>At\_ATHAT1

MAQYQINVDSQLLHQLFLGNSQDAGVAKLLESVLNQVLQAQVSEQVEADRYERTENRKAYRNGSYPHGLHTRVGTITLSVPRIRGGKFTTELFSRYQRSEQALILAMMEMVVNGVSTRKVSQVTEELCGTEFSKSTVSDLCKRLDPIVTAWNNRSLADSLFPFVLVDAMYLKVREDGRVRSRGIMIAIGVNTEGYREVLGLMLGDTESEASWSEFFSSLKGRGLRGVDLITSDDHGGLVRAVRQQLQGVTWQRCQTHFTRNVLEASPKALKDEIHGRLRSILDAPDTGTARFLLKQTLAAYEDKAGKAMGVLESGFDDATAVLMLPERYRKRLRTTNSVERLNEEVRRRERVIRIFPNRESVIRLIGALLMEQDEKWAAG

>At\_ATHAT2

MEFLSSLSSQSPPSEASSNRSRMDSSPFPSNSDVGNEKVTEPESDAANKRKDVQEDSGATSKPPKTKKPSQRSFVWDHYTRFEDNPKRCKCNYCHRTYGCDSKDGTSNLKNHLRICKHYQAWSQKAKQTVFNNQGHLQSGKVNLYAPHSRRTCMKDIVKMYVGMKASLKTWIATTNPRVSLTTDIWTAKATVASYMVITAHFVDSAWKLRKLIIGFKYITDHKGATIARILLECLAECGIEKIFTITVDNETTNTSALKKFQETFSLRSNEAFVLEGEAIRNSVQYVRSSTSRCDSFDQKVVSGKMTRGSLPLDIKTRWNSTYLMLKRAMEFRLAFDKMEAEDKLYNDYFNEVDDGKARSGHLQELIGMQSRVASYKCYGEIVTIETNLVSLGNNFDRDLKIKAKAMLGKFVKYWDGTRNINVYLIVASVFDPRKKMQFANMCFAKLYGKDTTDAKEMAEKVNNVLTSLFKEYSSRFQKTSSGSGPSSQSTQTSITASQGEPSDLMSDSMGYERMDFAYKELVDEIGVDDGRDELDVYLKEKVENPKTIIGLEWEVLSWWKLNCGRFPVLSAITKDVLAMQVSSVASESAFSNSGRVIEPHRSCLTHYMVKVLLCTEQWMKNVNHLGNKSVVTIKELLADIVELDNIEKEFDGNSA

>At\_ATHAT3

AYQHKSQQAGNPNSFVSAVSFFREVKNSTRSEMDSSANPNNTESNTKGNEDEGRTRPIDNSKGKRKSDVADDGDSANPCKPKKKLQTRSWVWDHFTRKDGDDDQCKCHYYKRFFGCSTKSGTSNLKKHLDCCKHYSAWKGRQSQNVINQEGNLQSGKVSKEVFREATNEMLVLGQLPLSFVESVAWKHICSKANLYKPHSRRTATRDIILMNVARKASLKDLVSANKRRVSLTTDIWTAQATGASYMVITVHFIDEYWRLRKFIIGFKYIADHKGATISRVLLECLTEWGIERIFTITVDNATANTSALRKFQRALQSQRADSLVLNGDFMHMRCCAHIINLIVKEGLHKLGNHVEAIRNGVLYVRSSTSRCDSFEQKVVTGKMTRGSLPLDVKTRWNSTYLMLTRAIKFKVAFDKMEAEDKLYNDHFLEVVDGEKRIGPPTTIDWREVERLVKFLGLFYTATLVVSASSIVCSYKCYGEIVTIEKNLLGMTHSYDKELREKAVEMREKFDKYWDGQKNINRMLIIASVFDPRQKMEFAKMCFEKLYGVDTSEAKEMYNSVYDVMKAMLKEYTVIFKGPNTQSSQSNPPSSTAARDTFACELAEDSNVEFERMDRSYKEMVNEIRVTDPKDELDIYLKAEVENPKTLPGMEWDVLSWWRLNSQKYPVLSEIARDVLAMQVSSVASESAFSTSGRLLEPSRSCLTHYMVETLVCLEQWLKSEIKLSENTFLTNAQLLADIELLDKLEK

>At\_ATHAT7

MASNETLPPNDFDDVELSGNDDDDVVQHTPTSGNKRKRKEKETGDEGDGGNSSKKKKTSSRSYVWDHFSRKKGNPNKCNCHYCGKELACPSKSGTSTLKKHLELSCKAFKAWKSTNTDQTQTVIGRDGGDGSLTMYKVSELVIREASIEMLILGELPLSFIESVAWRHFCSKAKSYKPVSRRTTTREIVMLYVKKKVAMKKILGKSQERMSLTTDIWVSNNTGESYMVITAHFVDVDWKLKKMIIGFKHVTDHNCGTICKVLLECLAEWDIRRIFCITVDNATANNTALTKFKKTMKLIGDDALVLKGEYMHMRCDAHILNLVVKEGLTEVDASVTSIRNGIQFVRSSTNRLKSFDLRCDAGTISRGSFPLDVKTRWNSTYLMLEQAVKFRIAFEKMEAEDKLYNDYYLEKVDGEKKIGPPMSSDWDAAERLIQILAIFYKSTLVLSGSTYVTSHKMYNEIINMARNLTTLNTDTFFDEQLKKKAIAMLGKLKKYWDPFGEGVEMNRLVMVATVFDPRKKMKFVELCFGKMYGLGSVEVVLLSDSVIQILKDLYDEYSRANLLRINGGSDSMPSSQSQGSWSQSQEQDRSGAYERTINKTGIQLEDMENLFDEIVKETCIHKSSNELDLYLNEAVETPHLLMGIESDVLDWWKLNSGKFLVLSLIAKDIFAMQVSSVASESAFSTSGRVLDPFRSCLTHYMIEVLMCTEQWLKSEISINEKGLSTIHELLADQVDEDELMRGNLFPLNSL

>At\_ATHAT8

MLDQALKFRLAFEKMEAEDKPYNDYFAEKEDGNKRIGPAVTKDWENVDRLVQILEIFYKSTLVLSASNYVASHKLYNEIVSITINLGALTYDDDGLKDKAEAMLAKLAKYRDAFGEKVEFNRLVIVASVFDPRKKMKFAELCFERLYGQGSTKATQLQDSVYNILSDLFDEYTRNNLLNKSSTGTTGSSTQSEWSQDQVVNEDSERPVLRNGFLYENMKYEFDEIVKETGLHNTANEVDRYLKEPVEKPIILKGTEYDLLNFWRINNGKYPVLSLIAKDILAMQVTFVASESAFSTSGRVVNPFRSCLSHYMVEVLMCLEQWLKCEIHLNERGVSTIKQLLSEITLEDHLMRSKFRFSSLFLVITS

>At\_ATHAT9

MDQQSLERIALLEAENERTEMEMNAEVETQGQNQTESVTQPCQRAKRLRKKQRALCWDEFTSVGIEEDGKERARCHHCGIKLVVEKSYGTSTMNRHLTLCPERPQPETRPKYDHKVDREMTSEIIIYHDMPFRYVEYEKVRARDKFLNPDCKPICRQTAALDVFKRFEIEKAKLIDVFAKHNGQVCLTADLWSSRSTVTGYICVTSHYIDESWRLNNKILAFCDLKPPHNGEEIAKKVYDCLKEWGLEKKILTITLDNASANTSMQTILKHRLQSGNGLLCGGNFLHVRCCAHILNLIVQAGLELASGLLENITESVKFVKASESRKDSFATCLECVGIKSGAGLSLDVSTRWNSTYEMLARALKFRKAFAILNLYERGYCSLPTEEECDRGEKICDLLKPFNTITTYFSGVKYPTANIYFIQVWKIELLLMKYANCDDVDVREMAKKMQKKFAKYWNEYSVILAMGAALDPRLKLQILRSAYNKVDPVTAEGKVDIVRNNLILLYEEYKTKSASSSNSSTTLTPHELLNESPLEADVNDVSIIIYLNIFH

>At\_ATHAT10

MSSDSFRSNIGTPIEDVHNSTPAINTQESATEEQANTSSGKQRLNASDIFKVHFRKEKIDGKMKACCNYCNKSFFWKSGSGYGSYRYHLVNNHPEKYGGETQNATSANLSNFHYSDKRNREELAKCVAVDHLSFSFGEKLGFNNYCQKALNPQAKRVPRTTLTRTLKSLYRKTKKRFRMFVFLPNNVSICSDIWSDQWQIHHYMGITSHWLDSDWIIQKRIIAFRVFYERHTSDNIFKLIKIILEEYNLTNKIFSISFDNASANTASIDELINNCSPILGGKYFHVRCICHVLNLCVQDGLLVSQNNLISPIKTALNYLWGHPQLMKKWFRFCKMHNVSPKRFSRDVPTRWNSTYDMLVDSIGYKDLLCSFIQQNCSSLTLWPTHWDDCNALLKLLKCFNDATFLLSGVYYHTSHLLLYECVNIADVMHEHENNTVLSSCITSMRDKWLKYYREIPPLNLLASVFDPRTKFDGLYDYLVAYYDLLHLSDSINVPSIISNSRKDIENLYDEYYRLYEHLVPQGTESSLQNDMSSTSTLSLAERMRRRKRQRPSQGNNAELEKYLSTNFEFSDADAGNNFQIIHWWKSHQSQYPILAMIAKDVLSSPVSTVSVERAFSMGGQILDETRSRMSPDSLEAQACLDDWTRAGYRQQEFLRENEEELEDIDSDVSSTRSEDSD

>At\_TAG2

MNRHMRSCEKTPGSTPRISRKVDMMVFREMIAVALVQHNLPYSFVEYERIREAFTYANPSIEFWSRNTAAFDVYKIYEREKIKLKEKLAIIPGRICLTTDLWRALTVESYICLTAHYVDVDGVLKTKILSFCAFPPPHSGVAIAMKLSELLKDWGIEKKVFTLTVDNASANDTMQSILKRKLQKDLVCSGEFFHVRCSAHILNLIVQDGLEVISGALEKIRETVKYVKGSETRENLFQNCMDTIGIQTEANLVLDVSTRWNSTYHMLSRAIQFKDVLRSLAEVDRGYKSFPSAVEWERAELICDLLKPFAEITKLISGSSYPTANVYFMQVWAIKCWLGDHDDSHDRVIREMVEDMTEKYDKYWEDFSDILAMAAVLDPRLKFSALEYCYNILNPLTSKENLTHVRDKMVQLFGAYKRTTCNVAASTSQSSRKDIPFGYDGFYSYFSQRNGTGKSPLDMYLEEPVLDMVSFRDMDVIAYWKNNVSRFKELSSMACDILSIPITTVASESAFSIGSRVLNKYRSCLLPTNVQALLCTRNWFRGFQEVGNIHILNSFIIVNLYGFWTAAFRLIARFFLL

>Cr\_Gulliver

MEKRGTKLGANDNVFHPGAKASVWTKGGNKVMNMTLFNKHLLSKNHLDVIGAAKNHTKMSNIVEKQKVKLNPTLCSLIRSAYACGKDAMPLTHYVKMVKLQAANCADCKHDCKAHTCRKCDASKACGSGITISGPYHTAEKASEMLACLSEAISEEQLKNIRASPVISMMIDESTDRTVSHNLAVYITYVAPDDSIKTEFLQLEAMNNGATAVNIYDRLKEVFTESKIDWSKLVAFTSDGANVMVGKHCGVATRIKTDWPCVLTSHCAAHRLALACADFFKEFPALVKVDNMLSKIYNYAKTSTVRTAALNDMYKERKAKAYKILKPHTVRWLSRSECVRRIKITYPILLAFFNERKKDKKDVAAAEIYEWLRQVDNLLLITCIDGVLAATAELSKWFQQSDLALVDVHQYLELGLRHLINAYTYHKEGETSNAPPSFTAPIQALIKDLAAKDGVFHGHQMVLTTPPTTIAPATTTTATTTAESDSDNDGSDTNTDTTAESGSDDDDTAPTAPSWAAFPQTLFRSKLALSSMVKKLVENIKMRFPADVSVAAKFGVLGPRALAADSGVPKYGEEEVAALAQHFKPVLGDDCLLAVDQWVMARARLIAVAKEQKKSGDVMKARPFYERLLSWLSGMGRELTVLVQIMLVLQPSTAEVERGFSAMNDIKTPGRASMKLGTLDVLMRVRLVGPPIAYQQRPVAGVSLAPYAEFDATLLGPAVQKFAAKLGRVPQRSSHNARPSRVKHRVCEIDVKALLKEAEEEAVQNVDVSC

>Hv\_HAT-1

MASEPQEIMGIEASAPVPTSTLIVAGAVLTNMEKASVDGELQAGETEKRDGGKAQVVEVEKKDGRRQMVSRSEMWNHFEKVMMDGVLQKGKCNYCKSDISAHPVINGTSALRKHFNICKRNPHRNIGDDKQAVLQINQGDSVHAWKFDPDAIRAAFAEMIIEDELPFAFGEKSGFKKFMSKACPRFSVPSRRTCTRDVVRAFFEQKAKLKLFFKGQCERVCLTTDGWTSQQQDSYMAVTAHFICNEWKLHKKVISFFKVNGHKGDDIGKYLQKTLIDWGIEKVMTITVDNASNNDGGIGYMKKELNKAKTCIAGGKYLHMRCAAHIVNLIVTDGLKELDVSIKRVRAAVRYVKNSPNRLTKFKECADLEKLDTKAFLILDVSTRWNSTFFMLKAAICYEKVFARYADEDPYFAVDLLSDKGKDKGVGVPDEQDWENVKKMADFLGHFAELTTRVSASLHVTANKFFHEIGEVNLLVRSWMESEDGLQIAMAERMKDKFDKYWGNWHELDTSKKGKEKENFNLLIFIATTLDPRCFIYIIAPQIEVGTLLLHLRYKLSEYTQFAILEMYGEDKGPKVCTAVSTCLRDLFEEYRVMYGPNIPSYETSASHEVQSSGGRVSMMKSLIAKKMRLNSGGSSSSKSELDKFLAEEPEDDGPKFDILDWWKINSSRFPILACLARDVLAVPISTVASESAFSTSGRILDDFRTSLTPFMVEALVCTQDWLRYGTYINIAENTEELTKLEQGNLI

>Mt\_HAT1

MLQELQSVCASNMRDNDIDSSGSHENMCVDGEIESQAREIPLVPPIDQNAQEVSSDPKDKKRKGKAKAKDKSKGKALTSDVWLYLVKVGIVDGVEKCRCKACHKLLTCESGSGTSHLKRHVRSCSKTIKNHDVGEMMIDVEGKLRKKKFDPMANREFLARIMITHGAPFNMVEWKVFREYQKFLNDDCVFVSRNTIAKEILNVYRDEKQKLKSQLAQIRGRVCLTSDCWTACSNEGYISLTAHYVNVNWKLESKILAFAHMEPPHSGRDLALKVLEMLDDWGIEKKIFSITLDNASANNSMANFLKEHLSLSNSLLLDGEFFHIRCSAHILNLIVQDGLKVVSDALHKIRQSVAYVRVTEGRTLLFSECVRIVGDIDTTIGLRLDCVTRWNSTYIMLQSALVYRRAFYSLSLRDSNFKCCPTSEEWRRAEIMCEILKPFFTITNLISGSSYPTSNLYFGEIWKIECLIRSYLTSEDLLIQKMAENMKVKFDKYWSDYNVVLAVGAVLDPTKKFNFLKFAYEKLDPLTSEEKLKKVKMTLGKLFSEYIKNGIPSNLSSSQVQPSYGGGTRITSSSYDVSSYIFSLFYSFINYL

>Mt\_HAT2

MQENMDVDDVPTNAVENPIDVDSDHDLQGEAAGDVGKNRKRSRAWDHFVPDGKRAKCIYCNMTYAAEGNTHGTTNLNKHYKKCPKNPNRVIDKAQKTLVLGKQVEGDSNVSFKLVEFNQLECRMELAKMIIIDELPFKHVEGVGFKGFMSRAQPRLKIPSRVTVAKDCMELYKEEKVILRSLLSLNQQMVSLTTDTWTSIQNMNYMCVTGHFIDEGWELQKKILGFGLIANHRGDTIGKALEKCLKDWGITKLCTVTVDNASSNNVALSYLTRNMSAWNGNTLLKGEYMHLRCCAHILNLIVFDGLSLIDSSISKIRAACKHVKSSPSRLALFKVCVKDANISSSQKVVIDVATRWNTTYLMLEVASKYEEAFNRLEGEDPSYVSELEVVGGTPTVYDWNRARVFINFLKIFYDATLTFSSSLHISANCFFRKLVKIHTALSSWIQGEDVVLKNMALTMKAKFEKYWSDENINYLLFVAVYLDPRYKMEYLDFCFGWMYGVEKAKMIIAKLHELIGKLFDYYKSVQPIGFVSSDSSSSSTNTMQSDVVTFGVGGNVDMDALHRRRVKRRQSEHNSSELVRYLEDEVEDDYEGFEHLKWWKSKSTKYIVLSLIARDILSIPISTVSSESAFSTGGRVIDPYRSSLKAETVEALICTQNWIKPVTRSVLDESKAFDVLEFETGINCFLAFIFLFYLLVLFLHCLFFYVIRNVIFEWSRGVCS

>Mt\_HAT3

MSSQANEEPTQAGANTTQAEANATQEEETQAEPIVGRKRKKTSVIWKDFDEKEITKGVFRAVCKHCKAQYTTGTVGSSTSQMKRHLVSCTAKKLQDATEKRQAAIPFKRVSSGNPFLTSGVGYSNERMREIIATAVMVHEYPFNVVEDDVWMWAFEYANPEFRKVTHKTTRSDCLKLFENEKKILKKQLESVSKISLTTDMWKSSHQVVEYMVITGHFIDAGWNLQKRVLSFVKVPAPRRGIDVADAIHKCLKTWRIESKIFTVSVDNAAYNDLCLKYLKDNISMSRKLILNGDLFHVRCCAHILNLLVQDGLSKIKDIIFNIRESVKYVNHNDARLKNFCDVVEQKGLKERKLVIDCPTRWNSTFNMASTALKFKIVFSAYKEREPHYDHAPSFEEWDKVEKVCKLLEVFNSATHVISGSFSTILSFNITILNVGSEYPTANLYLPEVWRVKQVLDMADEDEDLFMREMAKPMKKKFDKYWGESNLLMAIASVLDPRCKFHSVCICFPKIYKSKEVSDENIEKVRRSLELLYDEYVALSLEESYLMPAVNLDNSSSSQTNVKNATGIDDLLQTIREQQAISPTKSELQDYLDQGVHVVPNSESFSALEWWRNNSMKYKILSKMAADILAIPISTVASESTFSAGGRVIDEFRSRLNEESVEALICGGDWFRHKYGVKNKSKVILCHDILLIFIHIFIWYCLVQ

>Mt\_RAHAT

MKFQRIDSIFKRKAVDIQKDEVIISSSEPEQVHENPRIEENESRPSKINRVDPDDIENSLERDPGKCIPIYQYPPNQKDAIRRAYLKWGPYQSNLENYPMSGIGKAQRRFQNSWFSLFSSWLEYSPSEDAAYCLQCYLFSNKPSGRLGSEVFISTGFRSWRKVRNGENCSFLKHIGKDPRSPHNNAMKACQDFLNQDGHLRNVIEVQSSSQILNNRLCLKTSIDTVRWLTIQACAFRGHREGNKSRNQGNFLELLKLLASYNDEVAKVVLKNAPEKCNYTSHQIQKEILQILSSRVRKHIREEIGDSKFCIVVDEARDESKKKQMALVLRFVDKAGLIQERFFDVARVNDTASLTLKEAVCGILSRHNLDVSNIRGQGYDGASNMRGEWNGLQALFMKDCPYAYYVHCFAHRLQLALVTASREVASIHKFFEKLTFVVNVVGSSTKRHDELQAAQAKEIENLLETGEIVTGKGKNQVGTVKRDGDTRWGSHFNSICSLISMYEATCTVLKIIAKDAKKFAQRADADSSYNHLKSFDFIFILHLMKEIMGTTDLLCQALQKQSQDVVNAVILVRSTKALIQDLRENGWDKLFANVVSFCEKHDIEVPDLNDCHSTTRFGRSRLEENQVTIEHYFRVEFLFTTIDKQLQELNSRFSEQAMDLLTLSCALSPEDGYKAFDINTICTLVEKYYPMDFSDQEKINLPFHLKHFLFEARESSTLKNLSTIQELCSCLAAAVPANGQPKKHLLLDRLLRLVMTLPVSTATTERSFSAMKIIKSKLRNKMEHGFLANSMSVYIERDISECISSESIIDDFKSLRKRKVRL

>Mt\_SHATAG

MASSEAPTQPSAEASTQESQTQRNVRAKTDIAWGHAKIVLDGDKEKPQCIYCNKVMKGGGINRLKLHLAGETGQVEACSQAPEEVRFKMKQNREEQTQREQPRSVVVASQKGTNNGSFDNYFLPRTTPGSQPTIKSVLQTKEVVEKCDLALAKWFIAASIPFNAANSPYFQSAVDALCCMGAGYKAPSIHDLRGPLLNKWVDETKKKIEKYREIWKNTGCTLMADGWTDGVRRTLINFLVYCPKGTVFIKSVDASGASKTGEMLFKLFKEVVLYIGSENVVQIVTDNAANYVAAGRLLMKKSSLACIGLLVQLIALT

>Mt\_METRAHAT

MFSVMESISQNLSSTLTSGSANVAEPTEQVAVATQVPVVGLPPLPCLAKRRKPNAGGPRRTSPAWDHFIKLPDEPEPTAACIHCHKRYLCDPKTHGTSNLLAHSKVCFKNPQNDPTQASLMFSNGEGGTLVAASQRFNPAACRKAIALFVLLDEHAFRVVEGEGFKLLCRQLQPLLTIPSRRTVARDCFQLFLDENLRLKTYFKSDCVRVALTTDCWTSGQNFSYMTLTAHFINNDWKYEKRILSFCTVPNHKGDTIGRKVEEILKEWGIRNVSTITVDNASSNDVAVAYLKKRINNMGGLMGDGSFFHLRCCAHILNLVVGDGLKQNELSISSIRNAVRFVRSSPQRSAKFKECIEFARITCKKMLCLDVQTRWNTAYLMLDGAEKFQPAFEKLEGEDSGYLEFFGEAGPPSIHDWENVRCFVRFLKIFYDATKEFSSSQEVSLHKAFHQLASVHCELKRSAMNLNTVLASMGSDMKQKYNKYWGKIENINKLIYFGVILDPRYKFSYVEWCFNDMYGDQPTFFTDLIAVIHTQLFKLFNWYKDAYDQQHNSGHPSASPSESSYVSENVIPAEVPSHLARAEAFKEHLKLKESIVKKNELERYLDEERAEDVNFEILLWWKQNSCRYPVLSSMVRDVLATPVSTVASESAFSTGGRVLDTYRSSLNPQMAEALICAQNWLKPTLNQFKDLNINEEFELSATVVSGI

>Ta\_HAT-1

MYKKKLPFNAINDDDFKQFCEALGRYGPDWKQPSQYMIREKMLVQEVERTRDLLKPHEVERADTGCSVMTDAWTDKKKRSIMNLCVHCKLGTVYLGSKEVSADAHTSLYIFNYVDECIEKIGAKNVVQVVMDNASNNMGEKVMLKDKRPKLFWTSCATHTINLMVEAVAKLKHFGSTITKAKEMTTFLYAHHTTLVLMRSYTKKRDIVRPGVTRFASAFLTLQSLDAKRKQLKEMCCSDTWEGCKHTRTKKGQVFEPLVKILRLADGDGQSMASMYGEIIEAKKAILVAVDNSDKDYKAITTAMESKMNGRLDTPLHIAAYALNPYYSYATTSMFTNVEVMSDLMEVIEQFYLDDDEKQNKVLNIDLPKFKKKERMFGKVVATKAISNANFNAGEWWATYGLQTPTLMHIALRILNLTTSSSGCERNWCVFEQVDAKRRNKLDVHHRDDLVYIQFNGRMIDKRKEYSSSCDVLLGEDAFMAQDWICEGAYVDAMEEVDAMGASEFVELHRSSRVRELHEVEEFVSDGEESDHGLVNEDDIEFKSDDDGVIQGANEDEEGDPMEP

>Pt\_hAT-1

MSLDKYFKRKSLEDEESIKASSHVTQSSSKKSHIEINPDTLLADPGLRRPIYEYHINDRDAIRRAYLQKGPCQPSHCDFPQKQFGNISTLRRFNPAWFGAYPTWLEYSIAKDAAFCLYCYLFKSKGGVDSFVGDGFSNWKKKERFDLHIGKSNSSHNAARIKCENLMNEKQSIMTLLSEQTVKSQSDYRTRLNASIECARFLLHQGLPFRGHDECECSSNQGNYLELLHFLSRNNEAIKRVTFSEAPRHNKLTSPDIQKDITQAAAEEITNVIIKDLGDSLFSILIDESRDISIKEQMAVVLRYVDNNGHIIERFLGIQHVRDTTASSLKAAIEALFSKHGLSISRLRGQGYDGASNMRGEFNGLKALILNSNPSAYYVHCFAHRLQLTLVAVTKKHNEVGDVFNFISSIINIVGASCKRMEVIREKQYARIIEGLENGEISSGRGLNQETSLRRYGDTRWGSHYVTIIRLLAMFSSVLDVLEIIREDGMNSEQRTEAVVLTDIMESFNFVFMLHCLRRILAVTNEFSQALQRKDQDIENAMSLLKTSKERFKMMRENDWESLLEEVSSFCIKHDIDILNMDDEYKLRGRSRRKSQGITNLHHFRYELFNNIIDMQLTELDDRFTETSTELLLCVACLNPSDSFSAFNKEKLXRLALFYPSEFSIVDLMVLGDQLDTYIIDLRGDDEFSGIEGIASLAEKMVKTKKNLIFPLVYMLIKLSLLLPVATATVERVFSAMHIVKSRLRNRMGDKWMNDSLVVYIEKDIFDKIDNEAIMKRFQNMKTRREQL

>Pt\_hAT-2

RSEQPPFKSQRVEIDVNTLERDPGLRIPVWKHPINQQDEIRRAYIKMGPYQPKLAEYPRTESGRQYRRFQYTWFDQFPWLEYSPSKDAVFCFPCFIFENKVPRHLTFTTEGFRSWKRVNDGVRCALLMHVGSPTSPHNNAVKSAEDLMKVSRHIDKVLNAQTVEEVQKNRLRLMTTIESVRWLSLQACAFRGHDESSASNNRGNFLEMIRLMGRLNVDIDDVVLEKAPKNAKYTSPTIQKEILHILANKVRKKICEEVRDAKFCILVDEAKDASNKEQMAIVLRFVDIQGFVRERFFGIVHVSDTTSSTLKKEICDVLARYNLHIFNMRGQGYDGASNMRGAWNGLQALFLRDCPYAYYVHCFAHRLQLALVAAAGNEISIWLFFSKLTTIINLICASPKRHTELHYAQAIEIAHMVATGERETGRGANQIGNLHRSGTTRWSSHFDSICSLIDMYGATITVLESMVQEGSSNSIRGEAGGCLIVMKSFEFIFILYLMHKIMGITDLLCRALQQKSLDILNAMDLVSTTKALLQTLRDAGFDLLLANVQSVCTKYEIDIPHMNASYKKATGRSCQQQGSVTVYQHYHYDIFNSTIDFQLEELNSRFSDGTVELLVLSSALEPKDNFKSFKVDAIYKLAEKFYPEDFNEQEMYYLRSQLEHYQIDVIHHESFQNMSTISELCRGLAETNKSQHYHLIDRLIRLVLTLPVSTATTERAFSAMKHVKTVLRNKMKEEFLADSMMIYIERELVEDIDSDSIIDEFYSTKHRRVQ

>Pt\_hAT-3

MENLQNQNASSTGTTPTSTNAPTSNTNPTSTTAGSTTDNKGKQPQVLTSRKRNVDDKKKSQIWDHFTKLDGDPKTPRAECNYCGKDYACHTIVNGTSNMWSHLKVCKKFPFVVDKKQKVLVLEPKKEEGESGDRNVGTLKAIGYNYDECRQALAKMVIIDELPFNFVEGKGFRLFSRTMQPRFDIPSRFTVMRDCLKLYVEEKERLRTALRGQRLCLTTDTWTSIQNINYMSLTAHWIDNEWNLHKRILNFCQVSNHMGETIGQVIENCLLEWGIDKLLTVTVDNASSNNVTISYLKNVMKDWPTNILSNEHLHVRCCAHIVNLIVCDGLKEINVSVVKIRNAIRFVRSSPSRQLAFKKCAEKLHIECKKSLCLDVATRWNSTYLMLEAAEKFEKVFVRLGESEPRYMSYFLEVDSKGNKKNIGPPSLEDWENARTLVKFLKIFYMVTLRFSGSLHVTSNSFFNELIYMHTNLLQLCKSRDNLLSGMAMNMMLKFEKYWGCEANQNFLLYVANVLDPRLKLKYVKFCFGELYDYDKAQLLTKKVKDNLVSLYEFYLKADEVVDDNRHKQDVNDAIDDVEVDVNTLARFKRHLQEEDSVENRNEVERYLVDGCEDPNDDKLDILGWWKSNASKYKILSKVAQHVLAIPISTVASESAFSTGGRILDQFRSSLSPATVQALICCQNWLHHGPIPTDIRTLMNDFETYENLESGNFSYKLTPFI

>Pt\_hAT-4

MMELLASYNEQVGALVLGNAPQNAKYTSHQIQKEILHVFARNVQSSIRHEIGDARFCLIVDEARDESRREQMALVIRFVDRSGFIRERFLDIVHVKDTTASTLKEEISFVLSHHNLDVQNIRGQGYDGASNMRGEWNGLQALFINDCPYAYYVHCLAHQLQLALIAAAREISDVHTFFQNLIFIINIVSASCKRNDELRAFQAATIEHLVDIGEIETGKGVNQVGGLQRPGDSRWSSHFKSICSLIKMYGATCLVLENIALDGSTYSQRGDAAFSFKLLMSFDFAFILHIMKNVMGITDVLCQALQQKSQDILNAMHLVTTTKTLIQKLRDDGWETLLEEVTSFCKHQDIEVPDMDACFSSVGRSRRKKKSVTVEHHYRVDIFTAIIDQQLQELNNRFNEQAIELLKLSTTLDPRNSYKLFNVEDICLLVDKFYPEDFSDQEKIHLRLQLQHYELDVPNHPKLKNMSSIADLCQGLVETEKSTIYPLVDRLIRLILTLPVSTATTERAFSAMKIVKTRLRNRMEDDFLANYLIVYIEKEIAERFTIDMIIDDFYSMKERRAQLK

>Pt\_hAT-5

MSSHDGSTPSSDPSTAQSSQPSISMSSGSRGRTDLAWGHCREAPELSVGCKKTKLVCLYCAKVFAGGGINRFKQHLAGAKGEVEQCRKCPPDVRHQMLLNLKGNAETKKRVREMQADFNPFNAQQREHEEMMIRQLEDDDDGDDEEDDEDVNTKKHMLPPKVAKKKKIQSTSTVKQSTTSYGKQKKSATLGTYFMPRTTPGAQKSLQNCWQRKEAVERCDLALAKWMIDACVPFNAVNSVYYQHAIDAVTAMGPGYKGPNLHAIRGYYLAKAVDEVKIYVETYREIWKKTGCTLMADGWTDQKRRTLINFLVYCPKGTVFLKTVDVSDVSKTARLLYQLFREVVLYVGVENIVHMVTDNAANYVAAGKLLMEEFPSIFWSPCAAHCINLILQDIGKLQSVCCVVEHASGITKYIYNHCYPLYLMRKFTGGKEILRPAPTRFATNFIALQSILAHKDELRAMVTSREWVSSAYAKDSKGKKFVESVLDSLFWEECAIIVRMSEPLVRVLRMVDGDDRPSMGYLYDAIHHAKEEMMRRFQKRKARVKPFIDIINNRWDGQFYRNLYAAAFWLNPRFQYDANIMDKHMSTISGLLDVLEKYAHGNLPLQSKITSEMKLFRNAEHDFGRASAINNRTLMPPGI

>Pt\_hAT-5

BMSSQHGSTPSSDPSTAQSSEPSISISTSSGIRGKTDLAWGHCREAPELSVGCKKTKLVCLYCAKVFAGGGINRFKQHLAGAKGEVEQCRKCPPDVRHQMLLNLQGNVEKKRRAREMKADFNPYSAKQREHEERMIRQLEDDGKGDDDDDDEADGKKQMLPPKVANKGKSKITSAVKQSTASCGKQKENATLGAYFIPRTTHGAQKSLQSCWKNKEAIERCDLAIAKWMIDACVPFNAANSVYYQHAIDGVTAMGPGYKGPNFHALRGYYLAKAVDEVKIFVESYRETWKKTGCTLMADGWTDQKRRTLINFLVYCPKGTIFLKTVDASEASKTAVLLHKLFREVVLFVGPENIVHMVTDNASNYVVASKLLVEEFPSIFWSPCAAHCINLILQDVGKLQSVCSVVDHASSITKYIYNHCYPLYLMRKFTGGKEILRPAPTRFATNFIALQSILVHKDNLRAMVTSREWVSSAYAKDSKGKKFVDSVLNSMFWEECASIVRMTEPLVRVLRIVDSDDRPAMRYLYEAIHSAKEEMLRRFQKKRAKVQPFIDIINNRWDGQLYRKLYAAGFWLNPRFQYDVNLMDRYTNTISGLLDVVEKYANGNAILLSKLTSEMKLFRNAEHDFGRVSARNDRTLLPPGILLFSYSKMENQGSKRGKTMFSFFKPNEQTSTSKGHSPSNVDVSN

>Pt\_hAT-6

MASRKNASGNRLDVGWQHGIDVDKNSRKVLCKYCQKIISGGIFRFKQHLACTRKDVEPCQQVPENVKQMILGVLVKNLEATEKKRKALQYSGNDDDDDEIKEISSKDKGKRVASGSGSTQTTLNQLLKKDIREEACRQIARFFYTSAIPFNCVKNPEFIKALEMVAKHGPGFKPPSYYDIREKYLKQEVDQTMKLLEEYKLEWKKTGCSIMSDGWTDKKRRCICNFLVNSPKGTVFLSSVDTSNMSKTADKVFEMLDAIVERIGEENVVQVVTDNAANYKAAGQLLMEKRKSLFWTPCAAHCIDLILEDFEKKLEVHQVTIAKGRRITSYIYSRTILISMLRHFTKGRDLIRPAATRFATAYLTLGCLNDHKMQLMTMFTSNQWSSCRFARIEEGKRIQNCVLDSRFWHDVTICIKAAFPLIKVLRLVDSDEKPAMGFIYKAMDEAKEKIQVNFGSVKKRYISC

>Pt\_hAT-7

GVFKKTDPKKPRKPMENPRKPNRDGKPIKPIFKTIKSCRFGSVSVPPKPVNRTGSINNAVNQAPLTLSEAAAHTKERRRFIAFSLLHPPCPPXLLTLPLQFSSSLRLAPCICLFSSXISQQPTSPHPSSILAAEKKPEQNPLASLFTCSRKRGLLHRKGGKVKFILVCLVLLFVSNFDASLTSASHFSILLQLGFLHLSXDLCSFRFAPLSPALSPIFLLICVDIELLIALCHCLYVSVYLDCFDLYYRFFYAVVLSIICLYVPVVLSVLLCLAINLLFCCINSGHCLQVFEFVLXSVYLHICCXLAVTFILFNVHVRSVTVLSKWIWTVLIALXEXGCASIHAGDNYSMKIISLQCIGLGVRCVGLTCVNXHVLSVFCNIALSFIFRIEIGPLRTFCNNWSITDFQVHXMCNLQYAGFLERGDRCLFAIITHDAHCSTSAFSIVVKCFMLLFFFQMDNREDPTPNESNPSSSEPNSSPIPVPVTTSSTNSNTEEGNPASRCNKRKTSQIWDHFKKLDGNPKAPRAACMYCGKDYACHTILNGTSNMWSHLGVCKKFPFVIDRKQKTLVLEPKPIIEGGDNGEENLVTIKAVGYNYEECRKALGKMIILDELPFNFVENQGFKSFCQVMQPRFDVPSRLTIWRDCLKIYVXEKEKLKKALKDQRLCLTTDTWTSIQNINYMCLTAHWIDEGWNLNKRILNFCQVSNHKGETIGQAIESCLLEWGIDNILTVTVDNASSNNLTIKYLKRVTSGWATNILSNDFMHVRCCAHIVNLIVCAGLKDIDDSVVKIRNAVRFVRSSPSRQLVFNQCAERLKIGSKKSVCLDVATRWNSTYMMLDAAXKFDVVFMRLEETDPRYLSYFEVDSKGKQKNLGPPALEDWEKARSFVKFLKLFYTVTLKFSGSLYVTSNSFFHELISMHTSISQLCRSEDVYVSKMAKNMMAKYKKYWGDQDTQNFLLYVAVVLDPRFKLKYVRFCFGRLYDVEEAENFTIKVKDTLLRLFEHYMNVDENVEVVHSVGTSINEDVNVDLMVVNDDMLDDLASQFKKHLEEEGGVQKKNEVERYLGDDCEDPNDFKLDILGWWRRNATKYKILSKVAQHVLAIPVSTVVSEAAFSTGGRILDPFRSSLSPSTVQALVCCQNWLSLAPIPINIRTFMDYIENSEMIESGNFSYKFKCSYFIISFIYICLIHFNLCFCRIWKFKNLNLFVSSIDDVGAILEYNCFGLIYFTLLIPFKILHCFFSNSNMLLICCFFIALSLLDLLAFAVAGSFGCWCWIFFFKLCRMFMIIYCWFANVSVCCLFCEHLFFEVFKFDHASCILHFEFSLISLHIKDSKIEHFKFIVTISISKKIQYFNLLKSLQTSNKILKSFDKAYKLSPTRKFKSPISKPIKKPKKPINXMIRFPGFLXKKPDLTEPNRFGLNRXPVRFGLNFKYELLGSVGFXSPNRTVNRP

>Vc\_hAT-1

MRGRKKVKPVSQRGIAECMTGPYIAKHAKGNDLNAEQTPKQQDKPEIFPDKGVWDGGAVVGNASAMVLLPAATDDTGAITPAFHGGCDQHKRKLSPNQLDNNECGEAPNPSARSAKRAQTQRIRKGMSDGAWRDKQKENPHRWQIAWAARYPWAQPVHADVDAGEVHNQVRCIPCTLMKKSDYLIMCRAATLDKHVTSEVHKTSVEHQQSQKARLALQQQRNATLPQLYTPGNTEAEKAKHQQLIQLFWQLTRGRPITDFMASKEAFEALSVPHISSSHWSGFSAWNLAEALDGVLMDKVRELVRSARFISLSMDECVGIDKNSRLSLHVYVMDAQWSRLPLLIDVSFNGWTGCRDWGFAAFVLFSTSCNIIPHKFLSSELVSTLSIPASPQLAHVRGAPDAENITQLVLDTLNVEGDLGEQDLARKLVAVSTDGASVMTGVHNGVSARLSQTAPFLLSIHCMAHRTDLAIAVLEKAPVVKMIVSVIKDVYNYFSGSAKRVSMFEDVAKAAGTDGNRLKRIVETRWICAREPAASLLAEYPALLPLFCEEEEKLYNTLRDARLYVSMHALMPALVTIDMFIKLCQSRGLYIGELAKALQRTKDRLREMYLRPETRYTTVEFGDFKELLSVDGDIKGTAWVFNPDTPGEERIGLMCGSSGFYPFTADPPRTGRDRTPPPLTPDRLAQVVKSVQADMSAAVEELIGELSSRFPPHPLLEAASIVYSEYWENRPTAADFKAKLKILKDYYCRERVGANSSKVPPMLDSALLDEQANLFASSMNQLAAQQRLRRAREQTERQRQQAAAVDPDAPTSKREHRVLLDDTPTARVWQAISNCAVLAGGLTEYSALAQLVLVMVPGSVEDERRFSAMGYLQDPTRNRLDEHLALCVRMFTQDLFDLGTFPFRDALRKWLDSSSRGRYMMNR

>Vc\_hAT-2

MAQPPSAPAAPEVVDLSGKLPKAPVSDMGQAAFVEKYPWWQQTGKNKQGQAIGGCSICQQHKGSGGGPKLSPIVKDSNDLKKHDESVGHVEAVCIAKAATGQGPIDKATRVAAQQVAAGLASVLQLLILCVLWMVKEHIPALKLSSLLLFLAVARVDVVRHKYSHHRYFMKALRALSQVVLSMQIAEILQSPYFSILCDSGTDISGEDHLLFYVRYLNTDTFMSVTQYLCAVRIIDKGAENIHLVTEAVLAALRLDQTKMVGYGSDGASVYLGRNSGVAVRLRQKLCYLVAIHCCAHRTALVMGDVKEELQQMSAMDALLKSVHNLFRSSTMREKWEKFAAERGCTRLKFPVYNSTRWFSRMQCVVTLGLNAHVLLLFLNKYKKNWPQGRAVHEQLSNVYMLATLFALRDLLAPCERLSKAFQADSLKAHEIHDTLSDTKDSLLKACGFSSGRLKGKHYAGFKSGLQGRSWVVVSNRVKVSGTLDEGKLQSFACRFVGLILKHLDARFGDTELLKCFRIFDPATYVNMSEEERRGYGRKEFVKLLVHFCHSANPNRLFAFDGNELDGLHKEFSVMKSKMALQLELGRTSWERAWAGMRQWVHFFPRLNQLVYVACVLPTHTACVERGFSVHRIIKNRLRNRLSVPSIDSLMRVGLLGPTVDMKCKPLVIKAAEEYVAKKPGWAPAPYCQGGRLCSA

>Vc\_hAT-3

VFFFGNILLFWEMGVAWKKWNNWSVGRTGSLLRPVAPNAFCTYKAEHLELIHYLCIKYLMISPDGPLLHSTVNGAFVHSPKQTAQKVRRRNAPNIKKNIIQKTRIGMPLPLLKSVKPAIAKLRIPRRSGNTQLQQSATQMLSSLILTRKGHRPKMSPRHHRHLQGRVLRSTRRWFKSRRGASKHSVCRKAKAMGAGGRTRECVGAVPAPSAGGGTSRWMPGRPRKATSSPKNTKKPCAATKRGPFSTSGTSQRGRSTTFCPEHSASPRGELCSSCGSSSSCWITGAPSSTMSALRTCSRCWTCHTTVISTGAATVPGSLPRPWMRCSRTKSAGWSPPTALYPAWTSPGALTRGPGSAFTSMSWRAGAGSRCALMGRDDGKVNRNAGVNCWEPSSFNRYSFVHISSVTASSFNRFFWPWIDPIKVSVCLSFRVLQLAKLEAAPTADNITSLLLEVLADRAGLTANELAQKLVAVSTDGASVMTGVHNGVSTQMTDLAPHIVTIHCMAHRTQLAAGAQEQAAVISTLKALVRVIYSHFSNSPKRLLAFEAAAEEADTAGNHPLRDVEIRYAKPRIYGGTGLQGPLRTCQTPFALYYHHLTVCFCRPRRWLSLLLPLQRVVSEYGALLLYMEEAEEQFIFTQMTDARLYLAMHALLPALRRTNFFIKLCQSRHLFIGHLNIELERLKADLRRMYLDSATCYQGADFVDYTQLLPTGPAGDSLDGTQWELSPEDESVGLVFGDRFIAFHAMQQRRGRGGCMVSLTAELITSTAAAVQAELTAAVQVLADELEARFPPTALLDAFQILYSEYWEARPTAADFRSKLKVIKTHYGKECELDDGSKVPPKLNIAALDAKATEFEQLMRALATKQRLARIRGQTTKLREQLEAERAAAGSKVVQKLREEQEESPTIQLWKQLENAPVHAESLKEYVALAKLVFVMVPGSVEDERRFSAMNFVQSKVRNRLDEHLALCVRMFTQELYDLRTFPFDVAVKKWREAVIKGRYRMNDLLMWCRGLASNWSAAGAMQWCWCRQCTGYIFVHTMDSYLMEDYTYIYITLPSRAHDVYGQSKWLRALLTETLAQMQLGAQNDGGTACVFPDVRCCLQHTVRPLRGGSGGGAAPPSDYTNRNCNRKKHPVYYSRVLGPKRKKNT

>Vc\_hAT-4

GLARVLYKRVLYYNSTIYSTIYYAGLTGTSLRRSYRVRTNSIVKIVLYSTRFGVGCPVLVGPSRDLQSSCILKGYSRVFELCYVVIDEYQRNPVRMRRRSEACFLVQTSRLKFSVLGTSFLTSFVTRRRTPRRVVIGTTSMWSGGVVYQSSACSAMSRSAQTHPLPTRTTSSKVLARLSNSVQRHSASNSNRVEPALLRRAPARRISRPSPSAGAALMARPSSQFPRLSRGKSWRSLACSSTGTTCLFTSRSPSCGTYSGCWASPCRTGSSWGQCWTAPTARLRRRWRRSGSACVAKLHSAQMAGASVPLSRGCRSSTSCCCCQRARPSCVSCVQLVYGRTRSTSKRYVMCGYVSLVPSAVIVIYNRTANPALQIHLDVVAEAFTKPDDCIGFVMDNTATNLAAIQLLRIENPRWLGVGCGVHGMALVFKDLAKEKNVKWAAKIFNASITISTVVGDSERIRALLGVHQMEKYGKKSAITANTPTRFAVNYFVLSDVLANEDALKAMVRNKEAWAGASDGTSKAQEFKAMVEGEGSSRNLGLFSKGAKLAEFCEPISKALHKLECDRPMLSQVQRFKGLGERMCVPCLPQTPSGITFHSVTRPPYASHVFSHPSQMYPVWKALLATARDFDEANTDCPGLYDLLKRRYDKQVNACWFAAFLLDPRNIDVSLTNRYMLPLGQLELEEKSAAKVLIQDLAAGKDAAKRDRVGEEWTRLGLGIPKAFDEWSELMRMHKEKLLPDSSTRVMGASLDDCISYWDVHLAAQFPLIASAAIRLLLMHASTCSSERNWSAWGLVYTKARNRLAIEWAEKIVYIRGNAGLQGNQGAAADEVELILQQCEEDEQEQEAQQQQQQQQGNVHPNTQIDDATIDAAAVCIGGLHTGPLCRNFTSMASLCCLVNAGSSICDYVFMCHNTPDMGFEVHLPGTEVTKSVLDDHSDLLSHVVNIQKEQKKTFPTVFSGTTVGRTPPFYRELVPAYHSTILLYIVLFHTILYYLGKSIYFCQP

>Zm\_AC

MTPPVGNNPPSGSAIRLAKLMSTTRAPSTRKTNSVFSAYAQGLKRKAEASSSRIQNVRARARGHGCGRTSPSSSTAEAERHFIQSVSSSNANGTATDPSQDDMAIVHEPQPQPQPQPEPQPQPQPEPEEEAPQKRAKKCTSDVWQHFTKKEIEVEVDGKKYVQVWGHCNFPNCKAKYRAEGHHGTSGFRNHLRTSHSLVKGQLCLKSEKDHGKDINLIEPYKYDEVVSLKKLHLAIIMHEYPFNIVEHEYFVEFVKSLRPHFPIKSRVTARKYIMDLYLEEKEKLYGKLKDVQSRFSTTMDMWTSCQNKSYMCVTIHWIDDDWCLQKRIVGFFHVEGRHTGQRLSQTFTAIMVKWNIEKKLFALSLDNASANEVAVHDIIEDLQDTDSNLVCDGAFFHVRCACHILNLVAKDGLAVIAGTIEKIKAIVLAVKSSPLQWEELMKCASECDLDKSKGISYDVSTRWNSTYLMLRDALYYKPALIRLKTSDPRRYDAICPKAEEWKMALTLFKCLKKFFDLTELLSGTQYSTANLFYKGFCEIKDLIDQWCVHEKFVIRRMAVAMSEKFEKYWKVSNIALAVACFLDPRYKKILIEFYMKKFHGDSYKVHVDDFVRVIRKLYQFYSSCSPSAPKTKTTTNDSMDDTLMENEDDEFQNYLHELKDYDQVESNELDKYMSEPLLKHSGQFDILSWWRGRVAEYPILTQIARDVLAIQVSTVASESAFSAGGRVVDPYRNRLGSEIVEALICTKDWVAASRKGATYFPTMIGDLEVLDSVIAAATNHENHMDEDEDAIEFSKNNEDVASGSSP

>Zm\_ZhAT2

MKRKKGPIVDLKDFLQRAANKKKTQEQTQGNTDPMSTTKESQMQLVVYEGRPKYASGSGATSVPLEPESEIGDFAISDSESKSSDEGNDESTYNIEHDPGLRSPISGYHINDHDSVRRAYIALGPCRPKMKKDDFPQHNCGGMRRFQPKWFGEFNWLEYSVHKDAAYCFVCYLFKDSDHGGDGFISGGFRNWNMKDRFRKHVGAINSAHCEAEEKYNLFIKPKTSIRESVASNTVEFKAQYLARLTWSLKCIRFLLHQGLAFRGHDEGKDSHNKGNFRELLEWLAGNFEEVNKVVLGNAPKNCQLIDHKIQKQLITCCADETTKFIIEELGDECFAILADESSDAYQQEQLAICLRYVNRMGEPVERFLGLVKVEDTTSLTLKEAIQSMLIKYQLPLSKVRGQGYDGASNMKGHVNGLKKLIMEESPSAYYVHCFAHQLQLTLVAVGKDNIDCQWFFGQLAYLLNVLGMSCKKISMLRVAQAEYMIEALKLGEIETGQGLNQEMGLARPGDTRWGSHYRTVVHVMALYPSIKKVLSKIGKEHKGGESLGARTMLQVFQSFEFVFMMHLMNEIFGYTNDLCIALQRREQDIVNAMDLLEFTKVELSVLREDDGWNEFNGKVNSFCEKHKVKVVDMDGKYKPIQRDKKFYKNAINYHRFHADMFLGVIDRQLMELNSRFDEVNTELLRCMACFNPINSFAAFNQEKLVRLAGFYPHDFEFEEMNQLPFQLNRYIENMKRDDNFKNLRSLAELSMMFVKTQMTLRYDIVYKLLKLVLVLPVATAGVERVFSSMNHIKSKLRNKMGQEFLNGCLATFIEREFFLQAKDKDIIARFQNMKDRKLVL

>Zm\_ZhAT3

GTGTAATPSTATTTASTTSTDTICHKRGRKSTSDVWNDFEQLFKDINGKKVRYAAKCLYCKSQLTASSTAGTGHLKRHRSTCASKAQRAAKTQSLIQFNADGSVRSWDYNPDIARTELCRLICTLDLPLGIGSTAAFERYIKHAHNPRFTVVCRQTTTRDFVKFYNQSRTSLIDVLKSSVSCVALTSDIWSGNAKEDYISVVAHYVNADWVLEKRVIGMRLIDVSHNGANIADRVKTVIAHFGLTDKVFSITLDNASANTNAMNILSPQFSGYVGSLFLHQRCACHIINLIVKSRLKRLKPYVEDFRTAVSFLNSSNQRIASYKSYCIAMGVRPRKFGLDMDVRWNSTYLMLKHLIPYKSTFSVFIQTHYQQHMTQPLLTETHWEVGEKILTFLELFYDCTVALSGVYYPTSPMMLHHIIEIAEHLNNFENDIMLRDTVVPMKSKFLKYWKSIPILYSFAFVLDPRAKIRGFSNALQVLSRYVTTDYSEYFNVIRSELTNMFSKYEIKFGAAKLRRPTHTTSTSRKKTAWGKIYASPEVSEVSDAVSSSSFGSQVSELAMYLDSDPITVFDDGFDILSWWHEHKSNYPILSLLAKDVLTVPVSTISSESVFSLAGRLIEERRRSLTSEMVEILTCLKDWQLGESREQHNIANNDMEEHYKNMYLDEEREAGVGRS

>Zm\_ZhAT5

MPSAPPPPTLYDVSRLPHDPGERQPIASYHANDHDAIRRAYILRGPFQPYAHEFPNRKIGDRDRHFNFVWFQNFPWIEYSVKKDAAFCFMCYLFKSKANKGKGTSAFTSDGWNNWNKGSEALLKHVGSMSHKTAEEKYLGFINPNAAIDNKIEKWSDDDRNLYKIRLTYSLRCLKFLLHQGLSFRGHDESEESSNRGNFIEILKFLAVNSEEVNKYVLNNAPGNCTLTSPKIQKQIIQCCAIETRKKIIEELGEEPFAILADESSDISHKEQLALCLRYVDALGRPCEHFIGVVHVDDTSSLSLKDAIEALLVSHGLTLTRIRGQGYDGASNMRGDIKGLKTLIMQESPSAYYIHCFAHQLQLVLVVVAKGNNDCVWFFDQVTLLLNIVGVSCKRHGMLRDARLENLMKSLECGELETGRGLNQEMGLPRPGETRWGSYYKTICNIITMYPVIRDVLMILGEDTTIRSDWTRIHSMLGAFESFDFVFDAHLMFVILGYTNDLSVCLQRREQDIINAISLVNVAKRRMQQLRLDGWDQFLQRITSFCNKHDIQVPAMDGNYKPYGRSSRFVHNQTNDDHFRREVYIGVIDQISLELDSRFSEANMELLSCMSALDPSNSFASFDAHKVRKLADFYPNDMSSTDLLKLDLQLDNYIDGIREDDRFKDITNLVDLSVKLVETKRHKVFDMVYLLLKLVLLLPVATASVERAFSAMSLVKTKLRNKMCDSLLDDCLVTYIERDIFFEVNEEDIIETFMALRKRRPDK

>Zm\_ZhAT6

MQRRMESARKGKLLLQDQMYGSTSARLNLIMGMKESSASIVQNCFACDPKINGTSSMKAHLKVCKKNPNKMVVDNQGTLQLQPSQGNSSVGTVSTWKFDPDDLRNSFAEMIIEDEQPFVLPERPGLRKFLAKACPRFVLPSRRTATREVVKVYDVQKEKLKNFLXENCERVSLTTDTWTSNTNQNYMCVTAHFIDESMEAPQENHRFFLGKRS

>Zm\_ZhAT7

MLCRWLTFQGCPFRGHDESQNSLNQGNFLEMVKLLASYNKEVKGVVLQNAPRNAKYTSSDVQKEILSIVARKVQKLIREEIGTSKFCIMVDEARDESKKEQMAIVIRFVNKEGLIKERFLDLVHVKDTTALTLKNSICAVLTANSLSIEDIRGQGYDGASNMRGEWNGLKALILNECPYAYYIHCMAHQLQLALVAASREVQQVHNFFQHATFIINVVSSSTKRNDELLAAQAEEIAREIELGELDTGQGANQMSSLQRPGDTRWSSHYKSIQSLKKMFSATISVLRSIANDRSVSKYSRGDAAGALQIIVKFDFVFILLMMEKIMKITDVLCQTLQKKSIDILNALDSVSNTKVLLGNLRNDGWDPLLQEVNYFCEKNDIDILDLNHKYVSFG

>Zm\_ZhAT8

MADDDDVNPVTGNDDLRAAGLVPDDEDDIQADAAALLGIDLTSAPVDLSSNPTNAGGGPATATDTPVGSTSTDGGTGTSSVGKRKSTVWVDFDEVFEKVNGSNVRIAAICRMCKTRLSARSSAGTGHLLRHQKACRKKVDHAARVQSRLAFNPDGSLHNWEYDPIFARTELCRLIARLDLPLGIGETQAWEDYIARAHNPRFTKVSRQTTTRDLLKLFTERRNVLINSVLPATSSVALTSDIWSGNAKEDYISVVCHYVNADWELQKRVIGLRLIEVRHTGQNIAERIGVVVEEFCLVDKIFSVTLDNASSNSKAMDTLTPLFAGYLGPDPSPESDPNRRNYTLMHQRCACHIINLIVKSGMKRLKPFLEDFRTAINFLNASNSRIATFKEYCKARGVRPRKFGLDMDVRWNSTYLMLKHLVPYKTVFSVFINSHYESQLLPPNHWYVAEKILEFLELYYDSTVVLSGVYYPTSPLVLHHILEIASHLKACERDLNLRTIVFPMQLKFLKYWSDIPLLYSYAFILDPRAKMRGFFNVLHLLGDCTGCEYSTYYADVKNELYKMFTKYETKFGAVRAQRAAQPSIHTGKRKQAWGRIFGDSSSGVVGPPPISTPSASSSSAICELSAYLDSDNVTSYEDDFDILLWWRDHKLTYPVLSIMARDIMSVPVSTVSSESCFSLTGRIIEERRRRLLPENVEMLTCLKDWELGEKREQHAVDNPELEDSFQNLFLDEDEPVAA

>Zm\_ZhAT9

MLSKHSLSIKNLRGQGYDGASNMRGEFHGLQRRILDENPYAFYIHCFAHQLQLVVVSVAKCCSSVMDFFNYINLIVNTVNASCKRHDQXAQXHHDNLVQRLENGEMFXGRGKNQATNLARPGDTRWGSHHKTLCRLQLMWSAVLEVLENVCQDATNLAQRTTATGLLEKMESFEFVLVLHLMIKVLGKTNDLSQCLQKKDQNIIRAIGLVGVTLQKLNEIRHHGWDAIFEEAKDFCLKHNIVVPDMSAEIVRRGCSRGRRGQLVTYYEHLHHEIFNVVLDQVIVEFNNRFAERSTQLLRCVACLDPSNSFANYDEDKLVELAQIYVDDFTEYDCIVLRDQLDTFITEGREDSSFLSCCDLGNLAMKMVKTDRHTVFPLVYRLIELALILPVATATVERAFSAMKIIKTDLRNKMGDEWMSHCMICYIERDIFASIEDRQIIEHYQAMRTRREQIPKTSKSGTFSSNNSILCSLFSLITYVIT

>Zm\_ZhAT10

MDLDPAAEXEEAERQLEDHNEAMDARQALLGVGVTHLDPIXLEDFVASRTGTATDSTSPPASTTASAGGGSRKRSKVWNDFDELTNLVNGKXVRYAARCKHCKQTXSARSTSGTGHLLRHNCXAKKAHERSGQVQSVLKYNPDGSLQRWEYSPSVARTELCRLIARDDLPLWHGSTDAFQXYITRAHNPRFVHVSRQTTARDMIKFYNERMVNLIGTFKTDVSSVCLTSDIWSGKAKEDYLSVVAHFVNSKWELEKRLLGLRLIDGKHSGVNIANLVATVIDEYGLTDKVFAITLDNASSNNTAMKFLRPFLSGYLGVPAPVVTDDDDDSFTPTDDELSTMFLHQRCSCHVINLIVKAGLEPMKTYLDDFRTAITFLNASNQRIAAYKSYCMSMAIRPRKFGVDMDVRWNSTYLMLKHLVPHKSTFSVFIKTQYPLNSDGTPLLTDNHWAIAEKVLSFLELFYESTVALSGVYYPTATLMLHHILRIARHLNAFENDRLLRGAVVPMKDKFLKYWRDIPILYAVAFILDPRAKMRGFNKLLVRLSSLTGTDYSSLPIDVSTKLTKIFQLYETKFGDTRLRANQHPSSLGSGKKKMAWDDIYGDDDXDGEFSAPLGRRPGSTSISTXASTSELASYLDSDTITEFDEDFNVLSWWHQHKLTYPILSLLAKDVLTVPASTISSESTFSLAGRVIEERRRRLAPDMVEVLSCIKDWELADAHLQHTVEEDTQELEAEHENLYLDDPEEHNQ

>Zm\_ZhAT12

MLADLLEKKVDEIGRDKVVQVVTDNGANYKAAGKLLMDRIPTLFWSPCAAHCLDLMLEDIGNLKEFKKPIARARRVTTFIYRHGRILAAMREKTGGADLVRPAATRFATSFLTLKSLYKHKDALKALFASTAWTDNRLSKTSAGLDVYNIVFSTQFWNSVEDCLRASGPLLIVLRVVDGDERPAMPEVQALMKCAKEKINQSFAVQSKKTLLKKIITIIERRWEKQMDHPLYGAAMYLNPGKLHPLIRNDDDATVGQLRGCFLDVLARMVDDEETRDKINSQAMDYEFLRGAAFSNKMAKDNLQTMTPRKCLWLLLVYYLLVVASSLLNCCDVIAVEWWRSYGGRAIELQRFARRLVSLCASSSGCERNWSTFEFVSYYVCLLKSSSTYLATFVSNISGLNDQVFSLFLFCRSIQRKETDCCIRG

>Zm\_ZhAT13

MATNSEANDSYDPLKDQSRRPKSNDPGWKYAYYVEAGKRELIQCALCPKQIKGGIKRVKQHLAGGYGDIVKCPNTTREIAKEMNEALNNGKRARPLYLDDDVMEDEAGQDDDVQVMGSRSMSASSKASSCTVPSSGTAAKRNKAIFQLKPHPIAAPKKSIASMIRRTPQEVVAERHAKGPAQTTISATMKPKEERNSVCLEIAKFFYECGIPFNAANSGI

>Zm\_ZhAT14

MSSRRYLSGSEKRKRKKRVDDLIDSQRGAIDKFFKSNASASTNPNDXFALAIVPVGTEEPTNENSREEEHVDINADDNNVSDHENMSNSSDAHAQFGSVDEQPDIYDPRNWDNLDNKARDILIEKGPIREEGIKFPLDDASRHFSYAHYYRKLSNGELYDRKWLVYSKHVDKVFCFCCKILKSSTSNSLSSLAHNGCRNWRNISTKLREHENSVEHFQNMNKWNELRTRMHKEETIDKDLQKQINKEKERLRQVLLRIIAIVKFLGKXNLAFRGSIEQLYSDSNGNFLACVEMIAEFDLVMQDHLRRIQNKEIHYHYLSPKIQNELIVLLSSNITRSIIKIVKEAKYFSVILDCTPDISHQEQMTLLVRCINLSNGKINIEEYFLGFLNVDDTSGLGLFSVLLDSMKSFGLNINDIRGQGYDNGSNMKGKHQGVQKRLLDINPRALYMPCACHSLNLTLCDMAKSCGKAVSFFGIVQRIYVLFAGSTKRWNVLCKHVPIFTLKSLSNTRWESRISSIXAIRYQAKELRSALFELSHASDVEPKDKSDAKSLFDALGNFEFLLGMVIWHDILYSVNKVSKKLQSPDMCIDSALNQIQXMVQYFEAYRNEGFPSSLIISKGIADEMGLEASFPVKRRALRKKQFDESNDQEEILEAERGFKVKYFLVVVDMAITSLKTRFEELMVFKDIFGFLLRSTILKSLNDTXLEESCTKLADTFSHNGSSDVEVHDLISELKILKFTLPDGILSAMEIFEHVRDLDCYPNVSIAYRILFTMPVTVASAERSFSKLKLLKNYLRSTMTQDRLNGLAILCIEKKMLDDIDLNGIIDDFVSQNVRRN

>Zm\_hAT-15

MSTADDSADDELSLEAVVEERRLEAQNEADDARCLLLGTTSAGAIDLDGAGAQTGTGSTSPTADASTSVPVPGKRSRRRGPTSKVWLHFEEVTAMQNGKEVRVSAICLHCKNSMSAKSSSGTGHLIRHLDVCPAKKEKDRTGKTQSLLKYNADGSVNHWEYSPSVARTELCRLIARLDLPLCFGESSAFQEYITXAHNPRFIKSSRQTTARDLIRLFNDRVEQLIEVLKHVSSVALTSDIWSGKAKEDYISVVAHFVNSDWCLEKRLLGLRPIEVAHTGLNIAERVEMVANDYSITDKIFAIVLDNASSNKTAIDVLKPVFSGYIGHLIPAPTRNESDLSNIFLHQRCACHIINLIVKSCLKRLQPYLEDFRTAITFLNSSNQRIASYKQYCMSVGVRPRKFGVDMDVRWNSTFLMLKHLVPYQSTFSVWIRTNXPCKDDGSFLLSDNHWXIAEKLLSFLQLFYDSTVALSGVYYPTSPLMLHHILKIARHLNAYENHELLRNAVVPMKXKFLKYWRXIPILYAFAFILDPRAKMRGFHKVLQRLSTLNGTDYSRYPSCIXTKLTKMYQIYEXKFGGVCLTPQPQSGSGSSKATEAWDDIYGDDETYSNTGTGGTSGTSTGLSELTSYLDSDTETKFGPDFNILIWWQRHNQTYPILSILAKDVMTVPVSTISSESTFSLASRVLEERRRRLTTDMVEVLSCIKDWELADQHKQHTVEKETKDLEATFEXMYLDDEQQVSPGXKRKEAAPQSSRRAGL

>Zm\_hAT-16

MKLLRSTATRSDGCVGWPEMTMRMTSGRMLQRSLAXAVSIPSMSVMNNKSVMNNKSVVRITKVKGTNTVQDQEGEGDEHSSKRCRPSTSAVWLDFEKLFKIVNGKKVRFAAKCIHCSKQYSALSSGGTGHLTRHRDRCPRRREKTRMSQSQISFNPDGSMRNWEYCPMVARNELVRLLARLEIPISLGENAAFEHYIRTAHNPKFVPVSRQTTTRDMVKYFTDKKAKLVETLSSSDVNCVCLTSDIWSGNAKEDYLSVVAHYINPDWQLEKRVLALVLIDVSHNGQNIADRVAGVLADYGLTNKVFAFTLDNASSNAAAMRLLRPIMSPYLGIDNGADSEMFLHQRCACHIINLIVKEALDSLKNLIETFRTAISFLNSSNQRIAAYKSYCIATNIRPRKFQLDMEVRWNSTYLMLKHLFPHRIPFTTFIHANYPRAEGDQFILTDEHWVIGDKVLKFLELFYDSTVALSGVYYPTSPLMLHFLVKIAIHLKNYANDTHIRGVIQPMXDKYNKYWRNIPLLYSFAFILDPRAKMKGFSRVLRRLMNLTSTDYAVYQVTTRAKLTDVYNKYEEKYGSVRLNRVVPPNLSGKKRSAWDEIYDDADDVGTSVGMHSFASTLNIARDTSATALLHAASSSASTASELISYLDCDTVNQLTDDFNILHWWHQHKLTYPVLSIMAKDILTVPVSTISSESTFSLTGRIIDERRRRLKSDVVEMLTCIKDWEDAEARMQHMVDDKELEETFENLYLD

>Zm\_hAT-17

MASASGSGCASTGASLVAANTLAVAVQETTPVNGAGEGEDGERTTDIGVKESDTKKRKPKRQTSGVWDYFIKSTVTEKGDKGETEEQIWAKCKKCKFKTRGESSRGTTIFWNHLKSRHYIHRGQQELQVQKGEGNNAIVQNFKYDPEASLRKFHLAIVMHEYPFKMVEHEYFVDFIKSLRPHFTFLCRTTTRNEIMTMYMDEKKKLFEQLKSLSCRFSATMDMWTSNQNKGYMSITIHWIDDKWQMQKRIICLPHVKGHHNGELLASEFVKGVMSWNLEKRLFALTLDNAAANDKCVRLVVKELNKLARIQKYPPLVCGGVFFHVRCLCHILNLVAQDGLSVIASPLKNIRAIIVIVKNSTLQWEEFEKCAQFFDLNNKSGLPLDVPTRWNSTYDMLSHAMYYRSAFERLVYLHKDKYWHCTPSSDEWDMAESFCKCLKQLNDATVLFSGCQYPTTNLFWWKFYEIKLALREWCESANITIASMAEAMQKKYDKYWKKSNIALAVACFLDPRYKKKLVEYFMLKIYKDSAVAELTRFMDVVNQLFQSYLSSTRDVSITQTDLAASTSNSICINTDIDEFIYEDNDAAKGEINELDVYMKDKPIRWVDPTGKGLQFDILSWWKANQVTYPVLSRLARDVLAVQVSTVASECAFSSSGRVVSKYRSRLEHETVEALVCTKDWNLASNKGKTDSTYLLFLFCLLLSILSYH

>Zm\_hAT-18

MCRGGWRRERAAAVEVIMGGSYIGEESTGGGDAAAILATTASAGGSTGAGGTASSVAPDAASLTEKAIAALPPALAAQAVDSKRKARSQDPGWNYGWWPDPTKKDFVQCIFCQKIVPAGIKRFKQHLAGGFGDTVKCARVPELVSKDMLAYLRMNSRALPLINVDEEEDATEEFAAAEPSSGTKCKQAKKRSAQSTMTSFVVSAATKPITQKPSKSIASMLCKTPEEVVAERHKSKTSQSTLEHCTKKGKEAKQIVDDHVADFLYENKIPLHVVKSRSWEIMLESIGQYGPGYRGPSYHEARVPWLERAVKRTSELRSKHEASWREYGCTLMSDGWTDTXHRHLINFLVNSPAGTYFLASVDASSEVANANMLADLLEKQIDKIGREHVVQVVTDNGANFKAAGRILMDRIPHLFWTPCAAHCLDLLLEDIGKIKDFNSCINMAKKVSRFIYKHGRIHNLMREKLGGDLVRPGVTRFATSFLTLASMLRHRNGLKSXFVSDEWHLTKFPNTEEGRQITRIVLSMPFWEKVENCLRASQPLLIALRIADGDETPAAPEIMAAMDVAKATIKESLKDKPRLQADVLSCFEKRWENQMEQKLYGAALYLNPSKFFALRDKDRRQAARLRSMFNDVMWKMINDDDEQTKISKQADDYERSEGECFSKQGAIRDRERKNPSKFFLYFSHTIFSYLVFANELTKLPF

>Nt\_SLIDE

MALPIDHEAGLHDETNNLVPGAGRPLDDGTEARIEVPEIRAEVPLDVNSQVALEANQRSEPEKSIQGSTRSIIMASQNEENLPASSSNAISLDDESQRPLQQDEVELGKRRYSRAWKHFKPVKDNGISYGLCKYCDRRYKNARNCGTKSMLDHIPKCPNRPRDVQNEGDTGGSYFDQDISRKQLAHAIILHEYPLSIVDHVGFRNFVASIQPMFKMVSRNTIKNDIMKFFDNLKSQTSKLLEKVTSRIAITTDMWTSNSNKKGFMAITGHFIDDSWRLQSHILRFAYVPAPHDKDALCGALVNCLFDWNLERKISTITVDNSSTNNAMIKTLLDEKLNKKDLLLTGRVFHVRCAAHILNLIVQEGLKVIGDSISKVRDSVLYWIGSAGRIERFEEAARLVHCSCNKKLEYDCPTRWNSTYLMLRTAIEYKEVFRKLSLTDTNYQSYPAEEQWSNAEDVSDKLILFYRITEQFSGTQYPTSSQYFTKVCEIKLELEAWVKEFNPLISDMASAMLLKFKKYWDDLHILMGVAAIFDPRYKMRLVEFFLPLIYGEEASTKIQEVRSNCYNLFQDYKSKLSGPHDSLASSSSEVTSFIEGDRLSSFDRFVASSGAIVETRSELDMYLEEGLLPRTPSFDNLSWWKTNGLKFPTLQKMARDLLAIPVSTVASESAFSTSGRLISPHRSRLHPTTLEALMCARTWLWNDLNGLSSTIDKVSCPTLLDEEEEPDSSGLSQHC

>Os\_CRATA

RDGNGYPVPGPRSPVENSPIRWWYLCLHGESNGEKVFSVGSGGGGFGSPSPVPALCGGPIKYVCSNILCIPIWPIKTRPKASISNCVTLTIPILIPSVPIPSTPPSVGHSDAAPAPDLAPAPARAGVRALRAAAPAVSASAPAPGRHARRVAVRSSARPPRQVPAPRHAVPFPSLPASQVRGRRGLGTGHRTSASSSTLRQYLIRHVGLFVLLMVDAGEGFGGKKGENDESTRRPAARVRHGFAFTTAKLRCKVSTSSCPTPNSVPLPRRLPIVPYPPPPPLNSSSMAASLSRVTNSRSAIHNKGRQCGVGPAIACYKRCSCSCSHTRCRACCWICHCSCGQIWFLQLRCKGLLSAAATTYKKDHHVKKPSCDCRSTFCFDGRSSFCPRTPEASSSANGLRLFKSMGFDFTLTLYTLLHFRNPKFLTIHVQFINLQLAFSILNVVFRVSVENISLHVYCMVAHMLLSYKYVMNLSFNRNPILCSVDHKKFIILAVADFSMIYVRFFISSLPRLFYRLKDILIYIYLSFVRFTTNSTAGTGCGSSSQQESQSLPHKQSLLMILSQYKLKMMSQKMILRILAQRGSLLLLFGRISRKSKSVVMSRLNAFIATSGLEGRAAMGLHIYMTIKFAHERSRWGQRHLHNLHGSIPREGKFLWTHTHLIQQWLGESLLPYYMSILYLLLTILAFEDLLVHFSHYSRWLGTLLGNFSSSIIYLLVLHFNLISVYLMFEYRKDIMDTYEEEKKRALAYMAGAKSRVGITTDLWTSDNQKRGYMAITAHFIDDSWTLRSIIMRYMIHKLSSCHHLKFNILILLQYSICRFIYVPAPHTAEVICEHLYEALVEWNLDEKISTLTLDNCTTNDKVISELIKKIGKRKLMLEGKLLHMRCAAHILNLIVRDGLDVIKDSIAKVRESVAFWTATPKRVEKFEEIAKHVKVKMENKLGLDCKTRWNSTYRMLSIALPCARAFDRATRVEKLFDCAPSEEEWAFASEVVDRLKLFNDITAVFSGTNYVTSNIQLLKICEAKEQIRKWAVCGDSTIEEMSVEMIQKFDKYWKDIQGPMGLATILDPRFKIDYLLGFIETITGQSSEECATKVAEVKDTLYDLMKEYEVEDDEDNTESSAPPLVNSDLLSSITARVTSRRPAAIRVKSELDRYLEDELVSINTENFKILDWWKVAGTSFPTLRKVARDIFAIPVSTVASESAFSTSGRVLSEHRSRLTPELLEALMCSQDWLRNKYRGTYDVLFIHHAHRFYNAMDAKLLLLSCSRSSKLLELPSRYPRSDGILSTTNQSNSYCHYLLYPYKILDLNIFCYFFNLGTCSCLKTMYGHALFLQFWMFVTPVMCHDKLVNHGNAFGYLAQKTYSELWFYVCMDNMCCCCNVVITNELMNDESCIIVLLLNLGIWILYSWAHFCCTACCCTAVVSDELMMCICELMMCICEFVIICELVFLLLFMCNWLELLFVLIFYCLIEMLHVDCVSRGWRLHGDKLPARRRWGKMLPRCISRWWGKFPTAEAGMVEPPTGNSPLPSL

>Os\_HATORY

MSGTYRRKLLVFFLVKGHRGEDIGKSLENCLAEWGIDKVFTITVDNASANNNAIKYMRRVLNESKGCVAEGEYIHMRCAAHIINLIVGDGLKEIGTSIQRVRAAVKFIRCGTSRLVKFKKCAELAKVQSKAFLNLDICTRWNSTYLMLNAAEKYQKAFERYSDEDPYYKLELEGENGPGVPTRADWEKARKMADFLEHFYDLTLRVSVQSRTTSHTYFHEIADVLLLLREWSHSEDKLSKEMGTRMLMKYYKYWGEKYGERQGDREKRGEKDKGDQLLNFTVFFCVAIDPRYKLSNCIRMGIKVMFGDTVGEKVWETVNTYFRALFEEYKEMYTPKDKAPQPTESESTAETSKRVSCRWMSVITQQLNSEGGSGTIKSEVDKYLSEDNEPDTPKFDILKWWKANSTRFPILSHLARDLLAIPITSVASESAFSAGGRTLDDFRTSLTPRMVERLVCANDWLRGGNYVSVEEDSEQMALLEEGNIENFYFLPNSNVLHDSYTIDCSN

>Os\_HATOS1

MKKKSIDLKTLWDRHSKSRKVGLGSGSGSTTQPVRIDSEVAVPSVQPITDANESPVQIQITAVEVVPEVAASDAARDVTEPETEVASNDPDIATAVTQQEQPSTWSPIRDWSPIRDGDDEETEYDSSDEAIYDIDLLCHDPGRRIAIKNYDVNERNSVIRGYIALGPCQPRSHNFPIRKIGGKPRRFLPSWYDEFKWLEYSVEQDAAFCFICYLFKHKINNSGGDAFVNRGFRNWHMRKRIAKHVGGMTSFHNVAQDKYNHFLAPKTNIVESFAATNEQDKARYMARLTYSMKCLKFLLRQGLAARGHYESEKSLNKGNFLEMLSMLAENFEEVGKVVLNNAPKNCKLTAPEIQKQIANCCAKETTKLIMEDLGDEYFAILADESSDVYQKEQLALCLRYVDKKGRVVERFLGVVHVENTTSLTLKAAIESLLMEHSLSLSKVRGQGYDGASNMKGHANGLKKLIMDECPSAYYVHCFAHQLQLTLVAVAKENPDCVWFFEQLRFLLNLLGNSCKKTEMLRVAQAQRIVEELDLGDIETGKGLNQEMGLGRPADTRWGSHYKTVMHVLSLYPSIQKVLIMVGKDRSFGAECANAQTVLTIFQSFEFVFMAHLMQTVLGFTSDLNHALQKRDQDIVNAVGLILLTKFQLQQLREDPGWDDFLQEVQSFCVKHKIKIPDMDSFYRPVGRDRRFFIKIKNMHRFHVDMFLSVIDRQLQELNERFDEVNTDLLLCMAAFSPIDNFASWDKDKLIKLARFYPNDFSSTEMNHLPSALKLFLTEMRIDERFRKVKNLANLSIMIVETKLHNRHEIVYKLLKLVLVLPVATASVERIFSAMNYVKNKLRNRMGDQYLNDCLVTFIEREMFLKVKECDIINRFQAMKERRIKATLPSHEGTEIEN

>Os\_TEMPINDAS

MCPRPWYVSKFHNHLIYTTVNFAFSFEIEFVQEMDMVAISDGGEDEENSFDLNDEMSVSLPSSRSSSEGEDGDDTSKTQKRGAKRPKAGISLSPSKVKITRGKRASCWKYYKVINVPSKKEKGKMECKAKCRFCHHNYAYRPGGTTTTLNRHLDKCTIYLNKLAKAKAQGTLDFPLADGSMVVHPTEYDHDHTKLLIARMIILHDYPFRIVEHKGFNALMKWMNPSYEFIGRKAIKSECMKLYESEKEHLRKSLREAETISLTTDMWTSNQNLQYMCLVAHYIDVNWVLQCRVLNFVEVEPPHTGIVIAQAIFDCLVDWKIEDKVMTITLDNASNNDTAVSNLKSKLAARKNAQFDPDYFHVRCAAHIVNLVVNDGLQQIQSLITNVRNTVKYFKKSPARMYKFVGVCNTYSIKVGRGLSIDVKTRWSSTYRMLETCIEYRNGFDYYAESDTKYEWLPLQSEWDLFEKIQPILGTMSGATTAFSGSTYPTANVFYPYIAKVKIAILASRAQAQTALLEAARLGQQSGLYEPDPNDVLLVTMADAMLEKFNKYWENTNNIMIIATILDPRFKMRYIRWCFSEFFGETRCVTEVAAITDEMEKLYRKYERICRHNQGGNSPHNGHSASSSISTTTSLASIIPSGFQSFLQSNAKESSKSELLIYLDEPNVSLEDSTFNLLNYWKVNAHRFPVVSNMAKRFLAVPASSVSSESTFSTGGRILDDYRSSLKPETVQALVCASSWIRASQNDNSAPIPVVCNAMIIFYSLFLSSLLYKMFTLDCFHREKMEMMTSK

>Os\_TWIFB1

MDESNIPSFTLGDFDPNYVSRSFPTGEYDATGSAPTPPVMEPPAGSEASGTMSGSASTNTGSKRSRTSGVWQHFDEVAMTGPDGRQVTFARCRICKNKLSAKSSGGTGHLKRHAEACAKKQGIQLRQQQLLLNPDGTVRTWEYDPMVARENLARLIARQDLPLNFGESPAFENYIKNSHNPRFQAVSRQTTTRDLKNVYDKGYESLKELFSTCTFSVSVTSDIWSSRAKEDYLSVVVHFIDDDWQMQKRVLGLRLIDVSHTGENIAERIREVIDEFNLADKIFAVTMDNASANSRAMEILQPLFCIYAQSFLLHQRCACHIINLIVKCGFKRVNVHIDAVRQAITWLTASNPRIAQWKRYCCASGEPPRKFLTDADHRWNATYFMLKVVLPYKDLLTVFLQTRNGPKNSDGQPILTDHTWHIVERFNQFLETFHDCTLLLSQVYYPTANLILHNILEIATLLKEYENDDLLMPVVFNMKQKYLKYWKDIPMLYSFAFILDPRGKLRGFLNILSLIGDIINVDYSTYYADVKTKFYEVFRKYELKFQGDRLQRPPPVPAAGKKKLQWSRIWGGSSSSHGGGTSSSAASGDARSHGPAEELSNYLDSDAIRHETSDFNVLGWWNDHKMSYPVLSKLARDVLTVPVSSVSSESAFSLCGRIIEDRRTSLSSDHVEILLSVKDWELAAEHAQYTADNQELAAQFENLYLDDEQLG

>Os\_hAT-1

MRRSKKRQHESTTGPSQRSVDARQLSPGMDDYGMDDRHMDGLEGDDDDQPSPGEANFSVDADATTLPTPNSDNQPSARRAECWRHFEVFTEMVDGKSIPRAQCKYCDKILSAATSSGTGHLNRHYLAHLKNKAPAGARQTQLSFGPDGSVSTWTYDPKIAREEIAKFIVAEDLPIRMGESKHFERMIQKAFCPQYKKVSRKTTKNDITAIYRSKLSVLKQTFSTTSFSFAVTSDIWTSQHQRTSYLSVVLHYLDNNRSLNKRVIGFKLMTSHTGDAIATTILEVLREFNLQSRVVSITLDNASANTTAMSILEPDLRSYVGGFVIHQRCICHIINLIVQPGTNVINNLLILVYAAYCLFILMYATYLFCRHDCSGCMRPICFAGMIVLDKLLNKIRRSVRIIGGNTVVKARFQDYCKAKKKPGRMFGIDVKHRWNTTYLLLRQLKGYEELISVFINSMHVRMKDTDDDGDGEILILTDQDWEIATRVRKFLKPFYNATVQLSGIYYPTSCLVLEWIWKLALVFDENRSDRILSSIVKPMEEKFLKYFTAIPHLYCFALILDPRKKLEIAKVAMNSIGDAVGLDYSEAFQHVNDELYRVFRLYRTKLGGTPRVPEQTSQKKASKSSAVNLWKQYIGNDQASPSSENKSTWNPDSELNHYLVTNHTEHDPTLDGDDVDLLGWWKEKERTLPVLAHFARDILLVPASSVSSEQAFSVTGRIIEERRSCLTPETVESIFCLKDWMEADERTQHRLXDQELADAVEDALAEICLTKDDGGVDPE

>Os\_hAT-2

MDDDPTSVNYELRTMGMRGDDDDDVEEDRVEVFGNTSDIPIHVNVDDDDPPVDDSGNGTPTGSSATCTNKKTKTSKVWDDFEELYETTNGNRVRVSAKCNYCHKTLSARSSAGTGHLLRHIKSCKPRKLGSNALPQSMLRFSADGSVIPWEYSPEVARFELCRLIAREDLPISFGQSPAFVNYIKAAHNPRFVPVSRQTTTRDFYKLFKDRRSVIIDRLNSASSIALTSDIWSGHAKEDYLSVVAHFVNSDWQLEKRVLGLRLIDESHTGANIAERVIAVAEEYGITDKVFSITLDNASANSKAMDTLTPALSGYIGDLFLHQRCACHIINLIVKAGLDKFKPMLNDIRAAISFLNASNQRIATYKNVCIAAGYRPRMFGLDMDVRWNSTYLMLKHLIPHREPFTVFISTQHPFVNDHPLLTDLHWACAESVLCFLEQFYDSTVVLSGVYYPTSPLIMHHILEIAGHLNTYGNVQNLANVVGPMKTKFMNYWSKIPILYSFAFILDPRAKIRGFSKVLQIMAQLIGDDYSAYLTTVRASLSDTFAKYERKFGSVRLHSSTIPGPSTGKKRTAWGKIFGSVVAAGLGAGNAGASPGAGNAGASPGAGLGAGNAGASPGAGLGAGSLSRMTSATALLQAASSTANLNSSELSAYLDSDTVNQYDDDFNILSWWQQHKLTYPVLSILAKDVMTVPVSTISSESTFSLTGRIIEDRRRRLNPRLVEILAVIKDWELADAKSQHTTENVELQNAYENMYLDDEIDVNP

>Os\_hAT-3

MWAKFAFCIGNPSSAASVSVEAGPKQAGINSDDPAWAHCFCPDITKKHHLRCKYCDKVCTAGITRIKYHLAGIKGFNTTKCQKVPSPVQQEMFDLLTKKTSEKEQKNKEKEVARAEVDIENSDCESGSEGSDHGNNVLVVKPKETTGSSSSRSVAGGHTIDKYYKPPSIEESASMTQRVIKLSNKVQTALTTQKREERRNRTCEYICQWFYEASIPHNTVTLPSFAHMLEAIGQFGRSLKGPSPYEMSGSFLQKRKEKVMDGFKEHKESWELTGCSIMTDAWTDRKGRGVMNLVVHSAHGVLFLDSVECSGDRKDGKYIFELVDRYIEEIGEQHVVQVVTDNASVNTTAASLLTAKRPSIFWNGCAAHCLDLMLEDIGKLGPVEETIANARQVTVFLYAHTRVLDLMRKFLNRDLVRSGVTRFATAYLNLKSLLDNKKRVSKTITTKKELVRLFKSDEMEQLGYLKQAKGKKASKVIRSETFWKNVDIAVNYFEPLANVLRRMDSDVPSMGFFHGLMLEAKKEISQRFDNDKSRFIEVWDIIDKRWDNKLKTPLHLAGYYLNPYYYYPNKQEIESDGSFRAGVISCIDKLVDDEDIQDKIIEELNLYQDQHGSFGHEIAVRQRKNKNFNPGSDLNM

>Os\_hAT-4

MSDSRDPVWEHGENIPPGWRCKYCHTKRGGGGATRLKQHLAARGKGVTYCNSVPPDVREFFCRELDRIKDAGDQRKSDSGRRVEAARVNYYDLTGDADEEEQMEAAIAASRQDENFRRDVEERGGTYEHGGGSGSAQPEARKGRSNPITNMLRRATSHRESPAVRDYNLASAKAPVQPRIDTGFFTKKGKQARQAIGESWARFFFTAGIPGRNADNPYFVSAVRETQKWGTYASIKELLFFLIAHYLFHTSIVGESVPSPTGNEIDGKYLDSTEKDVKKQFDRFKKDWDEYGVTIMCDSWTGPTSMSVINFLIYCNGIMFFHKSIDATGQSQDANFVLKVCMVHATNYFITCYRQCFLLCYLPMQEIRKVVREIGSEHVVQIITDNGSNYKKACRLLRQEYKTIVWQPCVAHTVNLMLKEVGKMPDHEMVIESARKICRWLYNHNKLHAMMVLAIGGELVKWNATRFGTNYMFLQSFLRKRDLFMQWMASSVFMQSKFSGTLEGRYAHACLSSLSWWENLEAVVNSVQPMYSFLRFADEDKNPNLSEVLLRYQLLKMEYDSLFANQRDKFEAYMEIVNRRMHDLTNETLINAGKYWSPVPCFVAAALNPRTHYAYSPSATVFQDLRQAFEWMTDIDTAAAALLEVEMYRRKTGEFGRALARRMAIDGKTSPGMFLIMELCIQNYEMTCYLAFAAQWWSMFASDTPNLKKLALRLVGQCCSSSGCERNWSTFAFVHTKVRNRLTHKKLNKLVYVNYNLRLRIQQANAQIRVEDDDPLQRLADLSFYETNNHISAWMDNARSNACPELDEDSAESDAPLPSQLVSDLVNLDDLRRTTGASSIAEWADTNVGDTHIGKRKTRKPPKARPSKKVKGKGPRSTSVDSDEETQGSPEYQESNDSSSRTETDDGDDDGQGGQGTTNVPPRGHTQQSDHHSPVQFTGVIGSHPTIRSPQPRSIHWCDIIQLQFQPSSSNSVLDNFLQFFDLQVRATSLMLLRTRIMVLQALNELPLHRESDNSNNSVTYNRIALAHSVPLALKVAIQRMCTTVPKLLIILLLHGCMNGKSLSGMLNCTLSGKQHHHGQVKVGRNTRRGCYIHMA

>Os\_hAT-5

MKKSEDGTEGAVETYRYDETVSLKKFYMAIIMHEYPFNIVEHDYFVDFIKSLRPTFPIKSRITVRKDILNIYEEEKKKLWQHLLTLSCRFSTTMDMWTSNQNKSYMCITVHWIDDTWKMQKRIIKFMHVEGHHSGSNMCKEFYDSIVDWNLDRRLVGLTLDNASSNDVCVKGVILKLRKISPLICDGIFFHVRCFNHILNLVAQDGLKQITGAVLKIRNTISLNSKALATAVILKHSPLQFEASIQKCALEVSLDNTKGLSMDTPTRWNSTFLMLKNAIYYRNAFDRLFLRHGRKYAKCAPTKVDWSMAIALCKCLKPFHEATELFSGTTYPTANHFFGKFCSIKLYIADWCNSTDGTIKTMANAMQTKYDKYWEKSNMALAVACFLDPRYKTSSIEYYGMKIYGLEAAEKFDEFNGVIKKLFDVYALTSACATSKKKGAEMHVHQLQIQSDPVHNTDEFDDIFNENDSSHDHEQHFQRFLLERSQPICSDKTELQIYMEQPLLLWTSKDPFDILSWWKLKQAEFPILCKLARDFLMYSSVNCCF

>Os\_hAT-6

MDSSPTGKRPTGQHNRQQPAHIQKAHQTKCQAQTLAFTSQFRSGQNAGRQTARQHRAARRMRASRLQHRRRAFAVRRPPSGYAATPTDHRPLSHVAAWVCDKPTTVRLPPRRPPPQGPAWPLASFGSSTPRAEGRRATSSSSWVVKSTLSDSSSHPGASPAGTVAVGTGHSALAPNALVLNDATTATGGGGGSSEPVVIPDEEDGEFTGEVEPVAKRQKKCTSKVWDYFIKYTDKAKNKVTGVEEQQRQQELQVKGEVQTFRYDPEKIYPDKYEEEFKRVLAAIDKFFRAYKSCVARSSKPTAAGSSENSQPHGNTSLGHNEIEKFLYDDAAANKEDDINELDVYMKEKPIRWVDPTGEGVEFDILAWWKNNQMTFPILSTLARDVMAVQISTVASESAFSAGGRVVGPFRSSLHPEMIEALVCTKDWIRASRKGPFKDKIATILDELDVQIEDKDGAKTDNDEERVKEHHIVLTECYVLFRVRQRIVFEAEHVADWRAGVFGD

>Os\_hAT-7

SPWVSLQNKPNYPHSTPNPTLPARACARCAAAHCRRRRHNRAPSPPRAVTAVRCHRRAPSPPFAATVAGLTQEGRWQICGCVTSILDLGELGGLFLEVVLGSILIMWVGSIGDAEEWWVSVGFNAAAGLLNMSMQNSESSSANSSSHELPSQTLRKQPVENFVFDPKKTEELMIKYFIHAEIPFHKIEDPYLDDWMASMQPTFKLVGRQSIRDKIYNYYNRLKQELHAELENLDSRVCLTSDMWTSNQNLGYMVVTAHYVDAEFKMKKKIISLKPVKYPHTSFAIEEAMMRCLTEWGLSSKLFTLTLDNASNNTAACQELVKTLKDELVLEGKHFHVRCCAHILNLLVQDGMRVIRAAIDKIREILKYIEHSPSRIQAFNSIASSKSLPPKSGFTLDVPTRWNSTFKMIREILPYKAILNSYASENCELLPTDEEWLHAESICEFLKAFEEATRGVSAHRTPTAHTFLPHVLCIRHALSDPDWQTSDLLKRLAAPMHTKFAKYWDEKLANNFNLALVITTVLDPRRKRDYLDFFYEKVSPHGSNVESKVDSIIEEMKSYFHVYEGIARRRGVSYMSQSSERVSVVGSPVLGKRKLEHEFTLFKSNRKVARTQKSEIDTYLEEVCEDDSEDFDVLAWWKKNSKKFPVLAIMARDFLAIPLSTVPSESAFSSGGRILGDTRSSLTPEMLEALVCAKDWLHRAKKQGD

>Os\_hAT-8

MERFYKRKVPEPNSANNACNSCLDDINWEDEIKYDPGLRKQIDEYHPNLRERVRRKYLENGPCQPRTFAFPMTGSRRFVPEWFDEFGSWLEYSESKNRAYCFFYFLFREKKDGGYEAFVKNGWNGFHRKERLKLHVGDVGGSHYQAMKKCDDLLQKRQHIDVAFHSVRETGKRDYLTRLNGSIDVARMLVKLGLPFRGHDESKESYNRGNFREFRDYTAEQNPSLRKAIGTKKSDNSLLVAPEIQRDIVKCFAKEVLHAILEEIGHDVFCLLVDESRDVSCKEQMAVVLRYVDKYGIVRERFVGLVHVTETTSAYLKSSIDALFAELKLSLKQVRGQGYDGASNMRGEFNGLQSLIMRENSSAYYVHCFAHQLQLVLVAIVRKHKGVSDFFTKISILLNVVGGSSKRRDLIRDINVKEMSKALGCGQLQTGTGLNQEQCLQRPGDTRWSSHYKTLKSLVGMFATIVKVLEIVEKDKNDWKIRDQASNLLEYFQSFDFVFYLHLMLTILTITNSLSLALQRKDQDIVNAMKCVKSTRLNLDELRREKWEKVLDEVSDFCDKYDIVKLEMEDTYIDPKKHRHKSGITNKHYYQVDCFNDVIDWILQELDNRFSETSSQLLICSSAFSPRDSFHDFNLENLMSLAKLYPSDFNSGNLRDLSHQLGLYIADVRDDGRFSNIQTIAELSQIMVETRKHLCYPLVYQLLKLVLVLPVATATVERCFSAMKNVKTYLRNKIGDEYLSDSLICYVEKEEMKKVTNEAVVRRFMKMQGRRFDDD

>Os\_hAT-9

MKRNGDIASLFRKHEAKAKKRADLVDEEAQIEEEEPPLVEPQPEPTLVVEATNEEQDAPPEYDADHLQYDPGLRSPIASYDVNEQDAVQRAYILKGPNQCYPHDFPVREIYGKKRHFNFVWFHKYQWLEYSVAKDAGFCMVCYLFGXGTSNFVKDGWRNWNKADALDKHVGGITSAHNKAQEKYNLFVSGGPSIDNVIVKVSNESEIRYKARLTYSLRCLRYLLNQGLAFRGHDESEESSNRGNFIELLKWLAENNKEVDRLVLKNAPGNCILTCSSIQREIIHCCADETTKRIIEELGDDHYAILADECSDLSHKEQLALCVRYIDKLGRVCERFLGVVHVASTTSAALKKAILTLLSDHHLTPSQIRGQGYDGASNMKGRLMGWAENIDHERVSFAYYIHCFAHQLQLVLVSVAKGNDDCVWFFTQVSHLLNIVGTSCKRHDMLRDVRAQKIMEALELGEIESGVGLNQEMGLARPGDTRWGSHYKTILHIIGMYPTIHEVLITLGKDPTQRDDWPRIHAVVGAFESFDFVFSAHLMLVILGYTNELCLCLQKRDQDIVNAMSLVTLAKERMQKLRSEGWEEFFQGTVVSFCNKHSIQVPTLDGKYVPHGRSPRFYPDQTNDDHFRREVYIGVIDKISQELNSRFDEVNMELLICMSALNPFNSFASYDAQQVLKLAKFYPKDFSPMDLIRLELQLGTFIDDMRKDERFKGLETLAELSIKLVETNKHVLYDWVYLLLKLVLILPVATASVERVFSALSVVKSKLRNSMCDKLLNDCLITFIERDVFSQVSEEDIIKNFMSMKTRRVEKK

>Os\_hAT-10

MWKEFDPIRTNDKLSHAKCIHCNKVFVASRSSGTSQCLRHLKVCKVRLRMHHLIEHMHANLSPTADVMKNWKFDQEVSRKELLRMIVLQELPFSIVEHVGFRRFVASLNPYFKVISRTTLRNDCMAAYEDHKLALFDVLKSSNSRVSLTADMWTSIQNLGYLCVTCHYIDNEWKLQKRIIKFALVPTPHDGITMFSEMLKAIQEWHIENKLFSVTLDNASVNDTMMTHLKTNLVGKTMLPCDGVLLHFRCAAHIFNLIVQDGLKTMSNAINSIRESVKYVRSSQSRGQRFEEMIAQVGIKTNRRPSLDVSTRWNSTYLMLESSLLVRMAFEALDRHDINYLHQPFDYQWTMAEKLCALLKVFYEATVAVSGTLYPTSTCYFHELWKIKMVLDKEATNEDVTIASIVKEMKEKFKKYWDAQYLQICFPVIFDPRYKYKFIEFRLKSAFGAAATPYLKEIKSNMQKLFDEYSAKYGGSNNINSQPETSVEQNVDASNQFADWRQFLHDKSRSKVKSELSRYLADMPQEGDFQDGHDFDILNWWMVNKTKYPVISRMARDVLAIPATSVASEAAFSTGERIISDYRSRLSSSTVEALICLQDWMRAEGLGDFFARDLAESDDQNVQHSGI

>Os\_hAT-11

MAEETGNDNQVVQGNEIVPSNEEAQAEEVQGDELVPAEDLTQGDEVQGNELVSAEISTPPTLRRRRKKSLVWEHFTIEAVSGGATRACCKLCKQTFAYSSGSKIAGTSHLKRHITLGSCPKIKNQEHKLALTPAGGTDNDGEGTVERPSKRRYRYTGYANAAFDQDRSCSYLAKMIILHDYPLHIVQQPAFTTFIDSLQPRFRVVDVETMEGEVYAVYQKEKENLTQAFSTMPGRISLTIGLWTTSQTLGYVSLSGQFIDSEWKIHRRMLNFMMVSSPHSENALSEAISASLSDWNMKDKLFTITLDNDCSSHDIYSANLRDYLSNKNNLMLKGQLFVVRCYAHILNAVAQDVIASIHGVIYNIRESIKFIKASPTREEKFAEIALQLEIPSTKTLCLDVTTQWNTTYLMLLAALDYKQAFSTLETSDDNYNEAPSAEDWKKVEAACNYLKLLYDSAHSIMAAANPTSNLFFHEAWKLQLELSNATGHEDPVFSSIAKDMHERFDKYWKDCNLVLAIAVVMDPRFKMKLVEFSYSKIYGVEAAKYVKVVDDAVHELYKEYVAQPLPLTPAYVEQGEGNNAPASENSTQTTAPSTGDGLVDFDMYLSEIATSQPTKSELEQYLDESLTPRIQEFDILNWWKLNTLKFPTLSRMARDILAIPMSMVSSGNSIFSAGTGTRMLDDYRSSLRPEIVEALVCAKDWLQYLPATPEAPSTTLVKVDAP

>Os\_hAT-12

MTKMTWRRNACRCSESLRHLLTSMGRSRRRSRTWTVPVAVTVMVAQARRPAPTPVLPTSGQDHPRYGMTSKNSLNHAMARRFAFLLNAITAKKTLSAHSSGGTGHLLRHLKSCKPRTASNLSQSMLKFNADGTVRPWEYDPDYARTELVKLIAVEDLPLNFGQSPAFEEYIQNAHNPRFXAVSRQTISRDVFKYFDKSRAMLIERFKSVNSVALTSDIWSGNAKEDYLSVVAHFVNSDWQLEKRILGLVLIDVKHTAENISERVLSVVEEYGLTDKVFSITLDNASSNTKAMDFLKPKLSAYVGDLYLHQRCACHIINLIVKAGLEVFKPMLQDFRTAISFVNASNQRIALYKNWCIAKGVRPRKFGLDMDVRWNATYLMLKHLFPHKELFSLFIETHYPRENGRLLLTDLHWTIAETVLLFLEQFYDSTVILSGVYYPTSPLIMHHILEIAGHLNTYENDXNFRNVVVPMKSKFLAYWSEIPFLYSFAFILDPRAKIRGFSNVLQIMSQILTSDYSTYLTEVRAALSDIFSKYESKFGAVRLQRTTPGSTAGKKKIAWGKIFGASDALGHGAGASPGSGLGAGLGASASPGSGLGAGPFSRRTSATALIQAVSSNANLNASELSAYLDSDTVNQFDDDFNILNWWHEHKHTYPVLSILARDVLTVPVSTISSESAFSLTGRIIEERRRRLGPDMVQALALIKDWVQADKKLQHTAENVELIKSFENLCLDDVTSGSATGTG

>Os\_hAT-12

BMDGDPTSCNYEARVMGTQGDDEDDLEEERIEVFGNTASPLRDLSQPEPHDDGTGADGNGAPSGSSASNKRSRSEVWDDFEELFEERNGAQVRVSAKCNYCHKTLSARSTGGTGHLLRHIKSCKPRNVGALSQSMLRFNADGSVSQWEYKPDVARTELVRLIAREDLPLTFGQSAAFEEYIQNAHNPRFSVVSRQTISRDVFKVFDKRRAMLIDTLKSVSSVALTSDIWSGNAKEDYLSVVAHFVNSNWQLEKRILGLVLIDVSHNAENISERVLSVVQEYGLTNKIFSITLDNASANSKAMDSLKPALSGYIGDLYLHQRCACHIINLIVKAGLEIFKPMLQDFRTAISFINASNQRIALYKNFCIAKGIRPRKFGLDMDVRWNATYLMLKHLLPHRVIFSVFIASHHPMADGQPLLTDLHWTIAETVLLFLEQFYDSTVILSGVYYPTSPLIMHHILEIAGHLNTYENDWNLRNVVVPMKNKFLSYWSEIPFLYSFAFILDPRAKIRGFSNVLQIMGQLISGDYSAYLNEVRAALSDMYAKYESKFGAVRLQRATPSSSSGKKKTAWGKIFGAAACGSSLGAGLGAGNAGASASPGSGFGAGASPGSGFGASASPGSGLGDAGASAGSGLGAGAFSRRTSATALIQAVSSTANMNASELFAYLDSDTVNQYDDDFNILNWWHEHNHTYPILSILARDVLTVPVSTISSESAFSLTGRIIEERRRRLAPDMVQALALIKDWEQADAKMQHTMENLELINSFDNLFLDEVTTATGTG

>Os\_hAT-13

ACESSNTSFNKEIQIEAWKEFVPILIDNEVGAGKCKHCDTEIRAKRGAGTSSLRKHLTRCKKRISALKIVGNLDFTLMSPNSVRLKNWSFDPEVSRKELMRMIVLHELPFQFVEYDGFRSFAASLNPYFKIISRTTIRNDCIAAFKEQKLAMKDMFKGANCRFSLTADMWTSNQTMGYMCVTCHFIDTDWRVQKRIIKFFGVKTPHTGVQMFNAMLSCIQDWNIADKIFSVTLDMLQPMIQWLSC

>Os\_hAT-14

MLFVDRMSNPAATVESQVALTPSSTSTPTPTNAPSVEINDSQGTEVEHDNKRLKSAAWQDFVKKKINGAWKAECKWCHNKLGAESRNGTKHLLDHIKTCKSRXARKGLTQSNLKMGIDAEGRVTVGKYVFDQEVARKELALMICLHEYPLSIVDHVGFRRFCGALQPLFKVMTRNTIRKDIIDLFGVNKISISNYFHKLQSRVAITTDLWTATHQKKGYMAITAHFIDDEWKLKSFLLRYIEYVLHIMLYHASYICLTLYLYTNVLLWCFMFCRFIYVPAPHTADLISEIIYEVLADWNLESRLSTITLDNCSTNDKLMENLLGTMLDKLPADTLMLNGSLLHMRCCAHILNLIVKDGMTILDKIIEKVRESVSFWTATPKRHEKFEKQAQQINVKYEKVIALDCKTRWNSTYLMLSTAVLYQDVFTKLGTREKMYTPYCPSNDDWKFARELCDRLKIFYDATEAFSGSKYCTANLFFPKACGIYLAMRKWSTSADPNIITMTKLMSAKYEKYWKDVHGILAIASVLDPRYKLHMLNAMFIQIYGEEVALRKVNAVKEDLYKLVLQYQNHVEEGVGTSDGVNASSSVAPPGGFDLVDDIFDQYMSGQTVASSSQIRTELDLYLEEKPLPRTQDFDIINWWKFGGIRYPTLRQIARDILAIPITTVASESAFSTGGRVITPNRNQLKPDLVEALMCVQAWGRADMLGNFIFAFVSFKFNLSFHVSSISSNCKSHYMLIAEIANKTNALNTVLDDESESVCPTLPLYCFYYYNIQCLVASSNFDFRKHLLSLKLEVEIS

>Os\_hAT-15

MSKRTLLTYYSSSSNTDPSPSTENLSQPKRPRAEFSQSDIIGDPGLRKPIEAYPPEIRDQVKRAYALSGPTQPNITIFPRKWQGGEWRSFQKTWFNEFDWLEYSVSKDAAYCLYCYIFFEPGKPEKFGSAVFAKEGYVNWKKGKDRLTVHSNCKTHNDARNKCEDFMNQRTSVSKKIEIVSKEEEIRYKIRLTSSLDVVRFLIEQGDAFRGHDESDTSLSKGKFKEMVDWYKDKVPEVKDAYEKGLKNCQMVSHHIQKDLTKACAEKVTAVIMDEIGNRNFSVLIDESRDVSIKEQMGVILRLVVHICSFICLIFQILFLLLCRFVNDEGKVMERFLGLQHIERCTAIALKEALFGMISSHKLTISKIRGQGYDGASNMRGEFNGVQKLIRDENPYAFYVHCFAHQLQLVVVAVSTSTPAIADFFNYVPLIVNTVGASCMRKDALLAKHHDVLLEKVENGEITTGRGLNQESSLARPGDTRWGSHLKTLLRILVMWEAIIDVLEIVKKDSTKPTFNGGAFGLMGKMQSFDFVFIMHLMIDMLSITDDLSRALQRKDQDIVEAMSLLIDVKELLQDMRENGWEPLLNRVISFCNKHEIKVPKMDKEVNERGTSTHRRHKVTNKHYYHVEIYLAAIDAILVEMNHRFSEVSSELLVCMSSLNPRNSFSNFDVDKLVRLAEIYAEDFLVGDLMLLRTQLGNFISNVRRSKEFLGCKDLAKVAELMVQTGKNRTYHLVYRLIELSLILPVATASVERVFSAMSLIKTDLRNKMGDEWLNDLMICYTEKQIFRSISDEKIIQHFEEMKKRRMLVPQQKLVVCSMPPFSP

>Os\_hAT-16

MSVNLQRQLSIEIESPSNRDGIAATEAQPNQQLVPGEVRGEEGQEGNPTKATRKKKSPLWDFFEECTVPSKKKKGEMENKVKCKACETLLTKNSSGTTTHWRRHLEQCDYHKLQQKSIKQQNINFPSLDEGDVDLDAPCVSVPGYYDPTKIRELICKMIIVHELPFCLVEYTWFNVLLKRLNPSYKKVSRNTIRSDCMRLYESEKEKLKRTFKDVRKISLTCDLWTSNQTICYMSLVAHYIDADWSMHCRVINFLELEPPHTGVVIANAISDCLASWRIEDKIASITFDNASSNDSAANLLLAKFTKRGSLWFYGKFLHIRCCAHILNLIVQDGLAVIKHIIDKVRDTIKYIKKSNNRAYKFSADIDSLNLKSDMGLAIDSCTRWGSTFKMLQSAFFYRSALDVYAAGDANYRWLPTPEEWNLYCEVNDALSVIHAATEEFSGSTYPTSNLFYSHIVDIKRVLGQLLKSKDPILKXMANAMLEKFEKYWGPECNTLFAVALVLDPRFKMGMINYTFPALYEETVLPKKLANVESTLKSLHASYESELQSTSKENDATTQSTSTSLGTTSSHFSAASQFHEYMKSKNAASLPKSDLKRYLDDPVEDIPAKSFNLLQWWRMNELKYPIVAKLAKDILTIPITSVSSESAFSTGGRVISDYRSSLLPSTVQALVCTSSWIRGGHHKSTDLVSSYIFMFLTN

>Os\_hAT-18

MDLKSMWGRAEKKLKSIVDSNNISEHTAERKDPEPATIHASATEEIGCSRACEVGFAETKTQVPYESIEVSRPQDVDGSIEVSKPHVANSESEEEDDWLEDVDEDVGFLPHDPGKRMAISDYSVNQQDKVRMKYIALGPCRPPLEQFPPRNCGGKRRFIRSWFDKYSWLEYSEEKDAAFCFVCYLFKDRANYVGGDSFVNEGFRQWNHLDRFDKHVGSVSSTHNLAQEKYDMFIRPNTAIGENLRKRSKHDKVVYKARLTYSLKCLRFLLRQGLACRGHNESEESLNRGNFLELLNWLARNFKEVNEVVLKNAPKNCKMTSPRIQKQLIRCCATETTKLLMEDLGDEFFSILADESSDVYQNEQLALCLRYVDKKGRVVERFLGVVHVENTTALVLRDAIKNLLMQQSLSLSKVRGQGYDGASNMKGEVNGLKKLIMNESPSAYYVHCFAHQLQLTLVAVARENGDCVWFFEQLGYLLNTIGISCKKHQMLRVAQAQEIVEALELGEIESGQGLNQEMGLGRPGDTCWGSHYKTVQHILIMYRSIRKVLLQVGKDRSQSAEAIKAQTAFQSFVSFEFVFMAHLLNTILGYTDDLNTALQRREQDIVNAVELIVLTKMQLEMLRQDDGWENFLKEVTSFCMKNEVKVPQMDARYKPVGRSPRFFGKVQNLHRFKIEMFLSVIDRQLRELNDRFDEVNTDLFVCMASFNPTNSFGSFDKEMLVKLAQFYPNDFSANDIMHLRTYSA