFPTLTLLKGGADTGFKRVLPEAYEPRLFHVKKQNRTQITCTQISLKRGNLKSED  
 VFIIDLGDKIYQYNGSSCSADEKYKATQEVARLKSVRGKARAETIEERTVSEHPALMVLKDGSSK  
 EKSTVEGEKKMLRVSDADGSIGMDEVASGDDISKDKLTSSDDVYIINTGSHVYCWIGSGASIDERKN  
 GLSYASNYLNKTETPWLPISVVGQ GKEDSQFQKAF\*

>TRINITY\_DN484\_c0\_g1\_i1.p1 type:complete len:554 gc:universal TRINITY\_DN484\_c0\_g1\_i1:164-  
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 ENLAVKTADLEREHVINCAKTSMSKLVGVDSDFSTMIVDAAMSIKRTGNKGETKIPIKSINILKA  
 HGGNMKESISVPGYALNCTIACEGMPKKIENAKIALLD FSLQKAKMHLGVQVLIEDPEKLEAVRQ  
 REMDITKERIEKVLASGANVILLSGGIDDLCKMYFVEAGAMAVRRIKKVDLKRIARATGGTVCLSL  
 ANLEGEESFEASYLGHADEVAQERICDDELILIRHPKTKAAASIILRGANDFMVDEMERSIHDA  
 LC VVKRVLESKSIVPGGGAVEAALSYLENFATSLASREQLAIAEFANSLVIPKTLTVNAAKDSADLVA  
 KLRAYHNASQTQSDKAHLKWVGLDLINGVIRDNKKAGVLEPTMSKIKCLKFATEAAITILRIDDL  
 VKIEPEKKDDPN SYQNAIAGGRMG\*

>TRINITY\_DN82805\_c0\_g1\_i1.p1 type:internal len:381 gc:universal TRINITY\_DN82805\_c0\_g1\_i1:2-  
 1141(+)  
 FILANVRFPKETRYQRACMDKIIADVSNVNSEYEKKLNVLVMGDFHFDRLSGADAKGELYKIITN  
 LQIDGENYHSPITYLEKDPITTVYGRRFDNLSNINSKGNIKTIGPDFLEPESVILPITLQRLYNNYIT  
 ALYTTDSDESDKIYECIKAFQMAGKKELEGDMCKNTWVPSSYISDHLPIQFKVKMSLPGKTNPVE  
 VKLASWNIQGDTFKERLLDPSVRRGFLNALKQYHVAVFHEFPPHDRIIDDQELGSSDIVRLKQGTI  
 TTEFGIYVSENVKDGETDMYVLRKKFKDEPNGVEDVVNEVTPEDSKNLITTVGLFAPKIVVDTVKI  
 RPCLYTVKTSKTQTSQGVDFSRIINAIDKDVQERKCDFKVMLASLNLEE

>TRINITY\_DN131028\_c0\_g1\_i1.p2 type:5prime\_partial len:104 gc:universal  
 TRINITY\_DN131028\_c0\_g1\_i1:2-313(+)  
 FDKYHPGYFGKVGMRNFHFHFKHGKVIPTINVERLWSLVSEQTRTTYKEHTDKAPIIDVLKAGYMK  
 VTGKGQLPEQAVIVKARYFTKEAETKIKEAGGVCVLC A\*

>TRINITY\_DN1272\_c0\_g1\_i1.p1 type:complete len:262 gc:universal  
 TRINITY\_DN1272\_c0\_g1\_i1:957-172(-)  
 MRCQLFLLVACMAIATCSAYDWRNKVQNMLKYAKVNIFDRAAYILGDKRQHQLGKPWFCHKL  
 DCPAFQVVGNYTNKKDGFEEERCYPETAWVMTSKEVDANENDIETRDMFMKLFKYIQGENEKQE  
 KIEMTVPVFTYSQLKKDDPSKRYISMHFFVPPSQEKNIPKPTRDDVTIMDVKADCYYVRSFGGYV  
 MSFGSKIMNEEKKIHAAL EKNNLDFEARKTMAAGYDSPFRLFN RHNEVWVAKRKTMDSGCCTP  
 RKSTNVMY\*

>TRINITY\_DN95381\_c0\_g1\_i1.p1 type:complete len:192 gc:universal  
 TRINITY\_DN95381\_c0\_g1\_i1:70-645(+)  
 MGKQNSKLKPEVINDLREQTEFSENELQE WYKGFLKDCPDGTLTVEEFKKIYGNFFPYGDAAKFA  
 EHVFTFDANADGRIDFRE FICALSVTSRGTLQKLKWAFSMYDL DANGYISRDEM LEIVCAIYK  
 MVGNVVKMPEDESTPEKRV DKIFSQMDKNVDGKLSLAEFIEGAKSDPSIVRLLQCDPHAPK\*

>TRINITY\_DN59667\_c0\_g1\_i1.p1 type:3prime\_partial len:225 gc:universal  
 TRINITY\_DN59667\_c0\_g1\_i1:673-2(-)  
 MGKAKKGQKIDESKFEGKGTDFKCKLIGFVNVP SARGDDICQEAITKLKHLALKLNKEKKEHKQ  
 KITVNITVKGIRLIDEPTE RIEHAHPINRISYICHNDNDKRTFGYIVGTKEGYKLF AIRTMKEAEYITK  
 TLKDLFQVVFERHQAQKAASDTSEIKGQE QVEEKDDEEKFEVGEEQN EPTESPLLDWEHGINEQ  
 IQAMQNDAMSTSGFPDPFGDAQFDSA

>TRINITY\_DN72959\_c0\_g1\_i1.p1 type:complete len:216 gc:universal  
 TRINITY\_DN72959\_c0\_g1\_i1:54-701(+)

MGRRPARCYRYCKNKPYPKSRFCRGVPDSKIRIFDLGKKKTGVDDFPKCVNLVSDEYEQLSSEALE  
AARICANKYMTKTAGKDAFHIRIRVHPFHIVRINKMLSCAGADRLQTGMRGAFGKPQGTVARV  
HIGQPLISVRCKDQHEATAIEALRRAKFKFPGRQKIFTSKKWGFTRWDREEYLERRQDGSIKPDGT  
NVQYYPCCKGPLKDWKWRESR\*

>TRINITY\_DN4815\_c0\_g1\_i2.p1 type:complete len:638 gc:universal TRINITY\_DN4815\_c0\_g1\_i2:79-1992(+)

MVSSLLLVLICTVVYTAGISAFFQCDFEKVDICGFKSSSSNYTDTGEAPNWRRHGTTPSAKDQNN  
AHVTGPLEAQSGDYMYFEASNLPSGASSTGTLTSRLFDATQFGVTDIVFHVSSKGESLSLLVLDI  
DYTTNDIFDEKVVFPNKAAWQKYTFNLDEKIFKRKFYMQFIGYVREVNGKKDNGDWAIDNLRI  
DGAIVEKCEENVKCNVNTNCKDTSNGPNCECLPGYSTKAGTSGKNTECIETCQAFTCNLNAECS  
NTENGPDCCKCESGYKAINGTSGKTTRCEETCQAFTCNLNAECSNTENGPDCCKCESGYKAINGTS  
GKTTRCEDDTCSNFQCSNNTNCENTVSGPNCTCKEGYRPVNGTRGRDTICEDINECAIKNICGGL  
KVCRNVPGSHHCDPPNYTFFAAENKCYNRNGAFSQWRNVGSCSKTCGAGDQKQTRSCSNPSRE  
APHGRDCPNEPTERAVACNSGPCLAGCPRNKTCTCENVRQYKTGEPPKDFSSFNGLSITDGETS  
RRYVHTYNREFIEKTIKDVNCNNNQLKSVYKNITDIIGILEGINKKYSSTKMEMQDIIDCNANIDIE  
KNLWDVYDVLAEHSICNYQVQKDLEMKADRIQAEITRCNNRGWYSTILDII\*

>TRINITY\_DN22594\_c0\_g1\_i1.p2 type:internal len:268 gc:universal  
TRINITY\_DN22594\_c0\_g1\_i1:801-1(-)

DFQDPTLNLETAHNKLIYGLGSGPMWWLLLFCGIIESLRFRQLGLDFGKLTLENAGDLDFGKGF  
PKTEEGIVQMKIKELKNRLAMLAVSGALTQSMAYGVYTFPWTLPAPNAVQSRTALRAVEFKGQS  
GPFALDVAEPKTELTDRVKAVIKSKGSLDRESYREIFLQPKAETVFAGGLVGSEYHGWGTYQW  
DPAGLATRYPEHLPWYREAELKHCRVAMLAWLGLIVPDFVRIPLDDFQDPSLDLENAHNKLIYGL  
GSGPMWW

>TRINITY\_DN101992\_c0\_g1\_i1.p1 type:internal len:139 gc:universal  
TRINITY\_DN101992\_c0\_g1\_i1:414-1(-)

AERYDHHSGIVESMDSNKSNDNLKELTRLPHPPGRSRNKELGDMLADFWQNEGMDKIEFKYNI  
YLSYPEKPSTILLFGGAKTEKYTIEAEPVDESEKGGTPVVPFNAFSANDIVKAELVFVNHCRESDF  
DEVKKAG

>TRINITY\_DN15599\_c0\_g1\_i2.p1 type:internal len:206 gc:universal TRINITY\_DN15599\_c0\_g1\_i2:1-615(+)

KALTSSDPAERTKKLQSELANGRLAMIAIIAMFVQNGITGTTGPEMWRGGGAFENELGVQAPVG  
FYDPVGFITLDGDVQSFRRRRSVELKHGRISMLACMGYLTPEIVGKWPGYISPSLGLKFTDIPSGLDA  
IGKVPALGVAQIVAYFGFVEFAAGFDDYKPGGTPGDYGWKALTSSDPAERTKKLQAEANGRLA  
MIAIIAMFVQ

>TRINITY\_DN98420\_c0\_g1\_i1.p1 type:5prime\_partial len:286 gc:universal  
TRINITY\_DN98420\_c0\_g1\_i1:1007-150(-)

LHKEARSTVINKMASRLNLSLGVVGLAVVGGVVNNALYNVDGGHRAVIFDRFRGVLPDVSG  
EGTHFLIPWVQRAIYDVRSKPRNVPVITGSKDLQNVNITLRLFRPVASELPKIYMSLGEDYDERVL  
PSITTEVLKAIVARFDASELITQRDNVSLNVQEALVERCKAFGLILDDISLTHLTFGKEFTEAVELKQ  
VAQQEAERARFLVERAEQQKQAAIITAEGDAVGAQLLSDAFKKAGNGLIELRKIEASEEIAQNLSG  
SRNVVYLPDQGQMLMNLPA\*

>TRINITY\_DN35672\_c0\_g1\_i1.p1 type:3prime\_partial len:668 gc:universal  
TRINITY\_DN35672\_c0\_g1\_i1:2001-1(-)

MLKFYLSLILTWTIATAINSQNINRPFQNVYRQYNSNQNNQQKQTQVRNGHYPSNRNSNFRSRN  
SKYYSMPTTNAGPNRCQGGQVCCPGWSLNPSTRMCTIPTCRNPGCYGFCRSPNLCQCNNGRFG  
SRCGGQGGGHIGCQQRCMNGGQCQGDQCNCRCQGYVGLSCEQPICAQPCLNNGRCIGPNRCAC  
PYGYTGQRCELDHRIGPCFTRIEDNMCRGQLVGVKCSRDSCCATVGAAGVPCSRCPKRECKL  
GFFKDPRTGKCEDMNECRGIPNICAMGTCINTIGSYRCECGQGRVYNAEKFECSAVETFKGCFSD  
HTCRAGTQLSNRLGKSKCCCGKPGRSFGLCDKCPVKGEEAYRSLGCSDDVGNIGEGGDGKDG  
GDGKEVKPEVNECKLNPGLCEFGKCVNINGGDFKCECNDGFEPTDDGKRCAAKQTFDKCYIDH  
SCNGKSVEGVSQKSCCCGKPERAFGFKKCPVKGS DAYRTLVCSDDQGNIGEGGDGKGGIGDDD  
NDDHDDDDGGGDGRDDKKEVDECALNNGLCEFGKCVNIDGGDFKCECNDGYEPINDGKRCAA

KQTFDRCYKDHSCSVKYSNDGISKKSCCCGRPENAFGICKKCPVKGSDTYRELGCSDDQGNIGEG  
 GDGKGGIGDDNDGDDDDDDDDDDDDDDDDDDDDDDDDDDDDEN

>TRINITY\_DN79\_c0\_g1\_i1.p1 type:5prime\_partial len:478 gc:universal  
 TRINITY\_DN79\_c0\_g1\_i1:2132-699(-)  
 VVSSESNVLVEFYAPWCGHCQSLAPEYAKAAKQLKESKSDIKLAKVDATVETKLAEKYEVQGFP  
 TIKFFKKGNALDYGGGRTDKEIVAWLNKKTGPPAKLLDNAADVAFADERDVAILGFFNDKESSEL  
 AKAFLAFAEAVDDLEFAIAAPDASGDFAVTEDKIIVAKKFFDDPQVVYSGEANIADIKKFFVRAESIA  
 LVTEFTDEAAPKIFGGDIKNHLLLFISKKAENFAELKNTFQEAAGKFGKGTVLVYIDTDVEDN  
 GRILEFFGLKAADAPTLRLIQLEGDMTKYVPETKDLDKDSVTSFVQNVIDGKIKPFLMSADVPEDWDK  
 NPVKVLVGKNFAEVALSKDKDVLVEFYAPWCGHCKQLAPIWDKLGEKYKDSENIVIAKMDSTAN  
 EVEEVKVSSFPTIKYFPKEGGVVDYNGGRTLDDFVKYLESGGKDVSGGADETGEDEDADEEEEGM  
 EEGMEEGDLKPEEPEVAKDEL\*

>TRINITY\_DN1559\_c0\_g1\_i1.p1 type:complete len:311 gc:universal  
 TRINITY\_DN1559\_c0\_g1\_i1:221-1153(+)  
 MAEKKATFKLGAENFALSGA-AAVISKTAAAPIERVKLLVQNQDEMIKQGKLSEPYKGVIDCTTRT  
 FKTEGLAPFWRGNLANCIRYFPTQALNFAFKDKIKAAAFKVSXSDGYALGFGKNIASGGCAGALS  
 LCFVYSLDFARTKLANDTKSSKKGGSREYNGLVDVYRKTLSKSDGVAGLYRGFVLSVGVIFVYRGCYF  
 GFYDTLKPVLLGADASLFMSFILGYGVTVTAGLISYPIDTIRRRMMMTSGQAVKYKGSIDCATQILK  
 NEGAMSLMKGAGANILRGVAGAGVLGAGFDKFKEVYIAMRKRQMGLE\*

>TRINITY\_DN10890\_c0\_g1\_i1.p1 type:5prime\_partial len:963 gc:universal  
 TRINITY\_DN10890\_c0\_g1\_i1:3568-680(-)  
 NEFFAGFQISPKILDSEKDKPRKIILENTVPIVCQDGTENCRVLVELAQNTDNFMDYCTISFKPGP  
 AGQTNEVEVVAKRDFIDDDGQTMFLKLHIPDHIDPVDWNCYKNITDIKIKTTDVKTSRCLSTGDP  
 HITTFDGHYYNHVLYGDTLVESKARKFKIHVRTWKCXSVSCNCGVAVQEGDDVIVVDMCRDR  
 VPRARFASTVEPQKGTTIERNNGKSFLSFPSGAFVRITCKRNYADFIQILPSDDFQNTVGLCGTF  
 DRNRNNDLTSKSGQVFNSRRGRNGPNGFTESWKLSSRDSLFYRGGPKKCLATRPKSYCTCKETC  
 CGKRTVNCDYEGYSQRPKYKQGFRGWKSLTFPGAHEHCGRRKRRSLDDSSVVLPPDDGDTAIYDYK  
 PAPVIPNEGFRPTPKGKSESQARNTCTRKIKESTIGKACLKIITGFDVQDYIDQCVIDVRVLDDFIVP  
 VESAVTNMASNCEEETLRDVKKYWKDAEGKDAPPQDIGDSACLNDCCSDNGVCRNGTCICND  
 GFITDDCSMTKGQQPVLLGIPNDGLCDIRRDQDCVRTRVTGDFIDSSTLQCKATEAKVSDTTPPEK  
 FGSGVIEQGQLLSFREIGCLLPKVPLVINGNPDYSRGKPTGAFYISVSNNGNNFSKEDTTYPSKSET  
 VMVVYDSKCMDCTKEGTCSWKNSCKMNEYCFANGDPKPDDWCQVCDPDRSRTEFVKRLDN  
 QPPVFNGGSTQYIFKGQQWKYELPAEDPEKQPLMYSFIGENHGMKISSAGILTWPTTELKVYSFKV  
 EIEDPCGLKASQEFKVDVRNCSCEGQNGGRCEWLKSNTPEDHKVCVCPDGCKGISCTDPIDGRICR  
 VKVSPQSGDDSSNGAVIAVIAIIILLIIVIAVVGFLIIRYLKKENKDVNMKNIKTTIADAGKNAKD  
 RVADAGRNAKDRVIPNKNKAKDDINANDKMRSIRINLRPQSGTSAK\*

>TRINITY\_DN1183\_c0\_g1\_i1.p1 type:complete len:193 gc:universal TRINITY\_DN1183\_c0\_g1\_i1:54-632(+)  
 MAAIRKKLVIVGDGACGKTCLLIVFSKDQFPEVYVPTVVFENYVADIEVDGKQVELALWDTAGQED  
 YDRLRPLSYPD TDVILMCFSIDSPDSLENIPEKWTPEVKHFPCNPVPIILVGNKKDLRGDENVKWELS  
 KMKQEPVKIDQGREMTDKINAFAYLECSAKSKEGVREVFETATRAALQTKKKKGKKCLIL\*

>TRINITY\_DN12304\_c0\_g1\_i1.p1 type:complete len:195 gc:universal  
 TRINITY\_DN12304\_c0\_g1\_i1:1971-1387(-)  
 MSSSSEPTKFKMVVVGAGGVGKSALTIQLIQNHFVEDYDPTIEDSYIKQVVVDGAICILDILDTAGQ  
 EEYSAMREHYMRTGEGFLCVFAVTSLSKSFQEIDNFRTQALRVKDAETVPMVLVGNKVLDLPKR  
 DVS TKHGNKAQSFQIPYVETSAKTKQGVVEAFFTLVREIIADRRRRRESQMKNNDMKNKKFKCTIL\*

>TRINITY\_DN119684\_c0\_g1\_i1.p1 type:complete len:662 gc:universal  
 TRINITY\_DN119684\_c0\_g1\_i1:2182-197(-)  
 MKLEIILFTLLVALTVHCSEKKDDSKKDVGTVIGIDLGTTSYSCVGVFKNGRVEIIPNDQGNRITPSYV  
 AFTEEGERLIGDAAKNQLTSNPENTVFDKRLIGREWGDKAVVHDMKFFPFKVVEKGKKPHVQ  
 VNVKENEKKTFAAEISAMVLVKMKEIAEAYLGKKVTHAVVTVPAYFNDAQRQATKDAGVIAGL  
 NYMRIINEPTAAAIAYGLDKKEGEKNILVFDLGGGTDFVSLTIDNGVFEVVATNGDTHLGGEDF

DQVRMDHFIKLYKKKKSKDIRKDNRAVQKLRRVEKAKRALSTQHQARIEVESLFDGEDFSETLT  
RAKFEELNSDLFKSTMKPVQKVIDDSGLKKKEIHEIVLVGGSTRIPKVQQLVKDFFGGKEPSRGINP  
DEAVAYGA AVQGGVLGGEEDTGEIVLLDVNPLTMGIETVGGVMTKLIGRNTVVP TKKSQIFSTAA  
DNQQTVTIQVFEGERPMTKDNHLLGKFDLNGIPPAPRGVPQIEVTFEIDVNGILRVSAEDKGTGK  
KEKITITNDQNRLSPEDIERMVNDAEKFADEDKKVKEKVD AKNEFESYAYSLKNQISEKDKLGK  
LSEEDKGVLEKAVDEAISWMDSHQDASVDELKEAKKLEDVATPIVSKIYQQQGGAPPPPGGEG  
GEEKEDKEEL\*

>TRINITY\_DN118520\_c0\_g1\_i1.p1 type:complete len:581 gc:universal  
TRINITY\_DN118520\_c0\_g1\_i1:1895-153(-)

MYRLSVIRKTTQTAKLRQGLSACISTTTHYCSPEIKTGT DARALMLKGVDQLADTVAVTLGPK  
GKNVMIEQSFGGPKITKDGVTVAKAIELPKYMNIGAKLVQDVANNTNEEAGDGT TATV LARA  
IARSGFEAVSKGANPNEVRKGVMAAVEVVTQGLKDLARPVT TTEEIAQVASISANNDAAIGKLIS  
DAMEKVGKDG VITVKDGKTVYDELEVIEGMKFDRGYISPYFINTAKGQKVEYQNVLVLICQSKIS  
NVQDIVPVLELANQH KRPLLIAEDVDGEALTALVINRLKIGLQVAVKAPGFGDN RKNTLKDVA  
ISTGAEVFGDDLNLKLDEVQLSDLGQIGELVVT KDDCLMMKGRGNTDLVNQRANHHDEIKATN  
SDYEREKFQERLAKLVGGVAVIKVGGSSSEVEVNEKKDRVTDALNATRAAAAEGIVPGGGTALIRC  
AKLLDTFQVPTEDQKWGVDIIRAALFKPCSTIVANTGIESAVVVEKVSSSKDPEYGYDAASGEFAN  
LIKAGIIDPVKVVRIALSDAAGVASLLTTAEAVITEIPKEDPSMPPMGGGMGGMGGMGGMM\*

>TRINITY\_DN252\_c0\_g1\_i1.p1 type:complete len:182 gc:universal TRINITY\_DN252\_c0\_g1\_i1:1409-  
864(-)

MASTLVILLICFVGGTFAQGCPRNKTCRCDNVIKYTTGNQPNKDLSSFPGLSLSDGPTARSYVQTY  
TKMYIDDKIKEAKCDNNKLRAVDMDLNPVMSLKTMTNTNYVDKKT EMQDIIDCNPNLDIESDL  
WDVYDVLADHCV CISQIHKDLKMKMEMVEAEMKRCDERGWYRSMLESFSIIS\*

>TRINITY\_DN598\_c1\_g1\_i2.p1 type:5prime\_partial len:742 gc:universal  
TRINITY\_DN598\_c1\_g1\_i2:2-2227(+)

RWSGCSKSCGVGVKTSRECDNPRPSGGGRYCTGERTATEACKIQDCGVDGKFSHWSTWTACSK  
TCGGGAQKRARQCNSPPPSGDGKDCAGAREEFKGC SNDFCKGPTGVAKAQEIIFLENFHKK T  
YPDREPSGKFLKAIFAIQKAVAEFISVDP SVRGKTL EQRLKDLEKFLKVATEGGSIDFARTLLGKGIF  
TFMKKKIQEGLPIDDIDKAAEGFLEKL RGDVGEKKMNEILSSQGDATLMFTIDTTGSMKDEINAA  
KAIAKQIISATRDYEV DYILSPFNDPRTGPVTHRSSSNRASFTVDIDRLRATGGGDCPELSFTGMLN  
ALNQGPQYGSPMFVFTDASAKDDSASNIDSLKAAADLT DATINFFTNLNGCKGAKSVESYKEIAS  
YTGGQVFP LKNEAELKKFTNYVKTSLQQD TVITSGGTLNSKSYKRSLYSMQAHDFMVDDGIIMIS  
VAISVQKYASQVTILD PNGRRVNPSTL SLSLVYQISHPPPGQWKINFPSSVGKYGYTVQAVSSSAIA  
FAHNFIYQQSVRKNSPPIPLANPLKGVKNMMVVR LGGTKNFDLNSIKIDLVDTSGNVLQKGIGTD  
RLDSDEV RHATIDPPSGPFKVRTLGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAKLGKGPY  
AAQMLFINRGAHENFYFYAKANYGSIPNYKQTKRVTSQGFVTFTYKAPRQYNLKGKSDRITVTVK  
RQSTGEIVSHHTSILLV\*

>TRINITY\_DN22219\_c0\_g1\_i1.p1 type:5prime\_partial len:427 gc:universal  
TRINITY\_DN22219\_c0\_g1\_i1:2-1282(+)

YISKDYCKGKKNP SVCTLHIHNEFSQIKHFQHQT PVTSENAPGIILAHGQAGDAL TGAGNVWF SR  
NGGYNWTRIAKGS HHYAIGDNGNLIVLPKF NSTGKTLIYSLNQGRN WYHNEFDLFDENITI HG  
LAAEPHSKERSFSLWGHRLVKGKKLWHTFTV NFRKLITKECQEEDMKTWYPHINNGKDGCFLGE  
RTIYKVP HKDSL CYLGRSYKPEKKVEKCSCTKDDLECDYGYERNRAGNCHRNEDIPLIEICKNGEE  
MQEAFSKGYRRVPGDN CIAQSSNDEVVR FIDEHKKCVPNKEDIFGDFNRERA EVIREEEEEKEKK  
MDETQKATKTKSKKKKGNWPV ILSIILMCHIGGAYWYWRKNYRPNNVHHVMYNASSFDNVG  
MDNNDGDVDADDLFDPRPKSLREYHDETDAEDEQ LLLP\*

>TRINITY\_DN15248\_c0\_g1\_i1.p2 type:3prime\_partial len:250 gc:universal  
TRINITY\_DN15248\_c0\_g1\_i1:748-2(-)

MARVWAFALPA AVALGTRLAAAAPLNFTLLSAPVKLRYGEVYNRMQVPMPLPPDVVS RFADGD  
KMAVSGFEVDMVRIAADGTESRVPLYDHYVHHYVLRIGRRPSMESLFDAAAKDRASAQMLTG  
CHAMTGADLHAFDARLGQA AVFGSGAGAEYRGTPNSLEAPFRLLHRPEGWAPVLHIINTNR  
PVAGQTYSP LAECPCTAQRRINASAGTIDGQVSRPPIHCSPEFAATGNPSCQLATYTGGL

>TRINITY\_DN244\_c0\_g1\_i1.p1 type:complete len:3019 gc:universal  
TRINITY\_DN244\_c0\_g1\_i1:9748-692(-)

MDARGQRLLYCLLIFSLATLLVSQQVEKCKRPVDLVFALDTSGSVKDSGFRLIQKFAKDILKTFDI  
GVADSHVGVLTTFSEQAEPQIKLTETFDKAELMQMIDSLVYQGYRTATDDALRVAKTDFSTAGGA  
RQGVPHVLVLLNDGKCTVCIEPVKEAAQKLKDMGVEIFTIGVTENIKKQELIDIASQPTAYHFFEL  
DDFDQLVDVVGDIQTRSCVKKGKCPISPTEQCSGNEINECTSDENCEGELKCCSDGCSRICKYP  
LLNCFTPIDIAFALDSSSIQPETFQEMKKFSNDIVDSFAVSQKKTRFAALVYSRAEIGFNFVRFD  
ASSIKKAIQNLPLKDSKERIDYALELAKSDIFSLQGKVRTRRPMVLFVFDGTVSSGMKDLSLVVEP  
LKNYGVKIVSMGVGPETNYYQMRKISSNNSDVFRATNFKELLPEIYNIAKRACTEKPGRCDASLN  
PLPKEACKNVKILNQCEPDFDCFGDAKCCRKGCNNVCVIRGPVCPRKLDIALAVHQNMDESEF  
AATKFYLQSVVDQFNVGPSQTHFSLLSFGQEPKVFDFNSDQSSNEIVRRKIDNFQYQYIGRISDV  
LALSCDAVFCAAGGTRDDVPKMLVIVTSRTSPSSPSKLKEKLQTLNRGVNLMIGVGDVDTSLQ  
AITSDDPLVEDRVLLSKRFDGIFQYTKDISDYACGMAPALPPDNIKGDAKGECCGAPKSCYKGPKG  
SRGRPGTGLQQGESDGLGVGPKGIQGRRGDKGPDGQMGSKGKRGPDLGLPGFPGYNGIPGV  
PGIEGRRGRDGDCLPGSSGEAGQAGLDGLSGPPGRAGPVGEKGEKGLPAPENPNIRIEPGDRGD  
TGSVGLPGFKGKGEEGFKGPSGDSGVDGIKGVDEGEAGEMGDIGTYIYQKGPEGDRGARGPPGD  
GDTQGATAGLVQGEKGEKGMERGEAGDGSIFPGIKGRRGDQGPKEEGSTGPAGPTGQRGPEG  
EEGPKGIKGEIGDRGKDGTGPGQPGQEGDLGEKGFDGLKGQDGDDEGELGDSGGKGLKGENGL  
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RGDRGRNANMLAGKDGMTGPPGPKGFTGPVGDGPGFPGPPGPPSVVECVGACPKGVPGAMGQ  
IGKTGEPGPPGPPGPRGSKGVAGGPCPICPDGIQDSDIGQPGMPGKEGSRGRKGNIGDAGSKG  
LQGRNGDDGDQGPVGKKGFIGDIGPVGENGVDALGDSVAPDGEKGSTGDTGQIGSRGPVGN  
PKGFKGTIGERGRRGLQGEKGDMLTGETGEDGSRGLEGAKGDLGDGLRGAKGDKGNIGQEGN  
QGVVGDVGLQGPKEQGAPPTDELKNVKATKSGKGEIGSTGDAGEIGDIGPAGPRGPKGFDGA  
AGPKGPSGVKGDRGNKGRAGDGEPGFQGFPRGPKRGPPGDPGPKGKRGFSEPGDAGDRGP  
GKSGKKGADAPPPIGCFKFNEPTDIGFILSSSSVDDDNFLRQLQFVKNIVRQYPVGPDQTQVGIK  
YGEKAVTGINFYDYVTEEGLFNAIDLLEHTKESERLDLALKLARDELFTESVGARGFDAKKALVIL  
GDGFISGGGTPSKTLMNNAMQYAEDLRGAGVSIFALAVGPEKNKALFHEFVSEKEYYLDIESYSQ  
DNELGALQLSLQTGCISVGVPRDGLPGYTGPKGQKGGDGPKGFSPPQGPRIKGIKGVRTIGIG  
VKGLPGDPGLQGPQGEKGRDGEDGSADPGPKGRPGDKGSRGDQIKGASGEDGDIGIPPPGFDG  
RKLCDNVLAVDLLFVLDTSVGVDNFNKMFKIESIINVFVDNQLTRVSVMTYDSDARLVIRFS  
DYNDPKLDAIDNIPYANGDETRIDKALLASSNAFDTSNAGAREGVNKAVILMTDQQQSFAVD  
QVALKDAVKPLVDANVLMYAIGIGSEISPVDLKTIAAERVLIADDFDGLSLKIEDQIVLLGRVGCQG  
PPGKDGKPGANGEDGFPLIGAKGQKGRGEAGTEGLKGNKGSQGEAFPLNRKGEKGDGPGS  
AGPLGLPGCEIKNQNEVIDLGFAIDASGLYEEGFNREKEFIKTIVDRVGRVSEQGIRIGVIVYSDTAS  
IEIRFDDHFNEDLKNIDIDNLPFFAKNTRMDLGLEEAKKMFGEQFGGRGSSKKVLILLADGQQTY  
VPGVTEPSEVAKELAAAGVDIFAIGIGQEIDRTELESISKPEHIFLASDISKLIDELTPEVTSALECEG  
GPRGPRGRAGTDGPPGSKLLGPIGDKGFPGEPSAGFGPKGDDGENGTAGTIGDRGEKGFGRGP  
AGVPKGKRGAVGPKGFPNGEKGDRGDEGFIFEGARGLEGPKGQRGDSSDNGVAGVKGSTGD  
NGFKGPKGDPGKLPPGNRIEDFKGETGGSGLEGDTGPKGKPGRALFEPGPQGLTGPKGEKGDQG  
FFGMSGPIGNKGFQGLQGFRGDDGAAGPVGEDGFPGMKGLPSSSGDQGDKGKNGRKGESGEV  
GQPRVGEDGDQGEKGYAGFVGMPGKKGDQGEVQGPQQRNEILDNIRPGPKGYPGSTGPA  
GDEGEDGEVGEGETVGAQGMNGDFGERGSQGPKEQGDQGLQGMIGVIGDKGVKGRVGTG  
GNPGTVGLRGLTGAPGEVIFGSEKGNKGDLGIIGLRGRAGQKGKAGAIGPRGRRGRNGAKGERG  
PPGFPLSGIEGDSGNEGDKGPRGDPGSGVGNRGIKGVPGESGIAEGNYIVIHSQTHIIPDCPRDFKK  
LWHGYSLMYVVGNGHSHSQDLGDAGSCSQKFSSKIFLCEIIVCKHASRNDFTYWLADVDHP  
MMPVSNAAVEPFISRCVCAVCEAHSSHITVHSQDTYAPECPPNWSSLWSGYSLMVAGAGKTGAGQ  
SLSSSGSCLESFRPKPFVECCQARGTCHFFSDKHSFWLVLTIDPNKQFEVMKPQTLIKDKNHDLTSR  
VSRRCVRCIRKTGTKNNTVEPNIAIRRSIASWIL\*

>TRINITY\_DN785\_c0\_g1\_i1.p1 type:complete len:289 gc:universal TRINITY\_DN785\_c0\_g1\_i1:1062-196(-)

MIIESKMLSSIMLKMIFVVVFLCGITLSEGIEKCDLQLEPIGCFKDDVWKRTMPEQILNERDPLNKV  
YNNRMINWKKFDTYLPGFICRAEAAFKKGYRVIGMQFWGECWSGPEAHLHFDSLGAADTCSN  
QKFEREYDNITQCVSAIGMDSTNYVYRIAPTVCDTHYEPVGCFCDEQKVPRPMPHYISTDRDYSL  
KIFSGKTIDWRNWNTYSPEMICRCATLAKSGHALFSIQFWGECWSGPETNGYMRDGVTTDCRG  
KDFEMCPCNGYHCVGKAYTNYVYRLGHHH\*

>TRINITY\_DN1534\_c2\_g1\_i1.p1 type:complete len:547 gc:universal  
TRINITY\_DN1534\_c2\_g1\_i1:1914-274(-)

MHRVNSSFVKVAERTSKLCGNLGIKNSKIPSSLIARSSSTDTTDGVGESEPGFLEMVSIFTENAHSIT  
LDKLLSAKPAPGKRAEDTGVREKRIKGILDIIKPTNTALAVNFPLRRDNGDYELITGYRAQHSIHL  
LPCKGGIRYAPDVNLDEVKALAMLMTFKCAVVDVPFGGAKGGICIKSDYSENEVEKITRRFTVE  
LARKGFIGPGIDVPAPDMGTGEKEMSWMADTYAMTLGYGDMNSSGCVTGKPISSQGGIHRMSA  
TGRGVYHGIDNFANNEEYMNLI GLKPGKGTFFIVQGGFNVGLHSCRYLHRYGARCIGVIEHDG  
SIMNPNGIDPKDLEDYKLDNGTIVGFPATDTTEDLMVAECDILVPAANELQITAKNAPHIKAKII  
AEGANGPTTPQADKILQQRKRLVIPDLYINAGGVTVSYFEWLKNLNHVSYGRLTWKYEESNNYL  
LSSVQESLEKHFGGNIPINPSSTFLQSIQGASEKDIVHSGLAYTMERSANRIMKTAKDYDLGLDVRA  
AAYVVALEKIFNTYSEAGLTFT\*

>TRINITY\_DN3619\_c0\_g1\_i1.p1 type:5prime\_partial len:1653 gc:universal  
TRINITY\_DN3619\_c0\_g1\_i1:5108-150(-)

ISSRKSKMGKWDDFVTVAIFVFTANYVVCGEIDKRSSLNTIDFNRYQNALVSGGCSIRRRGQTFN  
LNNQYCSMKVNVNGIKDIFTSRPNKIPNIKDATRNFDIPDIFKACQSIRFTENTASTVKILISEVTN  
GESSPLLPWISIMEVTVDVEITVDLTSQKEATVGLVFSETTFPAELTGNHLPSTPGLQIRITKENAYD  
DINYSILQLATLEMSLEDFLRGIGVKTEYMLDDLDFRVRGPINGVVAEGLWTVRINGDNFFNQISD  
KSKKFWSGSNAFLFCQYNKEDEKGPKCSLNSEQISGTDWWNLVTTVDMPNPKFLGGGSFDDSPIS  
VLQSSKVEIDVAFSTEVKQKLLPFSEFSFVLYGSRNRQENQAYVSTGTCLRYLRESFQYTYSDGNS  
YGTTLIPYIFNVCLEQNSVTGTFLPAFSLPLDMLIAIVMHQPMRDALKTIDNYGILVSKMKYIGSQ  
TCATFTSLTEKHHEFIKDQFPFENTVTVCGDDNMATITAEGRKVLDAETSVDAKLMSEYYTDD  
PAATVISTGWFLTGSVKIFDIEYVLEKTGQHFMGEGELEWFPFCKKALTDTVFKAPSSS QLYLTLEG  
TTHINHNFKFELVSRSENTNDEIPASLALCLRKEGGTSDEIFSIFYKEKYKELPYSFEKTVISVQKDV  
NFYTNHQASGTGIIFRCQNVEIKHKEEGVRITGSHAGSVRAMLETLVFGCDASGEGSKKSSSCQVI  
KNGFGGGDTLEGNWYGRVAMRDLRLSALINKPFIVADGIEIKSGLQHVLIQNTNDEVQEMLRNQ  
ISGQIDLGSHTTTASIIFNDDTAVFELHEYTSETSFNLYGVGGISQNRIFKSKTAMTNTRWSNLEIQG  
NIILGSAPGFEIDIENDFEGAVRQFMYGDTTKNRFYACAPTKEFTMSLVLQAFGAYDGTSLFSTTI  
LKEVCVAYHNDENDWDIKFQGFKAQGLRLYGTITSLFGYELKANVKLDGDVEVNIELPVLKF  
GARTKVNERTGQTETRYAFTFSKMKSLEDYGTFTTAIFNNRNSFGQGKLTGHIKLPMEYEQVTLTF  
NSYGHINQDIQLVNSESGDSKIKPGKINLSGTLGLGNVLTMGASRFTFSADLLLAQANLAESCTK  
EFTEINKRSALALTEIGNQYTSVLSNITSMETQIRLVNGNRLKRSIQELETQMLTEIRKVKKQNQEH  
CKPLKLSGFKLEKSCGKRNSLQNATCLKFIDDAFDATDTTCLEESKNNRKAHQNALKKNNIIRA  
SSLSLREKRTCYDLFDQINNHYKAARDFLLTAKSTDLPNKINSLQSLGTYFSLRVAKYRTVNPML  
SSIPNDVCIDFELEYNTGTPHTETKLCALDSMFDDL GKRVTEYIRGKEDERNEVYNEAITKAAH  
EIYMANLIKKKNEDDYELCKRVQRARKREKVFPVPEFFRSGYKNQAFRTNAENTESMMKYAPW  
NVMKRNNPMTIMSNSKPNRYLRNMNHVEGSGPCSDARNKIESYGTMDVDMKTWVDNYQKGLA  
KFKKINENVVRGLKKRNMTQHOGFAEFTKETESQLNQLNHFAPSYMKNELNALINPKQQDQLE  
NFLYQTSTDTSNLIKKSFPQNDQTFNLSNMLIQQFSGNKTLDEMAPSVKEMEKMMTALNKRTL  
VCHDEL\*

>TRINITY\_DN2028\_c0\_g1\_i1.p1 type:complete len:274 gc:universal  
TRINITY\_DN2028\_c0\_g1\_i1:1608-787(-)

MGQSDGDDLTFGQKISREWDRDFREFLYNSETGKVMGRSGTSWAKIGGFYLLFYGFLAGFFTALLFI  
FYTTIDKPGIGPKLIQYIENKPGLTRLDNRSSKLQSYSASNDRISYKTVIDEFLDGYNTSDHSGAL  
CGAAGTPKSDKPCIFDTLLGECAPSKNTTYGLREKKPCIFIKINKVFGWTPADDGTGYLTLSTG  
HATVMPQGFPLTAFYPYNGHKVYQSPIVAVKIDATKGKKNVDCTLKGKNIEVSNNFNPSRAFGKIR  
IEGISATD\*

>TRINITY\_DN757\_c0\_g1\_i1.p1 type:3prime\_partial len:218 gc:universal  
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 MNAALVAIVFLLSTVYGKTTPTSTDKATTPTPKSPVCPKQKDFYVQIKVLSLGEYVPEMSRVES  
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 DMEVSPKFFECKELDPSILYPMANCPAPCGDLNCWPTCDATCCGTQEQTIIYIPAAAPPPPPPPPP  
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>TRINITY\_DN578\_c0\_g1\_i1.p1 type:complete len:429 gc:universal TRINITY\_DN578\_c0\_g1\_i1:379-  
 1665(+)  
 MDMKALFLSLALVVVAWNTAYGSSNHKLVAIWGQNAVYNLKRDKQYWEKDLSYFCDNSKYDV  
 IVLAFMHVFFDRRQKDALPGLNFAFHCETSMSADLPFLLRCPQIEAGIKRCQANGKKVILSLGGA  
 TGGYGFANDGEAKTFAHTVHNLVLAGNKMQRNIRPFGSAVLGDGIDLDIEGGSNVGYATFVRELRA  
 LQGSNHYLIAAAPQCPFPDHFLGSPGTAFGEVADLFDEIYIQFYNNYCHTGDAAKQFYPNFQQWI  
 NFSKKSNGPKIFIGMPSSHERAAFGQGYWRTPAEVA AIYENVKNEPGFGGFMWLDASFDDVNRFN  
 GRPYSDSIAALFKNGGGPRPTYRPNTMRPNPVTRPTPKTRRPNTQRPVTQGPVGPVSCSAGADGL  
 IPHQDCSKFIECSHGRATVKSCPPGLKFSSAKKYCDWPRNVQC\*

>TRINITY\_DN10907\_c0\_g1\_i1.p1 type:complete len:206 gc:universal  
 TRINITY\_DN10907\_c0\_g1\_i1:1010-393(-)  
 MAKAYDYLFKLLIGDSGVGKTCLLFRFSDDAFNTTFISTIGIDFKIKTVEVDGKKIKLQIWDTAG  
 QERFHTITTSYYRGAMGIMLVYDITQEKTFDNIAKWLRNIDEHASEGVERMILGNKCDMEEKRM  
 VSKEKGEIAREHSIKFFETSAKENICVEEAFMQLTQDILRKHQAGATHEQSPSGVVIEKDSHNRS  
 KGGMNCCN\*

>TRINITY\_DN1280\_c0\_g1\_i1.p1 type:complete len:426 gc:universal  
 TRINITY\_DN1280\_c0\_g1\_i1:195-1472(+)  
 MGFETCGPNEAMVISGCGQERPLLISGGRKFVWEFFQKVQRISLNVMTLNVESQRVYTVQGVPI  
 VTGIAQVKVQGGQNEEMLHAACQQFLGKHENEIRNIALETLEGHQRAIMGTMTVEEIIYQDRKKFS  
 KSVFEVASSDLVNMGISVISYTLKDIRDDEGYLKALGQRRIAEVQCEARIGQAMAKMQSGIKEAQ  
 AEEVRIKAEYENKTEVARSQDRDFQLNKSAYDIEVNTKKATSELAALQSAITNQKIKEEDMQIKVIE  
 RAQAINVQLQEIQRRKELEAQIRKPAAEARYKIEKIAEANRMKVVLAEAEAEAEAEAEAEAEAE  
 VIQKKATAEAEQMSKKADAWRDYQEAAMVDMMLDLTPKVAEIAAPLSKVKKVTMISSGSSDV  
 GAAKITGELLDIVIRMPQAMEQLTGVDITKTFRREK\*

>TRINITY\_DN598\_c1\_g1\_i1.p1 type:5prime\_partial len:745 gc:universal  
 TRINITY\_DN598\_c1\_g1\_i1:2-2236(+)  
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 TCGGGAQKRARQCNSPPPSGDGKDCAGAREEFKGCSDNDFCKGPTGVAKAQEIIERFLENFHKK  
 YPDREPSGKFLKAIFAQKAVAEFISVDPYVRSKTLEQRLKDLNFKLVATEGGSIDFARTLLGKGV  
 FTFMKQKIKDGLPIDDIDKAAEGFLEKLRGDLGDKKMDIELSSQGDATLMFTIDTTGSMKQEINA  
 AKAIAKQIISATRDYEVYILSPFSDPGTGPVTHRSASERASFVSDIDRLRARGGGDCPELSFGGML  
 NALNNDPQYGSMPMFVFTDATAKDDTDANVASLKAAADATDATINFFTNLAGCNGRRDRKRGIE  
 SYKEIASYTGQVFLKNEAELIKFTSYVKTSLQQDVTITSGGTLNSKSKRSLYSMQARHFMVDDGI  
 SKLVISVGVQQLASQVALVDPNGKKVYPSTTLALSILYQVSHPSPGQWKLDFTSVGKYSYNVQAV  
 SSSAIAFAHNFIYQQSVRKNSPPIPLANPLKGVKNMMVRLGGTKNFDLNSIKIDLVDTSIGNVLQ  
 KGIGTDRLDSDEV RHATIDPPSGPFKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAK  
 LGKGPYAAQMLFINRGAHENFYFYAKANYGSIPNYKQTKRVTSQGFVTFTYKAPRQYNLKGKSD  
 RITVTVKRQSTGEIVSHHTSILLVV\*

>TRINITY\_DN164469\_c0\_g1\_i1.p1 type:complete len:184 gc:universal  
 TRINITY\_DN164469\_c0\_g1\_i1:45-596(+)  
 MDGLFDISSWFDEVKRMNKRQLYYQVLNFGMIVSSALMIWKCLIVVTGSESPIVVVLSGSMEPAFF  
 RGDLLFLTNDNTKPIRAGEIVVFRIEGREIPIVHRVIKVHEKDSGYVKFLTKGDNNNVDDRGLYVP  
 GQMWLEKKDVI GRANGFLPYIGIVTILMNDYPKIKYFILAAALGFFVLIRKE\*

>TRINITY\_DN614\_c0\_g1\_i1.p1 type:complete len:183 gc:universal TRINITY\_DN614\_c0\_g1\_i1:194-  
 742(+)

MGQMFGKLFSGLFGKKEMRILMVGLDAAGKTTILYKLLGEIVTTIPTIGFNVETVEYKNISFTVW  
 DVGQDKIRPLWRHYFQNTQGLIFVVDSDNDKERVTEAKGELAKMLGEDELREAALLVFANKQD  
 LPNAMNAADLTQALHDLKSRSWYIQCATSGDGLYGLDWLSTELKKKKN\*

>TRINITY\_DN1613\_c0\_g2\_i1.p1 type:3prime\_partial len:1062 gc:universal  
 TRINITY\_DN1613\_c0\_g2\_i1:70-3252(+)  
 MWLRIYFALAAAFALTANAYDFKTCATYKKIGCYEDKNHDMVMLENYRDTRRDDFHQLSPVYW  
 KKFNQTMHSLACECIKIAQSKGMDYIQIGFYGECKGGKDFASDIITRKEIPNDQCVNTKFKKCVTA  
 SLDLCVGAHTGYIYLVGGDRNERKVDGGYSYWSEWTECSSSCGRGIQERERQCDSPLPKGG  
 GKDCSEIGEPFEIKDCNLRECPVDGGFTDWSQYEKCSATCGGGFQKSTRSCTNPAPKFGGQDCVG  
 DVEKTRDCGTPCPVDGGWSLWDDYGECSKECGGVQVSKRSCTNPSPAHGGKECVGVDERSR  
 ECNTFACPVDGGFGKWSEYDTCTATCGGGTQTSTRQCDSPSPAHGGQDCAGESERVEKCEGMKP  
 CPVDGGFSAWSDYSACPVTCCGATQTSTRCTNPTPAHGGKECVGKTTREKSCANNPCPVDGGF  
 TAWSEYGSCSEECGGGIQESKRSCCTNPAPEHGGKDCVGDTERTKQCNTQACPIDGEFTVWSEFTK  
 CTVSCGGGVQESRRSCTNPAPEHGGEECFGPVMRTRACNTKKCPINGGFSKWGEYSVCSEECGG  
 GTQSRTRCTNPKPQYGGEPSCGDSLEERDCNVQPCPVNGKYSSWSAYSKCSASCGGGSQKSTRT  
 CSNPAPAHGGAQCQGDAERTRECGTKPCPVDGGGLTKWSEFGACTASCGGGEQTATRSCCTNPSA  
 HGGKGCLEGELEKVRCTAPCPVDGGFTDWTQYGECKSCGGGSQTSTRCTNPSAHGGQEC  
 DGSTMKTRTCNSDPCPVDGGFSKWSEFDKCSSTCGGGYQTKTRSCNNPAPAHGGKSCSGETEMT  
 QSCNSNPCPVDGGFTAWSKYSICSATCGNGIATSTRSCTNPAPANGGDDCVGLKIKSKKCFVKHC  
 PVNGGLTDWSEYDTCTEKCGGGTQTSTRSCTNPRPAHGGDDCDGELERTRSCGMDPCPVDGGGL  
 TKWSDYDQCSKPCGGGYQTSTRCTNPLPAHGGKECTGETDRTRECNTHHCPVDGGLSQWSSY  
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>TRINITY\_DN932\_c0\_g1\_i1.p1 type:complete len:475 gc:universal TRINITY\_DN932\_c0\_g1\_i1:1940-  
 516(-)  
 MGFKFLELLKPFISVLPEVSKPERKIQFREKVLWTAITLFIFLVCCQIPLFGIMSSDSADPFYWLVRVIM  
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 GMYGEPSELGAGVCLLIQFCAGLIVLLLDELLQKGYGLGSGISLFIATNICETIVWKAFSPATVNT  
 GRGTEFEGAIILFHLATRQDKVRALREAFYRQNLPLNLMNLLATVFVFAIVYFQGFVRDLPIKSA  
 RYRGQYSSYPIKLFYTSNIPILQSALVSNVYIISQMLSAKFAGNFLVNLLGVWNEQGGPSRSYPIGG  
 LCYYLSPPELGGIGQDPVHALLYIVFMLGSCAFFSKTWIDVSGSSAKDVAKQLKEQQMVMKGRH  
 EKSMIHELNRYPATAAFGGLCIGALSVLADFMGAIGSGTGILLAVTIIYQYFELFVKEQSEQGGMSS  
 TLLF\*

>TRINITY\_DN76073\_c0\_g1\_i1.p1 type:complete len:107 gc:universal  
 TRINITY\_DN76073\_c0\_g1\_i1:794-1114(+)  
 MNTNVENDYDQCFIGSQLKDECHKKNYLRTTGITILLQDLLEKDRSLLQWRCEVKTSDSDLEKRIC  
 YHHEKIYLTRYVGLQKYCCDPCNMHGNRFVTSKWKDFSQYF\*

>TRINITY\_DN11097\_c0\_g2\_i1.p1 type:internal len:222 gc:universal  
 TRINITY\_DN11097\_c0\_g2\_i1:665-3(-)  
 GEAKVCESSRLGDSKHLEQPSTLEFDANENHVRGSDLMTTGSRIQKSEPHWLSKEALQSGVSPHIS  
 TPLPVSKLRVDLSLFETGIKVVDLLTPYKKGKIGLFGGAGVGKTVVIMEFIRNLAIEHKGISIFCGV  
 GERTREGNDLYSEMAEAGIIQVDGGYCYDLDSKDKQFVKDFTFTSSSVTLVYGQMNESPGCRMV  
 AHAGLTVAEFFRDVFKQDVLVL

>TRINITY\_DN113\_c3\_g1\_i1.p1 type:3prime\_partial len:1162 gc:universal  
 TRINITY\_DN113\_c3\_g1\_i1:3485-3(-)  
 MEIVSRSRIFAIFVLLGLLISVAESQFDPECEIDPDVECSPPPESTVNECLINNDCDVDKPLCCSNGCG  
 LKCTARERRSITPDGFTPEDEKLCRVPVDLGFIDVSGSIGQTNFDKIKKFIEKIVDAFHIADDGTHV  
 GAVFYSDNASLAFDFNHLQGDQLNEMNVVREIEKIQVTDGQTRIDLGLELASRELFNPAAGMRI  
 HKPKIALVLTDGKQTRGELAPDAKDLHQASRLKQTVGVVYSLGIGLDYDIGELLDIASDDASVF  
 RSQDFDELVSIVDILIEQTCKGCTRAVDVHFALDASANVGEENFVFMKDFVKAIGYNFISETGAH  
 MSGSVFGDVGTLVFDKSQATEINEFENEVENMPYLGATGNMDKVLKMSNEVFNFDFGFTROSS  
 PKVIVLLTSSNCDTCQESLEDLARPLKAEGIHIVAIPIGDPLFDEMQLASHPIDQYAIPRATHQELL  
 NAEFIQKVSEMVCAKPGICAEPVKGECAEIINECSVDMRCPEDQKCCIKNCVASCVLPLAACIT



PIEIAFAFETTKYGIADFN NVKNFAINLLDHFVKGPSKAHVSLSTFSEDVTS LTKFIDDFDMESIKQSI  
KDLKHDGGEESNLGNFLEIINTEVFSVRGGIRQQTPRVLVIFANGDINDEQAVKAQEEALHLKAD  
GKDVKIIIVNIGSSTKTLDVLNEVATEGSFYEFFGSAELDSTA IETEISEKICSTKVRRSKCQRRIRSSCA  
VKDDLCDSDFD CPGHQECFSDGCRLRCQTCEFRCKDKVDLLFVMDTSARIGRDNFERGKKNIKK  
MLEWFTIDSNNTNVGVITYSDTANVAMPLPSRGNNNPAQSLIDVQDR LDSIPYSGGSVSHLDNAL  
QLAAEKVFPDNGPNLRRDSKKAVVVITDSLDD SASQLELASWPLRRQRVQTEDGDASNIRILAFN  
VGQELDLDLWGNIVSPPVEENVFYAADFDDMYNGIRQLAEDSCKYAAAITPPPIIKQKGEPPPG  
PPGIPGTNGTDGRNGTDGRRGPKGERGDTGLKGFKGEVGLVGP PGGAEEQKGPDP LASAVGIV  
NVTDLPGGGRIVFDLREGPVGQQGLTG IIGPKGPIGDTGEVGIKGRNGTTGPGGFFGLPGPKGQP  
GTDGAKGLRGDPGLRGSAGRKGPTGAPGLTG PQGPFYK

>TRINITY\_DN3052\_c0\_g1\_i1.p1 type:complete len:362 gc:universal TRINITY\_DN3052\_c0\_g1\_i1:45-1130(+)

MAHLSQEQRNELKKNAESIVAPGKGILAADESTGTVGKRFAGINVENNEENRRLYRQLLFTADKS  
ISNYLGGIILFHETLYHKDDNGKPLVELIKELGINPGIKVDKGIVPLHGTNNEGTTQGLDGLAERC  
KQYKQDGCCTFAKFRCVIKINTPLGVPTDIAIQENAQVLARYANICQANGLVPIVEPEILIDGDHNL  
ATSQRVTERVLACVYKTLVDHHVYLEGTLLKPNMVT PGQSCPEKASAEVGVATVKALRRTVPA  
AVPGITFLSGGQSEVEATKHL DAMNKTDLARPWALSFSYGRALQASVLKAWGGKKENVAEAKQ  
VLLHRAHLNSLASLGKYEGENASGATGDSLFVANHQY\*

>TRINITY\_DN10385\_c0\_g1\_i1.p1 type:5prime\_partial len:968 gc:universal  
TRINITY\_DN10385\_c0\_g1\_i1:2-2905(+)

TATPKGGSEPEGNAFKKPSSDNP NESPLPIDGSEKKPAQKPLEPVESKNPLEKPSFSNTPESANKPK  
EEEAKNPLETPEEAKSPLSLPEEETKKPLDQPEIGKNPLEEPLNEGKNPLEQAPNPQE QPKGKNP  
LEQPPEQEGANPMEKPKSSNTPSENPLGVENPSEEGKNPLDKPNDNAPEKQSDDKFPLQQTGEK  
NPLAKPTTEKNPSLEGKNPLEQPN DNAPGKQPDEKNPLQQAEGEKKPLAKPATEKNPLQEGKN  
PLEQPQEGKNPLEPPQGGAKPQELPNNV PNTPLGKQPEDQTP LKKPNEKPLEKQEGKNPLDQP  
EEGKNPLEQPMGEKNAAGGKPGDENPLNKPEDAKKPPKIPQEAKNPFGKPS EEPSEEAKNPLEK  
LEEGKNPLENPQPQETPSNKPEDNNSPSTPGEADQSQSKPLGNTTAPGSPNGAEAPKPTGIPEK  
VSGTEEGEGPSSAPAMSTSLKNGLAAHNALRGIHGSKRMKPNEDLEAKSREIAASIADAGGKM  
ENKKRQDIADFGENVNVNCDTSSKTVEEEATLKWWSQDFCDTGPSTISDKRMGAGTQVIWDAT  
DEIGMATSAFMKDGKLCYVVVALYTPKGNDRKTYDQNVFQGD FDFETMCDDKNNTLQTAKEL  
DKDKNQEATEPQTSSSESTPAGSEPNQTTGGGAAQKPGGGA VQKPGGGAQKPGGGAQKPG  
GGADQKPGGEGSGKPGGGEKKPEKGQPEAAGGKGLDQKKFAQEGLEAHNKL RKIHGSPPMA  
LDDQMNKEASEYAAKIAKL GELKHSTSAERNDDGENLAYVCGSLANGYKGEQPTASWYNEVCE  
YNYPPSNEVVGSTLHFTQVVWKQSVKLGMGYAKGTKYGMTCY YAVGRYRIAGNMGMNFQENV  
QKGSFSKATTCSEFWKMLNVT PDKRSKVRTHVGHALMNKSKKHKT PGSTANIQTMTKGTLKKKG  
YIQQKRAKSKKA\*

>TRINITY\_DN1070\_c2\_g1\_i1.p1 type:complete len:209 gc:universal  
TRINITY\_DN1070\_c2\_g1\_i1:1431-805(-)

MSGSEFGNPLRKFKLVFLGEQSVGKTS LITRFMYDSFDNTYQATIGIDFLSKTMYLEDRTVRLQLW  
DTAGQERFRSLIPSYIRDSSVAVVVYDITNINSFQQTNKWID DVRAERGNDVIIMLVGNKTDLA EK  
RQVATESGEAKSKELNVMFIETSAKAGHN VKQLFRKVASALPGMENTPDKKEDLIEVQLKDTPLD  
QNQQETAGCAC\*

>TRINITY\_DN5397\_c0\_g1\_i1.p1 type:internal len:161 gc:universal TRINITY\_DN5397\_c0\_g1\_i1:2-481(+)

CSVVCDYSPWQDTQSCTKTCDGGVLIQSRTERSFNKVESREGSTPCNTQACG SGLSEERFRKCNA  
NQCGTNTGLQEVYKVCNAANCRFQGIDYTRNQEI NIRTQACTTACDYTPWQDTTACSKSCNGG  
VLVQSRTERTFNKIETRDGTTPCNTQACTQEL

>TRINITY\_DN11662\_c0\_g1\_i1.p1 type:complete len:398 gc:universal  
TRINITY\_DN11662\_c0\_g1\_i1:75-1268(+)

MALSRPVYIIAAKR TAFGSFGGSFKGLTATQLGQKAAAAAIVDAKLDP SLINSVIFGNVAQSSDA  
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ARWGINLGETREIEDTLWSALTDSFIQTPMGITAENLAEQYGITRLECDEYALASQQRWAAANDN

GLFKAELAPIEVKQKRKMVPVDKDEHPRAGITIEALNKLPPVFKKNGTVSAGNASGICDGAALV  
LASEEACKQHNLAPLAKVVSYGISGVEPSIMGIGPCPAIKQALSRADMSLSDMAFIEVNEAFAAQY  
LAVEKELGLDRSITNACGGAIALGHPLATSGARILTHLVHTLKRTKENHAIGSACIGGGQGIALL  
ENVM\*

Band 10

>TRINITY\_DN982\_c0\_g1\_i3.p1 type:complete len:9852 gc:universal  
TRINITY\_DN982\_c0\_g1\_i3:29697-142(-)

MSIKLCTFFVFFLIQCINSFPEIGLHLSLDRSYFQNGWKTVNGWEIKPRANGPYEIDAIKNISPEY  
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DEKLTIEIYSDDINANYVVLESATFVFHFIVGTGSVPAYLAHTAQDQEYASDSIIKPWVTLGDSRVYE  
SLSGFIKNEGVFTTICNGVHKMAVNIMIKANAGTYTLKALFQDEESATATVTINQPDSIATLNIFQN  
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158(-)

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>TRINITY\_DN428\_c0\_g1\_i1.p1 type:complete len:1949 gc:universal TRINITY\_DN428\_c0\_g1\_i1:96-  
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TRINITY\_DN3034\_c0\_g1\_i1:6289-467(-)

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>TRINITY\_DN761\_c0\_g1\_i1.p1 type:complete len:830 gc:universal TRINITY\_DN761\_c0\_g1\_i1:129-  
2618(+)

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>TRINITY\_DN77\_c1\_g1\_i1.p1 type:3prime\_partial len:1965 gc:universal  
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GPVGSPLRGQKGTGDRGDSGETGPIGVAGDIGPRGFTGELGLRGAIGEMGQIGETGPQGMPS  
QGTPGAAGLTGPAGPSGLPGKDGNGKPIGDPGNAGNPGRDGGPGSPGKDGTPGEPGTPGSQK  
QGLKGPFGPQGAPGEQQRGLTGRQGSQKDGPKGFPNDGSPGISGKRGRPKDGTGSPGPI  
GKDGRPGKPGINGTDGDPGNNGPKGDPGERGDSGDSGLGASGDKGKTGSEGPAGFVGPRGSN  
GKAGVPGKRGKRGDQGRDGPGRNSGPDGIDGSKGFGKGNMGRFGIQGPPGDAGLKALGPDGT  
VGHTGPQGNTGDPGPDGPEGPSGSKGPAGNAGQIGNAGYPCSPGDGGIPGTAGLPGLPPGPPGP  
GDMGSAFSGNYWDFVNAGGLQKGPRIYGGRSKSLDQQDNSIEKVFKSNYETFKNFDTVWNQI  
VDDLVIQKTLGSSKNPALTCGDLFKTNPITKSGDYWID

>TRINITY\_DN95248\_c0\_g1\_i1.p1 type:complete len:124 gc:universal  
TRINITY\_DN95248\_c0\_g1\_i1:197-568(+)

MAPKTKKVSKKKSTLNFNIDCTLPVEDGIMKVDDLKKFLQEIKVDDKLNLDQITLEVAKTKVT  
LVSERPFSKRYLKYLTKKYLKKNNLRDWLRVASSHTDYELRYFQINNDEEEDDEEDNE\*

>TRINITY\_DN240\_c0\_g1\_i4.p1 type:5prime\_partial len:397 gc:universal  
TRINITY\_DN240\_c0\_g1\_i4:1327-137(-)

LKAAAASFSGVSPFALVQPRARVPSRSRVAMVRRSLPVLGLAGAACFFARSPCFIPGGPLRRQPWA  
AAAGSAAVLGATPALADPIGDAAKKLADASYPFAKEVDWNSGIYLQAPGKLAPLEALKKIDKMI  
VLGSQADPKLLKAAADAHKKAISSASGPTGMTSKADWEAVNAALGRVFASVPESVMDVYNAV  
AKITDPGVPAYLKSXVNGADAEEKAYAAFLEFKDVVKANQVSSAAAAPVPAAGGDKIGAAAQAL  
ADQSYFPLKSVDWTSIDLKPLPGVSAAKALKAVDKAIVMGSAMDGNLLKAAASAHHQAGSI  
DAAGVTSAADYASVTAALGRAIASAPTSKVMVYNAAFAGIVEPSVPNTLFSKVDPLAANAAASA  
FYEFKDVVKAAQR\*

>TRINITY\_DN1112\_c0\_g1\_i1.p1 type:complete len:200 gc:universal  
TRINITY\_DN1112\_c0\_g1\_i1:740-141(-)

MSTLKLQKRLAASVLKCGKKKIWLDPNEASEIANANSRQNVKLIKDGIIKKPQVVHSRARTRA  
NLEAKRKGRHKGFGRHGTANARMPEKVIWMNRMVLRRLRLRYRESKKIDLHLYHELYMKA  
KGNVFKNKRVLMYIHKKKAEKKRSKELSDQAEARRNKVKAARTREERQAQKRAEILQAYAK  
EDTAATPAS\*

>TRINITY\_DN116\_c0\_g1\_i1.p1 type:complete len:297 gc:universal TRINITY\_DN116\_c0\_g1\_i1:72-  
962(+)

MGFVKAIAKNQYFKRFQVKFKRRREGKTDYYARKRLVTQDKNKYNTPKYRLIVRFTNKDIVCQIA  
YAKIAGDVIVCAAYSHELPRYGVKVGLTNYAAAYCTGLLVARRLLHKLNLHETYSQTEVDGDEY

NVESVDDGPAAFRCYLDIGLNRTTTGARVFGALKGAVDGGLEIPHSVSRFPGFDSESDDFNAEVH  
 RNHIFGKNVGDYMRALQDEDEDAFKRQFSKYIKEGVKPDNIEGMYKKCHAAIRADPAHKPSGK  
 EKFKGKRYGRKKMSFAQKMDSVRQKKEAFKRKMEQDED\*

>TRINITY\_DN262\_c0\_g1\_i1.p1 type:complete len:1033 gc:universal TRINITY\_DN262\_c0\_g1\_i1:111-3209(+)

MADPSSLETKEKDGSYRVATKSGGKDKGKKSskaAAKKNMDDLKKELEMTEHSCELETLSQLE  
 TSLTQGLTKSIAARNLERDGPNALTPPKQTPewVKfCKQLFGGFAMLLWVGAILCFFAYIIRSIREE  
 EPGMDELYLGIVLTVVVIITGCFsYYQESKSSKIMESfKKMVPQEAavVMRDGEKLNlNATECVVGD  
 LVfVKFGDRIPADLRIIESKGfKVDNSSLTGESEPQSRNSECSSDNPLETRNLAffSTNAVEGTATGIV  
 VKTGDNTVMGRIANLASGLGSGKTPIALEIEHFIHIVTGVAVFLGVSFLIISLAMNYHWLESIIFLIGI  
 IVANVPEGLLATVTVCLTLTAKKMASKNCLVKHLEAVETLGSTSVICSDKTGTLTQNRMTVAHM  
 WFDNMVVEADTTEDQSGQAHDKGSTTWKALAKIGALCNRAEFRPNQEEEPILKRECNGDASET  
 AILKFVELSVGSVEDIRSKNKKIVEIPFNSTNKYQVSIHEQEDPDDPRYLLVMKGAPERILDRCSIL  
 HEGVEKPLDEEWKENFNKAYVDLGGGLGERVLGFCHYYLPADDFPKGFAFETEDPQNFPLEKLCF  
 VGLMSMIDPPRAAVPDAVSKCRHAGIKVIMVTGDHPITAKAIAKGVGIISegNETVEDIAQRLNIP  
 KEEVNERDANAaAVVHGSHLKDLPQEKLDLKYHQEIVFARTSPQQKLIIVEGCQRMGAIVAVTG  
 DGVNDSPALKKADIGVAMGIAGSDVSKQAADMILLDDNFASIVTGVEEGRlIFDNLKKSIAyTLTS  
 NIPEISPLFMFILLAIPLPLGTVTILCIDLGTDLVPAISLAYEKAETDIMKRKPRDPVRDKLVNERLISL  
 AYGQIGMIQATAGFFTYFVIMAENGFLPGYLIglRNDWDDKKNNAVMDSYGSEWtYNQRKNLE  
 LTCHTAFFTTIVVQWADVISKTRRLSLFQQGMTNWMLNfGIFfETALAAFLQYTPGLNTGLRLR  
 PMNFPWWFVGVPFSLlIFVYDELRRFLRRNPGGWVEQETYY\*

>TRINITY\_DN477\_c0\_g1\_i7.p1 type:3prime\_partial len:1130 gc:universal  
 TRINITY\_DN477\_c0\_g1\_i7:3387-1(-)

MMGSIKVFVGLVLLSFTAIEIAQAQSGTVLSNKQFAFDfVVDGGSISIQDEQWNLLTDFVSRLAVKM  
 STLNNAKLSALQFSHTLNRILQCNQYANVEEARNTIKNMVQENGATGTLAAMLTSADNLMNVC  
 SAGDPNRQNVMIvVDGNQNLQKSHSEIVQDIKVNVDKDNILVLTlGVGPQVNRNEFGDYASD  
 SGKGFFVDDFTLLTDELVQRMVDELIRTYGDGPdYLTAWVNGPCSATCNPFPMANRPtLRQTRQ  
 CQEPNGGNCGGASLEQIINCENIACAGETyLTAWVDSSACSLTCNPFpVSNQPTKRQTRECRQP  
 SGSCNGASLTQTINCENENVQCPGETyLTAWIDSSCSATCDTGSNNPVFTQTRQCRQTVGNCDGA  
 PLQQTRSCNVGVsCTAPTFLTAWSNATPCSATCNPFpMAVRPTLTQVRQCNEPNGGNCGGASLQ  
 QTVQCnLDVACAGETyLTNWVDLTACSATCDDASNRpVKQQRQCQPGGNCdNLPLQQTVN  
 CNIGVScTVSSSACSSKEISFTFVIDTSASVDNIGFFVLKDFMkKYMSQSTLGTDPRtSVaIVSYGAG  
 DAKVEVECDTITTQqSFNTTVDNLSQLFGIADDNSfNQALSTAFDASGRCARSSTLNIIIMLSdGD  
 PPALENILTRDRIQSSSNYYFMFVAIQASDGAQSTFASLANQGRGLRNASSSFTDLYNFNTDLYYLE  
 TlsKACDVGGQWTEWSTSACSTTCGPgVVTRTRECRNRITGKLQqDCGPgPAQETQACNLQDC  
 QGTLTQWTSWScPATCNINNDVNnPPALRTRQCLGStGQGNCNNADKTENEPCVRNVPCPG  
 AWTTWSVFSACSETCRSQSAFPTRRRTRQCIGGTlNFQCPPQIVNGISYREIWQEDCINVPNCpAK  
 FTQWTTWScPVTcNVNNDRNnPPtATRTRTCDDSGTINGCANANILENQPCVQDVQCpGAWs  
 TWSAYGACSETCQSGNRSPtYTRTRTCLGGTLGFQCPpFITQIGGFQIFGTQTSNCNSeVKCPsKLT  
 QWTTWScPVTcNNRNDVNnPPQARRTRRCdTSTGSGICESPIVEEFENCVANVPCpGRlTEFTYD  
 NCAHTCNVNNDVNnPPQRVGTRRCLDGTLG

>TRINITY\_DN1386\_c0\_g1\_i1.p1 type:complete len:596 gc:universal  
 TRINITY\_DN1386\_c0\_g1\_i1:2419-632(-)

MEYIEVKSFIValVFVSILGTAQSDLVINNVERTLDLSTQTAKYTTKIKFHNPGKKVEKSfLLALEK  
 DQEKHLSYLEILDkQDDNSLEyAAENVEGQSGRFFKVSfSKPLKENDDVTLHIETVfTHVLTpFPA  
 KIGQTEKQLVLYKGNTVFYSPYEIKEQSTTVKLASSAIESYsRLKPSRSSENTITYGPYKNSKPYRLHE  
 MKIHfENNspFLVVNEMTRWIEISHWGNIAVEETyHMTHEGALLKGHFsrYDyQRSPthSVIKSF  
 KTVLPAAARDVYYRDEIGNISTSNMLVNDDsVEIELRPRfLFGGWQTRYMLGYNVPAYQYLYNK  
 GDNYILKMRLIDHVFDEFVIDDLNVKIILPEGSTNIEVVkPYELEEGKRDIHKTYLDTSGRTVIVLSK  
 KNVVENHIQDIQVHYTFKKLQLLQEPVICVAVfYILfLSVILVRLDFsITKDAAKESRMKVASLLEE  
 LLSSCGRRGSlySYSDAIDKLKQNRNQNDFAVSLKKLNQDYNTLTQSINELCSLLIKEDPEIGDKV  
 NDLQKKENERKVIVDQLVTLATRVVTNKIGRQQYIESEKNSMAKREKLGEDIDNVLATL\*

>TRINITY\_DN250\_c0\_g1\_i5.p1 type:complete len:452 gc:universal TRINITY\_DN250\_c0\_g1\_i5:131-1486(+)

MRECISVHVGQAGCQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPR  
AVFVDLEPTVVDEIRTGTYRQLFHPEQLITGKEDAANNYARGHYTVGKELVDQVLDRIKRLADQC  
TGLQGFLIFHSFGGGTSGGFTSLLMERLSVDYGGKSKLEFAIYPAPQVSTAVVEPYNSVLTHTTLE  
HSDCAFMVDNEAIYDICRRNLDIERPTYTNLNLRLIGQIVSSITASLRFDGALNVDLTEFQTNLVPYP  
RIHFPLATYSPVISAEEKAYHEQLTVSEITNACFEPANQMVKCDPRHGKYMACECLLYRGDVVPKDV  
NAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAVCMLSNTTAIAEAWARLD  
HKFDLMYAKRAVHVWYVGEEMEEGEFSEAREDMAALEKDYEEVGVDSVDAEDEEEGDEY\*

>TRINITY\_DN5633\_c0\_g1\_i1.p1 type:complete len:848 gc:universal  
TRINITY\_DN5633\_c0\_g1\_i1:2881-338(-)

MRRSNFLTIGIIAFLIFSYVSADETSDEEVEPPKVDDDDVGKSRDASKTDDEVVQREEEAINIDGLSV  
AEMKQMRESAEKHAFAEVSRRMMKLIINSLYKNKEIFLRELISNSSDALDKIRFLSLTDTEALAAT  
DELSVKIKADKENNVLHITDTGIGMTKDDLIKQLGTIAKSGTSEFFQKIQDAGTTDQASDLIGQFG  
VGFYSAFLVADRVVVTSKNNDDKQHIWESDSVEFSISEDPRGDTLLRGTQISLYLKEEASDFLEPNT  
LKDLIKKYSQFINFNIYLWSSKTEEEVEPIEEPEKKEDEKKDDDDKKEDADDKKDEEKKDDDEDD  
AKVEEDKEEEKPKTKKVEKTVWDWELMNSSKPIWLRKPKEVTDDEYNEFYKAISKESDGPLTKT  
HFVAEGEVTFKSVLFVPKNSPSDMFQDYGKRRESIKLYVRRVFITDDFQDMMPKYLFIKIVDSD  
DLPLNVSREQLOQHKLLKVIKKKLVRKALDMIKKIPDEDIYIEKFWKEFSTNIKLGVMEDHSNRTR  
LAKLLRFRSSNDPEKLTSLTDYVERMKEKQETIFFMAGASLDEVKNSPFVERLLKKGYEVLYLIEPV  
DEYCIQSLPEFDGKKFQNVAKEGLKIGNEAKEKARVDELEKEYEPLLKWLKEDALKDLIEKAAVSS  
RLTESPCALVANSYGWSGNMERIMNSQAYAKSKDAGANFYATQKKLLEINVYHPLIQELQKRVKT  
DKEDQTAKDLARVLFETATMRSGYTVKDSSDFAGRIERMLRLSMGVDVDAKVELPEEDDEEKEEE  
KADDEGEEVNADGEEEEESKEDIPEIKVDSKTVEPVAEHPTNEDAVENEAPAEKGKTEL\*

>TRINITY\_DN1613\_c0\_g2\_i1.p1 type:3prime\_partial len:1062 gc:universal  
TRINITY\_DN1613\_c0\_g2\_i1:70-3252(+)

MWLRIYFALAAAFALTANAYDFKTCATYKKGICYEDKNHDMVMLENYRDTRRDDFHQLSPVYW  
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SDLDCVGKAHTGYIYLVEGGRDRNERKVDGGYSYWSEWTECSSSCGRGIQERERQCDSPLPKG  
GKDCSEIGEPEIKDCNLRECPVDGGFTDWSQYEEKSATCGGGFQKSTRSCTNPAPKFGGQDCVG  
DVEKTRDCGTPCPVDGGWSLWDDYGECSKECGGGVQVSKRSCTNPSPAHGGKECVGVDERSR  
ECNTFACPVDDGGFGKWSEYDTCTATCGGGTQTSTRQCDSPSPAHGGQDCAGESERVEKECGMKP  
CPVDGGFSAWSYDYSACPVTCCGATQTSTRCTCTNPTPAHGGKEKCVGKTTREKSCANNPCPVDDGGF  
TAWSEYGSCSEECGGGIQESKRSTNPAPAHGGKDCVGDTERTKQCNTQACPIDGFTVWSEFTK  
CTVSCGGGVQESRRSCTNPAPAHGGGEECFGPVMRTRACNTKKCPINGGFSKWGEYSVCSEECGG  
GTQSRTRCTCTNPKPQYGGEPSCGDSLEERDCNVQPCPVNGKYSSWSAYSKCSASCGGGSQKSTRT  
CSNPAPAHGGAQCQGDARTRECGTKPCPVDDGGLTKWSEFGACTASCGGGEQTATRSTCTNPSPA  
HGGKGLGELEKVRECGTAPCPVDGGFTDWTQYGECKTSCGGGSQTSTRCTCTNPSPAHGGQEC  
DGSTMKTRTCNSDPCPVDDGGFSKWSEFDKCSSTCGGGYQTKTRSCNNPAPAHGGKSCSGETEMT  
QSCNSNPCPVDDGGFTAWSKYSICSATCGNGIATSTRSTCTNPAPANGGDDCVGLKIKSKKCFVKHC  
PVNGGLTDWSEYDTCTEKGCGGTQTSTRSTCTNPRPAHGGDDCDGELERTRSCGMDPCPVDDGGL  
TKWSDYDQCSKPCGGGYQTSTRCTCTNPLPAHGGKECTGETDRTRECNTHHCPVDGGLSQWSSY  
GKCSDECGGGIQERRRSCTNPKPMYGGKPCTGLFMET

>TRINITY\_DN1369\_c0\_g1\_i1.p1 type:3prime\_partial len:1577 gc:universal  
TRINITY\_DN1369\_c0\_g1\_i1:93-4820(+)

MRIQLTIFVTFIILVSGQNSPPGICSTWDGSHYQTFDSYSFNHYHGTCSYALALDCRPGSDDFAVHV  
ENDEKCDNHGGTDCTRAVSLYVNDIEYKLGSNNTVLVDGKSNIVLPYFNEGVRVSKHAEYYFIDA  
LEGKVVKYDGRSSIVQLDSSYQAGVCGLCGNFNGNKKDDLKLPDGKGLTKSLKEFGKSWEKP  
RIGQVCKEVTEEHFDQCTNKSMLVYYAEKECEILRTSSEFFKKCHKIVDPTPFYEKCREDLCLCGS  
GDKYCKCDVLEQYTRKCAHYGTVLEWRQQNLKYKNTGNKVFSECGPACSSVCSAIGSKSVCK  
DACIDGCHCPPHTSLSGDKCVPDDECPCEHNGDMYDHGDVINMKCKSCKCNGGKWKCNPPLP  
CDGEASVYGNHGFVSYDGKTYNYPGKCLYLYTSLDRSFAVYLDRTSCDSLACHMNMVILFRGD

RIKLSASNSTLAEVNRNVKSFPYISSTGYRMYRFSTVFVRFEATNGIKVDWDTYSRLHVLMPHSL  
 KGKVFGLSGNFDFTKNDFTLPRKDLAHS AIEFGNSWMMYSSRLNCSALAPDYRMTSCEANHQ  
 VAKYAESKCSILMSSLFRECHKVVDPIIYENCKDDTCECNGDSKCYCSVIAAYSKACSSAGKPTE  
 GWRKYTPCEEKCSNGMVFECEGNSCLKTCDDQTDPNPFCEKECEVEGCLCPVGQVLDKITEQCV  
 DIKHCGCTYGNRTISNGGTVAKDCNTCKCTKGVMVCTKKECRDKKAICSDGKEWSSCMSPCPK  
 TCQTKDDICPETGLDCIEGCQCKKGYIESANGTCVELSKCPCYHNGKEYQETQTISKDCNTCKCT  
 AGEWSCTEKLCDATCSVFGDPHYKTFDGKIFDFQGKCGHVMLTDKCANNDNATENIRISVKSST  
 CGSQGVTTREITLNYHDTVHMKRGARKIDIVSNKRQDHEKDQVKVYRHAGIYVHVLTPMGV  
 SILWDNATRLYITAPPSLSGKICGLCGNFDGSETNDFVTYQGD TAGNAV SFGDSWRTENNCPLTKE  
 IEDTCHNRKHRLDPSKRECAVIKSDVFKKCHTLVDPVPYDRCVFDACGCD SIGDCDCLCAAIGA  
 YAKECIDEGVYINWRKGHNICEKEMCCPTNMTFVPKGTGCPKTCKYPNGLHHCHPTKYVDGCQC  
 PEGLVQNN DANGDVTCVRPEECKVCKLDGKIYNEGEVVLYKCKEVCVRDGMTC SGNYCPTTL  
 PPTTTTSTTTTPSTTPETTIPSTTTTSTTTTPTTEPPTTTTTASTTTASTTTSTTTTETATTTTKPTTTTST  
 TTTSTTTQSTTTTPSTTPSTTMKPIDTCVYSNGTHNVT LERGDVIQVNECTKKTVCVDEVTGLHEIKV  
 TTTQCENSTCDTTCEASKSNRAILVKTPGECCPQCKKPEDLCDNPNEVPCNSTY CIPKSWFCGN  
 KDCSNGRDEECCPNYCKVEGEIKKPGEVWTNKEKCLTCKCEGYTKCRRMECEPELDCPEERQVK  
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>TRINITY\_DN3545\_c0\_g1\_i2.p1 type:5prime\_partial len:236 gc:universal  
 TRINITY\_DN3545\_c0\_g1\_i2:3-710(+)

SGPGRSSCRPILSVIKISKINNIDSGKVEGGYTMWSVYGSCSKSCGGAQKRVR SCTNPAPANGGK  
 HCDGVSFETRECNI NQCPVDGGYTMWSVYGSCSKSCGGAQKRVR SCTNPAPANGGKPCDGV  
 FETRECNI NQCPVCPEIVGTYDISSRHHYGGAKYGT VVFKLSNSKTVEAYYTINDGRRGVLTCKIE  
 SAQPDQCSGHGYYGKYFTYYKNRCQIIWSNDVIYTKQNC\*

>TRINITY\_DN332\_c0\_g1\_i1.p1 type:complete len:246 gc:universal TRINITY\_DN332\_c0\_g1\_i1:940-  
 203(-)

MGALTYIFCLFLISSFAKEEESCRTYAGGQVYPDERKSGVEHALHWSKAQISK PAPHWEGKAVV  
 NGEFKDLKLT DYKGKYL VFFFYPLDFTFVCPT EIIAFSDRVEEFKINTEVIAVS VDSVFTHLAWTNT  
 PRKEGGLGKM KIPLLADLT KQISKDYGV LLEDAGHTLRGLFIIDDKGVLRQITMNDLPVGRSVDE  
 TLRLVQAFQYTDKHGEVCPAGWKPGSDTIIPDPKEKLN YFNKQKEEI\*

>TRINITY\_DN577\_c0\_g1\_i1.p1 type:5prime\_partial len:269 gc:universal  
 TRINITY\_DN577\_c0\_g1\_i1:1086-280(-)

PCQNCADMAVGKNKRLSKGKKGSKKKIVDPFTK KDWDYDVKSPSNFQIRNIGKTVVSRTVGT KIA  
 SDGLKGRVFEIAQADLNKDEVA FRKFKLICEDVQGRCVLTN FHGMMTTDKLRSLVKKWQTCIE  
 AHVDVKT TDGYLLRLFAIGFTKKRQNSVKKTAYAKTTQVRAIRKKMVEIITREVSTKDLKD VVNK  
 LLPDSMGSDIEKASQGIYPLHDCYIRKVKCLKKPKFDVHKLMEMHESSGTTTTDATGGVVVERPD  
 NFEPPVLDSV\*

>TRINITY\_DN673\_c0\_g1\_i1.p1 type:internal len:100 gc:universal TRINITY\_DN673\_c0\_g1\_i1:1-297(+)  
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 SVMRPELIMKSIIPVVMAGIIAIYGLVVAVLIAN

>TRINITY\_DN194146\_c0\_g1\_i1.p1 type:complete len:190 gc:universal  
 TRINITY\_DN194146\_c0\_g1\_i1:165-734(+)

MKTVLASQTVTIPEDVSVSVNGRTIVVKGPRGTLKRNFNHLNLVLRVNKTTIRVDVWFALRKHL  
 ACLRTICSHIENMMKGVRFGLYKMRSVYAHFPINII VNDGGKVVEVRNYLGENYVRVVKMREG  
 VICKPSGNKDEIIVEGNDIELVSNSAALINQCVKAKNKDIRKFLDGIYVSEKTTIVPMTE\*

>TRINITY\_DN2885\_c0\_g1\_i2.p1 type:complete len:114 gc:universal TRINITY\_DN2885\_c0\_g1\_i2:31-  
 372(+)

MAQPVRLYSKGIFVGYQRGLRNQHEQTS LIKIEGVNTKADTSFYLGKRVA FVYRVSKKTVAKGDK  
 KPSRIRVVWGKVTRPHGASGVVRAKFRHNLPAKAIGGSVKVMLYPSRI\*

>TRINITY\_DN2126\_c0\_g1\_i1.p1 type:complete len:114 gc:universal TRINITY\_DN2126\_c0\_g1\_i1:55-  
 396(+)

MAPVKKKTAESINSRLALVMKSGKYTLGYRSTLKT LRQ GKAKLVISSNTPQLRKSEIEYYAMLA KT  
GVHHYTGNNIELGTACGKYFRVSVLSITDPGSDIIRSM PSEQETK\*

>TRINITY\_DN7504\_c0\_g1\_i1.p1 type:complete len:414 gc:universal TRINITY\_DN7504\_c0\_g1\_i1:87-1328(+)

MAKIPGGIVVEMDGD EMT RVIWDMIKTKLIFPFVDLDIKSYDLSIQNRDNTDDKVTVDAAEAML  
KYNVGIKCATITPDEKRV EEFNLKKMWKSPNGTIRN ILGGTVFREAIICKNIPKLVPGWTKPIVIGR  
HAHADQYKATDFLVPEAGTLEMKFTP KGGQTEPTISYVVNNFAGAGVAMGMYNTDKSIRDFAHSS  
FQCALEKNYPLYLSTKNTILKKYDGRFKDIFQEIYDNEYK GKYEAKGIWYEHRLIDDMVAYALKVE  
GGFVWACKNYDGDVQSDTVAQGYGSLGMMTSVLMCPDGKTIEAEAAHGT VTRHYRLHQKGQ  
ETSTNPVASIFAWTRGLAHRGKLDGNERLMNF AKLLEEVCVATIENGSM TKDLAICIKGMKNVTR  
ADYLN TTEFLQKIADNLTTKLNLSHL\*

>TRINITY\_DN141338\_c2\_g1\_i1.p1 type:complete len:720 gc:universal  
TRINITY\_DN141338\_c2\_g1\_i1:2850-691(-)

MSEADETETFAFQAEIAQLMSLIINTFY SNKEIFLRELISNSSDALDKIRYQSLTDSGVLESNKDMKIE  
IIANKDEKTLTLFDTGIGMTKADLVNNLGTIAKSGTKAFMEALTAGADISMIGQFGVGFYSAYLVA  
DKVEVVTKNNDDEQYIWCSSAGGSFTVKRDTINEPIGRG TKLVLYMKEDQLDFLDEKKLKDIKK  
HSQFIGYPIYLETQKTRDKEVSDDEADEEESTDKKEDEENEDKEDDGPKIEDVGDEEKEKEKKKKKT  
IKENYTEMEQINKTKPLWTRNPDDISTEEYAEFYKSLTNDWEEHLAVKHFSVEGQLEFRAILFVPK  
RAPFDLFENKKQKNSIKLYVRRVFIMDNCEELMPEWLN FVKGVVDS EDLPLNISRET LQQSKILKV  
IRKNLVKKCLELFAEISEDKDN YKKFYEQFSKNVKLG IHEDTQNRNKVAELLYSSASGDELTSFK  
DYVSRMKENQKDIYYITGESKEIVAASAFVERVKKKGFEVLYLVDPIDEYAVQQLKEYD GKKLVCV  
TKEGLELPEDEDEKKRQEELKAQFEDLCKVIKDILEKKVEKVVVSNRLVDS PCCIVTSTYGWSAN  
MERIMKAQALRDTSTMGYMAAKKHLEINPEHQIMIALKKKIEADKNDKSIKDLIILLYETSLSSG  
FSLED PQNHSSRIHRMIKLG LGVDDDDGDVEEIE TDDLPPL EGEGDDDEDKARMEEVD\*

>TRINITY\_DN3078\_c0\_g1\_i1.p1 type:complete len:1109 gc:universal  
TRINITY\_DN3078\_c0\_g1\_i1:3628-302(-)

MKMRIYLFILFATVYCRV VQKGPNDIPEETKNEIKNQEPKIKFEPEKDKKYFLAKDTTCAHDV DK  
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QECNDS ELLKSPGFVTNCLIENRHAVSEAKCKSFLQKMSAIVFEDYRLIKGFYDSCVEDV KTLKCG  
TVAKPTDEEYQHDQTEVISCL EEQLDLVSEKCAQLVKVATMQADDYHLDRPLFYACQEARERF  
CPEVKSGDGRIYKCLVEHKTNEMMLEKCRKKIEIREKLTQKD IKNELLWKSKADFTKYNC PKD  
GISEHGAASSLLLCLQGKVAEGLPVDQSCQAEMRTFAIELFENYKISP VIVSKCDVEINQFCHHLIG  
KTDDGDMMDCLMTQAATNNESVSKKCYDAVSDVIKETGAGNNYKIDRALYLACEPVITTL CQG  
KEDAMILGCLMDNAHNSKMPEKCAAQVFHLQYFLSRDFRLDASLYKDCKKDAEEIC SANDFNA  
ESES KVPDNFVIACLYRNALDRKVDDR KVSQTCAEHVFRVMHQ RATNIHLMPELERPC MADLG  
KHCIDKGDKEGEEIDCLQTNYEKL SAKCQNAIKVFTIQEAKDFDL DKHLVDKCAPMVQQFCQRE  
LEDGNGEKVL PCLVDHKNDIDMDHQCANA VEHWQLIEMKDFEFSPALTEMCLLDIRKH CQSK  
AKIEALHCLSENIVKDASSVTEK CRAQLKNELIEQSENIKLNPELYEACTKDIELFCRDV VPSGGQL  
EECLKR NHKKLTDPKCKSLLFKEEKESFDP ELDYRLMHVCKPIIKRYCTQYHQPV DIMECLRQV  
THDRDMSRECRAITERQIEQAESFELDP ELSKFCQDDVNRYCKEEIKHAEKGDDDG AIFGCLVNA  
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GCVQEVKKLIVEGIEDVHVDPHLQE QCARDIRTF CQSVPSKSGNVVLCLIDVHKAKNLHLQPNC  
ENFLT KRLSLYNAAKVDYAVFDSISAVMNAVSESPNRNYVYMTLLLVL TILFVGGM LFGRYTKKIRS  
EIKNR\*

>TRINITY\_DN1989\_c0\_g1\_i1.p1 type:complete len:546 gc:universal  
TRINITY\_DN1989\_c0\_g1\_i1:150-1787(+)

MRGNNRGSGGQRKSF DGNRTPNNSNRGN YGGNKRNWSPSPYKKPQETPPKVSKDEPKHLTP  
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QGNNELENTKKEEKAPVNRVKYTGREG EKKFSGRCRLFIANMNNGTTEEDLRELFGQFGETGEV  
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FGKVERAVVVCDDRGRSKGYAIVEYEWK KTAQKVLD RFKGEMFVLGRLPKPVFAKPLSQVDEEE  
GVREEDLERLQGIEGEREFPPRFISPSSF EYTWAKKWRDL YIEEEDKKARLDQELRDSRYKLELEME

SALQEQEALKMREGLIHELRSRQEELRRLEEGLMRRQEITARITRDQDDRKQEFNRSRDESQYPME  
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>TRINITY\_DN3339\_c0\_g1\_i1.p1 type:complete len:131 gc:universal TRINITY\_DN3339\_c0\_g1\_i1:31-423(+)  
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 Y\*

>TRINITY\_DN15847\_c0\_g1\_i1.p1 type:5prime\_partial len:166 gc:universal  
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 KCPFTGNVSIRGRILSGIVQSMKMKRTIIIRRDYLFHFIKKYQRYEKRHKNLAAHMSPCFRDVQLGD  
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>TRINITY\_DN7659\_c0\_g1\_i2.p1 type:complete len:359 gc:universal TRINITY\_DN7659\_c0\_g1\_i2:82-1158(+)  
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 ESPRRGETFVTRKITRAVAKIHLGLQEELVLGNIDSVRDWGHARDYVEAMWLMLQQEQPETYVIA  
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>TRINITY\_DN172571\_c0\_g1\_i1.p1 type:complete len:104 gc:universal  
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>TRINITY\_DN22077\_c0\_g1\_i1.p3 type:5prime\_partial len:151 gc:universal  
 TRINITY\_DN22077\_c0\_g1\_i1:520-68(-)  
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 VYALKRQGRITTYGFGV\*

>TRINITY\_DN6390\_c0\_g1\_i1.p1 type:3prime\_partial len:1941 gc:universal  
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LCPYVLLTDCRQDSATGFCDLTKANVNIHVRNLRVNSYEAYMCKEVTLDLRLPNGEMAIEFVLM  
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VMSSSVSSSVSKPVGISSVIEPEISSIRYPSMSSGVSLESSVSTSFVLPSETVLSTSVFSTNTESPSSSMTLS  
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>TRINITY\_DN162\_c0\_g1\_i1.p1 type:5prime\_partial len:206 gc:universal  
TRINITY\_DN162\_c0\_g1\_i1:654-37(-)

LSTNCGPSPASFFKIIKMGIDLDHRNDKKKHKRKEPVSQDPYLRLLVKLYRFLARRTNAKFNEVILK  
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AGGEILTFDQLALKAPTQNTLLMQGPRNSREANRHFGKAPGVPHSSTKPFVRAKGRKFEKARG  
RRASRGYKV\*

>TRINITY\_DN22492\_c0\_g1\_i1.p1 type:complete len:1026 gc:universal  
TRINITY\_DN22492\_c0\_g1\_i1:171-3248(+)

MLQKTLIYTLLGCWITLLSHAAIVRKSGGDDFSLKVGKPKPIGQPKLKDAKKEVKEEPTSDVIPQ  
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GNRNFAAEHESYTYSYCRKSCRHCDPELSSFTFWRLRAASQFDPTWMVKEIEFYKPKTEYDNLA  
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MHRTAAPQRIFVEASDKKDGPFITTKWKISNPTYEVNDNVYKLLQCPVLWRKFESDEGSWCFRLIAK  
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WKAGWSYSEVQKQNLNCVATDQDGFWYNFHCNTKYYFVCKKKLEPQAAPREDLILKAWPYEP  
EIPPMIFLYPNITVPVINTKNLEPGVFPDENGKVPEEEEEETTADDLFYEQTVEHLKEKGLKPEEIS  
NDVDKEETDYTQQLNKIALKTQSRDDFRNETESDKLKFNSTEAVKQAKDLEEQKSVNLDQNFN  
QYNSTDGVKQQSQPVVAAPSDGPSGNSGDNNTLPRIVNGKPVESPSVNPNNVKGPNTPVASPES  
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>TRINITY\_DN2113\_c0\_g1\_i1.p1 type:complete len:1704 gc:universal  
TRINITY\_DN2113\_c0\_g1\_i1:5257-146(-)

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SMEGDSSPVKMFDRHQSLAGCQIINYKVDHSGQWLLIGISAQQNRVVGAMQLYSVERKVSQPIE  
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VAMQASQKYGVVYLVTKYGYIHLYDIESAQCIYSNRISGDTIFVTASYEPTGIIGVNRKGQVLSVS  
DEEKMVPFLIQVKQNGELARRLAERCNLPADNLFLQAFNDKFASGNYQEA AKIAAKAPKGILR  
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RVNPEAGANFSGMLIQDDEPLADLNQIVDVFMEFNLPQCTSFLLDALKNRPAEGPLQTRLLEM  
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LVNYFGTSLVEDSIECLKAMLSHNIRQNLQICVQIASKYHEQLTSSLIEFESFKSFEGLFYFLGSIVN  
FSQEEEVHFKYIQAACKTGQMKEVERICRESNNYEPERVKNFLKEAKLTDQLPLIIVCDRHFVH  
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QDPEDVSVTVKAFMTADLPNELIELLEKIVLENSVFSDBRNQLNLLILTAIKADRTRVMEYITRLD  
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 HMGMFTELSILYSKYKPTKMKEHLELFWSRVNIPKVL RACEQSHLWSELVFLYDKYEEYDN AVVT  
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 CYLSLVKPYLRVQNHNNK AINEALNSLLIDEEDYNGLRASIDAFDNFDNIALAQLLEKHELIEFR  
 RIGAYLYKGNNRWKQSVELCKKDHL YKDAMQFACESRDKAVAEDLLSWFLSIDKTDCFAATLYM  
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>TRINITY\_DN909\_c0\_g1\_i1.p1 type:5prime\_partial len:313 gc:universal  
 TRINITY\_DN909\_c0\_g1\_i1:1-939(+)

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 ILTRDSVTVSVDVAVTYFKIQNPVASVCNVEDAQRSTKLLAQTTLRNELGTKNLSELLERE AISRNI  
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>TRINITY\_DN2963\_c0\_g1\_i1.p1 type:complete len:116 gc:universal  
 TRINITY\_DN2963\_c0\_g1\_i1:1072-725(-)

MSATGNLVTVLRLKLYDEYNDKTPSRLKIVDGFLLYVMLTGIFQFLYCCLVGTFFPNSFLSGFISCVGT  
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>TRINITY\_DN464\_c0\_g1\_i4.p1 type:complete len:717 gc:universal TRINITY\_DN464\_c0\_g1\_i4:2167-  
 17(-)

MLLHFGKSLHYLKFGLFWRLKLVAIPRDTSNII NNIFLESKSQRYIRMSANILNEYSQNVGKMEDE  
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 AALNVLFESAIRSAYPQIPNPPVALTIAHNPKFGDYQCNSAMAISKMLQKLTGEKIGPHVVAKTIV  
 ENIPSN SFIKKVDVAGPGFINLHLEKEFLKGVLEKVIKEKVYPPGIGNKKKVVIDFSSPNI AKEMHV  
 GHLRSTIIGESLRLLFVGHDLRLNHVGDWGTQFGMLIAHLEDKYPDYKT VSPPIGDLLL FYKA  
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 DWLIYVVDAGQGDHFKQIFGVGEAAGWYNSSITRVDHVAFGVVLGEDKKKFKTRSGD TVRLIDL  
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>TRINITY\_DN3202\_c2\_g1\_i1.p1 type:5prime\_partial len:263 gc:universal  
 TRINITY\_DN3202\_c2\_g1\_i1:949-161(-)

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 RKLHHDVTPPYAEADCFKRCSTYRYGEITGCEVIWNQGNRG CYLHSQPISRNGIARHMCWVF  
 SKCTTSKVPATTAPKALSMTDTYFGKTELDP IIGVKRIGCYRMHRHRFRKKVN MKGSMDPLSFIDR  
 VKQCRDIVNNKEAEFEIFGVSRYSQCDFYLP AEVKNEKPKPDS EDC HFD TMGGDTAYYVYKLCK  
 DEKQC\*

>TRINITY\_DN2230\_c0\_g1\_i1.p1 type:complete len:249 gc:universal  
 TRINITY\_DN2230\_c0\_g1\_i1:796-50(-)

MKLNVAYPANGTQKLLEIEDEIKLSFYEK RMAQELSVDFLGDEWKGYVV RITGGNDKQGFPMK  
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 RRLGPKRVGKIRKLFNL SKEDDVRQYIIRPIATPEGKPD PKPKTKAPKIQRLVTPQRLQRKRHV K  
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>TRINITY\_DN197343\_c0\_g1\_i1.p1 type:complete len:124 gc:universal  
 TRINITY\_DN197343\_c0\_g1\_i1:399-28(-)

MAKLKAHELGRKRKEELCHQLTELKTELQQLHVAKVTGGAASKLSKIKIVRKSIARVLTVISHNQ  
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 >TRINITY\_DN1505\_c0\_g1\_i1.p1 type:complete len:154 gc:universal TRINITY\_DN1505\_c0\_g1\_i1:98-  
 559(+)  
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 DHIAASKGRKMVTIVDPHIKRVGGYRIHSEAESKQFYVKKKDGADYEGWCWPGSSSWIDYTNPD  
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 QHMSTFEGHLLRSDGKARPFILSRFFAGSQRAGAHWTGDNTADWGHLKMSIPMLLSLNVAGFP  
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 RKATKMALEKIKEINVQIKKDDQEEMRKLQORCAETALSSKLVAHGHEFFGKMVCEAVMHLDEL  
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 QYAHKLAFLVGQSIHAEPDVQLADRLLYL\*  
 >TRINITY\_DN2637\_c0\_g1\_i9.p2 type:5prime\_partial len:340 gc:universal  
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>TRINITY\_DN72959\_c0\_g1\_i1.p1                    type:complete                    len:216                    gc:universal  
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152(-)  
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>TRINITY\_DN15274\_c0\_g1\_i1.p1 type:complete len:1822 gc:universal  
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>TRINITY\_DN2772\_c0\_g1\_i3.p1 type:complete len:142 gc:universal  
TRINITY\_DN2772\_c0\_g1\_i3:476-51(-)

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>TRINITY\_DN34765\_c0\_g1\_i1.p1 type:internal len:204 gc:universal TRINITY\_DN34765\_c0\_g1\_i1:1-  
609(+)

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>TRINITY\_DN14344\_c0\_g1\_i1.p1 type:complete len:512 gc:universal  
TRINITY\_DN14344\_c0\_g1\_i1:191-1726(+)

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>TRINITY\_DN2626\_c0\_g1\_i7.p2 type:5prime\_partial len:361 gc:universal  
TRINITY\_DN2626\_c0\_g1\_i7:1099-17(-)

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DRGRPIRPVQLLHLAPDELAHAHAPLDDRVRQERQGVVLRDLVRAEHARRVLEELLGVHDGDE  
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>TRINITY\_DN190525\_c0\_g1\_i1.p2 type:internal len:218 gc:universal  
TRINITY\_DN190525\_c0\_g1\_i1:3-653(+)

NHPARPEPWGPAALHAARPGARRRADGDLAVPPRALRHLLPQAAVQGTRADGGEIQFAQVLR  
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>TRINITY\_DN10563\_c0\_g1\_i1.p1 type:internal len:307 gc:universal TRINITY\_DN10563\_c0\_g1\_i1:1-918(+)

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AGSKGAAGDFGFKVLTASDPEALKRKLNAEIANGLAMMAIIGMFFQDGLTGSAGWDWGLYVD  
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>TRINITY\_DN95387\_c0\_g1\_i1.p1 type:complete len:169 gc:universal  
TRINITY\_DN95387\_c0\_g1\_i1:96-602(+)

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DFVIQFMEEIDKEISEMKLSLNARARISAEFLKNF\*

>TRINITY\_DN30378\_c0\_g1\_i2.p1 type:complete len:403 gc:universal  
TRINITY\_DN30378\_c0\_g1\_i2:1370-162(-)

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VVLKSIERPDGTDKDVHDDDEEKYNMGGVSKKNKLKIDITHAVKDCQIRSKEDDTIQWHYKGT  
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VEMTNIQRLDPRKGEL\*

>TRINITY\_DN6397\_c0\_g2\_i3.p1 type:internal len:130 gc:universal TRINITY\_DN6397\_c0\_g2\_i3:387-1(-)

LTSSDQAELTKKLSAEVANGRLAMMAIIGMFFQDGLTGSAGWDWSLYTASPLRAFENELGVQDP  
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>TRINITY\_DN16548\_c0\_g1\_i4.p1 type:internal len:171 gc:universal TRINITY\_DN16548\_c0\_g1\_i4:2-511(+)

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>TRINITY\_DN6132\_c0\_g1\_i1.p1 type:complete len:161 gc:universal TRINITY\_DN6132\_c0\_g1\_i1:95-577(+)

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>TRINITY\_DN17516\_c0\_g1\_i1.p1 type:complete len:335 gc:universal  
TRINITY\_DN17516\_c0\_g1\_i1:1523-519(-)

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GGLLYIKRKSIEVTYNKDYWAILAVTIAFIMISGQMWNHIRSPPYAHNPQTGDIAIYHGSSDGQLI  
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K\*

>TRINITY\_DN6294\_c0\_g3\_i2.p1 type:complete len:134 gc:universal  
TRINITY\_DN6294\_c0\_g3\_i2:817-416(-)



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>TRINITY_DN3649_c0_g1_i1.p1      type:complete      len:246      gc:universal
TRINITY_DN3649_c0_g1_i1:2360-1623(-)
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>TRINITY\_DN902\_c1\_g2\_i3.p1 type:internal len:178 gc:universal TRINITY\_DN902\_c1\_g2\_i3:2-532(+)  
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MAASIFI<sup>1</sup>AVYIFMWITYIWET<sup>2</sup>YLSYRQH<sup>3</sup>KIYVVTKEIPNELKDTL<sup>4</sup>DKETFEKSRLYQIDKSRFSFYASI<sup>5</sup>  
YSQIESSLILLLDGI<sup>6</sup>PYLWAVSAVNQYFGYDSTHEIKQSITFTVLGTIFSTITGLPWSLYSSFVIEEKHG<sup>7</sup>  
FNKQTIGFFFTDLK<sup>8</sup>KL<sup>9</sup>LVSM<sup>10</sup>AIMLPVTAALLWIIKWGGEFFFLYAWLFALLVSLFLIAIYHDYIAPL<sup>11</sup>  
FDRFIPLPDGNLRTNIENLA<sup>12</sup>KSIQFPLSKIFVVEGSKRSSHSNAYFFGFYKKK<sup>13</sup>VIVLFD<sup>14</sup>TLLKVSPFEE<sup>15</sup>  
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EILAILGHELGH<sup>20</sup>WKL<sup>21</sup>NHVL<sup>22</sup>KNL<sup>23</sup>VISQVNLLFSFFVFGLLMNYDTLYESFGFYGERPVLIGLLIIFQFIF<sup>24</sup>  
SPYNELFGFLMTALS<sup>25</sup>RKFEFEADNFGKSLGYSVQLQAALIKLHKENL<sup>26</sup>GFPVTD<sup>27</sup>ELYSAYHYSH<sup>28</sup>PP<sup>29</sup>L  
LERLRALKTKOD\*

QVRRIKLEHLITELVHQRDVTRTLVRSKVQGTSFAWLSQMRFYFDPKQORDVLQQLSIHMANAKF  
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 GGSKELKSFKVWLGGLFIPEAYLTATRQYVAQSNQWSLEELYLNVTIADELNPQLKLDDCSFVVIG  
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>TRINITY\_DN1631\_c0\_g1\_i1.p1 type:complete len:124 gc:universal TRINITY\_DN1631\_c0\_g1\_i1:62-433(+)

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>TRINITY\_DN5131\_c1\_g2\_i1.p1 type:complete len:164 gc:universal  
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MGVDYGMLTRVTVALIGFALSVYALQVEVMASRNKNYKAYCDINEHISCSKVFTSPYGRGFGIIGN  
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>TRINITY\_DN95606\_c0\_g1\_i1.p1 type:complete len:538 gc:universal

TRINITY\_DN95606\_c0\_g1\_i1:82-1695(+)

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>TRINITY\_DN30329\_c0\_g1\_i1.p1 type:5prime\_partial len:213 gc:universal

TRINITY\_DN30329\_c0\_g1\_i1:1-639(+)

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>TRINITY\_DN7808\_c4\_g1\_i3.p2 type:3prime\_partial len:280 gc:universal

TRINITY\_DN7808\_c4\_g1\_i3:837-1(-)

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GKLGLPVFLGGVESKPCDADGSARSLNAEINNGRLAMVAIVGMVTQNGFLGTTGPGMWVPGA  
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>TRINITY\_DN163801\_c0\_g1\_i1.p1 type:complete len:298 gc:universal

TRINITY\_DN163801\_c0\_g1\_i1:55-948(+)

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>TRINITY\_DN1739\_c0\_g1\_i1.p1 type:complete len:400 gc:universal TRINITY\_DN1739\_c0\_g1\_i1:86-1285(+)

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QDTQA\*

>TRINITY\_DN309\_c0\_g1\_i1.p1 type:complete len:454 gc:universal TRINITY\_DN309\_c0\_g1\_i1:65-1426(+)

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>TRINITY\_DN3452\_c0\_g1\_i1.p1 type:complete len:466 gc:universal  
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 ERAVGESVVFVKPKKSYGESESTYSGSVSNLDRLKAWATEKGNPLVREITFENGEEELTEEGLPFLLLFY  
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 GNYRDEL\*

>TRINITY\_DN47849\_c0\_g1\_i1.p1 type:complete len:689 gc:universal  
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 LLAKKGYHTESETDTEVIVKLLKMYMYDRDQESDNEKRLNFPPELVELVIHQLEGAFAFVFKSTHFPN  
 ECVATRRGSPLLIGVKSNNKPIVVDQIPVMCTENGSPGDRTPNGTSIFDSGASAIKANFCVADDAAM  
 EYYFASDASAIIEHTKRVIFLEDGDIAWSKEGNLNIARMNNSTPAIRDVQTLQLEIQQIMKGSYSTF  
 MQKEIMEQPESVFNTMRGRVNFEEKRVLLGGLVSHMDYIKRCRRLIFACGTSYHSAVATRQLLEE  
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 MCGVHINAGPEIGVASTKAYTSQFLSLVMFACMMAEDRISKQQRVDDIIGALEVFPEKVEEVVLKLD  
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>TRINITY\_DN15151\_c0\_g1\_i3.p1 type:internal len:560 gc:universal TRINITY\_DN15151\_c0\_g1\_i3:1-  
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 DAIELSTSEYEKDKLKERLAKLSGGVAVIKVGGASEVEVNEVKDRLNDALCATKAALKEEGIVPGG  
 GTALLYSAQKLEALTLDLSDQQVGVDAAKAALSQPCVQIAQNAGEEGAVVVRALLQEGNAARGF  
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>TRINITY\_DN801\_c0\_g1\_i4.p1 type:5prime\_partial len:182 gc:universal  
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 VMRSLGQNPTAEALQDMINEVDADGNGTIDFPEFLSLMARKMKDTEEEELIEAFKVFDKRDGNG  
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>TRINITY\_DN30386\_c0\_g1\_i1.p2 type:internal len:165 gc:universal TRINITY\_DN30386\_c0\_g1\_i1:3-  
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>TRINITY\_DN3271\_c0\_g1\_i1.p1 type:complete len:399 gc:universal  
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 GKFEMSFTPLEGSEKVTNVNVEFEKENGCGMMMGMYNTDDSIKDFAHSCFNAYAIGKKWPLYMSTKN  
 TILKKYDGRFKDIFEEIFQDQYKSQFDALGIWYEHRLIDDMVAQCLKSSGAFVWACKNYDGDVQS  
 DTLAQGFGSLGLMTSVLLCPDGKTIESEAAHGTVTRHYREHQKGNATSTNPIASIAWTRGLAHR

AKLDGNPELEKFSNSLELACVKAVEEGNMTKDLAGCIYGLKNVKREHYLLTNEYLDAVRDKLLQ  
LWTPPSQV\*

>TRINITY\_DN123073\_c0\_g1\_i1.p1 type:internal len:179 gc:universal  
TRINITY\_DN123073\_c0\_g1\_i1:2-535(+)

EGETYPRPLPGQEPLPPRVFLYRGFAPSTVQVARGPCLKVDLSVRMIQGQTALVKLTTLRDLLIAKH  
KNEGLPPPTKEEMLDHLKFQ MAGRTCMTKHNHIHYRIKEVCIDMSPTSTFPFEEGEISYLEYFQRR  
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>TRINITY\_DN33065\_c0\_g2\_i1.p1 type:3prime\_partial len:804 gc:universal  
TRINITY\_DN33065\_c0\_g2\_i1:2409-1(-)

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KNALGFFFAGVGHDLATKSAGLVHNMNQLRFKMLIFEAEGYTFVADTDNEVYSNLQSKLSLKNAE  
CRLTISNSYTFENSEIVLTGNHEVIEKITNAKKTLEVTFEKGKDTSSFDVKMKVPSMPLET  
FATIFLES  
ETEFITADMGDTSYEINIDPIKAVIESTSNSVTGVFDGSDGKFQLTGKFLSNDQNAFMGQATDIYLT  
VNRKSLGSRTTYNMLGFAKEVKVMDIIPKYVGKTEIQDEFDDNFLKTTIEKWHLFTSKRIIVAD  
GAEYKKTANIFDADEYQEFKQGVGKATVDLQKTLTACSSGSTVPDSLKSVKIKGLLRGLSMV  
FPPGTSVPLIPLIKCKLRQIQDDLGFELPISLKGYEQKSKFKLEEIAYSSDSGAFKMSLLYENTIT  
YKD  
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SD  
KPAITFEIHDFKMQIEVKDKEEEEENEEEGEDEGNKNQLAIKRQDNKEEKKRDLKFSIAGKPVFN  
GFDKVSIEALVWTSQTPAGVAVAVIMENIRLDEVLEKILDVPEVPMWFSMTLTMVISNVDAEG  
CDNPAQSEDDCEEADEEEEEEEEEGEGEEEEEGEKTQEGEEGEGEGGGGGPGGGPGGGGRG  
PGGGRPRRG

>TRINITY\_DN1319\_c0\_g1\_i2.p1 type:complete len:134 gc:universal TRINITY\_DN1319\_c0\_g1\_i2:86-  
487(+)

MVVPsAKRKIVKKRTKKFIRHQSERYKTVKQNWKRKPKGIDNRVRRRFRKGQYLMPSIGYGSNQKT  
RHLMPDGFKKFVVHNVKELELLMMLKGTHAAEIAHCVSRRKRIEIVERANQLAVKVTNATARV  
RSEENE\*

>TRINITY\_DN3180\_c0\_g1\_i1.p1 type:complete len:1889 gc:universal  
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YSLETRVAFMEAISKTSMAGGGGNLEFGKSGDVPLTLKLQWTEHDHSSAWDPSDIQVELETTKV  
VLSAASFHFKAKKSYHNP DHFMIEKFDTQGVGNFRVSAYTSAIAGLDNTAFGADFSQDKYGALT  
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N  
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FN  
YLF  
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GPD  
KKAKKK  
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RSLPV  
KNNQSANVSLNKDAGTNIVPAAVKNSSLATAATTSKRTTEVEKQWTFITLMP  
TLLV  
KDIY  
TIFSPQ  
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SRSLK  
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SKKQR  
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LATD  
KL  
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GTID  
SAFGY  
NRIAL  
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KASK  
LTIG  
SLGKAF  
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CTID  
PANKA  
FADV  
KL  
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VRID  
ENSGA  
LIH  
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KSEG  
TQAKQ  
DGM  
MTAITKGEEDSETITGKKS  
LWDS  
SALD  
TWKSN  
LQRRE  
SELA  
AAKQ  
RAIT  
GALQ  
ACIDE  
CELV  
CVPFF  
D  
WEEDCFTIFGWSAPCPWPNSCAKKVPNYFCYAGCALDQLGSAFLTWV  
ESTL  
TKIG  
LALQ  
STAV  
FL  
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AKDW  
LINQ  
FQAAL  
NWWA  
DLLTK  
QIVL  
RKLV  
LEAT  
VQPP  
FKYC  
FCG

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 GSAWGDWALYTASPLRAFESSELGVQAPVGFWDPAGYTNDGSMENFKRRRATEIKHGRVSM LAC  
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 GEASTYKTFDPATELGVPQEPVGFWDPLGFASDGDEATFKRRRSVEIKHGRVCMAASIGYIVPEYYK  
 FPGFLSPSEGLQFADVPNGLAALS KVPALGWVQIIF FAGIVEGAFGVTDYRNGTPGDYGWKVITS  
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 >TRINITY\_DN124769\_c0\_g1\_i1.p1 type:internal len:113 gc:universal  
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 >TRINITY\_DN24414\_c1\_g1\_i2.p2 type:internal len:146 gc:universal  
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 >TRINITY\_DN1995\_c0\_g1\_i1.p1 type:internal len:514 gc:universal  
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 ITYNGISDSTSDENFIKQFVSFCKVIRELIDHLIRDVFGCHVVSKLLQVL SGVKVSDRITKSKASINSK  
 KKAQQKYQIKEKELSAKEVTIINVADSLKKQYSKHVRVLLNVDNFGELLCHRNASPV LQVLLITTS  
 HINKKKYSVLSNQILQARLIENRSLMEEENEDTIHKLPVVLTD AVGSHLIEVLLQTADDGLYRLLS  
 SQCFKNIIVSLCIQPVANFLAQTLRLLEEKEQALFYVDKLFMYMEDILAVGNMGCISR LAELISRL  
 DLIDKQKKFIKVISNALHIPDQKLYKTDQKSNVLVTLITMTTFDMFYKKESESENKTDIKVETDTN  
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 SAGNMKGEGFQYMWGGVRGTHGVKKGKVCYEVYLL ENIKVHCPGENNPHVLRVGWSVDNSD  
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 QLNSIINSEARKTENNSGNIRDSAQSGKNEKMGSLMDIDRTPQRESDSYQNLQSRNRDALSNQG  
 GKNKESQSAGLMDIRNVPQGNQDYRGKAGILDSSRNTSQDYRGKPGILDSSRNTPDYRGKPGIL

DSSRNTARRNEYESPVGRGNNSYSDSPARGVSTPRGRASFNDSPARGARGGRGQSDISRSGSLAKS  
QGSNGNRGGRGRGRSKHLGDVNKYDPVGNMGGYYSALKALPSVKDLIGNRSSFSYSTRIDEPSR  
FDQLYSSYEPYSFGRQTQANDSRSLNYSFGQTDSSSLERDGGYRDSQNSKDFLGSYQQRKDSSYS  
DNRGSQGGQRGYQDSSYNADGLDAKDQYQNDYQESYSSQKDKSSYDQNTQSSRSYNQETS  
ESSDYGRSRNQEQDEYARSGTYERGDTSYGTDDANRSSRYEDDLQESEPMDGNYSTQDYGRSSQ  
SSQRARIW\*

>TRINITY\_DN495\_c0\_g1\_i5.p1 type:3prime\_partial len:407 gc:universal

TRINITY\_DN495\_c0\_g1\_i5:152-1369(+)

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NTDDLDAEDAEREETINDSLDAENAQRRYTSIDELDGEDTQRVISKTITLPRLGAGRIYKSRFIHGP  
YIRPKFVRPHKGIRLPHPNRIIPGSWKRAHGIFALKGKKAIFCEHKGIKRISCSNDKVIKVRSA  
LYGRTAGNVCSISCSKDEEIKVKNALYGRTAGDVCGRSRVTNCRALNSFAIVQKKCNHNSCDLNPS  
NSVFGDPCVGTVKYLNKIFCVKRITPTTTPNGKTAIFCEHKGISISCSKDEEIKVKNALYGRTAG  
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>TRINITY\_DN495\_c0\_g1\_i6.p1 type:3prime\_partial len:382 gc:universal

TRINITY\_DN495\_c0\_g1\_i6:152-1294(+)

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YIRPKFVRPHKGIRLPHPNRIIPGSWKRAHGIFALKGKKAIFCEHKGISISCSKDEEIKVKNALY  
GRTAGDVCGRSRVTNCRALNSFAIVQKKCNHNSCDLNPSNSVFGDPCVGTVKYLNKIFCVKRIT  
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>TRINITY\_DN135129\_c0\_g1\_i1.p1 type:internal len:155 gc:universal

TRINITY\_DN135129\_c0\_g1\_i1:1-462(+)

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>TRINITY\_DN34\_c0\_g1\_i1.p1 type:complete len:149 gc:universal TRINITY\_DN34\_c0\_g1\_i1:477-31(-)

MDAAQAAEIKKKRTFRKFTFRGVDLDQLDLSEQLMELVHARARRRFSRGLKMKPLALMKKL  
R KAKKEAPPMEKPAVVKTHLRNMIVLPDMIGSIVGVHNGKVFNQVEIKPEMIGHYLGFEFSMTYKP  
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>TRINITY\_DN56792\_c0\_g1\_i3.p1 type:5prime\_partial len:1003 gc:universal

TRINITY\_DN56792\_c0\_g1\_i3:3453-445(-)

DNELKVIECNLRVSRSPFISKTLHDHDFVAMATKVIAGLKVERVLNIMNNCNKIGCKVPQFSF  
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SVRLLEQMGFELYASMGTDGFYQEHGVKIQVIDWPFEENGIEGQEQSIQEYLSRNKFDLVINIP  
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NIIRLPGLIDVHVHMREPGA EYKEDFQSGTAAALAGGITMVLCMPNTRPSITDTLSFKQAQKAAQK  
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>TRINITY\_DN167719\_c0\_g1\_i1.p1 type:internal len:144 gc:universal

TRINITY\_DN167719\_c0\_g1\_i1:431-3(-)

SRRAMSAPYKAMDDGGSRMNVPAEVLRLTVCVTVVHHGLQKLQNPEGFAQNMVAKWF  
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>TRINITY\_DN164271\_c0\_g1\_i1.p1 type:complete len:163 gc:universal

TRINITY\_DN164271\_c0\_g1\_i1:1172-684(-)

MATGIKPDQPCTDLYNKLKMTGGKAKPYEYLILHIDDKLNKVVPDVYPDLNSTLEMDEYKDVTC  
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KVLKVGKVIQCNDADDIDYKTIKDLKSKNKAIFTK\*

>TRINITY\_DN19237\_c0\_g1\_i1.p1 type:complete len:209 gc:universal

TRINITY\_DN19237\_c0\_g1\_i1:128-754(+)

MMSSEDEQMRMELQRMQRRADEMTDESLESTRMLRMAEETQDTGIKTLVALDEQGEKLNRIEE  
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GGSNDVAKSGYIQRITNDDREDEMENDLGEVAGIVNNLKSMAALDMGNEIETQNKQIDRITDKTN  
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>TRINITY\_DN11643\_c0\_g1\_i1.p1 type:complete len:187 gc:universal

TRINITY\_DN11643\_c0\_g1\_i1:1748-1188(-)

MPAKGKLTQEEEVLLQDFSRTVSKKSQALFYGNALMISVLPLWLFWKVHLMDPMSYAALFICGTL  
SAAYLVAFAYKNTKFALKHKVAQKREVAITREVNTELDSPETKKLSRKEKDDRILWKKNNVADT  
EATTSIFYTNTLYLFIIIIASFYVLSRSPAVNFTLSTGMAAGTVALLSTGTQSS\*

>TRINITY\_DN140702\_c0\_g1\_i1.p1 type:complete len:2036 gc:universal

TRINITY\_DN140702\_c0\_g1\_i1:94-6201(+)

MATSFKVSEIKCTELLNLEKKGAIDPLVEVEYLGLSKETENKDNDLNPSFGEVDFDLGKALGPE  
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AGGATGGGGDDRQAAERELEGDEDEGDPNAMPDGTPIPEGPAGDAMRAEKRMKKNNKKRR  
EHNLPDKPTDFQIRIKIIEGRQLPGGNINPTVRVHLGEETKQTRVKHSSNKPFYDETFNFFNERPN  
ELFDKLVTFEVHNSKNVLSEAMIGAFQFDVGTIYFEDSSHAIRKWLTLTAPEDNDKKDGEETKGA  
SLQPGGPAGYLKITAIVLPGDELPEKAKGSGKSEGGEEDIESNLLRPAGVTLRPATFLVKIYHAE  
DIPQMDSA AFDGVKKLFSSGSAQKDHVDPYATFSFAGKTQKTEIKYGNNHPDFNQELRVAFKFPS  
MCERLKLQMFWDWRIGNDDCIGTSFISLTAISGNGDEGFLPCFGPCYVNFYGSTREFSDLPDEHDN  
LNKGRGEGCGYRGRALVEIDTRFGDHTAKPVQDIMAQELVRVQAYMRRRKYKLFASFLSANMIS  
EADGLVEFEVSIGNYGNKLDPDTEPQSSSTPTNPVYDGCAYYFLPWQESKPCCVVESHVEDVIFR  
LEPINCLLKIIDKMEKNISVELGLKAKAQA EVA AALLIALLDQFISDVSM DLPKFAATDNGVNEL  
DLKIQEIRSD ELLNLKEEASTLREQATDVQEAMDTIDGYLKRMRDLCVEPQNSMPDVIWMIAGS  
KRVAYHRIPAYDIFYSENPLARGRKASLQNFILKYPGKKGHD MEDHPEIPASVSILWLGLEKHQ  
AAWTDTEQMEGEYSVYAETYENQGKPPMFDWTAKIIRKPGFSDSEGKIRLNKEYYEPPEGWKWD  
DPPDGDWFI DPEMSSNFDADAGHKKFMQDCFENESRVPAGNWGKSTPHYTNVQGDEIDHRDE  
TSLPEGWSWTDDWKVDVNRACDEEGWEYCIEATGGGWGAVFRSYHFCRRRRWVRNRQLEADP  
QKVMKQKKEEAKQGEWEYAPVFGMKYHVKEHKFDFVRRRRWHRKMVCVKPGAVPMFKIPD  
DDDKGKFHQIMPRIFLAYDEPHKWQFRAYLFQARDILGLDSEGTSDAYAKVCFQDQSQITDVIEET  
LCPEFNQTL LFEDMQLYGSPSVFAENPPFVSIELFDKDKVGKDEF LGRVLAQPIVRLNGLKPPATRL  
MWYDIHHGERTCGELLA AFELFLDEGADLPLPPPWLEKEKKFQVPSGIRPILVKTGVEILNWGVR  
NMKKYQLASCTSPSVTYEIGREIITDVIKNTKKNPNFLKNIFYKEVYLPKDP LYMPPIVIKVRDHR  
TFGRKPVVGRHVIKSIDFVQPPKADPVVELPPADLVGEPEEKKDVTLDIEEKKKKKEIPVDDNLDW  
WSKYFASADEIEKCGNYLKKGHKTIQIYDSELEEIKDFNGFSDFIVSYPLERKEDDDDDNNVGE  
LKGLVKVYPLQDPK DQTKIRYFTPKLKEKSKIVKCIVRVYVIRARDLQPKDPNGKADPFIVVQLG  
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RATCGLSPAYTSGAYQWRDAKSPKEILDQVCRTKPQWLSNEQVVVNGQLVKIEDFEESPTDPHI  
GPVEQRLALHVLN NEDIIGHRLVPEHVESRSLKNPLQPSMDQGQLEIFVDIFPIANGVPGPPLDIAT  
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WRFVFPFKYMP EERV MVVEKKEHFWSLDTTKQTLPPRMNLQVWDNDLFSANDFIGNLELDLSK  
LPRPKKAAKKATLAML DTEGDDVMDLFQAKIAKGWWPMLSENE DGTTRTMQ GKVEMTLEIVTD



LEHEAKPAGQGQEEPNNMNPCLDPPNRPETSFLWITSPWKTLKHIIWKNYKWIIGFFLFIILILFIGL  
VLYSVPGSIVHKIFGFQ\*

>TRINITY\_DN96\_c0\_g1\_i2.p1 type:5prime\_partial len:189 gc:universal  
TRINITY\_DN96\_c0\_g1\_i2:1253-687(-)  
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HRVIKAFMMQGGDFTNGDGTGGKSIYGERFPDENFKLSHYGPGWLSMANAGQDTNGSQFFITF  
TKTPWLDGRHVVFVKVNVGMDVVKVEQVQTDSDRDKPKKDVIEDCGVVVKVEKPFVAVKKQ\*

>TRINITY\_DN26249\_c0\_g1\_i1.p1 type:5prime\_partial len:477 gc:universal  
TRINITY\_DN26249\_c0\_g1\_i1:1733-303(-)  
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AIPSDQVRITPSMRDQRGGLWTKTKSSEFEWEIEFFRITGRGRVGGDGLAMWFTTEEAGIQGPVF  
GSSDHWKGMGLFFDSFDNDGEQNNPYVMVMLNDGTKQYDHFKDGNSSQQLGGCMRDFRNP  
HPIRAKIRYYNNILTVFYHSGMSERSDDYELCMRAENVVLPKEGFFGITAATGGLADDHDDVIKFLT  
HSLTPPLTDEQKQKILSEEQRKKYEEQYGEYTQKLETKKEEFQKEHPDKKAPEEFESVYDRDVR  
IYENQNTIHHVVRALHEKVGELTNQLNNLHVTINNNNQLAQQQQPKGDGVTRQEVNTIINLQN  
QVHNAIQELKQQSGGGGGDNTKTVMQMEKTLQTVLEQVGHVSKNNDRRPSCTVSCVTPSILILF  
LVAQVLLVAGYNFYKEHQNKAAKKFY\*

>TRINITY\_DN140696\_c0\_g1\_i1.p1 type:complete len:260 gc:universal  
TRINITY\_DN140696\_c0\_g1\_i1:43-822(+)  
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MKQRLIKVDGKVRTDICYAGFMDVITIEKTGEFFRLLYDVKGRFVCHRISSESLYKLGKVKRVA  
GKNSVPYLVTHDARTINYPDPVSVNVNDTVVIDIKTGKINDFIKFDTGNTVMVIGGRNTGRVGI  
RERHASSYDIVHIKDAAGNQFATRLSNIFLVGKGNKAMVTLPRGKGVRLTIAEERDRRLASK\*

>TRINITY\_DN8707\_c0\_g1\_i2.p1 type:complete len:564 gc:universal  
TRINITY\_DN8707\_c0\_g1\_i2:2751-1060(-)  
MSGFVRQSKYRHVFGSPARKDGCYEGFRVTNCAFDGNFIAANKHFIAVCVEVGGGGAFIIVPVGS  
TGRLDVNIPKVSASHKEYILDQWNPYNDFMLASCEDEGTIKIWEIPEKGLFMNIGDEKALLSLEYH  
EKRCTQVLWHPASNVLMSSVSQEPKVCVWNLDEGSVEVEILEHPELIYNATWSQKGDKIGTTCK  
DKKIRIFDAREGTLVQGMGHEGAKPSRVIFTQDKYLFTTGFSKMSERQYACWNAETIEQLGLEE  
LDTANGCLVPTYDADSQVLFLNAKGDSNIRYELVDGDPYFYLYSTYQSSAPQRGFGFIPKRCINV  
NANEISKGYKLHGKTGYIEPVSTVPRKSETFQQDLYPDAGDEAALEPDDWFSGKNAEPKRIA  
MSTFFKGKTKPTGAAGGGLKKGGLKGLKAKKEAKTAAKSAKSEPAKPAPVKTESKDKVDAAP  
PAAAAVEQKSSSTAVAAPAAAAPVVVSGVDEKVVKELQNEIKSLKDGDKKLQKEIISLKDCLKDY  
DTLRSDIKLLCDAVKKNRITERITALESLVAEETDEEETGEGGDE\*

>TRINITY\_DN41831\_c0\_g1\_i1.p3 type:internal len:115 gc:universal  
TRINITY\_DN41831\_c0\_g1\_i1:342-1(-)  
WGSWSSVTRGEDKDARTQRSSKTPPYRSSCLKNGKLRVCWMQRLTASTVLMAGIGKLTMESS  
ASLTMSMTRSGGASPIDLRANSPVRPMSNARARSLTWAWRRACLPNKQAR

>TRINITY\_DN2490\_c0\_g1\_i1.p1 type:complete len:1044 gc:universal  
TRINITY\_DN2490\_c0\_g1\_i1:354-3485(+)  
MDVNKKVNQAYIDDDDDITINFNPKSGDPNPQAQRFKISKLPQSDDSNNSMEDIEEADDVDGLE  
KDNVQNTVSKHVQLTIPAEHYHNDHNDTRRASHTHTQTIGYMTHTDAVPMSVFYRNQASMENA  
ANGDMRPTLDQLHKGQGLDEARKRHWDALENEDEQQDAERGTSNTKTKLGWIKGVLFPTLLN  
IWGVILFLRMPWIVGQAGIGLSSVIVLLATVVTVTALSMASVCTNGEVKGGGAYFLISRSLGPQFG  
GSIGIIFSVANAVAVALYLVGFGETVQALMARSDTYMVDATNDIRIIGLIALILIFVIAMIGLEWVIHT  
QTFLLLLLLVAAILCVAVGCVYPAPQESREKALAWGLPGYKSKSFADNFVPDYRDGEEFFGVFAIFFP  
AATGIMAGSNLSGDLKDPQKAIPGLTLLAIGMTSTSYVALSWILGSFVMRDASGIIPVINVTNNGTT  
MNSHTCEIGSCEYGSVNDLQIIEKISLWGLVLIGIFAATLSSALASLVSAKPVFQAVCKDKIFPHIEL  
FGKEYGKNGEPRNGYLLTLVISACFIAIGELNVIAPISNFFLMAYALINYSVFAASIAKSPGWRPSFK  
YYNKWCALVGFFLCIVIMFMINWWAALITIVVAALYKYVDVRKPDINWGSSGQAHTYLKALRFT  
RRLEDTEHVKNFRLQVLCLTGQPSLRPNLVHFCSHITKHLGLLVCGEVNVTDKILSPSGNEGKW  
LKKQKIKAFHQIIHSATLRNGAQSMQLQSVGLGKLKPNTLIMGYLNLRWQSIEVAKVDEYVHIIHDA

FHLRYGVGILRLQDGFDTDGVDQIENGVVENHEPDWYTEDWDENQKDTRGSDGDGSDQA  
KEERQETFKPPDIVSAFPKKRGYIDVWWLYDDGGLTILAPHLLALSSHWRGCKLRIFTPASDKKI  
KANQIRMANLLKKFRIDFSSVVEFRGINKHPKEDSINQFKQLRRGEHLPQDGLLDKKTTLRQIRLGE  
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>TRINITY\_DN39385\_c0\_g1\_i1.p1 type:5prime\_partial len:154 gc:universal  
TRINITY\_DN39385\_c0\_g1\_i1:2-463(+)  
SNNITIKLSDNVTINRSDGKEVAKIFLISDTHVYLLNSKTLQLIHQIEISKINKVTLTPYKDGIIVLH  
VNQGSQSLQKGFILNSSNVIENVTRLAMLYESISQKNLDIDFSSNLCINTKGKNIDLTVQENDD  
NNQLVFRKKGNQIMVSVQ\*

>TRINITY\_DN367\_c0\_g2\_i1.p1 type:complete len:199 gc:universal TRINITY\_DN367\_c0\_g2\_i1:67-  
663(+)  
MNILYLSGLLLCGLAFCDEEDIEVEDFGQSCTKVPTKCEHVKRCSRVDKHHPEVCKVVEECKH  
VLVEKCVPKPKPRFETKCEVVDTVRKCEVYKCIPIKYFYVKECKSRQVCKHIPFFKKVCKDFCTKK  
LVKHHYGHVPVFKVCHPRCYTAPFPKSECKDEPFQKQWQSKKNCGNFKHCWDQDIRKCRKVL  
VSHH\*

>TRINITY\_DN1121\_c0\_g1\_i1.p1 type:complete len:252 gc:universal  
TRINITY\_DN1121\_c0\_g1\_i1:1155-400(-)  
MAEREQLIQAKLAEEAERYEDMATHMKGVTKMADQPLNTEDRNLLSVAYKNIVGAKRSSWR  
VISSIEQKATDSKKQYAEAYRIVIEKELSDICNEVLHLLDDFLVKSASATYYEDPNLTAEAVFYLK  
MKGDYYRYLAEVASESEKQSVVDKASNAYKEASNIGIKSLAATNPIRLGLALNFSVFHYEICSEPSK  
ACTLAKDAFDLAIADSLPEESYKDSTLIMQLLRDNLTWTADQADGNEPDAE\*

>TRINITY\_DN3773\_c0\_g1\_i1.p1 type:complete len:504 gc:universal  
TRINITY\_DN3773\_c0\_g1\_i1:168-1679(+)  
MAPVVGDLMDSLIDASKQHNQAVVRDYISQPRLIYKTVSGVNGPLVILDQVKFPKFAEIVTLTLP  
DGTRRSGQVLEVSGSKAVVQVFEGTSGIDAKHTTCEFTGDILRTPISSDMLGRVFNNGSGKPIDNGP  
PILAEDFLDIMGQPINPWSRIYPEEMIQTGISAITMNSIARGQKIPIFSAAGLPHNEIAAQICRQAG  
LVKHSKGTMDYSDDNFAIVFAAMGVNRETARFFEQDFKENGSMDNVCLFLNLANDPTIERIITPR  
LALTAAEYFAYQCEKHVLVILTDMSSYAEALREVSAAAREEVPGRRGFPGYMYTDLATIERAGRVE  
GRNGSITQIPILTMPNDITHTPIPDLTGYITEGQIYVDRQLQNRQIHPPINVLPSLSRLMKSAIGEGM  
TRKDHSDVSNQLYANYAIGKDVQAMKAVVGEEALTPDDLLYLEFLQKFEKEFISQGAYENRTIFES  
LDIGWKLRLRIFPKEMLKRIPAKTLAEFYPRDGRKEETD\*

>TRINITY\_DN32522\_c0\_g1\_i1.p1 type:complete len:235 gc:universal  
TRINITY\_DN32522\_c0\_g1\_i1:147-851(+)  
MAAWLDSYRETEQLGHDIMELINERNTLKRASNTSKVQSSIRIKMQQYSSGLQRLKDLLLRDSSS  
YNVTQQELQRRQNQLDVLVSKEQQLNQAFKPTQSNYDRSNLFGEKYGDDLNGRYGGASASNGL  
DDDLPQNFRQQQEQLKEQDKGLDSLHEVIQRQKMMGKAIGNELEYQNDLIDDITKGVSRVDN  
KVNATERKVKKVHRKTGSCAMIVVILLIAILVAVFPTN\*

>TRINITY\_DN18187\_c0\_g1\_i4.p3 type:5prime\_partial len:112 gc:universal  
TRINITY\_DN18187\_c0\_g1\_i4:361-26(-)  
SRKAMPVQGSIKKPHRYRPGTVALREIRKYQKSTELLIRKLPFQRLIRELAQDFKTDLKFQSQAVLA  
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>TRINITY\_DN34191\_c0\_g1\_i1.p1 type:internal len:238 gc:universal TRINITY\_DN34191\_c0\_g1\_i1:1-  
711(+)  
VRQRSAPAPGGGPPFATMAGRFDPSKLLQAFASRGAPLAAGGAVLFGGAYAVQNAVYTVDAGH  
VAIKYHRMSGIGSSSTYREGVHFMLPWFERPIVFDVRARPHTMTSLTGSRLQMVNISLRALCKPDP  
SRLPDIYRNLGPDYDEKVLPSIINEVLKSVVAQYNAAQLMQRELVSRLMIRQLVQRANDFSILLDD  
VAITHLSFSSEYEKAVESKQVAQQQAERARYLVLKAQEEKK

>TRINITY\_DN12\_c0\_g2\_i1.p1 type:complete len:203 gc:universal TRINITY\_DN12\_c0\_g2\_i1:239-  
847(+)  
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KGPLKNGVILCHLINSIQPGSVKRINQSSMAFKQMENIGNFLTGCCEGIGCSKQDLFQTVLDLYEGN

NIPQVINGLFALGRKARKTGYDGPRLGPDEASENKREFTEDQLRAGEGVIGLQAGSNKGASQAG  
QNFGKTRAIID\*

>TRINITY\_DN2301\_c0\_g1\_i1.p1 type:5prime\_partial len:452 gc:universal  
TRINITY\_DN2301\_c0\_g1\_i1:2886-1531(-)  
TCVCRNHIKMEGKSTCQQLLFVITIILSCISALFGKTLVLLDNANIKETHSIFFENLKDKGFELVFK  
AADDPSLTLVKHGEYLYKNLIVFSPTVEEFGGSVDVPAITTFVDNNGGNVLVAGSSNVGNPIRELGSE  
CGIEYDEEKTSVIDHHNFDQSDDGTHHTILDAKNLIKSNVIIPSKVDSPIMFNGVGMTADTDNPL  
VLEILSAESTAYSYPDMKITEYPLAVGKNTLLIGGQQARNNARIVFCGSLDFFSDQYFMSGQAQNA  
AQSGSTYFIQSGNMKVAVDVALWTFRHNGVLRVSQVNHLLGEVDPPPAYTIEQEVVYSIKIEEFS  
NGQWVPFQAKDVQLEFFRIDPFVRTYLSSTDGVYNVNFKLDPVYGVFVKVDYDRVGYTHLFSS  
TQVSVRPKQHTQYERFIVSAYPYASAFSMMAGICIFS VFLHHKETS KVKDE\*

>TRINITY\_DN97809\_c0\_g1\_i1.p1 type:internal len:184 gc:universal TRINITY\_DN97809\_c0\_g1\_i1:2-  
550(+)  
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VRRVRHPRPSSRDQCHRDCHAPGRVEGRAQVDRGRRLGRRRVEHEVHGAAQPAARGQEKGR  
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>TRINITY\_DN278\_c0\_g1\_i1.p1 type:complete len:470 gc:universal TRINITY\_DN278\_c0\_g1\_i1:3091-  
1682(-)  
MAPSFNKTNGHMEENGGMIHANGKSSEKPINLGEQTSYMTFKKMGLIMITLPLVFLLLVGLPSY  
LYPVLVLLFFIPVFAGYIGLNNVIYCLYERHNQVSKIDNYIEFLDEDLKKKFTGRFIPIRDLYELYAEG  
KLNFKGDVLQCLERRNEYVSYKLQLWHLKFFLSKLLPELLHARSQDKEQVCDHYDRGNDFYNA  
YLGPLMVYTSIRYSESDTLED MQMNKLKAVCEKVQLKEGDRHLDIGCGWGTLVNYAAENYNS  
QSEGVTLAKEQVCWAEKAKSKEIMDRVNYLCMDYRDIPKKKYDKITCLEMSEHVGIKRYHHFL  
KDVRNMLEDDGIFFLQIAGLRRAYQWEDFLWGFFMDTYIFPGADASLPLQFPFAELEAAGFEVES  
VKTVGIIHYSDTIKYWYHNWVKSDSHDKMIQKYGRRMVRVWDIFLAWSTIARQGNSTCYQIVAH  
KNFNHYPRRRFIQPKN\*

>TRINITY\_DN413\_c0\_g1\_i4.p1 type:3prime\_partial len:463 gc:universal  
TRINITY\_DN413\_c0\_g1\_i4:1388-3(-)  
MVSLSVTCLSLLLFVTVNAEESDHCGYDEKSWYKAMGW CYHSGSRLLL GDFNGDKRTDFFCHD  
SNGKNWVAVSNSDGSFGSTTWQDSKERWCASPNILLTGDFNGDGVTDLCHGTATGKKWIKYFN  
KYGVPSGKSFYRAMSWCNHKGSQLYIGDFNGDKRDDLCHDTSGRYWTSYAGTDESKVFHHTS  
WYKALEWCRHATSKLYLGDFNGDKKTDVLC TDGKG YKWIMYAKTSGNLFTGTDWHTNLDWC  
HESSTVFLRIGDVNGDGKDDLCHSTAGNSWVAYTQPKGGFGNFCHLAKWCAAGKESFFLG YF  
NQDSRADILCHDTKYGKKWIRYAEC SFAEESDHCGYDGKSWHKAMRW CYHSGSRLLL GDFNG  
DKRTDFLCHDSRGINWVAVSNSDGSFGSTTWHD SKERWCTSPNILLTGDFNGDGVT DMLCHDY  
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>TRINITY\_DN26892\_c0\_g1\_i1.p1 type:complete len:233 gc:universal  
TRINITY\_DN26892\_c0\_g1\_i1:108-806(+)  
MHMEERNMSSEKFEEYEDEFQTYFQEFKSIVHNKLPKLTAEPRKKEVRNAEKIYEDADFQLTQMT  
DEAQKAPGVHKSRLMTKTRGYRADLNKVKRELKISTAVIMSN SNGAREDLLESSRPERQMNIQQ  
QSRMKEGLDYLERGSQS VARSQRIAAETEEVGVQIIGDLDDQKETLHRVKDRLKDTEADLGKSRRI  
LNSMAVRLATNKL LLA V IIFVELLILAGVTY LKFFKK\*

>TRINITY\_DN6\_c0\_g1\_i1.p1 type:complete len:196 gc:universal TRINITY\_DN6\_c0\_g1\_i1:843-256(-)  
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KEDRQWTVYCANVMEPRGTSTWTYYVND F DGEMDFACADGNIVTGIASFHKNKYEDRRYKF  
RCTYMPGTIRKGC SWSKYSTYDAMFSEHIEPGRYLTGMRSSHDNNKEDRIFQIETCRFDHYEQQF  
H\*

>TRINITY\_DN76040\_c0\_g1\_i1.p1 type:5prime\_partial len:383 gc:universal  
TRINITY\_DN76040\_c0\_g1\_i1:1-1149(+)  
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FEKLENEHGGKTGKDDHVSATEPPPQATTRRRRGAVSAAVISEEDAASYVKKVIPKDYKTAAALS  
KAIEKNILFSLHDESERSDIFDAMFMVKHSEGEVIIQQGDEGDNFYITDSGEVDVYVNDNLVVSISP

GGSFGELALIYGTTPRAATVKAKTDVKLWAI DRV TYRRILMGSTMRKRKMYETFLEKVSILES LDKW  
 ERLTVCDALEPCNFNDGEEIVVQGE PGND FYI ISEGQA AVLQRRSPNEDPIEVSRLNVSDYFGEIAL  
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 VAEGTEVPTSTVLFTLKSTDPKCYWLTNYLETLLVQVWYPMTVATNCMYQRRMLLEYLKETGSPE  
 GIDFKLVDFGFRGVSSVESAAVGDLAHLVSFCSTDTVAGMVAAQSFYGA KMPPGASIPASEHSTITS  
 WGREHEVDAMRNMLSKYPTGMVACVSDSFNIYDACDKKWGQILKEQICSRDGILVVRPDSGEPK  
 EIVPELLEKLA AAFKAGTCGPSPGTTKNEKGYVVLDPHVRLIQGDGVNTQTVLEILHEIKNRGFS  
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 >TRINITY\_DN128406\_c0\_g1\_i1.p1 type:5prime\_partial len:150 gc:universal  
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 FGGPGARARYQKS YR\*  
 >TRINITY\_DN1315\_c0\_g1\_i1.p1 type:complete len:371 gc:universal  
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 GDIVMTNRLKSQINQMNH SNGNDKFDAIRNGAWPKGVVPYTFASNFARTYRS AVMSAIKEYNA  
 KTCIRWKPYTAALARAAGGYVQFFHSGGCYSMIGRQGGLQKISLGTGCGTKGVAIHEMMHALG  
 FFHEQSRDRDRSYIRINWNNINPSTRYNFEKYRSGQASTLGE PYDKSSIMHYGNYAFSINRQKTIVSI  
 SNYNEVLGQRNGLSVIDARQLNKYYYKCSNTGTGVVKPPVVTNNLTNKYKFCVDLSKWCGDSFV  
 KANCKKTCGCKDIKTQKECSYWSNQGFCRHTWVTFMKVNC PKTCNMC\*  
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51(-)  
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44(-)  
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>TRINITY\_DN2487\_c0\_g1\_i4.p1 type:internal len:370 gc:universal TRINITY\_DN2487\_c0\_g1\_i4:2-  
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>TRINITY\_DN484\_c0\_g1\_i1.p1 type:complete len:554 gc:universal TRINITY\_DN484\_c0\_g1\_i1:164-  
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>TRINITY\_DN7808\_c1\_g3\_i1.p1 type:internal len:212 gc:universal TRINITY\_DN7808\_c1\_g3\_i1:635-3(-)  
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 LKFADVPNGLAALSKVPLNGWFQIVLFCGCYEFTYNSNRAPGDLGWKAITSSDPEVLKRKLNCE  
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>TRINITY\_DN131028\_c0\_g1\_i1.p2 type:5prime\_partial len:104 gc:universal  
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>TRINITY\_DN1272\_c0\_g1\_i1.p1 type:complete len:262 gc:universal  
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 DCPAFQVVGNYTNKKDGFEEERCYPETAWVMTSKEVDANENDIETRDMFMKLFKYIQGENEKQE  
 KIEMTVPVFTYSQLKKDDPSKRYISMHFFVPPSQEKNIPKPTRDDVTIMDVKADCYVRSFGGYV  
 MSFGSKIMNEEKKIHAALAEKNNLDFEARKTMAAGYDSPFRLFNHNEVWVAKRKTMDSGCCTP  
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>TRINITY\_DN884\_c0\_g1\_i1.p1 type:complete len:542 gc:universal TRINITY\_DN884\_c0\_g1\_i1:1783-158(-)  
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 NVIDCDNKWRKLRQADNWNKLNLCSTIGMKMKKKEPVGDNDAIPEELSKTESLQGLNPQ  
 QLESFTVNQIKKIRTLIDEHMQNCEAERLECEKVRHQNLFEIGNWLHESVVVSNDENEIVRTV  
 GDCTTKKQYSHIDLLYMIDGVEYERGATVAGNRYFLKGPVLLQQGLINLATQTLIKNGFTPLYT  
 PFFMKKDVMQEVAQLSQFDDELYKVIGKGSEKEDTSFEEKYLIATSEQPIAAAFHRGEWMDTNEL  
 PKKYCGISTCFRQEVGSHGRDTRGIFRVHQFEKVEQVFVCSPHENESWKMLDLMCNNAEEFYKSL  
 NIPYRIVGIVSGALNHAASKKLDLEAWFPGSGAFRELCSCSNCLDYQARRLLIRYQGQTKKMNDKA  
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 GKEQNIATKLENMDVNGK\*

>TRINITY\_DN453\_c0\_g1\_i1.p1 type:complete len:249 gc:universal TRINITY\_DN453\_c0\_g1\_i1:944-198(-)  
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 AATQTSIKENKSRLTMGKKSWAIVDLPGHERLRAKYLYNHKDSARGIVLMIDSVEFPREIRDVAEL  
 MYDLLANRTIKKNKVSVILVACNKQDLTTAKACNVIKSQLEKEINNLRKTRSAALLGIDDNTSSKN  
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>TRINITY\_DN59667\_c0\_g1\_i1.p1 type:3prime\_partial len:225 gc:universal  
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>TRINITY\_DN12390\_c0\_g1\_i1.p1 type:complete len:268 gc:universal  
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 ARVGTCADAVISWYNEIDDYDFNLGMSRNHKAIGHFTQLVWKTSTTKVGVGVATHKGQTDNDIK

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>TRINITY\_DN4815\_c0\_g1\_i2.p1 type:complete len:638 gc:universal TRINITY\_DN4815\_c0\_g1\_i2:79-  
1992(+)

MVSSLLLVLICTVVYTAGISAFFQCDFEKV D I C G F K S S S S N Y T D T G E A P N W R R H T G T T P S A K D Q N N  
A H V T G P L E A Q S G D Y Y M Y F E A S N L P S G A S S T G T L S R L F D A T Q F G V T D I V F H V S S K G E S L S L L V L D F I  
D Y T T N D I F D E K V V F P R N K A A W Q K Y T F N L D E K I F K R K F Y M Q F I G Y V R E V N G K K D N G D W A I D N L R I  
D G I A I V E K C E N V K C N V N T N C K D T S N G P N C E C L P G Y S T K A G T S G K N T E C I E T C Q A F T C N L N A E C S  
N T E N G P D C K C E S G Y K A I N G T S G K T T R C E E T C Q A F T C N L N A E C S N T E N G P D C K C E S G Y K A I N G T S  
G K T T R C E D D T C S N F Q C S N N T N C E N T V S G P N C T C K E G Y R P V N G T R G R D T I C E D I N E C A I K N I C G G L  
K V C R N V P G S H H C D C P P N Y T F F A A E N K C Y R N G A F S Q W R N V G S C S K T C G A G D Q K Q T R S C S N P S R E  
A P H G R D C P N E P T E R A V A C N S G P C L A G C P R N K T C T C E N V R Q Y K T G E E P K K D F S S F N G L S I T D G E T S  
R R Y V H T Y N R E F I E K T I K D V N C N N N Q L K S V Y K N I T D I I G I L E G I N K K Y S S T K M E M Q D I I D C N A N I D I E  
K N L W D V Y D V L A E H S I C N Y Q V Q K D L E M K A D R I Q A E I T R C N N R G W Y S T I L D A I I \*

>TRINITY\_DN22594\_c0\_g1\_i1.p2 type:internal len:268 gc:universal  
TRINITY\_DN22594\_c0\_g1\_i1:801-1(-)

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P K T E E G I V Q M K I K E L K N G R L A M L A V S G A L T Q S M A Y G V Y T F P W T L P A P N A V Q S R T A L R A V E F K G Q S  
G P F G A L D V A E P K T L E L T D R V K A V I K S K G S L D R E S Y R E I F L Q P K A E T V F A G G L V G S E Y H G W G T Y Q W  
D P A G L A T R Y P E H L P W Y R E A E L K H C R V A M L A W L G L I V P D F V R I P L D D F Q D P S L D L E N A H N K L I Y G L  
G S G P M W W

>TRINITY\_DN6701\_c0\_g2\_i1.p1 type:internal len:169 gc:universal TRINITY\_DN6701\_c0\_g2\_i1:2-  
505(+)

A D S P L R A F E G E L G V Q A P V G F W D P L K L S A D G D A E A F K R R R S T E L K H G R V S M Y A C L G Y I V P E Y F R F P  
G Y L S P S E G L R F E D V P N G L A A F S K V P V N G W L Q I V L F A G F Y E F T Y N S D R A P G D L G W K A I T A S E P E A L  
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>TRINITY\_DN647\_c0\_g1\_i1.p1 type:complete len:344 gc:universal TRINITY\_DN647\_c0\_g1\_i1:1110-  
79(-)

M N P I F A L R P S S K L I R E G I K K F S T S N Q K N V K V A V L G A S G G I G Q P L A L L L K H S P M I S H L S L Y D L A P F T P G  
V G K D L S H I E T T S E V T T H L G P D N L D E C L K G C S L V L I P A G L P R K P G M T R D D L F N T N A S I A M N L A D A C  
A R N C P N A V V G I I T N P V N S T V P I A A E V Y K K H G C Y N S N K L F G V T T L D V V R A N T F V A E K K G L D I T K N  
V P V I G G H S G V T I L P L L S Q V L P K T T F T N E E L E T L T H R I Q N A G T E V V E A K A G A G S A T L S M A Y A G A R F G  
F S I L E A M N G K K G V V E C A Y M A S E E T D A S H F A T P I L L G P E G A E R N L G M G E L S D F E K E K L K E V L P E L Q  
N N I A K G E E F T A K N L \*

>TRINITY\_DN187147\_c0\_g1\_i1.p1 type:complete len:1223 gc:universal  
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L F V S G G D D Y K I K V W N Y K Q K K C I F T L L G H L D Y I R T S F F H K E H P W I S C S D D Q T I R I W N W Q S R N C I S V  
L T G H N H Y V M C A Q F H A V E D Y I V S A S L D Q T V R V W D I S G L R K K Y C A P G A K P K E D I T A P K T P G Q M D L F  
G H S D A I V K H V L E G H D R G V N W V T F H P T M P L I V S A A D D R Q V K L W R M N D S K A W E V D T C R G H Y N N  
V S S V I F H P R L E L I L S N S E D K S I R V W D M S K R T G V Q T F R R E H D R F W I L G A H P T L N L F A A G H D S G M I V F  
K L Q K E R P A Y A V H Q N T L Y I K E R Y L R M Y E L G T S K D I P I M Q L R K S S G R S T P L K L I F N P A E R C I L I T Y N N D  
T S A G E S Q V Y E L H T L P K D I R S T D P E Q S E G R R A A G T A A V W V A R N R F A V L D K Q Q N V V I K N L K N E V T K  
K V Q T P A C D M L F Y A G T G S L L L R D A E Q V M L F D V Q Q K R V M A T V K I A K A K N V I W S S D M S Y A A I L A K H  
S I A I C N R K M E N L C T V H E S V K V K S G G W D D S G V F V Y T T S N H I K Y T L T N G D A G I I R T L D L P I Y I T R V K G S  
N V Y C L D R E C K T K V L N I D P T E F K F K L A L V N H R Y D E V L Y M V R N A K L V G Q S I I S Y L Q K K G Y P E A L H F  
V K D E K T R F G L A L E C G N L E I A L E A A K T L D D K A C W E K L S E M A L L Q G N H Q I V E M C Y Q R T K N F D R L S  
F L Y L T T G N S D K L R K M L K I S E I R K D V S G H L H N A L Y C G D V E E R I K V L K Q V G Q G S L A Y L T A A T H G L V E E  
C E E I K A T F D L N P E K L P P I N P N A K L L R P A V P I L K N E G N W P L L S V S K T L F E G A A A M K D A G T S N M A A A  
V D M D D E G E G W G D S D L V L E E D A G F V D P E E K L D I D E E G G W D V D D D D L E L P P D L D V G P V S S G G E D  
Y Y V P P T R G N S Q A Q V W C T N S Q I P V D H L V A G S F D S A A R L L N E Q L G V V S F E P Y K Q L F M L A Y A R G R V A  
A P G L P S T P P L F Y Y P H R N W K E A G A K A G L P A V A I K L N D L V Q R L Q T A Y Q L T T G G K F A D A V E R L H Q I L L

SVTLLSVESRQDVTEAQQLLGICREYILGLQMELENRKELPKQNAQQQKRICEMAAYFTHCNLQPV  
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>TRINITY\_DN148467\_c0\_g1\_i1.p1 type:complete len:218 gc:universal  
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>TRINITY\_DN101992\_c0\_g1\_i1.p1 type:internal len:139 gc:universal  
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DEVKKAG

>TRINITY\_DN98420\_c0\_g1\_i1.p1 type:5prime\_partial len:286 gc:universal  
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PSITTEVLKAIVARFDASELITQRDNVSLNVQEAVERCKAFGLILDDISLTHLTFGKEFTEAVELKQ  
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>TRINITY\_DN478\_c2\_g1\_i1.p1 type:complete len:145 gc:universal TRINITY\_DN478\_c2\_g1\_i1:3-437(+)  
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>TRINITY\_DN187527\_c0\_g1\_i1.p1 type:complete len:102 gc:universal  
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>TRINITY\_DN79\_c0\_g1\_i1.p1 type:5prime\_partial len:478 gc:universal  
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AKAFLAVAEAVDDLEFAIAAPDASGDFAVTEDKIIVAKKFDDPQVVYSGEANIADIKKFVRAESIA  
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NPVKVLVGKNFAEVALSKDKDVLVEFYAPWCGHCKQLAPIWDKLGEKYKDSENIVIAKMDSTAN  
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>TRINITY\_DN7808\_c1\_g2\_i1.p1 type:internal len:237 gc:universal TRINITY\_DN7808\_c1\_g2\_i1:710-3(-)  
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>TRINITY\_DN36276\_c0\_g1\_i1.p1 type:complete len:449 gc:universal  
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 >TRINITY\_DN1428\_c0\_g1\_i1.p1 type:5prime\_partial len:165 gc:universal  
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KQNKEKSPPADTGTIVEHTAVQQELFDSIVVQGDKIRNLKAQKATKDEITAEVATLKELKSKYKTS  
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ASKDQITSEVNVLDKLSQYKSSTGSEFSNPSANNQSPTKKSKEKMAPVPVATPEAVTVESPEVEA  
VKQKIVAQGDKIRELKSCKIEKAELQPEIDNLLKFKAHEYKELTGSEYKPPGGGGNQQKGKEKKQN  
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>TRINITY\_DN244\_c0\_g1\_i1.p1                      type:complete                      len:3019                      gc:universal  
TRINITY\_DN244\_c0\_g1\_i1:9748-692(-)

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>TRINITY\_DN785\_c0\_g1\_i1.p1 type:complete len:289 gc:universal TRINITY\_DN785\_c0\_g1\_i1:1062-196(-)

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>TRINITY\_DN1534\_c2\_g1\_i1.p1 type:complete len:547 gc:universal  
 TRINITY\_DN1534\_c2\_g1\_i1:1914-274(-)

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>TRINITY\_DN4781\_c0\_g1\_i1.p1 type:5prime\_partial len:2696 gc:universal  
 TRINITY\_DN4781\_c0\_g1\_i1:10504-2417(-)

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>TRINITY\_DN436\_c0\_g1\_i1.p1 type:complete len:116 gc:universal TRINITY\_DN436\_c0\_g1\_i1:74-  
 421(+)

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>TRINITY\_DN1378\_c0\_g1\_i1.p1 type:complete len:443 gc:universal  
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>TRINITY\_DN6783\_c0\_g1\_i1.p1 type:complete len:314 gc:universal  
 TRINITY\_DN6783\_c0\_g1\_i1:1018-77(-)

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>TRINITY\_DN98968\_c0\_g1\_i1.p1 type:3prime\_partial len:424 gc:universal  
 TRINITY\_DN98968\_c0\_g1\_i1:1269-1(-)

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>TRINITY\_DN319\_c2\_g1\_i3.p1 type:complete len:2588 gc:universal TRINITY\_DN319\_c2\_g1\_i3:165-7928(+)

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>TRINITY\_DN164351\_c0\_g1\_i1.p1 type:complete len:212 gc:universal  
TRINITY\_DN164351\_c0\_g1\_i1:694-59(-)

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>TRINITY\_DN578\_c0\_g1\_i1.p1 type:complete len:429 gc:universal TRINITY\_DN578\_c0\_g1\_i1:379-1665(+)

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>TRINITY\_DN10907\_c0\_g1\_i1.p1 type:complete len:206 gc:universal  
TRINITY\_DN10907\_c0\_g1\_i1:1010-393(-)

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VSKEKGEIAREHSIKFFETSAKENICVEEAFMQLTQDILRKHQAGATHEQSPSGVVIEKDSHNRS  
KGGMNCCN\*

>TRINITY\_DN138\_c0\_g1\_i1.p1 type:complete len:401 gc:universal TRINITY\_DN138\_c0\_g1\_i1:157-1359(+)

MAARFLFITVILIVGNLIGDVCPCERNWIKIGCFHDIRFPNRPYPFELVNHDRPINNHWDGNLI  
NWRKYPDSIEKLACICANKTRTKGYQYFGLQFYGECWSGPSYNFHRDGPSTKICGNDFKPCDDSS  
KTECVGRAFTNYIKLDENPKVDGKWSEWEKWSPCSATCGYGERYRERFCSNPEPENGGQTCE  
GEAREYEECNHGEQTTCDKEIDFGIALDYSSSVRQVNWNRITLDFVVELSKGFNISPEKVHFGVLS  
FSHRTRFDFGLSDKTYWNSESFEKKIKSLEYRWGYTWTDKALKKVKQLIFCEKCGLRKDSLKYLLV  
FTDGRSNNVKTDLKTVSDSIKDMGVNVISVGAGHTINHRELEEIATDDNHVFYVGGYAYLGDNM  
NAIRRLTCG\*

>TRINITY\_DN1320\_c0\_g2\_i1.p1 type:complete len:260 gc:universal TRINITY\_DN1320\_c0\_g2\_i1:97-876(+)

MRCLSMIFAILLVYLFQDVSSRACRDYVNYQCRKYLCHVPKYHRFVNMYCKATCGLCPVIHGLQ  
MSTMSTPTTTATTTTTTTTTTTTCTTTTTTTTTTTTTTTTTTTTTTTTAAATIVLLSGGKTISGTPEDAS  
GPAVRCTDGDVTTLCITTQAIDAYFQVDLGSQKKVSRMEIKNYFHYENQLELKFVSNVDVTFATST  
ICDTWDVRSVNEGVDVQDKKRDCNSNVSSQTFRYARVQTVNNANEPHLRVGEFEVYGVA\*

>TRINITY\_DN1114\_c0\_g1\_i1.p1 type:complete len:118 gc:universal  
TRINITY\_DN1114\_c0\_g1\_i1:462-815(+)

MGKKKDDGTIPAGDSTKGAKVFKQRCSQCHTVEAGGKHKTGPNLYGLIGRKTGQQPGYSYTD  
NKAAGITWARDTLWVYLENPAKYIPGKTMVFAGIKKKGERADLIAYLEESTTKK\*

>TRINITY\_DN773\_c0\_g1\_i1.p1 type:complete len:440 gc:universal TRINITY\_DN773\_c0\_g1\_i1:1608-289(-)

MVSPGPQDNKPPHKVADMSLADLGRRIEMSENEMPGLMSMRKQYGEKKPLKGARVAGCLH  
MTIQTAVLIELTELGAEVQWSSCNIFSTQDHAAAIAKTGVPVYAWKGETDEEYLWCIEQTLIFP  
GGEPLNMILDDGGDLTNLVHEKYPELMKDIRGVSEETTTGVHNLYKMFKEGRLKCPAINVNDV  
TKSKFDNLYGCRESLVDGIKRATDVMIAGKICVVAGYGDVGKGCAEALRAFGARVMITEIDPINA  
LQAAMAGYEVTTMDEACSKARMFVTSTGCSGIIEPHFQQMPEDAIVCNIGHFDCEIDAKWLN  
DNCERETVKPQVDRLTPNGRHIILLAEGRVLNLGCAHGHPSFVMSNSFTNQVLAQIELWQNHK  
NYEIGVVMPLKRLDEEVARLHLDHLSVKLTLSKSKQADYLNLPADGPFKPDHYRY\*

>TRINITY\_DN164128\_c0\_g1\_i1.p1 type:complete len:166 gc:universal  
TRINITY\_DN164128\_c0\_g1\_i1:117-614(+)

MGPKFDPTAITIVYLRVVGGEVGATSSLAPKIGPLGLSPKKVGDDIAKSTGDWKGLKVTVQLTIQN  
RQAKISVPSAASLIKALKEPPRDRKKVKHVQHNGDISFETVLDIARQMRERSMARKLEGTVKEI  
LGTAQSVGCTIDGENPHDMIDMVNSGEKEVPES\*

>TRINITY\_DN51048\_c0\_g1\_i1.p1 type:3prime\_partial len:761 gc:universal  
TRINITY\_DN51048\_c0\_g1\_i1:2282-3(-)

MEKSVDSWILVDYASKCRSVSSPSNNSREIKVGKDTGRVKV FVRIKPFTNEKNIKYESLPYEISEEK  
LQVRILSDERGHTEKTYQFDHVF GPDRCNDHVC SIMTPPLVEAAMNGFNGLTMAYGQTGSGKTY  
SLMSANGITQNMIDQC FRRIHDDGKH DYKVTMSY LQIYQEKLYDLLTNSNDKTDLTIRENPKTGV  
YVENLTEYVVRSPHEVIQFLEV GKKKLVFGETRMNRTSSRSHSVFQMTIERTLQDGKD VQTITRKR  
NSNHTQINKDPNSLDLNSFGKDVIIRGKIHCIDL AGSERIKKTGATGDRLSEAQHINSSLLELGNVI  
QALADEKTMHIPFRNSVLTRLLQESLGGNCKTSLI ICTSPSNRDLHETKCTLNFGSRAMKVKN TAY  
VNMEVDFKKLSDELMKQLQRKEDEL FQVRQKYQDDIDRECDKVRNVLEKANKEKLLSFELEREV  
MEEKMICMNAELCELKNELNNRRNR IKGLED SILSMDDILKHERDTGYQMLKTENHIKSFMSSS  
NMIENIVALTVILEHCILETESNYTEELLLENFLYIQQSVVELEKYKTKNMDTTEELLEKLKKRLEKL  
SNQVAEKNNSNQYDDSDIVWLRYNLFLGNVINLLQSLKVFIMNKKKNDMKAVMERKTEKTL  
DLDDDDVSDRSDNRQETVKAKYQTYGETWNN AEDTIVKLPILLEKKQLDNGTQYDISDFSPNRRL  
VDTTVEEIEKIITEIQSENITDRRDIKRSGEIFSGFSTTLG

>TRINITY\_DN23911\_c0\_g1\_i1.p1 type:3prime\_partial len:203 gc:universal  
TRINITY\_DN23911\_c0\_g1\_i1:606-1(-)

MVTNDAESLIRKSESF DQHYDVLHELGRGRFAVVKKCVCKKTGKQFAAKIIKKSR TSSQGRSGRE  
QLLLEIDILNNSNHPKLVRLYDV FETRSEMQLILELAAGGDLHRHCIEADVTRTEKEICYLIRQITEA  
VRYLHDQSIVHLDLKPDNILLAKEGEVFPEIRLIDFGLSRRLDVPYSQFDIVGTA EYVAPEVLAFEPL  
D

>TRINITY\_DN598\_c1\_g1\_i1.p1 type:5prime\_partial len:745 gc:universal  
TRINITY\_DN598\_c1\_g1\_i1:2-2236(+)

RWSGCSKSCGVGVKTSRECDNPRPSGGGRYCTGERTATEACKIQDCGVDGKFSHWSTWTACSK  
TCGGGAQKRARQCNSPPPSGDGKDCAGAREEFKGCSNDFCKGPTGVAKAQEIIFLENFHKKT  
YPDREPSGKFLKAIFAIQKAVAEFISVD PYVRSKTLEQRLKDLENFLKVATEGGSIDFARTLLGKGV  
FTFMKQKIKDGLPIDDIDKAAEGFLEKL RGD LGDKKMD EILSSQGDATLMFTIDTTGSMKQEINA  
AKAIAKQIISATRDYEV DYILSPFSDPGTGPVTHRSASERASFVSDIDRLRARGGDCPELSFGGML  
NALNNDPQYGSPMFVFTDATAKDDTDANVASL KAAADATDATINFFTNLAGCNGRRDRKRGIE  
SYKEIASYTGQVFPLKNEAELIKFTSYVKTSLQQD TVITSGGTLNSKSKRSLYSMQARHFMVDDGI  
SKLVISVGVQQLASQVALVDPNGKKVYPSTTLALS LIYQVSHPSPGQWKLD FPTS VGKYSYNVQAV  
SSSAIAFAHNFIYQQSVRKNSPPIPLANPLKGVKNMMVVR LGGTKNFDLNSIKIDLVDTS GNVLQ  
KGIGTDRLDSDEV RHATIDPPSGPFKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAK  
LGKGYPYAAQMLFINRGAHENFYFYAKANYGSIPNYKQTKRVTSQGFVTFTYKAPRQYNLKGKSD  
RITVTVKRQSTGEIVSHHTSILLVV\*

>TRINITY\_DN6008\_c0\_g1\_i1.p1 type:complete len:426 gc:universal  
TRINITY\_DN6008\_c0\_g1\_i1:1620-343(-)

MSLEDTQLRKRKG VSEKH YTLDGFTNLQEN EKKSSPLMSITKVILKMMIATFVLLGIYIAITPSPIDP  
GVLELDTPLPRFEGVLAPNDK LKQARRIGEGKLLAPESLAM DKEGNIYSGLDGRIVKITKDEEIIIN  
ITRTGEPHPECGRKRLGSKCGRPLGIHF DQKQNLII CD AFFGLLKLNIATKKLSTLVGANVINEKP  
LKFTNHISVSSKNVVYFSDSSSRWDLENVALLVLEGN DGR LMSYDMESGKLQILLEGIFYFANGVS  
LSPDEDFVLVCEMSRNRIIRY YLKGENKGNYDIFADNLPGSPDNIRRS PNGGYWLALPSIRKAPFSP  
PDLIAPYPSIRNVIAKLLSPQTLEYLLGSMRYGMI IKL DENGKVVESYHDKD GSKMYTISEVYEDSV  
NKVLYLGSYKNPFMGKLQLSDSS\*

>TRINITY\_DN614\_c0\_g1\_i1.p1 type:complete len:183 gc:universal TRINITY\_DN614\_c0\_g1\_i1:194-742(+)

MGQMFGKLFSGLFGKKEMRILMVGLDAAGKTTILYK LKLGEIVTTIPTIGFNVETVEYKNISFTVW  
DVGGQDKIRPLWRHYFQNTQGLIFV VDSNDKERVTEAKGELAKMLGEDELREAALLVFANKQD  
LPNAMNAADLTQQLALHDLKSRSWYI QATCATSGDGLYEGLDWLSTELKKKKN\*

>TRINITY\_DN7573\_c0\_g1\_i4.p2 type:internal len:151 gc:universal TRINITY\_DN7573\_c0\_g1\_i4:3-452(+)

SAPPQPLRAPSAAMAPKDTVEATTTLG PQVRDGEIVFGVAHIYASFNDTFVHVTDLSGRETIVRV  
TGGMKVKADRDESSPYAAMLAAQDVAARCKELGIAALHIKLRATGGTKTRTPGPGAQSALRAL  
ARSGMKIGRIEDVTPIPTDCT

>TRINITY\_DN76073\_c0\_g1\_i1.p1 type:complete len:107 gc:universal  
 TRINITY\_DN76073\_c0\_g1\_i1:794-1114(+)  
 MNTNVENDYDQCFIGSQLKDECHKKNYLRTTGITILLQDLLEKDRSLLQWRCEVKTSDSDLEKRIC  
 YHHEKIYLTRYVGLQKYCCDPCNMHGNRFVTSKWKDFSQYF\*

>TRINITY\_DN113\_c3\_g1\_i1.p1 type:3prime\_partial len:1162 gc:universal  
 TRINITY\_DN113\_c3\_g1\_i1:3485-3(-)  
 MEIVSRRIAIFVLLGLLISVAESQFDPECEIDPDVECSPPPESTVNECLINNDCDVDKPLCCSNGCG  
 LKCTARERRSITPDGFTPEDEKLCRVPVDLGFIIIDVSGSIGQTNFDKIKKFIEKIVDAFHIADDGTHV  
 GAVFYSDNASLAFDFNHLQGDQLNEMNVVREIEKIQVTDGQTRIDLGLELASRELFNPAAGMRI  
 HKPKIALVLTDGKQTRGELAPDAKDLHQASRLKQTVGVVYSLGIGLDYDIGELLDIASDDASVF  
 RSQDFDELVSIVDILIEQTCKGCTRAVDVHFALDASANVGEENFVFMKDFVKAIGYNFISETGAH  
 MSGSVFGDVGTLVFDKSQLATEINEFENEVENMPYLGDATGNMDKVLKMSNEVFNFDGFTQSS  
 PKVIVLLTSSNCDTCQESLEDLARPLKAEGIHIVAIPIGDPLFDEMQVLASHPIDQYAIPRATHQELL  
 NAEFIQKVSEMVCAKGPGICAEPVKGECAEINECSVDMRCPEDQKCCIKNCVASCVLPLAACIT  
 PIEIAFAFETTKYGIADFN NVKNFAINLLDHFVKVPSKAHVSLSTFSEDVTSITKFIIDFDMESIKQSI  
 KDLKHGEGEESNLGNFLEIINTEVFSVRGGIRQQTPRVLVIFANGDINDEQAVKAQEEALHLKAD  
 GKDVKIIIVNIGSSTKTLDVLNEVATEGSFYEFFGSAELDSTAITEISEKICSTKVRRSKCQRRIRSSCA  
 VKDDLCDSDFDPCGHQECFSDGCRRCQTCEFRCKDKVDLLFVMDTSARIGRDNFERGKKNIKK  
 MLEWFTIDSNNTNVGVITYSDTANVAMPLPSRGNNNPAQSLIDVQDRLDSIPYSGGSVSHLDNAL  
 QLAAEKVFPDNGPNLRRDSKKAVVVITDSLDDASQLELASWPLRRQVQTEDGDASNIRILAFN  
 VGQELDLDLWGNIVSPPVEENVFYAADFDDMYNGIRQLAEDSCKYAAAITPPPIIKQKGEPGPPG  
 PPGIPGTNGTDGRNGTDGRRGPKGERGDTGLKGFKGEVGLVGPFGGGAEEQKGPDPASAVGIV  
 NVTDLPGGGRIVFDLREGPVGQQGLTGIIKPKGPIGDTGEVGIKGRNGTTGPGGFFGLPGPKGQP  
 GTDGAKGLRGDPGLRGSAGRKGPTGAPGLTGPGQGPFGYK

>TRINITY\_DN2904\_c0\_g1\_i1.p1 type:complete len:221 gc:universal  
 TRINITY\_DN2904\_c0\_g1\_i1:1339-677(-)  
 MSLAKIFGSGKKKEESPAQDAIQKLQTEEMLTKKSDFFLEKKIQQELVIAKQNSSKNKRIAINAL  
 KKKKRYEKQLNQIDGTLSTIELQRETLEGASTNTEVLKTMGYAAKALKNAHQQLDVEDDVHDM  
 MDEISEQTEISKEITDAISTSGVADDIDEDELNAELEELEQEGLDEQMLNIESTSLPSVPETELPTPS  
 RAQPSAQKVQPDDDMAELEAWAS\*

>TRINITY\_DN11662\_c0\_g1\_i1.p1 type:complete len:398 gc:universal  
 TRINITY\_DN11662\_c0\_g1\_i1:75-1268(+)  
 MALSRPVYIIAAKRTAFSGSFGGSFKLTATQLGQKAAAAAIVDAKLDPSSLINSVIFGNVAQSSSDA  
 AYVARHIGLGNDIPFASTALTVNRLCGSGFQAVVNGAQEVVLGEADIVLAGGTENMSQCPFAIRN  
 ARWGINLGETREIEDTLWSALTDSFIQTPMGITAENLAEQYGITRLECEYALASQQRWAAANDN  
 GLFKAEIAPIEVKQKRKMVPVDKDEHPRAGITIEALNKLPPVFKKNGTVSAGNASGICDGAAALV  
 LASEEACKQHNLAPLAKVVSYGISGVEPSIMGIGPCPAIKQALSRADMSLSDMAFIEVNEAFAAQY  
 LAVEKELGLDRSITNACGGAIALGHPLATSGARILTHLVHTLKRKTENHAIGSACIGGGQGIALL  
 ENVM\*

>TRINITY\_DN1065\_c0\_g1\_i1.p1 type:complete len:373 gc:universal TRINITY\_DN1065\_c0\_g1\_i1:53-  
 1171(+)  
 MSGRGKVKAQRISLSKRAGTIFPVGRIRRLMKGCTHKFRVGIGAPIYQAAVMEYLAAEILELAGN  
 AARDNKRRRITPRHILLAIANDEELNKLLRNVTIAQGGVMPHIQPELLRRKEGNKFSLPNSNMKAK  
 ALKAQNAGVQKAKAKPAPVKKAAAPAKKAAPAKAESKQAPKKAPQTNASPKKKSDQPWTVLSE  
 KTLFLGQKFLVVQGNVADIKCDVVHPTNASFSTTGEVGKALIAAGGDDLKKAISELHKSHGDL  
 QVATALLGDAPNLKAKHVHVHSPVWGTGNPEQDLENNVKSALTLADEKNVQTIAFPAIGSGA  
 GFKKNVAAQLMVRSMSNYFVDVSPSSIKNIIYIFVTDAESIGFYTLELAKVDSS\*

# Band 11

>TRINITY\_DN161\_c0\_g1\_i2.p1 type:5prime\_partial len:399 gc:universal  
 TRINITY\_DN161\_c0\_g1\_i2:1683-487(-)

WNQEPLTCTYLYSVNSQLLKYKMADDDVAALVVDNGSGMCKAGFAGDDAPRAVFP SIVGRPRH  
QGV MVGMGQKDSYVGDEAQSKRGILTLYPIEHGIVTNWDDMEKIWHHTFYNELRVAPEEHPV  
LLTEAPLNPKANREKMTQIMFETFN SPAMYVAIQAVLSLYASGR TTGIVLDSGDGVSH TVPIYEGY  
ALPHAIIRLDLAGRDLTDYLMKILTERGYSFTTTAEREIVRDIKEKLCYVALDFEQEMQTAASSSSLE  
KSYELPDGQVITIGNERFRCPETLFQPSFIGMESAGVHETTYNSIMKCDVDIRKDLYANTVLSGGTT  
MFPGIADRMQKEISALAPPTMKIKIIPPERKYSVWIGGSILASLSTFQQMWISKQEYDESGPSIVHR  
KCF\*

>TRINITY\_DN2477\_c0\_g1\_i10.p1 type:5prime\_partial len:344 gc:universal  
TRINITY\_DN2477\_c0\_g1\_i10:1215-184(-)

SIVGRPKMPGIMVGMQKDSYVGDEAQSKRGVLTLYPIEHGIVTNWDDMEKIWHHTFYNELR  
VAPEEHPVLLTEAPLNPKANRERMTQIMFETFNVPAMYVAIQAVLSLYASGR TTGVVMDSGDGV S  
HTVPIYEGYALPHAILRLDLAGRDLTEYMMKILTERGYSFTTTAEREIVRDVKEKLSYIALDFDTEM  
KAATESDKEKTYELPDGNIITVGSERFRCPEVLFQPSFVGKEASGIHDTTFQSIMKCDVDIRKDLYA  
NVVLSGGTTMFAGIGERMTKELTALAPSTMKIKVVAPPERKYSVWIGGSILSSSLSTFQQMWISKGE  
YDESGPTIVHRKCF\*

>TRINITY\_DN195934\_c0\_g1\_i1.p2 type:internal len:127 gc:universal  
TRINITY\_DN195934\_c0\_g1\_i1:3-380(+)

GVMVGMGQKDSYVGDEAQSKRGILTLYPIEHGIVTNWDDMEKIWHHTFYNELRVAPEEHPVL  
LTEAPLNPKANREKMTQIMFETFN SPAMYVAIQAVLSLYASGR TTGIVLDSGDGVSH TVPIYK

>TRINITY\_DN2941\_c0\_g1\_i4.p1 type:internal len:116 gc:universal TRINITY\_DN2941\_c0\_g1\_i4:2-  
346(+)

LKYPIEHGIVTNWDDMEKIWHHTFYNELRVAPEEHPVLLTEAPLNPKANRERMTQIMFETFNVP  
AMYVAIQAVLSLYASGR TTGVVMDSGDGVSH TVPIYEGYALPHAILRLDLA

>TRINITY\_DN1280\_c0\_g1\_i1.p1 type:complete len:426 gc:universal  
TRINITY\_DN1280\_c0\_g1\_i1:195-1472(+)

MGFETCGPNEAMVISGCGQERPLLISGGRKFVWEFFQKVQRISLNVMTLNVESQRVYTVQGVPI S  
VTGIAQVKVQGGQNEEMLHAACQQFLGKHENEIRNIALETLEGHQRAIMGMTVVEEIQDRKKFS  
KSVFEVASSDLVNMGISVISYTLKDIRDDEGYLKALGQRRIAEVQCEARIGQAMAKMQSGIKEAQ  
AEEVRIKAEYENKTEVAR SQRFQLNKSAYDIEVNTKKATSELA FALQSAITNQKIKEEDMQIKVIE  
RAQAINVQLQEIQRREKELEAQIRKPAAERYKIEKIAEANRMKV VLEAEAEAESIRMKAEAEAE  
VIQKKATAEAEQMSKKADAWRDYQEAAMVDMLLDTLPKVA AEIAAPLSKVKKVTMISSGSSDV  
GAAKITGELLDIVIRMPQAMEQLTGVDITKTFRREK\*

>TRINITY\_DN11435\_c0\_g1\_i1.p1 type:complete len:430 gc:universal  
TRINITY\_DN11435\_c0\_g1\_i1:1616-327(-)

MGNIYTVGPNEALVVS GGCVGQRVKRTIVGGWAFACVSDVQSISLEVMTLNPRCEKVETAKG  
VAVTVTGVAQVKVIKEDDLLKTACEQFLGKDPHEIEDILLQTLEGHLRAILGTL SVEAIYKDRDQF  
AQLVREVASPDVGRMGIEILSFTIKDIVDEVSYLDSL GKTQTAEVKKNADVGVAEANRDAGIREAE  
CDTQRQDVRFKADTTIADAARAYEMEKAEFDKEVQTKNAEAKLAYELQANKEQQRIRNEEIQIE  
VIERRKLIEVEEKEIQRREQELQATVKLPAAESYKVQTIAEANKSAKVYLAQAEAEKIKMIGSAQ  
AAAIEAIGKAEAEERM RQKAAAYKQYGDAAALMSLILEAMPKIAAEVAAPLRKTEEIVLINDDNGN  
KMSSEVTKLLGQLPPSVKALTGV DLSKALGKIPGAQVTA\*

>TRINITY\_DN22077\_c0\_g1\_i1.p3 type:5prime\_partial len:151 gc:universal  
TRINITY\_DN22077\_c0\_g1\_i1:520-68(-)

SVCGTAVVQLGDPPPPPCAPLALPRLSLRAMSSAAASSSKASKGDKFSMGRESDKAPIGKGGATR  
TKKVLRESIQGITKPAIRRLARRGGVKRISGLIYEETRGVLKSFL ENVL RDSITYTEHARRKTVTALDI  
VYALKRQGR TIYGFV\*

>TRINITY\_DN329\_c0\_g1\_i2.p1 type:5prime\_partial len:320 gc:universal  
TRINITY\_DN329\_c0\_g1\_i2:1-960(+)

FNNSTHSPSLPTHVYLYCCRIKILILSFD PSTIEILKMAPPKFDDL GKEAKDLINKSFHFGVIKLEGKT  
KAKNGVEFTTEGTHNTDTGTVNGSLETKFYADYGLTFSEKCN TDNVISTKITIDNKLAKGLKVD  
FDTTFAPVTGKKTAKVKSAYQHNNIHSTCDVDFDFAGPTIHGSAVFGYNGWHAGYQASYDTANS

KLIANNASLT YKEGDLVIHSGITDAVKYSGSVHHKVNNSNLTAALIQWASGTNNTSLTVAGKYAV  
 DNETFVKAKIDNNLRLGLSYAQKL RPGVELTMSSLVNAKSLEQGGHKLGLSLNFEA\*  
 >TRINITY\_DN3986\_c0\_g1\_i1.p1                      type:complete                      len:446                      gc:universal  
 TRINITY\_DN3986\_c0\_g1\_i1:252-1589(+)  
 MREIVHLQAGQCGNQIGAKFW EVISDEHGIDPTGT YHGDS DLQLERIN VYYNEATGGKYVPRAV  
 LVDLEPGTMDSVRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCD  
 CLQGFQLTHSLGGGTGSGMGTLLISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVE  
 NTDETFCIDNEALYDICFRTLKLTPTPYGDLNHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVP  
 FPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFD AKNMMAACDPRHGRYLTVAA MFRGRMS  
 MKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPRGLKMSATFIGNSTAIQELFKRISEQFTA  
 MFRRKAFHLHWYTGE GMDMEFTEAESNMNDLVSEYQQYQDATAEDEGEFDEEEEEEDA\*  
 >TRINITY\_DN982\_c0\_g1\_i3.p1                      type:complete                      len:9852                      gc:universal  
 TRINITY\_DN982\_c0\_g1\_i3:29697-142(-)  
 MSIKLCTFFVFFLIQCINSFPEIGLHLSLDRSYSFQGN GWKTVNGWEIKPRANGPYEIDA IKNISPEY  
 FPVPITGVYYITVSLPVEGASNGEFKSAIIVDGKNEEGRIGLMSSSQKTA FKNGASTLTFAGFVRLFA  
 DEKLTIEIYSDDINANYVVLESATFVFHFIGVTGSVPAYLAHTAQDQEYASDSIIKPWVTLGDSRVYE  
 SLSGFIKNEGVFTTICNGVHKMAVNIMIKANAGTYTLKALFQDEESATATVTINQPD SIATLNIFQN  
 FKWSEGMSITLQIHSSNGANFKVLKSSWSMSFIGETTANFQEFSVFLMADQQLQPSQFPQRINIDL  
 NGVFQFLQSNPDQYNKGQLVSGADTKFKDNLD FIVDSTDLFYVSANIIIEGEAEDLEITIAVSQIDID  
 VLPEDGLSGRLTKISNSRRSISLSGIIFIREKQYLSFFVRSRDSKSFSTVSKDSFISVINMRYTVSSVSARQ  
 NENIDVTAGSWYDISGRFAEQKNGLYSFGKDFNINNGV FRTSHSGIHSVHANIQFSLDSDAFGDN  
 DDNKIVLRVVIDGQEDKISLMSIRKNPEKTATLKLFGSIYLRAGVTISFQVKSLMPNTVQYKILQRSS  
 ISISYIGPQWAVNSFHAVANQDLNYDGKPD DTRPDIPSPLNFWKTEAADEFISPF EVLESFDGTRYT  
 SVDDGLYVVSSLLILKNVDCDRSALFKLDFVTTGGSRASDKSNGFADSHFFIADSKGTEFTLSVTTA  
 MRLEVGFVKVGLKLTVGSTSCRYTISKESFSIAQWSKSSNTIEENRLKYIGVLARLSAPTEVSPNTW  
 SNLGSNTMDINPGDKSRSSFRPGIFGGDDLAPITRTGKDFNGDVSDFTIKDPGIF FISMIVTTTEN  
 ANEEFAATVQIDSEDIESGLYAAVINQGSTEMSLTFGGTIY LKSGARVRVVVKGGRTFNIAAGSSFSL  
 LKLQPDYKTPGIIVSI DEKITQAITRYEHKDLRADIHRTL TIGNLGFVESTGVYTIQVDGVYMDYT  
 VILEATNPNAVFGAEILSDNTVVATGTSTFGNTKTIAITELVYFSKGAIVKAVLKSNTNGETLNNLQ  
 VDGGTLVYFLEPKEHV KDGHRSKQTSPQALPVRSEKVTGFAAQSPDFAGGADSVDYTPETGVY  
 LVAFTTRVNRVINGFKSRVLVNDNEFLNGNYQIVSAQNA PATLPLSIAMELTVNDVLSFQVMADG  
 SGMSLDGSTRSILKIDEVNTIRNVTEGLSAYKL RDQKVNGQQETIVEEWDTSVTEGTF LAKNVSFT  
 VDHSIVVVAAGVFQISVSVVVKNDRPSQSKFELRVLQGD DVKSHGLHSKVEIGGGREQTLTIGGSL  
 LLQKFDSL RIVVRDIADPLASYTIKAGSTVSVIIIDNNGPIACEDEGLNMRR LPERIRKPTRESHTF  
 QCNVVSSLKAEKYTWFKDNVQLKEENQKNLVLNDLKLSDSGVYQCRVRFLELTGATNNATLSVY  
 DPYPKITSPKFIANVLENQDPPLTIEMFSLSAFKLSP EDEKASITTQIIAGDDQSFFTLSG PSKQTVTLS  
 TTKKLDYETQNEYNLTIKATNLEETALT TKGPYETTINYIVRVIDVNDHPPVFSQSIYSRSPEDYPI  
 DGSIAKVSANDQDAGANVIYTLVGQVSGDLFKIDNTGLIQLRQNL DREIRDDHTIFVQASDGLFT  
 TVAEVVTVTDVNDNFPNFM DTFGDISVSEATLTQSVILKVIATDPDLGTNSQLRYTIKSGNNENK  
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>TRINITY\_DN1614\_c0\_g1\_i1.p1 type:complete len:218 gc:universal TRINITY\_DN1614\_c0\_g1\_i1:56-709(+)

MHKTICIWLVVRYRSNPFGRYNRRPDLKSAGAKMTKYSTEPENPSKSKARGSYLRVHFKNTHE  
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LKNAESNADLKGLDVSLLVIDHIQVNRAPYMRRRTYRAHGRINPYMSSPCHIEMILAEKEQVVR  
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>TRINITY\_DN477\_c0\_g1\_i9.p1 type:complete len:306 gc:universal TRINITY\_DN477\_c0\_g1\_i9:1840-923(-)

MTRQCLGATLNENCGNAALVQFEVCNFPQVPCPGLLTNWGPYTQCSATCQKDANSMPQTQSRQR  
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NAGNNCTGPAQEVKPCQVKPCPVTCLTKKCDNRNMNYLAAAPGISQTVTNDVMGVAAFLDY  
WTLDLKQICEGCRMTQLDQSKATVDSQILRTQAVLDRLNIEKRVYRDMITCNENPYITDDLKVVY  
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>TRINITY\_DN5633\_c0\_g1\_i1.p1 type:complete len:848 gc:universal  
 TRINITY\_DN5633\_c0\_g1\_i1:2881-338(-)  
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 VGFYSAFLVADRVVVTSKNNDDKQHIWESDSVEFSISEDPRGDTLLRGTQISLYLKEEASDFLEPNT  
 LKDLIKKYSQFINFNIYLWSSKTEEVEEPIEEPEKKEDKKDDDDKKEDADDKKDEEKKDDDEDD  
 AKVEEDKEEEKPKTKKVEKTVWDWELMNSSKPIWLRKPKEVTDDEYNEFYKAISKESDGPLTKT  
 HFVAEGEVTFKSVLFVPKNSPDMFQDYGKRRESIKLYVRRVFITDDFQDMMPKYLSFIKGIVDSD  
 DLPLNVSREQLQQHKLLKVIKKLVRKALDMIKKIPDEDYIEKFWKEFSTNIKLGVMEDHSNRTR  
 LAKLLRFRSSNDPEKLTSLTDYVERMKEKQETIFFMAGASLDEVKNSPFVERLLKKGYEVLYLIEPV  
 DEYCIQSLPEFDGKKFQNVAKEGLKIGNEAKEKARVDELEKEYEPLLKWLKEDALKDLIEKAAVSS  
 RLTESPCALVANSYGWSGNMERIMNSQAYAKSKDAGANFYATQKKLLEINVYHPLIQELQKRVT  
 DKEDQTAKDLARVLFETATMRSGYTVKDSSDFAGRIERMLRLSMGVDVDAKVELPEEDDEEKEEE  
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>TRINITY\_DN2472\_c0\_g1\_i1.p1 type:complete len:344 gc:universal  
 TRINITY\_DN2472\_c0\_g1\_i1:311-1342(+)  
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 ASDSRSLVSASQDGKLIVWDSYTTNKVHAIPLRSSWVMTCAYAQSGNYVACGGLDNICSIYSLKTR  
 EGNVRVSRELPGHTGYLSCCRFLDDSQILTSSGDTTCCLWDIETGQQLTQFVGHTGDVMSLSLCN  
 DSGRTFVSGACDASAKVWDIRDGMCRQTFIGHDSINAVSYFPSGLSFGTGSDDATCRLFDIRSDQ  
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 MAVGTGSWDSFLRIWN\*

>TRINITY\_DN332\_c0\_g1\_i1.p1 type:complete len:246 gc:universal TRINITY\_DN332\_c0\_g1\_i1:940-  
 203(-)  
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 NGEFKDLKLT DYKGKYL VFFFYPLDFTFVCPT EIIAFSDRVEEFKKINTEVIAVSVDSVFTHLAWTNT  
 PRKEGGLGKMKIPLLADLTQISKDYGVLLLEDAGHTLRGLFIIDDKGVLRQITMNDLPVGRSVDE  
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>TRINITY\_DN1616\_c0\_g1\_i3.p1 type:complete len:3855 gc:universal  
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 KNGEIHISLINGRPGASNFSQSKTLQEWTTATNVRLRLLLDIKTLLDLLPLSLEDPTVTRRYYSIKDI  
 TIGGRCMCNGFADECTPHTNIVGKYECNCQYNTEGPRCSRCKKGYVQKEWRQRTSTDKFECEKC  
 NCHGHSDECEYNEEINKRKLSDVNGNYQGGGVCKNCQHNTLGINCEKCKPFFYQPANVPIDS  
 PNVCQPCNCDTQFSTGLCAEETGQCECKSNYVGRYCDQCNKGFMFPVCKPCECDVNGSEDRE  
 CIPDQINGCKCKKGYAGRYCDECLPGYGFPGDCQPCACLTRYGAVNDNCERDNGQCCKVGFK  
 GRRCEECAAGHYQFPFCKECCGCDPEKTLDTVCDSGTGVCQCKSNFAGPKCESCSPGFYAHPSCFAC  
 CGCSTAGSTSSVCDQNSGLCSCRPNYSGFKCDRCAEGYGFPCILCDCNPEGSRRVGICDRQDG  
 QCQCKPTYSGQKCDKCLPGFYGFPGDCRKCNCNPAGTKPGPGGRPGDCSTSNNQCVCCKDNVQ  
 GLECKECPGFFNLTESNRKGCSTCGCNGAGTNNGVKSCSVEGTCKCKPLVKQEDKCTECRDGY  
 YGLKRTNVFGCLGCNCEVGGSSSSVCSKDNGQCPCKDNIVGKRCSVAANSFYPDLCCHIKAEME  
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 FNDTAVLSKLDFQAMVVLSPSNSRQLNHLFNVAKPGKYVVMLQYYHDSDTAKYLDVYVRSQIAV  
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 LDYSTPTLYCVTKDSKCTNMNYDVPAESRLVQANPLEQDLSEKPRYLIDRSVEVRYVKPGVNIINIR  
 DVKAGNYLLVAHYYPNFPSPFESRAAVYSGRTSGLRARFDFKFCPNLNGCRSPIRRPDSNSNLYVF  
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IFTITTFDNNGSFPCCKCNMDGSKSSSCQEFGGKCPCKDNVIGRECSRCKVGYYGFPNCKPCNCSN  
CDEETGVCTCPRGVIGENCDCAPGTFGFDPIIGCQKCNCNEIGTGSANAECNVTSQCPCKEN  
YSSRKCSACKPGYFNYPACTKCDCLDAGISAEKCDVLTGKCICQNNVIGLKCNECADGYFKTNDI  
KKGQLCAKWCNNGRSTKSCTEAELFRATPITASKGWTVSVDTLNVIENGNGRFTISDVNTLPEPV  
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GYSASILMKETEWMLLEDGSTIDRELFLAILSDIDTLQILATHGKNTISSTIYDISLETAGENGTDREVY  
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KPGFYGDKCKACECPFSNPENSFANTCAINVNTSSLVCQCNAAGYKGVRCDDQCSGGYGNPLQG  
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CGTTTAPCNKATGQCQCKKNVEGSKCNQCKPNTWNFDACNGCEDCNCAEASETQQCDLKTG  
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SNKKISDSQCPPSLARVIDEGEKNIKLVEKKVVLEKDAYESTENATATKKRAEDLLAKLKDFMVD  
FKDVLFSANSTLKGNNVINIDGNRSLAEAEEMLEKEIKDRNFNSTINRSEREKSAAINATIIAEQLMK  
QASELANKAYKFNDTFKDFVKALRNLMESSELALLDANNATNSINLAKAVDFQSIIDNAQKLHS  
QNNVTVTQAMEILQNAKSAYENAKDVFNKFHNQTGPLSDLMEELRNYVRKLEFDLQTTSPIVDD  
SVKHAKRLRDSADRLKELLQDTKKFADAALRAAKVYQNIVDAINDALDAARMANETAHEADK  
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TSEVVLDAKPSVADPTINNKSILTFKINQNGFLFIIGDFSGNSSGFMHLVQNHTVVFYKLNLTG  
DVQSLTNPKFIETDVNYDVMVTRNFATAVLNVQKSGNASTLMTAYQNRSNISPVLSLGQDTNVY  
VGYHPSTPNQRPNFDGCINQFRFDEELMGLWHWKSANKVGGCVQDFRSIEGQYSFDGDFVEF  
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TTNMAKTENPTVKITSSEPIIETTMESTTVAKTTSAITMEESTTTPTSITTSTLETTISTLEPGSIEGTT  
TAEPITTTAEAITTTATEPITTTPEITITQPITTTVEVTTEPATTTQESTTTPEPITTTLETTTPEPSTTPEPTT  
EELTTTAKPTTTIRVTTEPPKQSNLEVYDEAYGFGMNEPSFIEFGVDGRKMLKSNQFEFLFYTAEN  
DGMMISSEPSNLYDYEYVYMENGAISYAFNAGAGRVRVTSTKKYNDGKWHEVKISRSKESGTLTI  
DGELIGTDSKSGKTAVNGIKKIVVGGSSVPYRNIPPKSQVGFKGGMRGFKLFNEALKPLKEIGITEA  
YDELPIPEGVSFGPDGGYVALNFKSEYVVRTEYKLALDVRVSVSSGYIFFIGNYGADYLSLYIESDRK  
VVAECNNGGGRFSVSIDVPTICNGEFHSILLEKKYKTLDLSEGVQKSFTTTKGSTSADTGSNPPAF  
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>TRINITY\_DN3078\_c0\_g1\_i1.p1 type:complete len:1109 gc:universal  
TRINITY\_DN3078\_c0\_g1\_i1:3628-302(-)

MKMRIYFLILFATVYCRVVQKGPNDIPEETKNEIKNQEPKIKFEPEKDKKYFLAKDTTCAHDVVK  
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QECNDSSELLKSPGFVTNCLIENRHAVSEAKCKSFLQKMSAIVFEDYRLIKGFYDSCVEDVKTLKCG  
TVAKPTDEEYQHDQTEVISCLEEQDLVSEKCAQLVKVATMQADDYHLDRPLFYACQEARERF  
CPEVKS GDGRYKCLVEHKTNEMMLEKCRKKIEIREKLTQKDIKVNELLWKSCKADFTKYNC PKD  
GISEHGAASSLLLCLQGKVAEGLPVDQSCQAEMRTFAIELFENYKISPVIVSKCDVEINQFCHHLIG  
KTDDGDMMDCLMTQAATNNESVSKCYDAVSDVIKETGAGNNYKIDRALYLACEPVITTL CQG  
KEDAMILGCLMDNAHNSKMPEKCAAQVFHLQYFLSRDFRLDASLYKDCKKDAEEIC SANDFNA  
EESKVPDNFVIACLYRNALDRKVDDRKVSQTCAEHVFRVMHQ RATNIHLMPELERPC MADLG  
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LEDGNGEKVL PCLVDHKNDIDMDHQCANA VEHWQLIEMKDFEFSPALTEMCLLDIRKHCQSKS  
AKIEALHCLSENIVKDASSVTEKCR AQLKNELIEQSENIKLNPELYEACTKDIELFCRDVVP SGGQL



EECLKRNHKKLTDPKCKSLLFKEEEKESFDPELDYLRLMHVCKPIIKRYCTQYHQPV DIMECLRQV  
THDRDMSRECR AITERQIEQAESFELDP ELSKFCQDDVNRYCKEEIKHAEKGDDDGAI FGCLVNA  
MIDNKP IKNDCEMYIRRREAEAAQELDLNPQFLLQCRDEITKICPNMDEDEIIECMKMNI PQIQSK  
GCVQE VKKLIVEGIEDVHVDPHLQE QCARDIRTF CQSVPSKSGNVVLCLIDVHKAKNLHLQPNC  
ENFLT KRLSLYNAAKVDYAVFDSISAVMNAVSESPNRNYVYMTLLLVLTLFVGGMLFGRYTKKIRS  
EIKNR\*

TRINITY\_DN3339\_c0\_g1\_i1.p1 type:complete len:131 gc:universal TRINITY\_DN3339\_c0\_g1\_i1:31-423(+)

MVRVNV LNDALNSICNAEKRGKRQVLLRPSSKVTVKFLTVM MKHGYIGEF EVIDDHRSGKIVVN  
LTGRMNKCGVISPRFDVKLDIEKWASYLMP SRQFGYIVMTTSAGIMDHEEARRKNTGGKILGYF  
Y\*

>TRINITY\_DN1071\_c0\_g1\_i3.p1 type:internal len:375 gc:universal

TRINITY\_DN1071\_c0\_g1\_i3:1124-3(-)

DPKVAMRVEFYVCP PCGVTTPAITTTTEQTTMPTTTTTTESTTTTPTTTPATTTESTTTTTLPTTTTTPTTT  
QSTTSKETIIITEEPKPTTGLPQKKT TTTTPRTTTESPTTTEATTTTPATTTEATTTTQATTTT KATTTTP  
ATTTTKATTTTKATTTTPATTTTKATTTTKATTTTPATTTTKATTTTEATTTPTTKPCECKVLQPVGV  
SDGRIPDNQMTANSVLNVSGPTFTGASQARLNNKPSKDGVGAWEP AQQEEIYLEVHFNKIEDV  
REIRIQGHPTDKKFTKNFFLSTSQDGVNFEFTDEDLYEGNKDGNTIKSTKVSFKTKAVQIHPFNDVS  
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>TRINITY\_DN1112\_c0\_g1\_i1.p1 type:complete len:200 gc:universal

TRINITY\_DN1112\_c0\_g1\_i1:740-141(-)

MSTLKLQKRLAASVLKCGKKKIWLDPNEASEIANANSRQNV RKLIKDGLI KKPQVVHSRARTRA  
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KGNVFNKRVLM EYIHKKKA EKKRSKELSDQAEARRNKVKAARTRREERQAQKRAEILQAYAK  
EDTAATPAS\*

>TRINITY\_DN2113\_c0\_g1\_i1.p1 type:complete len:1704 gc:universal

TRINITY\_DN2113\_c0\_g1\_i1:5257-146(-)

MAQLLPIRFQEHLQLQNV GINGANIGFSTLTMESDKFICVREKVGEQSQV VIVDMADANNPTRR  
PISADSAIMNPASKVIALKAAKTLQIFNIEMKSKMKAHNLTEDVIFWKWISVNTIGLVTETAVFHW  
SMEGDSSPVKMFDRHQSLAGCQIINYKVDHSGQWLL LIGISAQQNRVVGAMQLYSVERKVSQPIE  
GHA AVFSQFKVDGNPQTSNIFCFAVRGAAASKLHIIEVGTPPTGNQPF PKKAENIFFPPEADKDFP  
VAMQASQKYGVVYLVTKYGYIHL YDIESAQCIYSNRISGDTIFVTASYEPT EGIIGVNRKGQVLSVSV  
DEEK MVPFLIQVKQNGELARRLAERCNLPGADNLFLQAFNDKFASGNYQEA AKIAAKAPKGILR  
TQQT IQRFQQLPSQQGQTSPLLQYFGILLDQGQLNKYESVELCRPVL MQNRKQLMEKW LKEDKL  
DCSEELGDLAKQFDNTLALS VYLRANVPNKVILCFAETGQFQKIVLYAKKVGFEPDYVSLLRNVM  
RVNPEAGANFSGMLIQDDEPLADLNQIVDVFMEFNLPQCTSFLLDALKNNRPAEGLQTRLLEM  
NLLSAPQVADAILGNQMVTHYDRAHVAQLCEKAGLLQRALEHYSDIYDIKRAIVH THLLNPEW  
LVNYFGT LSVEDSIECLKAMLSHNIRQNLQICVQIASKYHEQLTSS LIEIFESFKSFEGLFYFLGSIVN  
FSQEEEVHF KYIQAACKTGQMKEVERICRESNNYEPERVKNFLKEAKLTDQLPLIIVCDRHDFVH  
DLVLYLYKNNLQKYIEIYVQKVNPARLSIVVGLLD VDCSEDEVKSLILSVKGQFSTDDLVAEVEKR  
NRLKLLLPWLESRIHEGSEEPATHNALAKIYIDANN NPERFLRENQFYDSAVVGKYCEKRDPHLA  
CVAYERGQCDQDLINVCNENSLFKSLARYLVRRRDAELWGTVLVEDNKYRRQLIDQVVQTALSET  
QDPEDVSVTVKAFMTADLPNELIELLEKIVLENSVFS DHRNLQNLLILTAIKADRTRVMEYITRLD  
NYDAPDIAGIAIVSELFE EAFKFKFEVNTSAIQVLIENIQNLDRSYEFAERCNDPAVWSILGKAQL  
DQGLIKEAIDSYIKADDP SAYMEVVEASKNCGNFEDLVKFLQMARKKAKET FIDTELIFAF AHTGR  
LADLEEFISPNHANISQVGERC FEQKMFEAAKILFNNISNFARLASTLVHLGEYQNAVDGARKA  
NSTRTWKEVCFACVDGQE FRLAQMCGLNIVVHADELDDLIRYYESRGYFEELISLMEAA LGLERA  
HMGMFTELSILYSKYKPTKMKEHLELFSRVNIPKVL RACEQSHLWSELVFLYDKYEEYDNAVVT  
MMKHPTVAWKESLFKDVITKVANI ELYYKALQFYLDNKPLLINDLLVVLTPRMDHTRGV SFFQRA  
CYLSLVKPYLRVQNHNK AINEALNSLLIDEEDYNGLRASIDAFDNFDNIALAQLLEKHELIEFR  
RIGAYLYKGNNRWKQSVELCKKDHL YKDAMQFACESRDKAVAEDLLSWFLSIDKTDCFAATLYM  
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>TRINITY_DN197343_c0_g1_i1.p1          type:complete          len:124          gc:universal
TRINITY_DN197343_c0_g1_i1:399-28(-)
```

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>TRINITY_DN9509_c0_g1_i10.p1      type:5prime_partial      len:424      gc:universal
TRINITY_DN9509_c0_g1_i10:1493-222(-)
```

```
>TRINITY_DN477_c0_g1_i7.p1      type:3prime_partial      len:1130      gc:universal
TRINITY_DN477_c0_g1_i7:3387-1(-)
```

```
>TRINITY_DN484_c0_g1_i1.p1 type:complete len:554 gc:universal TRINITY_DN484_c0_g1_i1:164-1825(+)
```

```
>TRINITY_DN3991_c0_g1_i1.p1      type:3prime_partial      len:219      gc:universal
TRINITY_DN3991_c0_g1_i1:84-737(+)
```

>TRINITY\_DN1377\_c0\_g1\_i1.p1 type:complete len:878 gc:universal TRINITY\_DN1377\_c0\_g1\_i1:68-2701(+)

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FKVIKMPNFKGLYQYNVSFDPEINSSKLKNALLYQMADVLGQTKCFDGMFLPKRLPDQITTRS  
VTTHQGNAIVIKIMFTNVIPEISPQVLQMINIIFRRQLRCIKMELIGRNYFNSSRKIEVKAHKMEVW  
PGFSTSILQYEKDVMLCADVQHKVVRQQSVLSMMYELHQKTREKNRFYELAANKKLIGETVITRYN  
KKNYKIDDIEWNKNPNSTFDKNGTQITFKEYFEKTYDAKVGDDQQPLLVSPLKAKNRKSGIVGPI  
LLLPEFCLISGLSDEIRSNFSIMKDLAQHTRINPAERAKNLEQFVQDLQTNEESKKELEQWNLKFES  
KLLQMTGRAYGSEKMFQREDQFSYKIQDADWSRETRGKKLIHTVNMTDWLLVYERDEPIATDF  
KQTLVKVCGPMGMNVAEPQLCRLKDDTARSYFRALSEQIRPTTQIVVCIVPNNRKDRYDSIKKLC  
CVEKPIPSQVIVSRTLSSKKQMLMSVCTKIGIQLNCKLGGEIWAVDIPISKNPKDPPSLMVVGFDVYH  
DSASKGKSIGGFIASTNRHLTKYYSRITQQQSHQEIADQLRVCMTGALKKFNELNGTMPRIIVYR  
DGVGDGQLRQVFDHELPQFKA AFNAISQGYDPKFTMIVVKKRISTRFLSERGMKTNPLPGTVVD  
TVVTRPEWYDFFLVQSQRQGTVPSTHYNIADTSGWKPDIFQRLTYKLCHLYYNWPGTIRVPAPC  
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>TRINITY\_DN428\_c0\_g1\_i1.p1 type:complete len:1949 gc:universal TRINITY\_DN428\_c0\_g1\_i1:96-5942(+)

MADDADLKFLMVDRRQVSDPVAHAWEAAKKLVWVPSEELGFVAASVKEEKGDKIIAQIEGGR  
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YTDKVINLYKGKKRHEVPPHVFSIADTAFRSMLQDRDNQSILCTGESGAGKTENTKKVIQYLTAIA  
GRANQQKADEKSQGKLEVQLLQANPILEAFGNAKTVKNDNSSRFGKFIRINFDNSGFICGANIES  
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TLEGMRDMGITQEELDPIFKVVSAMVLFNGMEFKQERKSDQATLPDNTIAQKICHLLGIQVTDFT  
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VLSLLDEECWFPKATDKSYVEKLHKQQTCKHPKYLKPDFRSNSDFCVIHYAGRVDYSAAQWLTKN  
MDPLNDNVVSLLAHSKEAFIASIWKDTENVVGMVSVTEGMDTTFGASRTRKGMFRTVSQLYKEQL  
SGLMTTLHCTKPNFVRCHPNYKRAKIDNHLVLDQLRCNGVLEGIRICRQGFNRLFQEFRQR  
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IQDFEMKLGEESKAVKYAEDKKKLQQGIQDLEESLEEEETQRQKLQLEKVQVEAKLKEMEDERQ  
VAEDNNARLTRDKKQLEDRAEFGQKLAQEEDRAKQLSKAKAKQEAFAIELEDQIAKGDKSTHE  
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QALLDELREDMESEKSAKDKVERQQRDLEQDLQELRSELEVTTDATVVQKEFQKKREEELMDLK  
KQIEEEAKEHDQQMASLRTKHNGLVEDLNNQVDTFKRGKAALEKNKTALENENAEIAADLQRI  
SQLKQEGDRKAKNLEQQLNEANSVRVQDEKVSSLESEKAKYQKECDSLSTQIEEVETKAASLDR  
AKQAAEAQLEDTDQLAEETRQKLSYQTKLREASDEANRLQEQLLEEEDEKKAVQKVLSNLQV  
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MERERNSANQMSSKQRKFDQLLAEEKANSQALGIERDNLEKLARQNETKALSQANANEELEDL  
LAEAEQRKQQLQMEGLDVLVESKDDVGKSVHDELEKSKRLLEQQLAEQKTQVEEIEDELQACEDAK  
LRLEVNMQAQKAQFDRELQAKEDAIEEGRRGLVKQLRELEAELEDERKLRQSASAAKRQLEGDV  
KELEGQLDQANRIKEDGLKQLKKYQNQLKDVQRDLEDSRQSKDDLAAQVKDNEKKLKGLEAEF  
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MQDKVKRSNLQLEQMNAELQEERSAAQSLDNTRMSLERQNKELQSKLADLESSLSRQKNTVAT  
LEAKINNLEIQLDQEAERQQQNKALRRNEKRCKDLQMQUIEERSHTESYKQQLEKMNAARVKN  
MKRQLDESEEEVTRLNTAKRKLQRDFDENQESLESSQREANQLRQRLKGGASLSSSRSSGRGRRRA  
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>TRINITY\_DN72959\_c0\_g1\_i1.p1 type:complete len:216 gc:universal  
TRINITY\_DN72959\_c0\_g1\_i1:54-701(+)

MGRRPARCYRYCKNKPYPKSRFCRGVPDSKIRIFDLGKKKTGVDDFPKCVNLVSDEYEQLSSEALE  
 AARICANKYMTKTAGKDAFHIRIRVHPFHIVRINKMLSCAGADRLQTGMRGAFGKPQGTVARV  
 HIGQPLISVRCKDQHEATAIEALRRAKFKFPGRQKIFTSKKWGFTRWDREEYLERRQDGSIKPDGT  
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>TRINITY\_DN72753\_c0\_g1\_i1.p1 type:complete len:137 gc:universal  
 TRINITY\_DN72753\_c0\_g1\_i1:95-505(+)

MARTKQTARKSTGGKAPRKQLATKAARKSAPSTGGVKKPHRYRPGTVALREIRRYQKSTELLIRK  
 LPFQRLVREIAQDFKTDLRFQSAAGALQEAAEAYLVGLFEDTNLCAIHAKRVTIMPDKIQLARRIR  
 GERA\*

>TRINITY\_DN535\_c0\_g1\_i1.p1 type:5prime\_partial len:162 gc:universal  
 TRINITY\_DN535\_c0\_g1\_i1:712-227(-)

GKYLVFFFYPLDFTFVCPTTEIIAFSDRVEEFRALGCDVLACSVDSHFSLAWTQQSRKKGGGLGQMK  
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 EVCPAGWKPGADTINTGKAHEYFEKQ\*

>TRINITY\_DN79\_c0\_g1\_i1.p1 type:5prime\_partial len:478 gc:universal  
 TRINITY\_DN79\_c0\_g1\_i1:2132-699(-)

VVSSESNVLVEFYAPWCGHCQSLAPEYAKAAKQLKESKSDIKLAKVDATVETKLAKEYEVQGFPTI  
 KFFKKGNALDYGGGRTDKEIVAWLNKKTGPPAKLLDNAADVKAFAADERDVAILGFFNDKESSEL  
 AKAFLAVAEAVDDLEFAIAAPDASGDFAVTEDKIIVAKKFDDPQVVYSGEANIADIKKFVRAESIA  
 LVTEFTDEAAPKIFGGDIKNHLLLFISKKAENFAELKNTFQEAAGFKGTVLVYIDTDVEDNGRIL  
 EFFGLKAADAPTLRLIQLEGDMTKYVPETKDLDKDSVTSFVQNVIDGKIKPFLMSADVPEDWDK  
 NPVKVLVGKNFAEVALSKDKDVLVEFYAPWCGHCKQLAPIWDKLGEKYKDSENIVIAKMDSTAN  
 EVEEVKVSSFTIKYFPKEGGVVDYNGGRTLDDFVKYLES GGKDVSGGADETGEDEDADEEEEGM  
 EEGMEEGDLKPEEPEVAKDEL\*

>TRINITY\_DN119684\_c0\_g1\_i1.p1 type:complete len:662 gc:universal  
 TRINITY\_DN119684\_c0\_g1\_i1:2182-197(-)

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 VNVKENEKKTFAAEEISAMVLVKMKEIAEAYLGKKVTHAVVTVPAYFNDAQRQATKDAGVIAGL  
 NVMRIINEPTAAAIAYGLDKKEGEKNILVFDLGGGTDFVSLTIDNGVFEVVATNGDTHLGGEDF  
 DQVRMDHFIKLYKKKKSKDIRKDNRAVQKLREVEKAKRALSTQHQA RIEVESLFDGEDFSETLT  
 RAKFEELNSDLFKSTMKPVQKVIDDSSGLKKKEIHEIVLVGGSTRIPKVQQLVKDFFGGKEPSRGINP  
 DEAVAYGA AVQGGVLGGEEDTGEIVLLDVNPLTMGIETVGGVMTKLIGRNTVVPTKKSQIFSTAA  
 DNQQTVTIQVFEGERPMTKDNHLLGKFDLNGIPPAPRGVPQIEVTFEIDVNGILRVS AEDKGTGK  
 KEKITITNDQNRLSPEDIERMVNDAEKFADEDKKVKEKVDKNEFESYAYSLKNQISEKDKLGK  
 LSEEDKGVLEKAVDEAISWMDSHQDASVDELKEAKKKLEDVATPIVSKIYQQQGGAPPPPGGEG  
 GEEKEDKEEL\*

>TRINITY\_DN195948\_c0\_g1\_i1.p1 type:5prime\_partial len:170 gc:universal  
 TRINITY\_DN195948\_c0\_g1\_i1:602-93(-)

NLLRWSRMRLPFRIDLAKNRSRCKMPGGATVKDVPQYFVTAFAAHLKKSGLKVPEFVEIVKTS  
 KGAELGPTDPDWYYIRAAAVARHVYLRPNVGVGAVRKIYGRAKRNGTKPNHFCLGSASVARKV  
 MQSLEGVKIVSKDVNGGRTITSTGRRDMDRIAGQVLSKEEN\*

>TRINITY\_DN1080\_c0\_g1\_i3.p1 type:internal len:425 gc:universal  
 TRINITY\_DN1080\_c0\_g1\_i3:1274-3(-)

EVPVEDEDPSQSIDVTRRQVHRQYMPDPERQGKKQPKPVERLYVTRVIRKPDGTEQLVDESETVYP  
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 EPQKTRRVVSRVVKPSGQERVVQEPSYVSPLESSTTEESEPEVVEKRLRGQVIRTVKRRSITTSVKR  
 VIRRVVEGTDGKPSDGPVEDTLEEPVEPTKYSVLRRTVTKSDGTTETVEEPHYEMPVESEPTVEEEK  
 DRRGVVIRRVVRRPVPIVTRRRVYRKVILALDGTGKGVEEKVEEPTPGMQGLEEEPIAAPMVVDEQ  
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>TRINITY\_DN2028\_c0\_g1\_i1.p1 type:complete len:274 gc:universal  
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 CGAAGTPKSDKPCIFDITLLGECAPSKNTTYGLREKKPCIFIKINKVFGWTPADDGTGYLTLSTG  
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 IEGISATD\*

>TRINITY\_DN319\_c2\_g1\_i3.p1 type:complete len:2588 gc:universal TRINITY\_DN319\_c2\_g1\_i3:165-  
 7928(+)  
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 CFFAPCQASPTIQQNCGPGNQCYGNAPNYICDCSARGYKRSAADNRHCELKSDEELTPIEEYCGK  
 GSLYANGTINNITCTCDTDKGFFPSATGETCISPSCYLNPMQMEKCGPENTCLGGKDDYVCLCSNP  
 NYKR NATDLQHCIRRTCADTSPAIDFKSICGEGATGCSGYVDKPLCSCDVSNHYVPAADGRSCI  
 ATCKGNKKALEQCGQANSCTGSFDNFLCVCDANGYYLNTTNNTCVERECTDPDLVITDICGVGS  
 LSCNGKAGSPECICDKDKFYASEDLRSCVKANCLSETISKKCGKENS CYGSMESYVCNCNAPG  
 YLLNTTDNQG CYLGMCEDNGLEYDKVCGEGAISCNGTIKNLECNCGMNYVQSPDKKSCIRADC  
 RANQTMHEQCAGEDNDCVGSLEDWMCICSTYGYKPDPMMDMMCKCKVMCEEEVNNVTVCGL  
 GTTGCKGHILKPECTCDIAADYVPNEDASRCIKGSCENNKMAMKDCGIANSTGSYNNYVCVC  
 NGFGYKKLDDTHCVEQMCSDPDIDIRNVCGEGAHYCNGTVNQVVCSCNETEYFYPSADSKSCV  
 KATCAVSPMVMEQCGVENSCQGSQESFICNCNALGYLLNTTNQH CYLGTCENGDFDLMQAC  
 GDGALYCNGTIKNLECCQDESKGYVQAPDKMSCIPNDCRGNLTMYRQCGQLNKC VGSIDDWR  
 CICSPPYYVAHSDIMKCKLLHCS DSEVDHVEVCGKGTIGCSGSTLHPTCHCNTTENYFASKDGMR  
 CVAGSCKTNQTAVKKCGNANSCAGSHSEWTCICDGIGYKHDPADPQNCLLKTENDADIDIVATC  
 GVG AISCEGYQLMPKCECNDRDYIPSDDRTSCELASCRANRTAMRACGEMNDCRGSFSSHICL  
 CHDPAYKSDPSDSRVCLEKTCEAGDFELVRVCGKGATGCSGSMKNIMCECDNAKGYVASADHT  
 QCIPSDC NNNVTMHLQCGEGNGCVGSLTDWYCVCSAPGYEPHASDHMKCHLKT CADPGVDH  
 VQICGMGATSCMGPVINPVCYCNE MYIYPSMDRTSCIKASCMSNKT AIAQCGSENSCSGSPDNF  
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 DQNSCVLSTCRGNETAMTSCGEQNKCFGSSSYICVCD AVGYKPHPTNLQECVLQTCEANELNP  
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 EDWSCVCDGIGSKPHPTDHMSCIAIDCSDPNVDIKSVCGYGATGCMGLARDPICHCDTSKYVQ  
 SEDGRTCVPATCHTNKTAQM QCGPDNSCIGPPNDFICECTGFGYRHHETDKQKCVPIQCNETAL  
 FDIERVCGKGATGCRGNIRQ PICDCDHAMYFHPSEDRTTCIEASCRN SSIRADCGVENTCFGSTR  
 SWICDCNSYGSILNPSDVKKCMLATCEAGQLDPVAVCGKGAL SCKGSMRDVQCTCN NELGYVH  
 SPDGKKCLPSDCSGNVTMHHQCGDANKCMGSLTDWVCVCDAPGYKPHAKDKMKCHQISCAD  
 NNVPDVDCGIGATSCKGPITNPLCQCDTDNYYITSSDGASCIPATCKTNKTAIHQCGEANSCEG  
 PADNFICVCNAYGYKLDDNDHQRCVEISCDDPNAHESICGTGSTGCRGTARDPICECDHTQH FV  
 ASSDLTSCLLASCRANDTVMNHCGDGNTCFGSLTSHICVCEAFGYKLNPNNHKHCLEETCEDD  
 MLNPVAVCGKGAVSCSGPLKSVKCECDN NAGFFRSPGGMKCESTSCRQNPASQMMCGSQNQCY  
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 ADAHVHVCGEATNCSVTSTNNVECSCEEGYHPADDLHSCVLDDCRFNP KALKACGLLNKCVGS  
 YKSWKCNCHYPEFTQDPM DHQTCVVGPCMVEQCGKG NAPGSFQHYAVNCSGLYDDPICNCQP  
 EYTND AKGGCIPKICSENPVAVQACSGYCEGTYFKYTCKCDEPAFVQTPDKMQCVPAKCN IQQ  
 CGHGFDRGLYIDFAESCSGTYADPMCQCKTGFSGTNTSKCGPAIDGCKL DKCDPLATCQTLDVD  
 GNVKCTCKEGYSGSGMMGECYLDGGFSAYEGTKECSEVCGVNGVAEVTRFCNNPTADPKGKPC  
 NGTSPETIQVPCNRFACSSCTVRKTCGCGGLKPIFVEFYHEPNSTLEYFTDLKADDVQTALGFLTK  
 WKELSQQDLCLMYSKIELTVFVTLMGDSETQVSTMKSSLVSARDIMRKKLDCNINLGKKAQYYEA  
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>TRINITY\_DN168534\_c0\_g1\_i1.p1 type:complete len:226 gc:universal  
 TRINITY\_DN168534\_c0\_g1\_i1:774-97(-)

MIRSAIIAIVIAASHLYESSAARCYVGYSAVGLPLAIGVRDVCQKGMDFCTTVKSTIGGITVTQGNC  
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 CTIMSIHQFMHSSCRAKCTGDNCNAKD\*

>TRINITY\_DN15599\_c0\_g1\_i2.p1 type:internal len:206 gc:universal TRINITY\_DN15599\_c0\_g1\_i2:1-  
 615(+)  
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 FYDPVGFITLDGDVQSFRRRRSVELKHGRISMLACMGYLTPEIVGKWPGYISPSLGLKFTDIPSGLDA  
 IGKVPALGVAQIVAYFGFVEFAAGFDDYKPGGTPGDYGWKALTSSDPAERTKKLQAELANGRLA  
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>TRINITY\_DN773\_c0\_g1\_i1.p1 type:complete len:440 gc:universal TRINITY\_DN773\_c0\_g1\_i1:1608-  
 289(-)  
 MVSPPGPQDNKPPHKVADMSLADLGRRIEMSENEMPGLMSMRKQYGEKKPLKGARVAGCLH  
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 TKSFDNLYGCRESLVDGIKRATDVMIAGKICVVAGYGDVGKGC AEALRAFGARVMITEIDPINA  
 LQAAMAGYEVTMDEACSKARMFVTSTGCSGIIEPHFFQQMPEDAIVCNIGHFDCEIDAKWLN  
 DNCERETVKPQVDRYTLPNGRHIILLAEGRVLNLGCAHGHPSFVMSNSFTNQVLAQIELWQNHK  
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>TRINITY\_DN1172\_c0\_g2\_i2.p1 type:internal len:264 gc:universal TRINITY\_DN1172\_c0\_g2\_i2:790-  
 2(-)  
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 TFPGFLSPSAGVKFADVPNGLAALGKVPALGWVQIIFAGIVEGAFGFDDYKSGAPGDYGWKVLT  
 SDDPAEKDKKLAELANGRLAMVATIGMFFQDGLTGSAGWDWALYTASPLRAEPVSTAGVGAA  
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>TRINITY\_DN40728\_c1\_g1\_i1.p2 type:5prime\_partial len:124 gc:universal  
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>TRINITY\_DN265\_c0\_g1\_i9.p1 type:complete len:136 gc:universal TRINITY\_DN265\_c0\_g1\_i9:136-  
 543(+)  
 MGRVRTKTVKKAARVIEKYTRLTHDFHTNKRMC EEIAIIPSKKLKNKIAGFITHLMKRIELGPVR  
 GISIKLQEEERERRDNVPEISALEQDPLEVDPDTKEMLKIIDFANIPNLQVMQPITASGLGTRIPGN  
 \*

>TRINITY\_DN2636\_c0\_g1\_i1.p1 type:complete len:314 gc:universal  
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 MSAIAVVVIVIAAVLLHFSVHKIEEGHVAVYYRGGALLSSVSGPGYHLMAPMLTKYKSVQTTLQT  
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 QEVYIDLFDQIDENLKRALQQDLNEMAPGLKILAVRVTKPKIPEQIRKNYELMEAEKTKLLIRIQH  
 QKVVEKEAEETERKLAVIQAEKQSQVAGIQYEQKIMEKESMKRMSEIEDLTHLAKRKAMADA EFY  
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>TRINITY\_DN3545\_c0\_g1\_i2.p1 type:5prime\_partial len:236 gc:universal  
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 FETRECINQCPVCPEIVGTYDISSRHYYGGAKYGTVVFKLSNSKTVEAYYTINDGRRGVLTCKIE  
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>TRINITY\_DN384\_c0\_g1\_i2.p1 type:complete len:314 gc:universal TRINITY\_DN384\_c0\_g1\_i2:1018-  
 77(-)  
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VVLGEHDRRRRRSGHEQEIRVSRAIVHPRWNKRSFEYDYALLRLSQPARMNQYVKPVCLPTGEP RP  
 GQSCYITGWGKTSSRQGMHYILQQAPMQVIDSNTCNRKNYRAIRIAIRPSMVC GGGSGRISGCQG  
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>TRINITY\_DN817\_c0\_g1\_i4.p1 type:internal len:176 gc:universal TRINITY\_DN817\_c0\_g1\_i4:526-2(-)  
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 CNIEVERASRKLTINGKGIKCYTGVQMFLPQLPIATGTVPTVDQCEDQTSQCMSVIFTHLVTDPIR  
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>TRINITY\_DN121866\_c0\_g1\_i1.p1 type:5prime\_partial len:460 gc:universal  
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 PYLRDTCFVELAVCEKTGKSKNFAFVSAPGHVFS ELIKLNGIEFYGRQLVIEEAKTKPEEEGEKKDN  
 KEKKKTPNNKRKGGSNNNRNNRRYGNKPKSKFNLPTLEPDQVFHLVDCGVNLTNPKFSQHT  
 DYVIARALSAGVQKMVITGLKLNCKAAVVM AKTRPNILYAAVGIHPHFVKDDWSDKALDQLE  
 EQVKQPECVAVGECGLDYKRDYSPRDQQELAFKKQVQLGVRYQKALLVHERDSHDGII EVLKEF  
 EASLPVVIHCFTGTVEQIKTYIERGYYIGVTGYICKDKY GKTLRDAIKDGTPLNRIIVQTNAPYMT  
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>TRINITY\_DN1339\_c0\_g2\_i3.p1 type:internal len:185 gc:universal TRINITY\_DN1339\_c0\_g2\_i3:553-  
 2(-)  
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 NFARRRQTELKHGRVSM LATMGYITPELTGKLPGYLSPSAGLK FADVPNGLAAISKVPAAGWAQI  
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>TRINITY\_DN89\_c0\_g1\_i1.p1 type:complete len:376 gc:universal TRINITY\_DN89\_c0\_g1\_i1:117-  
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 VGKAKKSAVETHREKFDDLT KRLALEEQVEEELKRADAAAKAQASDDESDKDFDNLIKNVIEDEI  
 KKN SNVPAYAKGTNDATEDTATFEELKERVKKDY GDELVPFDQCKDQMPNCNIYKKYCEVYK  
 KNLIKRCPKTCNFCAPVTT PAPA VAVHVC RDKLPKRTCKMAKKMCDS ENSVQRTRVQKLCAET  
 CMVCRAPSPPRCENTEYGCCWDKETIKTDRKG TACPACQDEFKYICKTFKDDCVRVTHNSGLFM  
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>TRINITY\_DN165469\_c0\_g1\_i1.p1 type:complete len:2668 gc:universal  
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 VQEASILKILYEVEAMCYSVICTCDSFRVKRLLKRAYLYLQDGKDAEQLENC LGVIISNSNCQLESIC  
 LVGFIFQYLTTKKEIQRVDEVKKRSLIDIIKNIYIQTKVKADYHYLKHAVPFLKYITHDDFKEILPAIE  
 KGLLRNPETVLQGVGYLLEGLSIDSSNIEELSKCIAVHLISKNASLQADAVFAVSIAKQCSDFSAI  
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 GVLTQALNVMK TWCKYFKNNLPKTFVDNIKKGLSLKVSTTVIQAHYLLVSEALKGNTVVSQASG  
 LLETLLQVIEKVKGQSHLINNVFLCISSSMVLLKMFLSDDVQVNAAKEDSFWNVILDPVKKNLVSE  
 KFLLSHQKEYFYHLSQCMNTMFLNYSSRFSQK LLEPWYRAFNVLMVYGDWKT KSVKILLSKMF  
 DSGNYDTDEFQSRLFADLDSLDDQEMSKSSKIEDTEDILVNVHVVDAYLFLCIWNKKDINED EVLA  
 VLRKCLIVVHHD TIYQHDSSLFSKIGSVLKKDVAKEFVEKYKDDLKYFINLESLSKADNHSLKTLL  
 SLYPEALLDTLVDEIIKYFTKPD LINVTSQEYEIMKTPDGVAYDQSVFESAKAANQKSGNLKRESKA  
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RRGAAFGLGGLVKGLGILSLKQQNVIPTLNDAIQNKKIWKHREGALFAFETLCTMLGRLFEPYVV  
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YLQAVVPGLKKSLLDPSEVRAVSARALGAIVKGMGEVDDLMPWLLETLTSEASSVDRSGAAQG  
LSEVLFALGKDKLDKMPDVIATSMKTELSPNIRDGYLMYVYLPATFEDQFLDYIGLIIPAVLKGL  
ADESEFVRDTSLKAGQRMINMYADSAIELLLPQLEAGLFDDHWRIRLSSVQLLGDLLFKLSGVTG  
KQTTVSEEDDNFGTAYSSQVILETLGFDRRNRLFAGLYMGRSDVALGVRQAALHVWVKVIVQNTA  
KTLREILPVLFEILLGCLASQSYDKRQVAARALGDLVRKLGERILPEIIPILEAGLDHEDGDKRQGV  
CIGLSEIMDSTSREMISMFEDSLINTIRKALVDELPNVREAAASSFENLHNTIGHRALEGVLPTVFQ  
KLDDPQLSNYALDGLKQVMTVKS SVLPFLVPKLTTPPVNTKALAILSSVAGEALIKHIEKILPAMI  
QAIQVSQGTGLDGDSEFESTRTLILSVYDEVGVRTIVDELTTSSKSQMPGIRKVAASLLMVFCKETR  
GDHVPYIQLSFRTHIQLMNDVDQDVVASAWGALDALVKRLDPSEQLQHLSSLRQAVRFIKDDIRN  
EQLPGFCILKKGITPVLSIFREGILNGPQEIKEQAANGLGEIILTSPEALRPSVVHITGPLIRILGDRF  
NSSVKVAILDTLGLLLQKVGALLKPFLPQLQTTFIKSLNDSALGVRQKAAWTLGLLTVLHTRVDSL  
FTELKNGIKNNEDSAICETILGALRSITLKAGSKMSEGIRNTLYETLVELISSNEDGIRLKA AAAALGA  
MCQILPQDQIEQLLNDNLLDINQMLDWSICHGRAVALSYALYHAPSQVFDVDEDDIVEAVVKY  
STYDRVPICTYGVHSLGHLLMFSKDNADVAPQIVVSSIKTLLNSSVDIRLASLSTIKHVSRTPEV  
MTFERIRYLIPEFISLLRDRNTSVRSSAEITLAFTLQMDKNDILFDECVTNTISEASHFLEEFKNTFSK  
LNDSLATDKDDYFFAT\*

>TRINITY\_DN8903\_c0\_g1\_i1.p1 type:5prime\_partial len:447 gc:universal  
TRINITY\_DN8903\_c0\_g1\_i1:1546-206(-)

DMATKACGLENMCVGSYKSWRCICQAPRYMQDPDNTQSCIHAPCRIEDCGSGYAPGSFQYYAES  
CNGTFFNPICNCQEEYEKDMLGCCVPKSCRENPIAIAECGENGYCKGTYFKYECGCQGPKYVQN  
PRNTRQCIEAPCNVQNCGHGFENELYVSFADSCIGHADYTCQCKEGYTGTSRCIPDGKECGK  
SYCHANATCAPLGKGEFDCCKPGYSGDGLYCFLDGGWSDFVNTRECNASCGTHGYAEVTRYC  
NNPVAERFGKQCGAKSPEQLEVP CNRFDCGCTVKKDCRCTSVVKPLIVEGYNEPEETLKFFDTL  
HPDDVKKAKDTLLKWKAFSNNENLCRKYNKTTLHAKFFGVRDAAKEVNKMKSSYGSARDSMRI  
KLDCNINIAKKTQYFGVYEMIVKRLFIMKQVVKDLHIIEDYVLKHMENCDSPVGMIRNTFGK\*

>TRINITY\_DN106952\_c0\_g1\_i1.p1 type:3prime\_partial len:135 gc:universal  
TRINITY\_DN106952\_c0\_g1\_i1:18-419(+)

MSDAAAPKGGKHAPKVAKKGEKRAGKKGGKIGGGSEKKRKRKRKETYAIYINVLVRQVHPDVG  
VSSKAMSIMNSFVNDIFERIASEASRLSLQNKKSTISSREIQTAVRLLLPGELAKHAVSEGTKAVTKY  
TSS

>TRINITY\_DN433\_c0\_g2\_i1.p1 type:complete len:144 gc:universal TRINITY\_DN433\_c0\_g2\_i1:1496-  
1065(-)

MAQQTTPRSFKLLEELEEGQKGGDGFVSWGLEKDDDMNLEFWTGMILGPPRTPFENRMYNLK  
IRCTDRYPLEPPIISFVTRISLSGVDANGKIDRRACNVLKGWQTKDSIKAVLTDLRRMMTLKDNLR  
LSQPPENSQYGPSR\*

>TRINITY\_DN5276\_c0\_g1\_i12.p2 type:internal len:228 gc:universal  
TRINITY\_DN5276\_c0\_g1\_i12:683-3(-)

AQVFLYAANDSGWFDASGNTDFDGMMLMSAMKKEERAPGDEGWRPPLLATDDAELKKKRLNA  
EIANCRLATMAISGMFFQDGLTGSAGDWSLYTASPLRAFESELGVQAPVGFWDPLGLSKDGIM  
DNFKRRRATDVKHGRISMLATMGYSTPEFFKWPGFLSPGNSLKFADIPNGLGAISKVPLAGWAQI  
FLYAGFVENSANDFGWFDGSGNTDFDGKLMSSAMKK

>TRINITY\_DN4101\_c0\_g1\_i3.p2 type:5prime\_partial len:133 gc:universal  
TRINITY\_DN4101\_c0\_g1\_i3:3-401(+)

QAILAQGLPLPPGGPPAACRAPRGVMSGIGAFQAHLKFVTPWPGSTQGFCNVIKIGTFCRT  
VWVWPCLPVLMYQYIRGVDEDAYTLEVLHYKAGSKDPKAFDSSRIGLSGHWRLQQDLETIRAAV  
NAE\*

>TRINITY\_DN468\_c1\_g1\_i1.p1 type:complete len:191 gc:universal TRINITY\_DN468\_c1\_g1\_i1:676-  
104(-)



MKTFYTILLLAIVQTNAFFFPKVDTVKDLDLASYTGRWYEVYSSLIQRATFQRNSYCTTADYSLKPS  
GAIKVINSGRLLKSATGEENTIEGEAKVVDAKEPGALNVKFSTGPQSDKANYLVLVKGPPVVDGKYD  
YTVITTDYKALVWVLARNPETFKQKYEKDVLAYLKKNGYNWFINKPRPTYQKGDCIYI\*

>TRINITY\_DN167010\_c0\_g1\_i1.p1 type:5prime\_partial len:506 gc:universal

TRINITY\_DN167010\_c0\_g1\_i1:1755-238(-)

SQQNKLLGCYRYLHYNYNKYQNMAGVTSGPKFFDIYELKEELGKGAFSIVKRCVHKENRMEYA  
AKIFNTRKLSTRDLQKLREARICRMLKHPNIVRLHASIPEEGMHYLVFDLVTGGELFEDIVAREYY  
SESDASHCIQQILESVLHCHQLHVVRDLKPENLLLASKEKGA AVKLADFGLA VEIENDKYTWH  
GFACTPGYLSPEVLRKEPYGKPVVDWACGVILYLLVGYPPFWDEDQQRLYGQIKAAAYDYPSP  
WDTVTKEAKELIDCMLTVDPKRRITATEALKHPWIAERHTCASTFHRQETINGLKRFNARRKLKG  
AILTTVFARRISGTSGLFASAAKEKLINDKARKPSEDEVMLPTEEDAMKATREQEIIKLTQKLIA  
GITMWDFETYTKLCDDRMTCFEPEAKGNLVEGLDFHKYFDNMKQHSLPINTTILSPHVILLSEES  
ACISYIRLTQLMDCNGRNSTFQHEETRIWQRKGSQWRCVHLHRSSNST\*

>TRINITY\_DN160\_c0\_g1\_i1.p1 type:complete len:1145 gc:universal

TRINITY\_DN160\_c0\_g1\_i1:4810-1376(-)

MRLLAIIPLLVMLDIAKSDKLWECNFEENDCWAASSTRNHERNQLTLHWNRWKMRTPTGATAS  
PVTGPMEAFEGKHLYYEATESMDKLK MADGASKGVVTFKDINLMGRTOFILSFYYQVKGNDG  
DFYDFDLMSVNTENTHYDLSMKSIDGKDWKHFHIMKVEGAGVTSIDLKFTARSYGAFADYD  
NIVIEDYPDAGPCKDNRLCLANEYCTITSSTQTVCAKCTQQACGENAECILDSLAINKCKCRQGY  
LPRVSNYGDKLNLCYRPDASCDIEYNSLGQCRISTSIPI MYGHPSLWHGRYSPVSGNGYVFKYDNT  
ITLDAVSSQKLSFFYLVDNPNMINSALTVEYGSRKFEVPINREKTNIWTLYEVLILASTNQGVQIKASF  
YAEAGVIGIDNIQFTQQNEVVVEKIYKESMMAATFEDGSVPTDLKVAMLFVTRYGKIDFGCLPGIE  
LETRNGKLYCKDGVVQRQSACSQSDCIGSNARCVRNVCNTNSYQISIGTYGEKATSCAVYPC  
EINSPRCHSTAICSNIKTPGQNFYNDYTCKCGRSLNNVETIINPFIGGDKSTQCLAATPSDSYVCND  
NNFKPSRTTEYCLKGNQATVEYSLRATNFGNYALFKHCDDPDDEYRSSFNDPGSFWRPIDLVAAA  
NENLAVSVTYKTSLSNKFICNFQARFGSKLTLAVNVNSNSRVLTFTNTQTSVNKQNPVYQQGV  
FQSDNPTPGAEMSVTFTVTGNQAVDQNVDAILLDNVVCCKGFDDVASVNTPCGNNACASNQYC  
NPLLSNSEKECLCPTGQKDQNCPPVPSGSVVSADGPKCIGHHEKYMNGACVCDDGFEKTGDT  
CTVKINCGCNDGLCLSGDKCSCPLNLLKVNQACVRTNKDCAKDCVSTLNGGYYCDVTTGMCD  
CLTGFVKSGRDDGSYRCDKHAVVQKINDPKGICSATCGTGFVNEIEVCVGATGTGFECMTNIVQG  
TLGVCSLPACPATSSQCSIQKECACNNVRVPIGSDGKLRLDFDHEAKLNMIFRFLSKHNQKDLEFK  
FREARCDNTKLDIARTIEDDLKQLEFDTLQAAITTMKSILDCSPSGNDHNAAYWDVDFDMLIELS  
SYRPHAVSDLQLKELVMHEQSRGMRSLNHLKVVDGYAFWNKK\*

>TRINITY\_DN1797\_c0\_g1\_i2.p1 type:3prime\_partial len:998 gc:universal

TRINITY\_DN1797\_c0\_g1\_i2:2993-3(-)

MSKIKLNIVYILLVLWISIVHSQSQDDRCPAIDNEQECPPPDSLNNECLENSDCAGNQICCGDGC  
ELKCVVAADELCKVPIDLGFI LDSSGSIGSKFDNVKIFVEKIIDAFVIGEDFTHIGIVEYSENASVLA  
FNTYQGAELTKANILTELKMSLIGGHTRIDLAEVASRDLFSAKGGVRPGPKIALVLTDGKQTR  
GKLAPDAKDLHIASQPLKDSEIHVYSLGIGDDYDIGELLDIASDDTSVFRSQDFDELLNIVSQITEET  
CKGCTRAIDIHFALDTSINVGRENFEYMKNFVEAIGYRFVISETSSHMSASIFGEEPMLMFLMNEAT  
EQNMFL EEVKQLQYIESANGNMDRLLRMVYDDIFTLEGFTRQSVPKVLVMLTASNCDSCDERVEE  
AVKPLKEQGVHVVTIPIGNVNMDEINAMASYPSEYVVPRTYVGLMNDFFIQKVS DMICSGRP  
GVCAEPPVEGSCDTHIQECTTDVKCEGNRKCCIKNCKASCELPVSACITPVDLAF AFETTRNGEAD  
FENAQKFAANLLDHFKIDRSTTHVSVSTFSETIGTSTFFNEEYDKSNIQQFIKDLGSDSGDQSNLGD  
FLEFASRKIFSVQAGLRQSTPRVLVIFTNGIVSAEQSLKAQQEAQKLKAEGLDVSILVVNIGNIGSV  
DLFESIISNGRIFS YVESSELSKFEAETDLAE AICATKVRVRRCPKRTPDTCNVKDDLCS SDFDCPG  
YQDCVSDGCRRLRCQTCEYRCEDKDLLFMIDSSYRIGAE GFQKAKENVNKM LEWFTIAPDNTHV  
GVITYSDTANIAMSLPPLGTNNPPQSLPDVQGRINAIPYNGGSKSYLDEALKLAAAQV FVENS DRF  
RKGSKKAVVIITDGKDDSTSRDLASWPLRKQRVVVGKEDYSAIHILAVAIGDELNTNALENVVT  
TLEENFFFAANYKDMYNEIRKLAKSSCEYAGAFTAPPDIYMKGEPPGPPGPPGPKGDPGPDGPT  
R

>TRINITY\_DN7314\_c0\_g2\_i1.p1 type:5prime\_partial len:142 gc:universal  
 TRINITY\_DN7314\_c0\_g2\_i1:541-116(-)  
 AEATEAPVKYVESAADKRLFQVYVQYAEYLKGPLYWDPNKLQGIDPQFPGNPITVDGKLTSTNT  
 IGNLKTFFSSNELAFFSFLFFGIGLYGNMFNYGDPQFEKVIRDGGYLNASYIVEAIFLPISFFFHACIYI  
 QRKNGK\*

>TRINITY\_DN79126\_c0\_g1\_i1.p1 type:complete len:115 gc:universal  
 TRINITY\_DN79126\_c0\_g1\_i1:397-53(-)  
 MVARLVLRRRLSYNTKSNRRRISKTPGGKLVYLYTKKAGATPKCGDCKCKLRGLKAVRPKKLAKL  
 SKTKKTVTRCYGGSRCGGCVRERIVRAFLIEEQKLVVRVLAQQVKKSS\*

>TRINITY\_DN691\_c0\_g1\_i2.p1 type:complete len:1673 gc:universal  
 TRINITY\_DN691\_c0\_g1\_i2:5503-485(-)  
 MMNLFRLIVLGVICFSYEGDAQQCGGSCSPCGNLCVGMKGDRTAGLPGFRGPPGLPGFPGPEG  
 PIGQKGEKGPAGLNGMEGSQARGKVGPPLPGTPGRHGRPGNEGREGAAGLPGCNGTKGDR  
 GPEGPRGRDIEGPQGLQGNVGRPEPGDSTATKLKGQKGEPSAGQQGEKGGRMMEGMKGD  
 TGKPRNGRAGERGPKGEPGTSNVTIIEKGSKGSVGPPLPGRQCQVTGDKASNIAQQQKGNQ  
 GSKGEEGAKGEKGDAGLAGPQGEEDIGPQGDRTDDGPQGPPEGEQGRSGIQGNKGQKGE  
 VGNNKGKDNDGQTGLTGQRGRQGTGPQKGEKGDGKGLRGPEGAKGERGNDGEKGSDDGPIGP  
 IGPRGPKGELGPLGMKGFKGSIGSAGPKGENGNPDPGIKGRRGELGIKGDGSKGAPGNPGISV  
 TGPDMGMDGTGPRGQSGGKGAVGFPKGPVVTIDGEEVLPGEPPGQGLKGRGVQGDAGS  
 KGSERGEKNACESSKCPAGPKGEKGLSGQDGLQGGDGEEGEKGEKGDGKDIGSRGDTGSRGEP  
 GPQGESGEKGEKGIQGPQGNNGKDIIVQGERGDKGTGNAGTPGSIGFPPGERGSPGESGDRGLSG  
 VNGLRGETGDRGARGVAGKPGVNGQKQKGEIGSGARGFKGDKGEVGPDPGALRGPGGPV  
 PKGDPFPTAVNGKTGEPGEQGAAGPKGAQGPVGPGEPRGFPDIPVGEPPGDEKGERGDDGA  
 RGERGEKGEPPQDQDKDGDGPKEGPEGQEGKEGPPGMFKGNKGEKATGLPGVDGLPGNSAPK  
 GEAGKDGQDGDGPAGEKGDPEAGSPGTEGPIGEDGPVGDKEPGESESRAGPKGNEGRAGAK  
 GENGRDGRAGRPGIGRPDKGELGQKGEAVIGAKGSKGEQGLEGPPGPIGKPGVKGDAGVPGK  
 DGEAGGRGKDGGERGLPGDKGDTGDIGFNGSPGAPGDKGEPGYSGQKGAKGMSGPRGPPGSTN  
 VVGPKGNRGLPGMKGEPGQQGEKGLIGPQSGSKGESGFGSEKGIKGSRGNPAGVGPSGEKGERGD  
 RGKDGLQGIAGPRGEEGNPGEKSGRGDQGPQGREGPSGELGPEGQKGDPCFAGEKGEKGDRCG  
 DGQKGDAGEPLRGEPVAGPPGPTGPQGERGPKGEEGNMGPKGSQGRDGLTGEDGPKGSKGEP  
 GLDGDVGEKGEAGFQGLQGEKGNQGPQGLESTGMDGQKQIGEKGVEGPPGPPCEPVNSVR  
 GETGEEGPKGDRGPKGQKGPQSQAAATPGEKGSKEVGPQGPQGIKGEPPREGDFGPKGSPG  
 AQGEKGDQKQKGEPPQEGPEGLKGEPTRAFPGKQKGETGLEGLRGVGPKGEDGQTGPQGP  
 DGPKGNEGEKGDGDFINGLNGAAGPSGPKGAIGLKGDSGPPGPTGAQGPGRSGGSPDFGFYYVK  
 HSQTTIVPSCPAGMKTLWTGYSFLYAQGNERAYGQDLGQPGSCLKRFSTMPYLFCDLQNQCTVAS  
 RNDYSFWLSTDEPANMMKPAAGPEVEPYISRCACEAPANILAVHSQSVIVPDCPNGWENIWAG  
 YSFLMYNSAGADGSGQLLASPGSCLEEFNANPFIECHGRGTCWYYGPTLSFWLSTIDDSNQFQIPK  
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>TRINITY\_DN187823\_c0\_g1\_i1.p1 type:complete len:611 gc:universal  
 TRINITY\_DN187823\_c0\_g1\_i1:1943-111(-)  
 MWRRIFNFRVSQDLIKSPEFRYHYLFILPKSLCTMGDNEKISKNELKRRLKLEQKAKDKAEKQAA  
 TTAIAQEKKAVKSTLNVLPDEENLDPNQYYKIRQQTVANLKSSGDNPPYHKFEVSISLTDFTKYS  
 SIEAGKWQDDRVSVAGRIHAKRLSGQKLIFYDLRGEVGLQVMADQRSSEQDFAQIHGKLRRGDI  
 VGIKGKPGKTKKGELSIQPSHVELLSPLHMLPHLHFLKDKETRFRQRYLDLILNEKVRQKFYTR  
 SRIINYVRRYLDQMGFLEIETPMNMIPGGATAKPFVTHHNDLNMDLYLRVAPELYHKMLVVG  
 IDRVYEIGRQFRNEGIDMTHNPEFTTCEFYMAYADYNLIDLTEKMISGMVKLLFGKYKVTYHPD  
 RNEEGDGEPLVDFTPPFRMSMLEELQKVLNISFPNFDLHSEEARKEYFDDLCAQKEVDCSSPRTV  
 SRLLDKLVGEFLESQCVNPTFIMDHPQIMSPLAKWHRKQGLTERFELFVCCKEICNAYTELNDPL  
 VQRQMFNSNAKDKAAGDDESMFYDEGYCTALEYGLPPTAGWGMGIDRLCMFLTDSNNIKEVLF  
 FPAMKPEEKVREVPLSPTKVNFP\*

>TRINITY\_DN2772\_c0\_g1\_i3.p1 type:complete len:142 gc:universal  
 TRINITY\_DN2772\_c0\_g1\_i3:476-51(-)

MSDAEGDDVPVQQEVAAGGPM DINTALQEILKLSMINDGLARGLRESVKALDKREALLCVLAN  
 NCDEQMYVKLIEALCAEHEIKLIKVDNDKKLGEWAGLCKIDKEGKARKIVGCSCVVIKDWGKET  
 QAHEVLKDYFQSKS\*

>TRINITY\_DN276\_c0\_g1\_i1.p1 type:complete len:151 gc:universal TRINITY\_DN276\_c0\_g1\_i1:653-  
 201(-)  
 MSTEYSESEMMEYRDTFSLFDKQGDGKVECSEIGEMLRALSLNPTEAEIKKIIAEIDPTGQKRVTFE  
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 DSNGMVNYEEFVRGVMNG\*

>TRINITY\_DN2217\_c0\_g1\_i2.p1 type:complete len:254 gc:universal  
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 MNSVDGNTDNAQKECLELCQRNAKATGCEVIWNRHNRGCYIHTQEVARGNNVDRHFCWVFS  
 KCTLNNVPPAVCPIEKGYCVKGNHGDQNSGVIKMNSVDGNTENAQKECLELCQRNPKATGCEV  
 IWNQHNRGCYIHTQEVARGNNVDRHFCWVFSKCTLNNVPPAVCPIEKGYCVKGNHGDQNSGV  
 IKMNSVDGNTENAQKECLELCQRNPKATGCEVIWDRHNRGCYIHTQEIARGNNVARHFCWVFS  
 KCNL\*

>TRINITY\_DN6397\_c0\_g2\_i3.p1 type:internal len:130 gc:universal TRINITY\_DN6397\_c0\_g2\_i3:387-  
 1(-)  
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 VGFWD PAGFTADGNVENFRRRRQTELKHGRVSMLATMGYITPELTGKLPGYLSPSAGLK FADVP  
 N

>TRINITY\_DN16548\_c0\_g1\_i4.p1 type:internal len:171 gc:universal TRINITY\_DN16548\_c0\_g1\_i4:2-  
 511(+)  
 LYTDSPLRAFEGELGVQAPVGFWDPLGLAADGDSVAFRRRRVTEIKHGRISMLACMGYITPELVG  
 KFPGLSPSQGIEFADVPNGLA AISKIPSYGWFQIIAYCLYCEASALNFGYFNEAFDQKAPGDYGW  
 RPPLLATDDAALKTKRLNAELANGRLAMVAIIGMFFQDG

>TRINITY\_DN571\_c0\_g1\_i2.p1 type:complete len:186 gc:universal TRINITY\_DN571\_c0\_g1\_i2:192-  
 749(+)  
 MREYKLVVLGSGGVGKSALT VQFVQGIFVEKYDPTIEDSYRKQVEVGSQQAMLEILD TAGTEQFT  
 AMRDLYMKNGQG FVLVYSITAQSTFNDLMDLRDQILRVKDTEDVPMVLVGNKCDLEDERVVGK  
 DQGQSLAKQFGNCTFLETSAKMKINVNEIFHDLVRQINQRQPENTKSERKKKGCTIL\*

>TRINITY\_DN902\_c1\_g1\_i1.p1 type:3prime\_partial len:153 gc:universal  
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 MIRIAIIAIAIACVYESQAVRCHVGYSAADLPLAMSVRDVECGQGF DHCVT LKYVLDGMKITQG  
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 SDFPNIPFASP NVPYAVDEC FPGT

>TRINITY\_DN2885\_c0\_g1\_i2.p1 type:complete len:114 gc:universal TRINITY\_DN2885\_c0\_g1\_i2:31-  
 372(+)  
 MAQPVRLYSKGIFVGYQRGLRNQHEQTSLIKIEGVNTKADTSFYLGKRVA FVYRVSKKTVAKGDK  
 KPSRIRVVWGKVTRPHGASGVVRAKFRHNLPAKAIGGSVKVMLYPSRI\*

>TRINITY\_DN6294\_c0\_g3\_i2.p1 type:complete len:134 gc:universal  
 TRINITY\_DN6294\_c0\_g3\_i2:817-416(-)  
 MGYKRFVEAGRVALINKGKYDGKLVVIADIVDQKRLLCENPVKSVPRHVVRTQDVNLTD LKVN I  
 PCGARGGKIRKEYEKEEVDSKWEKTVWAQKIKARHVKRTLSD FDRFKSKIQKQRRNRKVAVLK  
 SMKKN\*

>TRINITY\_DN902\_c1\_g2\_i3.p1 type:internal len:178 gc:universal TRINITY\_DN902\_c1\_g2\_i3:2-532(+)  
 AVFKCIKLNYIDHIIKMIKIAIIAIVITALVHESTAVRCNVGYSTADLPMAMSVRQVECGKGLTHCN  
 TLSYKLDGMSVTQGNCATSGGQASCLFMKNSLQSMTECSEAICNGDHCNKAVKDAENAERARV  
 GPKYNTLKCTTGLQTD FPDIPFASP NVPVG VDEC FPGTKECVTMTYD

>TRINITY\_DN3870\_c0\_g1\_i1.p1 type:3prime\_partial len:990 gc:universal  
 TRINITY\_DN3870\_c0\_g1\_i1:2969-3(-)  
 MPQYFQKPENALKRANEFIDIGKKEAALDVLYDVIKSKKHRNWQKIHEPILRAYLTLCVDLKR SV  
 NAKEGLYQYK LICQQVNIVSLEEVISFFLQLAEKHADEAKNQSIDKV VVEDLDQVQTPEGILLSSV

SAEDAQDRSDRVLLTPWVKFLWEAYRNVLELLRNNNRVERLYQETSQSAFRFCLKYNRRAEFRKL  
CTLIKNHLDQVLKYQGQPTAINLNNPESLQMHLETRLFQLENAITMELWQEAFAKIEGIHYLMQ  
MSKKPPKPHMMANYYEKVALVFFKADNKLHAAALLKLFVLIKEQKKTVTHGELEKIGNKVLL  
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KFQPLTMGKRVNEILESVKENDTLVQYIQLRITMVKTLKQVSQIYETITFPRLLRILPFTDVHQLE  
RSIVSCVKEEDLQISINHQTLSLFGSTLQVALKEEVPDGPYIQAMPSEILRSQCLSLSEGITEIVRVLE  
PEKIQNGILTQRKTLIDQYMRQERKEHVQLLNRKSVIEARKERIESMKNAQERQEQQSLHKQREQ  
LKKAEEQRLEAEREKREKERKIQEMKDIQKQQVWDRVESLRGTDIGKRAFKNLSAKEIDEMDPD  
DILQRQFEQIDRDKREQTLKLRTQEKRVDDLARAMRMEEIPLREKFIQEKYDLDEQWKNKDEEER  
IKNAEKEHHIALKTKDRLIRMLDDRNIFLDKLFGNRNAEYQARLEEFEEENLNKIKQERLEARRRK  
RMSQRRQEFIMARREEKRKEREQRLREKEREQRRKEEEEQRLREQEEKQKKLEELAQQQRERE  
LEIEQRQRQRAEESENLRDRGDGPRDRIDGPPSRDSRPTGSVAGGKYVPPSRRSVNPSSDGGGDGG  
GWRRGDDTPKRDGDRFRRDDDRFRRDDDRPRQEDDRFRRDDDRFRRDDDRPRQEDDRFRRDD  
DRFRRD

>TRINITY\_DN1631\_c0\_g1\_i1.p1 type:complete len:124 gc:universal TRINITY\_DN1631\_c0\_g1\_i1:62-433(+)

MAEAPKPKPAPKSRYPGSFDDIERRDPAQWHAAHNAWVLERLVEQETVKIYRERMDECYWKEQ  
ENFPQNCRKHILKYWKAWNDWKKKDWGQTEEGSVYRFRVPVEEYREVEELYKNKDKGNE\*

>TRINITY\_DN8101\_c0\_g1\_i2.p2 type:complete len:820 gc:universal  
TRINITY\_DN8101\_c0\_g1\_i2:2597-138(-)

MDGKTGASLKLTLNDRGRVWMTVAGGGASVYADTVADYGWGHELANYGEYSGAPSTEETFV  
YAKTLLSLMMKYKHPEGKFLIIGGGIANFTDVAATFTGLIQALQHFAAEIKEHKIQIWIRRAPNY  
LEGLRKVKAASDKLGLGLKVYGPETHITAVIPMALGLTTPLEPDLSQACGPPRAAIAAGAGSKPS  
TQKAAPAPSAHTIVTATPETTSIVYGLQNRAVQGMDFDFMCKRKKPSVEAMVFPFSGNHVYVKFY  
WGTEEVLMPLYTTTTKEAVQKHPNTSVFINFASFRSVHETSLEAMQYPNVKTLAIIAEGVPEQQTR  
QLIQTAEAKGVGMIGPATVGGIKPGCIRIGNTGGMLDNIVMSRLYRAGSVAYVSKSGGMSNELNN  
IVCRNSNGVYEGVAIGGDRYPGSRFLDHFLRYQDDAGAKMLLLLGEVGGTDEYDLIEAVKSGRIT  
KPIVAWCVGTCA SCFATEVQFGHAGAQAARGDMETAAAKNKAMREAGFHVPSDFDKLPELIGQV  
YTQLVQEGVVVETPEAETPQVPMDYTWAKKLGMRK PANFISSIADDRGEELKYCGVTISEVFAQ  
ELGVGGVLSLLWFRRLP PACTKFIEMILMVTADHGPVSGAHNTIVTARAGKDLVSALCSGLLTI  
GPRFGGALDDAAKMFAEAQDSGVSAKDFIEKMKKTNQLIMGIGHRIKSLANPDQRVVLIKDYAK  
KHFKNTPVLDFALEVEQLTTRKRANLILNVDGCIACVCFVDMIRSCGAFSREECDDLMAFGCLNGL  
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>TRINITY\_DN3034\_c0\_g1\_i1.p1 type:complete len:1941 gc:universal  
TRINITY\_DN3034\_c0\_g1\_i1:6289-467(-)

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RLPIYSDQVVKLYRGKRRRAEMPPHIFAIVDTAYQDMLTDHNDQSMITGESGAGKTENTKKVIQYI  
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ADIESYLLEKNRVIHQASAERNYHIFYQLLYATTDEELQKLCLVTRRSEEFELKKGVPSVDAIDDN  
EEFGYTTNAIEVLGFDEEEKQSMFKICAAILNFGNMKFKQKPRDEQA EVADPADGERVAYLLGLPI  
GEFHKSLTKPKVKVGTEFVNKGQNVSVQVLYSVAALSKALYERMFWWIVSRVNKALDTKERRSYFI  
GVLDIAGFEIFEYNSFEQLCINLTNEKLQOFFNHMFVLEQEEYKKEGIHWEFIDFGMDLEETIDLI  
EKPMGVFAILEEECIVPKASDQTYLQKLHKQHAGKNGSYEKPTPKQTKSGGGDFILHHYAGSVGY  
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MTTLMSTSPHFVRCIIPNEKKTPLVEGTLLHQLRCNGVLEGIIRICRKGFP SRMLFQDFRQRYQIL  
AASAIPSGFIDGKVA AEKLIDSLQLDQSEYRVGTTKVFFRAGIIGELEDMRDERLAKIITQFQAYCK  
GHLARIEYKKMCEKRIGLAVIQNRVNRKFLFLRNWQWWKLYCKVQPLLSIARAEEMKEKEEELK  
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ESIAKLGKEKKGLEDNIQELNETLQASEDKSSLTAKKKVEDALKESENSLSKEKDSKARLDKEK  
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 WKNKYDMEGASRVEELEDARLKLAAARVQEMEEALAAESKAASMEKVKNRMNEEVEDLLDL  
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 ESLKKENRALAAELQSVSEQLSEGGKNSLEVEKLKRKLGLENEEELEVALEEALEQEEAKFLKI  
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 VALEQSDRLRKLAEENEKLENAERVAELQTMYSIANAKRKAEGDYHSLQEEIEELENEAKMAEE  
 KANRAMNECARLSSELNGAQENASNAEKSLSMARQITELQQQLEEAESMGKSLKNQIRKLE  
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 SPQND\*

>TRINITY\_DN7504\_c0\_g1\_i1.p1 type:complete len:414 gc:universal TRINITY\_DN7504\_c0\_g1\_i1:87-1328(+)

MAKIPGGIVVEMDGDDEMTRVIWDMIKTKLIFPFVDLDIKSYDLSIQNRDNTDDKVTVDAAEAML  
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 HAHADQYKATDFLVPEAGTLEMKFTPKGQTEPTISYVNNFAGAGVAMGMYNTDKSIRDFAHSS  
 FQCALEKNYPLYLSTKNTILKKYDGRFKDIFQEIYDNEYKGYEAKGIWYEHRLIDDMVAYALKVE  
 GGFVWACKNYDGDVQSDTVAQGYGSLGMMTSVLMCPDGKTIEAEAAHGTVTRHYRLHQKGQ  
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>TRINITY\_DN163801\_c0\_g1\_i1.p1 type:complete len:298 gc:universal TRINITY\_DN163801\_c0\_g1\_i1:55-948(+)

MANPLKDIISRFSGVPAGSSTGLGLLIGAGLAAYGIKESIYTVDGGHRAIIFSRIGGIQPGVYSEGL  
 HFRIPWFQYPIYDIRARPRRIMSPTGSKDLQMVNIGLRVLARPLSSTLPHMYQRLGLDFDERVLP  
 CNEVLKSVVAQFNASQLITMRQEVSLMIRDLTERAKDFDIILDDVSITDLSFSAQYTA AVESKQVA  
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 QNKVYLNANNNLLNIKDTDDIDDGLLSKKR\*

>TRINITY\_DN761\_c0\_g1\_i1.p1 type:complete len:830 gc:universal TRINITY\_DN761\_c0\_g1\_i1:129-2618(+)

MTSMFRSEEMTLCQLFLQSESAYACVSELGEIGVVEFRDLNPDVNAFQRKFVNEVRRCDemerKL  
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 ILKKTQSFFEEGYAETQARLQADHEPGVTGGGQLGFVAGVINRERIPTFERLLWRACRGNVFFK  
 QAEIDTALYDPGTGDLTHKCVFVFFQGEQLKIRVKKICEGFRATLYPCPETPNERREMAIGVKTRIE  
 DLETVISQTQDHRHRLQLTIKNIRVWLKVKKIKAIYHTMNMFNLDVTQKCLIAECWAPVADL  
 DSIQAGLRRGTERSGAQVSSIVNRMSTKQDPPTFNRTNFKTKGFQAIIDAYGVASYQEVNPAlyTVI  
 TFPFLFSVMFGDCGHGAIMALFALWLMNERKIANWKAGGEMFDTVFQGRYIVFLMGLFSIYSGL  
 LYNDIFSKSLNIFGSAWVPTLNRTKYDYQPENYKEWSDGDRMLNPLDAPRETPYFYGIDPIWQLTS  
 NKLTFNSLKMKLSVIFGVTHMIFGVILSLFNHLHFKQYVNIFCEFIPQLLFISCFGYLVILIFYKWIA  
 FSIHSPSQPSILLGLLAMFLNFAKKKTDADRLYNQDQFLEPFLVVAVICVPWMLLIKPFYLRWQH  
 NKKKQHGTNFARLHEDTAPLQDNEVNHHDDSGISSKNEEEEFDFGEVVFHQCIHTIEYCLGCIS  
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>TRINITY\_DN309\_c0\_g1\_i1.p1 type:complete len:454 gc:universal TRINITY\_DN309\_c0\_g1\_i1:65-1426(+)

MSNCEHKTQKITIQKKTVKVT SQREEDEYVKARKEGKKYILPWKTPDGLQPPDGFTNLKYIFT  
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 RGIK YYPGDNKRYRTCvyKVDDLPRIDVIFITNTHYDLDLSSVRALNNKYGEMLLWYVPIGVGEWM  
 TKAGCHNVVEMNWWREDEVDFIDHTKIDDDEETTTTTFNISCTPSQSFHSRTFEDDNAALWCSW  
 VIKSPRYKLFISGATGYCDIFKVIGRKYGPFHMAALPIGGYHPKDKFGYGNVTPEEAVQIHQDVLA

MCSLAVGWGTFTLSNEYYLEPPRRLNEELSKQKLSEMQFFLLKHGESRLIEIKEADKDDDEPPQEN  
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>TRINITY\_DN77\_c1\_g1\_i1.p1 type:3prime\_partial len:1965 gc:universal  
TRINITY\_DN77\_c1\_g1\_i1:2-5893(+)

MGVQVYSLGIGSNYDIGELLDIASDDASVFRSQDVDELVSIVASITEQTCKGCTRAVDIHFALDASQ  
NVGRENFQVIKNFIKAIGFKFISETGSHMSASIFGEYGTILFSMDQATQQEDFINEVDNVPYIGDFN  
GNIDKALDMVSEDIFTDFGFSRQGVPKVLVLTASNCDSCSKSVEEAVKPLKAQGVHVVAIPIGSN  
ANMEEMDKMASYPTQDYVIPRASYEELNGVFIQKVSEMVCSGRPGVCEEPIEGECTEIIINECTL  
DVNCPANRKCCKICKASCEVPAACITPIDLAFAFETTGFIEENFDEVKSFASSLLDHFVRPEPAKT  
HISISTYGESVNAKTAFYESYDKSALKQFIKDLDPDGRQANIGDFLKTANDEIFNITNGIRQSSPR  
MLVLFTNGVYSNDQIAKAQEESLKLKAEGQDVNINIGSIVEGNSVLRDVVSTPDFRNLHNVT  
DLRRLVNFGFENKIAEAICASKVRKTRCKPRTQACSVRDDLCTDFDCPGYQECYSDDGCRRLRCQ  
TCENRCGDKVDLLFMIDTSSRIGPEGFKNAKENIKKMLEWFTIEANNTNVAAITYSNANYAMQ  
LPAAGSNDPPQTLFDVQGRLD SIPYSGGSKSNLDKALKMAAAQVFYQNSLRRLRKDSKKAIVIVTD  
GVDDSTSRLEIASWPLRKQRVVVDGNDYAAIRLLAVTVGNVNYNLDLTLEKVVSPIDKNIFLAADF  
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GVGKTGLPGDSGEQGGKGRGGPPGLRGVFGGQGPKNPGEDASPGLPGEPPGPKGISGKKGPTGS  
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LTGEKGETGDIGELGPKGAQQGQGGKQGTGKIGPRGQQGGLGFQGLQGQTDGDPGQNGRQGP  
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GPVGSPLRGQKGTGDRGDSGETGPIGVAGDIGPRGFTGELGLRGAIGEMGQIGETGPQGMPPG  
QGTPGAAGLTGPAGPSGLPGKDGNGKPIGDPGNAGNPGRDGGPGSPGKDGTPGEPGTPGSQGK  
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GKDGRPGKPGINGTDGDPGNNGPKGDPGERGDSGDSGLGASGDKGKTGSEGPAGFVGPRGSN  
GKAGVPGKRGRGDQGRDGPGRNSGPDGIDGSKGFGKGNMGRFGIQGPPGDAGLKGALGPDGT  
VGHTGPQGNTPGDPGDPGEPGSGSKGPAGNAGQIGNAGYPSGPDGGIPGTAGLPGPPGPPGPP  
GDMGAFSGNYWDFVNAGGLQKGPRYYGGRSKRSLDQQDINSIEKVFKSNYETFKNFDTVWNQI  
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>TRINITY\_DN30365\_c0\_g1\_i3.p1 type:internal len:239 gc:universal TRINITY\_DN30365\_c0\_g1\_i3:1-  
714(+)

LTFIESLRLRYKKLQKQLEFLEVQEEYIKDEQKNLKKEYLHAQEEVKRIQSVPLVIGQFLEAIDQNT  
GIVGSTTGSNYYVRILSTIDRELLKPNASVALHKHSNALVDILPPEADSSIAMLQADEKPEVSIVDI  
GGMDIQKQEMREAVELPLTHFDLYKQIGIDPPRGVLMYGPPGCGKTM LAKAVAHHTTASFIRVV  
GSEFVQKYLGEPRMVKDVFRLAKENAPAIPSRHLLVQSQ

>TRINITY\_DN1789\_c0\_g1\_i1.p1 type:complete len:393 gc:universal  
TRINITY\_DN1789\_c0\_g1\_i1:1193-15(-)

MTIDTSNRDKALSDYSKKLIEHREVEARLKQVREQKLKELTNDYDKSENNL KALQSVGQIVGEVLK  
QLTEEKYIVKATNGPRYVVGIRRGVDKTKLRQGTRVALDMTTTLTVMRMLPREVDPLVYNMSHED  
PGNISYAIQIGLSEQIRELREVIELPLINPELFQRVGITPPKGCLLYGPPGTGKTL LAKAVASQLDCN  
FLKVVSIAIVDKYIGESARLIREMFAYARDHQPCIIFMDEIDAIGARRFSEGTSADREIQR TLMELLN  
QMDGFDVLGQVKMIMATNRPDTLDPALLRPGRLDRKIHLDPNEQGRMDILKIHAAPITKHGEI  
DYEAVVKLSDSFNGADLRNVCTEAGMFAIRSERDYVIQEDFMKAVRKVSDNKKLET KLDYKPV\*

>TRINITY\_DN47849\_c0\_g1\_i1.p1 type:complete len:689 gc:universal  
TRINITY\_DN47849\_c0\_g1\_i1:176-2242(+)

MCGIFAYLNYGVPRSRRIYILETLVNGLKRLEYRGYDSAGVAFDSEETLKNHECGISIVKTKGKVQSL  
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 LLAKKGYHTESETDTEVIVKLLKMYDRDQESDNEKRLNFPVELVVIHQLEGAFALVFKSTHFPN  
 ECVATRRGSPLLIGVKSNNKPIVVDQIPVMCTENGSPGDRTPNGTSIFDSGASAIKANFCVADDAAM  
 EYYFASDASAIIEHTKRVIFLEDGDIAWSKEGNLNIARMNNSTPAIRDVQTLQLEIQQIMKGSYSTF  
 MQKEIMEQPESVFNTMRGRVNFEEKRVLLGGLVSHMDYIKRCRRLIFACGTSYHSAVATRQLLEE  
 LTELPMVELASDFLDRQTPIFRDDVCFISQSGETADTLMALRYCKSRGALLVGITNTVGSISRET  
 MCGVHINAGPEIGVASTKAYTSQFLSLVMFACMMAEDRISKQQRVDDIIGALEVFPEKVEEVVLKLD  
 KKIEELAAHFYKQKSLVMGRGYQFATCLEGALKVKEITYMHSEGILAGELKHGPLALVDEDMPV  
 LIIALRDKTYDKCMNALQQVLARKGQPIIICSKGDEETKKLGNFCIEIPEVPDCLAGILTVIPLQLLS  
 FHLAVKRGFDVDFPRNLAKSVTVE\*

>TRINITY\_DN1989\_c0\_g1\_i1.p1 type:complete len:546 gc:universal

TRINITY\_DN1989\_c0\_g1\_i1:150-1787(+)

MRGNNRGSGGQRKSFQDGNRTPNNSNRGNYYGGNKRNWSPSPYKKPQETPPKVSKEPKHLTP  
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 QGNNELENTKKEEKAPVNRVKYTGREGKKFSGRCRLFIANMNNGTTEEDLRELFQGFGETGEV  
 FVNKEKGFGFIRFDRHNAEIAKSTLDKTEFKGRNIQVRFATHASALEIHGLDRFASNEFIEKAMSI  
 FGKVERAVVVCDDRGRSKGYAIVEYEWKKAQKVLDLRFKGMFVLGRLPKPVFAKPLSQVDEEE  
 GVREEDLERLQIEGEREFPPRFISPSSFYETWAKKWRDLYIEEDKKARLDQELRDSRYKLELEME  
 SALQEQEALKMREGLIIELSRQEELRRLEEGLMRRQEITARITRDQDDRQEFNRSRDESQYPME  
 GMADTNQSDYNIQQQTEFDTHQGNFDVNVRQDLMHQNANIPISGVAGFPQHVVHRMPHGIIQ  
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>TRINITY\_DN3271\_c0\_g1\_i1.p1 type:complete len:399 gc:universal

TRINITY\_DN3271\_c0\_g1\_i1:218-1414(+)

MTRIIWHKIKSELIMPYLDLDCKYYDLGLPYRDETNDQVTVDAAEAILKYNVGIKCATITPDEERV  
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 GKFEMSFTPLEGSEKVTNVNVEFEKENGCGMMGMYNTDDSIKDFAHSCFNAYAIGKKWPLYMSTKN  
 TILKKYDGRFKDIFEEIFQDQYKSQFDALGIWYEHRLIDDMVAQCLKSSGAFVWACKNYDGDVQS  
 DTLAQGFGSLGLMTSVLLCPDGKTIESEAAHGTVTRHYREHQKGNATSTNPIASIIYAWTRGLAHR  
 AKLDGNPELEKFSNSLELACVKAVEEGNMTKDLAGCIYGLKNVKREHYLLTNEYLDAVRDKLLQ  
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>TRINITY\_DN1907\_c0\_g1\_i2.p1 type:complete len:210 gc:universal TRINITY\_DN1907\_c0\_g1\_i2:53-682(+)

MDMDTTFPLVISLLFSILCCSFAVELTFELPDNARECFHEEIHNA TKCTLEFQVVTGGHYDVDVSLK  
 DPHGKVLYDEKKKQYDSHTFEATVPGEYVFCFSNEFSSFTHTKTVYDFQSGDEPPLAPGMGKHHT  
 ALTLESSAVTIHESLKVIIDYQTHHRLREGTSRDMAEYLNERNVQYWSIGQSVIVVAMSIIQVYILRN  
 FFSEKRDRL\*

>TRINITY\_DN651\_c0\_g1\_i1.p1 type:complete len:408 gc:universal TRINITY\_DN651\_c0\_g1\_i1:122-1345(+)

MSGHQGGVKRSNDGGNASGGGGPKMRGDNVTFRFLLSKHAGGIIGKGGQTIKRLRTEYSAT  
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 GGFKIKELREATNANIKVFQECLPNSTERVVAISGNEDEIVNLLHKILEIMQEAPIKGNIALYDPSQE  
 AWNGPNDNFGGPPMNMGMGGGNRGGMRGGRGGGAGVGGNQGGRGGFQGGFQGG  
 QCGPGGPGGPGGPPGNFGGPNNNRGGFNGGPMGGNGNFNDDYRNNQNFYNQGPNGNQNG  
 AAPGGGTGNDFSIGDSQTTQVTIPNDLAGAIIIGKGERIRNIRQRSSADIKISDPIEGKSDRIITITGT  
 QEIQYYSQFLMQQSVRQYSGKPMK\*

>TRINITY\_DN165\_c0\_g1\_i1.p1 type:complete len:598 gc:universal TRINITY\_DN165\_c0\_g1\_i1:147-1940(+)

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 PSGDFSNIFFDDQKTHLVRLIVKPDNTFEIYVDKRRVNEGSLLHNFEPVNPPEIDDPNDQKPPDD

WDEREKIPDPDAVKPDDWDEDAPKQIEDPNAKKPEGWLDDEPELIPDPQTERPADWDDEEDGE  
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MKSIVAVGFELWSMQADILFDNLLVADDLSLADQWTLQTWDLKHTQEVNKEPGVVGGLWNNI  
QEATQERPWLWVIFVVLVLLPFVLIYFFCFGGKEDEYAIRKKTDEPTQDDDLVENSEDEPVEDKKES  
DPEATEESVDSKKEDEESGKENEIEITDEKTKSEVSPNDDNKVDTEKKLSEDSKKEEDESPPKT  
RASKRKTRKE\*

>TRINITY\_DN1319\_c0\_g1\_i2.p1 type:complete len:134 gc:universal TRINITY\_DN1319\_c0\_g1\_i2:86-487(+)

MVVPsAKRKIVKKRTKKFIRHQsERYKTVKQNWWRKPKGIDNRVRRRFKGGQYLMPSIGYGSNQKT  
RHLMPDGFKKFVVHNVKELELLMMLKGTHAAEIAHCVSRRKRIEVERANQLAVKVTNATARV  
RSEENE\*

>TRINITY\_DN1339\_c6\_g1\_i1.p1 type:internal len:570 gc:universal TRINITY\_DN1339\_c6\_g1\_i1:1-1707(+)

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FAGIVEGAFGVTDDYRNGTPGDYGWKVITSDDPAEKEKKLSAELANGRLAMVAIIGMFFQDGLT  
GSAGWDWALYTASPLRAFESLGVPVGFWDPAGYTNDGSMENFKRRRATEIKHGRVSMLAC  
MGYMTPEITGKLPGYLSPSMKVQFADIPNGLGALS KVPGVGWAQIFAYCAYCELSQDQSAASPGG  
AGDFGFKAITSSDPATLTRKLNAEIANGRLLAMMAIIGMFFQDGLTGSAGWDWALYVDSPLRFFGG  
GEASTYKTFDPATELGVQEPVGFWDPLGFASDGDEATFKRRRSVEIKHGRVCMASIGYIVPEYYK  
FPGFLSPSEGLQFADVPNGLAALS KVPALGWVQIIFAGIVEGAFGVTDDYRNGTPGDYGWKVITS  
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>TRINITY\_DN123\_c0\_g1\_i1.p1 type:5prime\_partial len:1231 gc:universal  
TRINITY\_DN123\_c0\_g1\_i1:2-3694(+)

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EPKDDMKNIKNFFKDPKVEPKNEKKPDTKAVTVKPEIKKESGPQNVTLDFNSELHLSIDADGL  
SAGNMKGEGFQYMWGGVVRGTHGVKKGKVCYEVYLLENIKVHCPGENNPHVLRVGSVDNSD  
YQLGEDKLSWGYGGTAKSSYDSKFLDYGKKYTVGDTITCYIDFESNPKAIFFMLNGEYLGVAFRFG  
NELGDKAVFPHTSKNMRFRVNFNGKEKPKHHVTNGFRMMQDIPVDQLVLPSPSPKTPKEAEIIM  
MVGLPACGKSFWCEKYAKENPDKKYYILGTNNIERMKVSGLTRKRNYHGRWEMLIKRA SLVLN  
KLFTVAKNNPRNYVLDQTNVYFTARRRKMESFAGYK KIAAVIINKPDVLASRTEKQQKIEGKMVP  
EGAVMEMKFNFTLPEKGPSFNEVWYLEETLPKAQELAANYRREGSNFKTKSKRKPESSPSQPESSP  
SSEKKPKLDPKIISRGFDKPFKPNNTNSPQQSTFKAPSPAQNANKTPNQDRFSKNEKSTSKVETNS  
DNSRSKAGNFNKGHDGNKSNERPFFSNTPDRGNASNRGNDSNRGNSSDRGNAPNKGNSSDRG  
NAPNKGNFADKGNAPNKGNSSDRGNAPNKGNASDSANKNSKNEKPKEESK KTPKRAIRGTL  
QLNSIINSEARKTENNSGNIRDSAQSGKNEKMGS LMDIDRTPQRESDSYQNLQSRNRDALSNQG  
GKNKESQSAGLMDIRNVPQGNQDYRGKAGILDSSRNTSQDYRGKPGILDSSRNTPDYRGKPGIL  
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QCGSGNRGGRGRGRSKHLGDVNKYDPVGNMGGYYSALKALPSVKDLIGNRSSFSYSTRIDEPSR  
FDQLYSSYEPYSFGRTQNANDSRSLNYSFGQTDSSSLERDGGYRDSQNSKDFLGSYQQRKDSSYS  
DNRGSQGGQRGYQDSSYNADGLDAKDQYQNDYQESYSSQKDKSSYDQNTQSSRSYNQETS YE  
ESSDYGRSRNQEQDEYARS GTYERGDTSYGTTDANRSSRYEDDLQESEPMDGNYSTQDYGRSSQ  
SSQRARIW\*

>TRINITY\_DN15847\_c0\_g1\_i1.p1 type:5prime\_partial len:166 gc:universal  
TRINITY\_DN15847\_c0\_g1\_i1:3-500(+)

NRQGATQYKMSEQTERAFQKQPTIFQNKKR VVGKESKGKEQRFSKSVGLGFKTPREAIEGTYIDK  
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LVTVGQCRPLSKTVRFNV LKVNKSTSAKKSFEKF\*

>TRINITY\_DN135129\_c0\_g1\_i1.p1 type:internal len:155 gc:universal  
TRINITY\_DN135129\_c0\_g1\_i1:1-462(+)



SSFSYMSTSPSRSMDISASSDEALTPGGTLIIRDNDVNDNRTSFYERLQEKDSFIAETSSALNTPQNSPRP  
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>TRINITY\_DN240\_c0\_g1\_i4.p1 type:5prime\_partial len:397 gc:universal  
TRINITY\_DN240\_c0\_g1\_i4:1327-137(-)  
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AKITDPGVPAYLKSKVNGADA EKAYAAFLEFKDVVKANQVSSAAAAPVPAAGGDKIGAAAQAL  
ADQSYFPLKSVDWTS DLYLKPLPGVSAAKALKAVDKAIVMGSAMDGNLLKAAASAHHQAGSI  
DAAGVTSAADYASVTAALGRAIASAPTSKVM DVYNAFAGIVEPSVPNTLFSKVDPLAANAAASA  
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>TRINITY\_DN240\_c0\_g1\_i4.p1 type:5prime\_partial len:397 gc:universal  
TRINITY\_DN240\_c0\_g1\_i4:1327-137(-)  
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ADQSYFPLKSVDWTS DLYLKPLPGVSAAKALKAVDKAIVMGSAMDGNLLKAAASAHHQAGSI  
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FYEFKDVVKAAQR\*

>TRINITY\_DN11643\_c0\_g1\_i1.p1 type:complete len:187 gc:universal  
TRINITY\_DN11643\_c0\_g1\_i1:1748-1188(-)  
MPAKGKLTQEEEVLLQDFSRVSKKSQALFYGNALMISVLPLWLFWKVHLMDPMSYAALFICGTL  
SAAYLVAFAYKNTKFALKHKVAQKREVAITREVNTELD SRPETK KLSRKEKDDRILWKKNNVADT  
EATTSFIFYTNTLYLFIIIIASFYVLR SFSPAVNFTLSTGMAAGTVALLSTGTQSS\*

>TRINITY\_DN333\_c0\_g1\_i1.p1 type:5prime\_partial len:384 gc:universal  
TRINITY\_DN333\_c0\_g1\_i1:3-1154(+)  
IFVKQIILSYRSRALITAKMDMRQLSPFIFTVIGFLLFITQECNAQRNNFC SHNGCRGIPLQTVPYLA  
RRVSLKASRKQGYPDNIMRIATWNISGIPVDRAVVNRRRRRPTGLCLSILKMGLTLFSLQGVDSEQ  
LKGLQQCLRSHVFLPNTLIGDGNLIGFRRQRRLVKHAAGQFYLSETPFERSKLRGASDYATCTWA  
KLSFANVVGKRNETVETAYSKLLGLLKHYSNQRGSSRRVTRLRKIYRYFTFYTVNVAKVDEENKA  
IAKEQM KICLSHLYNDIMERRRYPII VTGRNLN WESSFTTSNNVRTKNENFNLKNGMDDADMTYY  
TFSNIDKERN TKELKDYVTYNGFDSLLTAVLVNRN SERKKRNINRPVVSFLYHS\*

>TRINITY\_DN1744\_c0\_g1\_i2.p1 type:3prime\_partial len:141 gc:universal  
TRINITY\_DN1744\_c0\_g1\_i2:422-3(-)  
MPLSQDDWIKALSHISDADKLQATIKGSFYGSLGIGLLAMVCSVILGPFGLLIGGISGSIIAYRYMKG  
SYKPLSSVLTSLNPEQRALFFKEIENIRSQITVQDYLELILLQGHGGLLMKKELLKSTFEFVKKNFN  
MDVP

>TRINITY\_DN6390\_c0\_g1\_i1.p1 type:3prime\_partial len:1941 gc:universal  
TRINITY\_DN6390\_c0\_g1\_i1:5820-1(-)  
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QEICNSIYDIDKCVSKRLVHHFNKD KNECEEIMQADCGSESFTSSNQCQKRCIGNSDDKRETKVY  
CDQFCLNGGKCIGEVYCQCPPAYHTATCGLSYCNPSCGVGGKCVKTGEGKYGCQCFPGYKGVK  
CDKEDSKNMPVVKGLCLSAIKSVLTSPNTSFHDKPEEEKNYCLKYLFDESNC DKQRPFVNYTEE  
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LMTSVALLRPLNHTCYIRGKT NFITFDGKVYDLLSGCSHYLVHDS DTTSDFNVLHNDPKVNYNE  
KSKRKLEITADGKNVLLNQKVSSDRFFVQVDGRSVPLPYNDVPKIRQAGRYILVLTGDGV SIAFDG  
YEDISITVNDYYRTGDGGD HRLNGLCGNLDGNSHNDWLDFTGELRENV R DFAKVYQTDRSTCK  
MDNLSLKS LVYNPLHNDQEVFERAERHCDVINTDAFKPCHSVVSPEQYKVLCMQDYIKCNDDK  
RDDCVCSLSFYSRVCHKY GKD IKWRRANLCPITCQRNMKY YECGSACPKTCDNLITPTKCQTDC

VDGCHCPPDLYYDKSTENCVPRNLCSCYRDGIAYKHGVSRSFHCEECTCNGGSWECNKKDCEAT  
CDIAGDPHIKTFDGLNYQMYGKCSYVLVDHCHYGNTGIKEFEVIVENKNCNDDALYTSCVRHLS  
VNILQTNTRVSLDTAKDNNGTVLPVAFVNGKEGKEFRSKDYTTITSVGGRNIIFQYKVNQLKVS  
GHNAYVTVGHQFENQTCGLCGTYNFNKQDDFHTRSDTVEKSVTAFTQSWVYQSSDKVQDP  
SKCHTAKWETSEKPCQIYTNKAQYAKTQCSIIKPDGPFEDCHSIVPPGEYYSMCQDDACKCDDCYCH  
IVAAYAKRCTDLNIRVGNWRDETLSCQTCQAPKVLKQCNAIDSLDDDLSESLKCPSTCYELSQN  
DTSICQSRGCIEGCYCPEGYFENEQNECVKQDQCSCYHDGKVYRHDEIRKDRNECVCKGGRFE  
CTDFDCVAHCASKGLVYSDCGKTC SNFNFPQDSKQAGCFCPAGKVLHENGTCVNPQTECQC  
KEGDQFFDAGEVSPSDCSKVCNGDRSWKNLPGKDAKPQYDCSAFGQMHYRTL DGRMFKFSGG  
LCPIYVLLTDCRQDSATGFCDLTKANVNIHVRNLRVNSYEAYMCKEVTLDLRLPNGEMA EFLM  
QNKIKMKTGLVTKVFDKGSYPQPKTAVVDGVEIFKSGLYLVVRAYHLNITVKYDRQNRVYV  
PGR EYKDAGKLAGLCGNYNGLDDDDFRRPDNSNAENELQFAKSWQDSNSACPDPS  
ESDTCSSNKER LPWAQKGCNVMKTGNFTACHKT VSPPEFIESCQQETCLCKSGGDCACFC  
SAVAAYVQECNRHG VPIYWRDGLCKLDCCDPCGHSYGYTDNHVPNTCGVKDKVCKENDR  
CCKGAVVEGCGCPPG TYDDGIKCQNETTTNVI PCSPSSSIVPSTSISVPSTII EPVSSSSP  
SMTSSVESQSPSPSSSVVSPTPSSSII QSMSSSEIESISTSSSFVSSI ESSVQSSTSIVFP  
VVSSNSGESSVSSSMLPSTSWVGIHVSSSMGESSVST NVLPTDYLRTTDVFPLSSSEIT  
YPSSSSSLEHTPSSSILQESSSSVSKPVGISSVIEPEISSIRYSSMSSQN VMSSSVSSV  
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>TRINITY\_DN8707\_c0\_g1\_i2.p1 type:complete len:564 gc:universal  
TRINITY\_DN8707\_c0\_g1\_i2:2751-1060(-)

MSGFVRQSKYRHVFGSPARKDGCYEGFRVTNCAFDGNFIAANKHFIAVCVEVGGGGA  
FIIVPVGS TGRLDVNIPKVSASAHKEYILD LQWNPYNDFMLASCE DGTIKIWEIPEKGLFM  
NIGDEKALLSLEYH EKRCTQVLWHPASNVLM SVSQEPKVCVWNLDEGSVEVEILEHP  
ELIYNATWSQKGD KIGTTCK DKKIRIFDAREGTL LVQGMGHEGAKPSRVIFTQDKYLFTT  
GFSKM SERQYACWNAETIEQLGLEE LDTANGCLVPTYDADS QLVFLNAKGDSNIRYEL  
VDGDPYFYFYLSTYQSSAPQRGFGFIPKRCINV NANEISKGYKLHGTKTG YIEPV  
SFTVPRKSETFQQDLYPDAIGDEAALEPDDWFSGKNAEPKRIA MSTFFKGKTKPTGA  
AGGGLKKGGLKGLKAKKEAKTAAKSAKSEPAKPAPVKTESKDKVDAAP PAAAAVEQK  
SSSTAVAAPAAAAPVVVSGVDEKVVKELQNEIKSLKDGDKKLQKEIISLKD KLDY  
DTLRSDIKLLCD AVKKNDERITALESLVAEETDEEETGEGGDE\*

>TRINITY\_DN22492\_c0\_g1\_i1.p1 type:complete len:1026 gc:universal  
TRINITY\_DN22492\_c0\_g1\_i1:171-3248(+)

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VIPQ QDENNDTTDRQKHKEQVSPDAVESGMPPRYPLKAMSAEVS AHDNEIGGCRDHP  
RASRVCKNC GNRNFAAEHESYTSYCRKSCRHCDPELSSFHTFWRLRAASQFDPTWMV  
KEIEFY PKPTEYDNLA TDPQRAYASSYPGFKPSYAFDGNNKTSWYPSGWGLHDNND  
DWIGFEFPVAVRVHAIRMVLDE MHRTAAPQRIFVEASDKKDGPF TTWKISNPTYEVD  
NVYKLLQCPVLWRKFESDEGSWCFRLIAK FETWEVARNECTVEGGDLATIAATEE  
EKRFLTDELNLGGFAWIGLNHKDQAYYWQDRANSSYKN WKAGWSYSEVQKQNLNC  
VATDQDGFWYNFHC TNKYFVCKKKLEPQAAPREDLILKAWPYEP EIPPMIFLYPNIT  
VPVINTKNLEPGVFPDENGKVP EEEEEETTADDLFYEQTVEHLKEKGLKPSEEIS  
NDVDKEETDYTQQLNKIALKTQSRDDFRNETESDKLKFNSTEAVKQAKDLEE QKSV  
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NVGKPNTPVASPES PENTDFAQPGDTTFTTPTPTVQSGDPGNAEKS NPQKATNDQQ  
AGGQQPNQESGSNANQSQQVQ QQSQQQQPQQQQQQQAQNNNNNNQNGQQNASN  
QQNNNNNNNNNNQNNNNNNQQQNNQQQ NNQNNQQQNNQNNQQQNNQNNQNGN  
NNGGNNNDLPNGLP PVMGGPAPQKIPEPPAP KEGTKDNDSEKSVGGQADVMPDD  
APSNNDNDGGDET TTGNEENNDESNNNNNNNNNNMNV NNNNDNNQSRTL DKPLP  
NQGKNSSETVDKATNVGGTNKQENND FMKLQKAKPGIRTHKIGHK KSAGLKKTHM  
KNVVSPLKKVKTEKKINKQVKTVKKIKAVKV KHHKKALKKEVVIHKSEDEEE  
GSGSGDEGDQEDVDDILESITNGLW\*

>TRINITY\_DN956\_c0\_g1\_i2.p1 type:complete len:267 gc:universal  
TRINITY\_DN956\_c0\_g1\_i2:93-893(+)

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GRPYNTEYRLIIENLSTRCNWQDIKD YFRQAGEVTFAKCHREKMGEVGVFEFASYKDMKN AIRKL  
DDTDLFGKR I KLT YRGGSR SR SR SR SPRRRSRSPSGPPPRYSRSASRSPRKSLSRSPRRSPSRSR  
RSR\*

LGPDQVDVAGAGRDPRHLPRPLGRRLRVLDRHRGRVRQRHKAADQDPKLETARLDVRRPGVQ  
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 >TRINITY\_DN413\_c0\_g1\_i4.p1 type:3prime\_partial len:463 gc:universal  
 TRINITY\_DN413\_c0\_g1\_i4:1388-3(-)  
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 KYGVPSGKSFYRAMSWCNHKGSQLYIGDFNGDKRDDLLCHDTSGRYWTSYAGTDESKVFHHTS  
 WYKALEWCRHATSKLYLGDFNGDKKTDVLCCTDGKGYKWIMYAKTSGNLFTGTDWHTNLDWC  
 HESSTVFLRIGDVNGDGKDDLCHSTAGNSWVAYTQPKGGFGNFCHLAKWCAAGKESFFLGYP  
 NQDSRADILCHDTKYGKKWIRYAECFAEESDHCGYDGKSWHKAMRWCYHSGSRLLLGDFFNG  
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 >TRINITY\_DN55\_c0\_g1\_i1.p1 type:5prime\_partial len:104 gc:universal TRINITY\_DN55\_c0\_g1\_i1:3-314(+)  
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 >TRINITY\_DN104063\_c0\_g1\_i1.p1 type:internal len:181 gc:universal  
 TRINITY\_DN104063\_c0\_g1\_i1:542-3(-)  
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 GFGGVQELLQGHGGLRAPEGRVGAQVLLLDGKALARQPRLERFDRQRLERAV  
 >TRINITY\_DN26679\_c0\_g1\_i1.p3 type:5prime\_partial len:108 gc:universal  
 TRINITY\_DN26679\_c0\_g1\_i1:1-324(+)  
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 >TRINITY\_DN2230\_c0\_g1\_i1.p1 type:complete len:249 gc:universal  
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 RRLGPKRVGKIRKLFNLKEDDVRQYIIRPIATPEGKPPDKPKTKAPKIQRLVTPQRLQKRHRVK  
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 >TRINITY\_DN109115\_c0\_g1\_i1.p1 type:internal len:125 gc:universal  
 TRINITY\_DN109115\_c0\_g1\_i1:3-374(+)  
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 TRINITY\_DN73587\_c0\_g1\_i1:94-1692(+)  
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 RIVDTGNPISIPVGPETLGRIMNVIGEPIDERGPIETKSKAPIHTEAPEFVEMNVNQEILETGKVVDL  
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 IPSAVGYQPTLATDMGSMQERITTTTRKGSITSVQAIYVPADDLTDPAPATTFAHLDANTVLSRGIAE  
 LGIYPAVDPLDSNSRILDPNVVGEEHYQIARNVQKILQDHLKSLQDIIAILGMDLSEEDKLTVARAR  
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 EAS\*  
 >TRINITY\_DN751\_c0\_g1\_i1.p1 type:complete len:227 gc:universal TRINITY\_DN751\_c0\_g1\_i1:731-51(-)  
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 FLNMKANAAQYTRGMKKHHLMRMMNRYLVPSRSSADMKEVVDLKEFIEDDVEEHQEQQFFGL

MTQGGGGTTEAIFVYYKLRDDGKYNFKRMTFRGTFRLAADLVITHSSKSGFFSSESKDVINWLPRR  
GVTAQNVQELLDIIVPKLATVMSEFAPKDSI\*

>TRINITY\_DN1505\_c0\_g1\_i1.p1 type:complete len:154 gc:universal TRINITY\_DN1505\_c0\_g1\_i1:98-559(+)

MSLVIPEKFQHILRVMNTNIDGKTKIMYAMTSIKGVGRRFSNICLKKADIDMTKRAGELSDEEVER  
LVTIMQNPRQYKIPDYFLNRKKDIKDGGKFSQVLANGLDNKLREDLERLKKIRAHRLRHYWGLR  
VRGQHTKTTGRKGRTVGVSKKN\*

>TRINITY\_DN925\_c0\_g1\_i1.p1 type:complete len:261 gc:universal TRINITY\_DN925\_c0\_g1\_i1:826-44(-)

MGRVIRGQRKGAGSIFKAHVKKRKGAAKLRSLDFAERNGYVKGVVKDIIHDPGRGAPLAIVAFR  
DPYKFKLRKELFIATEGMHTGQFIYCGKKATLQIGNILPVGTMPEGTIICNLEEKSGDRGKLARAS  
GDYATVVSHNRDSKVTRVKLPSGVKKAIPSFNRASVGIVAGGGRIDKPLLKAGRAYHKYKVKRNC  
WPKVRGVAMNPVEHPHGGGNHQHIGFPSTVRRDTSAGRKVGLIAARRTGRIRGTAKVKDVGGD  
KE\*

>TRINITY\_DN165536\_c0\_g1\_i1.p1 type:complete len:249 gc:universal  
TRINITY\_DN165536\_c0\_g1\_i1:851-105(-)

MSEQEISNLVEQAKLAEQAERYDDMVKYMKELTEKSTEGLSDEQRNLLSVAFKNNVVGARRSAWR  
IIHSLEEKKGNEGGNTELISSYRKEIEKELKERCNEVLSLIDKYLLPSAQKEGQKGTGKVFYEKMK  
GDYYRYLVEVTTGEDRANLSAQSKAYDKATETATGLATTHPIKLGALNFSVFHYEIMNDGKKA  
CELAKKAFFDDAIAELDSLKEDSYKDSTLIMQLLRDNLTLWTSENDNEENDAQ\*

>TRINITY\_DN1283\_c0\_g1\_i1.p1 type:complete len:542 gc:universal TRINITY\_DN1283\_c0\_g1\_i1:81-1706(+)

MPRWNNKKQRAPEVFDSIADGLQKVYKEKLLPLEETYKFHDFHSPKLENSDFFGKPMVLLVGQYS  
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MNRFCCELPNPVLETMTFVDSPGILSGEKQDIDRGYDFTGILEWFAERVDRILLFDAHKLDISDE  
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IKNLGDIFKRVQMEHKISPGRFPNLERMQEYLKISDFSFKSTLKEGLIKNVDELLGHDIPRLIGMLP  
QETDDNMEAQKVKGGVFQNTNGDFNPFAAGAAEGFQLGSETDKWAVEMYGKLEEYNRLFESL  
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>TRINITY\_DN200\_c0\_g1\_i2.p1 type:complete len:551 gc:universal TRINITY\_DN200\_c0\_g1\_i2:123-1775(+)

MITARLARSLAKNAPKNLLKQYQGAGAVAAIIASRHVQTSKAASATAEVSAILERILKTSSQVQL  
EEAGKVLVSGDGIARVYGLKNVQAEEMVEFSSGLKGMALNLEPDNVGVVVFVGNDKLIKEGDVV  
KRTGAIVDVPVGEGLLGRVVDALGNPIDGLGPIPADNRARVGVKAPGIIPRTSVKEPMLTGIAVD  
SLVPIGRGQRELIIGDRQTGKTAIAIDTIINQKRFNDAQDEKKKLYCIYVAIGQKRSTVAQLVKRLGD  
ADALKYTIIVSATASDAAPLQYLAPYSGCAMGEYFRDNGKHALIYDDLQAVAYRQMSLLLR  
PPGREAYPGDVLYLHSRLLERAAMSDDFGGSLTALPVIETQAGDVSAYIPTNVISITDGGQIFLESE  
LFYKGIRPAINVGLSVSRVGSAAQTKAMKQVAGSMKLELAQYREVAFAAQFGSDLDAATQALLN  
RGVRLTELLKQGQYVPMDIGEQVAAYAGVRGHLDKIDPSKVVKFEEFVKHVKTAHQDLLDLIR  
KEGQISEATDAKLKEIVVAFMQSFE\*

>TRINITY\_DN7671\_c0\_g1\_i1.p1 type:complete len:123 gc:universal  
TRINITY\_DN7671\_c0\_g1\_i1:425-57(-)

MTSKRRNGGRNKNRGRHVRYVRCTNCARCVPKDKAIKKFVIRNIVEAAAVRDLSEASVYDGYA  
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>TRINITY\_DN1468\_c0\_g1\_i1.p1 type:complete len:245 gc:universal  
TRINITY\_DN1468\_c0\_g1\_i1:766-32(-)

MADSNKLPGPETLLKRRKTLEKVKAARAAAQLKTKKHLKEKRVKIFKRAEQYVKEYRSKERDE  
IRLRRMAKKAGNFYVPAEAKLAFVIRIRGINQVSPKVKKALQLLRQIHNGVFVKLNKSTLNML  
RLVEPYIAWGYPNLKSRELKRGFAKVNHRIPITDNQIENVLGEQDIICVEDLIHEIFTVGSNF  
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>TRINITY\_DN4595\_c0\_g1\_i4.p1 type:5prime\_partial len:1639 gc:universal  
TRINITY\_DN4595\_c0\_g1\_i4:5857-941(-)

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CKYQGNDYTRNQEVNIRTQACTVACDYTPWQDTQSCTKTCGGGVLVQSRTERAFNKVETRNGN  
TPCNTQVCSSELGPEQLRTCNVGQCGVNTGTQVVYRVCNAALCRYQGS DYTRNQEVNIRTQAC  
TVACDYTPWQDTQSCTKSCDGGVLVQTRIERAFNRVETRDGTTPCNTRSCASDFS AERLRSLNV  
NQCGVNTGTQTVYIVCNGNFCRYQGREYNINEEVNVRQQNCTIACDYTAWEDTTICSKICDGGV  
LEQRRLERAFNRLERRNGTTPCNTRACDSGFS AVL SRNCVNVNQCGVSNGTQLLYRCN GEP CIL  
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>TRINITY\_DN131028\_c0\_g1\_i1.p2 type:5prime\_partial len:104 gc:universal  
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>TRINITY\_DN59667\_c0\_g1\_i1.p1 type:3prime\_partial len:225 gc:universal  
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>TRINITY\_DN16120\_c0\_g1\_i2.p1 type:5prime\_partial len:232 gc:universal  
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>TRINITY\_DN1428\_c0\_g1\_i1.p1 type:5prime\_partial len:165 gc:universal  
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>TRINITY\_DN436\_c0\_g1\_i1.p1 type:complete len:116 gc:universal TRINITY\_DN436\_c0\_g1\_i1:74-421(+)  
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>TRINITY\_DN7112\_c0\_g1\_i2.p1 type:complete len:224 gc:universal TRINITY\_DN7112\_c0\_g1\_i2:79-750(+)  
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>TRINITY\_DN1378\_c0\_g1\_i1.p1 type:complete len:443 gc:universal  
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>TRINITY\_DN164351\_c0\_g1\_i1.p1 type:complete len:212 gc:universal  
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TRINITY\_DN10907\_c0\_g1\_i1:1010-393(-)  
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QERFHTITTSYYRGAMGIMLVYDITQEKTFDNIAKWLRNIDEHASEGVERMILGNKCDMEEKRM  
VSKEKGEGIAREHSIKFFETSAKENICVEEAFMQLTQDILRKHQAGATHEQSPSGVVIEKDSHNRS  
KGGMNCCN\*

>TRINITY\_DN138\_c0\_g1\_i1.p1 type:complete len:401 gc:universal TRINITY\_DN138\_c0\_g1\_i1:157-1359(+)  
MAARFLFITVILIVGNLIGDVCPCERNWIKIGCFHDIRFPNRPYPFELVNHRDPINNHWGDNLI  
NWRKYPDSIEKLACICANKTRTKGYQYFGLQFYGECWSGPSYNFHRDGPSTKICGNDFKPCDDSS  
KTECVGRAFTNYIYKLKDENPKVDGKWSEWEKWSPCSATCGYGERYRERFCSNPEPENGGQTCE  
GEAREYEECNHGEQTTCDKEIDFGIALDYSSSVRQVNVNRTLDFVVELSKGFNISPEKVHFGVLS  
FSHRTRFDFGLSDKTYWNSESFEKKIKSLEYRWGYTWTDKALKKKVKQLIFCEKCGLRKDSLKYLLV  
FTDGRSNNVKTDLKTVDSDIKDMGVNVISVGAGHTINHRELEEIATDDNHVFYVGGYAYLGDNM  
NAIRRLTCG\*

>TRINITY\_DN1320\_c0\_g2\_i1.p1 type:complete len:260 gc:universal TRINITY\_DN1320\_c0\_g2\_i1:97-876(+)

MRCLSMIFAILLVYLFQDVSSRACRDYVNYQCRKYLCHVPKYHRFVNMYCKATCGLCPVIHGLQ  
MSTMSTPTTTATTTTTTTTTTTTCTTTTTTTTTTTTTTTTTTTTTTTTAAATIVLLSGGKTISGTPEDAS  
GPAVRCTDGDVTTLCITTQAIDAYFQVDLGSQKKVSRMEIKNYFHYENQLELKFVSNVDVFATST  
ICDTWDVRSVNEGVDVQDKKRDCNSNVSSQTFRYARVQTVNNANEPEHLRVGEFEVYGVA\*  
>TRINITY\_DN164128\_c0\_g1\_i1.p1 type:complete len:166 gc:universal  
TRINITY\_DN164128\_c0\_g1\_i1:117-614(+)  
MGPKFDPTAITIVYLRVVGGEVGATSSLAPKIGPLGLSPKKVGDDIAKSTGDWKGLKVTVQTLIQN  
RQAKISVVPASAASLIKALKEPPRDRKKVKHVQHNGDISFETVLDIARQMRERSMARKLEGTVKEI  
LGTAQSVGCTIDGENPHDMIDMVNSGEKEVPES\*  
>TRINITY\_DN164753\_c0\_g1\_i1.p1 type:complete len:143 gc:universal  
TRINITY\_DN164753\_c0\_g1\_i1:491-63(-)  
MAQSSVQVFGRKKTATAVAFCKRGNGMIKVNGRPLDLVQPVTLRMKVQEPVLLLGKERFAGIDI  
RVRVKGGGQVAQLYAIRQAISKAIVAYYQKFVDEASKKEIKDLLVQYDRSLLVADPRRCEAKKFGG  
PAARARFQKSYR\*  
>TRINITY\_DN58867\_c0\_g1\_i2.p1 type:complete len:354 gc:universal  
TRINITY\_DN58867\_c0\_g1\_i2:80-1141(+)  
MVSLYGDMMFNIENGYLEGLVRGFRSGILNRTDYLNLICETLEDLKLHLQSTDYGNFLSNEAGP  
LTVSVIDEKLREKLVEFDHLRIQAVEPLSQFMDYITYSYMIDNIILLITGTLHQRSISELIPKCHPLGR  
FPEMASINIASTPAELYNAVLVDTPPLAPFFVDCISEQDLDEMNIIEIRNSLYKSYLESFSRCDLGGT  
NSEVMKTLQFEADRRAIMITINSFGTELNKDDRSKLYPKCGKLYPDGLARLARAEDYDQVRQVA  
DCYAEYQPLFEGTGTNPGDKTLEDKFFEYEVKLVNSFMQQFHFVGYAYVKLKEQECRNIVWIA  
ECISQRNKSIDNYINIFE\*  
>TRINITY\_DN598\_c1\_g1\_i1.p1 type:5prime\_partial len:745 gc:universal  
TRINITY\_DN598\_c1\_g1\_i1:2-2236(+)  
RWSGCSKSCGVGVKTKSRECDNPRPSGGGRYCTGERTATEACKIQDCGVDGKFSHWSTWTACSK  
TCGGGAQKRARQCNSPPPSGDGKDCAGAREEFKGCNSNDFCKGPTGVAKAQEIIERFLENFHKK  
YDPREPSGKFLKAIFAIQKAVAEFISVDVYVRSKTLEQRLKDLENFLKVATEGGSIDFARTLLGKGV  
FTFMKQKIKDGLPIDDIDKAAEGFLEKLRGDLGDKKMDIELSSQGDATLMFTIDTTGSMKQEINA  
AKAIAKQIISATRDYEVYILSPFSDPGTGPVTHRSASERASFVSDIDRLRARGGDCPELSFGGML  
NALNNDPQYGSPMFVFTDATAKDDTDANVASLKAADATDATINFFTNLAGCNGRRDRKRGIE  
SYKEIASYTGGQVFPLKNEAELIKFTSYVKTSLQQDVTITSGGTLNSKSKRSLYSMQARHFMVDDGI  
SKLVISVGVQQLASQVALVDPNGKKVYPSTTLALSILYQVSHPSPGQWKLDFTSVGKYSYNVQAV  
SSAIAFAHNFIYQQSVRKNSPPIPLANPLKGVKNMMVVRLLGGTKNFDLNSIKIDLVDTSIGNVLQ  
KGIGTDRLDSDEV RHATIDPPSGPFKVRLTGKTKSGYNFERVSQGISRPVSAAMRTNFAGYDFTAK  
LGKGPYAAQMLFINRGAHENFYFYAKANYGSIPNYKQTKRVTSQGFVTFTYKAPRQYNLKGKSD  
RITVTVKRQSTGEIVSHHTSILLVV\*  
>TRINITY\_DN614\_c0\_g1\_i1.p1 type:complete len:183 gc:universal TRINITY\_DN614\_c0\_g1\_i1:194-  
742(+)  
MGQMFGKLFSGLFGKKEMRILMVGLDAAGKTTILYKLLGEIVTTIPTIGFNVETVEYKNISFTVW  
DVGGQDKIRPLWRHYFQNTQGLIFVVDSDNDKERVTEAKGELAKMLGEDELREAALLVFANKQD  
LPNAMNAADLTQKLALHDLKSRSWYIQCATSGDGLYEGLDWLSTELKKKK\*  
>TRINITY\_DN4\_c0\_g1\_i1.p1 type:5prime\_partial len:586 gc:universal TRINITY\_DN4\_c0\_g1\_i1:2-  
1759(+)  
SMAEIVSVLFFHTMRYKVS DPRDASSDRFVLSKGHSAPILYAAWSLAGLPESDLMNLRKIDCDLE  
GHPTPRLSFVDVATGSLGQGLSCACGMAYTGKYFDKSSYRVFAVLGDGESAEGSVIEAANFASFYK  
LDNLVAIVDINRLGQSDPTSLGHELDVYQRRWESSGWNTIVIDGHDVEALCKAFFTAEEPSAKPT  
VILAKTFKGRGIPGIEDQMNWHGKPLGAKTDAAIEAIESCIVNKEINGEKVNSRMVVDAAPTD  
MSPITLSEKPNYSPDVKVATR NAYGTALAKLGRTSNKVIALDGDTKNSTFAITFQKEFPDRFVECFI  
AEQNMGVGVGICATRNRVAFASAFACFLSRAYDQIRMGAISQTQLKMAGSHVGVSIGEDGPSQ  
MALEDLAMFRAIPNCTVFYSPDPVSCERAVELAAANLRNMCYIRTSRPATVPVYSNDEVFEPGKGK  
VIRQSENDTCLLVGAGITLHECVKAHETLKAEGINVRVFDPPFTLKPFDNDGLIANAKACHGNVV  
TVEDHFPQGGGLGETVCGAVDMETGIRVKRLAVNGVPRSGPSSVLLDMFGISASHVVNAVKTAFN\*

>TRINITY\_DN932\_c0\_g1\_i1.p1 type:complete len:475 gc:universal TRINITY\_DN932\_c0\_g1\_i1:1940-516(-)

MGFKFLELLKPFISVLPEVSKPERKIQFREKVLWTAITLFIPLVCCQIPLFGIMSSDSADPFYWLRVIM  
ASNRGTLMEGLISPIVTSGLIMQLLAGAKILEVGDTTPRDALFNGAQKLFGMVITVGQAIVYVMT  
GMYGEPSELGAGVCLLIHQFCAGLIVLLDELQKGYGLSGISLFIATNICETIVWKAFFPATVNT  
GRGTEFEGAIIFHLLATRQDKVRALREAFYRQNLPLNMLLATVVFVFAIVIYFQGFRVDLPIKSA  
RYRGQYSSYPIKLFYTSNIPILQSALVSNVYIISQMLSAKFAGNFLVNLLGVWNEQGGPSRSYPIGG  
LCYYLSPPESLGQIGQDPVHALLYIVFMLGSCAFFSKTWIDVSGSSAKDVAKQLKEQQMVMKQHR  
EKSMIHELNRYPITAAAFGGLCIGALSVLADFMGAIGSGTGILLAVTIIYQYFELFVKEQSEQGGMS  
TLLF\*

>TRINITY\_DN11545\_c0\_g1\_i1.p1 type:5prime\_partial len:452 gc:universal  
TRINITY\_DN11545\_c0\_g1\_i1:1-1356(+)

LTFIESLRLSRFMYSIRSKLKEIHRLKSIRKMASLSSVGDNLKDVTLNGQNEVEENQVVNHLHVEAK  
DNKGIDYDKLIKQFGSNKVTD AQIEKIEKLTGKKAHFLKRGIFFSQRDLDFILSQVDKQKPFPLYT  
GRGPSSDSMHLGHLIPFMFTKYLQDAFDVPLVIQITDDEKFLMREHLSLEETYRLAYENVKDIIAC  
GFDKDKTFIFSDIDYVGNSSAFYRNILKVQRCVTFNQVKGIFGFTDGDKGKISFPAIQAAPSFSSSP  
QIFGDKSNIPCLIPCAIDQDPYFRMTRDVAPRLNLHKPALLHSTFFPALQGAKTMSSSDANSSIFL  
TDTAKQIKTKINKYAFSGGRDTIEEHREMGGDITVDISYQYLTFFLEDDDRLLQKIKEDYASGKMLT  
GELKKELIAVLQPLVAAQIERRKLVTDLVKEFMTPRPLNFKGVSKSMN\*

>TRINITY\_DN3052\_c0\_g1\_i1.p1 type:complete len:362 gc:universal TRINITY\_DN3052\_c0\_g1\_i1:45-1130(+)

MAHLSQEQRNELKKNAESIVAPGKGILAADESTGTGKRFAGINVENNEENRRLYRQLLFTADKS  
ISNYLGGIILFHETLYHKDDNGKPLVELIKELGINPGIKVDKGIVPLHGTNNEGTTQGLDGLAERC  
KQYKQDGTCTFAKFRVVIKINTPLGVPTDIAIQENAQVLARYANICQANGLVPIVEPEILIDGDHNL  
ATSQRVTERVLACVYKTLVDHHVYLEGTLLKPNMVTGQSCPEKASAEVGVATVKALRRTVPA  
AVPGITFLSGGQSEVEATKHL DAMNKTDLARPWALSFSYGRALQASVLKAWGGKKENVAEAQK  
VLLHRAHLNSLASLGKYEGENASGATGDSLFVANHQY\*

>TRINITY\_DN11662\_c0\_g1\_i1.p1 type:complete len:398 gc:universal  
TRINITY\_DN11662\_c0\_g1\_i1:75-1268(+)

MALSRPVYIIAAKRTAFSGSFGSGFKLTATQLGQKAAAAAIVDAKLDP SLINSVIFGNVAQSSDA  
AYVARHIGLGNDIPFASTALT VNRLCGSGFQAVVNGAQEVVLGEADIVLAGGTENMSQCPFAIRN  
ARWGINLGETREIEDTLWSALTDSFIQTPMGITAENLAEQYGITRLECDEYALASQQRWAAANDN  
GLFKAELIAPIEVKQKRKMVPVDKDEHPRAGITIEALNKLPPVFKKNGTVSAGNASGICDGAAALV  
LASEEACKQHNLAPLAKVVSYGISGVEPSIMGIGPCPAIKQALS RADMSLSDMAFIEVNEAFAAQY  
LAVEKELGLDRSITNACGGAIALGHPLATSGARILTHLVHTLKR TKENHAIGSACIGGGQGIALL  
ENVM\*

>TRINITY\_DN1065\_c0\_g1\_i1.p1 type:complete len:373 gc:universal TRINITY\_DN1065\_c0\_g1\_i1:53-1171(+)

MSGRGKVKAQRISLSKRAGTIFPVGRIRRLMKGCTHKFRVGIGAPIYQAAVMEYLAAEILELAGN  
AARDNKRRRITPRHILLAIANDEELNKLRLNVTIAQGGVMPHIQPELLRRKEGNKFSLP SNMKAK  
ALKAQNAGVQKAKAKPAPVKKAAAPAKKAAPAKAESKQAPKKAPQTNASPKKKSDQPWTVLSE  
KTLFLGQKFLVVQGNVADIKDAVVHPTNASFSTTGEVGKALIAAGGDDLKKAISELHKSHGDL  
QVATALLGDAPNLKAKHVHVHSPVWGTGNPEQDLENVVK SALT LADEKNVQTIAFPAIGSGA  
GFKKNVAAQLMVRMSNYFVDVSPSSIKNIYIFVTD AESIGFYTLELAKVDSS\*

>TRINITY\_DN10995\_c0\_g1\_i2.p3 type:5prime\_partial len:152 gc:universal  
TRINITY\_DN10995\_c0\_g1\_i2:3-458(+)

FWLKP RRPKAAGSPTLRDRGRPERVGACSLDRQGMASRSRALLSAVRASRVRRSGGFGSPRDHEP  
AWIENWNKDHRAGKDSL DWFFRAFNSTGIYEIFLKSSPRFYGFIIAGAGVLGGYYWSRMWDHIWN  
HINQKGKLYAHNPYVYPPPEDDE\*

>TRINITY\_DN5153\_c0\_g1\_i1.p1 type:complete len:862 gc:universal TRINITY\_DN5153\_c0\_g1\_i1:61-2646(+)

MSEKKEFHRLSRSVRPIHYNITLKPDLNFTFAGNEDIDLEIKKETKHIKVNSLDIKVSSAVLTVDSQ  
DIEPSDIRYKEDEETVTFKFSNPIPVGNAKLSLKFTGELNDKMKGFYRSKYTSASGEEKHMAVTQFE  
PTDARRAFPCWDEPAVKATFDITMIAPKDRVVLSNMDVKSEKDHAEDDSFKEVAFNTTPIMSTYL  
VAFVIGEFDFIETLENGVLARVYTPLGKTEQGTFAKITSKTLPFYEEYFGIKYPLPKIDLIAIPDFAA  
GAMENWGLVTYRETALLVDEKESSASSKQWVAIVVGHELAHQWFGNLTMEWWTHLWLNELF  
ASWIEYLCVDYCCPEYDIWTQFVTNDFTRALELDALSNHPIEVKVGHPSVDEIFDAISYSGSCV  
IRMLHDFVGVGDFKRGNSYLTITYKYANGETEDLWYHLEKASGKPVANVMATWTKQMGYPVLS  
VSAEYVDTQCILKISQKKFTADGSADPNQQRWAIPINIMTNDNPKFSTLMTDPEMVLFMENEPES  
NYIKLNPGQIGFYRTCYSDDLITKLPVINSLSVDRLGLESDLFALSIAGVSKTVDFLNILKGYKDE  
MNYTVWTDIDSNISLGVILQNTDNFELFKEYVIKLYKPISEALGWEPKDDDDHLTALLRNLILRRL  
GNYGDADTLAEGQRKFKAHVDGTELVNADIRSAVYSMVSKHGDEETVDQFINLYRNTTHSEEKT  
RILTYIGASYKSEVIEKSLKFSISDDVRSQDTVFALCSSTGSLNGRRLTWNFVKENWDDLKRYQGG  
FLLSRLISRTISNFATVEEANDVKTFEEHKAPAAERICQGIESIQLNNAWLTRDGESINQWLFQE  
N\*

