

**Supplement S5: Proteome sequence of corresponding transcript number**

TK-Nr.	Proteom-Sequenzen
9	MVQSFSGESRFTAQQDRLRPFARRGNAEVLLFIPTDVVQTAHRLRQRFLEDNKADSEKTSAEALALEFLQLFVNTDSREEAEVRFVRLSLVLVQYCYEEVFKNNNVHCADLSRF TSVTAPTILQNWYKATHRLQSQKVAVPKPPSALFEAAGRGTVTLLGALFGGGQPDWLRLRPLRELHATYQPVVEFLRMARKNLNAQAASVEARASCLLYLGLDFMGWLEGGAA LPPDQYLTSAPVNLPLIGVVQLANVYVWMWKSLSRDLRQLPEVQSAFGKAAGHSLGISAVVLSSADEAEFLQNAAGTITLLWIGLRASVAYPAVALDPDVLSDITLANEGKPTPM LSIAKLPISAVQQHVEEINRLVPADRQGLAEVLVNGPRNVVSGPEDSLCGLNMRKLKVLQASKDQSRVPHSKRAVLAFTLLFIQSSAPFHSSVYLTAAMVMAADIRLGRFLPK AAHPVLSTADGTPEFQSDPLDPLTLARLITLVSKVDVWPKSSALPVSHLIDFGPSGSMGLLTHRNKEGTGQVQILAGELTAPAVPLKAAALFDLPHLRWAPNWEEYRPLRLVTA HDGRLHIDTPFSRLVGKPPMLMAGMTPPTTGSTAFVAATVSAGYHVELAGGAYFSEPGIRGAVQNILTRTPAGESITMNLNLFNPLWNLEFFLALKMRKEGIPLNGLTVAAGVP SLDVAADTLDAVHEAGMRHSFKPGAVEAIFTVCSIAERHPDVSILVQWTTGGRAGGHSHFEDVDQILTSYATIRKHRNIIIVAGSGFDAGSVPVYLTEGWSTKYDYPVAMPFP GILMGSRCLMCAEQSGSDGKELAKAEAGVLDKPNWKEKSYDGPVGGVVTLTYLSELEGIPIKTRAGTLFWKELDITKVFSLPEKRLAKLEMKPIYIQLRNLADYKPVWFKPKLNG EQPAEGYCELDWMTYYEIALRLVEVLHYHPHIERWLDVTMRNLTDADWLDRIERFVGGDQRPVLRRAQLDAPQTFLEQFFAQYPAAMTQRVQTADWQHFVHLSRRKTQ KPVPFLIMDFDEFFLWFKKDLTWQSENLAMVPGQDADRVCLIQGPVAAAHSRVNLQPIKELDDIIYEGVRLLDDHYGGGDEGQVPTVEMLGGPPVVASPLPGVPIVAERT DDVQVQLASAGPLGSAEWRFLPAPREANVLQALLTQPHIQRGTRLAPNLRVRLNPHGRQLKVCYTGQMPTGMYDDDDYDDMVDVVDGEISVVKQDQGRDILTLR MLEPLGASAAECVFQFRYVRTCGPNIPIHEVMEDRNARIKQFYSALWFGPGDTGAVDAQADGAPWEIKDLLTCTHKVTRAEITDFCRAVGNVSEHHVDRGQAVLQAPMDFA MVVGWRVIRALFPQCVDGDLFLQLVHLSNGFHYLDDCRPLAEGDEVATRGAITGLTFKDGNGMTVEEATLAREGVDFMTISAFLYRNAQGSDAHAFQYTRDTPVQVQVR DARDVAVLLNKPWIIHFTSDMVAPAGVLTFRSTVRRFGRGLLHVTSVSCETTAKTVVIGTVEFEAEVVGNPVADFLARKGTPLVDTRALPNNGTTSVKAMLSSTSAAP KSNHTYISGDLNPIHVSYPFAALAEPLDPTIVHGMWTSAAVRTFVVQYAAAGNQGRVRRYQVSTGMVPLGDKDLDTLQHVAMNRGARIVRVTNSGSGAVLDEGAEVE QNPTAYMFTGQGSQMPRPMGMDLYETSAARAUVWDQADAHFQSTYGRILDIRVDPNPSTRVHFGGQAGNRVRANYMRLMYKEVKVDPDGTSLKRLRPAITEDTOQTFTEHH EEGLFATQFTQPALTMELAAWYQVQLLEGLVREGSPFAGHSLGEYAAALASVGDVLTIESLVDTFYRGMNTMQNAVPRDALGRSDYGMCAVNPQRVGPVGNQALQYAVDT IASQGGGLEIVNYYNRRPQQVVTTELLNLDLTLVLDTHVKKLDLGEILRQSQSLVQAQLERIVAEACRAQVARRAANGRRVAVQRGVATPILPGDVPFHSLLLPQVAF RECLMEHLSPTNRINVHRLIRRYVPNLTAIIPFSLDRGYFEATLARTNSPKIKAVLKAWNPDPSPAEQQQLGFTLLVELLAYQFASPVLWIDTQDVLREFNATRLVEIGPGPTLVGM AQRTLALKYQADQARNIKRDVLHVHKDSRVVAYLEDKVAASEPAAGSPAPTPAPAPVVAAPAPAVASAPASVPDAMPTEEVHVMMVATLKLKRLGEPVLSSTIKD LAAGKTLQNEILGDKKEFPAYTPGKEELSDRAVAGAVRPAFQNKPGVYTTGLTSLKSLVAKMPGAGLSRMKDYSALSGYGLDPTRSVALLHLALPEAARLGSSEAAGW LDGVVAAYAGYAGVALAKGASAPATAFAAAPAATAAAPAAVAPDRPPTAADFVRVLVALKTKQSPKAVAPTRSIKDFAAGKSTLQNEILGDLQSEVGAVSVGEPAEVS LQGGIPGYKGSAGFASRYQJARMVSSKMMPAGFGLSAQVRDHLASQGFQEGSIAAILHLALALEPPARLGTVAEHWGLRSVVQDYANLHGVSLSAAPAGAVVAVPAVDHSGLT KRLDGLFGEQLELYARILQRDLREGDKRAETQAQQAAALQAVDLVWREHSGYVYAEGISPAFHAKKVRHDSYAWNWAKQDLIELLRISADPAAGMDPTIVSTASILNRSR EAILHYITYETQRTMAKGGREFVELQFGYTLSATLPQFAPMWGLDWQTLATLATSAPPRFVHRQTLPTSTTPTPEGRIVYQEARPGVATFEDYQVSGRFDPPQNSADQ VVAECLRQLRRRPSAKQRRALLQLQASLNVKNSKGRPGVPGVGGRRGPHKESPLLHVQTRSKQNPNAWAYDKALTAYFOELTAATAATTGVCFOKTLVLTJCGGRNSIALEVL QAVLAGGGRRAIVTSSYSKAQCDQFYQAVYQYGGAGSALTVPFNGGSGVDDEALVAYIYDQPGWMDVDDVYVFAAIEQGIEMPIVDGSRSELAHRLMLTNVLRLLGAIRAQK HRRSTITRAPQLVPLSPNHLFGDGYLAEKGLPELHFKWHEGVAITLSLVGAVIGTRTGDLMGADNVLVAGMEALGCTFSTVEMGLFVGLMGTQLRATLSLQTPQL WADLTGGMDRIADLKGHTTLRLRAEIQEAATRSAVLQEMAREDEVVHGKPPAATPTIQRANLQLTFPTLKSFEELQPLRYMQGMVLDQVWVISGFAEVPWGNTRTRW EMEREGFRSLEGCVEAMRLMLGVHFNGLSPGEAYSGWVDAATKAPIADHBEVHKARYESRIELHSGIRLIEPELFNGYDPPNRKFLYLQVQSIDQLKPLESQEEALAFQRQHGD ACEVWAKGDGQWLARLRKGAAMIYPVAKLQFDRLVAGQMPTGDAKRYGLPSSVDQVPTLFTLVSTAEALISQGEFANFEYFHYVHTVEGTVNSGSGFGMVASQGM TNRLEKPIQDILQHEFINTMPAVWNMLLSSSGPIKTVVGACATAAESVAVGVEITQDQKAKIVVGVGDVDEQFEESQEFANMGATSNVDELAHGRTPAEMSRPATITR AGFMEAQAGMQLITTAALAFRMLGLPIYIVAFNTATDREGRSIPAPQGILTSAREKLVPGTSPELAVAFRRKQLDRVRRIKRWADEAEAGLQQVEAEAKAADPAL DEAQYVTERLATLQGRQLRQEAAALATWGNHVFYGNPAIAPLGRALAVWGLTADDDVGSVFHGTQANDNLESEVNVNQMRHLGRTGNLLPVNMQKYLTHGSHKGAA AAMWMLNGVQLYMLDGAVPGNRLNDNVDSLEAEVFLPNRTRLKGLQIKQKGLSGFFGQVGGVVLVHPVDYVLTLSPEYARTILRRAREAAKYCAKTHSDLSLQTPLLRV KTEAPYTPKMQMAVYLDPTARAKYDPEKGSWSFARYEKAAEHPQEVQATQEALRQVAVAPALAEAKGVGCDVQLTADLNLANDTFVQRNFTDAEAIYACRAQPDPOQASFA GRWSAEAVVKAASNRPDPAVWQAGAGPLRAIEVLPSPSHSPRVQLTGALVAAEQGLVREVRVVISHSYGAYIAVAAAL
78	MPMMGQFLYSPAPQMGAEAEEDRAKKVRLMNSKRYAKRKFGYDQAEQDMPPEHVRVRLDHDGMTNKKFRHDOKRVYLGALKYVPHAVLKLLENMPPMPEWQ VRNCRALYHITGAIITVNEIARVVEPIYIAQWATMWIMMRREKDRRRHFRMRPFPPDDEEPLDYGDNLDLIEPLEPIQMELNDEEDDAVFNWFYDHRPTVEGQKLDGRK WRLSLSIMANYLRYLAGVLLSDLMKKNYFVFDLKSFFTAKALNMAIPGGPKYEPLYRMDMADGEDWNEFDINDINKIIRHQIRTEYQJAFPLYNSRPSVHLQYHYPAALCYIKTD DPDLPAFYDPIVNPPTPAYRDQANPAFDPYTPPEALLEEEDDFELPDFQPFCEFDLDDNTAQGIALYVAPRPNFLRSGRRAIDPLVKTFVQEHQCRPSYPKVRVSYQKL LKCVNLNELHRRPPKALKTKYFLPTLRQTKFFQTTLLDWVAGEFQPMSEMLNLLIHRKNLNYLHDYFNFLPKVPKTLTRTEKRSKRSQIRGLHICREILMRLLVLDVSHVQY RLGNVDAFQLADGLQYIFNHIGLQTMVRYKYRRLMRQIRMCKDLKHLIYYRFNTGPVKGKPGCGFWAPSWRVVWVFLRGLVPLLERWLGNLNLAQFEGRKSKGVAKTVTKQ RMESHYDELELRAAVMQDILDMMHGKVRKNTSILNLHAEAWRCWKANIPVWKGPMVSVENMIIRYVKKHADVFNWVAHYNRERIRRAGVDVKVCKNKLRLTRLY LKAHERHQVLYDKGPYITAEAAVAYITTVHWSLRSKFSPIFPPLSYKHDTLLIALERLKEAYSVKRQSGREELGIEWQADNPHEALSRIKHLTLQRTKEKIEFMDLFS YLIPVYQIEPLEKITDAYLDQYLWYEAADRHLFPNWVKPADSEPPPLLVYKWCQGINNLTDIWNTSNGECVVMVETKLDKYVEKLDFAALLTRLLRLVDHNIADYMTSKNNVV NYKDMNHTNSHGIRLQGFASFIHQYYGLVLDLLGLLTRAIEAGPPQAPNDFLCFRDVNVEIKHPIRLYHRYDIRHMLLKDTHEESKDLIHRLTTEHPDPNNENVYGYNNKKC WRQDRMRMLMKHDVNLGRGVFWDIKMRNLSVSTTVQWEDSFVSYSKDNPNLLAMCGFEVRLPKIRSFINEEFVAKGDVNNVLNOSTKERTAKAQLRVLDDVDSLKKFENR VLDLMSGGGATTTFKIVNKNTVTLIGLMTYYREATVHTQELDLVLKCNKIQTIRIKGLNSKMPSRFFPVYFPTKGLGLGMLSMGHVLIQPSDLKYSKQTEMGVEFFRAG MSHDEQILPNLYRIQVWEAEFIDSQRVWAEYALKRQEANQQNRRLTELEDSWDRGIPINTLFQKDRHRLAYDKGWRARTDFKQYQMTRPNPFWWTNQRHDBGK WNLSNRYRDMIAQLGQGVEGILEHTLFGKYTFPTWEGFLWEKASGFEE SMKYLNTNAQRSGNLQIPNRRFTLVWSPNIRANVYVFGQVQLDTHGMHGLKPLTKISLIQIR AHLWQKVHESIVMDLQGVQDELSDLEIETVQKETHPRKYSKMNSSCADILLFASYKWQVSTPSLDLTDKNYGETSSSTKYVWVDVLRWGDYDSGIFHYTRAKFLDYTTDNI SIYPSPTGLMLGVDLAYNLHSAYGHWFPGMKPLVGQAMAKIMKANPALYVLRIRERKGLQLYSSEPTPEPLSSQNYGELFSNQIIFVFDFTNVYRVTHIKTFEGNLTTPINGA LFVFNPRPTGQLFLVHVSWAGKRLQSLAKWKTAAEEAALIRSLPVEEQPKQIYVMRKGLLDPLEVHLLDFFNIWKGSELQPLFQACIKELGLDLIKATEPQKAMVFNLYND WLKSISYATFSLRIULRSLLHNFBERTQLKQPKDNTVTLPHHWPRTLTDDEWIKVEVALKDUMADYGKNNVNVASTQSEIRDILMIKIQAPSQAQRMIADIEQAKQDQSL TAVTAKTVNKHGEEMLITTTSPYEQNPYSKTDWRVRAISATNLYLRTNHIYVSGSDVDKDSGYTVLPKNVLKKFITIADLRTQIAGYMYGITPADSPMVKEVRCIVMPPQWGS HQAVQLPHHPHDHFLKDMPELGIWHTQPNELPQLSPMDVITHTQLENKLWSDACIHTSFTPGSCSLTAYKSETGLEWGNQHKDNPNTNPQGYMPSHYEVKQMLLSDR FMVPMVPDENSVNRYFQAGHSKMMKYEILTANRPMFYHELHRPSHLNFTSEVNAAPVNDREDDHF
97	MAAAPFTLSMQRALGYNLQPLGAQRASSTSIDMERFTSVEEFVKAMGGSKYIKVVLNANVNGMAATKIRSIIQQWAYETFKDSRAIKFVVMATPEDVTANVEYIKVADCEVE VPGGPNRNNYANVDLIIDQARTKCDAAVVGWGHASENLIPELAKTPIVFLGPASAMARALGDKISSTVVAQSAQVPCIKWGSVSHVLPPTGTVNVDEQLYSQCCVKDLKH CRQAEKVGFGLPMIAKESGEGGKGRIMVMSKMAGEDAYLQCCAEIPGSPIFMLQATGCRHLEVLQGLDLRGLNVTSLKTRDGSVQRRHQKIIIEGPPVLGTGDVGRVLSMEQAA VRVLAKEVYEGVGVTVEYLKEGVGSPFFYLENLPRAGVQVHEPVITMITNINIPASMLMVGGMGILQRMVQDVRRLYGLDITDQDFDLQDEQMPAVCHTIAVRTANPDEGFRP TSGKIYSIDFKPSRTTWGYFSIAAPGGVHEFADSQGFHIFSSGESRIARKGMVVALSRLQRIEGEIRTFEYVMNLLERPEFT





1453	MAEAPVPVDPKLEELCASIAVAANVVRTLKESEAPEDQLEPAINALMTLKVCLTDLVGVGGHEQALNKSAYKKEKKRLESVTEKPKVKQEFKQGGEGRNSKLAKKMLEKRQTDLQNKTPHGGQKILDEEMAEKEYDPEAVEMAWYAWWEESGYFKPRDADTTSEKFMVPIPPNVNVTGSLHIGHALTCSEDLVTRWRHMRKGHNTLWVPGTDHAGIATQVVVEKQLYKDTKTQRQDLGRDDFLAKVWEWKTAKGDDHIYNQLRLTGASVDWSREAFVTMSDKLSRAVLEAFCLRHERGKIYRDTKLTDWCCTLQSVISKIEVDNVELEGETKLSVPGYDKVDFGFIYFAYPVLVDSEEVIVVATTRPETMLGDTAVAVHPDDPRKHHLHGFKVFKHPFVDRKIPICDILVDMNFGTGAVKITPAHDPNDFACGKRHGLEFIDIMTDTGEMAA CGCGEFSGMKRFDCRAVAMMKRLDEMGLGRGKAPNPMTIPLCSRTGDVLEPRIKPQWYCDCTEMAARAVAAVDAGELRIVPASHEAVWRHWTNINQDWCISRQLWWGHHRI PAYYIDFRGEPAGAKSDVTRWVVGRTLDEVKQRAAEKFGRPVEDLILSDQEDVLDTWFSSSGLFPFSTMGWPDGTVDLQVFFSLETGYDILFVWVARMVMSLELTDRLPFRDVLHNIVRDKYGQKMSKSGNVIDPLWVVYGITLEELHANIASGNLPEKEVEQSAQKAQREQFPEGIAPCGADGLRYALLNCSLSSDINLDINGVVSRCNFCNKIWQATRLSTSNLVGFTPAAPQPMEGCGGERALVLRWLLSRNLHMLTRLVDVAYTVYDFHEVAEAGRAFFWEEFCDVFLEYTKRIFQNPDPHQRAAACETLYTVLETTFRALHPTLPFLTEELWQRLPRRAGVTTPSIMLAEPYAPVAEWTDAAQAEVQMELVLAIAKAMRATKVNYKMAPKATPRVTVRVQAEAGLVRDHVEDFQKLSGVGEVEVAVGDSAPAGYVVTVSE QVDVLMELAGNVDAVAEAVKLEKEKLKLEQTRDKLRAEQED
1597	MDPHASLLSLTLDKDTSFVDPFRADLKLLQALLSCLVEKAGIPPKVMDFQRLTKAFAKTSPEDFQALVQHAESLTNEEALVTARLFLELIHLSNLAKEHHRLLRRWRAYRRREGAIVLHHTLEDCKISLTDQHGIAPEAVRKQLSAQRIELVLAHTPQAMRRSLLVKFAKILQLEQKDSHFLTPESELIVDEALRRREVFGAWVRTNTRLVKLPKRPDEARSGLSYIEDSLWNAVPKVHKAIDIALHQLDLPLEDLRTITFASWMGGDRDGNPFVTWQVTTETICNLCRYRGADKFYDELEKLLFDLSMHRTCSAEMQEFIAHTEKHAGDSQWDIWWQNHQIAHDEPYRVVLQHLHVKEATRNRKFALYEGGAVSPHILERPYFTTTELKYDPLKMLYRSLHEVGDGIVAEGLLKDTLVRLKTGLELVKLDVQRQESTRHAEAVDAITKYLDLGSFLEWTEEQRCDFLTRELTNKRPLIGADFEASADVVEINTMKMIARVGPDSFGAYISMARTASDVLVCSLLQKVGGIKHPLRVVLPFETKEDLISAPETVEALYRNHYRSHIDDDQEVMLGYSDSAKDAGRITSVWELYKAQERLVKLSADYGVQLTLFHGRGGSVGRGGGPNYLAIQSQPAGTLDGGLRVTIQGEAIEQFFGISTIAEQSLERYCTAVNTLSLAMPPPPPEVFEVRMERLSQSCNTYRALIYENPLFVRYFHDTIPASVLSGMNLGSRPAKRKAGGVEQLRAIPWVFAWTQNRVHPLWVKGVTALRAEMEAAGNKELLQRMVYREWGFFQSTIDLSMVLAKADPQISRLYEEMLVPEPLWFGQHIRDLLAFTTAAMEVMEVTQETFILMNQPVLKRAIDNRMPSLDPLNLVQAVLMKRDRAPDAEADTVLQDALKVTVQGIAAGMQFTG
1731	PAAPTPTAPSPFPTLDLTAAPPPAPAPVDEAVRGEPAAPLPAPVEPPVTVDVPAASSSGEEGAASPSWYDSEGNLSPLSLSATAVVLLSAAASIFLOAEKPPGTAELETLVVEMQPLRANTRKLTDAAIQKLLDTAEKATNSVVDAETFEKAIGPVVDAVEATLEAIEVQVSADVEATVQAAKVAQAAADVVEKNAELVVAAAQSTDRAGAVAGRMA DVTAAVELATQAVGDEVEIETATQEVTKVARGAVKAIETARLAQDAARDAEVDPOAMKELVASVTSVVVDAADALRAQMEVVDLAAQEAARVAEDAAKTVAENAAAVTEASKASQREERAMVAATSAVSKAADAIGVQAQVAGTAAEETSCLAATAVATTIKQNVDLAATDPAALQEAVESVGTADAVEIEESKVQAVEAAAAQANKATEKAANAVQRNAERVAASAKLGGPGVQSVMQSVSDAVNDAAQAVGDEVAEGAAQDAINAARAASDSITKKMELAAEATRDGSGVAGLQEAEMRSYDVAEAVESQVRMVDLA AQKASQVAQTAADSLEESSARVSATSKQVLNIGEVDAMTVVRSSVSEADTIKSQVQVNTALQQLGKVAWATGWVLLSVAQLLQTAVTNLDPEVFKTVLQVLGYVMGIII EALKVLEKVVVAEMPVIAATNTVLAFYREQVRNVYAALPDPVQQVISADVLAASPLLAYGTGNNAVRAKWRLLYGEGEWVDRPDLRAMLLESOTLLVDIRIPKEALEGVP DLRRGARGKALLSPLPLPLRAKASDPDKLMIYELHAQTVSSMWVSVRFRRAVYVMDRQDQFGKQSFARLLRRKGIGQAYWLRGFGNRWKAAGLVRVPTDVGFTDYVQQEA EALVLDALGLLGSFRPPRPAPEATAAKGSSLRIDPPRPPTQGSRGPPKEGTLGRRTSPPRSPTLGRKAELASPRGSSRVTSRR
1761	MPPPPKEPRSPPEQTSPHRLAHYNHVRLPTQASARYTLANTRVEVERRAPCNPAIASVEVRKDATGSRVGIALGSSSPSAAPVVICSGPRVLLWRISGDGPLQQQVNVSAFILN DPSALEAAVVGQGRSLLVHRLTCRAFFFRDVFRRQPMASKALATSANDEAVARFSQQGDHVVIVTTQQNVFVIGPKDFESTQPLTPFICRTGRSFWGLGALFSKPEDIPIHA QWSAEDECLVVVGKNVVEKWRAGAKVSSFALEGDLEFRALQVQADVIHVLVYSGCPKPTATADADAMAEDTDGLKYCVAHYKAGTLEGSTPLKFSYQASKCYVACASARLLPG GSTPQCIVVGLDNLLVTSRDNEDVLYDDFFMFGYVASSSALFLRTSGLWGLKFPAPVEEFAQPEEVPALPVGVTAAANAVAHSKRIVDGSIANPVGWAAAAPVDDASSGL LKAKIARKRAAHRFSMAALCSTKIWDAMSQDRRRVHEHEGKELAMCYALRKFNQDQHVAKGKPGHARQAHAFLAATLEEVVAAADRDLPDSTKMSVQERFFSHASQVQ RLELLSSLRDNPVKVWSDTLQKFGLTPTQTMVFTNTVFLFELFRSLAHRDVGYSQALQDFGRMEWTRLDPFLQLISRQALDTHDIADLAGANVKTSDGGLGATEAIIQRLTSS DAVLLDPAGELLKQADLVYVLEFADDGRASPTAIALVQKYLMEFAGVPRKAVDAGRRRASPLAHVWREPVRALAEKWRLFDMLIELSRTAPEAPPDQMLMQYQLQRFE GEFHTALFQHHLQHKDWRSLLAVEGVDDQPLAEFLDRHNVMAAAVHRLRFARGLEPPAAAELQTSAAALFRDAAQRQLNLRERKASLSMAKLVHLHSTTSPADTNSRLVMH DLNKLKVIKLVQEVLFQPEYLAPEPAIEKLSAAALTAHRQQRQDKLQAALLNQRLDCDEAERTCEKEIWAYIYQAEETDWRQLAQLCRDGISDPMRQHLEGSFCTLR YTPGEGTLTRDMFDHLRKTGRL
1863	MAEPLVLSSEVPLTSTQSSAAFKRFGDEYVRVGGSLAKGGTMTVEESRTFSQTPITTYQSGARAVSNTRILSTGATLLSSATSIVDGSRRYARSSAAVCCQPFDPNCNSVVRQL QTRYLDPVETTHVEKVPMEIEVDVEGYREVIEVPVERIVEVPERIRTVPMQVVEVPVNRHVERLVVVPPELKERQVFIKPTIERVVVKPEVVEYEVVPVQRTVEKVVVPREVLV EVPVDKVTTVDVRVVEKHVPVEHIVERLVEQERVVETQVKVQVIEVPERVVEVPVQLEKQVQVPVERVIERVVPVKRDTQIPVERIHERIVPVQPTNIVEVPV DKLIERVCTVPKQCTVEVQVEKVVDRIVEVPRTITQEVLIDMVVEKVVTVPSEKIIIEVPVEKVVESIVQPKVTVHDVPVEKVIERVVTPHEQRIEPIQRVVERVVPVDRVVER VVEVPHVTVREVPVESVVERVTVPVNVRVVEVPVDRYVDRVVQVPVEKVVNRVVEIPKITREVELQQVIEKIVEIPTTKVVEVPVIRYIEKIVEVPVTREREVPVQKYVVEKIVEIPY ERVVEVQVEVPVERIVEKVVVEVPFTVDRVVEISIEKIEKIEVERRVEVPVEIVEKVVVEKVEIEVPVIEKVVIEKIVEVERRVEVPFDTIVEVERVVEKIVEIPIEVVKNERVV EKTIETSYDVTLPVVEQVSSFSASGGGSYSTSASYSTGGYASGGGGYVSSGGGGYVSSGGGYSSGGGTGGSFAFIGGGSGGSFAFIGGGSGGSFAFIGGGSGGSFAF
1888	ISGGGGSGGSVRTGGFSSSGALPGAAGVTGTTQLYSSQTSLSGSTGAWGLPKQY
1888	MDGLLKACFCVGGNVNEAATSFAEGVDHEPCLTALEPFLSEIKTAISNKKDNQKCMQCATVIGALTKVVGSAVEPYTIPFLETMLDLCADKQLPVKAAKANCMVVEELCRAS TQWVPIMVNLKGADSGWQTKVAALEMLSALAARPKDLSAVLAIIVPAVSECIMWDTKKEVATVAKDALTKVCAIGNSDIEFPFAPVLSAIANPTFVDCYKLAGLTTFVQVV EAPALSIMVPLIRGFKREKSIPIKRLCSVITDNMVKLVDDPFSTEPFLAQLAPENЕКVMEVSDPECRQVASKTNDTLKRIRDPSKAKASSAADFDATLKAQLDLITEFTLPKVTPIE TSLRWIATSACGLINNKFYHESWTAAVLPNLGAFIDHHCPSDAQKINEAFLEKCVKEAPKEADLDDEEGEDLDCDFSLAYGNKILLNQTKLRLKRGQRYGLCGPNDCGKST LMRSIANGQVEGFPQDVLTSVYLESDIPAEADYNVIEFVRLDPLHKDKDMDEIIPMLKSVDFTDQMLNGPVYQLSGGWRMKLALSRAILRGADILLDEPTNHLDRNVNA WYENILINKDVTVPVAVSHSAGFLDRVCTNIIHFNGKLKKYRGNLSAFIKHPEAKAYELKAVGSLKFRFPDPGYLEGVKSKNALLMRNVGFTYPTGTRKLTGVSIFFVLSVR VAVVGPNGAGKSTMIKLLCGELVPQEGTVEKHPNMRLAYVAQHAFHHIENHLEKTPNQYVQWRFAGNEDREAIVKATLELTKEEECKCKPILWDGKKRAERLVSRRKQVKK SYEYEVKWEGPSYPTENSFLSKDMLMQGLGFDKLMQVRDEREAQSQAGFNRPLTQVNIKEHYTDVGLEVEYSVHSQIRALSGGQKQVVKVLGAAVWMNPHIILDEPTNYLDRES LGALADPQSGILLVSHHLDFTTALCSEKWVVVDNQGQLQAIGSPDEYFGKEAGDYDQGGEDTGAGNVVKVDKTKNLTNRKEKMARKAKADAA
2012	MAAGTGAQQCPSVGRPRPSTALHLHAGLDTGLPVVEALAQVQRTIGGAAPPLAQEGFSIPTFTGEDVLPTVASLAYLYARPGVITGAFDTVAAAPMYRMQMKKLDPKKI EIGRKLGGSGGFGEYVILASVKDEDSGREVTIVLKRVEKFEGAETWMNERINRALPGVCARMVDSFEIKPTGDKPKSSGVFGLSGGKELWLAFDYEGEKNLAEQMPEPNPFNLE QLLFGRRLLNGPKSPERKIQTIREIMRQLVFLVSSLHNIGIVHRDVKPQNCIVTFDGRLLKLDLGGAAADLTGINYAPKQYIIDPRFAPPETMVMQQSTPAPPIAVATFLAPALWIL NTPDKFDVYSLGVTFLFQFCAGMRSNDILAFNDTLKDSFKYDLQAWRESEAKNRQDYLDGFAALLDLONGAGWDLKLRMQFNPRDRPSTTDILRSAFMKGTTLTAPMK S RGVVDRALEVNVNLVQLVQYSRYTRTPTDQIQEGTVLNVEDGQAVPSPDDVSRQTQWWEGRKRAVTIATRPPTLMERLSDQMMPKRSK
2212	LDARSEEHFLQSAETANLEALLRVQRKQDGLRREESRQQLWLAENIEPDEMYTGPRISSDPVTEELHALYNIHKTTPDDCVHPFYMLRLLSAAKKQFSGLPRVTEVVHTDGPV VTFVVVGDLHGSLQQLDILLIYDRHGLPGGRCLMYLNFQDGVDRGPYSVEITILLAFKLVYPGSHVLRNGNHEDMLINQRYGFCDEVLDRGFSLHMNFEDQLWMLPIAATV GLALVHVGGLFRLEGVTLKHLKAIPRGPCNLQPRNFQETIMVDLLWSDPCEEPGHQMLLRGGNTIRFGADVTHRFLRAQLMKLIRSHEVPHTNKGFOVTVHNGRLVTVFSAS NYCGHGRNNSGAVMVFRDLKYTFHEHWAPSLESFRVVRTSPKRPNSEIQSAEVKLDVLRQVKLVVENKTDLQWFWNREDTTGSGSVPIDTWHRGMNVVNLISLNPWEKY EDFLIKKCMSTPDTVHYGRFLQQFQVRVKPEFAKWKEYVVKVQVHDALVQADNLNADMMVEVFDQNNNDGYVDVDELSRVFRRIEIDVTKDQIEELLADIVICGGQVDVIALIESMQ IKRYANLDPQSKKIIDIYDGLIGQEASETVRLFENIDENQDGRQLQHHEFINVVQRLLVEDMAKAGKPNCEPVESEMLVQTVQAIDANNSGSIDFMEFVDVFRHRQSSMDRLLEQI CRVFYKYQDLSLFRFAQYMDVNGDGLVLTPEEFDAGLMTFNALVSEPLSASTMDAVVKYIDRNSDGFISYQEFCSAFYVDSSTDVTEPMKQGHRRRFSKPADTLPKSVLERRAS KGNLPHQFPDQKATSSQPPAPQ
2357	MSPSSLHITTKPHSIVSSSLKPASGGFEQEDSGRFANLNLQMPMQQAKAHLQVQHSAEERSLASSWTPVVSLLTALGGAFAFMAHLRHRADSQIAIAPFFGIVQPTNQTADV RSSSSSTKTDKGADSSSDMDRETERHRIDQRVVFNAERWRKHGRIGDRYGRAGVTTLQSYVVRHLVWPVFGISLFAAGVCAAQLAYGVDDQFSLPTSLSLSAPTLLGLLVFRTN ASYERWDGARKMIGLVKNRSEDLTRQVCLRFPADRTDLKEQMMYRIHAFFFAFKVHLRSRGGGGFEDDSNLIEDLTPVLKSKELELLKATNRPAAHVMMHCTMEVKAALLEGAA LYCLDQNITQADVLGGCERILRTPILSYTRMLTRFLLVLLLLPLALSVEVLKDHSIWLTIPAVSFISFALLGIEEAVAQJEEFPSILPMEAYAEQSRNRTTIFDQMAAIVASMNIV EKAAPPSLPSSPVQAEPAKPVLAVAATAVAVTAAPAVATTAATAAAPPSPAPAKAEPSTAKGRVATAVAVVQEVTAQVEAVVEQHAVVSEHAASGQ HEAARKSVVHVAAAPAEPLPVPVSQPAQKAESSNIARIYEPSPEKVVLELQRGNGRFWMGVSERNEMNAMERRSLIVAQYPKVCILSCSDSRVPVEIIFDQGLGDVFVVRM AGNVLNASAGSIEYAVKFLGVKVLVIGHEGCGAVKGAITMSPTDIAKEPSDLQEVLSRISADLDVKALDDISDVRAREREAINVNTMNQVQRLQSNPLIAPQVEKQQLLVVG AFYEISSGIVDFSLDKNGFLVDV
2385	PARNQIAKNPNTVYDAKRLIGRKFKDEVEQNDLKTWPFQVQVAGDNGDPCFQVQHCQTQQMRPEQISGLILAKLKETAEAHLGKQVRKAVVTVPAYFNDQAQRTSTKVAG ELAGLEVALRIEPTAAALAYGLDRKTDKSQLVFLVDLGGGTFDASIAMDSGVFEVKATSGNTHLGGQDFDDNLVYKIQEFKAKATHLDMSENAKAVKRLTAVEKAKRALSS ITTEIEVDIAIHEGEDLLVKVSRAKFEQLNLKLFQCIKEIDKVLTDASVKPADVDEVVMVGSSSRIPKVQEMVAEYFGKRLNFSINPDEAIYAGAAIQANVIAGSAEAKAHTGDV LLLDVAPLSIGLAADGGKFVLIIPRNATIPRKVSEFTTVDDQTCVEVEVYGERPRASANHLGTfeldGIGKAPAGEASIMVTNFNDANGVLNVTAEDSSSPGGKKAIEITIN TNKLSDDQINAMVEAAKKFARDQDAFVKLATARAKYEELYDLQKLAEREVEKESLARALEAQAEWQEQQLLEAASYEDIQDKMDQLVEIHRQRMLETKEERAKRRAEQDGELE



	ETTQGPQVSLQFNQVMNYIEVGKKEGAKCLFGGERQQGSKGYFIQPTAFVDVQDGMRIWTEEIFGPVMAIAKFRTMDEAISRANTYVYGLAAAVWTKDLGTAQYMQRRL RAGTVWINCYNVFDANMAFGGYKSSGIGRELAQYALENYTEVKVQCVKSAPRF
123	MAAEPOTDSALKRRKKKAKPIIPSLEGAEEADPESAPPLAGRARPRKRAQQPDAPAGARPAKRRRPPPPPEESGSDDDADILAEAEAEALRAEGVQIHGDQQRCRPRWAKQDI AMDTIKRRSEDDTTKVFYARCLNITEHHLYDHYKNLGAEAIDIKWGGQGRADLGSQFKGWAILTFKSTSLAMQAAAMKPPQVNGQELVVRWMGYQLDAKRPSQLLLEM RRKREAIDEELGVKKGTGAWKDOWLQGRTPPPVEWTEGLADKAFFERDYFSTCVYKINRPAEDVQKWIQSNIAISVPADSSPPMIEFSEVDGEEVYNKVLRYKRRSPFPQIS WPIILKGRDCIGLQSGTKLAYALPAIVHLNAQPRPTAAEGPVVVLVAPTRELIUIQCNDELGAQYQAMAGGLRIGLAYGSDGGAADRTQANVLGRGVDIVGGTGRILCDFVEA KILPLGRVSFLVIDEADALLEMGFIDQTSALVMQTRPDRQTMFVSATWVRDVHMAETAULTDPIKLVVGSNKEKAVEANRDVEQRVVIVDCMKDKLELLTTTVQQLKQKSPA SHRTLTVFGQKFVAPVSKHLLPRFGKNVYITITGDLHQTVRENIIRFRDRDPGILVATDLVARGLDIKDLRCVVNFQLPRDIDQYVHRIGRTGRAGEKGMVAFSFCRFSFPMDC RLAQDIIDCIRRAGQQPPNELLQYADGVTAADGQKGRKKRRVEGGKGEKDPPEEDAEGDRWGPDPNPTERLLSPVPHITATPAAAWTPAAATP
4401	MSAMLGLLEVQSHITGKSPLTNLGDHLSPPFTANILTTGGGSVAMFSTSGKVDRLPWFPGGYAPSVLTGQYFGDRGDFPAGLAADPKVFERMIRVSEVYHGRLAMLAIVGAVVP DILGKGAWYEEAQNAGIGVNEVAVFTAAYGVVEVARGLKANSDPTKNYPGDFPLKLTDDTYKEAIKNGRLALTGMGLLEVQRHVTGSPLNLVHEVHKPLHNHIAESVMH QWPVAMFAATGHKDGWVFPGAQPPAHLTGEYPADRGDFPLSLAADPTVYARMRVSEVFHARLSMLAIVGSIVPELLGKGAWFEVGNISVDGIKLGIFILMAIAAAPTEYWRGN GGFNWDKGTADRSYPGDFPLKLTDDTYKAAEIKNGRLAMTLLGLTFFQYLATGESPLANLAHLANPVGANITTTLAMYSTSGEKYRGLWFPNITPAYLTGEFPADRGDFPA GLAADPKVYERMVRAEVFNGLRLAMLAIVGCVPYPELLNGNVWFEVWNKVDFYRFALISQVVAPLEYWRGNGGFGWDGEEKYDRSYPGDFPCNLTEYTKAAEIKNGRLAMI GMFGLVQNHVTAQGPVANLIEHLRHPLAANIGANLAHPWPPVAMFATTGHKDGWVFPGAQPPAHLTGEYPADRGDFPLSLAADPT
4567	MAGIGGLQGSRSISLISKEIRYEGFLYSINPDENTVALNRVMFGTEGRKKEGPQIPADQLYEIIFRGSIDIKLTVDFADVQKQTAQPPDPAILNAWQAPSAPSAPSSGWQGGP ITFASRGPPRDEYLGAPAPRGPPRRDRYGYDQDRYGYDRDRDRDNRWDDRRDRDRDGVYGGRRDRDQRYGGGRDYQDRGWQPRGGYNDRGSYGARYNDRGSYGGPD RRDRDWEPPRGKGAGRRDRDRRSGKDDRRGGGKDDRRTGKEDRQPAKGDRQRGKDDRRPAKDKQKEGRPERPEGKKPRSESVRSNADQHTGRNFKVDSDGA KQYAEFNFENLKKDLTKVAQEFQEKASESETAEDKKVKLQFTAAGKGVYNKEESSFDDQISCEALERKITGPEPKVDKELREQQQLDRETFGEAGAGFGYGYPRAGFRGRK QRSNFKTGGGGAGGYSNY
4707	MLRISQACLLGLVWGGNGALQPTVEVEVTAAGRGGPVILHGVPPPAQDSALLADSLAAASPLRLVEARPANACTALALSPPPRGPFVAVVQRGCEFGKLILNAERAGASAVLI TESLTTLYNFSSGEPRLQASEGGPCLLRCDLGEGEVPLSTPKADILKGLAGSTCAQSERCPSHMCGVSGEQVGDYSRACCLPDRYVMMDLGNRTARRPAIPAFLGASAAATDLE RALRGGGPVVIRVADAGAGLGLVLGAFILVWLGCSEALSTWLSAQEEREVWATGGGAGAGEKRGHQHEEPVVMVTETAMGYLLVATVGLVGLLLVQQSARVVVFM VPRSIRATLNRYDSDGDDARILRVSQKSDAKTVATSIQTRMRLDGSVYKQAVGASVNVQAVKAIAIARRGLDDTLRTDLACYPEFIHIPAPNPGDGRSALRWTLFELSQRGRDR ERDRDYERYDRDRDRGYGRDYDRDYDDRRDRDRDRPRERERERERSDRDRDRDRDRDKDRERDRDRDRREKDRDRDRDRRPAREDRRADRLDVLREPPYRADA EESKVKELKVAATSDAKAVAGAITLRLRNGDPVRITVMGPSSINQLVKALAVARTYLVEDHADMAVYAYFIHRLGSSDDEPERSALQITVYLTHEHKFDDEEQTAEFKVAGATNP KSTAGIANGIRGSKPCLALGPKAVGQAIKAIAGRANLEQDKTDIFFVQFQTRRMMLSNGRRSALELLVLPVAPKS
4779	MAYDRERDSEPRDRDRKERPRDRDRDVTPILRVAGSSEAKNMATAIERRILDFAVAKLEAVGAASVNAQAASIAIARSHLEAEGKSLAVHPEFIHIPHSKEEGQDGRSAMQYVVF AVPRSRTLRVYDDDDARILRVSQKSDAKTVATSIQTRMRLDGSVYKQAVGASVNVQAVKAIAIARRGLDDTLRTDLACYPEFIHIPAPNPGDGRSALRWTLFELSQRGRDR ERDRDYERYDRDRDRGYGRDYDRDYDDRRDRDRDRPRERERERERSDRDRDRDRDRDKDRERDRDRDRREKDRDRDRDRRPAREDRRADRLDVLREPPYRADA EESKVKELKVAATSDAKAVAGAITLRLRNGDPVRITVMGPSSINQLVKALAVARTYLVEDHADMAVYAYFIHRLGSSDDEPERSALQITVYLTHEHKFDDEEQTAEFKVAGATNP KSTAGIANGIRGSKPCLALGPKAVGQAIKAIAGRANLEQDKTDIFFVQFQTRRMMLSNGRRSALELLVLPVAPKS
5030	MRPAAPRESSPLPVGWEKKWDEKHRRYYYINHIDKSTTWTAPPPPPVVAAPPPRLVPEYKPPPPAPAPSSGFTANVSAPAATYTPTPPRPAFAGRKRPRGPPREPPVPVREP PVQEPAPGSIHSEVFSQRGPVTRNPALSLNEMKANIPENPKALLHPDVQKGLDYFLAHGPGFGREDVDQRFIDILADVPPIRAINCLEYVLSNSDNTGVKNPSAYLVTMLKKREFP PPLHVDLTPPLLVEPVQALVDNICIYEVLRREDFTQLLVEQLSLLGAYGAKALCDFLAADLRVHRPALLQAIVNVYCEEYLVPAKGAADKTRRPPRPVSRPPRIEPIYSEREP QRTWTAPHGDEREHQPPHQAHTNAAAMPTEPPTYQTLHPGVPQARLDTLFQAQRLMLEEVDVEAIAQIASLPPMVGFNLQQLFRESQIDKQIAKARVRNIIQERGPQKV VEVDLDQVAEEAAALPYEVQVKLDECFEKEVLIHQDVQVEVIERLGRLEATALDALGRLLAGEAIEPNRSTRLLIIDAVIDPEGANPEGYSQVEQPPSYTPTTAATPAQGG GKPDKRRQLVYTKLPQPPNADFIRAVFNDFTGVTVDDVKVVGGAFFRYETHEECQAIRALHNITILEGATEPLQLLLT
5198	MEILKDFATTLRLARTTSPAFRETCSRVLTLAAELEAEQRENVVSLUSQVSTSKCEDVKLAAWVRLLDQIVTVVGRGYLPGFGEHLPHLARYSLPPTPEYSSVVYGWELKRLFPRETI ESIRKGLESFGFKLEEFSEKSEAPAAAGPRAPQPTTEAPPAHGWKEHVSADGKKYYHNARTGESVWERPAEMDAVPQPSAPAPRPVAPVAAAVGSAGAWQELLHSSGRRYY FNAVYTQERTWQRPPEMDGPAGQPGPPATAAAAAAPSVPTPTTAAPTAPQDVWVEGVSPQGVKYFNKVTKVSTWDRPAELDRPPPPKPEAPAPSVWQECTAPSG DKYWYNPVTKVSTWERPAELAAAAAPVAPVAAVAPAAPQTPAAMVAAAPTAPAPSAALAKASMWQEARSQDIPYWYNRETQVSTWQEPPEVAAVRGTPATAWQE GVSPQGIKYWYNRDKTKVSTWERPPELGEPEVATPTPVSAQPAIAQPAVYAQQPASPIPTAQPDATDPDKRRRVDAAPAAVEPAAALAAQPPAQVGPVPLHAHIPPGV PMQGGPMHAHLNYPYAAHQHMAHLAANGYAAHAHYLWPMPPGAAMYPPMPMGPPGPHPHHHHQQHFFRGGPPGPHHHHHHQQHQQHHHQQHFPFHMAHQHH HHHQHLPPGPVATAPNPQTRPPFAGPGQPSRGPPTPTPT
5340	MTLAGSLCGDADDCSTLLELDPAKRTTHASSFSGADITVTSPEPGPSCAVLALVCHHQSSLRLVNDTIPAHRELLDKAPFALVTVPKSSSPTPAGPDKATAFIAELLQTVV GALAATEGFEGHLYVHDGPTGQLLQTLGAALASPRLLWSRRQQALTPRGTAMLHRAFWLFDADRDGELNDVELRSLAAAFYGRADEDVVALKSLVTTASHGLRSFAFLS LCEALLAQDKVEEYVWQMLHSTGLDSTGQPSGVKDLSWLHPKPKHVKLYEPSIAQRFLEELFLHGFPKRKPADPWPGWAVVPGGVPGPIADPWYPDRPAPVAPFRAGWD DAQADTFLAHWSYRCLADPETLIRYCYWGYTGQAQDLVPHGRGGPKHAAKSVIQLVLGGSKAGKTSLIQHLAGKRLPDLQIYRPTRRPLACITGKSFSEGEKESTRATVY FELVEDVNAFITDEKQMRITDVLMLYDGSDPYSFSYLQTKRQKMLACGTGRMPFIYVMTKCDLPRANQLGCRPQEFVRSQLQSWPPVFSVAGDPRRTSGPLSNEIAMLA EFIVETARHPCECATAMLEESGEWRRLLPLAAVVALGAASLALWLVRRRGALR
5712	MNLLNRDEEEELAPFEGIDKAGALHESKSFNAQSLDPKKCKGTLIKILYLLSMGESLATTEATELFFNTTKLQSQDATLRLRYVIMVKELSTCAEHVFVASNTLCKDMNSTNDMY KANSIRALRKITDSSMLGPVERYLQAQVVDKSDIVSSAAIVTGIHLSMTHPELVKRWVSGVEVGAELKQRGVMAQYHALALLHKRLKNDLSVKFGRVNTLRPSPMALLCIRM CAEVLKEDFDGSPDLSQFVVVNSLKHSEMMVFEAAKICSLKTASSKDLTPAILVLQLYLTSHPKVLRFVAVRLLNKVATTQPLAVTTCNIDMESLISDPNRNIATLAITLLKTGSEF SIDRLMKQINTFINDIADEFKIVVIDAMKLLCVKFPKHKNVLLTFLSDALRDEGGFEFFKAIVDAIIKIIDTIPQAKEEGLHLCEFIEDCEFTMLSQRVLHLLGQLGPTTSPNPHKYR YNRVILETPAVRAASVSALAKFAGLCPPLRQSIQVLLQRVMDQNDNEVDVRVAFVYTSVLDGKEEDVQTFIMDVATNTESRRSKMLKEVDDDEVPLPLAEDGAAGEGATAAAAP GAVEQVQVRSKHQIEKAVKALLAHPKLLKGRPHKTSPEHITDESEFVYTLKHAHYVFEFVRHNNMDDVLENYT
5897	MPDDNGEPPPAINWSLLDDQEWRRREGSKSAPKLNVSAPFVPDNLFFDFGQKQAGDGEFIRNGPEKGTGNPPLNAAFHDFINSVTKLTDSEATPSQSLSQSSFSVPNT TNASFTSLLKLSGSGQPSRLEKDRRGVPFALVPDSPAMQPADGGALPIRIPFGTSPQSQSLLGTTPASLASLGGEPYFVNNSPSVGGGLMSGTTLAQPASWPRPAFEG QAGKPKKEAVMKPNKQRLTFQDSKEQPIGQLPKGKATTEMAQGNLSRQPVPADATRQGLHHKDGRRGVKGAAGATVERRRLLPALEGEIDHGLSSLDEVIGNIYPTAKDQY GCRFLQKMLEDGSPQHLQQLIEEVYDHCIELMTDPFGNYLMQKLVYCNDEQRTIIAQKVAPQLVNLISNMHGTTRAVQTLIEHLSNPVQVQIIGAFAQSVVPLIKDLNGNHVI QRCLQKFSALDKQFIYDAAIPRCMDVATHRHGCCVIQRCIDHASEDQRAYLTDEIARNAFSLVTDPFGNVYVQYVLDLNDMQMIRKICSSFISFGAGLCMNKFSNVMEKCLQ LAPDDIQHEFIAELMDPSILPKLLQDQYANYVQATLTVSKPHQFGQLQEAIRAHLLVRNTPYGKKIENKLNRGAGRGGGGGGGGSGRGNRAGG
5947	TTVLLFAVQAERAAAHARETSAALDSKNGIGKGGDSGHVQYGECKLTKCKDNVLDKVMRSVKGTVQRPRTLGTENTAKANYSLDFDALVATLESRADPPNDALISFCARLM PHTQVAHQIQDVTQAMLLFEAAAGNVLDKCFNEPGKGDDQVEMDIAQIRVLLRAEDCLKVAHSRWGREGTTGVSMMLAEARIAFGDSREILLEALDNVRSILIPKAVFPQ GLEDITSIKKMTLEAVMEQVQAEERLRLVVSQVAKGTAIKAAEAKNRNDILALVSLRQKHEDLSERWLKTIVQRVPYGAAGDNTQGAEQVSRDINKRLIAAMIERLPRGGD SASLVYSAQKLVEMFRMFKMIDAVQAATKLFEDVCMDDMYHELAQOGPYSKDLPLLIYADDVDVRAMLTDVIFLANKLUISEYNIRAARDQDPRLPRLVDRGSTISQGEIRGRI REILVGAEIAGQYRLDTYIMAGGFGHGWGRGTDLTGTREVFVKTFKSEEEFGSGAETVAKMVVEELETAEVVMKVQRLMKHPNVSVLVKVRNATIIVPSTRQQGDGCFHGI EYCDGGELFNIVLPKESGGQGCACFNEKQARFLFKIIDLILLVHLHPKEGEGEPYHGDIDQDNFVVSGSTKLIDYGTLSKVSNDVGPVKHMTTRSHQQPFH
6083	MAVLWHWSATPVITRHDLQLQHPGVVAQARGLQQIGGRHPRTRPPVLAQAQRHTITSEDKGIAPLPFPDRVQTTWRRLFGVAAVAAVAAAGLIGITVALNKRTPRTYCC MVAAADVESPPSTTRSKKEKRAEEGDDPDSEGPAYQFPLPPTYPNFGWQTEVGPAGGQARLGLLTPHGAVETPAFICATKANIKGLPDMVRDAGTQILSNTHYL MLQPGSPLVRKLGGLQTVTGWRGPMLTDSGGYQIFSMDGYSVSSEIKQORGAAGFSTPTVQRITEEGARFRSYVDGSPQDLTPESSIVIQRELGADLILVDECTPFHVDKAYT ARAMRRSHRWAVRSLTEFAAHDGDTQALYGIQGGVHEDLRAESAVFVNRQCFPFFTAIGSGLGADRATMHAVVGYTAARCRDPRPIHLGIGGIRIDIFHVGRCGIDTDFDCVH PTRLGRHGGALQARYWDEEQPESRVTRHEIHLKARFRDDIRPIDSTGCYTRCFNGLYHLHLRAQETLGGTASLHNVVYVNRMMMAAIRVAIRNGTLAQEEAVVWVHPR LYDRNPQEQEQEQEQREERQRRQAQKERRIAEQQLARRSPAPAAADTHACTDTDGAPGNPCSPPTDDGSEEQG
6113	MTKLAVAAEVRKLSLENGSLKELLGQQTATKTFKQGYGLWKEVLDFGAAYEKMWWKAWGGQPVPLDAFLMQKKTAFIPVKLNPPLCLDRCSQRPQAYGCPGLGLEICAER HFVCEQCYKAGYTVHQIIGGKSREYVLAVLRAAFKQSDADFSGSDIFLEGHIFVLASRPDIPEGRRAVYVNLQTLKVAFDAYAANDRVDLADATLRLFREIHIDPPNLDALFA SHTNVKAAASFAQLWITVYHGHDPDSKHTKLLKAEKQLFKREPTVKEYEADDSDVKSVPDYTHAKSKILKMLGEGGLSMAYSLDIDYDGTADIAVAKYPSGLSYSEKANMFSAA RLQGTVSHRNVLRLVGVHDSSAWPCILLEAEGGDLAAWQGEVDRRLQWKALHEVALGNLQHTSNPPIHRDLKAPNVFVNKKGCTCKVADFDAKLEPPLYLTSIGIMGT PGFMAPEMLANQFVYGKADVYSFGSLAYEVTHGAVPFGEVLEQYPFMDMEGWFWQYISTLTQSGKRPADVARNVTPGMCRLIVSCWRANPDRDRPSMAEVVKLEEIRSEYS L



8570	MASKNTYILFELASGFALFHCKEMVQIEQLTNESTVACQDFGRFKSMVGLVSFAPFTTADMAIENINAVVQGVTPFLSDFLKLQLGGSKKEKAELGVADVQLGQTKTSTMQI NCVANDTIFEMSRWIRFHIAKFIPELKEADIQQAQLGLAHSFRTLKVMNVRSDNMIQAISSLDDQMDKINTFAMRVKEWYGVWHFPEMKKLIQDNEVYCKVCVVVKDRK NLTDPAVVQKVADIVGDDEDNAAEIARTSAISMGMDFTEADFLNIETFASRVVNLTAFRKSVYTYLTKEMNVVAPNLAALMGEGQGGRLICQAGSLTNLAKYPASTYQILGAEKA LFRALKNKTNTPKYGLFIHSPYIGKAPKEHKGRISRYLANKASIASRLDRFMDPENRVFGQILAQQVEDRLVHLETGKEVETNEQVMKEKAMVAYADSLGKKLKKRKAEEAGVA EEADDGKKRRKEEKAKKAAAEAAANGAAAEAAAGKKEKKKAKGE
8816	KVSKGNPVPVWKEAVRGVRIPAGVQYITINVWDEDPGKDDFMGTHTRLSLPPPDGDTWLPPLHARENEPKDAKLAKGNLGVINLRVKCRQGRDLSAYVPPSPSPSPSKAGVA TLDLEVIEGRDLVDLDIIGKSDPYVQFCWGTDPKPFYTTKVSKGKNPVWREGVKGLRIPDGTQFISLLVWDEDPGKDDFMGVHRLRVPPNGDMWLKLYPRENEPQDAKL KKGNLGEINIRVKCTGVRRGSGPLPMPPELSLTGPVPTRCRVTLIGAEG LAPADSNGLSDPYATISVGYEIASKEHKTSAKKKTLPNIWNETFDLHVPENETHLTFNVWDDDKLS KDDFLGQAGLDVRGPMRQNGAFAFLPLRPRANNADDQKLVEHGGGLKIRFKTEWVGLPTTVPASPFTQASSQTSVPPSPAHPAPIRPPSEVVAAPPAPKAPPPAPKPA PPSPPKPVEPPAQTFEEVSVW
8825	MAWPAGRFAPLARALRRYSTTTAPLSEKQAQFLADFRQRLAAAAHEEGSGSVSEEEKYPLRPTDGPSSLRRQLRDQRLPMPWSVLQKKKPGGDNYGRIKAQLDKKIATICQEG RCPNIGECWGGGEGAVATATIMLLGDTCTRACRFCSVKTSRAPPPPNPEETAQAIASWGVYIVLTMVDRDDLDADGSAHVETIQAIRKATEGRLVECLSGDYAGNR DSIARVARSDLDVYAHNIETVERLTPQVRDRRAAYRQSLATLEYAKAVVPLVTKSSIMLVGENDDDIRQAMRDLRAAGVDCLTGLQYLQPDQRQRMKVARYVPPEFDAW RAEGEGLGFKYVASGPFVRSSYRAGEFFIKNIVNSARAVSS
9045	LDLGGAAPLGTRLPVQARTPPVLAALPPTPWLPVSGAALPQLQSSGPLLTHPDLARPAPTPGPGWAAALGTAGAMAAALLAVVGHQAHRGPELERSPSVVALAVTGSASAPAV EPPEAHHIPPLFNKTPHSADIRLHFYDDALQAVQRAISAGESRMEVRTTFPELNSETDYVRAATMLEMVRHIATALATEGKRVKICVQQSGLQGIGFSGPLSLNGMMMLAKLKM DWDEEAVGDRFSGVEVGAGQVESTVDVYLLISQPNITGCSIVELLQGMKAANGKPIVLINPKLDDIPSSGGVMSYRGREERMEFVATFRTVYHFRLLYRKPYLYPIYGALRMAY GGPWAVYKRIETGAAPDLQEEYRFSRSPSEPDSGKIMDAVFGSSSSAVYLS
9049	LDLGGAAPLGTRLPVQARTPPVLAALPPTPWLPVSGAALPQLQSSGPLLTHPDLARPAPTPGPGWAAALGTAGAMAAALLAVVGHQAHRGPELERSPSVVALAVTGSASAPAV EPPEAHHIPPLFNKTPHSADIRLHFYDDALQAVQRAISAGESRMEVRTTFPELNSETDYVRAATMLEMVRHIATALATEGKRVKICVQQSGLQGIGFSGPLSLNGMMMLAKLKM DWDEEAVGDRFSGVEVGAGQVESTVDVYLLISQPNITGCSIVELLQGMKAANGKPIVLINPKLDDIPSSGGVMSYRGREERMEFVATFRTVYHFRLLYRKPYLYPIYGALRMAY GGPWAVYKRIETGAAPDLQEEYRFSRSPSEPDSGKIMDAVFGSSSSAVYLS
9215	MATIPKLRQYPPVRSATSPSRVERVSYGAAAPSPARVHVSPSRVSEGRTYVSGPPRDVPYETVVVGGPRRQCVTTAGGLQHTHEELVAVVPPTPVEVLHYQVVEVPRTVEVDK PVVAVQERIVEVPTREVEECIVEKVIRTVEVPVEKIVERIVEVPVDRIVERIVEKVVVPRDKYVDRIVERIVEVPVEVPFDRIVERIVEVPVEVIERIVERIVEPIQVPVDRIVEKI VHTVQEVVVEVSERVVEPRELTDKVVQVPIERMVVPVQDKVPHNVVERVVECFDRIVERIVEVERIREVEVERPIVEILRPVIREVHPVVREVTRPIVREVQRPIVRE VERPIIHEVQRAVPVQDVRVERSYPVCMTRTSIAPPVTVTEHPPVRRSMGAHSSSAAYVHAETRRSLSPARVVEYAPARAARGSAYTARALDAADGVIDGKYFGRDIRVV KELR
9484	MTKQERRALQEQQRAAKQAKKDAEVQAAPAAKPTKAPASAPPSQAVASVSPAGPAAPSREGAKPAASAKGAPAKAAPAPAGPKQATPAPAQGPHPQRPQPGTKEAHKAAK RGRVDLTDLHPAILRLGIQYQTHEIRGGNARCIAMLQALKQVIQDYPTQTQEMKPNHGRDVVQALNKPQIYLINCRKLSVSMGNIAIGLKHKITTCDAAKDISLESKKIVGQYI DMFIYERIVDADRITSHGVSKAVEGDAILTFGRSSAVEMILRTAKQEGKKFTVCVMDSGPAFEGKGFAQRLALHGISCITYLLSALSNVIEETVKVFIGAAGVLTNGSVYSRIGTA MVCLMEASHYQKPLVCCCTYKFTDKAWFNLSLTNEEGDPDDLMMVKDDANGVSLQGDWRKQENLSLINMQDYLTPEPYITMLITEVGPSAGPGRGPQEMMSGGSTPTLCLA VPPKTSCCIHLWDHAYPFGFHNRPFPVPHRGAICLPGTASDDPADLCARDHPRVPPESEERFLAGPSWQALACLHYHTPW
10009	FNVSEPEKKERSGVLDSYWTYHIYTKTNSNFVQKELVCVRRYNDVFWVREQLVELYPGVIVPPIPEKSVKGVIEKLSMISAEGLLQYRQALRKFLVRVGAHPVLCTSDLLREFL ELREEDFNRRALKPRPAAPVPIGQKFRLELSFMAKSFGGSAASPATSSPTAAVAASAQPLPAEALPAGAPGARWEETHRYIDQLERSLCLLKERIELLVKRRRETSLSLEFGKSF VRGEIEEYEGTLPQALIDVGHSEHLSIVYQGAENETYQVETIYYCYGLTASVRDCKIKRIQKMALTHDITQDLSLTKLQDRTRRLQKGDEEQRRDLLEISNTSQRNDELAHEI AHAEATFAEELRRFHREKQYDIKQMLRAFDVLQTEYFGMKMASWDAVAPSVAEIKTD
10196	PMSPDALPGRKKMDPAAPHKFWDTQPVPRLVESPAITNAGEGINSDHKVEDVQKEPYKIPDAYEWFNPVDVHDDGDTVIAIYELAGHYVEDDVSFRFAYPKEFLVWALT PMSGWLWDHIGIRVRASGKMVAFISGIPALRLREKVVVTINEFLCVHAKGRSLKRALPIKUEVTRRVNLQNIWQAVYTAIVLPRPVSSCQVWHRSLNPKLISIGFSRVPYQF EKQRPMEMTKRHFALPKDTALPLRPMKEEDVPVKLALLSEYKQLFLAPHFEEQDIRHWFLPRDGVINSYVAEKDGAITDFVSFYTLPTSTVIGNTKYSLLKKAISYYNVATTDDI VKLMNDAILARNLDFDVFNALDLMENGKVFRELKFGIDGHLQYLYFNRYFPDVEPKDMALVLL
10462	MAGQGTIGLEMLAVQPDLDCLLVAVGGGGLISGVATAVKALKPGLEVIGVQSSKFPAMVNAVKGTYQPQGQTIAIEGIAVGVPGLLTQRVIEKVDVDFLIVDEGDIEHAIVML LEIKTIVEGAGAVGLAALLKYPDRFADKKVGLILCGGNIDPLVLAAIERGMRVBRAGRLTRMWWVNARDVPGSLARITQVVAEAGANVDEVHHHRAFTMQSVQLVDIELVLQTR GRAHIARVIEALRKAGYEATEQQHFQPLRSPALRPSAARLPAPL
10778	MATGLDKKISDLDLKGKRVLMRVDFNVPDQDKTGVITNPQRIVGALPTIQLALDGGAKAVVLMMSHLGRPDGVPNPKYTLKPVAEKLQELLGRPVTFLSDCVGPEVEAACAP ADGSVILLENLRFHVEEKGKVGKDGPFKATPEAVEQFQASLARLDGVYVNDAFGTAHRAHSSMVGLRGKTACVAGLLQKELEAFCKVLDPAEVKRPLAVIGGAKVSDKILLI ENLIEKADALICGGMAYTTFMKTNDHMPIGKSLYDAKGAIVPTIMAKAQAGLDVLPVWDWACQDFCNDQEKIKVTKEEIGPDGWEGMDCGPASMALFREKILACRTVV WNGPAGVFEFDNFSGKTKAVLDAVAELTKAGHVGIIGGGDSATAAKFGMEDQVSFVSTGGGASLELEGLVKLPGIAALDDK
11076	MLATSGEKPTWFPGEAPAWLTGEFFPGDRGDFDPCGLARDPVDFAKFRDSEVHFGRWAMLGLVGLVPEVFGNLGIAQLPAWYDAATVANTSNDLYGNPNLVHASNV FIALSTLLLMGPVEAWRWNGALASEAKSAERTTYPGGFPDPLKLGAPELKLKEIKNGRLAMVMGMFGFWAQSYVTGEGPLANLAAHLADPAHNLLNTVAMFAASGEKRP WFGPAEAPAWLTGEYPGDRGDFPFLAKDPEDFAKNRDSEVYHGRWAMLGLVGLVPEVFGNLGIAQLPAWYEGAVANTGSLDYLGPNPNLVHASNVPLIFFTLLLFPIE AWRWNGQIAPDAKSEWTTYPGGFPDPLKLGAPELKLKEIKNGRLAMVMGMFGFWAQSYVTGEGPLANLAA
11216	MDSYSPSTSDDLAGPRRASISHSVSDLSRGVSEMVRPAVVSTEYRAASGPERGGSLSSAHLPEASAGLEFGRNTSWRWVQQYGGAGKAPALSAQEAIVIRQLVVDGN ALPNQHGPHADIDGRLSIPTSLEERYQAPLTEAEVQRLRASYYAARGVEVRQESHSDPDMRSGAAGFDRRSSAPVPPRPVLPPLPRLVSSGADRPVPPVPPNSVQSPKVGSI PGFDMSPPTIAIATSVLDGSFAPTRANTSVGSGAPAGAYRAVSSGYFAHPHPRIVSVVSEYSGGSLPSRNVSEATSLPHGGSAHLHTRVAAGPPSPSEPVGIGGGQWGGVGAVE VLVVRPSSLAQPLPYQPARLSPDGAGGGPPAPLDHVFSTFGYPTSPRVSRGAAPLPYDVLPSFPMNSRARVSRTYATELAGHRKQSEQNA
11395	MLPDMNAPAGNVHGTTLRMIEQAGFVVATRLCNRPDHPHPLMGSVLQYQMSFQPMHVGDLARLTATPTFTSNNRSEQDVAADVADNLMTGEVRHTNHAVLNYYAAV DAATGATIDFVILQVPTTPEEQALFDAGRERYQRLTSQQQKVNPSVPSPSTPVIVPGPQPTGDSAISLVQMMLPGDCHHSNVVGGGVILKMDNAAAVCAVHKCQSNVV TVSIDLTVLFSRLRIGDVAYAKARVVFTSARTMDIQVEVEVERFGVEHPIRTQGVFAFASLDPTGRPQAIPPLRPQTSEAVALFEVRQKQYEEKRAREKSKAAPAQAEPTGPP AAAAAPSP
11747	MPSRKKQVESDDEDDDDHEDGPDIDVKNLELRLIDPDYAEKFVASLDVAVVQGRVRLQGMQTTMNDLHNKYMEEHKALEKKYETLYGPIFKRAILSGOREPTQEEVT QGGEDEFKEPEDANQEVSDAKGVDPDFWLTKLNHDAVCEIIEERDEECKSLVNITAKTFDDPDGTGFVLEFHFHAENPFTNTVLTKTYLHVEDEIVMDKAECEINWKPQNL TVAIKKKKVKGRGKGTQJTKEEPCEFFNFPPQPLPDDMDEEDEDLGDTELEIEQDYEIGCAIKQDVAKAVSWYTGAAADHDDDDDDDEDGDEDDDDDDDEDDE PPPRRGGRKPEAKKANPNNAQPECKQQ
12086	MAAVRERAEVLDVMEEMKYFSERPMTPISHAVHFHFALHQTQKAALLQGALFLKAEPLIRLAHSAHLPDRLPRGLSGLAAFQVQVREMFDTDSFRELRAFQFSKPAPSWEDGQR FHDMLSVIQSRHKRVPPIEVFGQCQLRTQLQRTHGANWADHPDRQLTQDVLDEFFGARVVVRFLIGQQLRLHAQVYRGESHADVFGILQLKVDSHELMKASIATAKRMALA SFNVCPDIELTCKCGTPIFIQYGIHQITVRLLRHAIMGTLKAHGVKVKAGKAPPVTTIVADAGANEELCIRVQDSSLGVSRSLRYLWSYLHDDVRLGEQEWVAAATPEDQQYG ESFGLPLARVRARLFGGDVVVQSVLEGLDMMYAYIPKFKAEVLARRPFPN
12275	MSPAPAAPALACGAAAGLLVIAAAAAFSPASPPPPAALYRAAVPVRVGFVAVRPIQAVSHARQGRLAGPAGSAQLEFGAASESPASHVAGYVGRTLFAMGAALAAASALVLW LFREEEQPVWMAAAGKFGGPPKVVPKPVKKPEEEPCPCSGTAYGLCCQSYHQGKAVPATPEALLRSRYAAFAKKKRDIFRTTDPHELTNRNNVTETEHMESVTLSCNNVE YSQLVILKQEPGETEDDWWITFRYWFGFTAEFKGRHKGVTRQSVKEGETETRTERSLFRRTDGVVRFVDSDEFNCNSDSFEVGDTSATQNLLLKAKDAAANVKQLAAQAVLP KMEVRLQQ
12357	KVHISLVIGHVDSGKSTTTGHLIYKCGGIDKRTIEKFEKEASEMKGKSFYAWWLDKLKAERERGITIDIALWKFKTAKSVFTIIDAPGHRDFIKNMITGTSQADAVALVIDSTTG FEAGISDKDGTREHALLAYTLGVQKQMIATNKFDDKTVKYSQARYEIEKKEVSGYLLKVGYNPEKVPFIPISGVWNGDNMIEASENMGWYKGLTLIGALDNLEPPKRPSPDKPLRL PLQDQYKIGGIYVPGVRVETGVLPKPGDVVTFAPNNLITVKSVMHHEALTEAVPDMRNVGNFVNKNVSVKDIRRGYVASNADADFTQAIVILNHPGQIGNGYAPV LDCHTCHIAKFATIQTKIDRRSGKELEAEPKFIKSGDAAVILMKPQKPMCVESFTDYPLPLGRFAVRDMRQTVAVGVIKSVNKKENTGKVTKAAQKKK
12528	MSSWQEQFDVTCIEKIKYIEAIEPVEKRFQYELFKPSWFADTLKPSKPVFLVGLPFSAGKSTFINYLLGHYDLWTGPQPTTKFTVLMHGPQNTVSGRILCSNADMPFRGLAE FGNQFLETFSGMQVPSDLLRNVTLDITPGVLESAQEVHTRTYDIYIKVARVFEVEMADLVFVMDPSPKLDAGVELRNLFNQLKGHESKLRMLNKLADLCEPQELMRVYGSFLWS LSNLHITTEYFSGVWKNPYRTQONKELDFEAKADLMDFLLEVPVCLQDKRVTAVMMRRALDVQIAHVVGTMTKMRPNMMDKMSAKQKMLANMDPIYDEVATKYKLT RADFPDPKLYSAFFDKPQVHMSEMPKLTDFEKEAKKGAENPLKRLERIIRFDLPKLLHPLAQAAAADPRKARKERQGGNAPPDKAVFLDQLQEKQKPKPARYE
12831	PQLPAHHLQAPLNGHVPSIPLVEAGAVKGRLLVLAGSACAAIATAVLLGRRGPTPLRLRSTALRLVEPGSPLVALAPSSPGWRRPMAVAEAPSPLLRDTEDLQAVLMELELL RERQAAITEYLQAPHEDAELDVGLKLRVKQIEEWRQREKAIEDVFDLQKHAHPSKGVGARVRAAVEAMRRRTEDALEAFARPAEVEVRGRVLADLWSLRQRQRTIEE

	AVKELPKSKSDVAKARILAELEELRSHEAALEAFLSPEARAGKKAKKGGEDAMRVRLVESLLALRQREDALEASASAPLEDVP AEALPELQAGLASEVEALKWQEALEDYVRAHLKE
13018	MAPPLFPNVICCHILLCTITCALPLATVRTGTCECWREWMQKERRYQRAKRLRMKQPCEDGGKSYDTNIPWFCEPTRRLPPEMTGDGPKWACGMETFKKHPKVLLVSMGCWGEIDWERAVRGWLPQAEHMLIDPSGHGGWDLPTKLEQLKPLNVTFHEFWIGSTHVPGHKFPVLSVVEAMKRLGHAGETIDILKVDIEGHEWKALPEIASGALKFHHFNVEVHNMNCREHIPFAALDKQDYRMFYKEPNHWGCGSGCIEYSFVSKEHACAEFATAHNCPPCSQWLNGPRSDAKPDA
13288	LYVGWFGVLMIPITLLTAATVFIIAFAIAPPVIDIDIREPVSGSLFYGNNIITGAVVPTSNAIGLHFYPIWEATSLDEWLYNGGPYQLIVCHFFIGICSYMGREWELSFRLGMRPWIAVAYSAPVAASAVFIVYPLGQGSFSDGMPLGISGTFNFMIVFQAEHNILMHFPHMLGVAGVFGGSLFSAMHGSLVTSLLRETTENESINVGYKFGQEEETYNIAAHAYFGRLIQYASFNNSRSLHFFLAVVPVVGIWFTALGVSTMAFNLNGFNFNQSVIDSQGRVINTWADIINRANLGMVEMVRQV*
13428	MQQTVLRLSNGVDMPAIALGTWKSPPGLTGAAVKAAVRAGYRNIDCANDYGN EAEIGAALAEFAAGEVKREELFIQCKLWNSNRHKEHVRADL LASKDLQLQYIDSVFIHWPQACPSTGKAPAVCKDGPHPGPKDSGCMFLEADGTYASDNACHYVETWHAMEELVDEGLCRSIGLSNFNRRIQIRELEVAKKHRPVLQNEGHPYLQKQDL LDYCRREGIVFQAYSPLGSFDRPWAKAGSITSGPPSTGHELLTDPVLVAIAEKHGKTPAQVILRVHWVQRGAAAPKSVTPGRIVENLAIFDFELPAAAMD AIGLLNCGRHLVWAETAMHPDYPFKDELPHGYIPGPAPTSTTSSGQ
13576	LDESPNNVKLLFEQGQAYFRLEEFETSVNVFQKGLQVAGASTLPEDKELVKKLELWVRKCNANLSEDKQVHIDVKPEAALAQAPPTPAPAPVAPARAPPEDQSMAKVRFEWFQSLTHVTVTFFCKDRTEKDVVEYGANSLTVSIKLDGDKKEYQHSFSPLYSEVVVAESSHSVGYKLEIRLKKAKDIQWRAVDRPGEAPEAVEPTASSAAAPARPAYPSSRPVKKDWDKVTADIAAEANEKEEGDAALNKLFRDIYSRADENTRRAMNKSFVESGGTVLSTNNEEVGAKTVEGTPPKGMEKFLAGE
13640	HVAHAGLVFWAGAMNLEFVAHFVPQKPMYEQGILLPHLATLGFVGVDGIVLDITYPFVFCVGLHLISSAVLGFGGVFHSLAGPDTLEESFRFFGYTWKRKKKLAAILGIHLCFLGLGALLLAWKAMYGGGVYDTCWPGGGGDVRSINTNPLNPFIFGYLVKSPFGGEGWIVSVDSMEDVIGGHIWIGILLVSGGGFWHICSRPSPWVVRTFVWSGEAYLSYSLGAVATMGFIADVPMVWFNNTVYPSFYGPTGPEASQAQAFTLIRDQRLGTNIASAQGPTGLGKYLKMSPTGEIIFGGETMRFWDFRGPWLEPLRPGNGLDNLKLNKNDVQWPQWERAAEYMT HAPLGSLSNVGGVATEINAVNFVNPRSWLATSHFVLFAFFVFGHLWHAGRARRAAAGFEKGIDRSREIARKLKPLD*
14460	GLDVPTVTLPSKHQMRMSRLPLREEVAVGVAPATTPEVGLEAATGAKPRAWPRWPHALGLTAAVAALLATFSVSRHRLARAAAAAPFVQQAEDAPWCVVPLTGEAFDPLGLNEDGEPAGRSFKTRYGQALLFAWVATFSAPFASAADLDVFAGLDESQKTFVNFILFGQAVGFLGLLATANVVRQQKEELDVLEDTLEKVYRQLRQRARARQGELLAQVPPVLLSPVLDQDDHEEELQRAVVQLLRHGRHALKEQHGAALREFQAAEQLLRGGGHLEDRLRFERKAERGVAALQLLGRTEEALASLQRVLDMTKTIGDSTGLEEYVGAMADLLAELGRYVEAGKYDDLHSNRVVEDSVTGVEGAL
14530	MVHIDNDVKLDFKDVILRPKRSTLRSRSDVDIERSLIFKHTGKPPWTGPVPMVANMDTGTTEFMVQALARHRMFVVVHKHYTTAEWTDFLHAHPECLPYLAASSGTSEADIGRL EICLAIEVPSPEGLTGQVYVCLDVANGYSEHFVECVRRVRLHEPHVGIAGNVVGTMEELLISGADVVKVGIGPGSVCTTRKQGTGVGYPQLSAVIECADAAGHLGGILVSDGCTCPGDFAKAFAGADFMVMSGGMFSGHDESGGELIERNGRKFLFYGMSSETAMKKHAGGVAEYRASEGKTVEVPYKGPVESTALDIAGGLRSACTYVGAGLKELSRRTT FIRCTQQLNPVYAANLEYAPQPRTVGKP
14553	MDGDRVVLPGPRPGGSPTASPRGLAGMAVLLAGVGGFGRSALSGSAAQLGHVPTAPVAALTPAVATGTAVASMAAPAHTLAAEGGPHVLPAVASRAAALADA AAVAAPDGLQLALGLAAAEALVGFWALLISRDAYADQSKTPIDVVEPPEQIEVSPSGIAKGVGYATSPKGWKLQADTLKARGVRSVSGAEVVRLAQGNVAIVDVRLYRFEQFSIPG SVNVPLFQPIDGWAPFKTLRRIQFALFAVEGTECNPTFMQELLAKVPRNKELIFVDDSI VATLQPTKNCPCDGKAGHAYMAMYRALNSGFRNKMRYLEGGIIEYKAGGEYVVA
15305	VSQIPPLDWKNPEIVASFEEAAVKHCSPDLDDIARVRTKISQIISNTLIGKGFVHPVQLFSPCSDPLNHETEVA SMSYQGTVTLTSQSMIFCKMLVLALSNDIKVFWVSPNVRKELNVKTAGRYATEFTQIDFESSLLDFESCLNIEEVITNVVNTLADEEGDTIQLRSGRRLQKLT EPMKRFDLGAEAEKLGISQGAEDKLIAENTVHPFFLTNLKREAYDRRDETGTGKNYVDLFPVVGELSGGEREFTEERLTRMHELGYNLEFVPLRVAREHGLKSSAGAGFGERLTRAILLLPDIQSVYPPFHAGLNVFEPQPSLGGGSPCHDRGWEVVTGFIATG
15630	VNGVSYYTRTLNQHIPQYCGSCWAHGA LSSLDADRIKIRKAKGVDTVLAIQFILNCGETLAGSCRLGGNHLQTFEFITKTGYVPYETCQQYAACSRDSTEGSCGTGNWECSPLN TCKTCTNFADADGKCVSIDI FPNATISEYGPVAGADSMMAEIIYHRGIACALNAEPLVAYHGGVFD DPLAPKELNHIVSLTGWGYDAKTGRRYWIVRNSWGEYWGEMGYARVTMGGNQLGIETDCAWAVPATWTEVNPYCEDEGGNCHRG
15795	MYVDLGOHGDPLPVALSEPAHELRRRLQWPAALLAAHALPLGAGAAEATPAAARPPQVFFDLTLDGEP EGRIVVEVFPDVLGAQRFLDLAANTGGVGYRRSKVDFIAN SFVRVGEVPQLSISEAERSPIAGGASTAKLEAALGT AARRHDGPGVSVLLVRSTPQVFQEKLVARNGQMVTVRKVPGPAPPNGTAFICITTEAAPGLDATNLVVRVAVAGLDLVRERAKLPSVADNHGSPFILA KAVGDKRADVAERGFGRPFKVVVTRSGVL
15813	MKSLTAGSSLPKKSEEVATMCWTEATGESFNVRAVGYKTKNLKQPSGSLYD TVAVDAYSSPKKVPHFAQYVDIPEPEDGHGVPNVLVNLMPRYAPNLVWAAAGDGESW CVVLVCRLSAEAREMLRTNQSPALKLVKRFVEADRNDMPKRLKICVLRALNPTEVGFSTATPSRLINKYNAPKFMIRTTSSSFYTDGNYEIDIDIHNFGKTARIGLYGCSEVATQADFLSATSEIQUESTDELEPEQILFGVRLDKLNPVNVVPPFDIASPGNRNTPPRQASPRPAEAVPDTALPDTEAEDT VHPDEE
16000	TTACTTAEPAPHARIAALNIHPDVLAKYVGCGLVVPHCVQGLRVL DLGCGSGRVDYLLSALVGPEGSVVGVDMTAEQLEVAQKYIAWHTKEYGYPKPNVEFKHYIEKLD FPDNSFDLIVSNCVNVNLPDKPEPVLREAHRLVRPGGELYFSDMYASRRVPPALVADPVLFGEGMGGAQYWNDFVRLAQR CGFPDRPLVKDRHIAIKNTAIKAVVGHI DYSATYRLWKLEPELPDCEDYGQAVVYKGTVPESPEVFVLDGHHAMERGAFFVPCNGNTFAMLQQTTRFAPHDFDFIGDRSRHLGIFAGCGRALPFASACAPLAKGKGSKASC
16166	MVAIVFLASERTTLFSTQALGSTVPSAVVANPHMWTLQTERFHVAKGAATPIKEVYKGKNLMSSSF AFWAATLTSFTTFFLVFSRHRNVLSLAASGADAEIIGLSRREALGLSAAGALATSAPAYAFGLGEDAGYPGDTQNI AIEIKSVLVAADDPTKPDRI TLLRRDMNSYVAKYRRDTRYGGRASFGNVYSVINAVAGHYNTFGVKTPIPKKRATQIVSEI GTAEQLLAKGR
17018	MFVARTASFLALRSALRGCAVRSFNTPLQGGQQSLKDAILGIELAGEEFYRKLAMEAPELDEVFGR LADEEHIIHRTLEQAFANGTL PDLQGS DIVEVAHKTLRNIERHHSM SGKMSLMLEVYKMARDMEASNRD KYQSLMEKETNPEAKKIWEYLAAEEQKHFKAMDMDMVKFLDKAHVY YFF
17449	PELQAVFRAVQGD LAALAPALATLSSVDEADPLGRTALHVAVLEGQEPALDILERSADPNRQDEEGNTPLMLAVGLGYEIEIKLLTKGGDIDIPNKQGANC LIKAVQRCNPELI AFLDKGASHVNHKTLAGKSALVCAVEKSKVDIAKSLLAGAEANQADELGITLFAVAFRNNADLIRLLEHGADAKAQSKAGRTPLMMMAVD SHLCRVETARM LLEAQADPNAQERLGLAMLAVDKPAAKDLVACLLEHRADVLDKKNRNTALDVAKEAEAEVDVLLTGAQQG
17548	MSHQETAALLKSHCTINVSDETSASKSCLLSKIIRATGVACICLGSASFSGVGAAGLDVCVFQPTAAPQQLFSVPRSAIRNSLTGKTFVLSRPSTALKASKVPPAYEKA AKLAITGMLSAAAVANPAIATEQEDRLAELMKAWNEEYGAAYGQWDMMSGYRTAIKEAPKVAKAEAAPADIKISRKATQTLDPIDQVMAEWNKEYGSQYGTWDMMSGYRPTKAAAPAPAPAPVPAPAPAPVAPAPVPVPEVPKPEAPAAVLKEEPEAKVEAKVEKPEAVPVKEEAPVMKPLVKLEAAPVPVPAPEAPAKAEAEAPSEGSPLAVAGGVLFVAAGVLAATAPTGS EEQKPAAPT
17576	MRSSAFPVAAFNYQVPETESTTKVNVAVFVPLAFGIGALAAVAASLLQKGKQPLATLATS GTQHIGRNRDSNSGTL EDERRRRQREERAVQERRQLRQREEQERRQMLAGR SVHQHQHQHHHAKPPAAPSARVVVPTPPVSPAPTAAATAVTATDAELRRRRREDREREAENAEQARREVQERLARLARLGPPSVQPVVPATPSPAPASDPVFDRESQMRRDARERAEREKQLQAQREI QERLARLQALSTAPPAPAAPASSAPAAPAARGNDWDRRQQUERERQEREKKERAQREIEERLARL KALGTAPTAPAVVRPPAAAP
17693	AAPAAALPTFGASSAAAAGLGSSAPALGLGV SASAPALGFGVSSSAGLGFGTSSSAPAI VVPEDPMFKEKTTAEILQHWSEGLVKDVKLFDKLGIQVSGWDDAIVRNGDKIVQLHFDVENLEKQAQAELEGKLESIDQQQRELKEALTAIETELDKAGPLALTQPDIERQNTFDLALHMNQHLNQMH RD IQRMV EHLNQSF EKAHTQSVDNPLSTIVKILNVHLLSLQWIDDTAPKLQAAVEGAHGAILRAQQDVVTRR
18132	PPFFPFWLSPSGEEELLVRPLVLGLALQQPSWPPQKQFLPRRQPRRERERRQRRTLRKTRKRRWKREAKENKAENKDEKVEKKEEKP KVDYEDKEMDCQDCNQKFTW TAGQOEFFASRSFGEPRKCKECTLAKKGKGGKGGKGGKGGKDAKSCRCGGEGLHAKCEPKPSSCYNCGGEGHNAKDCPKPKVCRNHKAGNCKHGAECKFHSHE
18196	PAATEPLVGASSFPISLSAPISAAAATTTTFS PAFPSTLPSAPTAFPAATPYPSPLTSSYNFPFAAPTAFPATFSTTPTSPAPLSSSYVSFSAAPSRLRPAGYAYPSRTPTVSGRVPAAYPVAGTPYRPTLPQNSPNSVLVSYYVGGPAPKSGPYENFTFSEVATNYRQEHLSPFWQGTAKPFRFFFTESN
18232	PYTSPAALPFYGYSFAGASALPTTTPATSVTSFPTTFTPTTFTPTATPYPATFSTTLPTTTFTPTTFTPTTQTAAFPSTFTPTTFTPTSATTYTS PASATPGYSFPFAVSSYPVTTLPTSAPSFAPYFSPAYSATSAGYAVPTQARAVYPKPTS VAGGAAYPAWGGSVYRSRTPYAYARPATAPRQAPL VAGRSAPNENYTFKEVVNNLYAENIGSTASPWRANARPLYDDFTSFEAKTITWLNKL
18304	MAFTAQHMYDDAAIPEAAPQRPHSAVVWYAALGFAATLALTTLAGPTAELFRPSPLRSAGMSPTLAAGLPRASMALGVGIDAADF RKGFTVEMEGAPYKVLDFQHSKQARQA AVIRTKLQNLMLTGNVLEKTRFSGERLDKAEI EYSEVFTYKDGDDFCFTNMETFVEERLPGTL LGDKVSYLSEGLGVKAKFNGKAIDMELPTTLDVEIVDTQPGEQGDRATAGTKPATIAGGKVIQVPLFVNTGDLVRVDRDDRYITRTK
18668	MTRSPYVAEGRSVALALAEARAAAKASEIESLRSLEADAKAVAAENRIRQVVAEVAKSQTRVIPQPPIRVPVVGGRSVPEIATWRKVFDYDELGAGNVSKHIIQARLAPEIGAFDWEDDDHDETPLTFQQFVDLMTSSSVPEKRF EALS WGRTKCPDKVPYADGGKPF TREYFVQEAQVPTRVSSVGYGYRW
19920	QLYLQGGRVSDVPYLLIQNGELVSQHTFSSSAGIRVLLI MPLVAQKTFYDDVLSVSAENGLVLREGVKAEGVPVGAAGPASPDSKDG SANGDFDKEFGNSAQKLEWKDYDDGASSSARGSAGGDGLSATGGTVAHQAYFDDLAATTCTPELTADLSAESRWRQLSKVFQFPPLSPERRDRLLQVLEQQSQVMQY GAYDPASRGGGRF DARLGSPPYLPDSIALPWNAGSCPAIAEALAAQGYTLVSRNTRVILDRSNFRKLYRLRGLSDASGVNVLVLSKLVR I

20098	MDRTLKSKRFLCQEHHVKRYGRHLQAVDAAGQFKCKADSPDCPPSCPCRAVVPGASACVSCGKLVRELPPDCRTVIVSHLPVFRVRHCKHLEGYMEKWGPVRRIVPKK PNRAAVVFKTEAAQKAVMAKHETKDGTMWATMLKKGSSADTLPAPASQRRRVAKEEAVLRQQTAAEKLLARRKEQKRRARQRRRQVATAAGDAKAAPPKPSKSGSKDP PPTTTPAKGKDKSAERPKKSQAQKKAKAAS
20283	MEVQSILERSTQKSVLSKAAIFVACFTFCVAPLLLYFSQGNVQGTGYFKVATGENPRYRCHTTEGDFLVELFMDSMSPLTSSNFIDLVNSGFYNGIHFHRVIDNFMVQFGCPYARH HRHPVWAGTGGPPPTSTFRVGNVYKVRDEQGCPIDEFTSYISNVAGTLAMANKGDPNSGGSQWFINMVNNQHLDDWWRHDSASAHVPFAKVVEGVGVVRRISKTLTDAK HTPIKPIRMISITAAK
20527	MSSSVNVKFLPHATTEANIQQFLGACGHVLEVQITDPTAVHAVVTVSSFDSASKAVAAFNHNFILGSHVEVSMGDQDHGECKVFGVGNLPSTVTQDELQRLFPGHGTVEVLLP PRASQSDQRCGFKVFSYQEANSIAQINGTDWNGSKMAVRMADAGRKQNVYSALQQLPAVYAATTAANHMYGHGQPMHGMQPVAAALTSPTGTLFVGNIPSYWTKD NLAAQFGPGYVLEETVILSRKGINDTQCGFVKFFDPQCASLAMQSLAGTVIDGLEFVVVRHADSKRQGEWQGGAMRTTRPLNQSWRPY
20595	QTLVPLMKGLDALVILTSSSPRLTQWSAWKAKVKRWLGFKKVRRTYFYPKHESPEQIDWLGQKEQJDAAKEAGVRHIVLVGSMAGTVPNHLLNTLGKGNVLRWKRAERYLI ASGVPTYIVHPGGLDSAGGRRELTVVGDDQLNTKFSTVPRADVAEVCLESRTTEEAKFRSFDLGSRPEGEGNPWDGNLKSRLRRQVVRSHFLAPSMMVVVLTSEIGYFMPIG RYLFPPEILIKAGSQINIILIPKRGIFRSFTTSPPALPPF
20996	LVAWWSRNPDKYAKYVQKYGEPEFMPGLAETDDYEAQIMEALGRAQAAAPAPTAAPHPAVAAAASSDAADDEEEEGKDLPAAVRQVQRDWRRELDHLSDQARAEELLRL RHLQDMEEARAAGVSEEMLHNLRRHSEELSLMREQNRLKHEIVRQKQKEEVKALLSAAKEANDVSTGRPTAADALAEQKQEFHRIAEIVEHLQQTCDTKDEVLNRMFELI CYYEATINDYDVNVVIAAAAHGGAADADRQLAEARKREEELRTLVLFLQNEELEALRKAAPPAAPPSSPRALAGGLDALWLRAMAAPPSSAASTE
21028	MHLTATGEAIPSEGSQGETLAMPSSATLSGRGMFTAGVVMFSFAAAAVASLWLFRASETVSFAAVSGRRSMELRATLNCRLVPRDEPGVRYLGSSTEIPSPVPHRELVSIIQQ WAANELKEQLEAKHFGFRMVVDYEDDRVVEGDTFSLTVRFIAPTDEYIVLEYCLDNETVKVARTIEGFKVEDKERQLGRDGTDPVRSISLLGTESEVSGRFFMVRRKEGPMMPD VLRPMVSDFLKETAMALTRYAAG
21133	PECFQTPYGTFFPEYAEADVPGGETSQAMRKAIDHKITLVAGSIPKEQDGKVFNCVSAWGADGALLGKYRKMHLFRNLTEKVKFDEGETLTAGDSLAVFDAGPFKFGMGICF DVRFAEFAMSYNRLGANVLLYPGAFNMVTPGAHWQLHAKARAIDTQSYVIMCSPARDPDSCTSGYVAYGHSIVVDPWGDVLEAGEEETIVFADLDPERVAARVRLPIESG RRHDLYSVTFTPGVH
21286	MAHRVLLSSDVPEVYDLSLEPDQLKHTFSGEVVVHCDVRVATDVTVVHSRDLAISAAAFAGEGSPALDAAEIVVNKLPTTATFKFAEPLPTGKGQLKVHFIGTLNDQMAGFYR SNYTRANGQPATMAVTOFEPIDARRCFPCWDEPAQKCVFNVTLTIPRDLTALSNMPESREEFVEGDRKRVTLPTPKMSTYLLAFCVGEYESMSSLTKDGVLLRVFSVPGKRAS CAYSLGCVKALFEYNEFFGIPFPLPKMDMVAIPDFAAGAMENWGLVITYREVDMLCCLDATVAVARKQIRCAIV
21679	MPGRREDKIWNGFNKKADGKQYFVGECKGCNEVVAGLTDRLKQHASECSKLQELNIWGDAPAAKRPKVQQLIFGATTIKNQKQSPFTQEQEEDMLKCKVCEKMMEEV HLKMATTPGGAIEKGHRLDKNNKQVIKEQARIAARAIEILEDVCKSPKFDEFGTMGRTVCEDALQESDEELEQYVKANVESKAFATKVRCKKCAMKSELSMIERMKASMPPT PVAKNLTFWDELQEAIAIVQGQWKLVLVASTCLTVLVAALRIAYDVRQERRQKKAD
22079	MPVAPATAALKAAESVAAKNALFMTDLNKPVKVTKKDIERYAAQLDGEVAKMRAQVTEELNERYRKAVAETNTLQDVKKELSVVDQIIADVAVIREKIDTATGELHDAQRF DAAEQEFIAAKLEIKMCEEYKNELTEYLTLLIQENQKQKTAKLEELSAAHSAGKLTEAGRQVLDMAKESAAVAESAQAASVSAADALLPPRSSANHSFNDTPDDAAPD A
22401	MAGFFASILAWFRSLFWKQEMELTVLGLQAAGKTTLLNVISEGRHAAEKDITIPTVGLNTRKVTKGNVSIKLWDIGGQPRFRAMWERYCRGVNAIVFVDSADSNLGAATTE LHLELSKPALAGIPLLLVNGKNLDPNALKVQDLIDAMDLSIKGREVCYSISAKNEVNIDMTLEWLKHAHKG
22409	GGSHVDFAKLLYSFADQVENKKFEVYVEDFKLDSIIAEKGPFWAEKIFQSPTFQGLSEGKFIWGQWQSEGAIIDRENVRLAYKELVNEARKETTATVIVAKEPSGNDLAEIRKQ VEELHKESPLKDYKLVLETKVACPPHGGSGFWFPC
22467	MRLTAELIERYVQFTNPLKERELDLRGNKITQIENLGITEDGFDITLSDNEITKLENFPLFHRKLTIAHHNNRLCRIAAGLGKVLPRLETALHNNHFKELSELEPTDLNLLRLSLCD NLVTKPNLVRFLVIAKCPKLKHLDFRKVKPKERQKQADNMFQKKEDAAAPKAVANGDVVAPAVILSAEEQQRIMQJIEAATSYEEIQKLEERLAGTAQ
22652	MDSSRNESTQWSTTAIVCVTALLSVCVGATAGFIASQPSTNLYAPTAAVKPINIALPLVSSAARAPLPLHAVRVPDQGLEDSMFTTSSSEANQGQPWLTALAGALFASASLL TFLRKPKTEENYAMLAEIATDPKEDKRYRTGPWPEKGFELSGRVISTTMDKTAVVLVERRILDKYHKFRVTKKYKAHDEFNEYKNGDEVVIRLSRPISTKSFVIGKLLK
22662	MYGTVSASSPNKATSTVAVCACAAVFAVAGFVAVQPHAHYTPAAVRPAVQTTMTTIPAPRSFQANIVSATQMOSQSQQMESSVSFQIGAMSVPIFSLGFGAVAGALGGRL ALKLFSSSGASPELFEKVRVSIKELGIDEKATPDANVQELGADSLDLVELIMKLEDTFGISIPEEVSMMKITTIREQGCTGIFTKYDYSHLATSLGHLR
22828	EDEARLQAVAAEALLEVKARIAAVSARQSRPREPRLVAVGKLHGPELIRACYDAGHRCFGENYVQELVDKSSLPEDIEWHFIGHLQSNKAKQLVEGCKGLATVETVSDKLAACL SAAVQALGRGPRVRIYQNTSGEESKSGVEPGQEVPLAEYITRECPGLIFAGLMTIGMPDYTSRPFNFQCLQQCARVADRGLVPPDSELSMGMMSGDFEAALMGSTNVRV GSTIFGARPKK
23031	MPPLGRPPLPGPGALRLALRQFRQVGHVRHPLAFDFGLDVLRYGIERPRVERAAHDVAKFVQDVVPPALEQRRRWVERCYLAPPVHCITVPQEVVDEPNIQAYARQEAETL QRLLDHAIREAQQCAPVKCKTAAMVWTVLSSPFYKRFHQKLEVIYAKVSFNMMPMRDEALEERFAAIPGWLPIGVEAQVVTTRRVENFTCLPTLEGQKDSGTGGLSLEKCYG P
23275	MSHSQEVYSIFRVFKTLFEMLHDRGYLVTSEDLQLTVERFKQEKCILEGEGDQAQFRLKPRNSLWLLHRLKSDTSDIGVFFPDDEVKMGVKPIRQYHDMVEEKIKRAIVVTQQ APTFFAKQAMAALTAQGMIFETGFGENELMVNVTKHELVPKHEPLTDEEKEFLRTHKLKEKDLPRIQQSDPVSYQFGMSKGQVFRITRKSETAGTYITYRLVM
23444	VTSLSRGPPDAPQLASQEWVRRVEWLKGDVLQRDWRTHLSPDVAVVSCVGAFGSNDVMEKVCBDTNIAACEEAAAAGVPRFVFSAHDYHGIGHGVGLRGYFNGKR RAERRVQELFPQTGHILRPSFIYGTGRHAGGYALPLGLVGAPLAAVCALPPVKFLATLPVLDLAFTSPVAVEAVARCAVQAATGKLVKPILDVDDILRA
23771	MFRTRMLLTFNAKFFKDRFDLQLVPPVWTGMSAERDWWQYPLHFVVAVGNQKDIADALYNVSKFTGQCGRDSLPEGHVSVNDWHRDTLKTPLDFAVHRADPEIVSLLLK RGARPSLTIRLAEELVQDVQDPTYAERMHQTLQKVHSGDEAEAVLKLVSADAYRNKPLHDVPIAGPPVGW
24159	GLPPGIDPAALANNPQVLAMLQMLQAQGGQPPQLSPLAQAALQAIQFDQLRQVIASNPQMLQAVIQQLRTSNPQLFQLINQNPQEFIQLLQNGIPSGAGAAGLPAAPGA GAGGVPPGVIQVTPPEKAAIERLAALGFPERVAEAYLVCGKNEELANFLFENGAMDFDDGAEDEGGN
24336	MTEDPDQVAFRIMRLRPLKGHRRQRPMDLQLWFTEDRTIGYVLFDLTASASALWGMVSNPPRRRTGLASLFSVLWLQLCICWGVEPRTTRIDKPLLSVLQRFGFTPLSSG IALEVAPPGAGPATVVWAEDAERLSRVFSWRYLRSQNLEIAAQRVPVGGTPVCVNTAYAAPDAEVWQTCVARLVAGRVRLHGPAPGGPLKGPGLFRLLAEVDSLPTHYLYQ HLALHSRGDA
25106	MNNNRQGLPPAPKTSGGKGKSYDDEGKNRRRPTSRSMKAGLQFPVGRHRRMKDSLISGQRVGATAAAYVMAAILEYLGAEVLELAGNASKDLKVKRITPRHLQLAIRGDE ELDTLIKATIAGGGVPIHIKSLIQTPKSGPSKKMPTTEENP
25253	MTDLDQRSLEYASEVSNLRDKLQNIIVSGRSKDGAVSVQYWGTLVLSQLVKEDQDTLNAVLSGIQQAINDGNERLCQEAEEQQAQFDEVWQSMFASLAQKEALQYPFPSI KRTLQGERYEQAVQRRMRQYLGPLAGPGAAAAGEPPAATAADAGEEKAEAAPPAPKEPREPKAEQAAPPASADGASSTPSCADGPPLAA
27401	INGSWAIHQDATGRAKDRTLSLAMGVGCGHLETTFEKEVSSDLTGERCVLGMGLMQGAFAQYDVLRAAGHSPSEAYNETIEEALCSLYPLVAEKGMWDWMYANCSTTAQR GALDWAPKFEAALKPVIQDCYNEVLAGREAARSISKNSEPDYREKLEAELAEIADQEMWVAGRLLRPLRPENSKK
28113	ADAKQREIQERLARLAKLTGQTVPAAPASAPVSPRAAPVSAAPASSEWERRQQDREFREKKEQAQREIQERLARLARLGSTPPAQPAVHAVASGDSALERLRIQREQRER REREAEEAKKREIQERLHRLQLSAQSAAPAYASKY
28941	MHAAALLLCLLPCAANSRVHLLVLKTLNKFVEVGDVSVTINVFNVGKSAASVVEVDDTAWADKVVQVKGSLATSIDKILPGYNYTHEYVAKAVAGPTLPVGATKVITYHS DPKEDDSQGGKVVFSNLPALPIFTKAENYKRTTRHLEWFTFFVLAFIPVGLPAVMYFTARKKLQELDEKLNPPAPGAKGKGKKA
29430	MPLTKADHGTITLAVKGEVLELTLVGNPTTGYQWLPAARKLPENSELKDLGSTYKLVDEPELCGSPGVYTFKYEYVQGPGTIALEYRRDWEGAVPALEVFEVQVALK
29936	MFVSGGFLMTGVLGYLLKKPLAPQSSITLAAATAEAPEQVNVKDSMKHMMTSQGFYEAYELVMLISPRLSLEKEDRLASLEVLTQHKCKKVEKTDGRRRILAYPMKGAVEA YVIYHFKGPRSMFKFITEWHTGPGLSNDGNVLRCLSMKQQLLKAESVKPLPIEDEPPMWSV
30241	AGCGLIEGKALTALGAHWHTQCTFCSCGDAIASSGERSLCALENQRPVCAKCRTSHACAAEGEKIQGQVMTALGKKWHPSCFCQCGKCKEKITGSFFHRDGVPCYSSQCFCQ
31431	DISGQSYFRMIDQYVQDKARPANAPPEGATSVLENTSVCAVYVDVTKDSFDKCMKWLEVCRKQKRGMTAVLIGNKADLVERQVSPVVAEGFARAHGMEFFQLSSLQR SEVEQPQFHIAHAFYRSYEAKLKALGQVE
32126	VQATMTTVPAHVSQSNVAAQIQSRPLNVESNVFAQVGSTFAPIALGVGALAAFAALIHKGQQPVAMAASSGERLLWIPNATPPAHLTGEFFPGDRGFDPLGLSKDPKVFA RMRISEVHFHRLMGLIGVCGQEWLFNKGAWFDYSDFDLPRLLGLALQVIAPLEYWRNGNGFSWNGNDGPDPSYPGFDPLGLTTEDTKLRE
32885	MTKGTTTSFGKRNGRTHKLKCRGKRSWAVQKKRCAACGYPNPKMRSFNWSEKAKRRNTMGTRMRHMKNVLKKAAVRQRQDQVAPHQKRKTAENRKKFALSRTKLA KDAKKA

33811	MGAKGAKPQYATPYGAYGPRVGQIPNPAVRGYPRPAPAAYPAPAPVYAPPAPVYAAAPTYSYAAPVTSYAAAPVTYAPSYAPAPVTSYAAPVTSYGYAPSAVAAPTQGAAFA LDAADGVIDGRYYGSQVGVTSPAYGY
34869	ADPIFNGSKVRSIQMMRSYHRLPVGPEPPHLKIRGAPLHPWSMYTDKGGFFFGVGTQLPRNFFPKFLATTS AIMGVTYGLVWLYNAAGPRAKTQTRKWKELESEDPRFPFQ EIP E IY L P S D I D R D P N A D C W R I L N Q V P R K E K L L V E I T D P L R N F D F K V A K I K E N
35001	LIYAALNDPEAPGRAVNWAGFYLRGGDDLVLGPFQGVACIRIRKGRGVCACWAEGKAQLVPDVHKFPGHIACDSVSESEVVLP L T D K S G R F L G V L D L D S P V K D H F D A V D V D G L G R I A T L L G N G C D W S P V A P A V T T G L Q
36724	KDITAAALNDVAKFTGQCGRDSLPEGHVSVNDWHRDTLKTPLDFAVLRGDPEIVSLLLKRGARPSPLTVRLAEELVQDVQNPTYADRMHQT L Q K V H S R D E A E A V L K L V G D A Y R A V
48568	EAAKTSFRISMALFAPSYTEQSYVPPQKEKVDVVLEGVFQKIDLVGNQLCATAAELEELKAEIGNSNTILDRELRTQLQQANDEIYRLRNQLSEYTD R K K
49190	MAAACAVRGFTTARPMLTPNKVKVPGRKPQDEEDLTWAEADRKLTP E E R Y A R D K Q M A L L D K M T S Q V E E L K S H T E Q K S N K G V K A Q I E A I S R Q L E A L K A Q L K E
49725	FYE E P E T L F D K N G R P A Y P K A T G P G Y A P Y R D P L P E L P T V Y N K S G K P I K P G V P P G Y V P P G A N F P P V P K G T Q M V N G P K G P T L L C K S K S I A N V C F M S Q C P P
50778	AAWSLPSRPALAATGPRVLVAGATGATGKLT V Q A L K A Q G A D V V A G V R N V A K A A S L G V P A V P L D I T G R F D A L V D S L K G V D V V V S C I G F T P G N P F E F S K A A H A V D N V G T V A L V D A A K A A G V K R F I L M S S I L
52389	HEIRQLEKKDLLKQLDDLKTELAQLRVAKQTSGAASKLCKIKIVRRSIARVLTVLNMKEKNTLRKLYKNKKYKPLDRPKTKKERLALSII D R R R K T A R Q K I L H A Y P M R K Y Y V K V
52992	MSTFKDSNLLFPPEASEKRKHKLKRLVQGGQNSFFMDVKPCSWAMYGCNLWNNFSLFFCSTIVFSHVAKVVVCSSENTVLAQPTGGKVCFSLSSINVTPFNYFRQSSLKVAPS A R S Q N E