

**Online Supplementary Materials A.** The learning dataset contains 406 plant proteins classified into 11 subcellular locations according to the experimental annotations. Both the accession numbers and sequences are given. None of the proteins has  $\geq 25\%$  sequence identity to any other in the same subset (subcellular location). See the text of the paper for further explanation.

---

(1) 10 cell wall proteins

>P23137

MGSKAFLFLGLCLAFFLISSEVVAGELAETSNSPMKLDGENGVVDGRGGYNDVGGDGYY  
GGGRGRGGGGYKRRGCRYGCCRKGNGCKRCCSYAGEAMDKVTEAQPHN

>Q9SU40

MDLFKILLLVFFVNISFCFAADPYSFYNFEVSYITASPLGVPPQQVIAINGKFPGPTINVT  
TNENLVNVNRNKLDEGLLLHWNGIQQRVSWQDGVLGTNCPIPCKWNWTYEFQVKDQIGS  
FFYFPSSLHFQRASGGFGSFVVNPRAIIPVVFSTPDGDITVTIGDWYIRNHTALRKALDDG  
KDLGMPDGVLINGKGPYRYNDTLVADGIDFETITVHPGKTYRLRVSNVGISTSLNFRIQG  
HNLVLAESEGSYTVQQNYTSLDIHVGQSYSFLVTMDQNASSDYYIVASARVVNETIWRRV  
TGVGILKYTNSKGAKGQLPPGPQDEFDKTSFMNQARSIRWNVSASGARPNPQGSFKYGS  
INVTDVYVLRNMPPTISGKRRTLNGISFKNPSTPIRLADKLKVKDVKLDFPKRPLTG  
PAKVATSIINGTYRGFMEVVLQNNDTKMQSYHMSGYAFFVVGMDYGEWTENSRTYWKWD  
GIARSTIQVYPGAWSAILISLDNPGAWNLRTEENLD SWYLQETYVRVVNPDENNKTEFGH  
PDNVLYCGALSKLQKPKVSSASKSIGFTSLSMVMALVMMMLQH

>Q42589

MAGVMKLAICLLACMIVAGPITSNAALSCGSVNSNLAACIGYVLQGGVIPPACCSGVKNL  
NSIAKTTPDRQQACNCIQAARALGSGLNAGRAAGIPKACGVNIPYKISTSTNCKTVR

>Q9S8P4

MKLIAVLLLVLATATTATAADADALQDLCVADYASVILVNGFACKPASNVAEDFFSNL  
LVKQGATNNNTFGSLVTGANVQRIPGLNTLGVS MARIDYAPGGLNPPHTPRATEMFVLE  
GQLDVGFITTTNQLIAKTIAKGETFVFPKGVLVFQKNNGWEPATVIAGFNSQLPGTVNIP  
LTLFNATPPVVDNLTKAFQIGTKEVQKIKSKFAPKK

>P43643

MGKEKFHINIIVVIGHVDSGKSTTGHLIYKLGGIDKRVIERFEKEAAEMNKRFSKYAWVL  
DKLKAERERGITIDIALWKFETTKYYCTVIDAPGH RDFIKNM ITGTSQADCAVLIIDSTT  
GGFEAGISKDGQTREHALLAFTLGVKQMICCCNKM DATTPKYSKARYDEIVKEVSSYLKK  
VGYNPDKIPFVPISGFEGDNMIE RSTNLDWYKGPTILLEALDQINDAKR PSDKPLRLPLQD  
VYKIGGIGTVP VGRVETGVLKPGMVVTFGPTGLTTEVKSVEMHHEALQEALPGDNVGFNV  
KNVAVKDLKRGFVASNSKDDPAKGAASFTSQVIMNH PGQI GNGYAPVLDCHTSHIAVKF  
AEILTKIDRRSGKEIEKEPKFLKNGDAGMVKMIPTKPMVVFETSEYPLGRFAVRDMRQT  
VAVGVIKNVDKKDPTGAKVT KAAQKKK

>Q03464

MKMMVVVVVMMMSWLILKPPSTWAINTITFDVGNATINKYATFMKSIH NQAKDPTLKCYG  
IPMLPNTNLTPKYLLVTLQDSSLKTITLMLKRNNNLYVMGYADTYNGKCRYHIFKDISNTT  
ERNDVMTTLCNPNPSSRVGKNINYDSSYPALEKKVGRPRS QVQLGIQILNSGIGKIYGVDS  
FTEKTEAEFLLVAIQMVSEAARFKYIENQVKTNFNRAFYPNAKVLNLEESWGKISTAIHN  
AKNGALTSPLELKNANGSKWIVLRVDDIEPDVGLLKVNGTCQATYQSAMFPHL

>Q9S7Y7

MASSSSSLAFSLSLLLALILCF SPTQSYKTIGKGYRLVSIEESP DGGFIGYLQVKQKNKI  
YGSDITTLRLFVKHETDSRLRVHITDAKQQRWEVPYNNLPREQPQV GK VIGKSRKSPIT  
VQEISGSELIFS YTTDPFTFAVKRRSNHETLFNTTSSLVFKDQYLEISTSLPKEASLYGL  
GENSQANGI KLPNEPYTLYTEDVSAINLNTDLYGSHPMYMDLRNVGGKAYAHAVLLNS  
NGMDVYRGDSL TYKVIGGVFDYFIAGPSPLNVVDQYTQLIGRPAPMPYWSLGFHQCRW  
GYHNL SVVEDVVDNYKAKIPLDVIWNDDDHMDGHKDFTLN PVA YPRAKLLAFLDKIH KI  
GMKYIVINDPGIGVNASYGTFQ RAMAADVF IKYEGKPFLAQWPGPVYFPDFLNPKTVSW  
WGDEIKRFHDLVPI DGLWIDMNEVS NFC SGLCTIPEGKQCPSEGE PGWV CCLDCKNITKT  
RWDDPPYKINATGVVAPVGFKTIATSATHYNGVREYDAHSIYGFSETIATHKG LNVQGK  
RPFILSRSTFVGSGQYAAHWTGDNQGTWQLQSISTMLNFGIFGVPMVGSDICGFYPQP  
TEELCNRWIEVGAFYF PFSRDH ANYYSPRQELYQWDTVADSARNALGMRYKILPFLYTLNY  
EAHMTGAPIARPLFFSFPEYTECYGNSRQFLLGSSFMISPVLEQGKTEVEALFPPGSWYH

MFDMTQAVVSKNGKRVTLPAVLNFNVHLYQNTILPTQQGGGLISKDARTTPFSLVIAFPA  
GASEGYATGKLYLDEDELPEMKLGNGQSTYVDFYASVGNGMTMKMWSQVKEGKFALSKGWV  
IEKVSVLGLRGAGQVSEIQINGSPTMKKIEVSSKEHTYVIGLEDEEENKSVMVEVRGLEM  
LVGKDFNMSWKMGIN

>P83948

MTRIKEFFTKLSESSTNQNISNIKKKKFLALFATLLVVAAVIGIVAGVNSRKNSGDN  
GNEPHAILKSSCSSTRYPDLCFSAAVPEASKVTSQKDVIEMSLNITTAVEHNYFG  
IQLKLKRTNLTKREKVALHDCLETIDETLDELHKAVEDLEEYPNKKSLSQHADDLKTLM  
AAMTNQGTCLDGFSHDDANKHVRDALSDGQVHVEKMCNSALAMIKNMTTDMMIMRTSNN  
RKLIEETSTVDGWPWPAWLSTGDRLLQSSVTPNVVAADGSGNFKTVAASVAAAPQGGTK  
RYIIRIKAGVYRENVEVTKKHKNIMFIGDGRTRTIITGSRNVDGSTTFKSATVAVVGE  
FLARDITFQNTAGPSKHQAVALRVGADLSAFYNCDMLAYQDTLYVHSNRQFFVNCLIAGT  
VDFIFGNAAVLQNCDIHARKPNQKQNMVTQGRADPNQNTGIVIQLSRIGATSDLKPV  
QGSFPTYLGRPKEYSRTVIMQSSITDVIHPAGWHEWDGNFALNTLFYGEHQNAGAGAGT  
SGRVWKKGFRVITSATEAQAFTPGSFIAGSSWLGSTGFPFLSLG

>Q9C9H5

MTSLFFFVLLFSSLLISNGDANPNYKEALSKSLLFFQGQRSGPLPRGQQISWRASSGLSD  
GSAAHVDLTGGYYDAGDNVKFNLPMAFTTMLSWSALEYGKRMGPELENARVNIRWATDY  
LLKCARATPGKLYVGVDPNVDHKCWERPEDMDTPRTVYSVSASNPBSDVAETAALAA  
ASMVFRKVDSKYSRLLLATAKDVMQFAIQYQGAYSDSLSSVCPFYCSYSGYKDELMWGA  
SWLLRATNNPYYANFIKSLGGGDQPDIFSWDNKYAGAYVLLSRRALLNKDSNFEQYKQAA  
ENFICKILPDSPSSSTQYTQGGLMYKLPQSNLQYVTSITFLLTYAKYMKATKHTFNCGS  
SVIVPNALISLSKRQVDYILGDNPIKMSYMGFSSNFPKRIHHRASSLPSHALRSQSLGC  
NGGFQSFTQNPNPNIITGAIVGGPQNNDGYPQRDDYSHAEPATYINAAGVPLAYFAA  
GRST

>Q9FL76

MELLKRKLYAKILMMVMVIWIAPMTNGHDHASHVPGRPGAHPSHGAHPAHGAPSHGAH  
PSHGAHPSHGAHPSHGALPSHGGQVPHSGWGHGRATFYGDIINGGETQQGACGYGDLHKQG  
YGLETAALSTALFNNGSRCGACYEIMCEHAPOWCLPGSIKITATNFCPPDFTKPNDNW  
PPQKHFDSLSPMFLLKIAKYKAGVVVPVKFRVPCAKIGGVKFEIKGNPHFLMILPYNVGGA  
GAVRAMQIKGTRTQWIAMKKNWQIWSTGVVLTGQCLSFRLLTSDGVMKEFIDVTPPDWK  
CNGQSFDGKVNF

(2) 80 chloroplast proteins

>P25864

MASSTALSLSSSPCWHSFNGGANETLKVSERRNFVVSQKKAKKLKVKILKEDVTD  
LGKQGQLLDVKAGFFRNFLLPTGKAQLMTPLLLKELKMEDERIEAEKQRVKEEAQQLAMV  
FQTVGAFKVKRKGGKGKLIFGSVTAQDLVDIIKSQLQKDIKRLVSLPEIRETGEYIAEL  
KLHPDVTARVKINVFAN

>Q9M4W3

MAMATSFYCSTAIPSKKTNQNRENFLCSPVGGSKTPSYIRLSTRQSRTLSLVSAASG  
AAVEAEPKFAAVTPSKILSFRVGHGFDLHRLEPGYPLIIGGINIPHDRGCEAHSDGDVLL  
HCVVDAILGALGLPDIGQIFPDTPWKGAPSSVFIKEAVRLMDEAGYELGNLDATLILQ  
RPKVSPHKEAIRQNLQCLLGADPCVVNLKAKTHEKVDSLGENRSIAAHTVVLLMRK

>Q39129

MAEESRPSSSVTVAHDLILLAGHRYLDVRTPEEFQSQGHACGAINVPYMNRGASGMSKNP  
DFLEQVSSHFGQSDNIIVGCQSGGRSIKATTDLLHAGFTGVKDIVGGYSAWAKNGLPTKA  
>Q85A69

MSILVYEVSKSLGNLKVLDRVSLYVRKVLVALLGPSGSGKSSLRIIAGLDSPDYGSVW  
LHGTDMTNTSTQYRHMAFVFQHYALFKNMTVYENISFGLRLRGFSYQKIRNKVNLDCL  
RISDIVSEYPGKLSGGQKQRVALARSLAIKSDFLLDEPFGALDGEIIRRHSKWLKRYLK  
DNGITTIMVTHDQEAIISMADEIVVLKQGRFLQQGRSKNLYDEPIDYFVGIFSGSFIEFP  
QLEESLDAPLGSSSSSSSTKKSMEKDFTPFIPDLIWSQIFTNQSIHHYHFFLRPHELYL  
ESQIDLKAIIPVQIKKIIYKRTFVQLDLSITPSSWNITIPIGYQAFRKLNIQSFVQKLYIK  
PRNQVYLRAYPKKKNIISKQI

>Q9XJ27

MASITNLASSLSSLSFSSQVSQRPNTISFPRANSVFALPAKSARRASLSITATVSAPPEE  
EEIVELKKYVKSRLPGFFAAQKIIGTGRKCAIARVVLQEGTGKVIINYRDAKEYLQGNP  
LWLQYVVKVPLVTLYGSENSYDIFVKAHGGGLSGQAQAITLGVVARALLKVSADHRSPLKKEG

LLTRDARVVERKKAGLKKARKAPQFSKR

>P46489

MAVVKLSPWANYSSKSEIKSSSSSSSKSSLSAYINVSSSPRLSFYNPYPRRLHHQRL  
 SSPASIRCSVTSQDQIAPLPAKQKPECFGVFCITYDLKAEEETKSWKIIINVAWSGAAG  
 MISNHLLFKLASGEVFGPDQPISLKLLGERSFAALEGVAMELEDSLYPLLRQVSIGIDP  
 YEIFQDAEWALLIGAKPRPGMERADELLDINGQIFAEQGKALNAVASPNVKVMVGNPCN  
 TNALICLKNAPNIPPKNFHALTRLDENRAKCQLALKAGVFYDKVSNVTIWGNHSTTQVD  
 FLNAKIHGIPVTEVIRDRKWEDEFTNMVQTRGGVLIKKGRRSSAASTAVSIVDAIRSLV  
 TPTPEGDFWSTGVYTNGNPYGIADIVFSMPCRSKGDGYEFVKDVIFDDYLSKKIKKSE  
 DELLAEKKCVAHLTGEGIAVCDLPEDTMLP

>Q85WX8

MSRYRGPRLKIIIRRLKTLPGLTSKRPNRKDSMNMRSSRKISQYRIRLEEKQKLRFHY  
 GLTERQLLKYYVRVSRAKGSTGVLLQLEMRLDNIIFRLGMAPTIQGARQLVNHGHIRV  
 NDHMVDIPSYPCKPQDVITIRDQPRLRAIICKNSYPCKPQDVITIRDQPRLRAIICKNID  
 LFQRDKLPNHLTFHPLQYKGFINQIIDSKWISLKINELLVVEYYSRQA

>Q07510

MATSYGFFSPSVPSLNKISPSSLGINGSGFCSHLGISKRVFCSSIEASEKHAAAGVSSS  
 ESRVSRLVNRGCKLVCGSAVPKLQISNDLKFVETSDEWIATRTGIRQRHVLSGKDSL  
 VDLAAEAARNALQMANVNPDDIDLILMCTSTPEDLFGSAPQVQRALGCSRPLSYDITAA  
 CSGFMLGLVSAACHVRGGGFKNVLVIGADALSRFWDTRGTCILFGDAAGAVVVQACDS  
 EEDGMFAFDLHSDGGGRHLNASLLDETAAIGNNGAVTGFPKRPSCINMNGKEVF  
 RFAVCVPQSIEAALQAGLTSSNIDWLLHQANQRIIDAVATRLEVPSERVLNLANYG  
 NTSAASIPLALDEAVRSGKVKGPNIIATSGFGAGLTWGSSIIRWG

>P09976

MRGHQFKSWIFELREILREIKNSHHFLDSWTQFNSAGSFIIHFFHQUERFLKLFDPRIWSI  
 LLSRNSQGSTSNRYFTIKGVILFVVAVLIYRINNRNMVERKNLYLIGLPIPMNSIGPRN  
 DTLEEESVGSSNINRLLIVSLLYLPKGKKISECFLNPKESTWVLPITKKCSMPESNWGSRW  
 WRNWIGKKRDSSCKISNETVAGIEILFKEKDLKYLEFLFVYYMDDPIRKDHDWELFDRLS  
 LRKSRNRINLNSGPLFEILVKHWISYLMASFREKIPIEVEGFFKQQGAGSTIQSNDIEHV  
 SHLFSRNKWAISLQNCAQFHMWQFRQDLFVSWGKNPPESDFLRNVSRENWIWLDNVWL VN  
 KDRFFSKVQMVSSNIQYDSTRSSFVQVTDSQLKGSSDQSRDQLDSISNEDSEYHTLINQ  
 REIQQRKERSILWDPSFLQTERKEIESGRFPKCLSGYSSMSRLFTEREKQMINHLFPEE I  
 EEFLGNPTRSVRSFFSDRWSELHLGSNPTERSTRDQKLLKQDLSFVPSKRSENKEMVN  
 IFKIITYLQNTVSIHPISDPGCDMVPDEPDMDSSNKISFLNKNPFFDLFHFLFHDRNRG  
 GYTLHYDFESEERFQEMADLFTLSITEPDLYVHKGAFSIDSCGLDQKQFLNEARDESKK  
 KSLLVLPPIFYEEENESFSRRIRKKWVRISCGNDLEDPKPKIVVFASNNIMEAVTQYRLIR  
 NLIQIQYSTYGYIRNVNRLFFLMNRSDRNFEYGIQRDQIGKDTLNHRTIMKYTINQYLSN  
 LKKSQKKWFEPPLILSRTERSMNRPDAYRYKWSNGSKNFQEHEQSVEQKSRFQVVF D  
 RLRINQYSIDWSEVIDKKDLSKPLRFFLSKSSLFLSNSLPFFCVSFGNIPHI R  
 SEIYIYELKGPNQLCQLLESIGLQIVHLLKKWPFLDDHDTSQSKFLINGGTISPFL  
 FNKIPKWMIDSFHTRNNRKSFDNPD SYFSMIFHDQDNWLNPVKPFH RSSLISSFYKANR  
 LRFLNNPHFCFYWNTRFPFSVEKARIINNSDFTYQGFLNILFIRNKIFSCLVGKKHAFW  
 GRDTISPIESQVSNIFIPNDFPQSGDETYNLYKSFHFPSRSDPFVRRAIYSIADISGTP  
 TEGQIVNFERTYCQPLSDMNLSSEGKNLHQYLNFSNMGLIHTPCSEKDLSSEKRKKRS  
 LCLKKCVEKGQMYRTFQRDSAFTSLSKWNLQTYMPWFLTSTGYKYLNLIFLDTFSDLLP  
 ILSSSQKFVPIFHDIMHSGGISWRILQKKLCPQWNLISEISSKCLHNLLLSEEMIHRNN  
 ESPLISTHLRSPNAREFLYSLFLLL VAGYLVRTHLLFVSRASSELQTEFEVKVSLMIPS  
 SMIELRKLLDRYPTSEPNSFWLKNLFLV ALEQLGDSLEEIRGSGASGGNMLGPAYGVKSIR  
 SKKKDWNINLIEIIDLIPNPINRITFSRNTRHLSHTSKEIYSLIRKRN VNGDWIDDKIE  
 SWVANSDSIDDEEREFLVQFSTLTENRIDQILLSLTHSDRLSKNDGYQMIEQPGAIYL  
 RYLVDIHKHKL MNYEFNPSCLAERRIFLAHYQTITYSQTSCGENSFHFP SHGKPFSLRLA  
 LSPSRGILVI GSIGTGRSYLVKYLATNSYVPFITVFLNKFLDNKPKGFL DEIDDDSD  
 IDDSDNLDASDDIDRDLTELKLTRMNGLTMDMMPEIDRFYITLQFELAKAMSPCIWI  
 PNIHDLDVNESNDLALG LLVMHLSRDCERCSTRN ILVIASTHIPQKVDPALIAPNKLNTC  
 IKIRRLLLPQQRKHFTLSYTRGFHLEKKMFHTNGFGSITMGGSNARDLVALTNEVLSISI  
 TQKSIIDTNTIRSALRQTWDLRSQVR SVQDHGILFYQIGRAVAQNVLLSNCPIDPISI  
 YMKKSCNEGDSYLYK WYFELGTSMKRLTILLYLLSCSAGSVAQDLSL SGPDEKNGITS  
 YGLVENDSDLVHGLLEVEGALVGSSRTEKDCSQFDNDRVTLLRPEPRNPLDM MQNGSCS

ILDQRFLYEKYESEFEEGEGEALDPQEDLFNHIVWAPRIWRPWGFLFD CIERPNELGFP  
YWSRSFRGKR IIYDEEDELQENDSEFLQSGTMQYQTRDRSSKEQGLFRISQFIWDPADPL  
FFLFKDQPPGSVFSHRELFADEEMSKGLLTSQTDPPTSIYKRWFIKNTQEKFELLINRQ  
RWLRTNSSLSNGSFRSNTLSES YQYLSNLFLSNGTLLDQMTKTLLRKRWLF PDEMKGFM  
>P19161

MSPQTETKASVGFKAGVKDYKLTYTPEYETKDTILAAFRVTQPQGPVPPEEAGAAVAEE  
SSTGTWTWTDGLTSLDRYKGRCYGIPEVPGEDNQYIAVAYPLDLFEEGSVTNMFTSI  
VGNVFGFKALRALRLEDLRIPTAYVKTFFAGPPHGIVVERDKLNKYGRPLLGCTIKPKLGL  
SAKNYGRACECLRGGLDFTKDDENVSQPFMRWRDRFLFCAEAIIYKAQAETGEIKGHYL  
NATAGTCEEMLKRAVFARELGVPIIMHDYLTGGFTANTSLSHYCRDNGLLLHIHRAAHAV  
IDRKQKNHGIIHFRVLAKALRMSGGDIHSGTVVGKLEGEREITLGFVDLLRDDFIEKDRSR  
GIYFTQDWVSLPGVLPVASGGIHVWHMPALTEIFGDDSVLQFGGGTLGHWPWNAPGAVAN  
RVALEACVQARNEGRDLATEGNEIIIREATKWSPELAAACEVWKEIKFEFQAMDTLDTDKD  
KDKKR

>022886

MSILQVSTSSLSSSTLLSISPRKSLSSTKSCRIVRCSVEGTTVERKVSATSEPLLRAVKGEVVDRPPVWLMRQAGRYSQTLCEKYPFRDRSENADLVVEISLQPWKVFKPFGVILFSDILTPLSGMNIPFDIVKGKGPIFIENPPQSAADVAQVREFVPEESVPYGEALRRLRNEVNNEAVLGFVGAPFTLSSYVIEGGSSKNFTQIKRLAFSQPKVLHALLQKFITSITYI  
RYQADSGAQAVQIFDSWATELSPVDFFEEFSLPYLKQIVEAVKQTHPNLPLILYASGSGGLLERLARTGVDDVSLDWTVDMAEGRDRLGRDIAVQGNVDPGVLFGSKEFITSRIHDTVKKAGRDKHILNLGHGIKVGTPEENVAHFFFEVAQEIRY

>Q02073

MAATHLTSTSSLINTLPSFEGLRASAGISKINVSAYPSFTSRSFRLVVRAASITTSKYTSVKPLGDRVLIKTKIVEKTTSGIFLPTAAQKKPQSGEVVAIGSGKKVGDKLPLVAVKTGAEEVVYSKYTGTIEVDGSSHLIVKEDDIIGILETDDVKDLKPLNDRLLIKVAEVENKTSGGLLLAESSKEKPSFGTVATGPGVLDEENRIPLPVCSGNTVLYSKYAGNDFKGVDGSDYMVLRVSDVMAVLS

>P22178

MISLNSSFLERSVTGGSRTQSOSLRLSARRPVVTSMLNSNSLPERNVSVSVDASAVRDVN  
APVAVEVDRSVGEEKPFAAVGGVEDMYGEDTATEDHYITPWVSVASGYSLLRDPHHNKG  
LAFTEKERDAHFLRGLLPPVVNHDLQVKMMHNIRQYQVPLQRYQAMMDLQQRNERLFY  
KLLIENVEELLPIVYTPTVGEACQKYGSIFENSQGLFISLKDKGRILEILKNWPHKKIQV  
IVVTDGERILGLGDLGCQGMGI PVGKLALYTALGGVRPSACLPITIDVGTNNKEKLLNDDE  
FYIGLKQKRAAGQEYAEMLNEFMSAVKQNYGENLLIQFEDFANHNAFDLLEKYRTTHLVF  
NDDIQGTASVVLGGGLISALKLVGGSLADQKFLLFGAGEAGTGIAELIALEISKQTNIPLE  
ESRKKVWLVDSKGLIVRSRLDSLQHFKKPWAHDHEPVNEFLDAIKTIRPTVLIGSSGTGQ  
TFTKEVVTMSSLNEKPIILALSNPTSQSECTAEQAYTWSEGRAIFASGSPFKPVEYNGK  
LYVSGQANNAYIFPGFGLGLIISGAIRVHDDMLLAASEAPAEQVTQEHFDKGJIFPPFTS  
IRKISAHIAAKVAAKAYELGLASRLPQOPENLVAYAESCMYSPKYRIYR

>P81760

MASLPVQFTRNQISSPFFSVNLRREPRSLTVHCSAGENREN  
GEVKKSLFPLKELGSIA  
CAALCACTLTIASPVIAANQRLPPLSTEPDRCEKA  
FGNTIGQANGVYDKPLDLRFDYT  
NDQTNLKGKTLSAALMVGAKFDGADMTEVVMSKAYA  
VEASFKGVNFTNAVIDRVNFGKSN  
LKGAVFRNTVLSGSTFEEANLEDVVFEDTIIGYIDLQ  
KICRNESINEEGRLVLGCR  
- 255/24

>Q85FG4  
MDTENQGT

MPTINQQLIRKARQRLESGTKSPALRGCPQRRGVCTRVTITTPKKPNSALRKVARVRLTISK  
FEVTAYIPGIGHNLQEHSVVVLVRGGRVKDLPGVRYHIVRGALDAVGVKDRKKGRSSALQS  
IVATRIIATIPYQLF

>Q85FG8

MKKQESIHTQLPGENVNTGFTASQIYYSTYQVSKLTSHLELHPRDYSSQIGLWKLLGRK  
RLLAYLFKKNTGLYERVLTKLGIRGLKVGR  
200-100

>023403

MASSAFAFPSYIITKGASTDSFKSTSLSSSRSLVTDFHLLFSRPPISSGPKYQSAKSAKPE  
SPVAINCLTDAKQVCAGVRKRKSMMMGLLMSGLIVSQANLPTAFASTPVFREYIDTFDGY  
FKYPQNWIQVRGAGADIFFRDPPVLDENLSVEFSSPSSSNYTSLEDLGSPEEVGKRVLRQ  
YLTEFMSTRLGVKRQANILSTSSRVADDGKLYYQEVNIKSYANNNELAVMPQDRVARLE  
WNRRYLAVLGVENDRLYSIRLQTPEKVFLEEKDLRRVMDSFRVEKI

&gt;Q9SE20

MATSSAYLSCPATSATGKKHVFPNGSPGLVFGGTRLSNRLVTRKSVIRADLDSMVS DMS  
 TNAPKGLFPPEPEHYRGPKLKVAIIGAGLAGMSTAVELLDQGHEVDIYESRTFIGGVGS  
 FVDRRGNHIEMLHVFGCYNLNFRLKKVGAENLLVKEHTHTFVNKGGEIGELDFRFP  
 VGAPLHGINAFLSTNQLKIYDKARNAVALALSPVVRALVDPDGALQQIRDLDNVSFSEWF  
 LSKGGTRASIQRMWDPVAYALGFIDCDNMSARCMLTIFALFATKTEASLLRMLKGSPDVY  
 LSGPIKKYIMDKGGRFHRLWGCREVLYETSSDGSMYVSGLAMSKATQKKIVKADAYVAAC  
 DVPGIKRLVPQKWRELEFFDNIYKLGVPPVTVQLRYNGWTELQDLERSRQLKRAAGLD  
 NLLYTPDADFSCFADLALASPDDYYIEGQGSLLQCVLTPGDPYMP LSND EIIKRVTKQVL  
 ALFPSSQGLEVTWSSVLKIGQS LYREGPGKDPFRPDQKTPVENFFLAGSYTKQDYIDSME  
 GATLSSGRQASAYICNVGEQMLRKITAAELNDISKGVSLSD ELSLV

&gt;Q85A84

MFSMVNGFRNYSQQAIQASRYIGQGFIVTLDHMNR LPMTI QYPYEKLP SERFRGRRIHFE  
 FDKCIACEVCVRVCPINLPVWDWKFKDIKKQLKSYSIDFGVCIFCGNCVEYCPTNCLS  
 MTEYEYLSTYDRHELN YDQIALGRLPISI EDRTIESISSFDSSKKIMEEHSKSRTVTK  
 FLD

&gt;Q9FV52

MASSVFLSSFSSSSQLCSSFHGEYLAPSRCFLGAPVTSSSLSGKKNSYS PRQFHVS  
 AKVSGLEEAIRIRKMRELETKS VRRNPLR RGRVSPRLLV PDI PRPPYVESGVLPDI  
 SSEFQIPGPEGIAKMRAACELAARVLYAGTLVKPSVTNEIDKA VHDMIIEAGAYPSPL  
 GYGGFPKS VCTS VNECMCHGIPDSRQLQSGDIINIDVTYVLDGYHGDT SRTFFCGEVDEG  
 FKRLVKVTECLERGIAVCKD GASFKKIGKRISEHAEKFGYNVERFVG HGVPVFHSEP  
 LIYHYRNDEPGLMVEGQTFTIEPILTIGTTECVTW PDNWTT LTADGGVAAQFEHTILITR  
 TGSEILT KC

&gt;Q9SMH4

MRT RAGAFFGKQRSTSPGSSTSASRQWL RSSP GRTQRPAAH RVL A C VRNP AR PAADHP  
 LVSTTQAAAQRQARQWDSRSKPPQQLQPLRH THVSRQAQRRQQQVQQAEAGALVVPTV  
 ITSFPEHLRPEVLANGVLLVDKPEPHWEVPEVVAAVQ RATGADKV ASVAPLDARASGLMLL  
 CFGSATRLAPRVERAAKRTGTIVLGGSSL SGDVRGGSFRAAOLPAEHT DEDLREAAQG  
 LVTAAAGAPVHGA VATGHQGGGLALRVL PRTW RLQLP SSTEYYEERVEPSMRT LD MEL  
 LD FRV WRESALSHNDGAAGAEYDQHDQHKQELGRGLVWTRSPHPRPVLRFSALLVGRS  
 HVRSLIAMYG RRLRTAAC LDDLR RT EIGSFNVEEAWPLEALVPVLQRHAH

&gt;P80030

MAATAAASSLQMATTRPSISAASSKARTYVVGANPRNAYKIACTPHLSNLGCLRND S ALP  
 ASKKSFSFSTKAMSESSESKASSGLPIDLRGKRAFIAGIADDNGY GWAVAKSLAAAGAEI  
 LVGTWVPALNIFETSLRRGKFDQSRVLPD GSLMEIKKVYPLDAVFDNPEDVPEDV KANKR  
 YAGSSNWTVQEAAECVRQDFGSIDILVHS LANGPEVSKPLLETSRKGYLAISASSY SFV  
 SLLSHFLPIMNPGGASISLTYIASERIIPGYGGG MSSAKAAL ESDTRV LA FEAGR KQNIR  
 VNTISAGPLGSRAAKAIGFIDTMIEYSYNAPIQKTLTADEVGNAAFLV SPLASAITGA  
 TIYDNGLNSMGVALDSPVFKDLNK

&gt;P52410

MQALQSSSLRASPPNPLRPSNRQSHQLITNARPLRQQRSFISASASTVSAPKRETDPK  
 KRVITGMGLVS VFGNDVDAYEKLLSGESGISLIDRF DASKF PTRF GGQIRGFSSEGYI  
 DGKNERRLDDCLKYCIVAGKKALESANLGDKLNTIDKRKAGVLVGTGMGLTVFSEGVQ  
 NLIEKGHRISPFFI PYAITNMGS ALLAIDLGLMGP NYSISTACATSNYCFYAAANHIRR  
 GEADMMIAGGTEAAIIPIGLGGFVACRAL SQRNDDPQTASRPWDKARDGFVMGEAGA GLV  
 MESLEHAMKRGAPIVAEYLGGAVNCDAHHMTDPRADGLGVSS CIERCLEDAGV SPEEV NY  
 INAHATSTLAGLAEINA IKVFKSTSGIKINATKSMIGHCLGAAGGLEAIATVKA INTG  
 WLHPSINQFNPEQAVDFDTVNEKKQHEVDVAISNSFGFGGHNSVVA FSAFP

&gt;P41347

MTSTVTTVCGGLPVRPLSTATRGRPRRC AVRAQAAGADASNDKSVE VMRKFSEQYARR  
 SNTFFCADKT VTA VVI KGLADH RD TLGAPLCPCR HYDDKAAEVAQGFWNCPVPMRERKE  
 CHCMLFLTPDND FAGKDQVISFEEIKEATS

&gt;O82782

MRTLSSQLYSNGGLTWFQKKNQSSLFIKHLRVSKPSRVQLISAVQFRPCIDI HKGV KQI  
 VGSTLRLDKEDGSVLTNFESDKS AEEYAKMYKEDGLTGGHVIMLGADPLSQAAIGAL H  
 AYPGLQVGGGINSEN CMSYIEEGASHVIVTSYVFNNNGKIDLERLK DIVSIVGKQRLILD  
 LSCRKKDGRYAI VTD RWQKFSDVILDEKSLEFLGGFSDEF LVHGVD VEGKKLGIDEELVA

LLGNYSPIPVTVYAGGVTVMDVERIKDAGKGRVDVTVGSAALDIFGGNLPYKDVVAWHHKQ  
 >Q94IC4  
 MALSCSKVLSFYLPVVGDDVPKKLTFFSFLGLSKVGGSRSSRVCAASNAPLAGVI  
 FEPFQELKKDYLAVPIAHNVXLRQNYADDSSESAINEQINVEYNVSYVHALFAYFDRDN  
 IALKGLAKFFKESSEEREHAEQLIKYQNIRGGRVVLHPITSPPSEFEHSEKGDALYAME  
 LALSLEKLTNEKLLHVHSVAERNNDPQXADFIESEFLYEQVKSIKKIAEYVAQLRLVGKG  
 HGVWHFDQKLLHDEDHV  
 >P08474  
 MASSILSSAAVASVNSASPAQASMVAPFTGLKSSAGFPITRKNNVDITTLASNAGKVQCM  
 KVWPPLGLRKFETLSYLPDMSNEQLSKEDCYLLRNGWVPCVEDIGSGFVYRENHRSPGF  
 YDGRYWTMWKLPMFGCTDSSQVIQEIEEAKKEYPDAFIRVIGFDNVQVQCISFIAYKPQ  
 VLLFLSSIC  
 >P82869  
 MASPLSSSTVVSHRLFFLHPSPNLRKFLFKPKLFPNRTNSGDFRMRHLHSTSSKTGTKEI  
 IHSCNNSIDSKLNTFEAGSKNLEKLVATILIFVQVWSPLPLFGLDSAYISPABEAVLYSPD  
 TKVPRTEGELRRAIPANPSMKIIQARHSLRLSMWKPYGTMESNVKKALKVAIDDKDKIL  
 ASIPVDLKDKGSELYTTLDGKGLQALITSIKKQDPDKVSLGLAASLDTVADLELLQAS  
 GLSFLLPQQYLNYPRLAGRGTVEITIEKADGSTFAEAGGDQRKSATVQIVIDGYSAPLT  
 AGNFAKLVTSGAYDGAKLNTVNQAVITEDGSGKVESVSVPLEMPMSGQFEPLYRTPLSVQ  
 DGELPVPLSVYGAVALMAHSENSEEYSSPYQFFFYLYDKRNSGLGGLSFDEGQFSVFGYT  
 IAGKDILGQIKTGDIIKSAKLIQDRLSLPVQNNNINEST  
 >Q9SW33  
 MSLVASLQLILPPLPRSTKLLCSLQSPKQEQQELSSTSPPISLLPKLISFALAIISLTSFSP  
 ALAIPSLSQQPLTTPFTQSKFVQTGLLNGKIRPCPSTNPVCSTNPNTSSFSFPLTIPE  
 TDTQDPIEKLKEAIMSTQKNPKFVLEDTPYGRYVEAEVEGGFSRDVMFELVKQDVVAY  
 RCMATKVTVYPFTTAFGDSKGQEEERLKKLIDQLGWYAPTFESME  
 >Q9LX31  
 MATTNDSLHHHHSSPSYTHHRNNLHCQSHFGPTSLSKQOPTSAATFSLICSASSTSSSTT  
 AVSAVSTTNASATTAEATATIFDVLENHLVNQNFRQADEETRRLLIQISGEAAVKRGYVFF  
 SEVKTISPEDLQAIDNLWIHKSDGRFGYSVQRKIWLKVKKDFTRFFVKVEWMKLLDEVV  
 QYNYRAFPDEFKWELNDETPLGHLPLTNALRGTQLLKCVLSHPAFATADDNSGETEDELN  
 RGVAVAKEQAGVGADKRVFKTNYSF  
 >Q01292  
 MAATAATTFSLSSSSSTSAAASKALKQSPKPSALNLGFLGSSTIKACRSLKAARVLPSC  
 ANGGGSALSAQMVSAPSINTPSATTFDFDSSVFKEVTLGHDEYIVRGGRNLFPPLPD  
 AFKGIKQIGVIGWGQSAPAQANLKDLSLEAKSDVVVKIGLRKGSNSFAEARAAGFSEEN  
 GTLGDMWETISGSDLVLLLISDSAQADNYEKVFSHMKPNSILGLSHGFLGHQLSLQDF  
 PKNISVIAVCPKGGMGPSVRRLYVQGKEVNGAGINSSFAVHQDVDRATDVALGWSIALGS  
 PFTFATTLEQEYKSDIFGERGILLGAVHGIVECLFRRTESGMSEDLAYKNTVECITGVI  
 SKTISTKGMLALYNSLSEEGKKDFQAAYSASYPSMDILYECYEDVASGSEIRSVVLAGR  
 RFYEKEGLPAFPMGKIDQTRMWKVGEKVRSSVRPAGDLGPLYPTAGVYVALMMAQIEILR  
 KKGHSYSEIINESVIEAVDSLNPFMHARGVSFMVDNCSTTARLGSRKWAPRFDYILSQQA  
 LVAVDNGAPINQDLISNFLSDPVHEAIGVCAQLRPSVDISVTADADFVRPELRQA  
 >P24226  
 MSFDLSRLSLTSSPRLSFLTRTATKKGFVRCSMKSYRLSELSFSQVENLKARPRIDFSSI  
 FTTVNPIIDAVRSKGDTAVKEYTERFDKVQLNKVVEDVSELDIPELDSAVKEAFDVAYDN  
 IYAFHFAQMSTEKSVENMKGVRCKRSRSIGSVGLYVPGGTAVLPSTALMLAIPAQIAGC  
 KTVVLATPPTKEGSICKEVLYCAKРАGVTHILKAGGAQAIAMAWGTDSCPKEKIFGPG  
 NQYVTAAKMILQNSEAMVSIDMPAGPSEVLVIADEHASPVYIAADLLSQAEHGPDSQVVL  
 VVVGDGVLKAIEEEIAKQCKSLPRGEFASKALSHSFTVFARDMIEAITFSNLYAPEHLI  
 INVKDAEKWEGLIENAGSVFIGPWTPESVGDYASGTNHVLPTYGYARMYSGVSLDSFLKF  
 MTVQLTEEGLRNLGPYVATMAEIEGLDAHKRAVTIRLKDIEAKQTQTK  
 >Q93YW0  
 MPSLSTPPSQNLAFSPAASATSSRLTPSSKRSFYPHRLPDPTALCRCSSSSGSNSSSSSS  
 SDDNPRWDSAIQDVLKSAIKRFDSVLSWYATLDNDDGEQGSENVEKIDDDWDWRKKHF  
 DQVDDQDRLLSVLKSQLNRAIKREDYEDAARLKVAIAATATNDAVGKVMSTFYRALLEER  
 YKDAVYL RDKAGAGLGVWWSGISEDVKDPFGGLIVQITAEGHRYVARSYNPRQLSTAAGA  
 PLFEIFLTLDGKGNYKKQAVYLWKEIFPDVPTMPSRTLTPGRFLTSPGRKEDTGNLAVE

SSEDEESDNSDDDSLLLEESSGFQSFLRDMIPGVVKVMVTAPGRVDKDFISKVIEQIA  
 DEEDEENDLDIEDIDVEDDTKAEIDEKNADIELESVTDEIIDNNNGREIAVKFVIGDIVD  
 RLSGNQPLKESLRSPANLESVENSSFYLRLEKDLNVKESKGVEGTTLVDKGSRQSRRRI  
 ENIMGDLAKSIEKEKKISVKMLKDVGESELLTLSQAQNQRQLSGLTKFRRIDVTPSLDPL  
 DGLYIGAHGLYTSEVIHLKRKFGQWKGGKESKKPTDIEFYEYVEAVKLTGDPYVPAGKVA  
 FRAKIGRRYELPHKGLIPEEFVGVIARYKGQGRLADPGFRNPRWVDGELVILDGKYVKGGP  
 VVGFVYWAPEYHFVMFNRLRLQA

>P09856

MALHLSLSHQSWTSPAHPITSSDPTRSSVPGTGLSRRVDFLGSCINGVFVVKRKDRRRM  
 RGGEVRASMEQALGTQEEMAIVGVKTEVNKDTFWPIVKAAGDKPVVLDMFTQWCPCAM  
 APKYEKLAEEYLDVIFLKLCDNQENKTLAKELGIRVVPTFKILKENSVVGEVTGAKYDKL  
 LEAIQAARSS

>Q39513

MVATAASSAFFPLPSADTSSRPKGKLGKPNSSLSPLPKPKSTPNGLQVKANASAPPKINGS  
 PVGLKSGGLKTQEDAHSAPPRTFINQLPDWSMLLAAITTFLAAEKQWMMLDWPKRKP  
 MLVDPFGLGSIVQDGLVFRQNFIRSYEIGADRTASIEVMNLQETALNHVKIAGLSND  
 GFGRTPEMYKRDLIWVVAKMQMVMNRYPWGDTVEVNTWAKSGKNGMRRDWLISDCNTG  
 EILTRASSVWVMMNQKTRRLSKIPDEVNRNEIEPFVDSPPVIEDDDRKLPLKDEKTADS  
 IRKGLTPRWNDLVNQHVNNVKYIGWILESTPPEVLETQELCSLTLEYRRECGRESVLES  
 TAMDPGGGYGSQFHLLRLEDGGEIVKGRTEWPKNGVINGVVPTESSPGDYS

>P52420

MSSLCASNCYPSSSINLFSNNNNPTKPFLLSLRFASSNSLPFVAPLFSTTNHVLNSR  
 FSSNRIQRRFLRLRCVSEESQPSLSIGNGGSEERVNVVLVIGGGGREHALCHALKRSPSCD  
 SVLCAPGNAGISSSGDATCVPDLDISDSLAVISFCQKWNVGLVVVGPEVPLVAGLANDLV  
 KAGILTFGPSSQAAALEGSKNFMKNLCHKYNIPTAKYKTFSDASAKEYIQEQAPIVIK  
 ADGLAAGKGVTVAMELEEAFEAVDSMLVKGVFGSAGCQVVVEFLEGEEASFFALVDGEN  
 AIPPLESAQDHKRVGDGTGPNTGGMAYSPAPVLTKEQDFVMESIIHPTVKGMAEEGCK  
 FVGVLFAGLMIEKKSGLPKLIENVRFGDPECQVLMMRLESDLAKVLLAACKGELSGVSL  
 DWSKDSAMVVMASNGYPGSYEKGSIIKNLEEAERVAPGVKVFHAGTGLDSEGNVVATGG  
 RVLGVTAKGDLEEARERAYSQQINWPGGFFRHIDIGWRALRQKVATKEE

>P42804

MAVSSAFVGCPKLETLLNHHNLSPSSSSSVSQTPLGLNGVRVLPKNNRTRRGLIQQKAR  
 CELSASSDSASNAASIASEQLKNSAADRYTKERSIVVIGLSIHTAPVEMREKLAYPEA  
 EWPRAIACLGHNIEEAABLSTCNRMEIYVLALSQHRGVKEVTEWMSKTSGIPVSEICQ  
 HRFLLYNKDATQHIFEVSAGLDSLVLGEQILAQVKQVVKVGQGVNGFGRNISGLFKHAI  
 TVGKVRRTETNIASGAWSVSSAAVELALMKLPQSSNVSARMCVIGAGKMGKLVIKHLM  
 GCTKVVVNRSEERVSAIREEMPGIEIIYRPLDEMILACASEADVVFSTASETPLFLKEH  
 VENLPQASPEVGGLRHFDISVPRNVGSCVGEVETARVNVDDLKEVVAANKEDRMRKAM  
 EAQTIITEESTQFEAWRDSLETVPTIKLRAYAERIRVAELEKCMSKMGDDINKTTTRAV  
 DDLSRGIVNRFLHGPQHLCRGSDSRTLSETLENMHANRMYGLEKDILEEKLKAMAEQ  
 QQK

>Q9SHI1

MPSLASLVSLGGACASVSGTSSSDASYALVKRVSLSRSSVKGTKKWLCRYSVSSSTTTT  
 ADFIADQNNNSVSIDSNSFRGSKDGDDSEVVLQTPKPVLPKPPVARVERGLVNTAPWSK  
 DLSNGGKFDGEEERNKVIESTLGEVLDKAEKLEIPKPGNKEGGEAVKPSQPSANSSNSRNG  
 SYANASDGGTRKTKTMKSWRKGDAVAAVQKVVKESPKIFNRGVQTEPRTREEGEVNAKA  
 GTPLAPPQPPFRPQPPVRPQPMIQLQGKPMVAPPVKSPILKDLGMAAKPLVSEEVDSVKS  
 KERKPILVDFASKKGVDPAASQAVLAPTKPGKGPSNKFRVEHRNKKNASAPRRRIV  
 AEDDGDDDAISRSGRGRKWSKASRKAVRLQAAKDAAPVKAILEVEEEGMSIEDLAYN  
 LAIGEGDILGYLYSKGIRPDGVHTLDREMVKMICRDYDVEVLDADSVKVEEMAKRQTFD  
 EEDLDKLEDRPPVITIMGHVDHGKTTLDYIRSKVAASEAGGITQGIGAYKVSPVVDGK  
 LQSCVFLDTPGHEAFGAMRARGARVTDIAIIVVAADDGIRPQTNEAIAHAKAAAVPIVIA  
 INKIDKEGASPRVMQELSSIGLMPEDWGGDVMVQISALKGENVDDLLETVMLVAELQE  
 LKANPHRNAKGIVIEAGLDKAKGPATFIVQKGLKRGDVVVCGEAFGKVRALFDHSGER  
 VDEAGPSIPVQVIGLNNVPIAGDEFIEVSSLVAREMAEARAVSLRDERISAKAGDGKVT  
 LSSLASAVSAKMSGLDLHQLNIIILKVDVQGSIEAVRQALQVLPQENVTLKFLLQATGDV  
 SNSDVLASASEAIVFGFNVKASGSVKAAENKGVEIRLYRVIYELIDDVRNAMEGLLES  
 VEEQIPIGSAEVRATFSSGSGRVAGCMVNEGKFVKDCGIRVVRKGTVHGVLDLSLRVK

ENVKEVSAGLECGIGMDDYDDWIEGDIIEAFNAVQKRRTLEEASASMSAAIEEAGV  
 >P42737

MGNESYEDAIEALKLLEKDDLKDVAAKVKKITAELQAASSSDSKSFDPVERIKEGVFTFKEKYETNPALYGELAKGQSPKYMVFACSDSRCPHVLDHPGDAFVVRNIANMVPPFDKVYAGVGAAIEYAVLHLKVENIVVIGHSACGGIKGLMSFPLDGNNSTDFIEDWKICLPAKSKVLAESESSAFEDQCGRCEREAVNVSLANLLTYPFVREGVVKTLALKGGYYDFVNGSFELWELQFGISPVHSI

>P42738

MRSSCCSSAIGGFFDHRRELSTSTPISTLLPLPSTKSSFSVRCSLPQPSKPRSGTSSVHAMVTLAGSLTGKKRVDSESLTLEGIRNSLIRQEDSIIFGLLERAKYCYNADTYDPTAFDMDFGNGSLVEYVMVKGTEKLHAKVGRFKSPDEHPFPDDLPPEMLPPLQYPKVLHFAADSNINKKIWNMYFRDLVPRLVKKGDDGNYGSTAVCDAILQCLSKRIHYGKFVAEAKFQASPEAYESAIAKAQDKDALMDMLTFPTVEDAIKKRVEMKRTYGQEVKVGMEEEKEEEEEGNESHVYKISPILVGDLYGDWIMPLTKEVQVEYLLRRLD

>Q94KU5

MATLFTVTTTSRPFANPSKTFSPSISLKPNAFLSFLTHHRPPRPLRFKIRSSLPSEDSEPEGGSITDEWGEQPAEPESPNDAPSDEWGEKSESVEESVTRFAESDPPTNEDEWEEREADDGVDKTWELKRCLADTVYGTELGFragSEVRAEVLEIVNQLEALNPTQAPVENEPELDGNWLLYTAFSELLPLLAAGSTPLLKVKSISQSIDTKSLSIDNSTLSSPFADFDFSATASFEVRTPSRIEVSFKEGTLKPPEIKSSVDPESVGFGQEINLSFLKQSLNPLQDVAANISRAISGQPPLKLPFPGNRGSSWLLTTYLDKDLRISRGDGGLFVLAREGSSLLEL

>P94026

MASVFSVHPLPSSFLCPLKTTKSRTKHQTFYTYQKTIILINSQLTELDPKIPQPVQTFWQWLCKEGVVTTKTPVPGIVPEGLGLVAKRDIAKGETVQLQPKRFWINPDAVAESEIGNVCSGLKPWISVALFLLREKWRDDSKWKYMDVLPKSTDSTIYWSSEEELSEIQGTQLLSTTMSVKDYVQNEFQKVEEEVILRNKQLFPFPITLDDFFWAFGILRSRAFSRLRNQNLLILVPDFADLTNHARVTTEDHAHEVRGPAGLFSDLLLFSRSPLKLKAGDQLFIQYDLNKSNA DMA LDYGFIEPSSARDAAFTLTLEISESDEFYGDKLDIAETNGIGETAYFDIKIGQSLPPTMIPYLRLVALGGTDAFLLESIFRNSVWGHGLPVSRAANEELICKVVRDACKSALSGYHTTIEEDEKLMEEGNLSTRLQIAVGIRLGKRVLKQIDDIFRERELELDELEYYGERRLKDLGLVGEQGDIIFWEPK

>P28807

MVKLRLKRCGRKQRAVYRIVAIDVRSRREGRDLQKVGFYDPIKSQTYLNVPAILDFLEKGAQPTETVYDILKRAEVFKEFRLNQTKFN

>Q42961

MASATASHTLCGIPATSSSTTNKAIAPSSARFLAKTPLRRLGFAGAAADSLFTNHVATKL RSLKSSSKPIRGVASMAKKSVGDLTAAELKGKKVFRADLNVPLDDNQNITDDTRIRAAVPTIKHLMANGAKVILSSHGLRPKGVTPKYSLAPLVRPLSELLGIQVVKVEDCIGPEVEKL VASLPEGGVLLLENVRFYKEEEKNEPEFAKKLASLADLYVNDAFGTAHRAHASTEGVTKFLKPSVAGFLLQKELDYLGVAVSNPKRPFAAIVGGSKVSSKIGVIESLLEKCDILLGGGMIFTFYKAQGLSVGSSLVEEDKLELATSLLEKAKGVSLLPDSVVIADKFAPDANSKIVPASAIPDGWMGLDIGPDSVKTFFNDALDTKTVIWNNGPMGVFEDKFAGVTEAIAKKLADLSKGVTITIIGGGDSVAAVEKVGVASVMSHISTGGASLELEGKVLPGVIALDEADAPVAV

>P05725

MNTKYNKEFLYLAGFVDGDGSIIAQIKPNQSYKFKHQQLSLAFQVTQKTQRRWFLLDKLVD EIGVGYVRDRGSVSDYILSEIKPLHNFLTQLQPFLKLKQKQANLVLKIIWRLPSAKESPDKFLEVCTWVDQIAALNDSKTRKTTSETVRAVLDLSEKKKSSP

>Q9SR43

MALSMEGF(SIGSCFKAPNPPVLISASPNKINFTRLRRKKRFLLRSAVSYKEFAESALE ETRKRIVLEPSHLQEKYSSMTGLDGKTELQMLAFKSSKIRLLRSMAIENETMQVFDAGFMEPEYDTPIFCANFFTSTNVNIVVLDLNPLHQLTDQTDYQDKYYNKIMSIYHKYAETFPWGGKLTGESIKFFSPLVMWTRFSSKEKHKALFSAFLEYYQAWLEMTIQVREEMEP SHVRA NCEAQHKYLTWRAQKDPGHGLLKRLVGEAKAKELLRDFLFNGVDELGTKTFIDYFPEYQT EDGTVSDKRSIIGKSYETRPWDLTGQFIG

>O80333

MPKRSNGSLVVRCAVSVVRFSKENVSCDLASENFITSRDSFPVVSTLRVSEAVYRMAAV ASLGSALSVSSAALSQNVSVNNATKESAFLGLRMGEVAKFGGALLSVSTVAANLKS KPG

VLSVNAVTAPAETMNKPSSKKTATKSTCIITGASSGLGLATAKALADTGEWHVIMACRDF  
 LKAERAARSGVIPKDSYTVIHCDLASFDVRAFDVNFRRTTERQLDVLVCNAAVYFPTDKE  
 PKFSAEGFELSGVTNHMGHFLARLLMEDLQAKDSLKRMIIVGSITGNSNTVAGNVPPK  
 ANLGHRLRGLAGGLNGVNSSSMIDGGEFDGAKAYKDSKVCNMFTMQUEFHRRYHAETGITFS  
 SLYPGCIAETGLFRNHTLFRTLFPPFQKYITKGYVSEEAGKRMAQVVSDPKLSKSGVY  
 WSWNKDGSFENELSEASNEPEAKRLWELSERLGLV

>O20163

MKKDSTIISTCNEFSLSVTKRVYKNNHLLCSVGGQDSIVSFFFLVNFLYLSKNFKLI  
 KSKLSSFSVASKSAEKRCFDCFFSLKKNNKINALINKEKKLSRLLDVFQHFWQTQNFF  
 CVEFLQLTFFFIDIPYTFVLSKNILVSENRARGWRKKTFSRLLKIQKLSTIVTGQTKDT  
 AEKSITNLLRGTSKFSPLITKANSKTTSSFFCFRLFRPCKTFLTLTGNKRERKVNRIS  
 FSFYRTQKKDSKKLRETRAPFFIEMASFSAFFGNTFQKKKSSNSFLLYKTRLFSFCFSG  
 ETREHSINSLKPLQNRNRYHISKLVKFYKPLTIDATNFSLNFSRNKIRHLFIPFIRFLF  
 KLKFETLLNFLYLVNLHEQIENENLELKRVLNFLRINYLKKNFFSNRRSFFVIQTGH  
 KNNNVFPTKKKEKRWFYCNEIGISKIRKQCKIHEDPILETSLVYFTSVLTTSRKYSLLQ  
 NLLYNYREIEINFRQISKLE

>Q42533

MASSSFVTSVTPAAAASVYAVTQTSSHFIQNRSSRVSFRLSAKPKLRFLSKPSRSSYPVV  
 KAQSNSVGTASSNAAKVDGPSSAEGKEKNSLKESSASSPELATEEISIEFLTQVTTLVK  
 LVDSRDIVELQLKQLDCELVIRKKEALPQPQAPASYVMMQQPNQPSYAQQMAPPAAPAAA  
 APAPSTPASLPPPSPPTPAKSSLPTVKSPMAGTFYRSPAPGEPPFIKVGDKVQKGQVLCI  
 VEAMKLMNEIESDHTGTVVDIVADEGKPVSLDTPLFVVQP

>P30222

MACKTLTCASPLVSNGVVSATSRTNNKTTTAPFSVCFPYSKCSVRKPASRLVAQATGD  
 NKDTSDVHVSNNNQGNNQGSAVERRPRRMALDVSPFGLLDPMSPMRTMRQMMMDTMDRL  
 FEDTMTPGSRNRRGTGEIRAPWDIKDDENEIKMRFDMPGLSKEEVKVSVEDDVLVIKGEH  
 KKEESGKDDSWGRNYSSYDTRLSLPDNVDKDKVKAELKNGVLLISIPKTKVEKKVTDVEIK

>O50039

MAAAMASHVSTARSPALSFSSSSSSFPGTTLRRFSAVSLPSPALPRLRVSCQASSVTSP  
 SSPSDVKGKSDLKDFLAIDDFDTATIKTILDKASEVKALLSGERNYLPFKGKSMSMIFA  
 KPSMRTRVSFETGFFLLGGHALYLGPNIDIQMGKRETRDVARVLSRYNDIIMARVFAHQD  
 ILDLANYSSPVVNGLTDHNHPCQIMADALTMIEHIGQVEGTVVYVGDGNNMVHSWLEL  
 ASVIPFHVCACPCKGYEPDKERVKAKQAGLSKIEITNDPKEAVIGADVYSDVWASMGQ  
 KDEAEARRKAFQGFQVDEALMKLAGQKAYFMHCLPAERGVEVTNGVVEAPYSIVFPQAEN  
 RMHAQNAIMLHLLGF

>P59775

MKSHGLINDSIGDMLTRIRNAACLAKKSSVSIPFTRLNQNIAQILEQEGFIQTYQVSLDSQ  
 DLTIRLKYSKKIYRGKKKESCITNLKRISKPGLRIYSNHKDILRILGGTGIVIVSTPEG  
 LMTDREARLRGIGGELLCSWV

>Q9MTJ2

MAKSIPSAGLRLRLRRLRNARRRSRKSTRKIPKGVIHVQASFHNTIVTVTDVRGRVISWS  
 SAGTCGFKSTRKGTPFAAQTAAGDAIRPVVDQGMQRAEVRIKGPGGLRDAALRAIRRSGI  
 RLSCIRDVTPLPHNGCMPPKKR

>Q43846

MDVPFPLHRSLSCTSNSNAITHLKIKPILGFVSHGTTSLVQSSSWRKDMVTGVFSIC  
 ANFSGRRRKVSTPRSQGSSPKGFVPRKPSGMSTQRKVQKSNGDKESKSTSTSKESEISN  
 QKTVEARVETSDDDTKGVVRDHKFLEDEDEINGSTKSISMSPVRVSSQFVESEETGGDDK  
 DAVKLNSKRSEESGFIIDSVIREQSGSQGETNASSKGSHAVGKLYEILQVDVEPQQLK  
 ENNAGNVEYKGPVASKLLEITKASDVEHTESNEIDDLDTNNSFKSDLIEEDEPLAAGTVE  
 TGDSSLNRLMEANLRRQAIERLAEENLLQGIRLFCFPEVVKPDEDVEIFLNRLGSTLK  
 NESDVLIMGAFNEWRYRSFTTRLTETHLNGDWWSCKIHVPKEAYRADFVFFNGQDVYDNN  
 DGNDFSITVKGGMQIIDFENFLLEEKWREQEKLAKEQERERLAEEQRRIEAEKAEIAD  
 RAQAKEEAAKKKKVLRELMVKATKTRDITWYIEPSEFKCEDKVRLYYNKSSGPLSHAKDL  
 WIHGGYNNWKDGLSIVKKLVKSERIDGDWWYTEVVI PDQALFLDWFADGPPKHAIAYDN  
 NHQDFHAIVPNHIPEELYWVEEEHQIFKTLQEERRLREAAMRAKVEKTALLKETKERT  
 MKSFLLSQKHVVYSTEPLDIQAGSSVTYYNPANTVLNGKPEIWFRCSFNWRTHRLGPLPP  
 QKMSPAENGTHVRATVKVPLDAYMMDFVFSEREDGGIFDNKSGMDYHIPVFGGVAKEPPM

HIVHIAVEMAPIAKVGGLGDVTSLSRAVQDLNHNVDIILPKYDCLKMNNVKDFRFHKNY  
FWGGTEIKVWFGKVEGLSVYFLEPQNGLFSKGCVGCSNDGERFGFFCHAALEFLLQGGF  
SPDIIHCHDWSSAPVAWLKEQYTHYGLSKSRIVFTIHNLÉFGADLIGRAMTNADKATT  
SPTYSQEVSAGNPVIAPHLKHFHGIVNGIDPDIWDPLNDKFIPIPYTSENVVEGKTAKEA  
LQRKLGLKQADLPLVGIITRLTHQKGHLIKHAIWRTRLERNGQVLLGSAPDPRVQNNFV  
NLANQLHSKYNDRARLCITYDEPLSHLIYAGADFLVPSIFEPGCLTQLTAMRYGSIPVV  
RKTGGLYDTVFDVDHKERAQQCGLEPNGFSFDGADAGGVDYALNRALSAWYDGRDWFNS  
LCKQVMEQDWWSNRPALDYLELYHAARKLE

>Q40147

MAAVNGVGLSWPSKLTKNQTPKWGFSPSHRCNPSSSSATIRMTASVDEKKKTFTLEKS  
EEAFSKAKELMPGGVNSPVRAFKSVGGQPIIIDSVKGSRMRDIDGNEYIDYVGSGPAII  
GHADDEVLAALAETMKKGTSFGAPCLLENTLAEMVISAVPSIEMVRFVNSGTEACMGVLR  
LARAFTCRPKIIFEGCYHGHADPFLVKAGSGVATLGLPDSPGPKAATIDTLTAPYNDI  
SAVESLFEEHKGEIAAVILEPVVGNAGFIPPKLEFLAAIRKITKENDALLIFDEVMTGFR  
LAYGGAQEYFGITPDLTTLGKIIGGLPVGAYGRRDIMEMVAPAGPMYQAGTLSGNPLA  
MTAGIHTLKRQLQGQTYEHLDKITAELTQGILDAGKKTGHAMCGGSIRGMFGFFFADGPI  
YNFSDAKKSDTEKFGFYRGMLEEGVYFAPSQFEAGFTSLAHTPEDIQRTVAAAEEKVLKQ  
I

>Q8S9K3

MNNSTRLISLFSPPPLFLLRGLYISRIANLRRFHRRAFPPSSVASTNLCSFRPLVSLP  
PLIPTFPIGRFYNHQVRVSAADFVPSYHNQQLPEWTELLQSLSKAGYFSDSGSISGLESE  
FFPGFPDELLRPALACLALARERPELLEMLSRRDVEVLVENGPFLFKTGPDSLKRMSLY  
LRSGLQGIGKLMDEKASTVDMRLILSYVVDVASSEESKQHNKEIMESSVRSLLSQIAK  
MSLRPPESNVHDTMQNQYSDRDGQGVRSFQNNVEMKRGDWICSCSGMNFARNVKCFQCD  
EARPKRQLTGSEWECPQCDFNYGRNVACLRCDCKRPRDSSLNSANDYSSDPELERRLV  
ENEKKAQRWLSKVAQGGSNDANSVDTDDEDFFEIMPLRKGVNRYVVSTRKPLERRLANEN  
RVATDGNSKRSDDNALGSKTRSLNEILGSSSLTSRSDDKNVSSRFESSQGINDFVP  
FVPLPSDMFAKKPEETQIGLIDNIQVDFGSGGNQNVYQEDKSDANHSGKETDRLEKEDH  
KSEEPARWFKRVTELHNVSDESAIPQEISPEKMPMRKGENRFVVSRKDRSLTSPAYKR  
PEDSDFVFPVFPPDYFAKEQKPKEISDTPAPATENVSVQQQEPREPSINKSDTVAVK  
IRNGKSLEGSLVKESDLLDMSEEAKERWFKRAEIKNISEIIPDEDFPSIMPMRKG  
NRFVVSKRKTPLERLTSQRHQRNPHITNSDPTGKGDK

>Q8HUH2

MTIYPNLKKIMTKTQSTDFFIACKESRIENNNTFYGCFYLGPFDESLSQLTLANDLRRTLL  
SELTGLAITSIIEGVHLKFSTLTGMKEPVLDLICNLQNIVLRKETISSTMNYRATKKT  
YIGFLSVNGPRVIKAADLKLPAQLQCVDPNQYIATLAEDGFLNMKFNINEGKNYIKQKPY  
NLDVTTLKKRNILLQNFKNKIGLTALKNQKLMSTTMEGKPLLSNSDNLRFKKSFKRMLTS  
PNQLSKNKTSLGHDTVSNPIPLDAVFMPVTKINCIIIEENNVSDFSTDPSLEFSTHLVPS  
LTTQTNLRQESTHKFVNKANSLLQENNLFSEKVLVLPNIYIPEGEGDALSLKGVSPYSDF  
KTFLSTLNYSNLYQTSFLNQSLGQNKLLPWQANTLFFDVTNFADSQSNDVNMMMDLAGD  
KTSVQKIHSTGISNTDAQLNKLSTKIKSFLGSSDKLQNKTYSQFLQPKYASSNRTLLT  
QRSLQKNQSVFMHSFLDDQAKHKELTNSTLRANKFQVMKTVVSIPPKTFKTNPINFTHNQ  
SLTLEYARKF

>O48917

MAHLLSASCPSVISLSSSSKNSVKPFVSGQTFFNAQLLSRSLLKGLLFQEKKPRKSCVF  
RATAVPITQQAPPETSTNNSSSKPKRVMVIGGDGYCGWATALHLSKKNYEVCIVDNLVRR  
LFDHQLGLESLTPIASIHDRISRWKALTGKSIELYVGDICDFEFLAESFKSFEPDSVVHF  
GEQRSAPYSMIDRSRAVYTQHNNVIGTLNVLFIAIKEFGECHLVKLGTMEYGTPNIDIE  
EGYITITHNGRTDTLPYPKQASSFYHLSKVHDHSNIAFTCKAWGIRATDNLQGVVYGVKT  
DETEMHEELRNRLDYDAVFGTALNRFVQAAVGHPLTVYGKGQTRGYLDIRDVTQCVEI  
AIANPAKAGEFRVFNQFTEQFSVNELASLVTKAGSKLGLDVKKMTVNPNPRVEAEHHYYNA  
KHTKLMELGLEPHYLSDSLLDSLLNFAVQFKDRVDTKQIMPSSVWKKIGVKTKSMTT  
>P12301

MAQAMASMAGLRGASQAVLEGSLQISGSNRLSGPTTSRVAVPKMGLNIRAQQVSAEAETS  
RRAMLGFAAGLASGSFVKAVLAEARPIVVGPPPPLSGGLPGTENSQARDGTLPTKDR  
FYLQPLPPTEAAQRAKVSASEILNVQFIDRKAWPSLQNDLRLRASYLRYDLKTVISAKP  
KDEKKSLQELTSKLFSSIDNLDHAAKIKSPTEAEKYYGQTVSNINEVLAKLG  
>P12302

MASTACFLHHHAAISSPAAGRGSAAQRYQAVSIKPNQIVCKAOKQDDNEANVLNSGVSRRLALTVLIGAAAVGSKVSPADAAYGEAANVFGPKKNTEFMPYNGDGFKLLVPSWNPSKEKEFPQVLRYEDNFDATSNLSVLVQPTDKSITDFGSPEDFLSQVDYLLGKQAYFGKTDSEGGFDSGVVASANVLESSSTPVVDGKQYYSTITLRTADGDEGGKHQVIAATVKDGKLYICKAQAGDKRWFKGAKKFVESATSSFSVA

>P49728

MAMLLSSRRVAAPAKASAIRRSRVMPVVRAAAASSEVPDMNKRNIMNLILAGGAGLPITTLALGYGAFFVPPSSGGGGQAAKDALGNDIKAGEWLKTHLAGDRSLSQGLKGDPTYLIVTADSTIEKYGLNAVCTHLGCVVPWAAENFKCPCHGSQYNAEGKVVRGPAPLSLALAHCDVAEGLVTFTSTWTETDFRTGLEPWVA

>P82244

MATLSSLTCVGAAITNRTPSASLTFITGSRTTNKRVSFNGGSARSGSLHCSFLAPSSSSLSSNFSGSLGLDLTSNTGVSTDRCRRFVVRAGKAALCLTKRSRSRKSLARTHGFRLRMSTTSGRALLKRRRAKGRKILCTKTNPSSGKRA

>Q10712

MATLRVSSLFASSSSSLHSNPSPVFTKYQSSPKWAFSPVTPLCSKRSKRIVHCIAGDTLGLTRPNESDAPKISIGAKDTAVVQWQGDLLAIGATEENDMARDENSKFKNPOLLQQLDSELNGLLSAASSEEDFSGKSGQSVDLRFPGGRITLVGLGSSASSPTSYHSLGQAAAAAKSSQARNIAVALASTDGLSAEKSINSASAIATGVVLGSFEDNRFRSESKKSTLESLDILGLGTGPEIERKIKYAEHVCAGVILGREVNAPANIVTPAVLAEAKKIASTYSDVISVNILDAEQCKELKMGAYLAVAAAATENPPYFIHLCFKTPTKERKTKLALVGKGLTFDGGYNLKVGARSRIELMKNDMGGAAAVLGAAKALGEIRPSRVEVFHIVAACENMISAEGMRPGDIVTASNGKTIEVNNTDAEGRRTLADALIYACNQGVEKIIDLATLTGAIMVALGPSVAGAFTPNDLAREVVEAAEASGEKLWRMPMEESYWESMKSGVADMINTGPGNGGAITGALFLKQFVDEKVQWLHLDVAGPVWSDEKKNATGYGVSTLVEWVLRN

>P02902

MAHCLAAVSSFSPSAVRRRLSSQVANVVSSRSSVSFHSRQMSFVISSRPSSLRFKICCAAMGEAQAKKETVDKCMIVKKQLAVPDGTPVTAESKFSELGADSLLTVEIVMGLEEEFNTIVDETSAQDIATVQDAANLIEKLVTEKA

>P30524

MSSMQFSSVLPLEGKACVSPVRREGSACERLKIGDSSSIRHERASRRMCNGGARGPAATGAQCVLTSASPADTQLVRLTSFRRNYADPNEVAAVILGGGTGTQLFPLTSTRATPAVPIGGCYRLIDIPMSNCNFNSGINKIFVMTQFNSASLNRIHRTYLGGGINFTDGSVEVLAATQMPGEAAGWFRGTADAVRKFIWLEDYYKHKSIIEHILISGDQLYRMDYMELVQKHVDNNADITLSCAPVGESRASEYGLVFKFDSSGRVIQFSEKPKGDDLEAMKVDTSLNFAIDDPAKPYIASMGVYVFKRDVLLNLLKSRYAELHDFGSEILPRALHDHNVQAYVFTDYWEDIGTIRSFFDANMALCEQPPKFEFYDPKTPFFTSPRYLPPTKSDKCRIKEAIISHGCFLRECKIEHSIIGVRSRLNSGSELKNAMMMGADSYETEDEISRLMSEGKVPIGVGENTKISNCIIDMNARIGRDVVISNKEGVQEADRPEEGYYIRSGIVVIQKNATIKDGTVV

>P82538

MASLKLSPSSPISISKVGVIPSSKKGLSFLVKAEHHSSSSSHLQDKCQRR利VTFGVVA PWISLLSRAPLSFAAESKKGFLAVSDNKDAYAFLYPFGWQEVVIEGQDKVYKDVICEPLESVSVNLVPTSKQTKEFGPPKQIAETLIKVLAPPNQKTTLIDASEHDVDGKTYQFEFTVQARNYTRHALGTITVFNGNYTLLGANERRWEKMKDRLHTVDSFKITV

>P28759

MASLGGLQNVSGINFLIKEGPKVNAKFELKPPPYLEPVMSSQQTLEFHKGKHHKTYVENLKKQVVGTELDGKSLLEEIIIVTSYNKGDLIPAFNNAQVWNHDFFWECMKPGGGGKPSGELLELIERDFGSFVKFLDEFKAAAATQFGSSGWAWLAYRARKFDGENVANPPSPDEDNKLVVLKSPNAVNPVLWGYYYPLLTIDVWEHAYYLDQNRDPYISVFMDKLVSWDSSRLEQAKALITSA

>P16096

MASASLLKTPVLDNPEFLKGQTLRIPSAGVRFTPSSSLTVRASSYADELVKTAKTVASPGRGILAMDESNATCGKRLASIGLENTEANRQAYRTLLISAPGLGQYVSGAILFEETLYQSTTDGKKMVDSLIEQGIVPGIKVDKWLPLPGSNDESWCQGLDGLACRSAAYYQQGARFAKWRTVVSIPNGPSALAVKEAAWGLARYAAITQDNGLDPILEPEIMLDGEHGIDRTFRVAQQWAEVFFNLAAENNVLLEGSSLKPSMVGPGALSARKGPPEQVADYPLKLLHRRGPVVPGIMVLSGGQSEVEATLNLNAMNQSPNPWHVSFSYARALQNTCLKTWVEGQENVKAQDFACAKSNSLAQLGKYTGEGESEERKKDMFVKATLTY

&gt;P59287

MALPSAAMQSNPEKLNLFHRLSSLPTTSLEYGNNRPFSSSAKSHFKPTQACLSSTTH  
 QEVPLAYFPPTVWGNRFASLTNPSEFEYDERIVLKKVKDILISSTSVERVILI  
 DLLCRLGVSYHFENDIEELLSKIFNSQPDLVDEKECDLYTAAIVFRVFRQHGFKMSSDVF  
 SKFKDSDGKFESLRGDAKGMLSLFEASHLSVHGDEDILEEAFRAFTKDYLQSSAELFPNL  
 KRHITNALEQPFHSGVPRLEARFKIDLYEADIECRNETLLEFAKLDYNRVQLHQQUELCQ  
 FSKWWKDLNLASDIPYARDMAEIFFWAVAMYFEPDYAHTRMIIAKVLLISLIDDTIDA  
 YATMEETHILAEAVARWDMSCLEKLDPYMKVIYKLLLNTFSEFEKELTAEGKSYSVKYGR  
 EAFAQELVRGGYLEAVWRDEGKIPSFDDYLYNGSMTTGLPLVSTASFMGVQEITGLNEFQW  
 LETNPKLSYASGAFIRLVNDLTSHVTEQQRGHVASCIDCYMNQHGVSKDEAVKILQKMAT  
 DCWKEINEECMRQSQSVVGHLRIVNLARLTDVSYKYGDGYTDSQQLKQFVKGLFVDPIS

&gt;P34811

MAAESLRVATPTLCNLNGSQRRPTTTLSPRLFMGRPRPSSHSLTSSSLSHFFGSTR  
 HSNSSSSYSSISRQHAPRRNFVFAMSADGDAKRSPVLDYRNIGIMAHIDAGKTTER  
 ILYYTGRNYKIGEVHETATMDWMEQEGERGITITSAATTTFWNKHRINIIDTPGHVDFT  
 LEVERALRVLGAICLFDVAGVEPQSETVWRQADKYGVPRICFVNKMTRLGANFYRTRD  
 MIVTNLGAKPLVQLPIGSEDNFKGVIDLVRNKAIWVSGEELGAKFDIVDIPEDLQEQAQ  
 DYRAQMIENIVEFDDQAMENYLEGIEPDEETIKKLIRKGTISASFVPMCGSAFKNKGVQ  
 PLLDAVVVDYLPSPLDLPAMKGSDPENPEATIERLASDDEPFAGLAFKIMSDPFVGSLTFV  
 RVYAGKLGAGSYVNLANKGKERIGRLLEMHANSRDDVVALAGDIIALAGLKDTITGET  
 LCDPDNPIVLERMDFPDPVIKVAIEPKTKADVDKMATGLIKLAQEDPSFHSRDEEINQT  
 VIEGMGELHLEIIVDRLKREFKVEANVGAPQVNYRESISKISEVKYVHKKQSGGQQFAD  
 ITVRFEPMDPGSGYEKFSEIKGGAVPREYIPGVMKGLEECMSNGVLAGFPVVDVRAVLT  
 GSYHDVDSSVLAFLQLAARGAFREGIRKAGPRMLEPIMKVEVVTPEEHLGDVIGDLSRRG  
 QINSFGDKPGGLKVVDSLVPVLAEMFQYVSTLRGMTKGRASYTMQLAMFDVVPQHIQNQLA  
 TKEQEVAAT

&gt;P05314

MASLPVNKIIPSTTLLSSNNNNRNNNNSIRCQKAVSPAETAAVSPSVDAARLEPRVE  
 ERDGFWLKEEFRSGINPAEKVKIEKDPMKLFIEDGISDLATSMEEVDKSKHNKDDIDV  
 RLKWGLFHRRKHHYGRFMMRLKLPNGVTSEQTRYLASVIKKYKGKDGCAVTRQNWI  
 RGVLPDVPEIIKGLESVGLTSIQSGMDNVRNPVGNPLAGIDPHEIVDTRPFTNLISQFV  
 TANSRGNLSITNLPRKWNPVCVIGSHDLYEHPHINDLAYMPATKNGKFGFNLLVGGFSIK  
 RCEAIPLDAWSAEDVVPVCKAMLEAFRDLGFRGNRQKCRMMWLIDELGMEAFRGEVEK  
 RMPEQVLERASSEELVQKDWERREYLGVPQKQQGLSFVGLHIPVGRLOADEMEELARIA  
 DVYGSSELRLTVEQNIIPNVENSKIDSLLNEPLLKERYSPPEPPILMKGLVACTGSQFCG  
 QAIETKARALKVTEEVQRLVSVTRPVRMWTGCPNSCGQVQVADIGFMGCMTRDENGKP  
 CEGADVFVGGRIGSDSHLDIYKKAVPCKDLVPVVAEILINQFGAVPRREEAE

&gt;P92959

MATMSALQSSFTSLSLSPSSSFLGQRLISPISLSPVKAENPCLVLAKLKRWERKEC  
 KPNSLPILHKMHVKFGDTVKVISGRDKGKIGEVTKIFTHNSTIVKDVNLTKHMKSEE  
 GEPGQIVKIEAPIHSSNVMLYSKEKDVSRRVGHKLEDQKVRYLIKTEGRIDTIEKWKL  
 LKEAKDKEETQAVATSAS

&gt;O80575

MKSLASPPCLRLIPTAHRQLNSRQSSSACYIHGGSSVNKSNNLSFSSSTSGFASPLAVEK  
 ELRSSFVQTAAVRHVTGSLIRGEGLRFAIVVARFNEVVTKLLEGIAETFKKYSVREEDI  
 EVIWPGSFEIGVVAQNLGKSGKFHAVLCIGAVIRGDTTHYDAVANSAASGVLSASINSG  
 VPCIFGVLTCEDMDQALNRSGGKAGNKGAEATALEMASLFEHHLK

&gt;Q85FL7

MNTVDKEKFNLKTRGRSLAWLTKHNFSHRPLGYDYRGVEILEVKSEEWLSTAVALYAYGF  
 NYLRSQCAYDATPGGSLVSVYHLTQMCDQSDQPEEICVKVFSRTNPQIPSVYWWKSAE  
 FQERESYDMLGIYQGHPYLRRILMPESWIGWPLRKDYVVPNFYELQDAY

&gt;Q9M4G5

MAMESALTSTRVSIPSLCSGISSSHHHRSLSFLNFPKLSSFKYSFRTISPVPFVVSASS  
 VSPSSPSTSVAQSQDLKIKSVPTKPIEGQKTGTSGLRKKVVFMDNYLANWIQALFNSL  
 PLEDYKNGLLVLGGDGRYFNREAAQIIKIAAGNGVGKILVGKDGILSTQAVSAVIRKRE  
 ANGGFIMSASHNPGGPEYDWGIKFNYSSGPAPESITDKIYGNTLSISEIKIADI  
 PFDVSLSQLGVTKYGNFSVEVVDPVADYLELMENVFDSLIRSLVSRPDRFVFDAMH  
 AHTGAYAK PIFVDKLGASLESIANGVPLEDFGHGHPDPNLTYAEDLVNILYGENGP  
 DFGAASDGDGDR

NMILGRSFFVTPSDSVAIIAACQCYAIHYFQSGPKGLARSMPMTSGSLDRVAQKLNLPFFE  
VPTGWKFFGNLMDAGKLSICGEESFGTGSDHIREKDGIVAVLAWLSILAYRNKDKKSGEK  
LVSADVVKDHWATYGRNFFSRYDYEECESEGANNMIEYLRLDLISKSAGDKYGSYSLDF  
ADDFAYTDPVDGSVASKQGVRFVFSRGSRIFRLSGTGAGATVRIYIEQFEPDVSKHDM  
DAQIALKPLIDLALSVSKLKDFTGREKPTVIT

>P58272

MTEKKNRREKKNPREAKVTFEGLVTEALPNGMFRVRLENDTIILGYISGKIRSSSIRILM  
GDRVKIEVSRDYDSSKGRIIYRLPHKD SKRIEDSKDSEDLKDSEDLKDTKDSKD

>Q03943

MTTKFQIFSGLPSAPLQPSSLLKKPLATTLFGTRPVDTLKFRVMRIAKPVRGGAIGVR  
MNLFDRFARVVKS YANALVSTFEDPEKILEQAVLEMNDDLT KMRQATAQVLASQKRLENK  
YKAAQQASEEWEYRKAQLALQKGEEDLAREALKRRKS FADNASSLKAQLDQQKSVVDNLVS  
NTRLLESKIQEARSKKDTLKARAQS AKTATKVSEMLGNVNTSSA LAFEKMEEKVMTMES  
QAEALGQLTTDDLEGKFAMLETSSVDD LANLKKELAGSSKGELPPGRSSTTSTTSTKT  
GNPFRDADIEIELEQLRKRSKE L

>Q9S7B5

MASSCLFNASVSSLNPQDPIRRHRSTSLLRHPVVISCTADGNNIKAPIETAVKPPHRT  
EDNIRDEARRNRNSNAVNPFSAKYVPFNAAPGSTESYSLDEIVYRSRSGGLLDVEHDMEAL  
KRFDGAYWRDLFDSRVGKSTWPYSGVWSKKEWVLP EIDDDDIVSAFE GNSNLFWAERFG  
KQFLGMNDLWVKHCGISHTGSFKDLG MVTLVSVNRLRKM RKP VVGCASTGDTSAALS  
AYCASAGIPSIVFLPANKISMAQLVQPIANGAFVLSIDTDFDGCMKLIREITAELPIYLA  
NSLNSLRLEGQKTA AIEILQQFDWQPDWIVPGGNLGN IYAFYKGF KMCQELGLVDRIP  
RMVCAQAANANPLYLHYKSGWKDFKPM TASTTFASAIQIGDPVSIDRAVYALKCNGIVE  
EATEEEELMDAMAQADSTGMFICPHTGVALTALFKLRNQGVIA PTDRTVVVSTAHLKFTQ  
SKIDYHSNAIPDMACRFSNPPDVVKADFGAVMDVLKSYLGSNTLTS

>P27608

MALSSSSTTN SLLPNKSQLVQNQSLLPSPLKNVSFTNSTKPVRFVQPISAIHSSDSSKN  
PIVSDKSSKPSPPAATVTAAATTVTKTETWVESWKS KALQLPEYPNQEE LQSVLKTIE  
EFPIVFA GEARSLEERLGEAAMGRAFLLQGGDCAESFKEF NANNIRD TFRILLQMGAVL  
MF GGQMPVIKVGRMAGQFAKPRSDNFEEKNGVKLPSYRGDNVNGDAFD AKSRT PDPQRLI  
RAYCQSAATLNLLRAFATGGYAMQRINQWNLDFTEHSEQGDY RYREL ANRVDE ALGFMAA  
AGLTV DHPIMKTTEFWTSHECLL PYEQSLTRLDSTSGLYDCSAFIIWGERTRQ LDGA  
HVEFLRGVANPLGIKVS DKMDPSALV KLI EILNP DNKAGR ITI ITRM GAENMRV KLP HLI  
RAVRRAGQIVTVWVSDPMHGNTIKAPCGLKTRPFDSIRAEVRAFFDVHEQEGSHPGGVHLE  
MTGQNVTECIGGSRTVTFDDLSSRYHTCDPRLNASQSLELA FIIAERLRK RRLGSQNV L  
GQ

>Q43295

MIAAGAKSLLGLSMASPKGIFDSNSMSNSRSVVV RACVSM DGSQ TL SHNKNG SIPEVKS  
INGHTGQKQGPLSTVGNSTNIK WHECS VEKVDRQRL LDQKGCVIWTG LSGSGK STLACA  
LNQMLYQKGKLCYILDGDNV RHGLN RDLSFKAEDRAENIRRVGEVAKLFADAGI ICIA SL  
ISP YRTDRD ACRSLLPEGDFVEV FMDVPLSVCEARDPK GLYK LARAGKIKGFTGID DPYE  
PPLNCEISLGREGGT SPIEMA KVVGYLDNKGYLQA

(3) 60 cytoplasm proteins

>P30184

MAHTLGLTQPNSTEPHKISFTAKEIDVIEWKG DILVVGVTEKDLAKDGN SKFENPILSKV  
DAHLSGLLAQVSSEEDFTGKPGQSTVRLPGLGSKRIALIGLQSVSSPVAFHSLGEAVA  
TVSKASQSTSAAIVLASSVSDESKLSSVSALASGIVLGLFEDGRYKSESKKPSLKAVDII  
GFGTGA EVEKKLKYAEDVSYGVIFGRELINSPANV LPAV LAEEAAKVASTYSDVFTANI  
LNEEQCKELKMGSYLAVA AASANPPHFIHLVYKPPNGSVKTKLALVGKGLTFDGGYNIK  
TGP GCSI ELMKFD MGGSAAVLGA AKAIGEIKPPGVEVFHFIVA ACENMIS GTGM RP GDVIT  
ASNGKTIEVNNTDAEGR LT LADALVYACNQGVDKIVDLATLTGACVIALGTSMAGIYTPS  
DELAKEVIAASERSGEKLWRMPL EESY WEMMKSGVADMVNTG GRAGGSITAALFLKQFVS  
EKVQWMHIDMAGPVWNEKKSGTGFVATLVEWVQKNSSS

>P34937

GRKFFVGGNWKCNGTVEQVEAIVQTLNAGQIVSPDV VEVV SPPYVFLPIVKAKLRPEI Q  
VAAQNCWVKKGGAFTGEVSAEM LANLGVPWVILGH SERRSLLGESSE FVGEK VAYALA QG  
LKVIACVGETLEQREAGSTMEVVAEQT KAIAGKIKDWSNGV VAYEPVWAIGTGKVATPAQ  
AQEVHANLRDWLKT NVSPEVAESTRIIYGGSVT GASCKELAAQADVGFLVGGASLKPEF

IDIINAAVK

>P31166

MQTIIISPLVSHRLCLARAVPCNRLLNNHHRAPPSIRLSNHRSTTSRLFSSAAASRDSE  
MATEDVQDPRIAKIASSIRVIPDFPKPGIMFQDITLLEDTEAFKDTIALFVDRYDKGI  
SVVAGVEARGFIFGPPIALAIGAKFVPMRKPSSLPGKVISEEYSLEYGTDIEMHVGAVE  
PGERAIIDDLIATGGTLAAAIRLLERGVVKIVECACVIELPELGKEKLGETSLFVLVK  
SAA

>Q9SE42

MAAAAIAAPSMLSSDFANLAAEADRMVRLGADWLHMDIMDGHFVPNLТИAPVIQSLR  
KHTKAYLDCHLMVTNPDSYVEPLAKAGASGFTFHIEVSRDNWQELIQSIAKGMRPVGSL  
RPGTPVEEVFPLVEAENPVELVLMVTVEPGFGQQKFPEMMEKVRALRKKYPSDLIEVDG  
GLGPSTIDVAASAGANCIVAGSSIFGAAEPGEVISALRKSVEGSQNKS

>P25141

MSSNTAGQVIRCKAAVAWEAGKPLVIEEVAPPQKMEVRLKILFTSLCHTDVYFWEAKG  
QTPLFPRIFGHEAGGIVESGEGVTDLKPGDHLPVFTGECQCRCRKSEESNMCDLLRI  
NTDRGVMIHDGQTRFSKDGKPIYHFVGTSTFSEYTVCHSGCVTKIDPQAPLDKVCVLSCG  
ISTGLGATLNVAKPTKGSTVAIFGLGAVGLAAAEGARIAGASRIIGVDLNPNSRFNDAKKF  
GVTEFVNPKDHGDKPVQQVIAEMTDGGVDRSVECTGNVNAMISAFECVHDGWGVAVLGV  
PNKDDAFKTHPMNLLNERTLKGTFGNYPKSDIPSVDKYMKELELEKFITHQVPFSE  
INKAFDYMLKGESIRCMITMEH

>P28011

MASQNITPSPTASSDSVFAHLVRAPEDPILGTVAYNKDPSPIKLNLGVGAYRTEEGKPL  
VLDVVRRVERQLLNDMSRNKEYIPIVGLADFNKLSAKLIFGADSPAIQENRVTTVQGLSG  
TGSLRGGEFLAKHYHQRIIYLPTPTWGNHTKVFNLAGLTVKTYRYYAPATRGLDFQGLL  
EDLGSAPSGSVVLLHACAHNPTGVDPITLEQWEQIRQLIRSKSLLPFFDSAYQGFASGSLD  
ADAQPVRLFVADGGELLVAQSYAKNMGLYGERVGALSIVSKSADVSSRVESQLKLVIRPM  
YSSPPIHGASIVAAILKDRDLYNDWTIELKAMADRIINMRQQLFDALRARGTPGDWSHII  
KQIGMFTFTGLNPEQVSILTKEYHIYLTSDGRISMAGLSSKTVPHLAHAIHAVVTRVA

>P19595

ATATTLSPADAEKNNNLKSAVAGLNQISENEKSGFINLVGRYLSGEAQHIDWSKIQTPTD  
EVVVPYDKLAPLSEDPAETKKLLDKLVVLKLNGLGTTMGCTGPKSVIEVRNGLTFLDLI  
VKQIEALNAKFGCSVPLLLMNSFNTHDDTLKIVEKYANSNIDIHTFNQSQYPRLVTEDFA  
PLPKGNSGKDGWYPPGHGDFVPSLMNSGKLDALLAKGKEYVFVANSNDNLGAIVDLKILN  
HLILNKNEYCMEVTPKTLADVKGGTLISYEGKVQLLEIAQVDEHVNEFKSIEKFKIFNT  
NNLWVNLSAIKRLVEADALKMEIIPNPKEVDGVKVLQLETAAGAAIKFFDRAIGANVPRS  
RFLPVKATSDLLLQVSDLYTLDGYVIRNPARSNPSNPSIELGPEFKKVANFLGRFKSI  
PSIIDLDLSKVTGDVWFGSGVTLKGKVTVAAKSGVKLEIPDGAVIANKDINGPEDI

>P16181

MAEQTEKAFLKQPKVFLSSKKSGKGKRPKGKGNRFWKNIQLGFKTPREAIIDGAYVDKKCP  
FTGTVSIRGRILAGTCHSAKMORTIIVRRDYLHFVKKYQRYEKRHSNIPAHVSPCFRVKE  
GDHIIIGQCRPLSKTVRFNVLKVIPAGSSSFGKKAFTGM

>Q41261

MAAKVSSDPLVIGRVIJDVVDHFTSTVKMSVIYNSNNSIKHVVNGHELPASVTSPRVE  
VHGGDMRSFTLIMTDPDVPGPSPDPYLRREHLHWIVTDIPGTTDSFGKEVVSYEMPRPNI  
GIHRFVFLFKQKKRGQAMLSPPVCRDFNTRKFTQENELGLPVAAVFFNCQRETAARR  
R

>O04847

MPKSWPIVISSHFCFLPNSEQERKMKDLFHAATLSEEESLRELKAFDETAKGVKGIVD  
TGITKIPRIFIDQPKNLDRI SVCRGKSDIKIPVINLNGLSSNSEIRREIVEKIGEASEKY  
GFFQIVNHGIPQDVMMDKMDVGRKFHEQDDQIKRQYYSRDRFNKNFLYSSNYVLIPGIAC  
NWRDTMECIMNSNQPDQEFPDVCRDILMKYSNYVRNLGLLFLSEALGLKPNHLEEM  
DCAEGLILLGHYPACPQPELTFGTSKHSDSGFLTILMQDQIGGLQILLEQWIDVPFIP  
GALVINIADLLQLITNDKFKSVEHRVLANKVGPRISVAVAEGIQTQEGVSPRLYGPIK  
ELISEENPPIYKEVTVKDFITIRFAKRFDDSSSLSPFRLN

>O04016

MAAAAFVPIPTDTYKLGFIGAGKMAESIARGVVKSGVL PASRIRTAHLGSARREAFESFG  
VKVLDNRNDQVVEDSDVIIFSVKPQIVKEVVLQLRPLLSEKQLLVSIVAGVKLKELEDWAG  
HSRFIRVMPNTPAAVGEAASVMSLGAATGEDGELITKLFGAIGKIADEKLFDAVTGL

SGSGPAYIFLAIIEALADGGVAAGLPRELALGLASQTVLGAASMVARGGKHPGQLKDDVAS  
AGGTTIAGIHELEKGGFRGTLNAVVSATKRSQEIFKR

>Q39097

MGDKNDDDKNIEIWKIKKLKSLEAARGNGTSMISLIMPPRDQSVRTKMLGDEYGTASN  
IKSRVNRQSVLGAITSAQQRKLKLYNRVPPNGLVLYTGTIVNEDGKEKKVTIDFEPFRPIN  
ASLYLCDNKFHTEALNELLESDDKFGFIVMDGNGLFGTLSGNTREVLHKFSVDPKKG  
RGGQSALRFARLRMEKRHNYVRKTAELATQYYINPATSQPNVGLILAGSADFTELSQS  
DMFDPRLAAKILNVVDVSYGGENGFNQAIELSAEILANVKFIQEKRIGKYFEEISQDTG  
KYVFGVEDTLNALESGAIETLIVVENLDINRYVMKNSATGETVIKHLNKEQEANTENFKV  
ADSDLALDVEEKLSLEWLANEYRRFCALEFVTNKSQEGSQFCRGFGIGGILRYQLDM  
TAFDSEDGEALDDDSE

>P49608

MAAENPKENLTSLPKPGGEGFKYYSLPSLNDPRI DRLPY SIRILLESAIRNCNFQVK  
KEDVEKIIDWENSSPKQVEIPFKPARVLLQDFGVPAVVDLACMRDAMNLGSNSNKINP  
LVPVDLVIDHSVQVDVARSENAVQANMELEFQRNKERFAFLKGWSNAFQNMLVVPPGSGI  
VHQVNLEYLGRVVFNTSGLLYPDSVVGTDHTTMIDGLGVAGWGVGGIEAEAAMLGQPM  
MVLPGVVGFKLSGKLRNGVTATDLVLTVTQMLRKHGVVGFVEFYGDGMEELSLADRATI  
ANMSPEYGATMGFFPVDHVTLQYLKLTGRSDET VSMIEAYL RANKMFVDYKEPQQEKVYS  
SYLQLDLDVEPCISGPKRPHDRVPLKEMSDWHACLDNKVGFKGFAIPKEAQENVAKFS  
FHGQPAELKHGSVIAITSCTNSNPSPMLGAALVAKKACELGLQVKPWKTSLAPGSG  
VVTKYLLKSGLQPYLNQQGFHIVGYGCTTCIGNSGDLDESVAASISDNDIVAAAVLSGNR  
NFEGRVHPLTRANYLASPPLVVAYALAGTVIDFEKEPIGKGKDGDVYFRDIWPSTEEI  
AEVVAQSSVLPDMFKSTYESITKGNPWMNQLSVPSTLYSWDPNSTYIHEPPYFKNMTMDP  
PGAHVVKDAYCLLNFGDSITTDHISPAGSIHKDSPAAKYLLERGVDRKDFNSYGSRRGND  
EVMARGTFANIRLVNKLLDGEVGPKVHVPTEKLSVFEAAEKYKSAGQDTIVLAGAEYG  
SGSSRDWAAKGPMLLGVKAVIAKSFERIHSRSLVGMGIIPLCFKSGEDADSLGLTGHERY  
TIDLPDDISKIRPGQDVTTDSGKSFCTVRFDTVELAYFNNNGGILPYVIRNLIKQ

>P15494

GVFNYETETTSVIPAARLFKAFLDGDNLFPKVAPQAISSENIEGNGGPGTIKKISFPE  
GFPFKYVKDRVDEVDTNFKYNYSVIEGGPIGDTLEKISNEIKIVATPDGGSILKISNKY  
HTKGDHEVKAEQVKASKEMGETLLRAVESYLLAHSDAYN

>Q43621

MARKMLNDGEPDLLKGEEQGKVYDFDLFIIGAGSGGVRAARFSSNFGAKVGICELPFHPI  
SSETIGGVGTCVIRGCVPKKILVYGASYGGELQDARNFGWELNENVDFNWKKLLQKKT  
EINRLNGIYKRLLSAGVKLFEGEKGKIASPNEVEVTQLDGTLKLSYSAKHILIATGSRAQR  
PNIPGQELGITSDEALSLEEFPKRAVILGGGYIAVEFASIWRGMGSSVNLVFRKELPLRG  
FDDEMRAVVARNLEGRGINLHPRTNLAQLIKTEDGIKVITDHGEELIADVVLFATGRSPN  
SKRLNLEKVGVEFDKAGAIVVDEYSRTNIPSIWAVGDTNRLNLTPVALMEASLFAKTVF  
GGQASKPDYNDI PYAVFCIPPLSVGLSEQAVEQTKGDVLIIFTSTFNP MKNTISGRQEK  
TVMKLVVDAQTDKVLGASMCGPDAPEIVQGIAIAIKCGATKAQFDSTVGIHPSSAEEFVT  
MRSETRRVTGGVKPKTNL

>Q40577

MASA AAVANYEEEIVRPVADFSPSLWGDQFLSFSIDNQVAEKYAKEIEALKEQTRNMLLAT  
GMKLADTLNLIDTIERLGISYHFEKEIDDILDQIYNQNSNCNDLCTSALQFRLLRQHGFN  
ISPEIFSKFQDENKGKESLASDVLGLLNLYEASHVRTHADDILEDALAFSTIHLEAAP  
HLKSPPLREQVTHALEQCLHKGVPVRVETRFI FISSIYDKEQSKNNVLLRFAKLDNFNLQMLH  
KQELAQSVRWWKDLDFVTTLPYARDRVVECYFWALGVYFEPQYSQARVMLVKTISMISIV  
DDTFDAYGTVKELEYTDAIQRWDINEIDRLPDYMKISYKAILDLYKDYKEELSSAGRSH  
IVCHAIERMKEVVRNWNVESTWFIGYTPVSEYLSNALATTYYYYLATT SYLG MKSATE  
QDFEWLSKNPKILEASVIICRVIDDTATYEV EKSRGQIATGIECCMRDYGISTKEAMAKF  
QNMAETA WKDINEGLLRPTPVSTEFLTPILNLRARIVEVTYIHNLGYTHPEKVLKPHIIN  
LLVDSIKI

>P52580

MASEKSKILVVGGTGYLGRHVVAASARLGHPTSALVRDTAPS DPAKAALLKS FQDAGVTL  
LKGDLYDQASLVS AVKGADVVISVLGSMQIADQSRLVDAIKEAGNVKRFFPSEFGLDVDR  
TGIVEPAKSILGAKVGIRRAT EAAGI PYTYAVAGFFAGFGLPKVGQV LAPGPPADKAVVL  
GDGDTKAVFVEEGDIATYTVLA ADDPRAENKVL YIKPPANTL SHNELL SLWEKKTGKTFR  
REYVPEEAVLKQIQESPIPLNIIILAIGHAAFVRGEQTGF EIDPAKGVDA SELYPDVKYTT

VDEYLNRF

>Q7G188

MSGYGVVVSDPWLSQFTQVELRTLNSKYVSVKNQNGKVTIEDLPPLFAKLKALSATFK  
EDEIKGMLGELGSDTSTDVSFEFLKIYLNLSSKAEKSGGHKNSSSFLKACTTLLHT  
IYQSEKGPFVQHINRYLGDDPFLQFLPLDPHSNQLYELVKDGVLCKLINVAVPGTIDE  
RAINTKRVLPWERNEHTLCLNSAKAVGCSVVNIGTQDLAEGRPHLVGLISQLIKIQV  
LADLNLKTPQVELLEDSDDVEELLRLPEKVLLKWMNFHLKKGGYKKTGSNFSADLK  
AQAYAFLLNVLAPEHCDPATLDAKPLERAEVLSHAERMNCRKYLTAAEIVEGSTLN  
AFVAQIFHERNGLNKDGKYAFAEMMTEDVETCRDERCYRLWINSLGIDSYVNNVFEDVRN  
GWILLEVLDKVSPSSVNWKHASKPPIKMPFRKVENCQVIKGQLKFSLVNVAGNDIVQ  
GNKKLILGLLWQLMRFHMLQLLKSLRSRTLGKEMTDADILSWANRKVRTMGRKLQIESFK  
DKSLSGGFLFNLWAVEPRVWNWLVTKGETDDEKRLNATYIVSVARLGCSVFLLPED  
IVEVNQKMLILTASIMYWSLQRHSRESSDSSSTQSTTTCTSTASSPAPSVTTEEVSS  
LSGEVTSLAVGDAVSEITVSEEASIE

>P04711

MASTKAPGPGEKHSIDAQLRQLVPGKVSEDDKLIEYDALLVDRFLNILQDLHGPSLREF  
VQECEVSADYEGKGDTTKLGELGAKLTGLAPADAILVASSILHMLNLANLAEVQIAHR  
RRNSKLKGGFADEGSATTESDIEETLKRLVSEVGKSPEEVFEALKNQTVDLVFTAHP  
SARRSLLQKMARIRNCLTQLNAKDITDDDKQELDEALQREIQAAFRTDEIRRAQPTPQAE  
MRYGMSYIHETVWKGVPKFLRRVDTALKNIGINERLPYNVSLIRFSSWMGGDRDGNPRVT  
PEVTRDVCLLARMMAANLYIDQIEELMFELSMWRCNDELRVRAEELHSSSGSKVTKYYIE  
FWKQIIPPNEPYRVLGHVRDKLYNTRERARHLLASGVSEISAESSFTSIEEFLEPLECY  
KSLCDCGDKAIADGSLLDRLQVFTFGLSLVKLDIQRQESERHTDVIDAITTHLGIGSYRE  
WPEDKRQEWWLSELRGKRPLLPPDLPQTDEIADVIGAFHVLAELPPDSFGPYIISMATAP  
SDVLAPELLQRECGVRQPLPVVPLFERLADLQSAPASVERLFSDWYMDRIKGKQQVMVG  
YSDSGKDAGRLSAAWQLYRAQEEMAQVAKRYGVKLTFLHGRGGTVGRGGGPTHLAILSQP  
PDTINGSIRTVQGEVIEFCFGEELCFQTLQRFTAATLEHGMHPPVSPKPEWRKLMDEM  
AVVATEEYRSVVVKEARFVEYFRSATPETEYGRMNIGSRPAKRRPGGGITTLRAIPWIFS  
WTQTRFHLPVWLGVGAFKFAIDKDVRNFQVLKEMYNEWPFFRVTLDLLEMVFAKGDPGI  
AGLYDELLVAEELKPGKQLRDKYETQQLLQIAGHKDILEGDPFLKQGLVLRNPYITT  
LNVFQAYTLKRIRDPNFKVTPQPLSKEFADENKPAGLVKLPASEYPPGLEDTLILTMK  
GIAAGMQNTG

>Q42688

MAAGSGVGVFATDEKIGSLLDQSITRHFLSTVTDQQGKICAELYWIGGSMHDVRSKSRTLS  
TIPTKPEDLPHWNYDGSSSTGQAPGHDESYVLIPRSIFKDPMRGGDNILVMCDCYEPPKVN  
PDGTLAAPKPIPTNTRFACAEVMEKAKKEEPWFGIEQEYTLNNAITKWPLGWPKGYPAP  
QGPYYCSAGAGVAIGRVAEVHYRLCLAAGVNISGVNAEVLPSQWEYQVGPCEGITMGDH  
MWMSRYIMYRVCEMFNVEVSFDPKPIPGDWNGSGGHTNYSTKATRTAPDGWKVIQEHCAK  
LEARHAVHIAAYGEGNERRLTGHETSSMSDFSWGAVANRGCSIRVGRMVPVEKSGYYEDR  
RPASNLDAYVVTRLIVETTILL

>Q43776

MDSSVSTEPLSKNALKREKKAKEKEQLEQEKKAAAVAKRQMEQHNLPENDLDPQTQLAN  
RLRNIESLRESGINPYPHKFFITMSIPEFISRYAHLTGEFPEDIDMSLAGRVISKRASS  
SKLYFYELLGGGARVQVLASARDSDVDAVQFSNYQSGVKRGDIIGVRGYPGKSKRGELSI  
FAKPFIVLAPCLHMLPRLTSSIVDETTRQNFGITAYDTWTPGDLRNPESYVLRDQETR  
YRQRYLDDLMMNPEVRALFRTRARIISYIIRSFLDNLEFLEVETPSMNLTAGGASARPITH  
HNELDTELLIRVSPELYLKKLVVGGFDRVYELGKHFRNEGMDLTHSPEFTMCELYMAYAD  
YNDLMDLTEQLLSGMVKDLTGSKYKIRYHANGLDNEPIEIDFTPPFRKIDMLSELEKVANI  
SIPRDLSSSESANKHLVDVCEKFVCKCPPHTTRLLDKLVGHFIEVNCINPTFIINHPEI  
MSPLAKSRRSEPGLTERFNLFVNRELCDAYTELNDPTAQRERFAEQLKDRQLGDEAMD  
LDESFITALEYGLPPTGGLGMGIDRLTMLLTDQNVKEVILFPAMRLQ

>Q9SMZ4

MNSNGHEEEKKLGNGVVGILAETVNWKERRTPLTPSHCARLLHGGKRTGISRIVQPSA  
KRIHHDALYEDVGCEISDDLSDCGLILGIKQPELEMILPERAYAFFSHTKAQKENMPLL  
DKILSERVTLCDYELIVGDHGKRLLAFGKYAGRAGLVDFLHGLGQRKLILGYSTPFLSLG  
ASYMYSSLAAKAAVISVGEEIASQGLPLGICPLVFVFTGTGNVSLGAQEIFKLLPHTFV  
EPSKLPELFVKDKGISQNGISTKRVYQVYCIITSQDMVEHKDPSKSFKDADYYAHPEHY  
NPVFHEKISPYTSVLVNCMYWEKRFPCLLSTKQLQDLTKKGLPLVGICDITCDIGGSIEF

VNRATLIDSPFFRFNPNSSNYYDDMDGDGVLCMAVDILPTEFAKEASQHFGDILSGFVGSLASMTEISDLPAHLKRACISYRGELTSLYEYIPRMRSNPPEAQDNIAANGVSSQRTFNI  
LVSLSGHFLDKFLINEALDMIEAAGGSFHAKCELGQSADAESYSELEVGADDKRVLDQI  
IDSSTRANPNEDYISHREANKISLKGKVQQENEIKEPEMTKKSGVLILGAGRVCRP  
AADFLASVRTISSQQWYKTYFGADSEEKTDVHVIVASLYLKDaketvegisdveavrldv  
SDSESLLKYVSQDVVLSSL PASCHAVVAKTCIELKKHLVTASYVDDETSMLEKAKSAG  
ITILGEMGLDPGIDHMMAMKMINDAHKKGVKSFTSYCGGLPSAAANNPLAYKFSWNP  
AGAIRAGQNPACYKNSGDI IHVDGKNLYDSAARFRVPNLPFALECFPNRDSL VYGEHYG  
IESEATTIFRGTLRYEGFSIMATLSKLGFDSEANQLSTGKRITFGALLSNILNKDAD  
NESEPLAGEEEEISKRIKLGHSKETAAKAAKTIVFLGFNEEREVPSLCKSVFDATCYLME  
EKLAYSGNEQDMVLLHHEVEVEFLESKRIEKHTATLLEFGDIKNGQTTAMAKTVGIPAA  
IGALLLIEDKIKTRGVLRPLEAEVYLPALDILQAYGIKLMKAE

&gt;O24496

MKIFHVPCLQDNYSYL IDESTGDAAVVDPDVPEKVIASAEEKHQAKIKFVLTTHHHWDHA  
GGNEKIKQLVPDFIKVYGGSLDKVKGCTDAVDNGDKLTLGQDINILALHTPCHTKGHISYY  
VNGKEGENPAVFTGDTLFVAGCGKFFEGTAEQMYQSLCVTLAALPKPTQVYCGHEYTVKN  
LEFALTVEPNNGKIQQKLAWARQQRQADLPTIPSTLEELETNPFMRVDKPEIQEKGCK  
SPIDTMREVRNKKDQWRG

&gt;Q9SSX0

MSSAAAATRFIKCUTVGDGAVGKTCMLICYTCNKFPDYIPTVFDNFSAVSVDSVVNL  
GLWDTAGQEDYSRLRPLSYRGADVFIISFSLISRASYENVQKKWMPPELRRFAPGVVV  
GTKLDLREDRAYLADHPASSIITTEQGEELRKLIQAVAYIECSSKTQRNIKAVFDTAIKV  
VLQPPRHKDVTRKKLQSSSNRPVRRYFCGSACFA

&gt;Q9LK23

MGGQWHMEKRSTLKNDSFVKEYNPVETGSLSIIVLGASGDLAKKTFPALFNLFHQGF  
LNPDDEVHIFGYARSKITDEELRDKIRGYLVDEKNASKTEALKFLKLIKIVSGPYDSEE  
GFKRLDKAILEHEISKTAEGSSRRLFYALPPSVYPPVSKMIKAWCTNKS DLGGWTRIV  
VEKPGKDLESAEQLSSQIGALFEEPQIYRIDHylGKELVQNMVLVRFANRLFLPLWNRD  
NIANQIVFREDFGTEGRGGYFDEYGIIRDIIQNHLLQVLCLVAMEKPISLKPEHIRDEK  
VKVLQSVIPIKDEEVVLGQYEGYRDDPTVPNDSNTPTFATTILRINNERWEGVPFILKAG  
KAMSSKKADIRI QFKDVPGDIFKCQNQGRNEFVIRLQPSEAMYMKLTVKQPGLEMQTQS  
ELLDLSYKQRYQDVSIPPEAYERLILDTIRGDQQHFVRRDELKAWEIFTPLLHRIDKGEVK  
SVPYKQGSRGPAEADQLKKAGYMOTHGYIWIPPTL

&gt;O22424

MARGLKKHLKRLNAPKHMLDKLGGAFAPKPSSGPHKSRECLPLILIIRNRLKYALTYRE  
VISILMQRHVLDGKVRTDKTYPAGFMDVISIPKTNENYRLYDTKGFRFLHPIRDEDAK  
FKLCKVRSVQFGQKGIPYLNTYDGRTIRYPDPLIKANDTIKIDLETNKIVDFIKFDVGNV  
VMVTGGRNTGRGVVIKNREHKGSFETIHVEDSLGHQFATRMGNVFTIGKGNKPWVSLPK  
GKGKLSIIEEQRKRDAAAQAAA

&gt;P53537

MGFKVETNGGDGLVSAKVPPLANPLAEKPDEIASNISYHAQYTPHFSPFKFQLQQAYYA  
TAESVRDRILLQWNETYLHFHKVDPKQTYYLSMEFLQGRALTNAIGNLNIQDAYADALRK  
FGLELEEEITEQEKDAALGNGGLGRLASCFLDSMATLNLPAWGYGLRYRYGLFKQIITKEG  
QEEVAEDWLEKFSPWEIVRHDLVLYPIRFFGQVEVNPDSRQWIGGEVIQALAYDVPIPGY  
QTAKNTISLRLWEAKACADDFLFLFDGQLESASVLSRAQQICSVLYPGDATEGGKLLR  
LKQQYFLCSASLQDIISRFKERRQGPWNSEFPTKAVQLNDTHPTLSIPELMRLLMDE  
GLGWDEAWAVTSKTVAYTNHTVLPEALEKWSQPVMWKLPRHMEIEEEIDRRFVALISKT  
RLDLEDEVSNMRILDNNLQKPVVRMANLCVVSSHTVNGVAQLHSDILKSELFASYVSIWP  
TKFQNKTNGITPWRWINFCSELSRIITKWLKTDKWVNLDLLTGLREFADNEDLQAELW  
SAKRANKQRLAQYVLTQVTGENIDPDSLFDIQUVKRIHEYKRQLNILGVIYRYKKLREMSP  
EERKSTTARTVMIGGKAFATYTNAKRIVKLVDDVGSVVNSDPEVNSYLVKVFVNPYNVSV  
AEVLI PGSELSQHISTAGMEASGTSNMKFALNRVLIIGTLDGANVEIREEIGEENFFLFG  
ATADEVPRLRKERENGLFKPDPRFEEAKKFIRSGVFGSYDYNPLLDLEGNSGYGRGDYF  
LGVYDFPSYMDAQEKVDEAYRDKKRWLKMSILSTAGSGKFSSDRTIAQYAKEIWNIEECR  
VP

&gt;P42791

MGIDLIAGGKSKKTKRTAPKSDDVYLKLTVKLYRFLVRRNTSKNGVILKRLFMSKVNKA  
PLSLSRLVEFMTGKEDKIAVLVGTITDDLKVHEIPAMKVTALRFTERARARIEKAGGECL

TFDQLALRAPLGQNTVLLRGPKNSREAVKHFGPAPGVPHSHSKPYVRAKGRKFEKARGKR  
KSRGFKV  
>Q39214

MASATVDFGIGRILSVLENETLLLGVHGEIDMKKELLIMKSFLEDTHKGNGSTTT  
TQLFQTFVANTRDLAYQIEDILDEFGYHIHGYRSCAKIWRHFPRYMWARHSIAQKLG  
VNVMIQSISDSMKRYYHSENYQAALLPPIDDGDAKWVNNISESSLFFSENSLVGIDAPKG  
KLIGRLLSPEPQRIVVAVVGMSGKTTLSANIFKSQSQRHFESYAWVTISKSYVIEDV  
FRTMIKEFYKEADTQIPAELYSLGYRELVEKLVYLQSKRYIVVLDDWTTGLWREISIA  
LPDGIVGSRVMMTTRDMNVASFYGYGISTKHEIELLKEDEAWVLFNSKAFPASLEQCRTQ  
NLEPIARKLVERCQGLPLAIASLGSMMSTKKFESEWKVYSTLNWELNNHELKIVRSIM  
FLSFNDLPYPLKRCFLYCSLPVNYRMKRKRLIRMWMAQRFVEPIRGVKAEEVADSYLNE  
LVYRNMLQVILWNPFGRPKAFKMHDVIWEIALSVSKLERFCVDVYNDSDGDDAAETMENY  
GSRHLCIQKEMTPDSIRATNLHSLLVCSSAKHKMELLPSLNLLRALDLEDSSISKLPDCL  
VTMFNLKYLNLSKTQVKELPKNFHKLVNLETLNTKHSKIEELPLGMWKLKKLRYLITFRR  
NEGHDNSWNVYVLGTRVPKIWQLKDLQVMDCFNAEDELIKNLGCMQLTRISLVMVRREH  
GRDLCDSLNIKRIFLSSLTSIDEEPELEDDLIATASIEKLFLAGKLERVPSWFNTLQN  
LTYLGLRGSQQLQENAILSQTLPRLVWLFSYNAYMGPLRFAQGFQNLKILEIVQMKH  
EVVIEDGAMFELQKLYVRACRGLEYVPRGIENLINLQELHLIHVSNQLVERIRGEGSVDR  
SRVHAPIKHYFRTDNGSFYVSLSS

>P41127

MKHNNVIPNGHFKHWQNYVKTWFNQPARTRRIARQKKAVKIFPRPTSGPLRPVVHGQ  
TLKYNMKVRTGKGFTLEELKAAGIPKKLAPTIGIAVDHRRKNRSLEGLQTNVQLKTYKT  
KLVIFPRRARKVKAGDSTPEELANATQVQGDYLPIVREKPTMELVKLTSSEMKSFKAFDKI  
RLERTNKRHAGARAKRAAEAEKEKK

>P42036

MSKRKTKEPKVENVTLGPAPREGEQVFGVHVVFASFNDTFIHVTDLSGRETLVRITGGMK  
VKADRDESSPYAAMLAQDVAQRCKELGITAIHVKL RATGGNKT KTPGPGAQ SALALAR  
SGMKIGRIEDVTPPIPTDSTRRKGGRRGRRL

>P37392

MREILHIQGGQCGNQIGAKFWEVVCAEHGIDSTGRYGGDNEQLERVNVYYNEASCGRFV  
PRAVLMDELPGTMDSVRSGPYGQIFRPDNFVGQSGAGNNWAKGHYTEGAELIDSVDVV  
RKEAENCDCLQGFQVCHSLGGGTGSGMTLLISKIREEYPDRMLTFSVFPSPKVSDTVV  
EPYNATLSVHQLVENADECMVLDNEALYDICFRTLKLTPSFGDLNHLISATMSGVTCCL  
RFPGQLNSDLRKLAVNLIPFPRLHFFMVGFAPLTSRGSQQYRALTVPELTQQMWDAKNMM  
CAADPRHGRYLTASAMFRGMSTKEVDEQMINVQNKNSSYFVEWIPNNVKSTVCDIPPTG  
LKMASTFIGNSTSIQEMFRRVSEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVS  
EYQQYQDATADEDGYEYEDEEEIGEEA

>Q9XG54

MENKVVEEKQVDKIPLMSPCKMGKFELCHRVVLAPlTRQRSYGYIPQPHAILHYSQRSTN  
GGLLIGEATVISETGIGYKDVGPIWTKEQVEAWKPIVDAVAKGGIFFCQIWHVGRVSNK  
DFQPNGEDPISCTDRGLTPQIRSNGIDIAFHTRPRRLTTDEIPQIVNEFRVAARNAIEAG  
FDGVEIHGAHGYLIDQFMKDQVNDRSDKYGGSLNRCAFALEIVEAVANEIGSDRVGIRI  
SPFAHYNEAGDTNPTALGLYVESLNKYDLAYCHVVEPRMKTAWEKIECTESLVPMRKAY  
KGTFIVAGGYDREDGNRALIEDRADLVAYGRLFISNPDLPKRFELNPLNKYNRDTFYT  
DPIVGYTDYPFLETMT

>Q8GYN5

MARSNVPKFGNWEAEENVPYTAYFDKARKTRAPGSKIMNPNDPEYNSDSQSQAPPHPSS  
RTKPEQVDTVRRSREHMRSEEESELKQFGDAGGSSNEAANKROGRASQNNSYDNKSPHK  
NSYDGTGKSRPKPTNLRADESPEKVTVPKFGDWDENNPSSADGYTHIFNKVREERSSGA  
NVSGSSRTPTHQSSRNPNNNTSSCCCFGFGK

>Q9LPM9

MAPSSSPLRTTSETDEKYANVKEELGFALTPIDMYVAKCRQGESFTQGKIVPYGDISI  
SPCSPILNYQGLFEGLKAYRTEDDRIRIFRPDQNALRMQTGAERLCMTPPTLEQFVEAV  
KQTVLANKKWWPPPGBKTLYIRPLLGSATLGVAPEYTFIYASPVGDYHKVSSGLN  
LKVDHKYHRAHSGGTGGVKSCTNYSPPVKSLLLEAKSAGFSDVFLDAATGRNIEELTACN  
IFIIVKGNIIVSTPPTSGTILPGVTRKSISELAHDIGYQVEERDVSVDELLEAEEVFCTGTA  
VVVKAVENTVTFHDKKVKYRTGEAALSTKLHSMLTNIQMGVVEDKKGWMVIDPCQG  
>Q56WK6

MAQEEVQKSADVAAPVVKCEKPI TDKEVTIPTPVAEKEEVAAAPVSDEKAVPEKEVTPEKE  
 APAAEAEKSVVKEEETVVVAEKVVVLTAEEVQKKALEFKELVREALNKREFTAPVTPV  
 KEEKTEEKKTEEETKEEKKEETTEVKVEEKPAVPAAEEEKSSEAAPVETKSEE  
 KPEEKAEVTTEKASSAEDGKTVEAIEESIVSVSPPESSAVAPVVETVAVAEEAPVPE  
 EVSIWGVPLLQDERSDVILTKFLRARDFKVKEALTMKNTVQWRKENKIDELVESGEEVS  
 EFEKMFVFAHGVDFKEGHVVIYSSYGEFQNKEFLSDKEKLNFSLWRRIQLQEKCVRRAIDFSN  
 PEAKSSFVFVSDFRNAPGLGKRALWFIRRAVKQFEDNYPEFAAKELFINVPWWYIPYYK  
 TFGSIITSPRTRSKMVLAGPSKSADTIFYIAPEQVVKYGGSKDTPLTEETITEAIVK  
 PAANYTIELPASEACTLSWELRVLGADVSYGAQFEPTTEGSYAVIVSKTRKIGSTDEPVI  
 TDSFKVGEPGKIVITIDNQTSKKKVLYRFKTQ

>P23344

MADGGEDIQPLVCDNGTGMVKAGFAGDDAPRAVFPSIVVGRPRHTGVMVMGQKDAYVGD  
 EAQSKRGILTLCYPIEHGIVSNWDDMEKISHHTFYNELRVAPEEHPVLLTEAPLNPKANR  
 EKMTQIMFETFNVPAAMYVLSRLRSCLSLYASGRTTGIVLDSDGGSHTVPIYEYALPHA  
 ILRLDLAGRDLTDGLMKILTERGYMFATTATGMSYMKEKLAYVALVMSKSWRLPRARLLV  
 EKNYELPDGQVITIGAVRGSGCPEVLFQPSMIGMESAGIHETTYNSIMKCDVDIRKDLYG  
 NIVLSSGSTMFPGSCYASMSKEITALAPSSMKIKVVAPPERKYSVWIGGSILASLSTFQQ  
 MWISKGEYDESGPSIVHRKCF

>Q06197

MAAFQKIKVANPIVEMDGDEMTRVIWKS IKDKLILPFLELDIKYYDLGLPYRDETDDKVT  
 IESAETLKYNVAIKCATITPDEARVKEFGLKSWMKSPNGTIRNILNGTVFREPILCKNI  
 PRLVPGWTKAICIGRHAFGDQYRATDTVIKGAGKLKLVFVPEGQGEETEFEVFNFTGEGG  
 VSLAMYNTDESIRSFAEASMATALEKKWPLYLSTKNTILKKYDGRFKDIFQEVEYEAWSKS  
 KFEAAGIWIYEHRLIDDMVAYALKSEGGYWACKNYDGDVQSDFLAQGFGSLGLMTSVLVC  
 PDGKTIEAEAAHGTVTRHFRVHQKGGETSTNSIASIFAWTRGLAHRAKLDDNAKLLDFTE  
 KLEAACIGVVEAGKMTKDLALILHGSKLSREHYLNTEEFIDAVAAELSARLSA

>O04147

MEEVKKDVS梧WalPDEESEPRFKLMEALRSEFTGPRFVPHVTVAWSAYLTADAEAKKM  
 ESACDGLKAYTATVDRVSTGTFFFQCVFLLOTTPEVMEAGEHCKNHFNCSTTPYMPHL  
 SLLYAELETTEEKNAQEKA YTLDSLGSFRLNRLALCKTDKDTEKTLETWETVAVCNLP

>O49044

MGVIKAVAVINGNNNVGSLQFIQDSTGVTHVKGRITGLTPGLHGFHIHALGDTTNGCS  
 TGPHFNPLKKDHGAPFDTERHAGDLGNVVAAGADGVAEVSRDTQIPLSGQHSILGRAV  
 HADQDDLGRTGHELSKTTGNAGARVRCGIIGLQASV

>Q42806

MANIDIEGILKQQPYDGRVPKTI VCTLGPASRSVEMTEKLLRAGMNVARFNFSHGTHD  
 YHQETLNNLKTAMHTNGILCAVMLDTKGPEIRTGFLKGPKIQLKEGQEVTTTIDYDIKG  
 DPEMISMSYKKLPVHLKPGNTILCSDGTITLTVLSCDPDAGTVRCRCENTATLGERKNVN  
 LPGVVVDLPTLTEKDKE DILGWGVPNKIDMIALSFVRKGSDLVNRKV LGPHAKNIQLMS  
 KVENQEGVLFNDFEILRETDAFMVARGLGMEIPVEKIFLAQKMMIYKCNLVGKPVTATQ  
 MLESMIKSPRPTRAETDVANAVLDGTDVCMLS GESAAGAYPELAVKIMARICIEAESSL  
 DYGAIFKEMIRSTPLPMSPLES LASSAVRTANKAKLIVVLTRGGSTAKLVAKYRPAVP  
 ILSVVVPVLSTDSDFWTCSDETPARHSLIYRGLI PILGEWSAKATDAESTEVILEAALKS  
 ATERALCKPGDAVVALHRIGAASVIKICIVK

>Q9ZWR8

MEQIQMVVKVLEKCQVTPPSDTTDVELSLPVTFFDIPWLHLNKMQSLLFYDFPYPRTHFLD  
 TVIPNLKASLSSLTLKHVVPLSGNLLMPIKSGEMPKFQYSRDEGDSITLIVAESDQDFDYL  
 KGHLQVDSNDLHGLFYVMPRVIRTMQDYKVIPLVAVQVTVPNRGIAVALTAHSIADAK  
 SFVMFINAWAYINKFGKDADLLSANLLPSFDRSIIKDLYGLEETFWNEMQDVLEMFSRFG  
 SKPPRFNKVRATYVLSLAEIQKLKNKVLNLRGSEPTIRVTTFTMTCGYVWTCMVSKDDV  
 VSEESSNDENELEYFSFTADCRLLTTPCPPNYFGNCLASCVAKATHKELVGDKGLLVAV  
 AAIGEAIKEKRLHNEKGVLADAKTWLSESNGIPSKRFLGITGSPKFDSYGVDFGWGKPAKF  
 DITSVDYAEELIYVIQSDFEKGVEIGVSLPKIHMDAFAKIFE EEGFCCLS

>P38414

MASLLFGRGQKLKGTVILMQKNVLDINALTAAQSPSGIIGGAFGVVGSIAAGSIIDTATAF  
 LGRSVRLRLISATVADASGKGKVSKEAFLEGLLTSIPTLGDKQSAFSVHFEDSNMGTPG  
 AFYIENFMQGGEFFLVSLLTDDVPNVSIFACNSWIYNDKKYQSDRIFTANKTYLPSAT

PAPLVSYRQEELKTLRGDGTGERQEWDRIYDYDVYNDLGAPDQKATLGRPVLGGSSTLPY  
 PRRGRTGRKKTVKEPQSESRSDTVYLPRDEAFGHVKSSDFLVYILKSASQNIVPQLRSVV  
 TLQNNPEFNTFEDVRSLYDGGIKLPTDVLISKISPIPLFSELFRSDGEAALKFPPPKVIQ  
 VDHSAWMTDEEFAREMIAVGVNPHIIKEVLSFPIKSKLDSQLYGDNTSKITKEHLEPNLGG  
 VTVEGAIQTNRLFTPDHHDALFPYLRKINATATKAYATRTVLFQDNGLKPLAIELSTP  
 HPDGDSFGPVSKVYLPASEGVEASIWLAKAFVVVNDSCYHQLVSHWLNTHAVVEPFIIA  
 TNRHLSVVHPIHKKLLPHYRDTMNINALARNVLVNAEGIIESTFLWGNYAMEMSAVYKD  
 WVFPDQGLPNDLIKRGVAVKDPSSPHGVRLIEDPYASDGEIWAAIKSWVEEYVNFYY  
 KSDAAIAQDAELQAFWKELEVGHGDLKSATWWFKMQNRKELIEACSILIWIASALHAAV  
 NFGQYPYGGYILNRPTSRKFMPKGTPYEYDDLAKNYEKAYLRTITPKNDTLDLTIIEV  
 LSRHASDEQYLGERIEGDDWTTDSVPKEAFKRGKKLAEIEEKLQRNNDESLRNRYGPV  
 KMPYTLPPSEEGLTCRGIPNSISI

>P34923

MVGSAKIKVINGFGRIGRLVARVALERDDIELVAINDPFITPEYMTYMFKYDSTHGQWK  
 KTEVTLHSEGHTFGGNPVAVYACRDPSEIPWGKHGADFVVESTGVFTDKDAAAHLKGG  
 AKKVISAPSNDAPMFVMGVNENKYSDEDIVSNASCTNCLAPLAKVINDKFGILEGLMT  
 TVHATTATQKTVDPGSSKDWRGGRSAATNIIPSATGAAKAVGKVLPELNGKLTGMAFRVP  
 TTDVSVDLTVRLEKPASYDAIKTAIKEASEGQMKGILGYTEDDVVSTDFITDSRSSIFD  
 AKAGIALSDTFVKLVAWYDNEWGYSNRVVDLIVHMAKQGTSQ

>Q42484

MDFISSLIVGCAQVLCESMNMAERRGHKTDLRQAITDLETAIGDLKAIRDDLTLRIQQDG  
 LEGRSCSNRAREWLSAVQVTETKTALLLVRFRRREQRTRMRRYLCFGCADYKLCKKV  
 AILKSIGELRERSEAIKTDGGSIQVTCREIPIKSUVGNTTMMEQVLEFLSEEEERGIIGV  
 YGPGGVGKTTLMQSINNELITKGHQYDVLIWVQMSREFGECTIQQAVGARLGLSWDEKET  
 GENRALKIYRALRQKRFLLLDDVWEIDEKTVPRPDRENCKVMFTTRSIALCNNMG  
 AEYKLVEFLEKKHAWELFCSKVWRKDLLESSSIRRLAEIIVSKCGGLPLALITLGGAMA  
 HRETEEEWIASEVLTTRPAEMKGMYVFALLKFSYDNLESDLLRSCFLYCALFPEEHSI  
 EIEQLVEWVGEGLTSSHGVNTIYKGYFLIGDLKAACLLETGDEKTQVKMHNVRSFAL  
 WMASEQGTYKELILVLEPSMGHTEAPKAENWRQALVISLLDNRIQTLPEKLICPKLTTLML  
 QQNSSLKKIPTGFFMMPVLRVLDLSFTSITEIPLSIKYLVELYHLSMSGTKISVLPQEL  
 GNLRLKLHLDLQRTQFLQTIPRDAICWLSKLEVNLYYSYAGWELQSFGEDEAEELGFAD  
 LEYLENLTTLGITVLSLETLKTLEFGALHKHIQHLHVEECNELLYFNLPSTNHGRNRL  
 RLSIKSCHDLEYLVTPADFENDWLPLEVTLHSLHNLTRWGNSVSQDCLRNIIRCINIS  
 HCNLKNVSWVQKLPKLEVIELFDCREIEELISEHESPSVEDPTLFPSLTLRTRDLP  
 NSILPSRFSFQKVETLSTITNCPRVKKLPFQERRTQMNLPTVYCEEKWWKALEKDQPNEEL  
 CYLPRFVPN

>O22540

MASEKKQSNPMDRIKVQKLVNISVGESGDRLTRASKVLEQLIGQSPVFSKARYTVRSFG  
 IRRNEKIACYVTVRGEKAMQLLESGLKVKECELLRRCSETGCFGQIQLHIDLGQCDP  
 STGFYGMDFYVVLERAGYRVARRRCKSRVGIQHRVTKEDAMKWFQVKYEGVIFNKAQAN  
 MS

>Q9C5X3

MSYSDSDSSSHGGEYKNFRQITRERLLYEMLRAKTGSSKSTWKVIMDKLTVKIMSYAC  
 KMADITQEGVSLVEDIFRRRQPLPSMDAIYFIQPTKENVIMFLSDMSGKSPLYKKAFVFF  
 SSPVSKELVGHIKKDSSVLPRIGALREMNLLEFFAIDSQGFITDHERALEDLFGDEETS  
 GDACLNVMASRIATVFAVLREFPAVRYRAAKSLDASTMTTLRDLIPTKLAAGIWNCLAKH  
 KQSIENFPQTETCELLLDRSIDQIAPVIHEWTYDAMCHDLMNEGNKYVHVIPS  
 PEKDKVLLEEHDPWIWELRHAHIADASERLHDKMTNFLSKNKAQLQGKRDGAELSTRDL  
 QKMVQALPQYSEQIDKLSLHEIARKLNLDIREQGLRELQLEQDLVFGDAGMKDVIKYL  
 STQEEASREGKLRLMILATIYPEKFEGEKGENLMLAKLSSDDMTAVNNMSLLGSAVDA  
 KKNTPGGFTLKFDLHKKKRAVRKERQEEAAWQLSRFPMIEELIEKLSKGELPKEDPCM  
 NDPSPSFHGSTSLSSAASSSQGAAQSMRSRRTPTWAKPRGSSDGYSSDSVLRHASSD  
 KMGQRIFVFIGGATRSELKVCHKLSTKLREVILGSTSLDDPPQFITKLKLLTAND  
 DLSLDDLQI

>O64394

AASAATATATAA AVGAGEVISVHSLEQWTM QIEEANAACKLVVIDFTASWCPCRIMAPI  
 FADLAKKFPAAVFLKVDVDELKPIAEQFSVEAMPTFLFMKEGDVKDRVVGAIKEELTTKV  
 GLHAAQ

&gt;P25892

MAETNPELSDLMAQTNKKIVPKFTEIFPVEDVNYPYSAFIASVRKDVIKHCTDHKGIFQP  
 VLPPEKKVPELFYTELKTRTSSITLAIRMDNLVLGVFRTPGGVWWEGKAGDTHLLGDN  
 PRWLGFGGRYQDLIGNKLETVTMGRAEMTRAVNDLAKKKMATLEEEEVQMQMOMPEAA  
 ELAAAAAAAADPQADTKSKLVKLVVMVCEGLRFNTVSRTVDAGFNSQHGVTLTQGKQVQ  
 KWDRISKAFAEWADHPTAVIPDMQKLGIKDKNEARIVALVKNQTTAAAAATAASADND  
 >Q04522

TIKVHGNPRSTATQRVLVALYEKHLEFEFVPIDMGAGGHKQPSYLALNPFGQVPALEDGE  
 IKLFESRAITKYLAYTHDQNEGTSLIHKEKHEMAAQLVWEEVEAHQFDPVASKLAWELV  
 FKGIFGMQTDTTVVEENEAKLAKVLDVYEARLTESEYLGANDSFTLVDLHHLPLLGYLMG  
 TQVKKLFEERAHVSAWCKKILARPSWEKTLALQKQA

&gt;O65735

MSNFKSKYHDELIANAAYIGTPGKGILAADESTGTIGKRLASINVENVETNRRALRELLF  
 TAPNVLQYLSGVILFEETLYQSTAAGKPFVDVLNEAGVLPGIKVDKGTVLAGTDGETT  
 QGLDGLGARCAKYYEAGARFAKWRVLKIGPNEPSLISILSIENAVGLARYAVICQENGLV  
 PIPELEILVDGSHDIHKCAAITERVLAATYKALSDHHVLLEGTLKPNMVPGSDSPKVA  
 PEVVAEHTVRALQRTVPAAVPAVVFLSGQSEEATVNLNAINQVKGKPWTLSFSFGRA  
 LQQSTLKAWSGKEENVNAQDALLTRAKANSEATLGYKGNSQLGEGASESLHVKDYKY  
 >P33444

AVGKNKRISKGGKKKAADPFAKKDWYDIKAPSFSVRNVGKTLVTRTQGTKIASEG  
 EHRVFEISLADLQGDEDHSFRKIRLRAEDIQGKVNLTNFWMDFTTDKLRSLVRKWQSLI  
 EAHDVKTTSYTLRMFCIGFTKKRANQQKRTCYAQSSQIRQIRRKMRREIMVNQAQSCDL  
 KDLVQKFIPESIGREIEKATSSIYPLQNVFIRKVKILKAPKFDLGKLMEVHGDYNEDIGT  
 KLDRPAEEAAEPTEVIGA

&gt;P42801

MFIIESFKVESPNVKYTENEIHSVYDYETTEVVHEKTVNGTYQWIVKPKTVKYDFKTDIRV  
 PKLGVMLVGLGGNNGSTLTAGVIANKEGISWATKDKVQQANYFGSLTQASSIRVGSFN  
 GEIYAPFKSLLPMVNPDDVVFGWDISDMNLADAMARARVLDIDLQQLRPY  
 MENIVPLPGIFDPDFIAANQGSRANHVIKGKKEQVDHI  
 IKDMREFKEKNVKDKVVFVLTANTERYSNV  
 VVGMNDTMENLMESVDRDEAEISPSTLYAICVLEGIPFINGSPQNTFVPG  
 LIDMAIRNNVLI  
 GGGDFKSGQTMKSVLVDLFLVGAGIKPTSIVSYNHLGNNDGMNLSAPQTFRS  
 KEISK  
 SNVDDDMVASNGILFEPGEHPDVVVIKYVPYVADSKRAMDEYTSEIFMG  
 GGKNTIVMHNT  
 CEDSLLAAPII  
 LDVLVLAELSTRIQFKSEGEKFHSFHPVATILSYLT  
 KAPLVPPGTPVINALSKQRAMLENIMRACVGLAPENN  
 MIMEFK

&gt;P30792

MGSSGFSWTLDPHPKLPKGSKVAVVLDGWGEANPDQYNCIHVAQTPVMDSLKNGAPEKW  
 RLVKAHTAVGLPSDDDMGNSEVGHNALGAGRIFAQGAKLVDQALASGKIYDGDGFNYIK  
 ESFESGTLHLIGLLSDGGVHSRLDQLQLLKGVSERGAKKIRVHILTDGRDVLDGSS  
 SIGF  
 VETLENDLLELRAKGVDAQIASGGGRMYVTMDRYENDWDVVKRG  
 WDAQVLGEAPYKFKSA  
 LEAVKTLRAQPKANDQYLPPFVIVDDSGNAVG  
 PVLDGDAVVT  
 INFRADRMVMLAKALEYA  
 DFDNFDRVRVPKIRYAGMLQYDGEKLPSRYLVS  
 PPEIDRTSGEYL  
 VKNGIRT  
 FACSETV  
 KFGHVTFFWGNRSGYFDATKEEYVEVPS  
 DSGITFNVAPNM  
 KALEIAEKARDALLSGKFD  
 QVRVNLPGDMVGHTGIEATVACKADEAVKII  
 ILDAVEQVGGIYLV  
 TADHGN  
 AEDMVK  
 RNKSGKPLLDKNDRI  
 QILTSHTLQ  
 PVPVAIGGPGL  
 HPGV  
 KFRNDI  
 QT  
 PGL  
 ANVA  
 ATVMNL  
 HGFEAPADYEQTLIEVADN

&gt;P93836

MGHQNAAVSENQNHHDDGAASSPGFKLVGFSKFVRKNPKSDKFKV  
 RKFHHIEFWCGDATNV  
 ARRF  
 SWGLGMRFS  
 A  
 KSDL  
 STGN  
 MVHAS  
 YLLTSGD  
 LRFL  
 FT  
 APYSP  
 SLS  
 AGE  
 I  
 KPT  
 TTASI  
 PSFDHG  
 SCRS  
 FFSSH  
 GLGV  
 RA  
 V  
 A  
 I  
 E  
 V  
 E  
 D  
 A  
 E  
 S  
 A  
 F  
 S  
 I  
 S  
 V  
 A  
 N  
 G  
 A  
 I  
 P  
 S  
 S  
 P  
 P  
 I  
 V  
 L  
 N  
 E  
 A  
 V  
 T  
 I  
 A  
 E  
 V  
 K  
 LYGD  
 VV  
 L  
 RY  
 V  
 S  
 Y  
 K  
 A  
 E  
 D  
 T  
 E  
 K  
 S  
 E  
 F  
 L  
 P  
 G  
 F  
 E  
 R  
 V  
 E  
 D  
 A  
 S  
 S  
 F  
 P  
 L  
 D  
 Y  
 G  
 I  
 R  
 R  
 L  
 D  
 H  
 A  
 V  
 G  
 N  
 V  
 P  
 E  
 L  
 G  
 P  
 A  
 L  
 T  
 Y  
 V  
 A  
 G  
 E  
 A  
 G  
 L  
 Q  
 H  
 L  
 A  
 L  
 M  
 S  
 E  
 D  
 I  
 F  
 R  
 T  
 L  
 R  
 E  
 M  
 R  
 K  
 R  
 S  
 S  
 I  
 G  
 G  
 F  
 D  
 M  
 P  
 S  
 P  
 P  
 P  
 T  
 Y  
 Y  
 Q  
 N  
 L  
 K  
 K  
 R  
 G  
 D  
 V  
 L  
 S  
 D  
 D  
 Q  
 I  
 K  
 E  
 C  
 E  
 E  
 L  
 G  
 I  
 L  
 V  
 D  
 R  
 D  
 D  
 Q  
 G  
 T  
 L  
 L  
 Q  
 I  
 F  
 T  
 K  
 P  
 L  
 G  
 D  
 R  
 P  
 T  
 I  
 F  
 I  
 E  
 I  
 I  
 Q  
 R  
 V  
 G  
 C  
 M  
 M  
 K  
 D  
 E  
 E  
 G  
 K  
 A  
 Y  
 Q  
 S  
 G  
 G  
 C  
 G  
 F  
 G  
 K  
 G  
 N  
 F  
 S  
 E  
 L  
 F  
 K  
 S  
 I  
 E  
 E  
 Y  
 E  
 K  
 T  
 L  
 E  
 A  
 K  
 Q  
 L  
 V  
 G  
 V

&gt;Q9SWR3

MAAVTGLYGSIDEFLNHCSQSGDSAYSALRSLLERLEKPDTRTEARI  
 FLAHLQKKLDNDG  
 ASQRCLETYHFQIQDIYLDRNEGTYQNRKKFTMMVIPSI  
 FM  
 PEDWS  
 FT  
 Y  
 E  
 G  
 I  
 N  
 R  
 HP  
 DS  
 IF  
 K  
 DK  
 TV  
 A  
 E  
 L  
 G  
 C  
 G  
 N  
 G  
 W  
 I  
 S  
 I  
 A  
 I  
 A  
 E  
 K  
 W  
 L  
 P  
 L  
 K  
 V  
 Y  
 G  
 L  
 D  
 I  
 N  
 P  
 R  
 A  
 V  
 K  
 I  
 S  
 W  
 I  
 N  
 L  
 Y  
 L  
 N  
 A  
 F  
 D  
 E  
 D  
 G  
 Q  
 P  
 V  
 Y

DSESKTLLDRVEFYEDLLSYCRDNHIELERIVGCIPQILNPNPDAMSKLVNTENASEEFL  
 HSLSNYCALQGFVEDQFGLGLIARAVEEGIDVIKPMGIMIFNMGGGRPGQGVCKRLFERRG  
 LSVNKLWQTQKILQASDTDISALVEIEKNNPHRFEEFMGLVGDRPICARTAWFGKACGRI  
 SHALSVYSCQLRHPNEVKKIFEFLKNGFHDSNSLDSFEDDSVADEKIPFLAYLAGVLIK  
 DGSRFPYEPPTGNKRFRDLIASFMKTYHHVPLSTDNVIAFPSRATAIENSRLFTPRLAI  
 VEEHTCNLPRQWLTSLEIEQTRDSKTPIDGITVIEAPRQSDFMIELIKKLKPQVVVTGI  
 AQFEAVTSSAFEHLLRVTREIGSRLFIDISDQFELSSLPSSIGVLKYLA  
 TPLPSHAAII CGLLRNRVYTDLLEVAFVISEEQTIFDALTRTVELLQGNTALISQYYYGCLFHELLSFQIP  
 DRQTAERAENVEASIDMIGFSSAISVLSQSELSPRVTEKSSLHMDVDQIFLPPT  
 PVKAIAFESFARQNVTECDVTPILRQFILNTWNFSVEHSAEFIYADFPLALFNKLVC  
 CIEEGGSLCMPAGSNGNYAAAAKFLNANIMSIPTAEVGFKLTAKQLSSVLETVHKPWVY  
 ISGPTINPTGLLYSNEEMKSLLTVCARYGARTIIDTSFSGIKFNSQDWGWNLDASLAGL  
 TGNPSFSVCLLGGFFKIPGGSYGFLVKGFLADSFRSSFSGLNKPHNTVRYTAKKL  
 LELEGEQKGNLGTGAAQGQEKLATRLKRLKETLENCGWEVIEARGGVSVIAKPSAYLGKNI  
 KLEKDGSTWTKLDGTNIREAMLRATGLCINGPSWTGIPDYCRFTFALEDGDFDRA  
 LDCIVKFNQLVK  
>P49202  
 MGSLVQGDDFQHILRLLNTNDGKNKIMYAMTAIRGIGRRFSNLVCKKAEVDLRKAAGEC  
 SADELERMMGIVANPRAYKIPDWFLNRQDKHKTGRFSQLTSSQLDTVMRDDLERLKIRG  
 HRGLRHGWGLRVRGQHTKTTGRAGKTVGVA  
>P12253  
 MEHQGQGHGVTSRVDEYGNPVGTGAGHGQMGTAGMTHGTTGGMGTHGTTGGMGTHGTTG  
 TGGGQFQPMREEHKTGGVLQRSGSSSSSSSEDDGMGGRRKKGIKEKIKEKLPGGNKGEOQQ  
 HAMGGTGGAYGQQGHGTGMMTTGAHGTGTTGEKKGIMDKIKEKLPGQH  
>O49886  
 MSNPKVFFDMAIAGNPAGRIVMELYADTPRTAENFRALCTGEKGVGRSGKPLHYKGSTF  
 HRVIPNFMCQGGDFTAGNGTGAESIYGAKFADENFIKRHTGPGILSMANAGAGTNGSQFF  
 ICTEKEWLDGKHVVFGKVIEGMNVVRDIEKGSGSGKTSRPVTIADCGQLS  
>O24047  
 MAVEPLRVLVTGAAGQIGYALVPMIARGIMLGANQPVLHMLDIPPAEALNGVKMELVD  
 AAFPLLKGWVATTDAAEACKGVNVAVMVGFPKREGMERKDVMMSKNVSIYKAQASALEQH  
 AAPNCKLVVANPANTNALILKEFAPSIEPKNISCLTRLDHNRALGQISERLNVQSDVK  
 NVIWIWGNHSSTQYPDVNHATVKTQGVDKPVRELVADDALNGEFITTVQQRGAAIKARK  
 LSSALSAASSACDHIDHWVLGTPEGTWVSMGVYSDGSYNVPAGIIYSFPVTCKNGEWTIV  
 QGLPIDDSRKKMDATAAELVEEKTLAYSCLT  
(4) 16 endoplasmic reticulum proteins  
>O04046  
 MEQILFLYLSFILSLNFFTNLKPRLVRLFQPSLESRVKTALLSRKEVAFLDSPIVE  
 DEEGEREEREEEGGIVSNANFTFEFDPYMMSKAESVNKALEEAIPVGEPLKIHEAMRYAI  
 LAAGKVRVPILCLASCELVGGQENAAMPAACAVEMIHTMSLIKDDLPAMDNDLRRGKPT  
 THKVVGEVAILSGGALLSLAFEHMTTAEISSERMVWAVRELARSIGTRGLVAGQAMDIS  
 SEGLDLNEVGLEHLEFIHVHKTAVLLETAAVLGAIIGGGSDEEIESVRKFARCIGLLFQV  
 VDDILDETSSEELGKTAGKDQLAGKLTYPEKLVRLTDARQHLQGFSEK  
 VAPLVALTTFIANRNK  
>Q03685  
 MAGAWKRRASLIVFAIVLFGSLFAFSIAKEEATKLGTIVIGIDLGTTSCVGVYKNGHVEI  
 IANDQGNRITPSWVAFTDGERLIGEAAKNQAAVNPERTIFDVKRLIGRKFDDKEVQRDKK  
 LVPYEIVNKDGKPYIQVKIKDGETKVFSPEEISAMILTKMKETA  
 EAYLGKKIKDAVVTVP  
 AYFNDAQRQATKDAGVIAGLNVARINEPTAAIA  
 YGLDKKGGEKNILVFDLGGGTFDVS  
 ILTIDNGVFVVLATNGDTHLGGEFDQRIMEYFIKLIKKHGKD  
 ISKDNRALGKLREAE  
 RAKRALSSQHQRVVEIESLFDGVDFSEPLTRARFEELNN  
 DLFRKTMGPVKKAMEDAGLEK  
 NQIDEIVLVGGSTRIPKVQQLL  
 KDYLGYFDGKEPNKG  
 VNPDEAVAYGA  
 AVQGGILSGEGGDET  
 RLSQEEIERMVKEAEFAEEDKKV  
 KERIDARN  
 SLETYV  
 VNM  
 RNQIND  
 KDKLAD  
 KLESDEK  
 EKIE  
 TATKEALEWL  
 DDNQSAEK  
 EDYDEKL  
 KEVEAV  
 CNPI  
 ITAVY  
 QRSGGAP  
 PGASEESNE  
 DDDSHDEL  
>P47195

MDYIVGFVSI SLVALLYFLLFKPKHTNLPPSPPAWPIVGHLPPDLISKNSPPFLDYMSNIA  
 QKYGPLIHLKFGHLHSSIFASTKEAAMEVLQTNKDVLSGRQPLPCFRIKPHIDYSILWSDS  
 NSYWKKGRKILHTEISQSQMLQAQEKNRERVAGNLVNFIMTKVGDVELRSWLFGCALNV  
 LGHVVFSKDVFEYSDQSDEVGMDKLIGHGMLMTGGDFDVASYFPVLARFDLHGLKRKMDEQ  
 FKLLIKIWEGEVLRARRANRNPEPKDMLDVLIAANDFNEHQINAMFMETFGPGSDTNSNIIE  
 WALAQLIKNPDKLAKLREELDRVVGRSSTVKESHFSELPYLQACVKETMRLYPPISIMIP  
 HRCMETCQVMGYTIPKGMDVHVNAHAIGRDPKDPLKFQPERFLDSIEYNGKQFQFI  
 PFGSGRRICPGRPLAVRIIPLVLASLVHAFGWELPDGVPNKEKLDMEELFTLSLCMAKPLR  
 VIPKVRI  
 >Q9SE50

MVRFEKVHLVLGLALVLTIVGAPTKAQGPVCAGLPDKFSRLNFPEGFIWGTATAAFQVE  
 GAVNEGCRGPMWDFTFKKFPHRCENHNADVAVDFYHRYKEDIQLMKDLNTDAFRLSIAW  
 PRIFPHGRMSKGINKVGVQFYHDLIDEKLNNIIPLVTVFHWTDPQDLEDEYGGFLSGRI  
 VQDFTEYANFTFHEYGHKVKHWITFNEPWFSRAGYDNGKKAPGRCSPIPGYGQHCQDG  
 RSGYEAYQVSHNLLSHAYAVDAFRNCKQCAGGKIGIAHSPAWFEPQDLEHVGGSIERVL  
 DFILGWHLAPPTYGDYPQSMKDRVGHRLPKFTEAEKKLLKGSTDYGMNYYTSVFAKEIS  
 PDPKSPSWTTDSLVDWSKSVGDYKIGSKPFNGKLDVYSKGLRYLLKYIKDNYGDPEVII  
 AENGYGEDLGEKHNDVNFGTQDHNRKYYIQRHLLSMHDAICKDKVNTGYFVWSLMDNFE  
 WQDGYKARFGLYYIDFQNNLTRHQKVSGKWSEFLKPQFPTSKLREEL

>P19244

MSLKPLNMLLVPFLLLILAADFPLKAKASLLPIDSPNTLLSDLWSDRFPDPFRVLEQIP  
 YGVEKHEPSITLSHARVDWKETPEGHVIMDVPGALKDDIKIEVEENRVLRVSGERKKEE  
 DKKGDHWHRVERSYGKFWRFQFKLPQNVDLDSVAKMENGVLTLHKLSDKIKGPRMVS  
 IVEEDDKPSKIVNDELK

>P11090

MARLSSLLSFSALLTFLHGSTAQQFPNECQLDQLNALEPSHLKAEGRIEVWDHHAPQ  
 LRCSGVSFVRYIIESKGLYLPSSFSTARLSFVAKGEGLMGRVVLCAETFQDSSVFQPSGG  
 SPFGEQGQGQQGQGQGHQGQGQQGQGQQGQSQGQGFRDMHQVHEIRTGDTIATH  
 PGVAQWFYNDGNQPLVIVSVLDIASHQNQLDRNPRPFYLAGNNPQGQVWIEGREQQPQKN  
 ILNGFTPEVLAFAKIDVRTAQQLQNQQDNRGNIIRVQGPFSVIRPPLRSQRPQEEVNGL  
 EETICSARCTDNLDDPSNADVYKPQLGYISTLNSYDLPILRFLRLSALRGSIRQNAMEVLP  
 QWNANANAVALYVTDGEAHQVQVNDNGDRVFDGQVSQGQLLSIPQGFSVVKRATSEQFRWI  
 EFKTNANAQINTLAGRTSVLRLPLEVISNGYQISLEEARVKFNTIETTLTHSSGPASY  
 GGPRKADA

>O23051

MAETTSWIPVWFPLMVLGCFGNLWLRKVNVWLYESSLGENRHYLPPDLGWPFIGNMLS  
 FLRAFKTSDPDSFTRTLIKRYGPKGIYKAHMFGNPSIIVTTSCTCRVLTDDDAFKPGWP  
 TSTMELIGRKSFVGIFSEEHKRLRRLTAAPVNGHEALSTYIPIYIEENVITVLDKWTKMGE  
 FEFLTHRLRKLTFRIMYIIFLSSSENVMDALEREYTALNYGVRAMAVNIPGFAYHRALKA  
 RKTLVAAFQSIVTERRNQRKQNILSNKDKMLDNLLNVKDEDGKTLDEEIIDVLLMYLNA  
 GHESSGHTIMWATVFLQEHPEVILQRAKEQEMILKSRPEGQKGLSLKETRKMEFLSQVVD  
 ETLRVITFSLTAFREAKTDVEMNGYLIPKGWKVLTWFRDVHIDPEVFPDPRKFDPARWDN  
 GFVPKAGAFLPFGAGSHLCPGNDLAKLEISIFLHHFLKYQVKRSNPECVPMYLPHTRPT  
 DNCLARISYQ

>Q05001

MDSSEKLSPFELMSAILKGAKLDGSNSSDSGVAVSPAVMAMLLENKELVMILTTSAVL  
 IGCVVVIWRRSSGSGKKVVEPPKLIVPKSVVEPEEIDEGKKKFTIFFGTQTGTAEGFAK  
 ALAAEAKARYEKAVIKVIDIDDYAADDEEYEEKFRKETLAFFILATYGDGEPTDNAARFY  
 KWFVEGNDRGDWLKNLQYGVFGLGNRQYEHFNIAKVVDEKVAEQGGKRIIVPLVLGDDQ  
 CIEDDFAAWRENVPWPELDNLLRDEDDTTVSTTYTAIAIPEYRVFPDKSDSLISEANGHAN  
 GYANGNTVYDAQHPCRSNVAVRKELHTPASDRSCTHLDFTIAGTGLSYGTGDHGVYCDN  
 LSETVEEAERLLNLPPETYFSLHADKEDGTPLAGSSLPPPFPCTLRTALTRYADLLNTP  
 KKSALLALAAYASDPNEADRKLKYLASPAGKDEYAQSLSVANQRSLLLEVMAEPSAKPPLGV  
 FFAAIAPRLQPRFYSISSSPRMAPSRIHVTCALVYEKTPGGRIHKGVCSTWMKNAIPLLEE  
 SRDCSWAPIFVRQSNFKLPADPKPVIMIGPGTGLAPFRGFLQERLALKEEGAELGTAVF  
 FFGCRNRKMDYIYEDELNHFLEIGALSELLVAFSREGPTKQYVQHKMAEKASDIWRMISD  
 GAYVYVCGDAKGMDVHRTLHTIAQEQQGMDSTQAEGFVKNLQMTGRYLRDVW  
 >P35016

MRKWTVPVLFLLCPSLSSCQGRKIHANAEADSDAPVDPPKVEDKIGAVPNGLSTDSDV  
 AKREAESMSMRNLRSAEKFEFQAEVSRMDIIINSLYSNKDIFLRELISNASDALDKIR  
 FLALTDKEILGEGDTAKLEIQIKLDKEKKILSIRDIGMTKEDLIKNLGTIAKSGTSAF  
 VEKMQTSGDLNLIGQFGVGFYSVLPDVVEVISKHNDDKQYIWESKADGAFaisedvwn  
 EPLGRGTEIRLHLRDEAQEYLDEFKLKELVKRYSEFINFPIYLWASKEVEVEVPAAEEDDS  
 SDDEDNKSESSSEESEEETEKEEDEKKPKTKVKETTYEWELLNDMKAIWLRNPKDVT  
 DDEYTKFYHSLAKDFSEEKPLAWSHFTAEGDVEFKAFTLLPPKAPQDLYESYYNSNKSNL  
 KLYVRRVFISDEFDELLPKYLNFLKGVLVDSDLPLNVSREMLQQHSSLKTIKKKLIRKAL  
 DMIRKIADEDPDEANDDKKEVEESTDNDEKKGQYAKFWNEFGKSIKLGIIEDAANRNRL  
 AKLLRFESTKSEGKLTSDLQYIISRMKSGQKDIFYITGTSKEQLEKSPFLERLTKKNYEVI  
 LFTDPVDEYLMQYLMQYDYEKKFQNVSKLEGKIGKDSKDELKESFKELTKWWKGALASEN  
 VDDVKISNRILANTPCVVVTSKYGWSSNMERIMQSQTLSASKQAYMRGKRVLEINPRHP  
 ITELRRERVVKADEDESVKQTARLMYQTALMESGFMLNDPKEFASSIYDSVKSSLKISPDA  
 TVEEEDTTEAAEASGTTESSAAEDAGAETLSDLKDEL

>P12412

MAMKKLLWVVLSSLVLGAVNSFDFHEKDLESEESLWDLYERWRSHHTVRSRLGEHKRF  
 NVFKANVMHVHNTNKMDKPYKLKLNKFADMTNHEFRSTYAGSKVNHHKMFGRGSQHSGTF  
 MYEVGVSPASVDWRKGAVTDVKDQGQCGSCWAFSTIVAVEGINQIKTNKLVSLSEQEL  
 VDCDKEENQCGNGGLMESADEFIFIKQKGGITTESNYPYTAQEGTCDESKVNDLAVIDGHE  
 NVPVNDENALLKAVANQPVSAIDAGGSDFQFYSEGVFTGDCNTDLHGVAIVGYGTTVD  
 GTNYWIVRNSWGPEWGEQGYIRMQRNISKKEGLCGIAMMASYPIKNSSDNPTGSSLSPKD  
 EL

>Q8GSP8

MLRSAGRVAAVALLALFALGCVSAAKPSTDRLVAAIKSKNLSAVVDALSVKGLDVNTPD  
 STRRLPLVEAARSRDARLVGALLDQGALARVSDGTTPLHLSMQGGSAAIVKLLLHAGAD  
 PNAKDKTGASARSTAAVKELADLLKQWDARGAMAFEDEPGAIREERDGQSYYWKPANG  
 ESRWAVPPSCAWQRVTVGHPPIKYINSLTGQETTRVPPALAWARVTAADGSALWLNWASR  
 VASAATAPAPPAELPAELAAELAMHPNRRWYNTATREYVYTDPAYATPWRELVDEASGAPFF  
 FNVETGDTTWELPAALAWTEVISSSGADGESGSGSEAGPRYFHNTVSGEVAWSAPEGSR  
 HVFVEASAADL

>P33488

MVRRRPATGAAPRPHLAAVGRGLLLASVLAIAASSLPVAESSCPRDNSLVRDISRMQQRN  
 YGREGFSHITVTGALAHGTKEVEVWLQTFGPGQRTPIHRHSCEEVFIVLKGKGTLLLGSS  
 SLKYPGPQEVPDFQNTTFSIPVNDPHQVWNSNEHDLQLVIIISRPPVKIFIYDDWSMP  
 HTAAKLKFYFWDEDCLPAP

>P15839

MAAYTSKIFALFALIALSASATTAITTMQYFPPTLAMGTMDPCRQYMMQTLGMGSSTAMF  
 MSQPMALLQQQCCMQLQGMMPOCHCGTSCQMMQSMQVICAGLGQQQMMKAMQMPYMCN  
 MAPVNFQLSSCGCC

>P93508

MANPKSLSLFLLSLLAIAASAEVFFEEFEDGWENRWVSDWKDENTAGEWNYTSGKWNG  
 DPNDKGIQTSEDYRFYAIISAEFPFSNKDKTLVFQFSVKHEQKLDGGGYMKLLSSSTDQ  
 KKFGGDTPYSIMFGPDICGYSTKKVHAILNYNDTNHLIKKEVPCETDQLTHVYTLVIRPD  
 ATYSILIDNVEKQTGSLYTDWDLLPPKKIKDPEAKKPEDWEKEYIPDPEDKKPEGYDDI  
 PKEIPDPDAKKPEDWDDEEDGEWTAPTIANPEYKGPWPKKKIKNPNEYKGKWKAPMIDNPD  
 FKDDPEIYVYPNLKYVGIELWQVKSGTLFDNVLICNDPEYAKQLAETWGKNKDAEKA  
 EEAEEKKKEEEESKDDPADSDADEDDEDADDTEGEDDGESESKSDAAEDSAEDVHDEL

>P17048

MKIIIFV FALLAIVACNASARFDPLSQSYRQYQLQSHLLQQQVLSPCEFVRQQYSIVAT  
 PFWQPATFQLINNQVMQQQCCQQQLRLVAQQSHYQAISIVQAIVQQLQLQQFSGVYFDQ  
 TQAQATLLTFNLPSICGIYPNYSAPRSIATVGGVWY

>P93339

MSVTELKERMAATQTVDLREKLQKRLQLLTDVSGYARSQGKTPVTFGPTDLVCCRI  
 LQGHTGKVYSLDWTPKNRIVSASQDGRLIVWNALTSQKTHAIKLPACWMTCAFSPSGH  
 SVACGGGLDSVCSIFNLNSPIDKDGHNHPVSRMLSNGHKGYVSSCQYVPDEDTHLITSSGDQT  
 CVLWDITGLRTSVFGGEFQFGHTADVQSVSISSSNPRLFVSGSCDTTARLWDTRVASRA  
 QRTFYCHEGDVNTVKFPDGNRFGTGSEDGTCLRFDIRTGHQLQVYQPHGDGDIPHVTS  
 MAFSISGRLLFVRYNSNGDCYVWDTLLAKVVLNLGAVQNSHEGXISCLGLSADGXXLCTGS

WDTNLKIWAFFGHRSVI

(5) 36 extracellular proteins

>Q40966

MGITGMTYMFMTMVLSLIVLIFSASTVGFDFQFTQQYQPAVCNSNPTCNDPTDKLFTVH  
 GLWPSNRNGPDPEKCKTTMNSQKIGNMTAQLEI IWPNVLNRSDHVGFWEREWLKHGTG  
 YPTIKDDMHYLTKVIMYITQKQNVSAILSKATIQPNGNNRSLVDIENAIRSGNNNTKPK  
 FKCKQKNTRTTTELVEVTLCSNRDLTKFINCPHPPKGSRYFCPANVKY

>P00693

MGKNGSLCCSLLLLLLAGLASGHQVLFQGFNWESWKQSGGWYNMMMGKVDDIAAGVT  
 HVWLPPPSHSVSNEGMPGRLYDIDASKYGNAAELKSLIGALHGKGVQAIADIVINHRC  
 DYKDSRGICYCIFEGGTSDGRLDWGPHMICRDDTKYSDGTANLDTGADFAAPDIDHLNDR  
 VQRELKEWLLWLKSDLGFDAWRLDFARGYSPEAKVYIDGTSPSLAVAEVWDNMATGGDG  
 KPNYDQDAHRQNLNVWVDKVVGAASAGMVFDFTTKGILNAAVEGELWRLIDPQGKAPGVM  
 GWWPAKAATFVDNHDTGSTQAMWPFPSDKVMQGYAYILTHPGIPCIFYDHFFNWGFKDQI  
 AALVAIRKRNGITATSALKILMHEGDAYVAEIDGKVVVKIGSRYDVGAVIPAGFVTSAG  
 NDYAVWEKNGAAATLQRS

>O81003

MANVSALLTIALLLCSTLMCTARPEPAISISITTAADPCNMEKKIEGKLDDMHMVDENCG  
 ADDEDCLMRRTLVAHTDYIYTQKKHP

>P60994

LPSFVDWRSGAVNSIKNQKQCGSCWAFSAVAAVESINKIRTGQLISLSEQELVDCDTAS  
 HGCNGGMNNAFQYIITNGGIDTQQNYPYSAVQGSCKPYRLRVVSINGFQRVTRNNESAL  
 QSAVASQPVSVTVEAAGAPFQHYSSGIFTGPCGTAQNHGVIVGYGTQSGKNWIVRNSW  
 GQNWNQGYIWMERNVASSAGLCGIAQLPSYPTKA

>Q41260

MMKMCSSSSSSLLVVAALLAVFVGSAQGIAKVPPGPNTAEYGDKWLDAKSTWYKPTG  
 AGPKDNGGACGYKDVKAPFNGMTGCGNTPIFKDGRGCGSCFKCSKPESCSEPITVH  
 ITDDNEEPIAPYHFDLSGHAFGSMAKGEENVRGAGELELQFRVKCKYPDGTKPTFH  
 EKGSNPNYLALLVKYVDDGDDVVAVDIKEKGDKWIELKESWGAIWRIDTPDKLTGPFTV  
 RYTTEGGTKAEFEDVIVEGWKADTHDASK

>Q9ST21

MVNPGRTARALCLLCALLLGQDTHSRKLLQEKHSHGVGNGTTTQEPRENGSTGS  
 NNNNGQLQFDASKWEEFHTDYIYTQDVKNP

>Q56S59

MASAKIFLFLAALIATPAAFAILVPTLVSTHISGLVFCVNGNLDVINGLSPQVFNA  
 SVQLRCGATNVISSTITNGGAFSLAVNTFPPLLNCNLVVATPLSTCNATLQSVGRASSL  
 RLVNITLGSGLIRVGLAPTGFILNLNIN

>Q01883

MASNKVVFSVLLVVLSVLAAMATMADHHQVYSPGEQCRPGISYPTYSLPQCRTLVRQ  
 CVGRGASAADEQVWQDCCRQLAAVDDGWCRCGALDHMLSGIYRELGATEAGHPMAEVFP  
 CRRGDLERAAASLPACNFVNDIPNGPGGVCYWLGYPRTPRTGH

>P27057

MAGKMSIVLFVLLVVFLTQNQVSRAVINMRDEQQQQQRNNQLYGVSEGRLHPQDCQPKCTY  
 RCSKTSYKKPCMFFCQKCCAKCLCVPAGTYGNKQSCPCYNNWTKRGGPKCP

>Q39547

MSSSLIFKLFSSLFFSNRLASRLSDDDGKNIYIVYMGRKLEDPSAHLHGRAMLEQVV  
 GSTFAPESVLHTYKRSFNGFAVKLTEEAEKIASMEGVVSVFLNEMNELHTTRSWDFLGF  
 PLTVPRRSQVESNIVGVLDTGIWPEPSFDDEGFSPPPPWKGTCTSNNFRCNRKIIG  
 ARSYHIGRPISPGDVNGPRDTNGHTHTASTAAGGLVSQANLYGLGLGTARGGVPLARIA  
 AYKVCWNDGCSDTDILAAYDDAIADGVDIISLSVGGANPRHYFVDAIAIIGSFHAVERGIL  
 TSNSAGNGGPNNFTTASLSPWLLSVAASTMDRKFVTQVQIGNQSFQGVINTFDNQYYP  
 LVSGRDIPNTGFDKSTSFRCTDKSVNPNLKGKIVVCEASFPGHEFFKSLDGAAGVLMTS  
 NTRDYADSYPLPSSVLPNDLLATLRYIYSIRSPGATIFKSTTILNASAPVVVSFSRG  
 NRATKDVKPDISGPGEVILAAPSAPVGGIRRNTLFNIIISGTSMSCPHTGIATVKT  
 YNPTWSPAAIKSALMTTASPMNARFNQAEFAYGSGHVNPPLKAVRPGLVYDANE  
 SDYVKF  
 LCGQGYNTQAVRRITGDYSACTSGNTGRVWDLNYPGFSVSPSQTFNQYFNRTL  
 TSVAP  
 QASTYRAMISAPQGLTISVNPNVLSFNGLGDRKSFTLTVRGSIKG  
 FVVSASLVWS  
 DGVHY  
 VRSPITITSV

&gt;Q38924

MSSRSDLKIKRVSLIIFLLS VLVEFCYGGFTSEYVRGSDLPDDMPLDSDFEVPPGHNSP  
 QQVHVTQGNHEGNGVIISWTPVKPGSKTVQYWCENEKSRKQAEATVNTYRFFNYTSGYI  
 HHCLIDDLFDTKYEEIGSGKWSRRFWFIPPKSGPDVPTFGLIGDLGQTYDSNSTLS  
 HYEMNPGKGQAVLFVGDL SYADRYPNHDNNRWDTWGRFVERSVAYQPWIWTAGNHEIDFV  
 PDIGEIEPFKPFMNRHTPHKASGSISPLWYSIKRASAYIIVMSCYSSYGIYTPQYKWLE  
 KELQGVNRTETPW LIVLVHSPFYSSYVHHYMEGETLRVMYEQWFVKYKVDVFAGHVHAY  
 ERSERVSNIAYNIVNGLCEPISDESAPIYITIGDGGNSEGLLTDMMQPQPKYSAFREASF  
 GHGLLEIKNRTHAYFSWNRNQDGNAVAADSVWLLNRFWRAQKKTWLDAF

&gt;P83051

SVILDTKGEPVSNAADAYYLVPVSHGEGLALAKVGNEAEPKAVVLDPHHRPGLTVRFET  
 PLAIAIITESFFLNIFVPSSESDSEVWDVSKQYPIGLAVKVTDTSFVGPRVEKEGEGY  
 KIVYYPD RGQTGLDIGLVHRNDKYYLAATEGEPFVFKIRKATYE

&gt;P07479

MAASNALLLISGALLISLAVLCQGDVVDSGDADVQLNLGGRYPLYTIESAAIGFHGGLS  
 TLHKDVCKSYVYEAPETDRGLPVFSASATSEPVMQLGSRYKFSFLMPVPRICDTAWSVG  
 KSTEETGVYKLAACSCFCKIACPEVGSFNVNGKTLGIGGEHFTVRFHKSDALAMKTAP  
 Q

&gt;P13983

MKLSTLFALVLLLQSTAILSLVAAEATTQYGGYLPPPVTSQPPPSSIGLSPPSAPTTTPP  
 SRGHVPSPRHAPPRHAYPPPSHGHLPPSGVGGPPPHRGHLPPSRGFNPSSPVISSPHPPP  
 SYGAPPPSHGPGLPSHGQRPPSPSHGHAPPSSGGHTPPRGQHPPSHRRPSPPSRHGHP  
 PTYAQPPPTPIYSPSPQVQPPPPTYSPPPTVHQPTPSPPSRGHQPPQPTTHRHA  
 PPTHQPSPLRHLPPSPRRQPQPTYSPPPPAYAQSPQSPPTYSPPPTVSPPPSPPIYSP  
 PPPAYSPSPPPPTPTFSPPPPAYSPPPPTVSPPPPTVSPPPSPPIYSP  
 YSPPPPTVLP PPPPSPPPSFSPPPTVQE SPPPPPAYSPPLPAPPTVSPPPPTVSPPP  
 PTYAQPPPLPPTYSPPPPAYSPPPPTVSPPPPTVSPPPAYAQPPPPPTVSPPPAYS  
 PPPSPPIYSPPPPQVQPLPTFSPPPRRIHLPPPHRQPRPTPTYQQPPSPPTFSPPP  
 PRQIHSPPPPHWQPRPTPTYQQPPSPPTFSAPP RQIHSPPPHRQPRPTPTYQQPPS  
 PPTVSPSPSPPYGLLSTP

&gt;P81418

MAKVSSAYLK FALVMILL SVISAVMSAGCIKNGGRCNASAGPPYCCSSYCFQIAGQSYG  
 VCKNR

&gt;P05119

MAVHKEVN FVAYLLIVLGMFLYVDAKACTRECGNLFGICPRSEGSPLNPICINCCSGYK  
 GCNYYNSFGKFICEGESDPKRPNACTFNCDPNIAYSRCPRSQGKSLIYPTGCTTCCTGYK  
 GCYYFGKDGFVCEGESDEPKANMYPVM

&gt;Q9T0N8

MAVYYYLLLAGLIACSHALAAGTPALGDRGRWPASLAALALDGKLRTDSNATAAASTD  
 FGNITSALPAAVLYPSSTGDLVALLSAANSTPGWPYTIAFRGRGHSLMGQAFAPGGVVN  
 MASLGDAAAPPRINVSDAGRVDAGGEQWIDVRLASLARGVAPRSWNDLYLTVGGLTLS  
 NAGISGQA FRHGPQISNVLEMDVITGHGEMVTC SKQLNADLFDAVLGGLGQFGVITRARI  
 AVEPAPARARWVRFVYTDFAAFSADQERLTAPRPGGGASFGPM SYVEGSVFVNQLATD  
 LANTGFFTDADVARIVALAGERNATTVSYIEATLNYDNATAAAAADVQELASVLGTL SYV  
 EGFAFQRDVAYAAF LDRVHGE EVALNKLGLWRVPHPWLNMFVPRSR IADFDRGVFKGILQ  
 GTDIVGPLIVYPLNKSMWDDGMSAATPSEDVYAVSLLFSSVAPNDLARLQEQNRRILRF  
 CDLAGIQYKTYLARHTDRSDWVRHFGAAKWNRFVEMKNKYDPKRLSPGQDIFN

&gt;P81726

NDVDVVM DASSKPIFPGEYYIMPAIWGPGGGVRLAKTRNSDCPVTVLQDYGEVIFGQP  
 VKFTLPGRGSGLIITNTPVEEFIKKPECASSSKWSVFD DEIEKACVGIGGHEDHPGEQV  
 FSGFTTIQKSRTPYNSYKLVFCESDSSTCSDIGRYDNNEGGRRLILTHHNPQVVFMDAS  
 TFDGTIRSDG

&gt;Q05091

MELKFSTFLSLLFSSVLPALSDLCNPDDKKVLLQIKKAFGDPYVLA SWKSDTDCCDW  
 YCVTCDS TTMRINSLTIFAGQVSGQIPALVGDL PYLETLEFH KQPNLTGPIQPAIAKLKG  
 LKSLRLS WTNLSGSVPDFLSQLKNLTF LLSFNNLTGAIPSSLS ELPNL GALRL DRNKL  
 GHIPISFGQFIGNVPDLYL SHNQLSGNIP TSFAQM DFTSIDLSRNKLEG DASVIFGLNKT  
 TQIVDLSRNLLFE NLSKVEFPTSLSTDINHNKIYGSIPVEFTQLN FQFLNVSYNRLCGQ

IPVGGKLQSFDEYSYFHNRCCLCGAPLPSCK

>O82015

EDVPQPPVSQFYIQQQVYCDTCRARFITELSEFIPGAGVRLQCKDGENGKVTFTEVGYTK  
AEGLYNMLIERDHKNEFCEITLISSSRKDCDEIPTEGVVKPSLKFLNTVNGTTRTINPL  
GFLKKEVLPKCPQVFNKLGMYPPNM

>Q8GW72

MNSQITLFFFFFSILSLSQISNSSSLKPHPCPILPLPSSQQLQWQLGSMAMFLHFGPNT  
FTDSEWGTGKANPSIFNPPTHLNASQWVQIAKDSGFSRVILTAHHDGFCWPSEYTDYSV  
KSSQWRNGAGDVAVGLASAACEAGIGLGLYLSPWDRHEQCYGKTLEYNEFYLSQMTELLT  
KYGEIKEVWLDGAKGDGEKDMYEFFDTWFSLIHQQLQPKAVIFSDAGPDVRWIGDEAGLAG  
STCWSLFNRTNAKIGDTEPSYSQEGDGYGQDWVPAECDVSIRPGFWWHASESPKPAVQLL  
DIYNSVGRNCLFLLNVPPNSSLISEQDIKVLEEFSEMKNISFSNNLARKAFVNSSSIR  
GDQSSQFGPKNVLEEGLDKYWAPEENQNEWVLYLEFKDLVSVNLEIREPIHMGQRIASF  
HLETRKTGSGEWERVSGTTVGNKRLRFLNVVESRSLKLVVDKARTDPLISYLGLYMDK  
FSGSSRNNTKITITRTLKEEQQLHDL

>Q38716

MATVQKSQHSHFFLLVGCIVHLSNFCSTTTAQFDYFKLVLQWPNSYCSLKTTHCPRTRLPSQFTIHGLWPDNKSWPLSNCRDTSADVLKITDKGLIQDЛАVHWPDЛTRRQRKVPGQKFVWTQWKKHGACALPMYSFNDYFVKALELKRNНVLDMLSRKSЛTPGDQRDVSDVNGAITKV  
TGGIAILKCPEGYLTEVIICFDPSGFVIDCPGPFPCKDDPLEFQVLSRRKFQDL

>Q7M1E7

MGMKFMAAVAFLALQLIVMAAAEDQSAQIMLDSDIEQYLRSNRSLLKLVHSRHDATVFN  
VEQYGAvgDGKHDSTEAFAATTWNAACKKASAVLLVPANKFFVNNLVFRGPCQPHLSFKV  
DGTIVAQPDPARWKNSKIWLQFAQLTDFNLMTGVIDGQGQQWWAGQCKVVNGRTVCNDR  
NRPTAIKIDYSKSVTVKELTLMSPEFHVFGECEGVKIQGLKIKAPRDSPNTDGDIDIFA  
SKRFHIEKCVIGTGDСIAITGSSNITIKDLICGPGHGISIGSLGRDNSRAEVSHVHN  
RAKFIDTQNGLRIKTWQGGSGLASYITYENVEMINSENПILINQFYCTSASACQNQRS  
QIQGVTYKNIHTSATAAAIQLMCSDSVPECTGIQLSNVSLKLTSGKPASCVDKNARGFYS  
GRLIPTCKNLRPGPSKEFELQQPTTVMDENKGACAKGDSTCISLSSSPNCKNCKGC  
QPCPKLIIVHPNKPQDYYPPQKWCNSCHNKIYNP

>Q9FXE5

MNPILSSLFALSLLSSLSPSTHAHQCHFPAIFNFDSNSDTGLSAAFQAGPPHGSSFF  
GSPAGRYCDGRLVIDFIAESLGLPYLSAFLDSVGSNFSHGANFATAGSPIRALNSTLRQS  
GFSFPSLDVQFQFYNFHNRSQTVRSRGGVYKTMLPESDFSКАLYTFDIGQNDLTAGYF  
ANKTVEQVETEVPEIIISQFMNAIKNIYGQGGRYFWIHNTGPIGCLAYVIERFPNKASDFD  
SHGCVSPLNHLAQQFNHALKQAVIELRSSLSEAATYDVYSLKHELFVHAQGHGFKGSL  
VSCCGHGGKYNKIGCGMKKIVKGKEVYIGKPCDEPDKAVVWDGVHFTQAANKFIFDK  
IAPGLSKACKRQ

>P43175

MNNEKNVSFEFIGSTNEVDEIKVMACYAAGSICGEKRGYCSDPGRYCPWQVVCYESRK  
CAKNAAKMRMNVTKNTI

>P81131

MMRKALLALCVATAFAVAQAQNVAYPEPFYCQCИKSPSPYSLEPVVKSНRTGQYCFTRV  
TKPSPSATGYCATKADIКKIEINVNQCDVFGNVNATLNGVPTKVGPAFDTPPDGPNTS  
RILRFTQLNLGLDSDGAMLСITLGQNDKGKГCTTLEDLCAPPAGAPKGTCSLALFDSPD  
CCPISRVSPAPPAPPAPPPEPVAVPITPPCKTCVYATITALPPLLFPQLTPSICQSV  
ADKIAГDLEMIVTSYSIGSGATITCSGNVIKVCASFSLPPGAPYTGLQADISNALTFWL  
SLLAPSTGCPAYFANHQVTVTGGDGPNSVTLEGATATTCKPGNPDFPKCECEТKPAА  
TRFAALPTLTQEPRPSNRTNSTLYCFTLQVVAPlNPNGLCGNTTLLKAELWGNDIPTQ  
RRKILALAFKAAGASSPLRYLSPSWGSAGEQTLKVSGLNWDASQADGAKICMELSNDTNL  
KTFCNTGQDTCWINLFSPDKQCCPLFAASLTP

>O80327

MKFEALIGLVLVFLSEHAGVYSAKFTFTNКCPNTWPGTLTGGGGPOLLSTGFELASGAS  
TSLTВQAPWSGRFWGRSHCSIDSSGFKCSTGDCGSGQISCNAGASPPASLVELTLATN  
GGQDFYDVSILVDFNLPИKLAРGGSGDCNSTSCAANINTVCPAELSDKGSDGSVIGCKS  
ACLALNQPQYCCGTGAYGTPDTCPTDFSKVFKNQCPQAYSYAYDDKSSTFTCFGPNYEI  
TFCP

>P42820

MTLLLKNTLYLALIISVISSFPTSLFAQNCGCAPNLCCSNFGFCGTGTPYCGVGNCQSGP  
 CEGGTPTTPTTPTPGTGGGGSSVSDIVSQAFFDGIIGQAAASC PGKNFYTRAAFLS  
 AVDPKFGNEGSDDNKREIAAFFAHISHETTNLCHIEERDGVDGDAYCDQDKAAQYPCAA  
 GKKYYGRGPLQLSWNYYALAGQAIFDGLGNPEKVATDVNTSFKAAMWFWMTNVHSVMN  
 QGFATTKAINGALECNGQNQDQANDRIQFYKKYCADFGVAPGDNLTC  
 >O24006  
 MVQKGVVFVLLILFICSTLTSADSKPNPTKEEPAKKDEVSVKSGGPEVSEDQYRHRC  
 CAWGPGRKYCKRWCANAEAAAYPEASEELAQEEAPVYSEDQWGRCCGWPGRYCVRWCQNAEEAAA  
 PEASEKAQECPVYSEDQWGRCCGWPGRYCVRWCNSNADEVATPEDVEPGQYGRCCN  
 WGPGRYCKRWCHNAEEATLKAEEAAREQPVYSEDQWGRCCGWPGRYCRRCQS  
 AEEAAAFQAGEVTASLMLIMFKACPCMGPVPSV  
 >P24396  
 MSTLFFTSLLLLAPLLVISSIQDPELVVQDVHRSINASLTRRNLYLSCSGNPIDRLL  
 AMQPQLGKKSPAFSYCAIGFGKNAIGGKNGRIYVVTDSGNDDPVNPKGTLRAVIQDEP  
 LWIIFKRDVMVQLKQELVMNSYKTIDGRGASVHISGGPCITIHHTSNIIHGINIHDKQ  
 SGNGNIRDSPNHSGWWDVSDGDGISIFGGKNIWVDHCSLSNCHDGLIDAIHGSTATITSN  
 NYFTTHDKVMLLGHSDSFTQDKGMQVTVAFNHFGEGLVQRMPRCRHGYFHVNNNDYTHWE  
 MYAIGGSAAPTINSQGNRFLAPNEKRYKEVTKHEDAPESQWRSWNRSEGDLMLNGAYFR  
 QTGAGASSSTYARASSLSARPSSLVGSITTNAVPVNCKK  
 >Q9ZT66  
 MPSSAQVLLCLAAVLAAAATTAEAHSQCLDNPPDRSIHGRQLAEAGEVVHDLPGGLRAY  
 VSGAASSSRAVVLASDVFVYEAPLLRQIVDKVAKAGYFVVVPDFLKGDYLDKKNFTEWL  
 EAHSPVKAEDAKPLFAALKKEGKS VAVGGYCWGKKLSVEVGKTSVDVKAVCLSHPYSVTA  
 DDMKEVKWPIEILGAQNDTTTPPKEVYRFVHLRERHEVPFRQDRDGPRLGQLVQQA  
 PQLNEACTAPTRLNSINHSSAVIFCFDSWLPR LIFMATTSTTVISLIFFVSMYFFSFLF  
 >P01543  
 MGSKGLKGVMVCLLILGLVLEQVQVEGKSCKSTLGRNCYNLCRARGAQKLCANVCRCKL  
 TSGLSCP KDFPKLVLESNSDEPDTMEYCNLGRSSLCDYIVNAAADDEEMKLYVEQCGDA  
 CVNFCNADAGLTSDA  
 >Q9M1G9  
 MGPSAHLISALGVIIMATMVAAYEPETYASPPPLYSSPLPEVEYKTPPLPYVDSSPPPTY  
 TPAPEVEYKSPPPPVYSSPPPTYSPSPKVDYKSPPPPYVYSSPPPYSPSPKVDYKSP  
 PPPPYVNSPPPYSPSPKVDYKSPPPPYVYSSPPPYSPSPKVEYKSPPPPYVYSSPPPYSP  
 PPPYSPSPKVDYKSPPPPYVYSSPPPYSPSPKVEYKSPPPPYVYSSPPPYSPSPK  
 VDYKSPPPPYVYSSPPPYSPSPKVDYKSPPPPYVYSSPPPYSPSPKVDYKSPPPPY  
 VYSSPPPYSPSPKVDYKSPPPPYVYSSPPPYSPSPKVEYKSPPPPYVYSSPPPYSPSPK  
 SPSPKVDYKSPPPPYVYSSPPPYSPSPKVEYKSPPPPYVYSSPPPYSPSPKVYYKS  
 PPPPYVYSSPPPYSPSPKVYYKSPPPYVYSSPPPYSPSPKVYYKSPPPYVYSSPPPYSP  
 PPPYSPSPKVYYKSPPPYVYSSPPPYSPSPKVHYKSPPPYVYNSPPPYSPSPKVYYKS  
 VYSSPPPYSPSPKVYYKSPPPYVYSSPPPYSPSPKVYYKSPPPYVYSSPPPYSPSPK  
 VHYKSPPPYVYSSPPPYSPSPKVHYKSPPPYVYNSPPPYSPSPKVYYKSPPPYVYSSPP  
 PSPHPVCVCPCCCCYSPSPKVVYKSPPPYVYNSPPPYSPSPKVYYKSPPPSYYS  
 PSPKVEYKSPPPSYSPSPKTEY  
 >P34950  
 MASVAESSGVVEVIELISDGNDLPRKIMSGRHGGICPRILMPCKTDDDCMLDCRCLSNG  
 YCG  
 >Q39688  
 MARFFPLTLTILLFFIQRIDFCHTLVPANETFKFVNEGELGQYIISEYFGDYRPLDPFTSP  
 FQLCFYNQTPAFTLALRMGLRTESLMRWVWEANRGNPVDENATLTFGPDGNLVLARSN  
 GQVAWQTSTANKGVVGLKILPNGNMVLYDSKGKFLWQSFDTPTDPLLGVQSLKMGAVTKL  
 VSRASPGENVNGPYSLVMEPKGLHLYKPTTSPKPIRYYFSLFTKLKNKNESLQNTFEF  
 ENENDQGFAFLSLKYGTSNSLGGASILNRIKYNTTLSFLRLIEDGNVKIYTNDKVDYG  
 AWEVTYTLFLKAPPFLFQVSLAATESESSECQLPKKCGNFGLCEESQCVGCPTSSGPVLA  
 WSKTCEPPKLSSCGPKDFHYNKLGGWITT  
 >P52399  
 MALCIKNGFLAAALVLVGLLMCSIQMIGAQSIGVCYGIKIANLPSEQDVINLYKANGIRK  
 MRIYYPDKNIFKALKGSNIEIILDVPNQDLEALANSSIANGWVQDNIRSHFPYVKFKYIS

IGNEVSPINNGQYSQFLLHAMENVYNALAASGLQDKIKVTTATYSGLLANTYPPKASIFR  
 GEFNSFINPIIQFLAQNNLPLLAVPYFVIISNTADVPLSYALFTQRGKNSAGYQNLFD  
 AILDSSMYFAVEKAGGPNVIIIVSESGWPSEGNSAATIENAQTYYRNLIIDHVKGAGTPKK  
 PGKSIETYLFAMFDENVKKGEITEKHGLFSPDQRAKYQLNFNSLMPYIDISRVI  
 (6) 59 mitochondrion proteins

>Q38799

MLGILRQRAIDGASTLRRTRFALVSARSYAAGAKEMTVRDALNSAIDEEMSADPKVFVMG  
 EEVGQYQGAYKITKGLLEKYGPERVYDTPITEAGFTGIGVGAAYAGLKPVVFMTFNFSM  
 QAIDHIINSAAKSNYMSAGQINVPIVFRGPNGAAAGVGAQHSQCYAAWYASVPGLKVLAP  
 YSAEDARGLLKAAIRDPPVVFLENELLYGESFPISEEALDSSFCLPIGKAKIEREGKD  
 TIVTFSKMVGFAKAAEKLAEEGISAEVINLRSIRPLDRATINASVRKTSRLVTVEEGFP  
 QHGVCAEICASVVEESFSYLDAPVERIAGADVPMFYAANLERLALPQIEDIVRASKRACY  
 RSK

>P25076

MSLGKKIRIGFDGFGRINRFITRGAAQRNDSKLSRNDALKHGLDGLGSAGSKSFRALAA  
 IGAGVSGLLSFATIAYSDEAEHGCPNPWPHEGILSSYDHASIRRGHQVYQQVCASCH  
 SMSLISYRDLGVVAYTEEETKAMAAIEEVVDGPNEGEFMTRPGKLSDRFPQPYANEAAA  
 RFANGGAYPPDLSLITKARHNGQNYVFAALLTAYRDPPAGVSIREGLHYNPYFPGGAIAMP  
 KMLNDGAVEYEDGIPATEAQMGKDVVSFLSWAAEPEMEERKLMGFKWIFVLSALLQAAY  
 YRRLRWSVLSRKLVLDVNV

>Q9SJ12

MAYASRFLSRSKQLQGGLVILQQQHAIPVRAFAKEAARPTFKGDEMKGFFDIKNKFQA  
 AVDILRKEKITLDPEDPAAVKQYANVMKTIRQKADMFSESQRICKHDIDTETQDIPDARAY  
 LLKLQEIRTRRGLTDELGAEAMMFEALEKVEKDIKKPLLRSDDKGMDLLVAEFEKGNNKL  
 GIRKEDLPKYEENLELSMAKAQLDELKSDAVEAMESQKKKEFQDEEMPDVKSLSDIRNFI

>Q9SMN1

MATSLARIKSRSITSAVSSNLIRRFAAAEAVAVATTETPKPKSQVTSPDRVKWDYRGQR  
 QIIPLGQWLKVAVDAYVAPNVVLAGQVTWDGSSVWNGAVLRGDLNKITVGFCNVQER  
 CVVHAAWSSPTGLPAQTLIDRYVTVGAYSSLRSCTIEPECIIGQHSILMEGSLVETRSIL  
 EAGSVLPPGRRIPSGELWGGNPARFIRTLTNEETLEIPKLVAINHLSGYFSEFLPYST  
 IYLEVEKFKSLGIAI

>P31023

MAMANLARRKGYSLLSSETLRYSFSLRSRAFASGSDENVVIIIGGGPGGYVAAIKAAQLG  
 FKTCIEKRGALGGTCLNVGCIPSKALLHSSHMYHEAKHSFANHGVKVNVEIDLAAAMMG  
 QKDKAVSNLTRGLIEGLFKKNKVTYVKGYGKFVSPSEISVDTIEGENTVVKGKHIITAGS  
 DVKSLPGVTIDEKKIVSSTGALALSEIPKKLVVIGAGYIGLEMGSVWGRIGSEVTVVEFA  
 SEIVPTMDAEIRKQFQRSLEKQGMFKLTKVVGVDTSGDGVKLTVEPSAGGEQTIIIEAD  
 VVLVSAGRTPFTSGLNLDKIGVETDKLGRILVNERFSTNVSGVYAIQDVIIPGPMLAHKAE  
 EDGVACVEYLAGKVGHDYDKVPGVYTNPEVASVGKTEEQVKETGVEYRVGKPFMANS  
 RAKAIDNAEGLVKIIAEKETDKILGVHIMAPNAGELIHEAAIALQYDASSEDIARVCHAH  
 PTMSEAIKEAAMATYDKPIH

>Q39818

MASSLIAKRFLSSLLRSRSLPAASASHRSFDTNAMRQYDNRADDHSTDIDRHSERSFP  
 STARRDDIFLRCVGSIFSDSEFEPGSEHDGPGHGQSVPRLVARDRSWRWSGRWDARETE  
 DALHLRVDMPLAKEDVKISVEQNTLIIKGEGAKEGDEEESARRYTSRIDLPDKLYKIDQ  
 IRAEMKNGVLKVVVKMKEERKDVISVKVE

>Q96252

MFKQASRLLRSRVAASSKSVTTRAFSTELPSTLDSTFVEAWKKVAPNMDPPQTPSAFMK  
 PRPSTPSSIPTKLTNVFVLPYTSELTGKEVDMVIIIPASTGQMVGVLPGHVPTIAELKPGIM  
 SVHEGTDVKKYFLSSGFAFLHANSVADIIAVEAVPLDHIDPSQVQKGLAEFQQKLASATT  
 DLEKAEAQIGVEVHSAINAA

>P52902

MALSRLSSSSSSNNSNLNPFSAAFTLNRPISSDTTATLTIETSLPFTAHNCDPPSRV  
 TTSPSELLSFFRTMALMRRMIEAADSPLYKANLIRGFCHLYDGQEAVAVGMEAGTTKKDCI  
 ITAYRDHCTFLGRGGTLLRVYAELEMGRDGC SKGKGGSMHFYKKDGFYGGHIVGAQVP  
 LGGLA FGQKYLKDESFTFALYGDGAANQQLFEALNISALWDLPA ILVCENNHYGMGT  
 TWRSAKSPAYFKRGDYVPGLKVDGMDALAVKQACKFAKEHALKNGPIILEMDTYRYHGHS  
 MSDPGSTYRTRDEISGVRQERDPIERVKLLLSDIATEKELKDTEKEVRKEVDEAIAKA

KDSPMPDPSDLFSNVYVKGYGVEAFGVDRKEVRVTL

>Q38946

MNALAATNRNFRHASRILGLDSKIERSLMIPFREIKVECTIPKDDGTLVSYIGFRVQHDN ARGPMKGGIRYHPEVDPDEVNALAQLMTWKTAVADI PYGGAKGGIGCSPRDLSSLSELERL TRVFTQKIHDLLIGIHTDVPAPDMGTNAQTMAWILDEYSKFHGHPAVVTGKPIDLGGSLG REAATGRGVVFATEALLAEYGKSIQGLTFVIQGFGNVTWAALKIHEKGGKVAVSDITG AIRNPEGIDINALIKHDATGSLNDFNGGDAMNSDELLIHECDVLIPCALGGVLNKENAG DVKAKFIVEAANHPTDPADEILSKKGVIILPDIYANAGGVTVSYFEWVNQNIQGFMWEEE KVNLELQKYMTRAFHNICKMCHTHSCNLRMGAFTLGVRVARATQLRGWEA

>Q9LQ17

MSRFRSLLQASVNATKKALTWNVEEWVPPAEKHIFKFHSKEDLKKWHLYSDSEYGGVFSG NLSVDSLSEGSKWNISRSGFCGMRSKFDGFIDLDGYDAIALRIRGDGRCYISTIYTENWV NSPGQSEDNSWQAFVFAPKDSWYTAKIPLARYLPTWRGNVIDVEMEMNPGRVLGMSLSVN AEGGAVGAKSGAGDFRVEIDWIKALRLP

>Q8S944

MTIEEVSGETPPSTPPSSSTPSRSSTTNAAPLGSSVIPIVNKLQDIFAQLGSQSTIALP QVVVVGQSSEKSVLEALVGRDFLPRGNDICTRRPLVLQLLQTKSRANGGSDEWGEFR HLPETRFYDFSEIRREIEAETNRLVGENKGVADTQIRLKISSPNVLNITLVDLPGITKVP VGDQPSDIEARIRTMILSYIKQDTCLILAVTPANTDLANSDALQIASIVDPDGHTIGVI TKLDIMDKGTDARKLLLGNVVPRLGYVGVVNCQEDILLNRTVKEALLAEKFFRSHPV YHGLADRLGPQLAKKLNQILVQHIKVLLPDLSRISNALVATAKEHQSYGELTESRAGQ GALLLNFLSKYCEAYSSLLEGKSEEMSTSELGGARIHYIFQSIIFVKSLEEVDPCELDTD DDIRTAIQNATGPRSALFVPDVPFEVLVRQRISRLLDPLSQLCARFIFEELIKISHRCMMN ELQRFPVLRKRMDEVIGDFLREGLEPSEAMIGDIIDMEMDYINTSHPNFIGGTKAVEAAM HQVKSSRIPHVPARPKDTEPDRTSSSTSQVKSRSFLGRQANGIVTDQGVVSADAQAQP AANASDTRWGIPSIFRGGDTRAVTKDSSLNKPFSEAVEDMSHNLNSMIYLKEPPAVLRPT THSEQEAVEIQITKLLRSYYDIVRKNIEDSVPKAIMHFLVNHTKRELHNVFIKKLYREN LFEEMLQEPDEIAVKRKRTQETLHVLOQQAYRTLDELPLEADSVSAGMSKHQELLTSSKYS TSSSYSASPSTRRSRRAGDQHQNGYGF

>P93303

MPQLDKFTYFSQFFWLCLFFFYIFYIFICNDGDGVLGISRILKLRNQLLSHRGKTIRSKDP NSLEDLLRKGFSTGVSYMAYASLFEVSQWCKAVDLLGKRRKITLISCFGEISGSRGMERNI LYNISKSSPSNTGRWITCRNCRNDIMLIHVVGQGSIK

>P93304

MAVRCSKIQRTDGRPGHSLQPAKVSFVAGQPLGYSSWPLFALSHHMVVWYAAEHVYPSS FFFQSKLPPSEVFAYPGMEVFNEYTLYHAWVDEALSGVSKMELYAKA

>P26854

MNKLAGAELSTLLEQRITNYYTKLQVDEIGRVVSVGDGIARVYGLNKIQAGEMVEFASGV KGMLNLENENVGIVIFGSDTAIKEGDIVKRTGSIVDVPVGKMLGRVVDALGVPIDGKG ALSAVERRRVEVKAPGIARKSVHEPMQTGLKAVDSLPIGRGQRELIIGDRQTGKTAIA IDTILNQKQINAQGTSDEKLYCVYVAIGQKRSTVAQLVKILSEAGALEYSIIVAATASD PAPLQFLAPYSGCAMGEYFRDNGMHALIYYDDLSKQSVAYRQMSLLRRPPGREAFPGDV FYLHSRLLERAAKMSDQTGAGSLTALPVIETQAGDVSAYIPTNVISITDGQIFLELFY RGSRPAINVGLSVSRVGSAALQKAMQVCGLKLELAQYREVAFAQFGSDLDAATQYLL NRGARLTEILKQAQYSPIPIEKQIVVIYAAVKGYLDQIPVALITHYEQELLKSIDPGLLS AIVQQKNITEQISSQLATFCQKFTQSFLATHQS

>P46741

MNSTKIKEIEFQNIVDPKINNLHLKNTTDISSLNYYKAGTHIGHKSIHLSETHSWHPSMA QYHLGIRDNITICNVQQTQKCLSRAFYVLTQILDNGGNVLIVNTNPEFYKLSINSMKFIE KNLPFQTFSAISYCFYKWIGGTLTNQKISKSICYVKFTQRCGKFCEKNNIDFTRYQKI KKCFQGYGSVSGDSIVMSLQKKPDVIFIFNPGDNKNLILEANRLQIPVIGCTDMSSNTNG ISYPIPCNNTSVEFTLYLYKKLYKVLHYISTKKK

>Q42686

MSLQSSIRADSNTLPNNPVCVLLPVDFIVAAMASSTSSAMAKWAAQAARGFAAAPSSG KGRKVAVLGAAGGIGQPLSMLMKMNSQVSSLSDYIAGTPGVAADVSHINTKAQVKGFDK DGLAEALRGCDLVIIIPAGVPRKPGMTRDDLFKINAGIVRDLVTAVGQHCPGAVLNIISNP VNSTVPIAAEQLKKMGVYDKRKVMGVTTLDVVRAKTFYAEKNGLDVASVDVPVVGHHAGV TILPLFSQATPKATMSAEVLDALTKRTQDGGTEVVQAKAGKGSATLSMAYAAALFADSCL

RGLNGAPVVECTYVESTVTDAPYFASKVKLSTEGVDKIHDLGPLSDYEKAGLKAMMPELL  
ASIEKGVQFVKGA

>P46743

MKISLKCLNTHTAEIYRKCLLLSDSTVNVSVDFTNQSCLNLLKQEKKIESFNKNSSLN  
ISNFRDLERQECDIQKKTCKVYKSYSRSTKSIYSRTKIINERNKLHTLNQQIIIFSTLA  
RIHLKKKINLLFPVQEFLFELSKHRNKSAGSKSREYLEILLCVKKLKMFYGFIPLKQLHK  
ILVQAKAMPGYFSKNFSLIEKRLDVLYRSGFTKTIVARQACRHSQIVVNSKVCRIPS  
TILESGDIISYKNQLDSLKTAEIKNNLFNINTNVSGNEVSNNVSNKVSNKISSTLALNK  
QSLLLLFCAKSIYNESFFVSNKRKFKSNEVTFDNKEITSAIDYTKLQIKNSRKKYKL  
ITLNNNLDLSFNIFDKEILNSLSSKQNLPVNQKQNIIVEIENKTNKFNTFSLLFQNLTSF  
SKSIESYSSVLALKLQDHLLNIKGKRNEVSKNINKIERSQKDNVFINILQKINRPTHLEI  
SSITNSIIFLYSPQRIYLPFYVDIDILRKSL

>Q04613

MRLSITNMDGRKMLFAAILSICALSSKKILIFYNEEMIVALCFIGFIIFSRKSLGTTFKVT  
LDGSLQAIQEELQQFPNPNEVVILLESNEQRLLRISLRICGTVVESLPMARCAPCEKTV  
QALLCRNLNVKLATLTNAISSRRIRFQDDLVTKFYTLVGKQFAYSCISKAERVEFIRESL  
VVLRMVRGGVFS

>P83291

MATSFFRRLARSAPITFPVAFGSQSKSGSGAFRFSTGAI AALSGGFSYYLTSGNNLVYL  
DQAKEETGPKTALNPDKWLEFKLQDTARVSHNTQLFRFSFDPSAELGLHVASCLLTRAPL  
GYNAEGKTKYVIRPYTPISDPEAKGYFDLLIKVYPDGKMSQHFASLKPGDVLEVKGVPVEK  
FKYSPNMKKHIGMIAGGSGITPMLQVIDAIVKNPEDNTQISSLANVSPDDILLKQKLDV  
LQANHPNLKIFYTVDNPTKNWKGVGVIISKDMALKGPLPTDDTLILVCGPPGMMEHISG  
GKAPDWSQGEVKGILKELGYTEEMVFKF

>P46746

MLVKKSQISRKFIEKKSGIVHIQSTTNNTLITLTLEGNTQFFVSAGTLGFKNRKSTVY  
ASGAAAEEALASKAFNEGYYRTIIVKIKGLGYGKSAIRGLQKSNLVVIQIQTPIAHNGC  
RPPKKRRV

>P46749

MAIYKTKNTLKKMNLDYSFRNSTLVSNSEMFSLLYADTTLQKYYKNIVCQDLCLKQDYK  
NIMECVSLNKIVCNTSSKHYAGEKESESILPAFTALEMITGQKPKYTCAKKSISTFKLRQNQ  
ILGCKNSLRGNTMYRFLKEYIISIVSTRIKDWESENSSNKSNSLTTAYNKDYVVLNSNLF  
PELQQHDELFQNVTGIEISFSTLSNNVKTSTKTSRYKKGILLYSAFQMPK

>P26969

MERARRLANRATLKRLLEAKQNRKTESTSTTTPLPFSLSGSSSRYVSSVSNSILRGR  
GSKPDNNVSRRVGGFLGVGYPQSRSISVEALKPSDTFPRRHNSATPDEQTKMAESVGFD  
TLDSDLVDATVPKSIRLKEMKFNKFDGGLTEGQMIEHMKDLASKNKVFKSFIGMGYYNTHV  
PPVILRNIMENPAWYTQYTPYQAEISQGRLESLLNFQMTIDLTGLPMSNASLLDEGTA  
AEAMSMCNNI QKGKKTFIIASNCHPQTIDICQTRADGFELKVVVKDLKIDYKSGDVCG  
VLVQYPGTEGEVLDYGEFIKKAHANEVKVMASDLLALTVLKPPGEFGADIVVGSQAQRFG  
VPMGYGGPHAAFLATSQEYKRMMMPGRIIGVSVDDSGKQALRMAMQTREQHIRRDKATSNI  
CTAQALLANMAAMYAVYHGPEGLKAIAQRVHGLAGVFA LGKLGLEVQDLGFFDTVKVK  
TSNAKAIADAIAKSEINLRVVDGNTITAADFDETTLLEDVDKLFKV FAGGKPVSFTAASLA  
PEFQNAIPSGLVRRESPYLTHPIFNTYQTEHELLRYIHRLQSKDLSLCHSMIPLGSTMKL  
NATTEMMPVTWPSFTDLHPFAPTEQAQGYQEMFNNLGDLLCTITGFDSFLQPNAGAAGE  
YAGLMVIRAYHLSRGDHHRNVCII PASAHTNPASAAMVGMKIVTIGTDAKGNINIEELK  
KAAEKHKDNLSAFMVTPSTHGVYEEGIDDICKIIHDNGQVYMDGANMNAQVGLTSPGW  
IGADVCHLNHLKTF CIPHGGGGPGMGPIVGVKKHLAPFLPSHPVVPTGGI PAPENPQPLGS  
ISAAPWGSALILPISYTYIAMMGSQGLTDASKIAILNANMAKRLESYYPVLFRGVNGTV  
AHEFIIDLRGFKNTAGIEPEDVAKRLMDYGFHGPTMSWPVAGTLIEPTESKAEELDRF  
CDALISIRKEIAEVEKGNA DVHNVLKGAPHPPSLLMADAWTKPYSREYAAFPAawlRGA  
KFWPTTGRVDNVYGDRLNVCTLLPASQAVEEQAAATA

>Q9LEV3

MQGVIRSFVSGGNVVKGSVLQHLRVINPAIQPSVFCRSESTQPARMEEESGFESTTISDV  
MKSKGKSADGSWLWCTDDTVDAVKSMTQHNVGALVVVKPGEQQALAGIITERDYLRK  
IVQGRSSKSTKVGDIMTEENKLITVTPETKVL RAMQLMTDNRIRHIPVIKDKGMIGMVS  
GDVVRADVHEHREELQRLNAYIQGGY

>P51428

MTTKIRIVIRSFDFPFLNHFGGLPPYTWKIGLPESRVLYTVLRSRPHIDKKSRQFEMEI  
 KKKYLVIKTEKHELRKKFFWLKRQRLFGAQYEILFFCKTRSDKGKLQRLL  
 >O24495  
 MPVISKASSTTNSSIPSCSRIGGQLCVWPGLRQLCLRKSLLYGVMWLLSMPLKTLRGAR  
 KTLKITHFCISNMPSSLKIELVPCSKDNAYAYLLHDEDTGTGVVDPSEAAPVIEALSRK  
 NWNLTYILNTHHDDHIGGNAELKERYGAKVIGSAVDKDRIPGIDILLKDSKWMFAGHE  
 VRILDTPGHTQGHISFYFPGSATIFTGDLIYSLSCGTLSEGTPEQMLSSLQKIVSLPDDT  
 NIYCGRENTAGNLKFALSVEPKNETLQSYATRAHLRSQGLPSIPTTVKVEKACNPFLRI  
 SSKDIRKSL SIPDSATEAEALRIQRARDRF  
 >P49727  
 MLRVAGRRLSSLSWRPAAVARGPLAGAGVPDRDDDSARGRSQPRFSIDSPFFVASRGF  
 SSTETVVPRNQDAGLADLPATVAAVKNPNPKVYDEYNHERYPPGDPSKRAFAYFVLSGG  
 RFIYASLLRLVLKFVLSMSASKDVLALASLEVDSLSSIEPGTTVTWKWRGKPVIFRRTE  
 DDIKLANSVDVASLRHPEDAERVKNPEWLVVIGVCTHLCIPLPNAGDFGGWFCPCHGS  
 HYDISGRIRKGPAFNLEVPTYSFLEENKLVG  
 >Q05492  
 MFPLNFHYEDVLRQDLLLKLNLANVMEVPGLECEIRIVPKTSSTYDFIIKNGKLAMEILRG  
 QKFQTERGSTGKSFRSNPFLESNKDKGYVSDLARQSIILRGHGMNSNFLVRILTVMSSLDS  
 RVEIRENSIQFSMETEFCFSPELEDHFEIFEHIRRFNVTIVTSANTQDETLLLWSGFLQ  
 KDEGESFKWKTP  
 >P19173  
 AGGHVAHLVYKGPSVVKELVIGFSLGLVAGGFWMHHWNSQRTKEFYDMLEKGQISVVA  
 DEE  
 >Q9LKA5  
 MATHTISRSILCRPAKSLSFLFTRSFASSAPLAKS PASSLLSRSRPLVAAFSSVFRGGLV  
 SVKGLSTQATSSSLNDPNPNWSNRPPKETILLDGCFEHWLVVVEPPQGEPTRDEIIDSY  
 IKTLaQIVGSEDEARMKIYSVSTRCYYAFGALVSEDLSHKLKELSNSRVWLPDSYLDVRN  
 KDYGGEFIDGKAVPYDPKYHEEWIRNNARANERNRRNDRPRNNDRSRNFERRRENMAGG  
 PPPQRPMGPPPPIHGGSAPPPhMGGSAPPPhMGQNYGPPPNMGGPRHPPYGA  
 PPQNNMGGPRPPQNYGGTPPNYGGAPPANMGGAPPNMGGPPNYGGPPPQYGA  
 PQNNNYQQQSGMQQPQYQNNYPPNRDGSQNPYQG  
 >Q8L3X9  
 MATSNLRRHLSASRLRLNRFISTSSSYHSRRVVVTGLGMVTPLGRGVETTWRLIDGEC  
 GIRGLTDDLKMKSFD EETKLYTFDQLSSKVAAFVPGSNPGEFDEALWLNKAVANFIG  
 YAVCAADEALRDAEWLPTEEEKERTGVSIGGGIGSICDIVEAAQOLICEKRLRRLSPFFI  
 PKILVNMASGHVSMKYGFQGPNAAVTACATGAHSIGDATRMIQFGDADVMVAGGETSSI  
 DALSVAGFSRSRALSTKFNSSPQEASRPFDCDRGFVIGEGSGVIVLEEEHAKRGAKI  
 YAELCGYGMMSGDAHHITQPPEDGKGAVALTRALRQSGLCPNQIDYVNAHATSTPIGDAV  
 EARAICKTVFSEHATSGTLAFSSTKGATGHLGAAAGAVEAIFSILAIHHGVAPMTLVKNP  
 DPIDFKRFMPLTTSKKMLVRTAMSNSFGFGGTNASLLFA  
 >P92983  
 MATRLLRTNFIRR SYRLPAFSPVGPPVTASTAVVPEILSFGQQAPEPPLHHPKPTEQSH  
 DGLLSDQARLFSSIPTSDLLRSTA VLHAAAIGPMVDLGTWVMSKLMASVTRGMVLGL  
 VKSTFYDHFCAGEDADAAAERVRSVYEATGLKGMLVYGV E HADDAVSCDDNMQQFIRTIE  
 AAKSLPTSHFSSVVKITAICPISSLKRVSDLLRWEYKSPNFKLWSWLKSFPVFSESSPL  
 YHTNSEPEPLTAEEERELEAAHGRIQEICRKCQESNVPLLIDAEDTILQPAIDYMASSA  
 IMFNADKDRPIVYNTIQAYLRDAGERLHLAVQNAEKENVPMGFKLVRGAYMSSEASLADS  
 LGCKSPVHDTIQDTHSCYNDCMFLMEKASNGSGFGVVLATHNADSGRLASRKASDLGID  
 KQNGKIEFAQLYGMSDALSFGLKragfnvskymfGPVATAIPYLLRAYENRGMMATGA  
 HDRQLMRMELKRRLIAGIA  
 >Q39218  
 MLRSSSPHINHHSFLLPSFVSSKFKHHTLSPPSPPPMAACIDTCRTGKPQISPRDS  
 SKHHDDESGFRYMNYFRYPDRSSFNGTQTTLHTRPLLEDLDRDAEVDDWAKIREEAKS  
 DIAKEPIVSAYYHASIVSQRSLEAALANTLSVKLSNLNLPNTLFDLFSGVLQGNPDIVE  
 SVKLDLLAVKERDPACISYVHCFLHFKGFLACQAHRIAHELWTQDRKILALLIQNRVSEA  
 FAVDFHPGAKIGTGILLDHATAIVIGETAVVGNNSILHNVTGGTGKQCGDRHPKIGDG  
 VLIGAGTCILGNITIGEAKIGAGSVVLKVPPRTAVGNPARLLGGKDNPKTHDKIPGL  
 TMDQTSHISEWSDYVI

&gt;P26867

MNLFGKSNFNCVFSSSLDFHSSRLSEKVGTKKNRICRETESFYALCLSHRRYLCYALEG  
 LLPSPRPRGRRASTYNCSNDLGYIIRGLNGKQKQLIKKLVHICMIDGKTRSRRAIVYKTFHR  
 LAPHGDVIKLLVNAIENVKPICEVKVRIISGTTRLVPSIIATNRQETLAIRWMLESAAKR  
 RMGKKSISLDQCLYAEILEASQKMGIAARKRDDLHKLAEANRSFSHYRWW

&gt;P18123

MTMDPTKFRPSSSHDTVTNTNAGAPVWNDNEALTGVPRGPILLEDYHLIEKVAHFARER  
 IPERVVHARGASAKGFECTHDVTSLTCAFDLRAPGVRTPVIVRFSTVIHERGSPETIRD  
 PRGFAVKFYTREGNWDLGNNFPVFFIRDGIFKFPDVIAFKPNPRSHVQEYWRVFDL  
 LPESLHTFFFLLFDDVGVPSPDVRMEGFGVNTYTFVSAAGKAQYVFKHWKPTCGVRCILTD  
 EEAALVGGRNHSHATQDLYDSIAAGSFPEWTLVYQVMDPDTEEQYDFDPLDDTKTWPEDL  
 LPLRPVGRVLDRNVDNFFNENEQLAGPGGLVVPGIYSSDDKMLQCRVFAYADTQRYRLG  
 PNYLMLPVNAPRCAHHNNHYDGAMNFMRDEEVDYYPSRHAPLRQAAPPTPLPPRVAGR  
 REKATIRKPNDFKQPGERYRSWDADRQDRFVRRFADSLGHPKVSQELRSIWIDLLAKDA  
 SLGMKIASTRLNMKANM

&gt;Q9SX77

MGTLGRAIHTVGNRIRGTAQAAQARVGSSLQGSHHIEKHLRHRTLITVAPNASIGDVQI  
 NKGSFISYASVSRDLQYPRAMGMQVRRFSEDVSHMPEMEDSDVLFNAFKDLMAADWAELP  
 SAVVKDAKTAISKNTDDKAGQEALKNVFRAAEAVEEFGGILTSIKMEIDDSIGMSGEVK  
 PLPNIDTDLRTAYQRYAELYDSFEPEEVYLKKVEMELGTMHLCRSGLGSEWGKV  
 TVLGTSGLSGSYVEQRA

&gt;Q8W487

MALAWCVVRRSASKFASVYGGRVRISAVANRASLARNPSSIRPFVSRALNYSTAIDRIS  
 SEQLIRVIDSEINSALQSDNIDSDEEMTPGSFPFRIEDKPGQNVTLTDYNGEHIKVV  
 VSMPSLVSDENDDDDDEGPSNESSIPLVVTKKGSLTLEFSCMAFPDEIAIDALSVK  
 HPGDSLEDQLANEQPDFEDLDENLKTFYKFLEIRGVKASTTNFLHEYMTKVNREYFLW  
 LKNVKEFMEQ

&gt;Q41898

MSATTAAVPFWRAAGMTYIGYSNICAALVRNCLKEPFKSEAASREKVHFSISKWTDGKQE  
 KPTVRTESDD

&gt;P26360

MAMAALRREGRLAAAPFTSPTPLNALRSSLVSPSEEIGLSGVRISISTQVVRNRMKSVKN  
 IQKITKAMKVAASKLRAIQTRAENSRGWLQPFTALLGDTPSVDVKKNVIITISSDKGLC  
 GGINSTSVKTSRNIIHKLNSGPEKENKYVILGEKAKAQLVRDSKKDIELIITELQKNPLNY  
 TQSVVADDILKNVEFDALRIVFNKFQSUVSFPVTMSTVLSPEVVERESES GGKLGDLDS  
 YEIEGAESKSEVLQNLTEFQFSSVLFNAVLENACSEQGARMSAMDSSRNAGEMLDRLTL  
 TYNRTRQASITTELIEIIISGASALEG

&gt;Q9FE64

MAMARRSASRLLSSFRFSLLLQPLDDAPSLSAAAAAASARRGMFSASALARDEKEVAR  
 WRESMDRMRNIGISAHIDSGKTTLTERVLYYTGRIHEIHEVGRGRDGVGAKMDMSMDLEREK  
 GITIQAATYCTWNGYQVNIIDTPGHVDFTIEVERRLGVLDGAILVLCVGGVQSITV  
 DRQMRRYEIPRVAFINKLDRMGADPWKVLNQARSKLRRHNAAVQVPIGLEEEFEGLVDLV  
 ELKAYFEGGSGQNVVRICVPSNMQDLVMEKRRELIEVVSEVDDQLAEEFLNDEPIQANQ  
 LKAAIRRATVARKFIPVYMGSAFKNKGVQPLLDGVLDLPCPMEVETYALDQNKEEKVL  
 LAGTPAEPLVALAFKLEEGRGQLTYLRIYDGVIRKGDFIYNVNTGKKIKVPRLVRMHSN  
 EMEDIQEAHAGQIVAVFGVDCASGDTFTDGSVKYTMTSMNPVPEVMSLAVSPISKDSGGQ  
 FSKALNRFQKEDPTFRVGLDPESGETIISGMGELHLDIYVERIRREYKVDAKVGKPRVNF  
 RETITQRAEFDYLNHKKQSGGQQYGRVCGYIEPLPSES DGKFEFDNMIIIGQAI PSNFIPA  
 IEKGFKEACNSGSLIGHPVENIRIVLTDGASHAVDSSELAFKLASIYAFRQCYAAARPVI  
 LEPMVKVELKVPTEFQGTVTGDMNKRKGIVGNDQEGDDTVVCHVPLNNMFGYSTALRS  
 MTQGKGEFSMEYLEHNTVSQDVQMQLVNTYKASRGTE

&gt;Q9CA19

MLGLRRSATLFDISQSLRNVTFHGLRVQGIRVGNAEVPNPKLKTGLQEYVGIGRRKS  
 HQVLCHLGITNKLARDLTGKELIDLREEVGQHQHGDELRRRVGSEIQRILVEVDCYRGSRH  
 RHGLPCRGQRTSTNARTKKGKAVAIAGKKK

&gt;P93033

MSIYVASRRLSGGTTVTALRYATSLRSYSTSFREEERTFGPIQVPSDKLWGAQTQRSIQLN  
 FEIGGERERMPEPIVRAFGVLKKCAAKVNMEYGLDPTIGKAIMQAAQEVAGKLNDHFPL

VVWQTGSGTQSNNANEVIANRAAEILGRKRGEKCVHPNDHVNRQSNSNTFPTVMHIAA  
 ATEINSRLIPSLKTLHSTLESKSFEFKDIVKIGRHTQDATPLTLGQEFGGYATQVKYGL  
 NRVCTLPRLYQLAQGGTAVGTGLNTKKGF DVKIAAAVAEETNLPVTAENKFEALAAHD  
 ACVETSGSLNTIATSLMKIANDIRFLGSGPRCGLGELVLPENEPEGSSIMPGKVNPQCEA  
 LTMVCAQVMGNHVAVTVVGGSNGHFELNVFKPVIASALLHSVRLIADASASFEKNCVRGIE  
 ANRERISKLLHESMLVTSLNPKIGYDNAAA VAKKAHKGCTLKEAALNLGVLTAEEDFT  
 LVVPEKMGPSD

>Q9S7E4

MAMRQAAKATIRACSSSSSGYFARRQFNASSGDSKKIVGVFYKANEYATKNPNFLGCVE  
 NALGIRDWLESQGHQYIVTDDKEGPCELEKHIPDLHVLISTPFHPAYVTAERIKKAKNL  
 KLLL TAGIGSDHIDLQAAAAGLTVAEVTSNVSVVAEDELMRILILMRNFVPGYNQVVK  
 GEWNVAGIAYRAYDLEGKTIGTVGAGRIGKLLLQRLKPGCNLLYHDRLQMAPELEKETG  
 AKFVEDLNEMLPKCDVIVINMPLTEKTRGMFNKELIGKLKKGVLIVNNARGAIMERQAVV  
 DAVESEGHIGGYSGDVWDPQPAPKDHPWRYMPNQAMTPHTSGTTIDAQLRYAAGTKDMER  
 YFKGEDFPTENYIVKDGE LAPQYR

>P48502

MASSFSRWLVDPKKNPLAAIHMKTLSSRLNYGLRHDDLYDPMYDLDVKEALNRLPREIV  
 DARNQRLLRAMDLSMKHQYLPEDLQAMQTFRNLYQEMLALVKRESAEREALGALPLYQR  
 TLP

>P48504

SDEEVVDPKATLEVSCPKCVRQLKEYQACTKRVEGDESGHKHCTGQYFDYWHCIDKCVA  
 AKLF DHLK

>P48505

TSPAAAGNGLFKFLRPKLRPQSTDIDQAAAGWGVAAVTGALWVIQPWDFLRKTFIEKQEEE  
 K

>P92812

MRQSIKGRALRHFTLSTGKSAGRNSGRITVFHRGGGSKRLQRKIDLKRSTSSIGIVERI  
 EYDPNRSSRIALVRWIEGVLPGRQRKF KTIEEFALPRKILESTTATIFCLFSFSSLSSPL  
 AQGETASLSFGSSLGF PRIAVAGAKPAFFAERMREKKIGKKT FSLCEIRKWRTHCVLWAH  
 RIKRKAALSWQSLRQQKTLELVGAAEHNESKLKADQGSLLPRQVLAYALCSGRPSYLHAS  
 RSFYKALLPVEASRGSLPAKPIGEGPKD GAYKVDRAPVTYI LASHQLEAGNMVINCDC  
 SKPSKSGFLRPAQNAHTYLRFQELGRTVNKGREGSQLAASWPRPPAYRHEILDLNSKV  
 GNSIPLADIRMGTVWDIECHPGQGAKLARAAGTYAKIIKEPASQCLVRLPSGVEKLIDS  
 RCRATIGIVSNPNHGARKLRKAGQSRWSGRRPIVRGVAMNPVDPHGGEGRTKGGRPSV  
 SPWGKPTKAGFRAGVGVGKR

>Q9LDD8

MLRILGRRVVSASKELTSIQQWIRPGTDSPDPFRTFRGLQKGFCVGILPDGVDRNSEA  
 FSSNSIAMEGILSELRSRSHIKVLAGGEEAVKRNRSRNKLPRERIDRLLDPGSSFLELS  
 QLAGHELYEEPLPSGGIITGIGPIHGRICMFMANDPTVKGGTYYPITIKKHLRAQEIAAR  
 CRLPCIYLVDSGGAYLPKQAEVFPDKENFGRVFYNE SVMSSDGI PQIAIVLGSCTAGGAY  
 IPAMADEVMVKGNGTIFLAGPPLVKAATGEEVSAEDLGGATVHCTVSGVSDYFAQDELH  
 GLAIGRNIVKNLHMAAKQGMEGTFGSKNLVYKEPLYDINELRSIAPVDHKQQFDVRSIIA  
 RIVDGSEFDEFKKQYGTTLVTGFARIYGQTVGIIGNNGILFNE SALKGAHFIELCSQRKI  
 PLVFLQNITGFMVGSRAEANGIAKAGAKMMAVSCAKVKITIITGASFGAGNYAMCGRA  
 YSPDFMFIWPNARIGIMGGAQAAVGLTQIERATKKRQGIKWTEEEEAFKKKTVDAYERE  
 ANPYYSTARLWDDGVIDPCDTRKVLGLCLSAALNRPLEDTRFGVFRM

>Q33994

MDNQFIFKYSWETLPKKWVKKIEKSEHGNRFDTNTDYLQQLCFLKLHTYTRFQVLIDIC  
 GVDYPSRKRRFEVVYNNLLSTRYNSRIRLQTSADEVTRI SSVVSLFPSAGWWEREWDMFG  
 VSFINHPDLRRILTDYGFEGHPLKDFPLSGYVEVRYDDPEKRVVSEPIEMTQEFRYFDF  
 ASPWEQRNGNEG

>P34899

MAMAMALRKLSSSVNKSSRPLF SASSLYYKSSL PDEAVYDKENPRVTWPQQLNSPLEVID  
 PEIADIIELEKARQWKGLELIPSENFTSL SVMQAVGSVMTNKYSEGYPGARYYGGNEYID  
 MAETLCQKRALEAFRLDPAK WGVNVQPLSGSPSFQVYTALLKPHDRIMALDLP HGGHLS  
 HGYQDTKKISAVSIFETMPYRLDESTGYIDYDQLEKSATLFRPKLIVAGASAYARLYD  
 YARIRK VCDKQKAVLLADMAHISGLVAAGVIPSPFDYADVTTTHKSLRGPRGAMIFFR  
 KGLKEVNKQGKEVYDYEDKINQAVFPGLQGGPHNHTITGLAVALKQATTPEYRAYQEJV

LSNSSKFAKALSEKGYDLVSGGTENHLVLVNLKNKGIDGSRVEKVLELVHIAANKNTVPG  
DVSAMVPGGIRMGTPALTSRGFVEEDFKVAEYFDAAVSLALKVKAESKGTLKDFVEAL  
QTSSYVQSEISKLKHDVEEFAKQFPTIGFEKATMKYNK

>Q9GCB9

MTIHAAVIQKLLNTGAHLGRRAEHFKQYAYGTRNGMTIIDSDKTLICLRSAAHFVANL  
AHMRGNIFFVNTNPLFDEIELTSRRIQGDSYNHNRAMNLWKGFLNSYSPKKFRSRH  
KKLCFGPTTMPDCVVFDSERKSSVILEASKLQIPVVAIVDPNVPLEFFEKITYPVPARD  
SVKFVYLFNCVITKCFVAEQMQLGIKEGSNEDLMKDAA

>Q42523

MSMMTVWALRRNVRKNSMLVRYISGSASMKPKEQCIEKILVANRGEIACRIMRTAKRL  
GIQTVAVYSDADRDSSLHVKSADAEAVRIGPPSARLSYLSGVTIMEAAARTGAQAIHPGYGF  
LSESSDFAQLCEDSGLTFIGPPASAIRDMDKSASKRIMGAAGVPLVPGYHGHEQDIDHM  
KSEAEKIGYPIIIKPTHGGGGKGMRVQSGKDFADSFLGAQREAAASFVNТИLLEYIT  
RPRHIEVQIFGDKHGNVLHYERDCSVQRHHQKIEEAPAPNISEKFRANLGQAASVAA  
AVGYYNAGTVEFIVDTESDQFYFMEMNTRLQVEHPVTEMIVGQDLVEWQIRVANGEPLPL  
SQSEVPMSGHAFEARINYAENVPKGFLPATGVLNHYRPVAVSPSVRGETGVEQGDTVSMHY  
DPMIAKLVVWGGNRGEALVKKDCLSNFQAVGPTNINFLQKLASHKEFAVGNVETHFIE  
HHKSDLFADESNPAAATEVAYKAVKHSALVAACISTIEHSTWNESNHGKVPSIWYSNPPF  
RVHHEAKQTIELEWNNECEGTGSNLISLGVRYQPDGSYLIIEGNDSPSLELRVTRAGKCD  
FRVEAAGLSMNVS LAAYLKDGYKHIHIWHGSEHHQFKQKVGIEFSEDEEGVQHRTSSETS  
SHPPGTIVAPMAGL VVVKVLVENEAKVDQGQPILVLEAMKMEHVVKAPSSGSIQDLKVKAG  
QQVSDGSALFRIKG

>Q8LG12

MNPTQKPEPVYDMVILGASGFTGKYVVREALKFLQTPSSPLKSLALAGRNPTRLTQSLE  
WAARPNNPPPSSVAILTADTSQDPSLRLCTQTKLILNCVGPFRIHGDVVSA CADSGCDY  
LDISGEPEFMERMEANYHDRAETGSLIVSACGFDSIPAELLLLNAKQWVSPSPVNQIE  
AYLSLESDDKIAGNFGTYESAVLGVANAELKELRRSRPRRPTICGPPAKGPTLENQK  
TIGLWALKLPSADAVVVRRTLTLTEKPHGLPGINESPEQI QKREAFWSSIKPAHFGVKI  
TSKSLFGIFRYVTLGVLGSLGSKFSFGRWLLKFPVFSLGWFQKKGPSEEVESATFKM  
WFIGRGYSEESLASQGETKPDLEIITRISGPEIGYITTPITLVQCGLIVLGQRESLVKG  
VYTPGIVFGSTDIQQRLEDNGISFELISKI

>Q940M2

MALQRQLLK RATSDIYHRRAISLLRTDFSTS P SIADAPP I PPFVHQPRPYKGPSADEVL  
QKRKKFLGPSLFHYYQKPLNIVEGKMQLYDESGRYYLDAFAGIVTVSCGHCHPDILNAI  
TEQSKLLQHATTIYLHAI GDFAEALAAKMPGNLKVVYFVN SGSEANELAMMMARLYTG  
LEMISLRNAYHGGSSNTIGLTALNTWKYPLPQGEIHHVVNPDPYRGVFGSDGSLYAKDVH  
DHIEYGTSGKVAGFI AETI QGVGGA VELAPGYLKSVYEIVRNAGGVCIADEVQTGFGR  
SHYWGQTQDVPDI VMAKGIGNGLPLGAVVTTPEIASV LASKILFNTFGGNPVC SAGG  
LAVLNVIDKEKRQEHC AEVGSHL IQRLKD VQKRHD II GDV RGRGLMV GIELVSDRKDKTP  
AKAETSVLF EQLREL GILVGKGGLHGNVFR IKPPMCFTKDDADFLVDALDYSISRL

>Q08276

MATAALLRSLRRREFATSSISAYRTL ASNTKPSWCP SLVGAKWAGLARP FSSKPAGNEII  
GIDL GTTNSCVAVMEGKNPKVIENSEGARTPSVVA FNQKGELLVGT PAKRQAVTNPTNT  
LSGT KRLIGRRFDDPQTQKEMK MV PYKIVRG SNGDAWVEANGQQY SPTQIGA FILTKM  
TAEAYLGKSINKAVITV PAYFN DAQRQA IKDAGAIAGLDVQRIINEPTAAALSYGMNS  
GLVAVFDLGGGT FDVSILEISNGF FEVKATNGDTFLGGEDFDN ALLEFLVSEFKRTEG  
LSKDKLALQRLREAAEAKAKIELSSTS QTDINLPF ITADSGAKH LNIITL TRSKFETLV  
LIERTRNPCKNCLKDAGVSLKD VDEVLLVGGMTRVPKVQEIVSEIFGKSPSKGVNPDEA  
AMGAALQGGI LRGDVKE LLLDV TPLARGIETLGGIFTR LINRNTT I PTKK SQVFSTAAD  
NQTQVG IKVLQGEREMASDNKLLGEFDL VGI PPAK GYCP QIEV IFDIDANGMVT  
VSAKD KATSKE QQITIRSSGGLSEDEIDKM VREA EMHAQ RIKNAR HLLI S GIVQ STTI YSIEK  
SEYKEK VPKEV VTEIETAISDLRAAMGTENIDDIKAKLDAANKAVSKIGEHMAGGSSGG  
SGGGGAQGGDQPPEAEYEEVKK

>O23138

MASFDEAPPNAKAGEKIFRTKCAQCHTVEAGAGHKQGPNLNGLFGRQSGTTAGYSYSA  
NKNKAVEWEEKALYD YLLNPKKYIPGTMVFPGLKKPQDRADLIA YLKE STAPK

>Q9LQL0

MALRMWASSTANALKLSSASKSHLLPAFSISRCFSSVLEG LKYANSHEWVKHEGSVATI

GITDHAQDHILGEVVVFVELPEANSSVSKEKSFAGVESVKATSEILSPISGEVIEVNTKLTE  
 SPGLINSSPYEDGWMIKVKPSSPAEALMGPKEYTKFCEEEDAAH  
 >P80269  
 MAAILARKSLSALRSRQLVLAGHTIEGTNGYNRTLLGTRSFATKHSFSTDKDEEREOLA  
 KELSKDWNSVFERSINTLFLTEMVRGLMLTLKYFFEKKVTINYPFEGPLSPRFREHAL  
 RRYATGEERCIACKLCEAICPAQAITIEAEEREDGSRRTRYIDMTKCIYCGFCQEACP  
 VDAIVEGPNFEFATETHEELLYDKEKLLENGDRWETIAENLRSESLYR  
 >Q43725  
 MVAMIMASRFNREAKLASQILSTLLGNRSCYTSMAATSSALLNPLTSSSSSTLRRFR  
 CSPEISSLSSASDFSLAMKRQSRFSADGSERDPGVCEAVKRETGPDGLNIADNVSQ  
 LIGKTPMVYLNSIAKGCVANIAAKLEIMEPCCSVKDRIGYSMTDAEQKGFISPGKSVLVE  
 PTSGNTGIGLAFIAASRGYRLILTMPASMSMERRVLLKAFGAELVLTDAKGMTGAVQKA  
 EEILKNTPDAYMLQQFDNPANPKIHETTGPEIWDDTKGKDVIFVAGIGTGGITGVGRF  
 IKEKNPKTQVIGVEPTESDILSGGKPGPHKIQGIGAGFIPKNLDQKIMDEVIAISSEEAI  
 ETAKQLALKEGLMVGIGSSAAAAAAIKVAKRPENAGKLIAVVFPSPGERYLSTPLFQSIR  
 EeveKMQP  
 >Q9SWG0  
 MQRFFSARSILGYAVKTRRSFSSRSSLLFDDTQLQFKESVKFAQDIAPHAERIDKT  
 NSFPKDVLWKLMEFNLHGITAPEEYGGGLGYLYHCIAAMEISRASGSVALSYGAHSN  
 LCINQLVRNGTAAQKEKYLPLKLI  
 SGEHVGALAMSEPNAGSDVGMCKAEKVDGGYILNG  
 NKMWCNGPSAETLVVYAKTDTKAGSKGITAFIIEKGMTGSTAQKLDKLMRGSDTCEL  
 VFENCVPPEENILDKEGKVYVLMGLDLERLVLAAAGPLGIMQACLDNVLPYIRQREQFG  
 RPVGEFQFIQGKVADMYTALQSSRSYVYSVARCDNGKVDPKDCAGTILCAAERATQVAL  
 QAIQCLGGNGYINEYATGRLLRAKLYEIGAGTSEIRRIVIGRELKEE  
 (7) 57 nucleus proteins  
 >P93045  
 MKGLVSTGWKGPKFRMPTAENLVPIRLDIQFEGQRYKDAFTWNPSDPDNEVVIFAKRTV  
 KDLKLPYAFVTQIAQSISQLDFRAYEGQDMYTGEKIIPIKLDRVNHTLIKDQFLWDL  
 NNFESDPEEFARTLCMDLGVEDPEVGPAAFAIREQLYEIAIQVASARESRLSKGRG  
 SDHGSASKASGLSMMDLMKLFSDKSSVVRKRKDLDVYEPVVDLTSEEVDALEAREERHAR  
 >Q9FT54  
 MADSPGHVAGGLQGFSVDAECIKQRVDEVLQWVDSLEHKLKEVEEFYSSIGVSNSGI  
 GKDTEKGRHVGIRKIQQEAAARREAVAAKRMQDLMRQFGTIFRQITQHKCAWPFMHPVNV  
 EGLGLHDYFEVIDKPMDFSTIKNQMEA  
 KDGTYKHMQIYADMRLVFENAMNYNEETSDV  
 YSMAKKLEKFEEKWAHFLPKVQEEEKIREEEEKA  
 KEALLAKEASHIKTTRELGNEIC  
 HANDELEKLMRKVVERCRKITIEEKRNIGALLKLSPDDLQKVLGIVAQANPSFQPR  
 AEE  
 VSIEMDILDEPTLWRKFFVKDALDNAMKKKEETKTRELSGAQKKEVSKRNATTKLA  
 ERKTKRSRI  
 >P16867  
 MAPKKEEKPASQAAEAPEVKAEAKPKAVKAPKKKEKKAPAKKVAKEPSAGGEDGDKSKK  
 KAKVAKSETYKLYIYKVLKQVHPDTGISSKAMSIMNSFINDIFEKVATEASKLSRYNK  
 PTVTSREIQTAVRLVLPGELAKHAVSEGTKAVTKFTSA  
 >P48513  
 MSDAFCSDCRKQTEVVFDHSAGDTCSECGLVLESHSIDETSEWRTFANE SGDNDPNRVG  
 GPSNPLLTGGGLSTVIAPNGGGGEFLSSSLGRWQNRGSNPDRALIQAFKTIATMSDRL  
 GLVATIKDRANEIYKRVEDQKSSGRNQDALLAACLYIACRQEDKPRTVKEICSVANGAT  
 KKEIGRAKEYIVKQLGLENGNAVEMGTI  
 HAGDFMRRFCSNLCMNNQAVKAAQEAVQKSEE  
 FDIRRSPISIAAAVIYIITQLSDDKKPLKDISLATGVAEGTIRNSYKDLYPHVSKIIIPNW  
 YAKEEDLKNLCSP  
 >Q9LDT3  
 MTKLPNMTTTLNHLFDLPGQICHVQCGFCTTILLVSVFTSLSMVVTVR  
 CGHCTSLLSVN  
 LMKASFPIHLHLLASLSHLD  
 DETGKEEVAATDGVEEEAWKV  
 NQEKENSP  
 TTLVSSSDNE  
 DED  
 VSRVYQV  
 VNKPKPEKRQ  
 RAPSAYNC  
 FIKEEIRRLKA  
 QNPSMA  
 HEAFSLA  
 KNA  
 WHFPPA  
 NKRAASDQCFC  
 EEDNN  
 AILPC  
 NVFEDHEE  
 SNNGFR  
 EKA  
 QRHSI  
 WGKSP  
 FE  
 >Q8VWG3  
 MESPPLYEISSSSSEKPRHHFQS  
 LDFPNLNQN  
 SCIN  
 NTLIEPLPLIDR  
 INLNSNLDLN  
 PNPLYA  
 EEE  
 EEDREV  
 DVLHIGLPGFG  
 KPS  
 NDA  
 KQLK  
 RNG  
 KEI  
 ATYDAGKG  
 IEN  
 ELS  
 GK  
 KAY  
 WI  
 PAPE  
 QI  
 LIG  
 FTHFS  
 CHVC  
 FKT  
 FN  
 RYNN  
 LQM  
 HM  
 WGH  
 GS  
 QY  
 RKG  
 PES  
 LKG

TQPRAMLGIPCYCCVEGCRNHIDHPRSKPLKDFRTLQTHYKRKHGHKPFSCRLCGKLLAV  
 KGDWRTHEKNCGKRWVCVCGSDFKRSLKDHVKAFCGSGHPYPTGLFEEQASNSVSET  
 >P24345  
 MEEITQHFGVGASSHHGHGHGQHHHHHHHPWASSLSAVVAPLPPQPPSAGLPLTLNTVA  
 ATGNSSGGSGNPVLQLANGGLLDACVAKAEPSSSPYAGDVEAIKAKIISHPHYYSLTA  
 YLECNKGAPPEVSARLTIAQEVEARQRTALGGLAAATEPELDQFMEAYHEMLVKFREE  
 LTRPLQEAMEFMRRVESQLNSLISGRSLRNILSSGSSEEDQEGSGGETELPEVDAHGV  
 QELKHHLKKYSGYLSLQKQELSKKKKGKLPEARQQLLSWDQHYKPYPSETQKVAL  
 AESTGLDLQINNWFINQRKRHWKPSEEMHLMMDGYHTTNAFYMDGHFINDGGLYRLG  
 >P48732  
 MFTSGNVTARVFERQIRTPPPPASVNRARHFYENLVPSYTLYDVESPDHCFRKFTEDGLF  
 LISFSRNHQELIVYRPSWLTYSTTDDSTTLPPPLPRRASKFDSSFTQLYSVNLASSNELI  
 CKDFFFLYHQTRRFGLFATSTAQIHDSSSPSNDAVPGVPSIDKITFVLLRLDDGVVLDERV  
 FLHDFVNLAHNMGVFLYDDLLAIALSLRYQRIHLLQIRDGHLVDARAIGYFCREDELFL  
 NSSSQAMMSQDKSKQQSLSGSKEDDTGENGLRHSLSQPSGSNSFLSGVKQRLLSFIFREI  
 WNEESDNRVQSLKKKFYFHFQDYVDLIIWKVQFLDRQHLLIKFGSVDGGVTRSADHHPAF  
 FAVYNMETTDIVAFYQNSAEDLYQLFEQFSDHFTVSSSTPFMFVTSHSNNVYALEQLKY  
 TKNKSNSFSQFVKMLLSLPFSCQSQQSPSPYFDQSLFRFDEKLISAADRHRQSSDNPIKF  
 ISRRQPQLKFKIKPGPECGTADGRSKKICCSFLFPHPLAISIQQTLFMPPSVNIHFR  
 R  
 >O24591  
 MEFWGLEVKGPGSTVKCEPGYGFVLHLSQAALGESKKSDNALMYVKIDDQKLAIGTLSVDK  
 NPHIQFDLIFDKEFELSHTSKTTSVFFTGYKVEQPFEEDEMDDSEDEDEELNVPVVKEN  
 GKADEKKQKSQEKAAPAASKSSPDSKKSKKDDDSDEDETDDSDDEDETDDSDEGLSSEEGD  
 DDSSDEDDTSDEEDEDTPTPKPEVGKKRPAESSVLKTPLSDKKAKVATPSSQKTGGKKG  
 AAVHVATPHPAKGKTIVNNDKSVKSPKSAPKSGGSVPCKPCSKSFISETALQAHRAKMG  
 ASESQVQ  
 >O65312  
 MEKENHEDDGEGLPPELNQIKEQIEKERFLHIKRKFELRYIPSVATHASHHQSFDLNQPA  
 AEDDNGGDNKSLLSRMQNPLRHFsassdyNsyedqgyvldedqdyaleedvplfldedvp  
 llpsvklpiveklprsitwvftkssqlmaesdsvigkrqiyylngaealelsseedee  
 edeeeikkekcefsevdvrfiwtvgqdyglddlrvrralakylevdvsdilerynelklk  
 ndgtageasdltsktittafqdfadrrhcrrcmifdchmhekyepesrsseedksslfe  
 drqpcseh cylkvrs vteadhvmdndnsisnkivvdpnntmwpvekdlylgieifgr  
 nscdvalnilrlglktcleiynymreqdqctmsldlnkttqrhnqvttkkvskssrsvrkk  
 srlrkyaryppalkkttsgreakfykhytpctckskcgqcpclthenccelycgcskdcn  
 nrfggcncraigqctnrqcpcfaanrecdpdlcrscplscgdgtlgetpvqiqcknmqfll  
 qtnkkiligkstdvhgwgaftwdslkkneylgeytgelithdeanergriedrigssylft  
 lndqleidarrkgnefkflnhsarpncyaklmivrgdqriglfaeraieegeelffdycy  
 gpehadwsrgreprktgaskrskearpars  
 >Q9ZVD3  
 MAFAQSVYNQSSVLKINVMVVDDNRVFLDIWSRMLEKSKYREITVIAVDYPKKALSTLN  
 QRDNIIDLIIITDYYMPGMNGLQLKKQITQEFGNLSVLVMSDPNKEEESLSCGAMFIPKP  
 IAPTDLPKIYQFALTYKRNGKSTLSTEQNQKDANVSPQQIMLVPEQAYVLKTKKKNCSS  
 KSDRTVNSTNVSHVSTNGSRKNRKRPKGGPSDDGESLSQPPKKKIWWTNPLQDLFLQ  
 AIQHIGYDKVVPKKILAIMNPYLTRENVASHLQKYRLFVKRVVHQGRFSMLSDRGKDSM  
 FRQTHIKEPYVNYYTPTSTSWYETSLNNRSFYSESVHGHRSRLSEAREPVRYNQMSYNYMN  
 RNISFENQPSQNEETRTVFEPVMANKISQTSQVLGFGQLGPSAISGHNFNTNMMSYYGS  
 LTPNQPGTSHFSYGMQSVLNNEATYNPQPPANATTQPNLDELPQLENLNLYNDLGN  
 SE LPYNISNFQSDDNKKQGEEDGDWTFVNINQDQSNGESSNTIATPETNTPNFNINPNQNQG  
 QAVPEFTDWSFLDQQELVDDDFMNSLFNNDMN  
 >Q84TE6  
 METEEEMKESSISMVEAKLPPGFRFHKDDELVCDYLMRRSLHNNHRPPLVLIQVDLN  
 CEPWDIPKMACVGGKDWFYSQRDRKYATGLRTNRATATGYWKATGKDRTILRGKLVGMR  
 KTLVFYQGRAPRGRKTDWVMHEFRLQGSHPPNHSLSSPKEDWVLCR VFHKNT  
 EGVICRD  
 NMGSCFDETASASLPPMDPYINFQEPSSYLSDDHHYIINEHVP  
 CFSNLSQNTLNSNL  
 TNSVSELKIPCKNPNPLFTGGSASATLTGLDSFCSSDQMVLALLSQLTKIDGSLGP  
 KES  
 QSYGE  
 GSSESLLTDIGIPSTVWN

>P18616

MDTRFPFSPAEVSKVRVVQFGILSPDEIRQMSVIHVEHSETTEKGKPKVGGLSDTRLGTD  
DRKVKCETCMANMAECPGHFGYLELAKPMYHVGFMKTVLSIMRCVCFNCSKILADEVCRS  
LFRQAMKIKNPKNRLKKILDACKNKTCDGGDDIDDVQSHSTDPEVKSRGGCAQQPKL  
TIEGMKIAEYKIQRKKNDEPDQLPEPAERKQTLGADRVLSQLKRISDADCQLLGFNPKF  
ARPDWMILEVLPPIPPIPVPVPSVMMDATSRSEDDLTHQLAMIIRHNENLKRQEKGNGAPAH  
ISEFTQLLQFHIAITYFDNELPGQPRATQKSGRPIKSICSRLKAKEGRIRGNLGMKRVDF  
ARTVITPDPTINIDELEGWPWSIALNLTYPEVTVPYNIERLKELVVDYGPHPPPPDKGAKYI  
IRDDGQRQLDLRYLKKSSDQHLELGKVERHLQDGDFVLFRNQPSLHKMSIMGHRIRIMPY  
STFRLNLNSVTSPYNADFGEDENMHMVPQSFTAERVLELMMVPKCIVSPQANPVMGIVQ  
DTLLGCRKITKRDTFIEKDVFMTLMWWEDFDGKVPAPAIIKPRPLWTGKQVFNLIIPKQ  
INLLRYSWAHADTETGFITPGDTQVRIERGELLAGTLCKTGTSGSLVHVIWEEVGPD  
AARKFLGHTQWLNVYWLQLONGFTIGIGDTIADSSTMKEKINETISNAKTAVKDLIRQFQGK  
ELDPEPGRTRMRTDFENRVNQVLNKARDDAGSSAQKSLAETNNLKAMVTAGSKGSFINISQ  
MTACVGQQNVEGKRIPFQFGDRTLPHFTKDDYGPESRGFVENSYLRLTPQEFFFHAMGG  
REGLIDTAVKTSETGYIQRLVVKAMEDIMVKYDGTVRNSLGDVIQFLYGEDGMDAVWIES  
QKLDSLKMKKSEFDRTFKYEIDDENWNPTYLSDEHLEDLKGIRELRDVFDAEYSKLETDR  
FQLGTEIATNGDSTWPLPVNIKRHIWNAQKTFKIDLRKISDMHPVEIVDAVDKLQERLLV  
VPGDDALSVEAQKNATLFFNILLRSTLASKRVLLEYKLSREAFEWIGEIESRFLQSLVA  
PGEMIGCVAQAQSIGEPATQMLNTFHAGVSAKNVTLGVRPLREINVAKRIKTPSLSVY  
LTPEASKSKEGAKTVQCALLEYTTLSVTQATEWYDPDPMSTIIIEDFEFVRSYYEMPDE  
DVSPDKISPWLLRIELNREMMVDKKLSMADIAEKINLEFDDDLTCIFNDDNAQKLILRIR  
IMNDEGPKGELQDESAEDDVFLKKIESNMLTEMALRGIPDINKVFIQVRKSRFDEEGGF  
KTSEEWMLDTEGVNLLAVMCHEVDPKRTTSNHLIEIIIEVLGIEAVRALLDELRVVISF  
DGSYVNRYRHAILCDTMTYRGHLMAITRHGINRNDTGPLMRCSEETVDILLDAAYAET  
DCLRGVTENIMLGQLAPIGTGDCELYLNDEMILKNAIELQLPSYMDGLEFGMTPARSPVSG  
TPYHEGMMSPNYLLSPNMRLSPMSDAQFSPYVGGMAFPSSSPGYSPPSPGYSPTSPGYS  
PTSPGYSPTSPGYSPTSPYSPSSPGYSPTSPSPYSPSPSYSPSPSYSPSPSYSP  
SYSPTSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSP  
TSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSP  
SPSNARLSPASPYSPTSPNYSPTSPSYSPSPSYSPSPSYSPSPSYSP  
YSPTLPGYSPSSTGQYTPHEGDKKDGTGKKDASKDDKGNP

>Q9LR78

MAPDQSYQYPSPSYEISQTFYDTDEDWPGPRCGHTLAVFVNNSHQLILFGGTTAVANH  
NSSLPEISLDGVTVNSVHSFDVLTRKWTRLNPIGDVPSPRACHAAALYGTLILIQGGIGPS  
GPSGDGVYMLDMTNKWIKFVLVGGETPSPRYGHVMDIAAQRWLVIFSGNNGNEILDDTWA  
LDTRGPFSWDRLNPSGNQPSGRMYASGSSREDGIFLLCGIDHSGVTGDTYGLKMDSDN  
VWTPVPAVAPSPrYQHTAVFGGSKLHVIGGILNRARLIDGEAVVAVLDTETGEWVDTNQP  
ETSASGANRQNQYQLMRRCHAAASFGSHLVHGGIREDVLLDDLLVAETSQSSPEEE  
DNPDNYMLLDDYLMDPKPLSSEPEASSFIMRSTSEIAMDRLAEAHNLPTIENAFYDSAI  
EGYVPLQHGAETVGNRGGLVRTASLDQSTQDLHKKVISTLLRPKTWTPPANRDFFLSYLE  
VKHLCDEVEKIFMNEPTLLLQLKVP1KVFGDIHGQYGDLMRLFHEYGHPSVEGDITHIDYL  
FLGDYVDRGQHSLEIIMLLFALKIEYPKNIHLIRGNHESLAMNRIYGFLTECEERMGESY  
GFEAWLKINQVFDYLPLAALLEKKVLCVHGGIGRAVTIEIENIERPAFPDTGSMVLKDI  
LWSDPTMNDTQLGIVDNARGEVVSFGPDIVKAFLERNGLEMILRAHECVIDGFERFADG  
RLITVFSATNYCGTAQNAGAILVIGRDMVIYPKLIHPHPPPISSEEDYTDKAWMQELNI  
EMPPTPARGESSE

>Q8LEA8

MAESVFSCIPEDVVFNIFFKLQDDPRNWARLACVCTFKSSI VRNVCCKTQCYSAIPTVIS  
DLLPLPPSAAASASSSTAADSSLTPPGGWASLYKLAVCCPGLFHAGILLENSDFGLEREL  
GPDQNLDPKPTTDLALNDEEVSKPVGSGLETTSFWSLYDDLYTDTIPAPPEDSIDDQE  
EEIETSEIRPGRDLPVRKRKICRSLGSHLASGGWNLSREQGNKLLASRFRGDCLYICNW  
PGCIHVEEKRNYMLFRGVFKDFKRSRVWRTINDGNRSKTSGLKCAFCLCDETWDLHSSFC  
LRRVFGFHDDGEPVVRAYVCENGHVSGAWTALPLYT

2024454

MGAAGSKLEKALGDQFPEGERYFGFENFGNTCYCNSVLQALYFCVPFREQLLEYYTSNKS  
VADAEENLMTCLADLFSQISSQKKKTGVIAPKRFVQRLLKQNEFLFRSYMHQDAHEFLNYL  
LNEVVVDILEKEAKATKTEHETSSSSSPEKIANGLKVPOANGVVHKEPIVTWVHNIFOGIL

TNETRCLRCETVTARDETFLDLSDLIEQNNSITSCLKNFSSTETLHAEDKFFCDKCCSLQ  
EAQKRMKIKKPPHILVIHLKRFKYIEQLGRYKKLSYRVFPLELKLSNTVEPYADVEYSL  
FAVVVHVGSGPNHGHYVSLVKSHNHWLFFDDENVEMIEESAVQTFFGSSQEYSSNTDHGY  
ILFYESLGPTK

>Q9FUY2

MSQTNWEADKMLDVYIHDLVKRDLKATAQAFQAEGKVSSDPVAIDAPGGFLFEWWSVFW  
DIFIARTNEKHSEVAASYIETQMIKAREQQLQQSQHPQVSQQQQQQQQQIQMQQQLLQR  
AQQQQQQQQQHHHQQQQQQQQQQQQQQQHQNQPPSQQQQQSTPQHQQQOPTPQ  
QQPQRRDGSHLANGSANGLVGNNSEPVMRQNPGSGSSLASKAYEERVKMPTQRESLDEAA  
MKRGFDNVGQLLDPSHASILKSAASGQPAGQVLHSTSGGMSPVQTRNQQLPGSAVDIK  
SEINPVLTPRTAVPEGSLIGIPGSNQGSNNLTLKGWPLTGFDQLRSGLLQQQKPFMQSOS  
FHQLNMLTPQHQQQQLMLAQQNLNSQSVSEENRRLKMLNNRSMTLGKDGLGSSVGDVLPN  
VGSSLQPGSLLPRGDTDMLLKLKMALLQQQQNQQQGGGNPQPQQPQPLNQLALTNP  
QPQSSNHSIHQQEKLGGGGSIAMDGSISNSFRGNEQVLKNQSGRKRKQPVSSSGPANSSG  
TANTAGPSPSSAPSTPSTHTPGDVISMMPNLPHSGGSKSMMMFGETGTGTLTSPSNQLAD  
MDRFVEDGSLLDNVESFLSQEDGDQRDAVTRCMDVSKGFTFTEVNSVRASTTKVTCCHFS  
SDGKMLASAGHDKKAVLWYTDTMKPKTLEEHTAMITDIRFSPSQLLATSSFDKTVRVW  
DADNKGSLRTFMGHSSMVTSLDFHPIKDDLICSCDNDNEIRYWSINNGSCTRKYKGGST  
QIRFQPRVGKYLAASSANLVNLDVETQAIRHSLQGHANPINSCWDPSGDFLASVSED  
VKVTLGTMGECEGVHELSCNGNKFQSCVFHPAYPSLLVIGCYQSLELWNMSENKTMTLP  
AHEGLITSLAVSTATGLVASASHDKLVKLWK

>P84634

MRDEVDSLTLTIPSCKLKGKRDREQKNCEEKNKNKAKKQQKDPILLHTSAATHKFLPPPL  
TMPYSEIGDDLRLSDFDHADVSSDLHLTSSSSVSSFSSSSSSLSFSAAGTDDPSPKMEKDP  
RKIARRYQVELCKKATEENVIVYLTGCGKTHIAVMLIYELGHLVSPKKSVCIFLAPTV  
ALVEQQAKVIADSVNFKVAIHCGGKRIVKSHSEWEREIAANEVLVMTPQILLHNLQHCFI  
KMECISLLIFDECHHAQQQSNHPYAEIMKVFYKSESLOQRPRIFGMTASPVGKDGPLDS  
FTYFSGSFQSENLSKSINSLENLLNAKVSVESNVQLDGFVSSPLVKVYYRSALSDASQ  
STIRYENMLEDIKQRANVYCLRFLEAAKIQLNSDHNVQDEPVGKNPKSKICDTYLSMAA  
EALSSGVAKDENASDLLSLAALKEPFLFSRKLVQLIKILSVFRLPEPHMKCIIFVNRIVTAR  
TLSCLINNLELLRSWKSDFLVGLSSGLKMSMSRRSMETILKRFQSKELNLLVATKVGE EGL  
DIQTCCLVIRYDLPETVTSFIQSRGRARMPQSEYAFLVDGSGNEKEMDLIENFKVNEDRMN  
LEITYRSSEETCPRLDEELYKVHETGACISGGSSISLLKYCSRLPHDEFFQPKPEFQFK  
PVDEFGGTICRITLPANAPISEIESLLPSTEAKKDACLKAVHELHNLGVLFNDLLPDS  
KDEIEDELSDDEFDFDNIKGEGCSRQDLYEMRVPVLFKQKWDPSTCVNLHSYYIMFVPH  
PADRIYKKFGFFMKSPLPVEAETMDIDLHLAHQRSVSVKIFPSGVTEFDNDEIRLAELFQ  
EIALKVLFERGELIPDFVPLELQDSSRTSKSTFYLLLPLCLHDGESVISVDWVТИRNCLS  
SPIFKTPSVLVEDIFPPSGSHLKLANGCWNIIDVKNSLVFTTYSKQFYFVADICHGRNGF  
SPVKESSTKSHVESIYKLTEPQELDEYFIEIPPELSHLKIKGLSKDIGSSLLPSIMHR  
MENLLVAIELKHVLSASIPEIAEVSGHRVLEALTTEKCHERLSLERLEVLGDAFLKFAVS  
RHLFLHHDSLDEGELTRRRSNVYIRDQALDPTQFFAFGHPCRTCDEVASKEVHSLNRDL  
GILESNTEIRCSKGHHWLYKKTIADVVEALVGAFLVDSGFKGAVKFLKWIGVNVDFESL  
QVQDACIASRRYLPLTRNNLETLENQLDYKFLHKGLLVQAFIHPNSRHGGCYQRLEF  
LGDAVLDYLMTSYFTVFPKLPGQLTLRSLSVNNEALANVAVSFSLKRLFCESIYLN  
EVIEDYTNFLASSPLASGQSEGPRCPKISPIKELIELCQSYKWDREISATKKDGAFTVEL  
KVTKNGCCLTVSATGRNKREGTKKAAQLMITNLKAHENITTSHPLEDVLKNGIRNEAKLI  
GYNEDPIDVVDLVGLDVENLNILETFGGNSERSSSYVIRGLPQAPSCTEDRLPQKAIIK  
AGGPSSKTAKSLLHETCVANCWKPPHFECCEECPGHLKSFVYKVILEVEDAPNMTCY  
GEARATKKGAAEHAQAAIWCLKHSGFLC

>Q9C519

MDRGWSGLTLDSLLNPNRISHKNHRRFSNPLAMSRIIDEEDDQKTRISTNGSEFRFP  
VSLSGIRDREDEDFSSGVAGDNDREVPGEVDFFSDKSRVCREDDEGFRVKKEEQQDRD  
VNTGLNLRTGNTKSDES MIDDGESSEMEDKRAKNELVKLQDELKKMTMDNQKLRELLTQ  
VSNSYTSLQMHLVSLMQQQQQQNNKVIEAAEKPEETIVPRQFIDLGPTRAVGEAEDVSNS  
SSEDRTRSGGSSAAERRSNGKRLGREESPETESNKIQKVNSTPTTFDQTAEATMRKARV  
SVRARSEAPMISDGCQWRKYGQKMAKGNCPCRAYRCTMATGCPVRKQVQRCAEDRSILI  
TTYEGHNHPLPPAAVAMASTTAAANMLLSGSMSSHGMNPTNLLARAVLPCSTSMAT  
ISASAPFPTVTLDLTHSPPPPNSNPSSAATNNNNHNSLMQRPOQQQQQMTNLPPGMLPH

VIGQALYNQSKFSGLQFSGGSPSTAAFSQSHAVADTITALTADPNFTAALAAVISSMING  
TNHDGEGNN

>P26356

MAAAAVDPMVLGLGTSGGASGSGVVGGVGRAGGGAVMEGAQPVDLARHPSGIVPVLQN  
IVSTVNLDRCRLDLKQIALQARNAEYNPKRFAAVIMRIRDPTTALIFASGKMVCTGAKSE  
EHSKLAARKYARIVQKLGFATFKDFKIQNIVASCDVKFPIREGLAYSHGAFSSYEPEL  
FPGLIYRMKQPKIVLLVFVSGKIVLTGAKRDEIYAAFENIYPVLTTEYRKSQQ

>P12959

MEHVISMEEILGPFWELLPPPAPEPEREQPPVTGIVVGSVIDVAAAGHGDDMMMDQQHAT  
EWTFERLLEEALTTSTPPPVVVVPNSCCSGALNADRPPVMEAVTMAPAASSAVVGDP  
MEYNAILRRKLEEDLEAFKMWRADESSVVTSDQRSQGSNNHTGGSSIRNNPVQNKLNGED  
PINNNHAQTAGLGVRLATSSSRDPSPSDEDMDGEVEILGFKMPTEERVRKESNRESAR  
RSRYRKAAHLKELEDQVAQLKAENSCLLRRIAALNQKYNDANVDNRVLRADMETLRAKV  
MGEDSLKRVIE MSSSVSSMPISA TPSSDAPV PPPPIRDSIVGYFSATAADDDASVGNG  
FLRLQAHQE PASMVVGTL SATE MN RVA AATH CAGAME LI QTAM GSMPPTS ASG ST PPPQ  
IMSCWVQMGPYTWT CIR HCG FDR WEHFIC

>Q38847

MGRGKIEIKRIENANSRQVTFSKRRSGLKKARELSVLCDAEVAVIVFSKSGKLFEYSST  
GMKQTLSRYGNHQSSASKAEECAEV DILKDQLSKLQE KHLQLQGKGLNPLTFKELQSL  
EQQLYHALITVRERKERLLTNQLEESRLKEQRAELENETLRRQVQELRSFLPSFTHYVPS  
YIKCFAIDPKNALINHDSKCSLQNTDSDTTLQLGLPGEAHDRRTNEGERESPSSDSVTNN  
TSSETAERGDQSSLANS PPEAKRQRFSV

>Q6Q4D0

MGRDVAAKRAYRKAEEVGDRREQARWANNVGDILKNHGEYVDALKWFRIDYDISVKYL  
PGKDLLPTCQSLGEIYLRLENFEEALIYQKKHLQLAEEANDTVEKQRACTQLGRTYHEMF  
LKSEDDCEAIQSACKYFKKAMELAQILKEKPPPGESSGFLEYYINAHNNIGMLDDLDNP  
EAARTILKKGLQICDEEVREYDAARSRLHHNLGNVFMALRSWDEAKKHIEMDINICHKI  
NHVQGEAKGYINLAELHNKTQKYIDALLCYGKASSLAQSMQDESALVEQIEHNTKIVKKS  
MKVMEELREEELMLKLSAEMTDAGTSEERKSMLQVNACLGLSLIDKSSMVFAWLKHLQY  
SKRKKKISDELCDKEKLSDAFMIVGESYQNLRNFRKSLKWFIRS YEGHEAIGNLEGQALA  
KINIGNGLDCIGEWGT GALQAYEEGYRIALKANLPSIQLSAEDIHYIHMMRFGNAQKASE  
LKETIQNLKESEHAEKAE CSTDQECSETDSEGHANVSNDRPNACSSPQTPNSLRSERLAD  
LDEANDDVPLISFLQPGKRLFKRKVQSGKQDADTDQTKDFSVVADSQQT VAGRKRIRVI  
LSDDESETEYELGCPKDSSHVKLRQNEEVSEESMYFDGAINYTDNRAIQDNVEEGSCSYT  
PLHPIKVAPNVSNCRSLSNIAVETTGRKKGSQCDVGSNGTSCKTGAALVNFHAYSKT  
EDRKIKIEIENEHIALDSCSHDDESVKVELTCLYYLQLPDDESKGLLPIIHHLEYGGRV  
LKPLELYAILRDSSEN VIEASVDGWVHKRLMKLYMDCCQSLSEKPSMKLLKKLYISEVE  
DDINVSECELQDISAAPLLCALHVHNIAMLDL SHNMLGN GTMEKLQKFASSSQMYGALT  
LDLHCNRF GPTALFQICECPVLFTRLEV LNVSRNRLTDACSYLSTIVKNCRALYSLNVE  
HCSLTSRTIQK VANALDSKSQLCIGYNNPVGSSI QNLLAKLATLSSFAELSMNGIK  
LSSQVVDSDLYALVKTPLSKLLVGSSG IGT DGAIKVTE SLCYKEETV KLDLSCCGLASS  
FFIKLNQDV TLSSILEFN VGGNPITEEGISALGELLRNPCSNIKV LILSKCHLKLAGLL  
CIIQALSDKNLEELNLSNAKIEDET VFGQPVKER SVMVEQEHGTCKSVT SMDKEQELC  
ETNMECDDLEVADSEDEQIEEGTATSSSLPRKNHIVKELSTALSMANQLKILDLSNNG  
FSVEALETLYMSWSSSSRTGIAQRHVKEETVHFYVEGKMC CGVKS CCRKD

>P48786

MEEISDPKPNALEQVLPTVPNGKCTAPVQMESLAVDVQKVSGEAKVRICSCWCEIVRSPE  
DLTKLVP CNDFAEDIKLF DSDPMQQAESSIGIPLIPKQVTM SHNHDHESGSEM VSNEVM  
QENHVIATENTYQKSDFDRINMGQKETMPEEVIHKSFLESSTSSIDILLNNHNSYQSGLP  
PENAVTDCKQVQLGHRSDDAIKNSGLVELVIGQKNAKSPSQLVETGKRGGRPRKVQTG  
LEQLVIGQKTAKSSSQLGDTGKRSRGRPRKVQNSPSTS FLENINMEQKETIPEQVTQNSI  
LES LTIPTDNQSRTYNSDQSELPPENA AKNCNHAQFGHQ SDDTTKISGF KELVIGQETVA  
KSPSQLVDAGKRGGRPRKVQ TG LEQ LVPVQETA KSSSQLGDTGKRSRGRPRKVQDSPT  
SLGGNVKVVPEKGKDSQELS VNSSRSR SRSQEK SIEPDVNNIVADEGADREKPRK RKK  
RMEENRVDEF CRIRTHLRYLLHRIKYEKNFLDAYS GEGWKGQSLDKIKPEKELKRAAEI  
FGRKLKIRD LFQRLDLARSEGRLPEILFDSRGEIDSEDIFCAKCGSKDVTLSNDIILCDG  
ACDRGFHQFC LDPLLKEYI PPDDEGWLCPGCECKIDCIKLLNDSQETNILLGDSWEKVF  
AAAAAAA SGKNLDDNSGLPSDDSEDDYDPGGPD LDEKVQGDD SST DESDYQSE SDDMQ

VIRQKNSRGLPSDDSEDDDEYDPSGLVTDQMYKDSSCSDFTSDEDFGVFDDYKDTGKAQ  
 GPLASTPDHVRNNEEGCGHPEQGDTAPLYPQQVESLDYKKLNDIEFSKMCIDILDILSSQ  
 LDVIICTGNQEYGNNTSDSSDEDYMTSSPDKNNSDKEATAMERGRESGDLELDQKARE  
 STHNRRYIKKFAVEGTDSFLSRSCEDSAAPVAGSKSTSCTLHGEHATQRLLQSFKENQYP  
 QRAVKESLAELALSVRQVSNWPNRWSFRHSSRIGSDVAKFDSNDTPRQKSIDMSGPS  
 LKSVLDSATYSEIEKKEQDTASLGLTEGCDRYMTLNVADEGNVHTPCIAETREEKTEVG  
 IKPQQNPL  
 >Q9LJD7  
 MMTPGGSGLRPLPTAMYAGYSGTASSWAKTSVSASGKRIQREMAELNIDPPPDCSAGP  
 KGDNLYHWIATIIGPSGTPYEGGIFFLDIIFPSDYPFKPPKLVFKTRIYHCNVDTAGDL  
 VNILRDSWSPALTITKVLQAIRSIFLKEPYSPALPVIARLYLTDREKHDEAKEWTLRF  
 AK  
 >Q39211  
 MDGATYQRFPKIKIRELKDDYAKFELRETDVSMANALRRVMISEVPTVAIDLVEIEVNSS  
 VLNDEFIAHRLGLIPLTSEARAMSRFSRDCDACDGDGQCEFCSVFRLSSKCVTQTLDV  
 TSRDLYSADPTVTPVDFTIDSSVSDSSEHKGIIIVKLRRGQELKLRAIARKGIGKDHAKW  
 SPAATVTFMYEPDIINIENDMMDTLSDEEKIDLIESPPTKVFGMDPVTRQVVVVDPEAYTY  
 DEEVIKKAEAMGKPGLIEISPKDDSFIFTVESTGAVKASQLVNAIDLKQKLDARLSD  
 DTVEADDQFGEGLGAHMRGG  
 >P52914  
 MELLIKLITFLLFSMPAITSSQYLGNNLLTSRKIFLKQEEISSYAVVFDAGSTGSRIHVY  
 HFQNQLDLLHIGKGVEYYNKITPGLSSYANNPEQAQSLIPLQEAEDVVPDDLQPKTPV  
 RLGATAGLRLNGDASEKILQSVRDMLSNRSTFNVQPAVSIIDGTQEGSYLWVTVNYAL  
 GNLGKKYTAKTVGVIDLGGGSVQOMAYAVSKTAKNAPKVADGDDPYIKVVLKGIPYDLYV  
 HSYLHFGREASRAEILKLTPRSPNPCLLAGFNGIYTSGEEFKATAYTSGANFNKCKNTI  
 RKALKLNYPCPYQNCTFGGIWNGGGNGQKNLFASSFFYLPEDTGMVDASTPNFILRPV  
 DIETKAKEACALNFEDAKSTYPFLDKKNVASYVCMDLIYQYVLLVDGFGLDPLQKITSGK  
 EIEYQDAIVEAAWPLGNAVEAISALPKFERLMYFV  
 >P93203  
 MATSCFPPFSASSSLCSSQFTPPLLSCPRTQICRKKRPMASMHSENQKESNCNRRI  
 LFVGFSQLPLLNLRARALEGLSTDQAQPKEETEQTIQGSAGNPFVSLLNGLGVVGSGV  
 LGSLYALARNEKAVSDATIESMKNKLKDKEAFVSMKKQFESELLSEREDRNKLIRREGE  
 ERQALVNQLSAKTTVISLGQELQNEKKLAEDLKFEIKGLQNDLMNTKEDKKLQEEELKE  
 KLDLQVLEEKITLLTEIKDKEVSLRSNTSKLAKESEVNSLSDMYQQSQDQLMNLTE  
 IKELKDEIQKRERELELKCVSEDNLNVQLNSLLERDESKKELHAIQKEYSEFKSNSDEK  
 VASDATLGEQEKRHLQLEEQLGTALSEASKNEVLIADLTREKENLRRMVDAELDNVNKLK  
 QEIEVTQESLENSRSEVSDITVQLEQLRDLSSKLEREVSKLQMELEETRASLQRNIDETK  
 HSSELLAAELTTTKEKKTNEEMHTMSDELVAVSENRDSSLQTELVNVYKKREHTRNELK  
 QEKTIVRTLEEELKFLESQITREKELRKSLEDELEKATESLDEINRNVLALAEELATS  
 RNSSLEDEREVHRQSVSEQQISEQAQENLEDAHSLVMKLGKERESELEKRAKKLEDEMAA  
 AKGEILRLRSQINSVKAPVEDEEKVVAKEKEKVNVQQ  
 >O22607  
 MESDEAAAASPQATTPSGGTGASGPKKRGRKPCTKEDSQTPSSQQQSDVKMKEGKKTQQ  
 SPSVDEKYSQWKGLVPILYDWLANHNLWPSLSCRWGPQLEQATYKNRQRLYLSEQTDS  
 VPNTLVIANCEVVKPRVAAEHISQFNEEARSPFVKYKTIIPHGEVNRIRELPQNSKIV  
 ATHTDSDPDLIWDVETQPNRHAVLGAANSRPDLILTGHQDNAEFALAMCPTEPFVLSGGK  
 DKSVVLWSIQDHITTIGDSKSSGSIIKQTGEGTDKNESPTVPGPRGVYHGHDFTVEDVAF  
 SPTSAQEFCSVGDDSCLILWDARTGTNPVTKVEKAHDADLHCVWDNPHDNNLILTGSADN  
 TVRLFDRRKLTANGVGSPPIYKFEGHKAAVLCVQWSPDKSSVFGSSAEDGLLNIWDYDRV  
 KKSDRAAKSPAGLFFQHAGHRDKVVFHWNASDPWTIVSVSDDCETGGGTLQIWRMSD  
 LIYRPEEVVAELEKFKSHVMTCAK  
 >Q08655  
 MEEEKHHHHHLFHDKAEEGPVDYEKEIKHHKHLEQIGKLGTVAAGAYALHEKHEAKKD  
 PEHAHKHKIEEEIAAAAVGAGGFAFHEHHEKKDAKKEEKKLRGDTTISSKLLF  
 >Q680Q4  
 MDLEANCKEKLASYFRIKELDVLTQLGLSKQGKKQELVDRILLLSDEQAARLLSKKNTV  
 AKEAVAKLVDDTYRKMQVSGASDLASKGQVSSDTSNLKVGEPEDPFQPEIKVRCVCGNS  
 LETDSMIQCEDPRCHVWQHVGCVILPDFPMGDNPLPESFYCEICRLTRADPFWVTVAH

LSPVRLTATTIPNDGASTMQSVERTFQITRADKDLLAKPEYDVQAWCMLLNDKVLFRMqw  
 PQYADLQVNQGPVRAINRPGQQLLGVNGRDDGPIITS CIRDGVNRISLSGGDVRIFCFGV  
 RLVKRRTLQQVLNLIPPEEGKGETFEDALARVRCIGGGGGDDNADSDSDIEVVADFFGV  
 LRCPMGSRIKVAGRFLPCVHMGCFDLDVFVELNQRSRKWQCPICLKNSVEHVIVDPYF  
 NRITSKMKHCDEEVTEIEVKPDGSWRVKFKRESERRELGELSQWHAPDGSCLPSAVDIKR  
 KMEMPLVKQEGYSDGPAPLKGIRKNRNGIWEVSKPNTNGLSSSNRQEKGVYQEKNIIPM  
 SSSATGSGRDGDDASVNQDAIGTFDFVANGMELDSISMNVDSGYNFPDRNQSGEGGNNEV  
 IVLSDSDDENLVITPGPAYSGCQTDGLTFPLNPPGIINSYNEDPHSIAGGSSGLGLFN  
 DDDEFDTPLWSFPSETPEAPGFQLFRSDADVSGGLVGLHHHSPLNCSPINGGYMAPET  
 SMASVPVPGSTGRSEANDGLVDNPLAFGRDDPSLQIFLPTKPDASAQSGFKNQADMNSG  
 LRSEDWISLRGDSASGNHGDPATTNGINSSHQMSTREGSMDDTTETASLLLGMNDSRQD  
 KAKKQRSDNPFSFPRQKRSNNEQDHQTRHRSLNKICIILCAGKN

&gt;O24606

MMFNEMGCGNMDFFSSGSLGEVDFCPVPAEPDSIVEDDYTDEIDVDELERMRWDKM  
 RLKRLKEQDKGKGEVDAAKQRQSQEARRKKMSRAQDGILKYMVKMMEVCKAQGFVYGI  
 PENGKPVTGASDNLREWWKDKVRFDRNGPAAITKYQAENNIPGIHEGNNPIGPTPHTLQE  
 LQDTTLGSLLSALMQHCDPPQRRFPLEKGVPWWPNGKEDWPWQQLGLPKDQGPAPYKKP  
 HDLKKAWKVGVLTAVIKHMFDIAKIRKLVRQSKCLQDKMTAKESATWLAIINQEESLAR  
 ELYPESCPPLSLSGGSCSLLMNDCSQYDVEGFEKESHYVEELKPEKVMNSSNFGMVAKM  
 HDPVKEEVPGNSEFMRKRPKNRDLNTIMDRTVFTCENLGCAHSEISRGFLDRNSRDNH  
 QLACPHRDSRLPYGAAPSFRHVNEVKPVVGFQPQPRPVNSVAQPIDLTGIVPEDGQKMISE  
 LMSMYDRNVQSNQTSVMENQSVSLLQPTVHNHQEHLQFPGNMVEGSFFEDLNIPNRANN  
 NNSNNQTFFQGNNNNNNVFKDTADHNNFEAAHNNNNNSGNRFQLVFDSTPFDMASFD  
 YRDDMSMPGVVGTMDGMQQKQQDVSIFI

&gt;Q42877

MDMEDEYEPEQYNVDDDEEEITQEDAWAVISAYFEKGLVRQQLDSDEFIQNTMQEIVDE  
 SADIEIRPESQHNPGHQSDFAETIYKINFQIYLSPMMTESDGETATLFPKAARLRNLT  
 YSAPLYVDVTKRVIKKGHDGEETQDFTKVFIGKVPIMLRSSYCTLYQNSEKDTEL  
 ECPLDQGGYFIINGSEKVLIAQEKMSTNHVYVFKRQPNKYAFVAEVRSMA DTQNRPPST  
 MFVRMLSRTSAKGGSSGQYIRATLPYIRTEIPIIIIVFRALGFVADKDILEHICYDFNDTQ  
 MMELLRPSLEEAFVIQNQQVALDYIGKRGATGVTRKRYAKEIILQEMPLHVGVGEY  
 CETKKAYYFGYIIRHLLLALGRRAEDDRHDHYGNKRQLLAGPLLGGLFRMLFRKLTRDVR  
 GYVQKCVDNGKDVLNLQFAIKAKTITSGLKSLATGNWGQANAAGTRAGVSQVLNRLTYAS  
 TLSHLRRLNSPIGREGKLAKPRQLHNSQWGMMCRAFTPEGQACGLVKNLALMVYITV  
 AYPILEFLEEGTENFEEISPAVIPQATKIFVNGTWVGIHRDPDMLVRTLRLRRVDVN  
 TEVGVVRDIRLKELRIYTDXGRCSRPLFIVEKQRLMIKKDIQTLQQRESPDEGGWHDLV  
 AKGYIEYIDTEEETTMISMTINDLVQARLNPGDAYSDTYTHCEIHPSLILGV  
 CASIIPF  
 PDHNQSPRNTYQSAMGKQAMGIYVTNYQFRMDTLAYVLYYPQKPLVTTRAMEHLHFRQLP  
 AGINAIAVISCYSGYNQEDSVIMNQSSIDRGFFRSIFFFFRSYRDEEKKMGT  
 LVKEDFGRPD  
 RASTMGMRHGSYDKLDDGLAPPTRVSGEDVIIGKTTPIQSDDAQGQASRYTRKD  
 HSTS  
 LRHSETGMVDQVLLTTNADGLRFVKVRVRSVRIPQIGDKFSSRHGQKGT  
 VGMTYQEDMP  
 WTVEGITPDIIVNPHAI  
 PSRMTIGQLIECIMGKVA  
 AHMGKEG  
 DATPFTDV  
 TDVNISKALH  
 KCGYQMRGFETMYNGHTGRRLSAMI  
 FLGPTYYQRLKHMVDDKIHSRG  
 RGPVQILTRQPAE  
 GRSRDGGGLRF  
 GEMERDCMIAHGA  
 AAFHLKERLF  
 DQSDAYRV  
 HCER  
 CGLIA  
 IANL  
 KNSFE  
 CRGCKNKT  
 DIVQVH  
 IPYACK  
 LLF  
 QELMAMA  
 IAPRML  
 TKDV  
 LA  
 DQ  
 KKKGA

&gt;O24463

MDMISGSTAATSTPHNNQQAVMLSSPIIKEEARDPKQTRAMPQIGGSGERKPRPQLPEAL  
 KCPRCDSNNTKFCYYNNYSMSQPRYFCKACRRYWTHGGTLRNVP  
 IGGGCRKNKHASRFVL  
 GSHTSSSSSATYAPLSPSTNASSSNMSINKHMMMV  
 PNMTPTTMMGLFPNVLPTLMPTG  
 GGGFDFTMDNQHRSLSFTPMSLPSQGPV  
 MLAAGGSEATPSF  
 LEMLRG  
 GIGHGSSSYNT  
 SLTMSGNNNGMDKPF  
 SLPSY GAMCT  
 NG  
 LGSTTNDARQLV  
 GPQDNKAIM  
 KSSNNNNGV  
 LLNL  
 YWNKH  
 NNNNNNNNNNNNNNNNKGQ

&gt;Q39290

MIIIPVRCFTCGK  
 VIGNK  
 WDAY  
 LD  
 LLQLDY  
 TEGD  
 DAL  
 DAL  
 NL  
 VRY  
 CC  
 RR  
 LM  
 TH  
 VD  
 LIE  
 KLL  
 NY  
 NT  
 LE  
 KS  
 DNS

&gt;Q7G7J6

MKREYQEAGGSSGGSSADMGSCKDKVMAGAAGEEE  
 EDV  
 DELLA  
 ALGY  
 KV  
 RSS  
 DMA  
 DV  
 A  
 QK  
 LE  
 Q  
 L  
 E  
 M  
 A  
 GM  
 G  
 G  
 V  
 S  
 A  
 P  
 G  
 A  
 A  
 D  
 D  
 G  
 F  
 V  
 S  
 H  
 L  
 A  
 T  
 D  
 T  
 V  
 H  
 Y  
 N  
 P  
 S  
 D  
 L  
 S  
 S  
 W  
 V  
 E  
 S  
 M  
 L  
 S  
 E  
 L  
 N  
 A  
 P  
 L  
 P  
 I  
 P  
 P  
 A

PPAARHASTSTVTGGGSGFFELPAAADSSSTYALRPISLPVVATADPSAADSARDTK  
 RMRTGGGSTSSSSSSSLGGGASRGSVVEAAPATQGAAAANAPAVPVVVDTQEAGIR  
 LVHALLACAEAVQQENFAAAEALVKQIPTLAASQGGAMRKVAAYFGEALARVYRFRPAD  
 STLLDAAFADLLHAHFYESCPYLKFAHFTANQAILEAFAGCHRHVVDFGIKQGMQWPAL  
 LQALALRPGGPPSFRLTGVGPPQPDETDLQQVGWKLAQFAHTIRVDFQYRGLVAATLAD  
 LEFMLQPEGEADANEPEVIAVNSVFELHRLLAQPGALEKVLGTVHAVRPRIVTVEQE  
 ANHNSGSFLDRFTESLYSTMFDLEGSSGQAELSPPAAGGGGTDQVMSEVYLGRQI  
 CNVACEGAERTERHETLGQWRNRGRAGFEPVHLGSNAYKQASTLLALFAGGDGYRVEE  
 KEGCLTLGWHTPLIATSAWRVAA

>P23922

MGSNDPSTPSKASKPPEQEOPPATTSGTTAPVYPEWPGFQGYPAMPPHGFFPPPVAAGQA  
 HPYMWGPQHMVPPYGTTPPPYMMYPPGTVYAHPTAPGVHPFHYPMTNGNLEPAGAQGAA  
 PGAAETNGKNEPGKTSGPSANGVTSNSESGSDSESEGSDANSQNDSHSKENDVNENGSAQ  
 NGVSHSSHSGTFNKPMLPVPVQSGAVIGVAGPATNLNIGMDYWGATGSSPVPAMRGKVP  
 GSARGEQWDERELKKQRKLSNRESARRSLRKQAECEELGQRAEALKSENSSLRIELDR  
 IKKEYEELLSKNTSLKAALKGESGGGGSDAVPDMNERGDTNGGSHQKEP

>Q9M0V3

MSSWNYVVTAKPTSVTHSCVGNFTSPQELNLIVAKCTRIEIHLLTPQGLQPMLDVPIYG  
 RIATLELFPHGEAQDFLFIATERYKFCVQLQWDPESELITRAMGDVSDRIGRPTDNGQI  
 GIIDPDCRLIGLHYDGLFKVIPFDNKQQLKEAFNIRLEELQVLDIKFLFGCAKPTIAVL  
 YQDNKDAHVKTVEVSLKDKDFVEGPWSQNSLDNGADLLIPVPPPLCGVLIIGEETIVC  
 SASAFKAIPIRPSITKAYGRVDVDSRYLLGDHAGMIHLVITHEKEKVTGLKIELLGET  
 SIASTISYLDNAVVFGSSYGDSQLVKNLHPDAKGSYVEVLERINYNLGPIVDFCVVDLE  
 RQGQGVVTCGAFKDGSRLVVRNGIGINEQASVELQGIKGMSLKSIDEAFDTFLVVS  
 FISETRILAMNLEDELEETIEGFLSQVQTLFCHDAVYNQLVQVTSNSVRLVSSTTREL  
 DEWHAPAGFTVNVATANASQVLLATGGGHLVYLEIGDGKLTEQHALLEYEVSCLDINPI  
 GDNPNSQLAAVGWTDISVRIFSLPELTITKEQLGGEIIPRSVLLCAFEGISYLLCAL  
 GDGHLLNFQMDTTGQLKDRKKVSLGTQPI TLRTFSSKSATHVFAASDRPTVIYSSNKKL  
 LYSNVNLKEVSHMCPFNAAFPDSLAIAREGELTIGTIDDIQKLHIRTIPGEHARRICH  
 QEQTTRFGICSLGNQNSNSEESEMHFVRLDDQTFEFMSTYPLDSFEYGCILSCSFTEDEK  
 NVYCVGTAVALPEENEPTKGRILVFIVEDGRLQLIAEKETKGAVYSLNAFNGKLLAAIN  
 QKIQLYKWMRLDDGTRELQSECGHGHILALYVQTRGDFIVVGDLMKSISLLYKHEEGA  
 IEERARDYNANWMSAVEILDDDIYLGAENNFFNLTVKKNSEGATDEERGRLEVVGEGYHLG  
 EFVNFRRHGSLVMRLPDSEIGQIPTVIFGTVNGVIGVIASLPQEQTFLQSSLRKVI  
 KGVGGLSHEQWRSFNNEKRTAEARNFLDGLIESFLDSRNKMEDISKSMNVQVEELCKR  
 VEELTRLH

>O80536

MPLFELFRLTAKLESAQDRNPSPPVDEVVELVWENGQISTQSQSSRSNIPPPQANSSR  
 AREIGNGSKTTMVDEIPMSVPSLMTGLSQDDDFVWPWLNNHPSLDGYSDFLRDVSSPVT  
 NEQESDMAVNQTAFLPLQRRKDGNESA  
 PAASSSQYNGFQSHSLYGSDRARDLPSQQTNP  
 DFTQTQEPLITSNKPSLVNFHFLRPATFAKTTNNNLHDTKEKSPQSPPNVFQTRVLGAK  
 DSEDKVNLNESVASATPKDNQKA  
 CLISEDSCRKDQESEKAVV  
 CSSVGSGNSLDGPSEPSL  
 SLRKHNSNIQDIDCHSEDVEE  
 ESGDGRKEAGPSRTGLGSKR  
 RSAEVHNL  
 SERRRDRIN  
 EKMRALQELIPNCNKVDKASML  
 DEAIEYL  
 KSLQLQVQIMSMASG  
 YYLPPAVMF  
 PPGMGH  
 PAAAAAMAMGMGMPYAMGLP  
 DLSRG  
 GSSVN  
 HGP  
 QFQV  
 SG  
 MQQ  
 PVAM  
 GIP  
 RV  
 SGG  
 IFAG  
 SST  
 IUNGSTRDLSGSKD  
 QT  
 TTNNNSNL  
 KPIKR  
 QGSSDQFCGSS

>Q38859

MNAPERYERFVVP  
 EG  
 T  
 KK  
 VSY  
 DR  
 DT  
 KI  
 I  
 NA  
 AS  
 FT  
 VER  
 ED  
 HT  
 I  
 GN  
 I  
 VR  
 M  
 QL  
 HR  
 D  
 EN  
 VL  
 FAG  
 YQL  
 PHPL  
 KY  
 KI  
 IV  
 RI  
 HT  
 TS  
 QSS  
 PM  
 QAY  
 NQ  
 A  
 IN  
 DL  
 D  
 K  
 E  
 LD  
 Y  
 L  
 K  
 N  
 Q  
 F  
 EA  
 EV  
 A  
 K  
 F  
 S  
 N  
 Q  
 F

>Q8LK56

MQSIMDSSAVNATEATEQNDGSRQDVLEFDLNKTPQQKPSKRKRKFMPKVV  
 VEGKPKRKP  
 RKPAELPKVV  
 VEGKPKRKP  
 RAATQE  
 KVSK  
 ETGSA  
 KKNL  
 K  
 ESAT  
 KK  
 PAN  
 VG  
 DSM  
 NK  
 SP  
 EV  
 TLK  
 CRK  
 ALNF  
 DLEN  
 PG  
 DAR  
 QGD  
 SE  
 E  
 IV  
 QN  
 SS  
 G  
 AN  
 SF  
 SE  
 IR  
 DA  
 I  
 GT  
 NG  
 S  
 FL  
 DS  
 VS  
 Q  
 ID  
 KT  
 NG  
 GM  
 NQ  
 P  
 LE  
 V  
 S  
 M  
 G  
 NQ  
 P  
 D  
 K  
 L  
 S  
 T  
 G  
 A  
 K  
 L  
 A  
 R  
 D  
 Q  
 Q  
 P  
 D  
 L  
 L  
 T  
 R  
 N  
 Q  
 Q  
 C  
 Q  
 F  
 P  
 V  
 AT  
 Q  
 N  
 T  
 Q  
 F  
 P  
 M  
 E  
 N  
 QQ  
 Q  
 A  
 W  
 L  
 Q  
 M  
 K  
 N  
 Q  
 L  
 I  
 G  
 F  
 P  
 F  
 G  
 N  
 Q  
 Q  
 P  
 R  
 M  
 T  
 I  
 R  
 N  
 Q  
 Q  
 P  
 C  
 L  
 A  
 M  
 G  
 N  
 Q  
 Q  
 P  
 M  
 Y  
 I  
 G  
 T  
 P  
 R  
 P  
 A  
 L  
 V  
 S  
 G  
 N  
 Q  
 Q  
 L  
 G  
 G  
 P  
 Q  
 N  
 K  
 R  
 P  
 I  
 F  
 L  
 N  
 H  
 Q  
 T  
 C  
 L  
 P  
 A  
 G  
 N  
 Q  
 L  
 Y  
 G  
 S  
 P  
 T  
 D  
 M  
 Q  
 L  
 V  
 M  
 S  
 T  
 G  
 G  
 Q  
 Q  
 H  
 G  
 L  
 L  
 I  
 K  
 N  
 Q  
 Q  
 P  
 G  
 S  
 L  
 I  
 R  
 G  
 Q  
 Q  
 P  
 C  
 V  
 P  
 L  
 I  
 D  
 Q  
 Q  
 P  
 A  
 T  
 P  
 K  
 G  
 F  
 T  
 H  
 L  
 N  
 Q  
 M  
 V  
 A  
 T  
 S  
 M  
 S  
 P  
 G  
 L  
 R  
 P  
 H  
 S  
 Q  
 S  
 Q  
 V  
 P  
 T  
 T  
 Y  
 L  
 H  
 V  
 E  
 S  
 V  
 R  
 I  
 L  
 N  
 G  
 T  
 G  
 T  
 C  
 Q  
 R  
 S  
 R  
 A  
 P  
 A  
 Y  
 D  
 S  
 L  
 Q  
 Q  
 D  
 I  
 H  
 Q  
 G  
 N  
 K  
 Y  
 I  
 L  
 S  
 H  
 E  
 I  
 S  
 N  
 G  
 N  
 G  
 C  
 K  
 A  
 L  
 P  
 Q  
 N  
 S  
 S  
 L  
 P  
 T  
 P  
 I  
 M  
 A  
 K  
 L  
 E  
 A  
 R  
 G  
 S  
 K  
 R  
 Q  
 Y

HRAMGQTEKHDNLNAQQIAQSQDVERHNSSTCVEYLDAAKTKIQKVQENLHGMPPEVI  
 EIEDDPTDGARKGKNTASISKGASKGNSSPVKKTAEKEKCIVPKTPAKKGRAGRKSVP  
 PAHASEIQLWQPTPPKPLSRSKPKGKGRKSIQDSGKARGPSGELLQDSIAEIIYRMQN  
 LYLGDKEREQEONAMVLYKGDALVPYESKKRKPRAVKVDIDDETTRIWNLMLMGKDEKEG  
 DEEKDKKKEKWEEERRVFRGRADSFIAARMHLVQGDRRFSPWKGSVVDSVIGVFLTQNVS  
 DHLSSSAFMSLAARFPKLSSSREDERNVRSVVVEDPEGCILNLNEIPSWQEKVQHPSDM  
 EVSGVDSGSKEQLRDCNSGIERNFLEKSIQNLEEVLSSQDSFDPAIFQSCGRVGSCS  
 CSKSDAEFPTTRCETKTVSGTSQSVQTGSPNLSDEICLQGNERPHLYEGSGDVQKQETTN  
 VAQKKPDLKTMNWKDSVCFGQPRNDTNQTPSSSYEQCATRQPHVLDIEDFGMQGEGL  
 GYSWMSISPRVDRVKNVNPRFFFQGGSVPREFTGQIIPSTPHelpGMGLSGSSSAVQE  
 HQDDTQHNQDEMNMKAHLQKTFLLNSEECLTRQSSTKQNI TDGCLPRDRTAEDVVD  
 PLSNNSSLQNILVESNSNNKEQTAVEYKETNATILREMKGTLADGKPKTSQWDSLKDVE  
 GNEGRQERNKNNMDSIDYEAIRRASISEISEAIKERGMNNMLAVRIKDFLERIVKDHGGI  
 DLEWLRESPPDKAKDYLISIRGLGLKSVCVRLLTLHNLAFPVDTNVGRIA VRMGWVPLQ  
 PLPESLQLHLLELYPVLESIQKFLWPRLCKLDQRTLYELHYQLITFGKVFCRKSRPNCA  
 CPMRGECRFASAYASARLALPAPEERSLTSATIPVPPESFPVVAIPMIELPLPLEKSLA  
 SGAPSNRNCEPIIEEPASPGQECTEITESDIEDAYYNEDPDEIPTIKLNIEQFGMTLRE  
 HMERNMELQEGDMSKALVALHPTTSIPTPKLKNISRLRTEHQVYELPDSHRLLDGMDKR  
 EPDPDSPYLLAIWTPGETANSAQPPEQKCGGKASGKMCFDETSECNSLREANSQTVRGT  
 LLIPCRTAMRGSPNNGTYFQVNELFADHESSLKPIDVPRDWIWDLPRRTVYFGTSVTSI  
 FRGLSTEQIQFCFWKGFCVRCFEQKTRAPRPLMARLHFPA SKLKNKNT  
 >Q6NPP4

MADRGSGFAPRLDIKQLLSEAQHRWLRPAEICEILRNHQKFHIASEPPNRPPSGSLFLF  
 DRKVLRYFRKDGHNRKKDGKTVKEAHEKLKVGSIDVLHCYYAHGEDNENFQRRCYWM  
 EQDLMHIVFVHYLEVKGNRMSTSGTKENHSNSLGTGSVNVDSTATRSSILSPLCEDADS  
 GDSRQASSLIQQNPEPQTVPQIMHHQNASTINSYNTTSV LGNRDGWTSAHGNRVKG  
 SNS QRSGDVPAWDASFENS LARYQNL PYNA PLT QP STF GLIPMEGKTEKGSL  
 LTSEH LRNP LQS QVN WQTPVQESVPLQKWPMDSHSGMTDATD LAL FGQGA  
 HENFGTFSLLGSQDQSS SFQAPFTNNEAAYIPKLGPEDLIYEASANQ TLPLRKALL  
 KEDSLKKVDSFSRWSKELG EMEDLQM QSSSGGIAW TS VECENAAGSSLSP  
 SLS QPSLSEDQRFTMIDFWPKWTQTDSEVEVMV IGTFL SPQEV TSYSW  
 SCMFGEV VPADILV DGVL CCH APPHEV GRV PFYITCSDRFSCS  
 EVREFDFLPGSTRKLNATDIYGANTIE TS LHLRFENLLA  
 RCSVQEH HIFENVGEKRRKI SKIMLL  
 KDEKEPPLPGTIEKDLTE LEAKERLIREEFEDKLYLWLI  
 HKVTEEGKGPNILDE DGQGV LHLAA ALGYDWA  
 IKPILAAGVSINFRDANGWSALHWA  
 AFGREDTVAVL VSLG AD AGALADPSPEHPLGKTAADLAYGNGH  
 RGIISGFLAESL TS YLEKLT  
 VDAKENSSADSSGA KAVL TVAERTATPMSYGDV  
 PETLSMKDSL  
 TAVLNATQAADRLHQVFRM  
 QSFQRKQLSELG GDNKFDI SDELA  
 VSFAA  
 KTKSGHSSGA  
 VAAA  
 VQIQKKYRGWKKRKEFLL  
 IQRIVKI QA  
 HVRGHQVRKQYRAI  
 IWSVGL  
 LEKII  
 ILRWR  
 RGKSLRG  
 FKRDT  
 ISK  
 PTE  
 VCP  
 APQEDD  
 YDFLKEGRKQTEERLQ  
 KALTRV  
 KSMAQY  
 PEARA  
 QY  
 RLL  
 TV  
 VEG  
 FRENE  
 ASSSSALKNNT  
 EEA  
 ANY  
 NEED  
 DLI  
 DIDS  
 LLD  
 DTF  
 MSLA  
 FE

>Q9MOK4

MAKTKYGERHRKGLWSPEEDEKLRSFILSYGHSCWTTVPIAGLQRNGKSCRLRWINYLR  
 PGLKRD  
 MISAA  
 EETILT  
 FHSS  
 LGNKWSQIA  
 KFLPGRT  
 DNE  
 IKN  
 YWH  
 SHLKK  
 WLKS  
 QSL  
 QDAKS  
 ISPP  
 SSS  
 SSS  
 LVAC  
 GKR  
 N  
 PETL  
 ISNH  
 VF  
 SF  
 QRL  
 LEN  
 KSS  
 SPS  
 QE  
 SNG  
 NN  
 HQCSS  
 APE  
 IP  
 RLFF  
 SE  
 WL  
 LSS  
 SS  
 PHT  
 DYS  
 SE  
 F  
 TDS  
 KHS  
 SQAP  
 N  
 VE  
 ET  
 LS  
 SAY  
 E  
 MG  
 DV  
 DQ  
 F  
 HY  
 NEM  
 MI  
 NNS  
 NW  
 TL  
 ND  
 IV  
 FGS  
 K  
 KK  
 Q  
 EH  
 HI  
 Y  
 RE  
 A  
 S  
 DC  
 NS  
 SAE  
 FF  
 SP  
 ST  
 TT

>Q9ZSZ8

MEFSSQDDDFGGDDSAANATRASGNRRSGDLEDDEDDIFG  
 STTVAPGVRTGMILSLRG  
 LKNCKDDLASCQNELESAKTEI  
 QWK  
 SAF  
 QNES  
 FV  
 PAG  
 KS  
 PE  
 PR  
 FL  
 IDY  
 I  
 QNL  
 KS  
 SE  
 K  
 SL  
 KE  
 Q  
 LE  
 I  
 A  
 K  
 R  
 K  
 E  
 A  
 S  
 C  
 I  
 V  
 Q  
 Y  
 A  
 R  
 E  
 M  
 A  
 E  
 L  
 K  
 S  
 A  
 V  
 R  
 D  
 L  
 K  
 S  
 Q  
 P  
 A  
 M  
 Q  
 A  
 R  
 L  
 L  
 D  
 P  
 A  
 I  
 H  
 E  
 F  
 S  
 R  
 L  
 K  
 N  
 L  
 V  
 E  
 E  
 K  
 D  
 K  
 K  
 I  
 K  
 E  
 L  
 Q  
 D  
 N  
 I  
 A  
 A  
 V  
 T  
 F  
 T  
 P  
 Q  
 S  
 K  
 N  
 G  
 K  
 M  
 L  
 M  
 A  
 C  
 R  
 T  
 L  
 Q  
 E  
 E  
 N  
 E  
 E  
 I  
 G  
 H  
 Q  
 A  
 A  
 E  
 G  
 K  
 I  
 H  
 E  
 L  
 A  
 I  
 K  
 L  
 A  
 M  
 Q  
 K  
 S  
 Q  
 N  
 A  
 E  
 L  
 R  
 S  
 Q  
 F  
 E  
 G  
 L  
 Y  
 K  
 H  
 M  
 E  
 E  
 L  
 T  
 N  
 D  
 V  
 E  
 R  
 S  
 N  
 E  
 T  
 V  
 I  
 I  
 L  
 Q  
 E  
 K  
 L  
 E  
 E  
 K  
 E  
 I  
 E  
 R  
 V  
 K  
 K  
 G  
 L  
 E  
 I  
 V  
 S  
 E  
 L  
 V  
 G  
 D  
 K  
 K  
 D  
 E  
 V  
 D  
 E  
 I  
 D  
 E  
 D  
 A  
 K  
 E  
 E  
 I  
 A  
 G  
 G  
 E

>Q9S7T7

MLRLES  
 LIV  
 TVWGP  
 ATLL  
 LARKA  
 PLGQI  
 WMA  
 ATL  
 HAK  
 INR  
 KK  
 L  
 K  
 L  
 D  
 I  
 I  
 Q  
 I  
 C  
 E  
 E  
 I  
 L  
 N  
 P  
 S  
 V  
 P  
 M  
 A  
 R  
 L  
 S  
 G  
 I  
 L  
 M  
 G  
 G  
 V  
 V  
 I  
 V  
 Y  
 E  
 R  
 K  
 V  
 K  
 L  
 L  
 F  
 D  
 D  
 V  
 N  
 R  
 F  
 L  
 V  
 E  
 I  
 N  
 G  
 A  
 W  
 R  
 T  
 K  
 S  
 V  
 P  
 D  
 P  
 T  
 L  
 L  
 P  
 K  
 G  
 K  
 T  
 H  
 A  
 R  
 K  
 E  
 A  
 V  
 T  
 L  
 P  
 E  
 N  
 E  
 A  
 D  
 F  
 G  
 D  
 F  
 Q  
 T  
 R  
 N  
 V  
 P  
 K  
 F  
 G  
 N  
 Y  
 M  
 D  
 F  
 Q  
 Q  
 T  
 F  
 I  
 S  
 M  
 R  
 L  
 D  
 E  
 S  
 H  
 V  
 N  
 N  
 N  
 P  
 E  
 P  
 E  
 D  
 L  
 G  
 Q  
 Q  
 F  
 H  
 Q  
 A  
 D  
 A  
 E  
 N  
 I  
 T  
 L  
 F  
 E  
 Y  
 H  
 G  
 S  
 F  
 Q  
 T  
 N  
 N  
 E  
 T  
 Y  
 D  
 R  
 F  
 E  
 R  
 F  
 D  
 I  
 E  
 G  
 D  
 D  
 E  
 T  
 Q  
 M  
 N  
 S  
 N  
 P  
 R  
 E  
 G  
 A  
 E  
 I  
 P  
 T  
 T  
 L  
 I  
 P  
 S  
 P  
 R  
 H  
 D

IPEGVNPTSPQRQEQQENRRDGFAEQMEEQNIPDKEEHDRPQPAKKRARKTATSAMDYEQTIIAGHVYQSWLQDTSDILCRGEKRKVRGTIRPDMESFKRANMPPTQLFEKDSSYPPQLYQLWSKNTQVLQTSSESRRHPDLRAEQSPGFVQERMHNHHQTDHHERSDTSSQNLDSPAELRTVRTGKGASVESMMAGSRASPETINRQAADINVTPFYSDDVR SMPSTSARGAASIN NIEISSKSRRMPNRKRPNSSPRRGLEPVAEERPWEHREYEFEFMLPEKRF TADKEILFET ASTQTQKPVCNQSDEMITDSIKSHLKTHFETPGAPQVESLNKLAVGMDRNAAKLFFQSC VLATRGVIKVNAE PYGDILIARGPNM  
>Q84VX3

MVKFAIINTLTNETWAKLKSFVGMESSIEGSSESTTVTTSPSRRVRELLALCFSSVEAAGGFQDFESFVTTELVSCLDSLYENVALDANNELENDVIEEVLDIEILKVLSSPQMDQDVIDA LSFHLPKVTSKFADISSRCLQLVEEIVDRFVEACNPRDMLSILCEALDAARCYHSASTCS TPLLHGLSKVFILIQRRHYEQLKVA VPIVLNVLKDISLETDVQVEDLF DKA LGIASSIRD VSSKLNNEEEAKVRCLLCLYVIQITAIISVSIRDKAASCIPLVIQLEPFLTSCGLTHLGL ITGNDTEKLMSTVAGDDDEFITSFPDISLGASLLFICAKISHEVAEAANAVLSVVDLQNNPVKRWQAYGMLKYILSSGDLLWEFKRHAIEFLLDITKGVTSSQCNCDEQIDCSDYTPGI YATLQAVTLLIMYAPDADLRKKTFEALKRVLS DIPAPHRFDVLRALVTSRSPSMTAIL GLVKDMSKSSLQDTDCAAVDTHVIELVELVLRPPQGGPPLPDQSDAILAALNLYRFAL LFESRECEAGKERSKVGSIDL SKKNLEKAYKEWLLPLRTL VSCSIAENLKEDHGQESSLD DVGLLNPIELVLYRCIELVEEKLKSH  
>Q9FIE3

MDSSSFEDNECIETCKPNVLNSERRELIAHSNQPEEASELLNSWSRNEIMKIICAEMG KERKYTG LNKPKLIENLLNLVSRPLGETSCSDRRNSRKKEKKMIGYIICCENLACRAALG CDDTCRRCSCCCICQKFDDNKDPSLWLTCACGSSCHECGLKQDRY GIGSDDL DGRFYCA YCGKDNDLLGCWRKQVKVAKETRRDVLCYRLSLGQKLLRGTTK YRNLL ELMDEAVK KL EGDVGPLSGWAMK MARGIVNRLSSGVHVQKLC SQAMEALDKVSPSEVSGQGDKMTV RV EEIQARSVTVRVDSEEPSSSTQNKITGFRLFCRKSKDEECSSQGNCVVYL PETTS AIQGL EPDTEFCLRVV SFNEEGDLDESELRTTLKDDGDEAGDQ QSPLTNSSSGLCSNPSPDE SNNVNKSCSKGNGDKDNTEHCSAGEVESELEERLVKRKANKIDGRDLLVTPCKRD IYKG KQGGNKRFSRTVSLNEKPEINNAANGVGDKDLGHIVKTIRCLEE EGHIDKSFRERFLTW YSLRATHREV VVVKIFVETFMEDLSSLGQQLV DFTFSESILSKRSSTNGVV PAGICLKLWH  
>P25209

MAEAPASPGGGGSHE SGSPRGGGGGSVREQDRFLPIANISRIMKKAI PANGKIAKDAK ETVQECVSEFISFITSEASDKCQREKRKTINGDDLLWAMATLGFEDYIEPLK VY LQKYRE MEGDSKLTAKSSDGSIKKD ALGHVGASSAAEGMGQQGAYNQGMGYMQPQYHNGDISNV  
>O04479

MASSSTNSPCAACKFLRRKCQPECVFAPYFPPDQPQKFANVHKVFGASNVTKLLNELHPS QREDAVNSLAYEADMRLRDPVYCGVVI SLLQHQLRQLQIDLSCAKSEL SKYQSLGILAA THQSLGINLLAGAADGTATAVRDHYHHHQFFPREQMFGGLDVPAGNNYDGGILAIGQITQ FQQPRAAAGDDGRRTVDPS  
>O04003

MMNLSAAANGRDEFPPYVVP S NAAAPPSLLPTMEQQESSIHREHHQLLGYNLEANSLLPPSNAAAHHHTTFAGGHSPHDILHFYT PPPSAASHYLAAAAGNPYSHLVSAPGTTF QTSSYYPPAAAQAAP EYYFPTLVSSAENMASFAATQLGLNLGYRTYFPPRGGYTYGH HPPRCQAECKADLSSAKRYHRRHKVCEHHSKAPVVVTAGGLHQRFCQQCSRFHLLDEF DAKKSCRKRLADHNRRRKS KPSDADAGDKKRAHANKAAA AKDKAESSSKNMDIGDGLGA QILGSALLSKEQDQTMDLGEV VKEAVDPKGKASMQHGF PFHSSAGSCFPQTQAVSSD TTSNIGQVQEPLGFHHQHHQHSN ILQLGQAMFDLDFDH  
>Q9FQ20

MFYSHCLVSRKGPLGAIWVAAYFFKKLKSQVKATHIPSSV DQI LQKEL DALTYRV LAYL LLGVVRIYSKKVDFLFD CNKALIGVKEFVAKER NREKTGVSL PASIECFSIALPERFEL DAFDLGVLED F HGGNVKP HEDITLKDG SQETERMDMYSMERF DMEEDLLFTFHETFSTNH NENKHE SFAHDMELDAENVRDTTEEASRVV EAEP L DSNEP SRD HQN ASRHREDPESDDI LLEPQMSED IRIAQEEDTV RETICTIVQRLVDSHESSGDNLH RDGHTENLESEKTSK KTS CEEMQHRS L PSEC G IPEAIHGIEDQPSGATR INGEKEIPEM STLEKPEPV SVGSRDLQ EGVEKCRDHNEAEMADFELFH GSHKEQSETSEVNLHGSEKGFLSDMTVSKDPSSEFNATD TPVTVPKTPS RLKISEGGTSPQFSI IPTPAAKESSRVSRKRKCLIDDEV IIPNKVMKEM IEDSSKLLAKRRNVPHTDCPERRTKRFANPFRSFLEPLI QYGSSDLQSLFCQPIKLKNWA TTGTPKDTK IARHKEKSSL DT VRSPGVILSSDQTENTQEIMETPQAAALAGLKVTAGNSN

VVSVEMGASSTTSFTAQTEAAETPVKPSVIAPETPVRTSEQTVIAPETPVVSEQVEIA  
PETPVRESMSKRFKDPGTCYKKSRPASPFTSFEHPSVYYVENRDLDTILMNDEQVNAD  
ERQDLQQETWSSRTRNVAKFLEKTFLEQRERESEEKVSLQLCRGRTQESARLFYETLV  
LTKGYVEVKQNHPYSDVFLMRVSRPQKAC

>Q9XGM2

MSREDFSDTLRLVLTATDCHLGMEKDEIRRHDASFKAFFEEICSIACEEKQVFLLGGDLFH  
ENKPSRTTLVKAIEIILRRHCLNDKPVQFQVVSDQTVNFQNAFGQVNYEDPHFNGLPVFS  
IHGNHDDPAGVDNLSAIDILSACNLVNYFGKMLGGSGVGQITLYPILMKKGTTVALYG  
LGNIRDERLNRMFQTPHAQWMRPEVQEGCDVSDWFNIILVLHQNRVKSNPKNAISEHFLP  
RFLDFIVWGHEHECLIDPQEVSQMGFHTQPGSSVATSLIDGESKPKHVLLLEIKGNQYR  
PTKIPPLTSVRPFYEYTEIVLKDESIDPNDQNSILEHLDKVRNRNIEKASKKAVNRSEIKL  
PLVRIKVVDYSGFMTINPQRFGQKYVGKVNAPQDILIFSKASKGRSEANIDDSERLRPEE  
LNQONIEALVAESNLKMEILPVNDLDVALHNFKNDDKLAFYSCVQYNLQETRGKLAQDS  
DAKKFEEDDLILKVGECLEERLKDRSTRPTGSSQFLSTGLTSENLTKGSSGIANASFDD  
EDTTQMSGGLAPPTRGRGSSTANTTRGRAKAPTRGRGRGKASSAMKQTTLDSSLGFRQSQ  
RSASAAASAFAKSASTIGEDEDDVDPSPSSEEVEPEDFNKPDSSEDDESTKGKGRKRPAATT  
RGRGRGSGTSKGRKNESSSSLNRLSSKDDDEDREKLNKSQPRVTRNYGALRR  
>Q11207

MANKLVDELRLKLAERGLSTTGVKAVLVERLEEAIAEDTKKEESKSKRKRNSSNTYES  
NKLIAIGEFRGMIVKELREEAIKRGDDTTGKDLLERLCNDANNVSAPVKSSNGTDEA  
EDDNNGFEEEEKKEEIKVTATKKGAAVLDQWIPIDEIKSQYHVLQRGDDVYDAILNQTNVRD  
NNNKFFVLQVLESDSKTYMVTYTRWGRGVGVKGQSCLDGPYDSDWRAIEIFTNKFNDKTKN  
YWSDRKEFIPHPKSYTWLEMDYGEENDSPVNNDIPSSSSEVKPEQSKLDTRVAKFISLI  
CNVSMMAQHMMEIGYNANKLPLGKISKSTISKGYEVLRKRISEVIDRYDRTRLEELSGEFY  
TVIPHDFGFKKMSQFVIDTPQKLQKIEVMEALGEIELATKLLSDPGLQDDPLYHYQQ  
LNCGLTPVGNDSSEFSMVANYMENTHAKTHSGYTVEIAQLFRASRAVEADRFQQFSSSKN  
RMLLWHGSRLTNWAGILSQGLRIAPPAPVTGYMFKGVYFADMFSKSANYCYANTGAND  
GVLLLCEVALGDMNELLYSDYNADNLPPKLSTKGVKTAPNPSEAQTLEDGVVVPLGKP  
VERSCKGMLLYNEYIVNVNEQIKMRYVIQVKFNYKH

>Q9FEF8

MRPPVTGGRGGGGFRGGRDGGGRFGGGRSFGGGRSFDRGRSGPRGRGRGAPRGRRGGPPR  
GGMKGGSKVIVEPHRHAGVFIAGKGEDALVTKNLVPGEAVYNEKRISVQNEDGTKVEYRV  
WNPFRSKLAIAILGGVDNIWIKPGAKVLYLGAASGTTVSHVSDLVPEGCVYAVEFSHRS  
GRDLVNMAKKRTNVIPIIEDARHPAKYRMLVGMVDVIFSDVAQPDQARILALNASFFLKT  
GGHFVISIKANCIDSTVAEEAVFQSEVKLQQEKFPAEQVTLEPFERDHACVVGGRMP  
KKQKTPAS

>Q38796

MDAFKEEIEIGSSVESLMELLDSQKVLFHSQIDQLQDVVVAQCKLTGVNPLAQEMAAGAL  
SIKIGKRPRDLLNPKAVKYLQAVFAIKDAISKRESREISALFGITVAQVREFFVTQKTRV  
RKQVRLSREKVMSNTHALQDDGPENNNATNHVEPVPLNSIHPEACSIISWGEGETVALI  
PPEDIIPPDISSDKYFVENIFSLRKEETFSGQVKLMEWIMQIQDASVLIWFLSKGGVLI  
LTTWLSQAASEEQTSVLLILKVLCHLPLHKASPEAMSAILQSVNGLFYRISDISNRAK  
GLLSRWTKLFAKIQAMKKQRNNSQIDSQSQLLKQIAEIMGDSSNPEDILSLSNGKSE  
NVRIIESQGPKLLTSADDSTKKHMLGSNPSYNKERRKVQMVEQPGQKAAGKSPQTVR  
GTSGRSRPMASADDIQAQAKMRALYMQSKNSKKDPLPSAIGDSKIVAPEKPLALHSAKDSPP  
IQNNEAKTEDTPVLSVQPVNGFSTIOPVNGPSAVQPVNGPLAVQPVNGPSALQPVNGPS  
AVIVPVQADEIKKPSTPPKSISSKVGVMKMSSQTILKNCKRKQIDWHVPPGMELDELWR  
VAAGGNSKEADVQRNRNRERETTYQSLQTIPLNPKEPWDREMDYDDSLSPSIPSQOPPE  
ESLTEPQDSLDERRIAAGAATTSSSLSSPEPDLELLAALLKNPDLVYALTSGKPSNLAGQ  
DMVKLLDVTKGAPNSSSSNKQVEEREVSLSPSTNPGMSGWGQEGIRNPFSRQNQ  
VGTAVARSGTQLRVGSMQWHQTNEQSIPRHAPSAYSNSITLAHTEREQQQYMQPKLHHNL  
HFQQQQQQPISTTSYAVREPVGQMGTTSSWRSQQSQNSYYSHQENEIASASQVTSYQG  
NSQYMSSNPGYESWSPDNPSRNQLNMRGQQQASRKHDSSTHPYWNQNK

>P49311

MASPDVEYRCFVGGLAWATDERSLETAFSQFGEVDSKIINDRETGRSRGFGFVTFKDEK  
SMKDAIEGMNGQDLDGRSITVNEAQSRGSGAGGGRRGGGGYRGGGGGYGGGGGGYGGGRR  
EGGGYSGGGGGYSSRGGGGGYGGGGRRGGGGYGGGEGGGYGGGGGGW

>Q9XF62

MSAQGQALQNHNNELVKCIEDLREKREEIIKQLREDDAEKAKITQELQILTKRLAQVNES  
IARKTETKNEYDKVISETAAYLKILESSQTLLTVLKREAVNIAKKQASS

(8) 14 peroxisome proteins

>P05414

MEITNVNEYEAIAKQKLPKMVDYYASGAEDQWTLAENRNAFSRILFRPRILIDVTNIDM  
TTTILGFKISMPIMIAPTAMQKMAHPEGEYATARAASAAGTMTLSSWATSSVEEVASTG  
PGIRFFQLYVYKDRNVVAQLVRRAERAGFKAIALTVDTPRLGRREADIKNRFVLPPFLTL  
KNFEGIDLGKMDKANDSGLSSYVAGQIDRSLSWKDVWLQTITSPLILVKGVITAEDARL  
AVQHGAAGIIVSNHGARQLDYVPATIMALEEVVKAAQGRIPVFLDGGVRRGTDVFKALAL  
GAAGVFIGRPVVFSLAAEAGEAGVKKVLQMMRDEFELTMALSGCRSLKEISRSHIAADWDG  
PSSRAVARL

>O64894

MASPGEPNRTAEDESQAAARRIERLSLHLTPIPPLDDSQGVEMETCAAGKAKAKIEVDMGS  
LSLYMRGKHREIQERVFYEFSRPELQTPVGISMADHRELCKQLVGLVREAGIRPFRFV  
NEDPAKYFAIMEAVGSVDVSLAIKMGVQFSLWGGSVINLGTKKHDRRFFDGIDNVVDYPGC  
FAMTELHHGSNVQGLQTTATFDPITDEFIINTPNDGAIKWIGNAAVHGKFATVFAKLVL  
PTHDSRKTADEMGVHAFIVPIRDLKSHKTLPGIEIHDCGHKVGLNGVDNGALRFRSRVIRP  
DNLLNRFGEVSRDGKYKSSLPSINKRFAATLGEVGGRVGLAYSSASVLKIASTIAIRYS  
LLRQQFGPPKQPEVSILDYQSQQHKLMPMLASTYAFHFSTMQLVEKYAQMKKTHDEELVG  
DVHALSAGLKAYVTSYTAKSLSTCREACGGHGYAVVNRFGLRNDHDIFQTPEGDNTVLL  
QVAAAYLLKQYQEKFQGGTLAVTNYLRESMNTYLSQPNPVTARWEADHLRDPKFQLDA  
FQYRTSRLQSVAVRLKHTKNLGSFGAWNRCNLHLLTAEHIESVILAQFIESVQRCP  
NANTQATLKLVCDLYALDRIWNDITYRNVDYVAPNKAIAHKLTEYLCFQVRNIAQELV  
DAFDLDPDHVTRAPIAMKSNAYSQYTQYIGF

>P13443

MAKPVQIEVWNPNNGYRVVSTKPMGPTRWINLLIEQDCRVEICTEKKTIILSVEDILALIG  
DKCDGVIGQLTEDWGEVLFSALSRAGGKAFSNMAVGYNNDVNAANKYGVAVGNTPGVLT  
ETTAELAASLSLAARRIVEADEFMAGRHYDGWLPNLFVGNLKGQTGVVIGAGRIGSAY  
ARMMVEGFKMNLIFYFDLYQSTRLEKFVTAYGEFLKANGEAPVTWRRASSMDEVREADVI  
SLHPVLDKTFHLVNKESLKAMKKDAILINCSRGVIDEAALVDHLRDNPMPFRVGLDVFE  
DEPYMKPGLADMKNAIIVPHIASASKWTREGMATLAALNVLGKIKGYPVWSDPNRVEPFL  
DENVSPPAAPSPIVNAKALGNA

>P25890

MDPYKHRPSSAFNSPFWTNSGAPVWNNSSLTVGSRGPILLEDYHLVEKLAQFDRERIP  
ERVHARGASAKGFFEVTHDISHLTCAFLRAPGVQTPVIVRFSTVIHERGSPETLRDPR  
GFAVKFTREGNYDLVGNFPVFFFVHDGMNFPMVHALKPQTHIQENWRILDFYFNFP  
ESLHMFSFLFDDVGVPQDYRHMDGFGVNTYTLINKAGKSVYVFHWKPTCGVKCLEEEA  
IQVGGSNHSHATKDLYDSIAAGNYPEWKLYIQTIDPAHEDRFEDPLDVTKTWPEDIIPL  
QPVGRMVLNKNIDNFFAENEQLACPAPIMLPGIYYSDDKMLQTRVFSYADSQRHRLGPNY  
LQLPVNAPKWSHHNNHHEGMNAIHRDEEVNYFPSRHTVRHAERVPIPTTHLSARREKC  
NIPKQNHFKQAGERYRTWAPDRQERFLRRWEALSDTDPRITHEIRSIWVSYWSQADRL  
GQKLASHLNMRPSI

>O24174

MAAPSAIPRRLFIGGGWREPSLGRRLPVVNATEATIGDIPAATAEDVELAVSAARDAF  
GRDGGGRHWSRAPGAVRAKYLKAIAAKIKDKKSYLALLETLDSGKPLDEAAGDMEDVAACF  
EYYADLAEALDGKQRAPISLPMENFESYVLKEPIGVVGLITPWNPPLMATWKVAPALAA  
GCTAVLKPSELASLTCLLELGGICAEIGLPPGVNIITGLGTEAGAPLASHPHVDKIAFTG  
STETGKRIMITASQMVKPVSLELGGKSPLIVFDDVDIDKAVEWAMFGCFANAGQVCSATS  
RLLLHEKIAKRFIDLRLVAWAKSIKISDPLEEGCRLGSVSEQQYQKIMKFISTARCEGAT  
ILYGGARPQHLKRGFFIEPTIITNVSTSMQIWREEVFGPVICVKEFRTEREAVELANDTH  
YGLAGAVISNDLERCERISKAIQSGIVWINCSQPCFVQAPWGGNKRSGFRELQWGLDN  
YLSVKQVTKYCSDEPYGWYRPPSKL

>P49299

MPTDMELSPSNVARHRLAVLAHLSAASLEPPVMASSEAHCVSAQTMVAPPELVKGTLT  
IVDERTGKRYQVQVSEEGTIKATDLKKITGPNDKGLKLYDPGYLNTAPRSSISYIDGD  
LGILRYRGYPIEELAESSTYVEVAYLLMYGNLPSQLADWEFAISQHSAVPQGLVDIIQ  
AMPHDAHPMGVLVSAMSALSVFHPDANPALRGQDLYKSQVRDKQIARIIGKAPTIAAAA  
YLRLAGRPPVLPSSNLSYSENFLYMLDSLGNRSYKPNPLARVLDILFILHAEHEMCST

SAARHLASSGVDFVFTALSGAVGALYGPLHGGANEAVLKMLSEIGTVNNIPEFIEGVKNRK  
RKMSGFGRVYKNYDPRAKVIRKLAEEVFSIVGRDPLIEVALEKAALSDEYFVKRKL  
PNVDFYSGLIYRAMGFPPEFTVLFAIPRMAGYLAHWRESLDDPTKIIRPQQVYTGEWL  
RHIPPNERLVPAKADRLGQVSVSASKRRLSGSGI

>Q56YA5

MDYMYGPGRRHHLFVPGPVNIPEPVIRAMNNEDYRSPAIPALTKTLEDVKKIFKTTSG  
TPFLFPPTTGTGAWEALTNTLSPGDRIVSFLIGQFSLLWIDQKRLNFDVVEDWGQG  
ANLQLVLAQKLSQDENHTIKAICIVNETATGVTNDISAVRTLLDHYPALLVDGVSSI  
CALDFRMDEWGVDFVALTGSQKALSLPTGLGIVCAPSKALEATTSKSLKVFFDWNDYLKF  
YKLGYWPYTPSIQLLYGLRAALDLIFEEGLENIIARHARLGKATRLAVEAWGLKNCTQK  
EEWIISNTVTAVMVPPHDGSEIVRRAWQRYNLSLGLGLNKVAGKVFRIGHLGNVNELQLL  
GCLAGVEMILKDVGYPVVMGSVAAASTYLQHHIPLIPSR

>P08216

MGSLGMYSESGLTKGSSRGYDVPEGVDIRGRYDEEFAKILNEALLFIADLQRTFRNHI  
KYSMECRREAKRRYNEGGLPGFDPATKYIRDSEWTCAVPAPAVADRRVEITGPVERKMII  
NALNSGAKVFMADFEDALSPNWEINLMRGQINLKDAVDGTISFHDRVRNRVYKLNDRTAKL  
FVRPRGWHLPEAHIFIDGEPATGCLVDFGLYFFHNHANFRRSQGQGYGPFFYLPKMEHSR  
EAKIWNNSVFERAEKMAGIERGSIRATVLIETLPAVFQMNEILYELRDHSVGLNCGRWDYI  
FSYVKTFOAHPDRLLPDRVLVGMQTQHFMRSYSDLLIRTCHRRGVHAMGGMAAQIPIRDDP  
KANEVALELVRDKDLREVKAGHDGTWAHPGLIPACMEVFTNMGNAPNQIRSMRDDAA  
NLTEEDLLQQPRGVRTMEGLRLNTRVGIQYLAAWLTGAGSVPLYNLAEDAATAEISRVQN  
WQWLKYGVLDGDGLGVRVNKELFGRVVEEMERIEREVGKERFKKGMYKEACKMFTRQC  
TAPNLDDFLTL DAY NYIVIHHPRELSKL

>Q39659

MGSNAKGRTVMEVGTDGVAIITIINPPVNSLSFDVLFSLRDSYEQALRRDDVKAIIVTG  
KGKFSGGFDITAFGVLOGGKGEQPNVRNISIEMITDIFEAAKPAAIAIDGLALGGLEV  
AMACHARISTPTAQLGLPELQLGIIPFGFGTQRLPRLVGLSKALEMMLTSKPIKGQEAHS  
LGLVDAIVPPEELINTARRWALEILERPPWVHSLHRTDKLESLAEARKIFNLARAQAKK  
QYPNLKHTIACIDAVETGVVSGPAGLWKEAEFFQGLLHSDTCKSLIHIFFAQRSTTKVP  
GVTDLGLVPRQIKKVAIVGGGLMGSGIATALILSNYHVLKEVNDKFLQAGIDRVRANLQ  
SRVKKGNMTNEKFEKSISLLKGVLNYESFKDVMVIEAVIENSLKQQIFSDELEYCPPH  
CMLATNTSTIDLELIGERIKSRDRIIGAHFFSPAHIIMPLIEVRTKHTAAQVIVDLDVG  
KNIKKTPVVGNCTGFAVNRMFFPYSQAAILLAEHGVDPYQIDRAISKFGMPGPRLCD  
LVFGVAAATASQFVQAFPERTYKSMLIPLMQEDKNAGESTRKGFYVYDKNRKAGPNPEL  
KKYIEKARNSSGSVDPKLTKEPEKDIVEMIFFPVVNEACRVLIAEGIAVKAADLDIAGVM  
GMGFPYSRGGLMFWADSLGSNYIYSRLEWSKQYGGFKPCGYLAERAVQGATLSAPGHH  
AKPRM

>Q43097

MAIYSAQAPNSILEEEARFEAEVSETQAWNNSTDLFRLTRRPYTARDVVRRLGSMRQSYA  
SNEMAKKLWRTLKTHQANKTASRTFGALDPVQVSMMAKYLDSTYVSGWQCSSTHTTNEP  
GPDLADYPYDTVPNKVEHLFFAQQFHDRKQEARMSSMTREERSKTPYIDYLKPIIADGDT  
GFGGATATVKLCKLFWVERGAAGVHIEDQASVTKKCGHMAGKVLVSVGEHVNRMVAARLQF  
DIMGVETLLVARTDAVATLIQTNVDARDHQFILGATNPNLKGKPLADVLARAMASGKSG  
ADLQAVEDEWMAMADLKLFSDCVVDGIGKALNVSEQEKGRRLGEWMQQTGGNTGNVLSYQ  
AKELAEKLGISNLFWWDLPRTRGFYRFQGSVKAIAVRGWAEGPHADIIWMETSSPDMV  
ECRDFALGVKSKHPEIMLAYNLSPSFNWDA SRMTDEQMKNFIFIPIARLGYCWFITLAGF  
HADALVIDTFAKDFAQRGMLAYVEKIQRQEMMNGVDTLAHQKWSGANYYDQLLKTQGGI  
SATAAMAKGVTEDQFEEQSSTIALESNIGAGTVLAKSRM

>Q56WD9

MEKAIEQRVLLEHLRPSSSSHNYEASLSASACLAGDSAAYQRTSLYGDVVVVAAHRT  
PLCKSKRGNFKDTYPDPLLAPVRLALIEKTNLNPSSEVGDIVVGTVLAPGSQRASECRMAA  
FYAGFPETVAVRTVNRQCSSGLQAVADVAAAIAKAGFYDIGIGAGLESMTTNPMMAEGSVN  
PAVKKFAQAQNCLLPMGVTSENVAQRFGVSRQECDQAAVDSHRKAAAATAAGKFKDEIIP  
VKTKLVDPKTGDEKPITVSVDDGIRPTTTLASLGKLKPVFKKDGTAGNSSQVSDGAGA  
VLLMKRSVAMQKGLPVLGVRTFAAVGVDPAIMGIGPAVAIPA AVKAAGLELDDIDLFEI  
NEAFASQFVYCRNKLGLDPEKINVNGGAMAIGHPLGATGARCVATLLHEMKRRGKDCRFG  
VVSMCIGTGMGAAAVFERGDGVDELNARKVEAQGLLSKDAR

>O04104

MAQQEVVEGFKEQRHGKERVVARWKTRQGQHFVVERVGITLFSDCVNSYLRDDNSD  
IVATDTMKNTVYAKAKECSDILSAEDFAILLAKHFVSYKKVTGAIVNIVEKPWERVIVD  
GQPHEHGFKLGSEKHTTEAIVQKSGSLQLTSGIEGLSVLKTTQSGFVNFIIRDKYTALPDT  
RERILATEVTALWRYSYESQYSLPKPLYFTEKYQEVKVLADTFFGPPNGGVYSPSVQN  
TLYLMAKATLNRFPDIAVSLKMPNLHFLPVNISNKDGPIVKFEDDVYLPTDEPHGSIQA  
SLSRLWSKL

>Q9S850

MPGIRGPSEYSQEPPRHPSSLKVNAKEPFNAEPPRSALVSSYVTPVDFYKRNHGPPIVD  
HLQSYSTLTGLIQNPRKLFIKDIRSLPKYNVTATLQCAGNRRTAMSKVRNVRGVGWDVS  
AIGNAVWGGAKLADVLELVGIPKLTASTNLGARHVEFVSDRCKEENGGPYKASITLSQA  
TNPEADVLLAYEMNGETLNRDHGFPLRVVPGVIGARSVKWLDSINVIAEESQGFFMQKD  
YKMFPPSVNWDNINWSSRRPQMDFPVQSAICSVEDVQMVKPGKVSIGYAVSGGGRGIER  
VDISLDGGKNWVEASRTQEPGKQYISEHSSDKWAWVLFEATIDVSQTTEVIAKAVDSAA  
NVQOPENVESVWNLRGVNLNTSWHRVLLRLGHNSL

>Q9FEW9

MASSAQDGNNPLFSPYKMGKFNLSHRVVLAPMTRCRALNNIPOAALGEYYEQRATAGGFL  
ITEGTMISPTSAGFPHPVGIFTKEQVREWKKIVDVVHAKGAVIFCQLWHVGRASHEVYQP  
AGAAPISSTEKPISNRWRILMPDGTHGIYPKPRAITYEISQVVEDYRRSALNAIEAGFD  
GIEIHGAHYLIDQFLKDGINDRTEYGGSLANRCKFITQVVQAVVSAIGADRGVRVSP  
AIDHLDAMDSNPLSLGLAVVERLNKIQQLHSGSKLAYLHTQPRYVAYGQTEAGRLGSEEE  
EARLMRTLRNAYQGTFICSGGYTRELGIEAVAQGDADLVSYGRLFISNPDLVMRIKLNAP  
LNKYNRKTFYTQDPVVGYTDYPFLQGNGSNGPLSRL

( 9 ) 32 plasma membrane proteins

>O64474

MALQNKEEEKKVKKLQKSYFDVLGICCTSEVP I IENILKSLGVKEYSVIVPSRTVIVV  
HDSSLISPFQIAKALNEARLEANVRVNGETSFKNKWPSPFAVVGSLLLLFLKFVYSPL  
RWLAVAAVAAGIYPILAFAKASIKRPRIDINILVIITVIATLAMQDFMEA AAVVFLFTIS  
DWLETRASYKATSVMSLMSLAPQKAI IAETGEEVEDEVKVDTVAVKAGETIPIDGIV  
VDGNCEVDEKTLTGEAFPVPKQRDSTVWAGTINLNGYICVKTSLAGDCVVAKMAKLVEE  
AQSSKTKSQRLIDKCSQYYTPAII LVSACVAIVPVIMKVHNLKHWFLALVVLVSGCPG  
LILSTPVATFCALTKAATGLLI KSADYLDTLSKIKIVAFDKTGTITRGEFIVIDFKSLS  
RDINLRSLLYWVSSVESKSSH PMAATIVDYAKSVSVEPRPEEVEDYQNFPGEGIYGKIDG  
NDIFIGNKKIASRAGCSTVPEIEVDTKGKTVGYVYVGERLAGFFNLSACRSGVSQAMA  
ELKSLGIKTAMLTDQNQAAAMHAQEQLGNVLVDVHGDLLED PEDKSRI IQEFKKEGPTAMVG  
DGVN DAPALATADIGISMGISGSALATQTGNI I LMSNDIRRI P QAVKLARRRKVVENV  
CLSI ILKAGILALAFAGHPLIWA A VLVDVGTCLLVI FNSM LLLREKKI G NKCYRASTS  
KLN GRKLEGDDDYVVDLEAGLLTKSGNGQCKSSCCGDKNQENVMMKPSSKTSSDHSP  
GCCGDKKEEKVKPLVKDGCCSEKTRKSEGDMVSLSSCKSSHVKHDLKMGGSGCASKN  
EKGKEVVAKS CCEKPKQVESVGDKSGHCEKKQAE DIVVPQIIGHALTHVEIELQTK  
ETCKTSCCD SKEKV KETG LLLSENT PYLEKGVL IKDEGNCKSGSEN MGTVKQSCHEKG  
SDEQTGEITLASEEETDDQDCSSGCCVNEGTVKQSFDEKKHSVLVEKEGLDMETGFCCD  
AKLVCCGNTEGEVKEQCRLEIKKEEHCKSGCCGEEI QTGEITLVSEEETESTNCSTGCCV  
DKEEVQTCTCHEKPASL VVSGLEVKKDEHC ESSHRAVKVETCCVKIPEACASKCRDRAKR  
HSGKSCCRSYAKELCSHRHHHHHHHHHHVSA

>P25848

MSATKKTYSSSTS A SKHSVRVAQTTADA A LEAVYEMSGD GDSFD YSKSVGQSAE SVPA  
GAVTAYLQRMQREGLIQNF GCMVAE EPNFCVIA YSENASE FLDLIPQAVPSM GEMDVLG  
IGTDIRTLFTPSSA ALEKAAATQDISLLNPITVHCRRSGKPLYAIAH RIDI GIVIDFEA  
VKMIDVPVSA AAGALQSHKLAARA IT RLQALPGGDI ELLCDTIVEEVRELTGYDRVMAFK  
FHEDEHGEVVAEIRRMDLEPYMGLHYPATDIPQASRFL LMKNRVRLIADCYASP VKL I QD  
PDIRQPVS LAGSTL RAPHGCHAQYMGNMGS I ASLVM A VIINDNEEYSRGAIQRGRKLWGL  
VVCQHTSPRTV PFLRSVCEFLMQVFGMQLNLHVELAQLREKHILRTQ TLLCDMLLRDA  
PIGIVSQTPNIMDLVKCDGA ALYYGKRVWLLGTTPTENQIKEIADWLLEHHNDSTGLSTD  
SLADANYPGAHLLGDAVCGMAA KITA KDFLFWFRSHTATEVKWGGAKHDPDEKDGRKM  
HPRSSFKAFLEV VNKR SPP WEDVEMDAI HSLQL LRG SFRDIADSDT KTM IHARLNDLKL  
QV EERNALANEMSRVLETAAPILAVD SRGM INAWN AKIA QVTGLPVEEAMHCS LTKDL  
VLDES VVVVERLLS LALQGEEEQNVEIKLKTFGTQ TTERAVI LIVNACC RDASDFVVGV  
FFVGQDVTEQRMFMDRFT RIQGGEKTTVQDPHPLMRPSFDGDEF GRTFKRNSALGGLKD

ATGSVERLDLYLRRRAEECMEMETIPSPKFNNKQCQYLAGKLKAVLQSASLFLRISHHEH  
 HELGASIDMGRHVEIFKLLLALAKEIESFIQGCCKDEWIKAAMTLTNVSEYVSSMGFNLE  
 LCKIAFCKSCAASGSLTLDQIEVICKDEAEVVKRNASIDVDTLFAKVIYDLTEKTLS  
 NDLAIYLLQRLKRAKPILPSFSSRPSWWNFYDDWSFSEKFFQWQITGSLGSGSSATVEK  
 AVWLGTPVAKKTFYGRNNEDFKREVEILAECHPNITSMFCSPLYRRKCSIIMELMDGDL  
 LALMQRRLLDRNEDHDSPPFSSILEVVDIILQTSEGMMYLHEKGIIHRDLKSMNIVKSVKV  
 TKSEIGYVHVVKADFGSLTKDSSTRYSNQTWNRTNRWMAPEVINLGYESTEGEISFDG  
 KVPKYPLKSDVYSGMVCYEVLTGDPFPEEKPNPNVCRMVLEGVRPDPAHCPIELKAL  
 ITDCWNQDPLKRPSFAVICQKLKYLKYLLMTGFSSYQDSYPSTEEPS

>P93788

MAELEAKKVEIVDPAPPAPGPVEAPKEVVADEKAIVAPALPPPAAEKEKPDDSKALVVVE  
 TKAPEPADEKKEGSIDRDAVLARVATEKRVSLIKAWEESEKSKAENKAQKKVSAIGAWEN  
 SKKANLEAELKKMEEQLEKKKAETYTEKMKNKIALLHKEAEKRAMIEAKRGEDLLKAEEL  
 AAKYRATGTAPKKILGIF

>Q5MFV8

MIGKVVVSVASILLIVGVAIGVVAYINKNGDANLSPQMKA VRGICEATSDKASCVKTLEPV  
 VKSDDPNKLIKA FMLATRDAITQSSNFTGKTEGNLGS GISPNNKAVLDYCKVFM YALED  
 LSTIVEEMGEDLNQIGSKIDQLKQWLTVGVNYQTDCCLDDIEEDDLRKTIGEGIASSKILT  
 SNAIDIFHTVVSAMA KNLKVEDFKNMTGGIFAPS DKGAAPVNKGTPVADDSPVADPDG  
 PARRLLEDIDETGIPTWVSGADRKLMTKAGRGSNDGGARIRATFVVA KDGSQFKTVQQA  
 VNACPEKNPGRCIIHIKAGIYREQVIIPKKNNIFMFGDGARKTVI SYNRSV KLSPGTTT  
 SLSGTQVSEGFMAK WIGFKNTAGPMGHQAVAIRVNGDRAVIFNC RDGYQDTLYVNNG  
 RQFYRNIVVSGTVDFIFGKSATVIQNSLIVVRKG NGQFNTVTADGNEKGLAMKIGIVLQ  
 NCRIVPDKKLAAERLIVESY LGP WKKFSTTVIINSEIGDVIRPEGW KIW DGE SFHKSCR  
 YVEYNNRGP GAITNRRV NWVKIARSAAEVNDFTVANLGPINWIQEANVPVTLGL

>Q05085

MSLPETKSDDILLDAWDFQGRPADRSK TGGWASAAMILCIEAVERLTTLGIGVNLVTYLT  
 GTMHLGNATAANTVTNFLGTSFMLC LLGGFIADTFLGRYLTIAIFAAIQATGVSI TLST  
 IIPGLRPPRCNP TTSSHCEQASGIQLTVLYLALYLTALGTGGVKASVSGFGSDQFDETEP  
 KERSKMTYFFN RFFF CINVGSLLAVTVLVYVQDDVGRK WGYGICAFAIVLALS VFLAGTN  
 RYRFKKLIGSPMTQVA VIVA AWRNRKLELPADPSYLYDVDDII AAE GSMKGK QKL PHT E  
 QFRSLDKAAIRDQ EAGV TSNVFNKWT LSTLTDVEVKQIVRMLPIWATCILFWTVHAQLT  
 TLSVAQSETLDRS SIGSF EIPPASMAV FYVGG LLLTAVYDRVAIRLCKKL FNYPHGLRPL  
 QRIGLGLFFGSMAMAVA ALVELKRLRTAHGPTVKTPLGFYLLIPQYLV GIGEALIY  
 TGQLDFFLREC PKGMKG M STG LLLSTL ALGFFFSSV LVTIVEKFTGKAHPWI ADDLNKGR  
 LYNFYWLVAVLVALNFLIFLVFSK WYVYKEKRLA EVGIELDDEPSIPMGH

>Q8VYR7

MEETFVPFEGIKNDLKGR LMCYKQDWGFFKAGFRILAPTTYIFFASAI PVISFGEQLER  
 STDGVLTAVQTLASTAICGMIHSIIGGQPLLILGVAEPTVIMYTFMFNFAKARPELGRDL  
 FLA WSGWVCVWTALMLFVLAICGACSIINRFTRVAGELFG LLIAMLFM QQA IKGLVDEF R  
 IPERENQKLKEFLPSWRFANGMFALVLSFGLLLTGLRSRKAR SWRYGTGW RLRS LIADYGV  
 PLMVLVWTGVSYI PAGDVPKG IPRRLFSPNPWSPGAYGNWTVKEMLDVPIVYI IGA FIP  
 ASMIAVLYYFDHSVASQ LAQQKEFNL RKPSSYHYD LLLLGFL TLMCG LLGVPPSNGV IPQ  
 SPMHTKSLATLKYQ L RNRLVATARRSIK TNASLG QLYDNM QEA YHHM QTPLVYQ PQ GL  
 KELKESTI QATTFTG NLNAPVDET LFDIEKEID DLLPVEVKEQRVSNL LQSTMVGG CVA  
 MPILKMIPTSVLWGYFA FMAI ESLPGNQFWER ILLLTAPS RRF KVLEDYHATF VETV PF  
 KTIAMFTL FQTTYLLICFGLTWIPIAGVMFPLMIMFLIPVRQYLLPRFFKG AHLQ DAA  
 EYE EAPALP FNLA AETEIGSTT SYPGD LEILDEV MTRS RGEFR HTSSPK VTSSS TPV NN  
 RSLSQVFSPRVSGIRLGQMS PRVVGNSPKPASCGRSPLNQ

>Q5QM84

MRERGEMREAKAPLIAEAAEHISHHGSSSGTGSHTSGGGGGW RGRS QYQRRSDA LAYG  
 NRYQKAAALV DLAEDGVG I PEDV LNDTRFER AMRFYFVYLRD WLWSLNLF ALI LN FLE  
 KPLWC RGYSQ HACDQ RDLYFLG QLPYLSKTESL IYEGL TLV ILVMDI FYPLS YEGL NL FW  
 KNTINKLKVLLFILACDILVFAFSPQPFRVAPYIRVAFLIMNI RE LRMCAV TL GMV GT  
 YLNVLALSL L FLLFASW LAYVT FEDTPQGKTVSSY GTT LYQMFILFTTSNNP DVW VPAY  
 KSSRWSSLFFIVYVLLGVYFLTMLILAVIYDSFKEQLAKQV S QADCTRKSILEKAFG IID  
 ATGQGYLNKEQCLS LL DELNK YRSLPK TSREDFELI FAELDQSGDFKVTSEEFATLC NTI  
 AIKFQKEPPPSYLEK YPSFYHSALCEWLKS FVRSP LF EYIVI FVLLMNLVAVI IETLDI

ENSSSQKVWQEVEFVFGWIYVIEMALKIFS LGF GAYWM EGQNKFDVLTWTIFIGETLTF  
 AFPSKLSFLSNGEWIRYLLLGRMLRLTRILLQVRFR A F VATFTLMSSLMPYL GIVFCT  
 LCIYCSLGLQIFGGIVYAGNP TLEETDLFSNDYLLNFNDYPSGMVTLFNLLVMGNWQAW  
 MESYRQLTGSYWSLIYFVSFYLI SVL LNLIVAFVLEAFFAEMELEKDGEADIQDPTLE  
 GRNRRRSVRVRTKGTMVDILLHHMLSNELDGSQRDQ

>P54774

MSQQGE S DPKSGKKDFSTA ILERKKSPNRLVVDEAVNDDNSVVTMHPQTMEKLQLFRGD  
 TILIKGKRKDTICIA LADENCEEPKIRMNKVVR SNLRVRLGDVSVHQC P DV KYG KRVH  
 ILPI DDTIEGVTG NLF DAFLKP YFLEAYRPVRKGDLFLVRGGMRSVEFKV VETDPGEYCV  
 VAPDTEI FCEGEPLKREDEERLDEVGYDDVGGVRK QMAQIRELVELPLRHPQLFKSIGVK  
 PPKGILLYGPPGSGKTLIARAVANETGAFFFCINGPEIMS KLAG ESESNLRKA FEEAEKN  
 APSII FIDEIDSIAPKREKTHGEVER RIVSQLL TMDGLKSRAHVIVIGATNRPNSIDPA  
 LRRFGRFDREIDIGVPDEVGRLEVRLIHTKNM KLSDDVDLERIAKDT HGYVGADLAALCT  
 EAALQCIREKMDVIDLEDETIDA EVLNSMAVTNEHFQTA LGTSNPSALRET VVEVPN VSW  
 EDIGGLEVN KRELQETVQYPV EHP EKFGMSPSKGVLFYGPPGCGKTLLAKAIANE CQ  
 ANFISVKGP ELLTMWFG ESEANVREIFDKARQSAPCVLFFDELD SIA TQRGSSVGDAGGA  
 ADRV LNQ LLTEM DGM SAKKTVFII GATNRPDIIDP ALLRPGRLDQ LIYIPLPDEDSRHQI  
 FKACLRKSPIAKNV DRLALARHTQGFSGADITEICQRACKYAI RENIEKDIERERKSREN  
 PEAMDED TVD DEVAE IKA AHFEESMKFARRS VS DADIRKYQAF A QTLQ QSRGFGSEFRFP  
 ESGDRTTTGSDPFAASAGGADEDDLYS

>P46014

MAMIGMNIIGLFMVLMLLISLIILFACKPWRYFSFRSSSRFSSTFKVGDLQRPLISDD  
 GNLIQGQTSEVTREYDLEGACYQNDGLLHSSLTEGRFYKQRLPSSPHFSQGESFVLEVI  
 SEPSDNALVGQTLKLPAEKGS LAEVQTYDWQNNRNENLQYNLEKDRLINLSPRLVEDQRS  
 WLFLEVIAGPAIGLQHAVNSTSSKLPVKLGRVSPSDLALKDSEVSGKHAQITWNSTKFK  
 WEVDMGSLN GTLVNSHSISHPD LGSRKWGNPVELASDDIITLGTTTKVYVRISSQNEFQ  
 IPFKIGVASDPMAMRRGGRKLP MEDVCHYKWPLPGANKFGLFCVCDGHGGSGAAQSAIKI  
 IPEVLANILSDSLRKEKVL SKRDASD VLDMFAK TEARLEE HQYEGCTATVLLVWKDNEE  
 NFFAQCANLGDSACV IHLC GRYIQMTEDHRV VSLSERKRFQEA GLAL RDGETRLFGINLA  
 RMLGDKFPKQ QDSRFSAE PYISEPLRIDQSSKDVF AVLASDGLWDVVSPKKAVQLVLQMR  
 DKERGESSAEKIANGL NEAR AMRTKDNTSIIYLDFTSL

>P54211

MADIKEGVEEGSVKVDMIKEPLTQGDTGVDEVDFAKITLDDAFKYLNCNKHGLSSAEAAA  
 RLQHQGP NKL PDS SRNPV LFLGYMW NPLAWAMEAAAIISI AL LDVADFVLIVG LLLINA  
 II SFYEE SNADKA I KAL TAALAPKAMV VRDG AIVT IDAV NLV PGDV I LIR LGN I VPADVK  
 LLEEEGADEGEQEAPMQIDQAALTGESLPAKKFTGDVA FSGSSIKQGERH A VVYATGVNT  
 FFGRAAALISGTNNVSNLQTV MNKMSAICIVTILLWVV VELAVQFGHYSHECVGGREGCP  
 TLLNMLVVLVGGIPIAMPTVLSVT LALGAYKLAREGAIVTRMSAVEEMAGMDVLCSDKTG  
 TLTLN KLSIDKSMV PVGNMGVDEIMRMGALSANTVTEEPIDMVLWESYPD RETIKRDYK  
 HTKYFPNPN DKITIATC LEIATGRVFRVLKGSPQVVLAKAWNAEL DATVNQKMVEFAN  
 RGFR ALGLAMADGDGKDGT KWEM LALLPLFDPRHD TKTIEHCQNQGIQVKMITGDHLL  
 IGKETAKMLGMGTEMF PSEVMIKARNGDASQLHGYK NFVEMVETCNGFAQVFPEHKFEIV  
 KILQDSNHVVGMTGDGVNDAPALKKADGVVA VADATDAARGAADIVL TEPGLSTIVTAVI  
 GARKIFQRMTTYSKYTIAMFRICFTGLITVIYDWYFPTILIVIMA VFNDGAMIALSKD  
 RVVASKTPNSWNITNIFIMGMVYGLYLTSTWAL YQTATK TFFEDKTP LHS LNDQYSVL  
 QPWCEDEVRAKLGQTIDPYASL CESNSYAKQFDECEGYQKGSGVQVEDVPTLHAQCVTEQ  
 RYLRGAMTRS LIYTQV SISGQALV FVVR TAGYSL MERAGT STYL AFFF AQVGATLFGIFG  
 LGGFEKPRHQLED CQFCDY SFHEPV DWF DSGIV PESGT ESDFT ASV I GCGGYVIV A WIWS  
 AIWYVLLDPIKWI FWI LNEEGFRDTMSW RESTKRS LDR SKDDIGDKEFTGP SGMV PAN  
 YSNPLGRASMSKP VSAV LDR KSASL VAIN RN SMTV S QDPN RALN I GRRSM I GP SGP VGR  
 TSMPLGRISRTSNTLSTGSKDGQIGRGSKPLN S SAEIKPDKYDFASTIRE

>081223

GCSVSKKKKNAMRPPGYEDPELLASVTPFTVEEVEALYELFKKLSSSIIDDGLI KEEF  
 QLALFRNRNRRNL FADRI FDVFDVKRNGVIEFGEFVRSLGVFHP SAPVHEKVKA FAKLYD  
 LRQTGFIEREELKEMV VALLHESELVLSED MIEVMVDKA FVQADR KNDG KIDIDEW KDFV  
 SLNPSLIKNMTLPYLKDINRTF PSFVSSCEEEMELQNVSS

>Q56XP4

MTMFASLT SKML SVST SDHASV VSL NL FV ALLCACI VIGH LLEEN RW MNES IT ALLI GLG

TGVVILLISRGKNSHLLVFSEDLFFIYLLPPIFNAGFQVKKQFFRNFVTIMAFGAIGT  
VVSCTIISLGAIQFFKKLDIGTFDLGDFLAIGAIFAATDSVCTLQVLNQDETPLLYSLVF  
GEGVVNDATSVVLFNAIQSFDLTHLNHEAAFQFLGNFFYLFLSTGLGVATGLISAYVIK  
KLYFGRHSTDREVALMMLMAYLSYMLAELFALSGLTVFCGIVMSHYTWHNVTESSRIT  
TKHAFATLSFLAETFIFLYVGMDALDIEKWRFVSDSPGTSAVSSILMGLVMLGRAAFVF  
PLSFLSNLAKKHQSEKISIKQQVVIWWAGLMRAVSMALAYNKFRSGHTELGNAIMIT  
STITVCLFSTMVFGMLTKPLIRYLMPHQKATTSTSMLSDDSTPKSIHIPLLDGEQLDSF  
ELPGSHQDVPRPNSLRGFLMRPTRTVHYWRFQDDAFMRPVFGGRGFVFPVPGSPTERS  
HDLSKP

>Q9LVK9

MGRRRIRSRIRKSHFTFKCLRPKTLEDQGPHIINGPGYTRIVHCNQPHLHLAKVLRYTS  
NYVSTTRYNLITFLPKCLYEQFHRVANFYFLVAAILSVFPLSPFNKWSMIAPIFVVGLS  
MGKEALEDWRRFMQDVKVNRSRKATVHRGDGDFGRRKWKLLRVGDVKVEKDQFFPADLLL  
LSSSYEDGICYVETMNLDDGETNLKVKRCLDVTPLERDDTFQSFSGTIKCEDPNPNLYTF  
VGNLEYDGQVYPLDPSQILLRDSKLRLNTSYVYGVVFTGHDTKVMQNSTKSPSKRSRIEK  
RMDYIYTFLALLVLVSFISSLGFAVMTKMHMGDWYLRPDKPERLTNPBNPFAWVVLH  
ITAVLLYGYLIPISLYVSIELVKVLQATFINQDLQMYDSESGTPAQARTSNLNEELQVD  
TILSDKTGTLTCNQMDFLKCSIAGTSYGVRASEVELAAKQMAIDLDEEQGEVTHLPRT  
RGRMHGYAKMPSKTSSDIELETVITATDEGDQTQSTGIKGFSFEDQRLMGGNWLNEPNSD  
DILMFRLILAVCHTAIPEVDEDTGKCTYEAESPDEVAFLVAAGEFGFEFTKRTQSSVFIS  
ERHSGQPVERIFYREYKFLNVLDFTSKRKRMGSIVRDEKGQILLCKGADSIIFERLSKN  
GKNYLEATSKHNGYGEAGLRTLALSYRKLDTEYESIWNSEFHAKTSVGADRDEMLEKV  
SDMMEKELILVGATAVEDKLQKGVPQCIDKLAQAGLKIWLTGDKMETAINIGYACSSLR  
QGMKQIYIALRNEEGSSQDPEAAARENILMQIINASQMIKLEKDPAFAFALIIDGKTLTY  
ALEDDIKYQFLALAVDCASVICCRVSPKQALKVTRLAKEGTGTTLAIGDGANDVGMIQUE  
ADIGVGISGVEGMQAVMASDFSIAQFRFLERLLVVHGHWCYKRIAQMICYFFYKNITFGL  
TLFYFEAFTGFSGQAIYNDSYLLLFNVILTSLPVIALGVFEQDVSEVCLQFPALYQQGP  
KNLFFDWYRIIGWMANGVYASVVIIFSLNIGIFHVQSFCSGGQTADMAMGTAMFTCIIWA  
VNVQIALTMSHTWIQHVLIWGSIVTWYIFLALFGMLPPKVSGNIFHMLSETLAPAPIFW  
LTSLLVIAATTLPYLAYISFQRSLNPLDHIIQEIKHFRIDVQDECWMTRERSKAREKTK  
IGVTARVDAKIRQLRGRLQRKHSILSVMMSGLGSVASTDTTSTTQHS

>Q9M1S8

MSQPLTTRPTVTGISIIPFRQPPPLCSFLVIVLFVATFYTLHHPDAVTPLLFSRNAYN  
ALRLRRLFLSSASNATISSYLRRELTRPHLAGTKPSLDTLHYVFNFQSLGLETHVAEYE  
ALLSYPTHISVTASFNTTLEFDLNDPGDSPVVRPYHAYSPSGAQGNVVFVNHGEE  
DYHALESIGVSVKGCVVLARKGENLGRGAIVKIAEAKGALGVLIYAENDGGGGIERGT  
VMRGIGDPVSPGWPGVGEGKLSLDDELVTRRFPKIPSPLSLRNAEIILASLGARAPL  
EWRNSGRVGPQVGPGRMVINMTFQGEMKMKKINNVVТИRGSEADRYVILGNHRDAW  
TYGAVDPNSGTSALLDISRFAALLKSGWRPRTILLCSWDAAEFGMIGSTEWIEENVLN  
LGASAVAYLNVDCAVQGSFFAGATPQLDGLLVDVLKLVQDPDAVGLTVEETFKSQNNII  
QLRSRVDSDFSGFLHHAGIPSIDMYYGADYPVYHTAFDSYDWMIHNA  
DPLFHRHVAMAGIWGLLGILLADEPLIPFDYISYAEQLQAH  
RDKLSKLLEGKVSVNPLSMAIQEFSLVAKEA  
DEAKKLKGKSYSKNDVAAA  
AKRRELNDRLMLVERGFLDAEGIKGKEWFKHLVYGP  
AAEPE  
SKLGFFPGIADAIAMNASEGIIEHEIWRVARAIQRASKALKGGFT

>Q42374

MNDLMTKSFMSYVDLKKAAMKDMEAGPDFLEMASTKADKMDENLSSFLEEAYVKAEMG  
LISETLARIEQYHEESKGVHKAESVKSLRNKISNEIVSGLRKAKSIKSKEEMDKANKEIKRLSGTPVYRSRTAVTNGLRKKLEVMMEFQGLRQKMMSEYKETVERRYFTVTGEHANDEMIEKIITDNAGGEEFLTRAIQEHGKGKVLETVVEIQDRYDAAKEIEKSLLLEHQVFLDMAVMVESQGEQMDEIEHHVINASHYVADGANELKTAKSHQRNSRKWMCIGIIVLLLILIVV  
IPIITSFSSS

>Q9S7P9

MFLGRKSPANLPKHNSVLDLKKSSKPNPFDSDDESNDKHTLNPSKRTTSEPLADMTNPFGG  
ERVQKGDSSSSKQSLFSNSKYQYKNNFRDGGIENQSVQELEGYAVYKAETTKSVQGCL  
KVAEDIRSDATRTLVMHDQGEQITRTHHKAVEIDHDLSRGEKLLGSLGGMFSTWKPKK  
TRPINGPVVTRDDSPTRRVNHLEKREKLGLNSAPRGQSRTREPLPESADAYQRVEMEKAK  
QDDGLSDLSDLGELKNMADVDMGSEIEKQNKGLDHLHDDVDELNFRVQQSNQRGRRLLGK  
>Q8VYM2

MAEQQLGVLKALDVAKTQLYHFTAIVIAGMGFTDAYDLFCVSLVTKLLGRIYYFNPESA  
 KPGSLPPHVAAAVNGVALCGTLSQQLFFGWLGDKLGRKKVYGLTLVMMILCSVASGLSFG  
 HEAKGVMTTLCFFRFWLGFGIGGDYPLSATIMSEYANKTRGAFIAAVFAMQGVGILAGG  
 FVALAVSSIFDKKFPAPTYAVNRALSTPPQVDIWIWRIIVMFGALPAALTYYWRMKMPETA  
 RYTALVAKNIKQATADMSKVLTQTDIELEERVEDDVKDPKQNYGLFSKEFLRRHGLHLLGT  
 TSTWFLLDIAFYSQNLFQKDIFSAIGWIPKAATMNATHEVFRIARAQTLIALCSTVPGYW  
 FTVAFIDTIGRFKIQLNGFFMMTVFMFAIAFPYNHWIKPENRIGFVVMYSLTFFFANFGP  
 NATTFIVPAEIFPARLSTCHGISAAAGKAGAIVGAGFLYAAQSQDKAKVDAGYPPGIG  
 VKNSLIMLGVLNFIGMLFTFLVPEPKGSLEELSGEAEVSHDEK

>Q03411

MAGRNIKNGENNKIAGSSLHLEKNPTTPPEAEATLKKLGLVASVAAGVQFGWALQLSLLT  
 PYVQLLGIPHTWAAYIWLCGPISGMIVQPLVGYYSDRCTSRFGRRPFIAAGAALVAVAV  
 GLIGFAADIGAASGDPGNVAKPRAIAVFVVGFWILDVANNTLQGPCRALLADMAAGSQT  
 KTRYANAFFSFFMALGNIGGYAAGSYSRLYTVFPTKTAACDVYCANLKSCFFISITLLI  
 VLTILALSVVKERQITIDEIQEEEDLKNRNNSSGCARLPFFGQLIGALKDLPKPMLILL  
 VTALNWIAWFPFLFDWMGKEVYGGTVEGKLYDQGVHAGALGLMINSVVLGVMSLSI  
 EGLARMVGGAKRLWGIVNIIAVCLAMTVLVTKSAEHFRDSHHIMGSAVPPPPPAGVKGG  
 ALAIFAVLGIPLAITFSIPFALASIFSASSGSGQGLSLGVNLAIIVVPQMVFVSVTSGPWD  
 AMFGGGNLPAFVVGAVAATASAVALSFTLLPSPPPEAKIGGSMGGH

>Q8GUQ5

MKAHKTVFNQHPLSLNKLFFVLLLIFFLPPASPAASVNGLYKDSQQLSFKAALPPTPL  
 LQNWLSSSTGPCSFTGVSKNSRVSSIDLSTSNTFLSVDSLVTSYLLPLSNLESVLKNANL  
 SGSLTSAAKSQCGBTLDLSIDLAENTISGPISDISSFGVCSNLKSLNLSKNFLDPPGKEML  
 KAATFSLQVLDLSYNNISGFNLFPVSSMGFVELEFFSLKGKLNLAGSIPELDFKNLNSYLD  
 LSANNFSTVFPFKDCSNLQHLDLSSNKFYGDIGSSLSSCGKLSFLNLTNNQFVGLVPKL  
 PSESLQYLYLRGNDFFQGVYPNQLADLCKTVVLDLSYNNFSGMVPESLGECSSLELVDIS  
 YNNFSGKLPVDTLSKLSNIKTMVLSFNKFVGGPDSFSNLLKLETLDMSSNNLTGVIPSG  
 ICKDPMNNLKVLYLQNNLFKGPIPDSLSNCSQLVSDLTSFNYLGTGSIPSSLGSLSKLKD  
 ILWLNQLSGEIPQELMYLQALENLILDFNDLTGPIPASLSNCTKLNWISLSNNQLSGEIP  
 ASLGRLSNLAILKLGNNNSISGNIPAEGLNCQSLIWLDLNTNFLNGSIPPPFLQSGNIAV  
 ALLTGKRYVYIKNDGSKECHGAGNLLEFGGIRQEQLDRISTRHPCNFTRVYRGITQPTFN  
 HNGSMIFLDLSYNKLEGSIKPKELGAMYYLISILNLGHNDLSGMIPQQLGGLKNVAILDLSY  
 NRFNGTIPNSLTSLLGEIDLSSNNNLSGMIPEASFDTFPDYRFANNSLCGYPLPIP  
 SGPKSDANHQKSHRRQASLAGSVAMGLLFLCIFGLIIVAIETKKRRKKEAALEAYM  
 DGHSHSATANSAWKFTSAREALSIINLAAFEKPLRKLTFADEATNGFHNDLSLVGGFG  
 DVYKAQLKDGSVVAIKKLIHVSGQGDREFTAEMETIGKIKHRNLPVLLGYCKVGEERLLV  
 YEYMKYGSLEDVLHDRKKIGIKLNWPARRKIAIGAARGLAFLHHNCIPHIIHRDMKSSNV  
 LLDENLEARVSDFGMARLMSAMDTHLSVSTLAGTPGVPPPEYYQSFCSTKGDVYSYGVV  
 LLELLTGKQPTDSADFGDNNLVGVVKLHAKGKITDVFDRRELLKEDASIEIELLQHLKVAC  
 ACLDDRHWKRPTMIQVMAMFKEIQAGSGMDSTSTIGADDVNFSGVEGGIEMGINGSIKEG  
 NELSKHL

>Q9M643

MSGSSSPSLWLAPNPSKRWGEFFLFYTPFWLTLCLGIVVVPYKLYETFTELEYLLLALVS  
 AVPAFVIPMLLVGKADRSCLCWKDRYWVKANLWIIVFSYVGNYFWTHYFFKVLGASYTFPS  
 WKMNVPHTTFLTHVCFLFYHVASNITLRRLRHSTADLPDSLWKCFAAWILALSYFIA  
 YLETIAIANFPYYEFVDRSAMYRVGCLFYAIYFIVSFPFMFRMDEKSTDEWDLSRVAVDA  
 LGAAMLVTIILDLWRLFLGPIVPLPEGQNCLQSGLPWFSN

>Q84T17

MDRVVAKIAKIRSQTLKRLSLFFFLYFIYFLFFSFLGFLALKITKPRRTSRPHDFDLFFTS  
 VSAITVSSMSTVDMEVFSNTQLIFLTILMFLGGEIFTSFLNLYVSFTKVFVPHNKIRHI  
 LGSYNSDSSIEDRCDVETVTDYREGLIKIDERASKCLYSVVLISYHVTNLGVSVLLLVYV  
 NFVKTARDVLSSKEISPLTFSVFTVSTFANCGFVPTNENMIFRKNSGLIWLIPQVLM  
 GNTLFPCFLVLLIWLGYKITRDEYGYILKNHNKMGYSHLLSVRLCVLLGVTLGFLIIQ  
 LLFCAFETSESLEGMSSEYKLVGSLFQVVNSRHTGETIVDLSTLSPAILVLFILMMYL  
 PPYTLFMPLETEQKTIKEGGDDDSENGKKVKKSGLIVSQLSFLTICIFLISITERQNLQR  
 DPINFNVLNITLEVISAYGNVGFTTGYSERRVDISDGGCKDASYGFAGRWSMPGKFVLI  
 IVMFYGRFKQFTAKSGRAWILYBSSS

>Q9SVV6

MANEGSDPLLQYMI SPRLKKPPQLLFPLPEDNEVAIPMPMTPSEFKERLIFGPFSCSPRD  
 SSHFIDSMDKQPSPSSSSTAVNNPFSDSSTDPLLPFFFFPPEPWLSDQTSSHCQGHALHR  
 SKTAPAMAVINDLHHPIRQKDPTETSRSVVRQAFALLVVYLSLGVLIWLNRDHYVVNQT  
 HPVVDGLYFCIVTMCTIGDITPNSVVTKLFSIMFVLVGFGFIDILLSGMVSYVLDLQE  
 SYMLDSAKRDEPEKRRSYIIDVVKGRMRIRLKVALALGVVVLCAVGVGIMHFIEEIGW  
 LDSFYLSVMSVTTVGYGDRAFKTLPGRLFAAIWLLVSTLAVARAFLYLAEARVDKRNRR  
 AKKVL CETMSVSQFFAADIDNNNGCVSKA EYVIYKLKEMEKITDKDILPI SKQFDKLDRC  
 NGKITLLDLLEGGSGD

>Q9ZPR7

MYMIESKGGAIA CMLL ALLFLGTWP AIMTL TERRGLP QHTYLDYT TNLLAAVII ALTL  
 GEIGPSRPNFFTQLSQDNWQSVMFAMAGGI VLSGNLATQ YAWAYVGLSVTEVITASITV  
 VIGTTLN YFLDDRINRAEVL FPGVACFLIAV CFGSAVHK SNAADN KTLQNFKS LETTSS  
 FEMETISASNGLT KGKAEGTA AFLIELEKQRAIKVFGKSTI IGLVITFFAGICFSLFSP  
 AFNLATNDQWHTLKHGVPKLNVYTAFFYFSI SAFVVALILNIRFLYWPILGLPRSSFKAY  
 LNDWNGRGSFLAGFLCGFGNGLQFMGGQAAGYAAADAQALPLVSTFWGILLFGEYRRS  
 SRKTYTLLISM LMFIVAVAVLMASSGHRK

>Q9LK W9

MTTVIDATMAYRFLEEATDSSSSSSSKLESSPVDAVLFGMSLV LGIASRHLLRGTRVP  
 YTVALVIGIALGSLEYGAKHNLKGIGHGIRIWN EI DPELLAVFLPALLFESSFSMEVH  
 QIKRCLGQMVL AVPGVLISTACLGS LVKVT FPYE WDWKTSLLLGGLLSATDPVAVVALL  
 KELGASKKLSTIIEGE SLMNDGTAIVFQLFLKMAMGQNSDWSSI IKFLLKVALGAVGIG  
 LAFGIA SVIWLFI FN DTVIEITLTIAVSYFAYYTAQEWAGASGVLTVM LGFYAAFAR  
 TAFKGDSQKS LHHFWEMVAYIANTLIFI LSGV VIAEGILDSDKIAYQGNSWRFLFLYVY  
 IQLSRVVVGVLYPLL C RFGYGL DWKESI ILVWSGLRG AVALAL SLSV KQSSGN SHISKE  
 TGTLFLFFTGGIVFTLIVNGSTTQFVLRLLRMDILPAPKKRILEYTKYEMLNKA LRAFQ  
 DLGDEELGPADWPTV ESYISSLKGSEGE LVHHPHNGSKIGSLDPKSLKDIRMRF LNGVQ  
 ATYWEMLDEGRIS E VTANILMQSVDEALDQVSTTLC DWRGLKPHVNFPNYYNFLHSKVVP  
 RKLVTYFAVERLESAC YISA AFI RAHTIARQOLYDFLGE SNIGSIVINESEKEGE EAKKF  
 LEKVRSSFPQVLRVVKTKQVTVS VL NHLLGYIEN LEKVG LLEEKEIA LHDAV QTGLK KL  
 LRNPPIV KLPKLS DMITS HPLS VALPPAFC EPLKHSKPE M KLRGV TLK YKE GS KPTGV WL  
 IFDGIVKWKSKILSN NSHLHPTF SHGSTL GLYEV LTGKP YLC DLITDSMVL CFF IDSEKI  
 LSLQSDSTIDD FLWQESALVLLKLLRPQI FESVAM QELRALV STESSKL TTYVTGESIEI  
 DCNSIGLLLEG FV KPGV I KEELI SS P A LSP SNGN QSF HNS SEAS GIM RV SF SQQ ATQYI  
 VETRARAI FNIGAFGADRTLHRRPSSLTPRSSSDQLQR SFRKEH RGLMSW PENI YAK  
 QQOEINKTTL SLSERAM QLSIFGSMVN VYRRS VS FGGIYNNKLQDNLLYKKLPLNPAQGL  
 VSAKSESSIVT KKQLE TRKHAC QLPLKGE SSTR QNTMVESS DEEDED EDEGIV VRIDSP SKI  
 VFRNDL

>Q9LT02

MSSFRVGGKVVEKVDLCRK KQLVW RL DVWP FAIL YTVWLTTIVPSIDFSDACIALGG LSA  
 FHILVLLFTTWSVDFKCFVQFSKVNSIDQADACKVTPAKFSGSK E VVPLHFRSQMTDSAS  
 SGDMEEIFFDFRKQRFIYSKELGAFSKLPYPTKETFGH YLKCTGHGTEAKIATATEK WGR  
 NVFDYPQPTFQKLMKENCMEPF FV FQVFCVGLWCLDEFWYYSVFTLFML FMFESTMAKSR  
 LKTLDLRSVRVDSQ TVM VYRSGKWKVLLGTDLLPGDV VSIGRPSTQTGGEDKTV PADML  
 LLVGS AIVNEAILT GESTPQWKVPIVGQR SDEKLSIKRNKNHVLFGGTKILQHSPDKSFS  
 LKTPDGGCLAVLRTGFETSGQKLMRTILFSTERVTANSWE SGLFILFLVVF AVIAAGYV  
 LVKGLEDPTRSKYKLLGCSLIITSVIPPELP MELSI AVNTSLLALVRRGIFCTEPFRIP  
 FAGKVDLCCFDKTGTLTSDDMEFRGVGGLSNCEEAETDMSKV PV RTLEI LASCHALV FVE  
 NKL VGDPLEKAALKGIDWSYKADEKALP RRGNGNSVQIMQRYH FASHLKRMSVIVRIQEE  
 YLA FVKGAPETI QERL DVPAQYIETYKRYTRQGSRV LALAYKRLPDMMVSEARDMDRDA  
 VESDLT FAGFAVFNCP IRPDSAPV LLEKNSHD LVMITGDQALTACHVAGQV HIVSNPV  
 LILGRSGSGNEYK WVP SDEKEIIPYSEKEIETLAETHDLCIGGDSI EMLQATSAVL RVIP  
 FVKVFARVAPQQKELI LTTFKAVGRGTLMC GDGT NDVGALKQAHVGVALNNKLPLSPSD  
 SSKDDKSKSKKSKLPL PASKTITQN GEGSSKGKIPPQNRH LAAELQRQKLKKIMDDLN  
 NDEGDGRSA PLVKLGDASMASPFTAKHASVAPVTDIIRQGRSTLV TTLQMF KILGLNCLA  
 TAYVLSV MYLDGVKLGDVQATISGV LTAFFL FISHARPLQ TLSAERPHPSV FS VYLF LS  
 LIQFAVHLTFLVY SVKAEKHMPEECIEPDASFHPNLVNTVSYM VSMLQVATFAVNYM  
 GHPFNQSIRENKPFYALIAGAGFFT VIASDLFRDLNDSLKLVPLPQGLRDKLLI WASLM  
 FIICYSWERLLRWAFPGKISSWKH KQRAVTANLEKKKKV

>Q8GXE6  
MEKKVWFWGVKDDGEGGGGRRGGRTKDAEDDVADHLSRDGTMSQYSLSKGLLPSLGANN  
RSSRDVILPRFIVSPFDPRYRAWETFLVFLVLYTAWASPFEFGFLQKPRPPLSILDNIVN  
GFFAVDIVLTFFVAFLDKVTYLLVDDPKRIAWRYASTWLIFDVVSTFPYEIFGSLLHESI  
QGYGIFSMLRLWRLRRVSNCARLEKDRKYSYFWVRC SKLLLVTLFVIHCGACFLYSIAA  
HYPDPSKTFMALTDENWESPIAVRYNTAMYWSITTFSTTGYDIHG VNSREMTFILFY  
VFNLGLSAYIIGNMTNLVVHVTGRTRKFRTDIQAASGFQQRNNLPVRLQDQMVAHLCLRY  
RTDSEGLQQQEIIDSLPKAIRSSISHYLFEVVDKIYLFHGISNDLLFQLVTEMKA EYFP  
PKEDVILQNEAPTDYIILVTGAVDIARVNGVEQVSEAQRGHVGEVGVL CYRPQLFTV  
RTKRLSQLLRLNRTVLLNLVQANVGDGAIIMNNLLQHLKDSEDPVMKGVLADTEHMLAQG  
KMDLPLSLCFAARGDDLLLHQLLRRGSSPNEMDKDGR TALHIAASKGSHYCVVLLLEHG  
ADPNIRDSEG NVPLWEAIIGRHREIAKLLAENGAKLSDSVSYFSGLA VEKNCL DALKDI  
IKYGGDVTLPDGNGTTALHRAVSEGHLIEVKFLLDQGADLDWPDSYGWT PRLADHQGNE  
EIKTLFHNRHPVEKKPKPIP GIPQSPVTGKPLMKYS EPTMHS GELVLDGGQVVVSQKRK  
LNNFRNSLFGIISAANSADDGGEVPRSPAVPGGGGSMIYPERVTI SS PENGETGGKVLL  
PNSMEELLKIGENKMGFVPTKVL TREGAEI DDITLIRDGDF LLSRDP  
>Q02060  
MAQAMLLMMPGVSTTNTIDLKR NALLKLQIQKIKPKSSTS NLFFSPLPSSSSSTVFKT  
LALFKSKAKAPKKVEPKPLKVEDGLFGTSGGIGFTKENELFVGRVAMIGFAASLLGE GIT  
GKGILSQLNLETGIPYAEPLLFFILFTLLGAIGALGDRGRFVDEPTTGLEKAVIP PG  
KDVR SALGLKT KGPLFGFTKSNEFVGR LAQLGF AFSLIGEITGKGALAQLNIETGVPI  
NEIEPLVLLNVVFFFIAAINPGTGKFITDDEED  
>P92943  
MLS NHLQNGIESDNLLWSRVPE SDDTSTDDITLLNSHRDGDGGVNSLDYEVEN YAYREE  
QAHRGKLYVYYVAVKWFFSLLIGITGLAAVFINLSVENFAGWKFALTFAIIQKSYFAG  
FIVYLLINLVLFSSAYIITQFAPAAAGSGIPEIKGYLNGIDIPGTL FRTLIGKIFGS I  
GSVGGGLALGKEGPLVHTGACIASLLGQGGSTKYHLSRWPQLFKSDRDRDLVTCGCAA  
GVAAA FRAPVGGVLF ALEE VT SWRSQ LMWRV FFTSAIVAVV R TAMGWCKSGIC GHFGG  
GGFI IWVSDGQDDYYF KELLPM AVIGVIGGLLGALFNQLTLYMTSWR RNSLHKKG NRVK  
IEACIISCITS AISF GLPLRK CSCP CPESVP DSGIECP RPPGMYGN YVNFFCK TDNEY N  
DLATIFFNTQDDAIRNLFSAKTMREFSAQSL LTFLAMFYTLAVVTFGTAVPAGQF VPGIM  
IGSTYGR LVGMFVVRFYKKLNIEEGTYALLGAASFLGGSMRMTVSLCVIMVEITN NLKLL  
PLIMLVLLISKAVGDAFNEGELYEVQARLKGIPLLESRPKYHMRQMIAKEACQS QKVISLP  
RVIRVADVASILGSNKHN G FPVIDHTRSGETLVIGLVL RSHLLVLLQSKVDFQHSP LPCD  
PSARNIRHSFSEFAKPVSSKG LCIEDIHLTSDDLEM YIDLAPFLNPSPYV VPEDMSLTKV  
YNLFRQLGLRHLFVVPRPSRVIGLITRK DLLIEENGESSA VELQ QSTS VRGRYSETATRM  
DAARPLLDDLLG  
>Q8LBA6  
MAKKERPRPEKLSVYLYIPNIVGYMRVLLNCVAFAVCFSNKPLFSVLYFFSFCCDAVDGW  
VARRFNQVSTFGAVLDMVTDRVSTA CLLVILS QIYRPSLVFLS LLALDIASHWLQMYSTF  
LAGKSSHKDV DSTS WLFR LY GN RIFMCYCCSCEVLYIILLI AKNQSENLLNVV VAT  
LTQISPLS FILL ALTF GWMS MKQT INVI QMKTA ADVCVLYDIEKQ QKP  
>Q67VS5  
MKSPSPVDPESPSSPDCKGGSSSKRRRLPWRMTMSL AYQSLGVVYGDLSTSPLVYVKA AF  
AEDIQHSETNEEILGVL SFVFTL TLVPLK YCVVLR ADDN GEGGT FAL YSLLCRHARA  
ALLPPGGGGGGEPGDEDQFL DAGADK KAAANGNALA LSGRGGGGAAAGV RLLERHKV  
LQRVLLVLALVGTCMVIGDGVLTPAISVFSAVSGLELSMEK H QH KYVEVPIACFVLVCLF  
CLQHYGTHRGFLFAPIVITWL CISMIGVYNIVHWE PN VYRAL SPY MYKFLKKTQ RGG  
WMSLGGILLCITGSEAMFADLGHFNQLSIQIAFTCMVYPSL LILAYMGQAAYLCKHHIIES  
DYRIGFYVSVPEKIRWPVL AIAI LAAVVG SQAVITGTFSMIKQCTALGCFPRV KIVHTSD  
K VHGQIYIPEINWILMILCLA ITIGFRDTKHLGNASGLAVITV M VTTCLMSL VIVLCWH  
KSIFLA FGFI IFFGTIE ALYFSASLIK FREGAWVPIVLA FIMA IMCIW HYGT I KYE FD  
LQN KVSINWLLGLSPNLGIVRV RGIGLI HTE LD SGIP AIFSHF VTNLP AFHQV LIFLC IK  
NVP I PHV SPEERFLV GRIGP KEY RIYRCIV RYGYHDV HKDDQ EFEKELVCS VAE FIRSGA  
AAAADAAASSKPKNVCGGGAE ESEKEEE RMSVIPS GSIR MMEE DGGAGA PSSED TVGGS  
GSGSGRGS SRGGG GAREIMS PSPS PPPV VAPRK RVRFV LP AAS PRPD AGV REEL QELMD  
AREAGMAF ILGH SYVKA KSGSS FF RRLV INF CYD FLR RNSRGPN YAVTIPH AST LEV GM  
YYV

&gt;O80725

MASESGLNGDPNILEEVSETKRDKEEEEVKKTEKKDEEHEKTKTVPFYKLFAFADSFDF  
 LLMILGTLGSIGNGLGPMLTLLFGDLIDAFGENQTNTDKVSKVALKFVWLGIKFAAA  
 FLQLSGWMISGERQAARIRSLYLTILRQDIAFFDIDTNTGEVVGRMSGDTVLIQDAMGE  
 KVGKAIQLLATFVGGFVIASFVRGWLTLVMLSSIPLVMAGALLAIVIAKTASRGQTAYA  
 KAATVVEQTIGSIRTVASFTGEKQAISNYNKHLVTAYKAGVIEGGSTGLGLGTLFLVVFC  
 SYALAVWYGGKLILDKGYTGGQVLNIIIAVLTGSMMSLQGTPCLSAFAAGQAAAYKMFET  
 IERRPNIDSYSTNGKVLDIKGDIELKDVYFTYPARPDEQIFRGFSLFISSGTTVALVGQ  
 SGSGKSTVVSLIERFYDPQAGDVLIDGINLKEFQLKWIRSKIGLVSQEVLFTASIKDNI  
 AYGKEDATTEEIAAAELANASKFVDKLPQGLDTMVEHGTQLSGGQKQRIAVARAILKD  
 PRILLDEATSALDAESERVVQEALDRIMVNRTTVVAHRLSTVRNADMIAVIHQGKIVE  
 KGSHTELLKDPEGAYSQLIRLQEEKSDENAAEEQKMSSIESFKQSSLRKSSLGRSLSKG  
 GSSRGNSRRHSFNMF GFPAGIDGNVVQDQEEDDTQPKTEPKVSIFRIAALNKPEIPVL  
 ILGSISAAANGVILPIFGILISSVIKAFFQPPKLLKEDTSFWAIIFMVLGFASIAYPAQ  
 TFFFAIAGCKLVQRIRSMCFEKVVHMEVGWFDEPENSSGTIGARLSADAATIRGLVGDSL  
 AQTVQNLSSILAGLIIAFLACWQLAFFVVLPLIALNGFLYMKFMKGSADAKKMYGEA  
 SQVANDAVGSIRTVASFCAEDKVMNMYSKCEGPMKNGIRQGIVSGIGFGFSFFVLFSSY  
 AASFYVGARLVDDGKTTFDSVFRVFFALTMAAMAISQSSSLSPDSSKADVAASIFAIMD  
 RESKIDPSVESGRVLDNVKGDIERHVSFKYPARDVQIFQDLCLSIRAGKVALVGESG  
 SGKSTVIALLQRFYDPDSGEITLDGVEIKSLRLKWLQQTGLVSQEPILFNETIRANIAY  
 GKGGDASESEIVSSAELSNAHGFISGLQQGYDTMVERGQIQLSGGQKQRVIAARAIVKDP  
 KVLLDEATSALDAESERVVQDALDRVVMVNRTTIVVAHRLSTIKNADVIAVVKNGVIVEK  
 GKHDTLINIKDGVYASLVQLHLTAAS

&gt;P93766

MSDKKGVPARELPETPSWAVAVVFAAMVLVSVLMEHGLHKLGHWFQHRHKALWEALEKM  
 KAEMLVGFISLLLIVTQDPIIAKICISEDAADVMWPCKRGTEGRKPSKYVDYCPEGKVA  
 LMSTGSLHQLHVFIFVLAHFVTVSINITIALSRLKMRTWKKWETETTSLEYQFANDPARF  
 RFTHQTSFVKRHLGLSSTPGIRWWAFFRQFFRSVTKVDYLTLRAGFINAHLSQNSKDF  
 HKYIKRSMEDDFKVVVGISLPLWGVAILTFLDINGVGTLIWIISFIPLVILLCVGKLEM  
 IIMEMALEIQDRASVIKGAPVVEPSNKKFWFHRPDWVLFIFIHTLFQNAFQMAHFVWTVA  
 TPGLKKCYHTQIGLSIMKVVVGLALQFLCSYMTFPLYALVTQMGSNMKRSIFDEQTSKAL  
 TNWRNTAKEKKKVRDTDMLMAQMIGDATPSRGSSPMPSRGSSPVHLLHKGMRSDDPQSA  
 PTSPTQQEARDMYPVVVAHPVHRLNPNDRRSASSSALEADIPSADFSFSQG

(10) 23 plastid proteins

&gt;O99010

MSATTLEILEKLKAITLLEATELVSQIEKTFGVDASAPAVSGLRPILVEPIKQEDIIEEK  
 TTFDVILEEVPSDKRVPILKVIRALTSLDLKQAKESITDLPKTIQGVSEEAKQQL  
 EAVGGKIKVS

&gt;Q85UK6

MLKNKTKTEVYALCRHISLSADKARRVIDQIRGRSYEETLMILELMPYRACYPILKLVY  
 SAASNAAYSMDSAEVNLVISKAEVNEGTTKKFKPRARGRSYVIKRTTCHITIVVKDISL  
 DKYEEIYSFKNPIWKNTIDVYSNGVVWHKK

&gt;P31562

MERREGGRDNSSCSNVNQLFGVKDSESLLYDDFIVRDRNGDSYFAYWDIEKNTFLSEPF  
 YSYRSRNSSSYLPKIKAFMSEDRSQIHEVKNGFRSEDHSKINKINGVENLFHNYNMNVLD  
 DYNFKGMNGFHRPQSKIINRFIDSYLSQSQICIATTPGSGSDNDSYIHGSRVYGESESY  
 TRSEGRSSSIRTRTKGVELTLRERPGILDRTKMYLWLQCDNCYGLNYKKVLKSMTIC  
 EQCGYHLQMSSSDRIELSIDPGTWDMDEDMVSRDPPIKFDSSGGEAYKDRLYFYQRKTGL  
 TEAVQTGIGQLNGIPVAIGVMDFKFMGGSMGSVVGEEKITRLIEHATNKFLPLIIVSASGG  
 ARMQEGSLSLMQMAKISSALYDYQSNKRLVYVSILTSPTAGGVTASFGMLGDIIVEPRA  
 YVAFAGKRVIEQTLNQTIIPNDSQEAELFHKGFLDIIIPRHLKSVISEFTLHDLFPLN  
 QNSNQYSQYRALLNPIF

&gt;O47032

MSRYRGPRLPPIIRRLGELPGFSKKIDRNHTPPGQHGKKASDQKKSKEQY GIRLKEKQ  
 KLRYNYGINERQLINYVREARRKGSTGEVLLQLLEMRLDNIYRLGFAPTIPAAQRQLIN  
 HGHINVNNKNINIPSYICKINDIISVLKNSQQLIKNYLQNGGISELSTCLNLNKEKLEAS  
 INNIIPRDLVKEINELLVIEYYSRKL

&gt;P30399

MRINPPTYGSEISSIEKKNRGHIVQIIGPVLDVAFFPGKMPNIYNALIVKGRDTEQMNV  
 CEVQQLLGNRNRRAVAMNDTDGLMRGMEDTGTPI TVPVGGSTLGRIFNVLGEPVDNLG  
 PVDTNTTFTIHRSAAPAFIQLDTKLSIFETGIKVVDLLAPYRRGGKIGLFGGAGVGKTVLI  
 MELINNIAKAHGGVSFGVGERTREGNDLYMEMKESGVINEKNITESKVALVYGMNEP  
 PGARMRVGLTALTMAEYFRDVNEQDVLLFIDNIFRFVQAGSEVSALLGRMPSAVGYQPTL  
 STEMGLSQRERITSTKEGSITSIQAVYVPADDLTPAPATTFAHLDATTVLSRGLAAKGIY  
 PAVDPLDSTSMMQLPRLVGEEHYETAQVKQTLQRYKELQDIIAILGLDELSEEDRLTV  
 RARKIERFLSQPFVAEVFTGSPGKYVGLAETIIGFTLILSGELDSLPEQAFYLVGNINE  
 ATEKAMNLKT  
 >P27071  
 MARKSLIQREKGRLKLENKYHFIRRSSKNEISKVPSLSDKWEIYGKLESPPRNSAPTRLR  
 RRCFYTGRPRANYRDFGLCGHILREMVNACLLPGATRSSW  
 >P27068  
 MTRYWNIDLEEMIGAGVSFGHGTRKWNPKMAPYISVKHKGIHFTNLTKTARFLSEACDL  
 VFYAASRKQFLIVDTKNKAADSAAWAAIKARCHCVNKKWPGGMLTNWSTTETRLHKL RD  
 LIMEQKAGRNLRLKKDEAAVKRQLARLQTYLGGIKYMTRLPDIVIIVDQHEEYKALHEC  
 ITIGIPTIGLIDTNCDPDLADISIPANDDAISSIRLILNKLVFAICEGRSGYIIKNI  
 >P30060  
 MPTIKQLIRKKRQPNNVTKSPALRGCPQRRGTCTRVYTITPKKPNSALRKVARVRLTSG  
 IEITAYIPGIGHNLQEHSVSLVRGGRVKDLPGVRYHIIRGTLAVGVKDRQQGRSKYGVK  
 IKNK  
 >P30061  
 MYKFKRSFRRRLSPIGGNLIYYRNMSLISRFISEQGKILSRRVNRLTLKQQLITIAIK  
 QARILSLLPFINNEKQFERIESITRVKGFIKK  
 >P30070  
 MKEQKWIHEGLITESLTNGMFWRLDNKDLIIGYVSGNIRHSFIRILPGDKVKIEVSRYN  
 STRGRIIYRLRNKYYKD  
 >Q9TIR8  
 MEQIRRYLQLERFQOHDFLYPXFFQEYIYVFAHGRGFSRSIWSSENENTGYDNKSSLRVMK  
 RLITRMYQQNNFIILPNDFNKKNPFLAKKFFYSQIIAECAFIVEIPFSLRFISYLEGK  
 KKIVKSQNLRSIHSIFPFLEDNFSHLNFVLDILILHPVHVEILVQILRYWVDASSLHLL  
 RFFLNKYWNSLITPNKASSSLSKKNKRLFVFLYNSHVGGYESFVFIRNQSSHGTPFG  
 VLLERIYFYGKIERLVNVFKVKDFRTNLWFVKEPYIHYIRYQRKWILASKGTFLVKKW  
 KCYLIIFWQWHFSLWFYPRRIYINQLSNHYFEFLGYLSNLRMTPSVRSQSLENTFIINN  
 AIKKIDNFVPIISMIASSLAKAKEFCNVFGHPISKPVRAIDLSDSNIIDQFGCICRKFFHYY  
 GSSKKKSLYRIKYILRLACARTLARKHKSTVRTFLKRLGSELLEFLLSEEDVLFLTFPK  
 ASSSLQGVYRSRIWYLDIYINDLVDHKYKL  
 >Q9TJQ8  
 MARAKFERKKPHVNIGTIGHVDHGTTAAITMALAARGGGKGKKYAEIDSPEEKARG  
 ITINTAHVEYETESRHAYHDCPGHADYVKNMITGAAQMDGAILVVSGADGPMPQTKEHI  
 LLAKQVGVPNIVVFINKEQVDDIELIELVELEVRETLQRYDFPGDEVPMIPGSALMALT  
 ALTDNPKIKPGENKWDKIYNLMDIVDSYIPTPKRNIEKPFMLMAIEDVFSITGRGTVATG  
 RVERGVVKIGDSVEIVGLGATKITVTGLEMFQKTLDESIAGDNVGILLRGIQKTEIQRG  
 MVLAKPKSITPHTNFEAQVYVLNKEEGGRDTPFFSGYRPQFYVRTTDVTGKIESFTDAG  
 EPIKMVLPGDRIKMKAEIOPIAIERNMRFIAREGGKTVGAGVVGKILK  
 >P30055  
 MGQKINPLGFRLGTTQSHHSFWFAQPKNYKGIQEDQKIRDFIKNYVKNNIIISPDTEGI  
 AYIEIQKRIDFLKIMIFIGFKFLIENRQLGIKEALHIDLKKNFHYVNRKLIIDIIRIT  
 KPYRNPNI LAEFIGDQLKNRVSFRKTMKKAIELTESEDTKGIQVQISGRIDGKEIARVEW  
 IREGRVPLQTIQAKINYCSYMRVTTHGVLGIKIWI FIEKE  
 >P30063  
 MPIGVPKVPPQIPGEEADASWDVYNRLYRERLLFLGQEVDSDISNQLIGLMVLSIEDDT  
 KEIYLFINSPGGWVIPGVAIYDTMQFVRPEVHTICMGLAASMGSFLLVGGEITKRALFPH  
 ARVMIHQPAFYFFGAQTGEFILEAEELLKRELTRVYVQRTGKPLWVISEDMERDVFMS  
 AKDAQAYGIVDLVAVE  
 >Q9TJQ9  
 MSRRRTAKKIRVMPDPVYKNSLLELIVRQVMRNGKLLAYRIMYNSMIKIAEMTQKDPLD  
 VLEKAIRNVTPLIEVKARRVGGSTYQVPLEVPERGTTLAIRWILAACRKNRGKPMYIKL

TNELIDASNKSGSAIKKKDEIHRMAEANKAFAKQRF  
 >P32034  
 MYGWEELPKQEFLNSKQPVHIFTKKYWILFRIGPERRKAGMPKASIISFTRPNPVWER  
 PVPKSLTGLFNVLYLLG  
 >Q8SKY1  
 MVREKVTVSTRTLQWKCVESRTDSKRPIYYGRFILSPLTKGQADTIGIAMRRALLAEIEGT  
 RITRVKFANTSHEYSTIAGIQESVHEILMNKEIVLRSNLYGTCDASISIKGPGYVTAED  
 IILPPHVEIVDSTQHIAWLTEPINFFIGLKIERNHGYFIKTHANFEDGSYPIDALLMPVR  
 NANHSINSYGNEKQEILFLEIWNTNGSLTPKEALHEASRNLDLFIPFLHMEEENLHEDA  
 DHTIPLSPFTVYDKVAKLRKNKKLSLESIFIDQLEFPPKIYNCLKSNIFTLLDLLNNNS  
 QEDLIKIEFHLEDVKQILGILGKHFDSPKNLN  
 >P30066  
 MLSPKTRFRKQHGRGMKGISYRGNNICFGKYGLKALEPAWITPRQIEAGRRAITRKFRR  
 GGKIWVRVFPDKPVTVRSSSETRMGSGKGSHKYFVAVVKGGLILYEIGGVTENIAKRAILIAASKMPMQTQFIISG  
 >P30058  
 MGRDTILEIINSIRNADRGKRKVVIRTSTNITENFKILFIEGFIENARKHREKNKYYFT  
 LTLRHRNNSKRPYINILNLKRISRPGLRIYSNSQQIPLILGGIGIVILYTSRGIMTDREA  
 RLKGIGGELLCYIW  
 >P32035  
 MEYMKRVEYLRSVMSYRTQLDIQLRFELSCECLIDISKRWTKPLSRFTQRGE  
 >P30059  
 MAKAIPIGSRRNVHGSRKSSFRIQKGVIVQTSFNNTIVAVTDIKGRVVSWSAGTCG  
 FKGTRRGTSFAAQIAATNAIRIVQGMQRAEVMIKGPGIGRDAVLRAIRSGVLLTFVRDV  
 TPMPHNGCRPPKKRVA  
 >P30067  
 TRIKRGYIARRRIKKFRLFASSFLNAHSRLTRTITQOKIRALVSSDRDRNNKKRFRSLW  
 ITRINAVIREEGVSYSYKNFIYAQYKIQLLINRKILAQIAILNRNFFYMIFNEIRKEADL  
 KEYIRIN  
 >P30068  
 MAKSKDARVAVILECTSCIRNSVNKVLTGISRYITQKNRRNTPNRLELRKFCPYCYKHM  
 HGEIKK  
 (11) 19 vacuole proteins  
 >P14170  
 MGNLRSSFVFLLALVTYTYAATIEVRNNCPYTVWAASPIGGGRRLLRGQTWVINAPRG  
 TKMARWGRTNCNFNAAGRGTCTGDCGGVLQCTGWGKPPNTLAEYALDQFSGLDFWDIS  
 LVDGFNIPMTFAPTNPSSGKCHAICTANINGECPRELRVPGCNPCTTFGGQQYCCTQ  
 GPCGPTFFSKFFQRCPDAYSYPQDDPTSTFCPGGSTNYRVIFCPNGQAHPNFPLEMPG  
 SDEVAK  
 >Q9SCB9  
 MATRYWIAALPVADDNVAAGKTALWARLQEASRHSFDTPLYRFTVPDLRPGTLDSSLAL  
 SDDLVKSNIFIEGVSHKIRRQIEDLERAGGVEPGTLTVGDGPVDSYLTRFWDEGKYPVN  
 APLKETVASIQSQVAKIEDDMKVRVAEYGNVSQLGAINRKQTGSLAVRDLNSNIKPEDM  
 VTSEHLVTLLSIVPKYSQKDWLASYESLDTFVVPRSSKKLYEDNEYALYTVTLFAKVVDN  
 FKVHAREKGFQIRDPEYSPEAQESRKQELEKLLQDQEVMRTSPIAMGAMLATVRVFSSWD  
 AFSSAVRVFVESILRYGSACTPVCCPSTIYKEREKSKEHLGRAMRQYQQ  
 >P15797  
 MSTSSHKHNTPQMAAITLLGLLLASSIDIAGAQSIGVCYGMGNLNPNHWEVIQLYKSR  
 NIGRLRLYDPNHGALQALKGSNIEVMLGLPNSDVKHIAAGMEHARWWVQKNVKDFWPDVK  
 IKYIAVGNEISPVTGTSYLTSLTPAMVNIYKAIGEAGLGNNIKVSTSVDMLIGNSYPP  
 SQGSFRNDARWFTDPIVGFLRDTRAPLLVNIYPYFSYSGNPGQISLPYSLFTAPNVVVQD  
 GSRQYRNLFDAMLDVYAAALERSGGASVGIVVSESGWPSAGAFGATYDNAATYLRNLIQH  
 AKEGSPRKPGPIETYIFAMFDENNKNPELEKHFGLFSPNKQPKYNINFVGSGGVWDSSVE  
 TNATASLVSEM  
 >Q39119  
 MTRSVGVLFVLLVSLVAVSAARSGPDDVIKLPQSASRFFRPAENDDDNSGTRAWLV  
 AGSSGYWNYRHQADICHAYQLLRKGGLKEENIVVFMYDDIANNYENPRPGTIINSPHGD  
 VYQGVPKDYGDDVNVDNLFAVILGDKTAVKGSGKVVDSGPNDHIFIFYSDHGGPGVLG

MPTSPYLYANDLNDVLKKKHALGTYKSLVFLYLEACESGSIFEGLLPEGLNLYATTASNAE  
 ESSWGTYPGEPSPPPEYETCLGDLYSAWMEDSGMHNLQTELHQYELVKRRTAPVG  
 YSYGSHVMQYGDVGISKDNLDLYMGTNPANDNFTFADANSLKPPSRVTNQRDADLVHFW  
 KYRKAPEGSARKTEAQKVLEAMSHRLHIDNSVILVGKILFGISRGPEVLNKVRSAQPL  
 VDDWNCLKNQVRAFERHCGSLSQYGIKHMRSFANICNAGIQMEQMEAASQACTTLPTGP  
 WSSLNRGFS

>P04347

MGKPFITLSLSSLCLLLSSACFAITSSKFNECQLNNLNALEPDHRVESEGGLIETWNSQ  
 HPELQCAGTVSKRTLNRNGSHLPSYLPPQMIIVVQGKGAIGFAFPGCPETFEKPQQQS  
 SRRGSRSQQQLQDSHQKIRHFNEGDLVVIPLGVPYWTYNTGDEPVVAISPLDTSNFNNQL  
 DQNPRVFLAGNPDIIEHPETMQQQQQQKSHGGRKQGHRQQEEEGGSVLSGFSKHFIAQS  
 FNTNEDTAEKLRSPDERKQIVTVEGGLSVISPWKWQEQQEDEDEDEEYGRTPSYPPRRP  
 SHGHEDDEDEDEEEQPRPDHPQRPSRPEQQEPRGRGCQTRNGVEENICTMKLHENIA  
 RPSRADFYNPKAGRISTLNSLTLPALRQFGLSAQYVVLYRNGIYSPDWNLNANSVTMTRG  
 KGRVRVVNCQGNAVFDELRRGQLLVVPQNPVAEQGGEQGLEYVVFKTHNAVSSYIKD  
 VFRVIPSEVLSNSYNLGQSQVRQLKYQGNNSGPLVNP

>P07053

MGFFLFSQMPSSFLVSTLLLFLISHSSHAQNSQDYLDAHNTARADVVEPLTDNGVA  
 AYAQNVSQLAADCNLVHSQHGQYGENLAQSGDFMTAAKAVEMWVDEKQYYDHDSNTCAQ  
 GQVCGHYTQVVWRNSRVGCARVKCNNGGYVVSCNYDPGNVIGQSPY

>P19825

MAHQHTISGLVGKLITESEVNCAADKYYQIFKHEDLPSAIPHIYTSVKAVEGHGTTSGC  
 VKEWCYILEGKPLTVKEKTTYNDETRTINHNGIEGGMMNDYKKFVATLUVVKPKANGQGS  
 IVTWIVDYEKINEDSPVFDYLAFFQQNIEDLNSHLCASD

>P08688

MTKTYGIAAFRSSQNNEAYLFINDKYVLLDYAPGTSNDKLYGPTVRDGFKSLNQTVF  
 GSYGVDCSFDTNDNEAFIFYEKCALIDYAPHNSNKDKIILGPKKIADMFPFFEGTVFENG  
 IDAAYRSTRGKEVYLFKGQYARIDYETNSMVNKEIKSIRNGFPCFRNTIFESGTDAFA  
 SHKTNEVYFFKGDYARVTVTPGATDDQIMDGVRKTLDYWPSLRGIIPLLEN

>Q9M8U1

MSCDGGKPAPAKLGDEQLAELREIFRSFDQNKGSLTELELGSSLRSLGLKPSQDQLDTL  
 IQKADRNNNGLVEFSEFVALVEPDVLVKCPYDDQLKAIFRMFDRDGNGYITAAELAHSMA  
 KLGHALTAEELTGMIKEADRDOGCIQEFVQAITSAAFDNAWG

>P11827

MMRARFPLLLLGVVFLASVSVSGIAYWEKQNPShNKCLRSCNSEKDSYRNQACHARCNL  
 LKVEEEECEEGQIPRPRPQHPERERQQHGEKEEDEGEQPRPFPFRPRPQPHQEEEHEQK  
 EEHEWHRKEEKHGGKGSEEEDEREHPRPHQPHQKEEEKHEWQHKQEKHQKESEEEED  
 QDEDEEQDKESQESEGSESQREPRRHKNKNPFHFNSKRFQTLFKNQYGHVRVLQRFNKR  
 SQQLQNLRDYRILEFN SKPNTLLPHHADADYLIVLNGTAILTVNNDDRSYNLQSGDA  
 LRVPAGTTFYVVNPNDENLRMIAGTTFYVVNPNDENLRMITLAI PVNKPGRFESFFLS  
 STQAQQSYLQGFSKNILEASYDTKFEIINKVLFGREEGQQQGEERLQESVIVEISKKQIR  
 ELSKHAKSSSRKTISSEDKPFNLSRDPPIYSNKLGLKLFETITQRNPQLRDLDVFLSVVDMN  
 EGALFLPHFNSKAIIVVLVINEGEANIELVGRIKEQQQRQQQEEQPLEVRKYRAELSEQDIF  
 VIPAGYPVMVNATSDLNFFAFGINAENNQRNFLAGSKDNVISQIPSQVQELAFPRSAKDI  
 ENLIKSQSESYFVDAQPQQKEEGNKGKGPLSSILRAFY

>P49175

MIPAVADPTTLDGGGARRPLLPTDPRGRAAGAEQKRPPATPTVLTAVVSAVLLVLVA  
 VTVLASQHVVDQAGGVAGEDAVVVEVAASRGVAEGVSEKSTAPLLGSGALQDFSWTNAM  
 LAWQRTAFHFQPPKNWMNDPNGPLYHKGWYHLFYQWNPDASAVWGNITWGHAVSRDLLHWL  
 HLPLAMVPDHPYDANGVWSGSATRLPDGRIVMLYTGSTAESSAQVNLAEPADASDPLLR  
 EWVKSDANPVLPVPPPQIGPTDFRDPTTACRTPAGNDTAWRAIGSKDRDHAGLALVYRTE  
 DFVRYDPAPALMHAVPGTMWECVDFYPVAAGSGAAAGSGDGETSAAPPGPVKHLKAS  
 LDDDKHDYYAIGTYDPATDTWTPDSAEDDVIGLRYDGKYYASKTFYDPVLRRLWGW  
 VGETDSERADILKGWASVQSI PRTVLLDTKTGSNLLQWPVVEVENLRMSGKSFDFGVALDR  
 GSVVPLDVGKATQLDIEAVFEVDASDAAGVTEADVTFCNSTSAGAAGRGLLGPFGLLVLA  
 DDDLSEQTAVYFYLLKGTDGSLQTFFCQDELRASKANDLVKRVYGSLOVLDGENLSVRI  
 LVDHISIVESFAQGGRTCITSRVYPTRAIYDSARVFLFNNATHAHVKAKSVKIWQLNSAYI  
 RPYPATTS

&gt;P23472

MAKRTQAILLLAISLIMSSSHVDGGGIAIYWGQNGNEGLTQTCSTRKSYVNIAFLN  
 KFGNGQTPQINLAGHCNPAGGCTIVSNGIRSCQIQGIKVMLSLGGGIGSYTLASQADAK  
 NVADYLWNNFLGGKSSRPLGDAVLGIDFDIEHGSTLYWDDLARYLSAYSQGKKVYLT  
 AAPQCPFPDRYLGTLNTGLFDYVVWVQFYNNPPCQYSSGNINNNIINSWNRWTTTSINAGKI  
 FLGLPAAPEAAGSGYVPPDVLISRILPEIKSPKYGGVMLWSKFYDDKNGYSSSILDSVL  
 FLHSEECMTVL

&gt;Q8GTMO

MARSLCFMAFAILAMMLFVAYEVQARECKTESNTFPGICITKPPCRKACISEKFTDGCS  
 KILRRCLCTKPCVFDEKMTKTGAELAEEAKTLAAALLEEEIMDN

&gt;P30941

MKCLFLLCLCLVPPIVVSSTFTSKPINLPSDATPVLDVAGKELDSRLSYRIISTFWGAL  
 GGDVYLGKSPNSDAPCANGIFRYNSDVGPGTPVRFIGSSSHFGQGIFENELLNIQFAIS  
 TSKLCVSYTIWKVGDYDASLGTMLLETGGTIGQADSSWFKIVKSSQFGYNLLYCPVTSTM  
 SCPFSSDDQFCLKVGVVHQNGKRRRALVKDNPLDVSFKQVQ

&gt;Q00326

MKLLHGLALVFLLAAASCKADEEITCEENNPFCSNTDILSSKNFGKDFIFGVASSAYQI  
 EGGRGRGVNVWDGFSHRYPEKAGSDLKNGDTTGESYTRWQKDVMGELNATGYRFSFAW  
 SRIIPKGKVRGVNQGGLDYYHKLIDALLEKNITPFVTLFHWDLPQTLQDEYEGFLDRQI  
 IQDFKDYADLCFKEFGGKVKHWITINQLYTVPTRGYAIGTDAPGRCSMPVDTKHRCYGGN  
 SSTEPIVAHNQLLAHATVVDLYRTKYKFQKGKIGPVMITRWFLPFEDSPASIEAAERM  
 NQFHGWMPEPLTKGRYPDIMRQIVGSRLPNFTEEEAELVAGSYDFLGLNYVTQYAQPK  
 PNYPYSETHAMMDAGVKLYDNRGEFLGPLFVEDKVNNGNSYYYPKGIYYVMDYFCKTY  
 GDPLIYVTENGFSTPSSENREQAIADYKRIDYLCSHLCFLRKVIKEGVNVRGYFAWALG  
 DNYEFCKGFTVRFGLSYVNWEDLDRNLKESGKQYQRFINGTVKNAVQDFLSSLSSQS  
 QKKRFADA

&gt;P18417

MANFSESKSMMAVFFMFLLLLSSSSSSSSSSPILKKIFIESPSYAPNAFTFDSTDKGFY  
 TSVQDGRVIKYEGPNSGFTDFAYASPFWNKAFCESTDPEKRPLCGRTYDISYDYKNSQM  
 YIVDGHYHLCVVGKEGGYATQLATSVQGVFKWLYAVTVQRTGIVYFTDVSSIHDDSPE  
 GVEEIMNTSDRTGRLMKYDPSTKETTLLKELHVPGGAEISADGSFVVVAEFLSNRIVKY  
 WLEGPKKGSAEFLVTIPNPGNIKRNSDGHFWSSSELDGGQHGRVVSRGIKFDGFGNIL  
 QVIPLPPPYEGEHFEQIQEHDGLLYIGSLFHSSVGIILVYDDHDNKGNSSYV

&gt;O04057

MASYHSKAFLCLFLVSFNIVSSASNDGLRVGLKKIKLDPENRLAARVESKDAEILKA  
 AFRKYNPKGNLGESSDTDIVALKNYLDAQYYGEIAIGTPQKFTVIFDTGSSNLWLCEC  
 LFSVACHFHARYKSSRSSSYKKNGTSASIRYGTGAVSGFFSYDNVKVGDLVVKEQVFIEA  
 TREPSLTFLVAKFDGLGLGFQEIAVGNAVWPWYNMVEQGLVKEPVFSFWLNRNVEEEEG  
 GEIVFGGVDPKHYRGKHTYVPVTQKGYWQFDMDGVLIIDGEPTGFCDDGCSAIADSGTSL  
 AGPTPVITMINHAIGAKGVVSQOCKAVVAQYGQTIMDLLLSEADPKKICSQINLCTFDGT  
 RGVSMSGIESVVVDENAGKSSDSLHDGMCSVCEMTVVWMQNQLRQNQTKERIINYINELCDR  
 MPSPMGQSAVDCGQLSSMPTVSFTIGGKIFDLAPEEYILKVGEGPVACQCISGFTAFDIPP  
 PRGPLWILGDVFMDGRYHTVDFGKLRVGSAA

&gt;P80356

MKTFLIFALLAMAATMATAQFDPSEQYQPYPEQQQPILOQQQMLLQQQQQMLLQQQPLLQ  
 VLQQQLNPCRQFLVQQCSPAVVPFLRSQILQQSSCQVMRQQCCRQLEQIPEQLRPCAIH  
 SVVQAIIMQQQQFFQPQMQQQFFQPQMQQQVTQGIFQPQMQQQVTQGIFQPQLQQVTQGIFQ  
 PQMKGQIEGMRAFALQALPAMCDVYVPPHCPVATAPLGGF

&gt;Q39962

MKMKRSPYCFCCSFALLLLVSFLKDRHFCADPTDGTEVPLTEDNFVIQKPYDKPLNDR  
 YSYKNGIRRLWVYENDKPFKVGSPTRPRTEIRIKGHDYSSGVWQFEGQVHVPEGTSGVTV  
 MQVFGAVNKATALQLRVYNGDLKSYKSNSVATDIYNKWLRVNVIHKVGKGEITVFINQOQ  
 KLVNDDGPAEHYFKCGVYAAPDGSSNYMESRWKNIKLYKSDNKLEGCNNNHGTWLVQ