Supplementary Material for

Predicting protein sub-Golgi locations by combining functional domain enrichment scores with pseudo-amino acid compositions

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**G3-199 Dataset**

The bechmark dataset(G3-199) extract Golgi resident proteins from Uniprot released on October 2017, which includes 199 protein sequences,classfied into three sub-Golgi locations. Among the G3-199 dataset, 33 of them belong to cis-Golgi network, 42 of them belong to Golgi stack, 124 of them belong to trans-Golgi network. Both the accession numbers and sequences are given.

None of the proteins has more than 40% sequence identity to any other in this benchmark. See the text of the paper for detailed data processing.

G3-199

1. *cis*-Golgi network proteins

>Q08379

MWPQPRLPPRPAMSEETRQSKLAAAKKKLREYQQRNSPGVPTGAKKKKKIKNGSNPETTTSGGCHSPEDTPKDNAATLQPSDDTVLPGGVPSPGASLTSMAASQNHDADNVPNLMDETKTFSSTESLRQLSQQLNGLVCESATCVNGEGPASSANLKDLESRYQQLAVALDSSYVTNKQLNITIEKLKQQNQEITDQLEEEKKECHQKQGALREQLQVHIQTIGILVSEKAELQTALAHTQHAARQKEGESEDLASRLQYSRRRVGELERALSAVSTQQKKADRYNKELTKERDALRLELYKNTQSNEDLKQEKSELEEKLRVLVTEKAGMQLNLEELQKKLEMTELLLQQFSSRCEAPDANQQLQQAMEERAQLEAHLGQVMESVRQLQMERDKYAENLKGESAMWRQRMQQMSEQVHTLREEKECSMSRVQELETSLAELRNQMAEPPPPEPPAGPSEVEQQLQAEAEHLRKELEGLAGQLQAQVQDNEGLSRLNREQEERLLELERAAELWGEQAEARRQILETMQNDRTTISRALSQNRELKEQLAELQSGFVKLTNENMEITSALQSEQHVKRELGKKLGELQEKLSELKETVELKSQEAQSLQQQRDQYLGHLQQYVAAYQQLTSEKEVLHNQLLLQTQLVDQLQQQEAQGKAVAEMARQELQETQERLEAATQQNQQLRAQLSLMAHPGEGDGLDREEEEDEEEEEEEAVAVPQPMPSIPEDLESREAMVAFFNSAVASAEEEQARLRGQLKEQRVRCRRLAHLLASAQKEPEAAAPAPGTGGDSVCGETHRALQGAMEKLQSRFMELMQEKADLKERVEELEHRCIQLSGETDTIGEYIALYQSQRAVLKERHREKEEYISRLAQDKEEMKVKLLELQELVLRLVGDRNEWHGRFLAAAQNPADEPTSGAPAPQELGAANQQGDLCEVSLAGSVEPAQGEAREGSPRDNPTAQQIMQLLREMQNPRERPGLGSNPCIPFFYRADENDEVKITVI

>O94766

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>Q61025

MAKDILGEAGLHFDELNKLRVLDPEVTQQTVELKEECKDFVDKIGQFQKIVGGLIELVDQLAKEAENEKMKAIGARNLLKSIAKQREAQQQQLQALIAEKKTQLERYRVEYEALCKVEAEQNEFIDQFIFQK

>P30533

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>Q96KG9

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>Q15643

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>O14653

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>Q24509

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>Q63083

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>Q8TF30

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>Q53F39

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>Q8NBJ4

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>Q9GZM5

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>Q01608

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>Q9H082

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>Q8VE91

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>Q5I0E7

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>Q9NQQ7

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>P38869

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>Q9Y282

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>P47124

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>O95159

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>Q62896

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>P46985

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>Q8W4E6

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>Q8VEK2

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>Q9BSR8

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>Q04183

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>P46982

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>D3ZTX0

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>Q12270

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>Q3USQ7

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1. Golgi stack proteins

>P15535

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>Q9NZ42

MNLERVSNEEKLNLCRKYYLGGFAFLPFLWLVNIFWFFREAFLVPAYTEQSQIKGYVWRSAVGFLFWVIVLTSWITIFQIYRPRWGALGDYLSFTIPLGTP

>O00562

MLIKEYHILLPMSLDEYQVAQLYMIQKKSREESSGEGSGVEILANRPYTDGPGGSGQYTHKVYHVGSHIPGWFRALLPKAALQVEEESWNAYPYTRTRYTCPFVEKFSIEIETYYLPDGGQQPNVFNLSGAERRQRILDTIDIVRDAVAPGEYKAEEDPRLYHSVKTGRGPLSDDWARTAAQTGPLMCAYKLCKVEFRYWGMQAKIEQFIHDVGLRRVMLRAHRQAWCWQDEWTELSMADIRALEEETARMLAQRMAKCNTGSEGSEAQPPGKPSTEARSAASNTGTPDGPEAPPGPDASPDASFGKQWSSSSRSSYSSQHGGAVSPQSLSEWRMQNIARDSENSSEEEFFDAHEGFSDSEEVFPKEMTKWNSNDFIDAFASPVEAEGTPEPGAEAAKGIEDGAQAPRDSEGLDGAGELGAEACAVHALFLILHSGNILDSGPGDANSKQADVQTLSSAFEAVTRIHFPEALGHVALRLVPCPPICAAAYALVSNLSPYSHDGDSLSRSQDHIPLAALPLLATSSSRYQGAVATVIARTNQAYSAFLRSPEGAGFCGQVALIGDGVGGILGFDALCHSANAGTGSRGSSRRGSMNNELLSPEFGPVRDPLADGVEGLGRGSPEPSALPPQRIPSDMASPEPEGSQNSLQAAPATTSSWEPRRASTAFCPPAASSEAPDGPSSTARLDFKVSGFFLFGSPLGLVLALRKTVMPALEAAQMRPACEQIYNLFHAADPCASRLEPLLAPKFQAIAPLTVPRYQKFPLGDGSSLLLADTLQTHSSLFLEELEMLVPSTPTSTSGAFWKGSELATDPPAQPAAPSTTSEVVKILERWWGTKRIDYSLYCPEALTAFPTVTLPHLFHASYWESADVVAFILRQVIEKERPQLAECEEPSIYSPAFPREKWQRKRTQVKIRNVTSNHRASDTVVCEGRPQVLSGRFMYGPLDVVTLTGEKVDVYIMTQPLSGKWIHFGTEVTNSSGRLTFPVPPERALGIGVYPVRMVVRGDHTYAECCLTVVARGTEAVVFSIDGSFTASVSIMGSDPKVRAGAVDVVRHWQDSGYLIVYVTGRPDMQKHRVVAWLSQHNFPHGVVSFCDGLTHDPLRQKAMFLQSLVQEVELNIVAGYGSPKDVAVYAALGLSPSQTYIVGRAVRKLQAQCQFLSDGYVAHLGQLEAGSHSHASSGPPRAALGKSSYGVAAPVDFLRKQSQLLRSRGPSQAEREGPGTPPTTLARGKARSISLKLDSEE

>Q10471

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>Q96BI3

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>Q96DZ5

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>Q14435

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>Q96L58

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>Q9W4X9

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>Q96JB2

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>Q7XJ98

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>Q06385

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>Q9LZI2

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>Q940B8

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>Q62991

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>Q6P4F1

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>Q12893

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>P36107

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>Q9R064

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>Q9Y3A3

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>Q9JII1

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>Q8CF97

MSQPPPPPPLPPPPPPPEAPQTSSSLAAAATPGGLSKRRDRRILSGSCPDPKCQARLFFPASGSVSIECTECGQRHEQQQLLGVEEVTDPDVVLHNLLRNALLGVTGAPKKNTELVKVMGLSNYHCKLLSPILARYGMDKQTGRAKLLRDMNQGELFDCALLGDRAFLIEPEHVNTVGYGKDRSGSLLYLHDTLEDIKRANKSQECLIPVHVDGDGHCLVHAVSRALVGRELFWHALRENLKQHFQQHLARYQALFHDFIDAAEWEDIINECDPLFVPPEGVPLGLRNIHIFGLANVLHRPIILLDSLSGMRSSGDYSATFLPGLIPAEKCTGRDGHLNKPICIAWSSSGRNHYIPLVGIKGAALPKLPMNLLPKAWGVPQDLIKKYIKLEEDGGCVIGGDRSLQDKYLLRLVAAMEEVFMDKHGIHPSLVADVHQYFYRRTGVIGVQPEEVTAAAKKAVMDNRLHKCLLCGALSELHVPPEWLAPGGKLYNLAKSTHGQLRPDKNYSFPLNNLVCSYDPVKDVLLPDYGLSNLTACNWCHGTSVRRVRGDGSIVYLDGDRTNSRSTGGKCGCGFKHFWEGKEYDNLPEAFPITLEWGGRVVRETVYWFQYESDPSLNSNVYDVAMKLVTKHFPGEFGSEILVQKVVHTILHQTAKKNPDDYTPVNIDGAHAQRIGDVQGQELESQLPTKIILTGQKTKTLHKEELNMSKTERTIQQNITEQASVMQKRKTEKLKQEQKGQPRTVSPSTIRDGPSSAPATPTKAPYSPTTSKEKKIRITTNDGRQSMVTLKSSTTFFELQESIAREFNIPPYLQCIRYGFPPKELMPPQAGMEKEPVPLQHGDRITIEILKGKAEGGPSTAAHSAHTVRQEEIAVTGKLSSKELQEQADKEMYSLCLLATLMGEDVWSYAKGLPHMFQQGGVFYNIMKKTMGMADGKHCTFPHLPGKTFVYNASEDRLELCVDAAGHFPIGPDVEDLVKEAVSQVRAEATTRSRESSPSHGLLKLGSGGVVKKKSEQLHNVTAFQGKGHSLGTASSNPHMDPRARETLAVRKHNTGTDFSNSSIKTEPPVFTAASSNSELIRIAPGVVTMRDGRQIDPDVVEAQRKKLQEMVSSIQASMDKHLRDQSTEQTPSDLSQRKVEAVSSSVRPGNLQTGLPESFSLTGGTENLNTETTDSRVADVLGAAFATRSKAQKENSMEEPEEMDSQDAETTNTTEPMDHS

>Q9SA77

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>P45895

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>Q9W3N6

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>Q3L7M0

MVTMPQDLHVKVSMSRSKSETSLLSSRSGSQEKIMNVKGKIILSVLMVSTVLVVFWEYVNRTHSYQEEDIERAREKGRNGDSIVEPQLWDWFNPKNRPEVLTVTPWKAPIVWEGTYDTALLEKYYARQKITVGLTVFAVGKYIEHYLEDFLESANKYFMVGHRVIFYVMMDDTSRMPAVHLSPLHSLQVFEIRSEKRWQDISMMRMKTIGEHILDHIQHEVDFLFCMDVDQVFQDNFGVETLGQLVAQLQAWWYKASPDEFTYERRELSAAYIPFGEGDFYYHAAVFGGTPVHILNLTRECFKGILQDKKHDIEAQWHDESHLNKYFLFNKPTKILSPEYCWDYHIGLPSDIKNVKIAWQTKEYNLVRSNV

>Q8K4Y7

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>B0F9L4

MDLASRYKGVVGMVFGDNQSSNEDSYIQRLLDRISNGTLPDDRRTAIVELQSVVAESNAAQLAFGAAGFPVIVGILKDQRDDLEMVRGALETLLGALTPIDHARAQKTEVQAALMNSDLLSREAENITLLLSLLEEEDFYVRYYTLQILTALLMNSQNRLQEAILTTPRGITRLMDMLMDREVIRNEALLLLTHLTREAEEIQKIVVFEGAFEKIFSIIKEEGGSDGDVVVQDCLELLNNLLRSSSSNQILLRETMGFEPIISILKLRGITYKFTQQKTVNLLSALETINMLIMGRADTEPGKDSNKLANRTVLVQKKLLDYLLMLGVESQWAPVAVRCMTFKCIGDLIDGHPKNRDILASKVLGEDRQVEPALNSILRIILQTSSIQEFVAADYVFKTFCEKNTEGQTMLASTLIPQPHPTSRDHLEDDVHMSFGSMLLRGLCSGEADGDLETCCRAASILSHVVKDNLRCKEKALKIVLESPMPSMGTPEPLFQRIVRYLAVASSMKSKEKSSTLGKSYIQQIILKLLVTWTVDCPTAVQCFLDSRHHLTFLLELVTDPAATVCIRGLASILLGECVIYNKSIENGKDAFSVVDAVGQKMGLTSYFSKFEEMQNSFIFSPSKKPPQGYKPLTRTPTPSEAEINEVDEVDEMVKGNEDHPMLLSLFDASFIGLVKSLEGNIRERIVDVYSRPKSEVAVVPADLEQKSGENEKDYINRLKAFIEKQCSEIQNLLARNAALAEDVASSGRNEQSQGSEQRASTVMDKVQMESIRRELQETSQRLETVKAEKAKIESEASSNKNMAAKLEFDLKSLSDAYNSLEQANYHLEQEVKSLKGGESPMQFPDIEAIKEEVRKEAQKESEDELNDLLVCLGQEESKVEKLSAKLIELGVDVDKLLEDIGDESEAQAESEED

>Q8CG45

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>Q9SWH5

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>Q5BJK8

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>Q6L9W6

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>Q9QVY3

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>O74384

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>Q9USX0

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>Q6TXD4

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>Q08484

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>Q9FGK9

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>Q5U651

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>O14201

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>A8MQT2

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>Q43675

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1. *trans*-Golgi network proteins

>Q04656

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>Q99828

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>Q14457

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>O75122

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>P33724

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>Q8N1B4

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>Q9BTU6

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>Q62101

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>P41181

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>O14966

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>Q9NZD8

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>Q39041

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>P51153

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>Q6XR72

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>Q9Y4C5

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>P22219

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>P61106

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>Q9NR09

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>P56818

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>Q9FY48

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>O14976

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>Q9NZ52

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>Q9UL25

MAAAGGGGGGAAAAGRAYSFKVVLLGEGCVGKTSLVLRYCENKFNDKHITTLQASFLTKKLNIGGKRVNLAIWDTAGQERFHALGPIYYRDSNGAILVYDITDEDSFQKVKNWVKELRKMLGNEICLCIVGNKIDLEKERHVSIQEAESYAESVGAKHYHTSAKQNKGIEELFLDLCKRMIETAQVDERAKGNGSSQPGTARRGVQIIDDEPQAQTSGGGCCSSG

>P49754

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>Q38856

MASNSALLMKTIFLVLIFVSFAISPATSTAPEECGSESANPCVNKAKALPLKVIAIFVILIASMIGVGAPLFSRNVSFLQPDGNIFTIIKCFASGIILGTGFMHVLPDSFEMLSSICLEENPWHKFPFSGFLAMLSGLITLAIDSMATSLYTSKNAVGIMPHGHGHGHGPANDVTLPIKEDDSSNAQLLRYRVIAMVLELGIIVHSVVIGLSLGATSDTCTIKGLIAALCFHQMFEGMGLGGCILQAEYTNMKKFVMAFFFAVTTPFGIALGIALSTVYQDNSPKALITVGLLNACSAGLLIYMALVDLLAAEFMGPKLQGSIKMQFKCLIAALLGCGGMSIIAKWA

>P22543

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>O23702

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>Q6NZQ8

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>Q9Y3M2

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>Q9NX62

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>Q8S403

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>Q5W7F2

MHFTKLDDSPMFRKQLQSMEESAEILRERSLKFYKGCRKYTEGLGEAYDGDIAFASALETFGGGHNDPISVAFGGPVMTKFTIALREIGTYKEVLRSQVEHILNDRLLQFANMDLHEVKEARKRFDKASLTYDQAREKFLSLRKGTKSDVAAALEQELHTSRSMFEQARFNLVTALSNVEAKKRFEFLEAVSGTMDAHLRYFKQGYELLHQMEPYINQVLTYAQQSRERSNYEQAALNEKMQEYKRQVDRESRWGSNGSNGSPNGDGIQAIGRSSHKMIDAVMQSAARGKVQTIRQGYLSKRSSNLRGDWKRRFFVLDSRGMLYYYRKQCSKPSGSGSQLSGQRNSSELGSGLLSRWLSSNNHGHGGVHDEKSVARHTVNLLTSTIKVDADQSDLRFCFRIISPTKNYTLQAESALDQMDWIEKITGVIASLLSSQVPEQRLPGSPMGSGHHRSASESSSYESSEYDHPTTEEFVCERSFLGYNERPSRSFQPQRSIRKGEKPIDALRKVCGNDKCADCGAPEPDWASLNLGVLVCIECSGVHRNLGVHISKVRSLTLDVKVWEPSVISLFQALGNTFANTVWEELLHSRSAIHFDPGLTVSDKSRVMVTGKPSYADMISIKEKYIQAKYAEKLFVRRSRDSDFPQSAAQQMWDAVSGNDKKAVYRLIVNGDADVNYVYDQTSSSSLTLSRVILVPERPKREDVLLRLRNELLDRTGSSSNISPEGSGGSSLLHCACEKADLGMVELLLQYGANVNASDSSGQTPLHCCLLRGKVTIARLLLTRGADPEAMNREGKTALDIAAESNFTDPEVLALLSDTNGYNHRQC

>P05538

MSWKMALQIPGGFWAAAVTVMLVMLSTPVAEARDFPKDFLVQFKGMCYFTNGTERVRGVARYIYNREEYGRFDSDVGEFQAVTELGRSIEDWNNYKDFLEQERAAVDKVCRHNYEAELRTTLQRQVEPTVTISPSRTEALNHHNLLVCSVTDFYPAQIKVRWFRNDQEETAGVVSTSLIRNGDWTFQILVMLEITPQRGDIYTCQVEHPSLQSPITVEWRAQSESAQSKMLSGIGGFVLGLIFLGLGLIIRHRGQKGPRGPPPAGLLH

>Q9FMJ0

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>Q9C005

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>P01906

MILNKALLLGALALTAVMSPCGGEDIVADHVASYGVNFYQSHGPSGQYTHEFDGDEEFYVDLETKETVWQLPMFSKFISFDPQSALRNMAVGKHTLEFMMRQSNSTAATNEVPEVTVFSKFPVTLGQPNTLICLVDNIFPPVVNITWLSNGHSVTEGVSETSFLSKSDHSFFKISYLTFLPSADEIYDCKVEHWGLDEPLLKHWEPEIPAPMSELTETLVCALGLSVGLMGIVVGTVFIIQGLRSVGASRHQGLL

>Q5TA50

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>Q94AN2

MRGPLGAVIGRYTSSDGSAPNDGIIKHNRKCRDITFLIIFIAFWVSMIVNSSFGFNQGNPLRLTYGLDYEGNVCGSKHRHRDLTQLELRYWLNPNQVYESGLKDGELKLANARTICLLDCPAPSDDTLNWVCDYPDGEIRLKMNDWIDRNYDYFEFLTPEMRNSSLQLQGPCYPVIFPSVNVYWSCQYIARASNSSLRHWQQMGGVNIQEDMIIDKSIRRSMNSRASVLKRYVADIGKSWPVLIVCGGLVPLFLSIIWLLLIRHFVAAMPWITVVLFNMLLISVTVFYYLKAGWIGNDAVTPIIGEHDPYFHVYGRELTHVRGVAILMTFISVVAILTSIAIIRRILMATSVLKVAAKVIGEVQALIIFPAIPFAMLAIFYMFWISAALHLFSSGQVVQNNCNNTNCCAYDLVLKKVNCDRCCGYSIHYTPHITIAIFFHLFGCYWATQFFIASSATVIAGSVASYYWAQGEASPEIPFLPVFASMKRLARYNLGSVALGSLIVSFVESVRFILEAIRRKTKVSGTIPDHWFWRMAHYTSRGCLKSVEWTIKSVNRNAYIMIAITGKSFCKSSAIATELIISNILRIGKVNVIGDVILFLGKLCVSLFSALFGFLMLDSHRYRASHNKVSSPLLPVLACWALGYIVATLFFAVVEMSIDTIILSFCQDSEENQGNAQHAPPLLLETLDSNQEEEVQSLTH

>P31150

MDEEYDVIVLGTGLTECILSGIMSVNGKKVLHMDRNPYYGGESSSITPLEELYKRFQLLEGPPESMGRGRDWNVDLIPKFLMANGQLVKMLLYTEVTRYLDFKVVEGSFVYKGGKIYKVPSTETEALASNLMGMFEKRRFRKFLVFVANFDENDPKTFEGVDPQTTSMRDVYRKFDLGQDVIDFTGHALALYRTDDYLDQPCLETVNRIKLYSESLARYGKSPYLYPLYGLGELPQGFARLSAIYGGTYMLNKPVDDIIMENGKVVGVKSEGEVARCKQLICDPSYIPDRVRKAGQVIRIICILSHPIKNTNDANSCQIIIPQNQVNRKSDIYVCMISYAHNVAAQGKYIAIASTTVETTDPEKEVEPALELLEPIDQKFVAISDLYEPIDDGCESQVFCSCSYDATTHFETTCNDIKDIYKRMAGTAFDFENMKRKQNDVFGEAEQ

>Q69ZI1

MDESALLDLLECPVCLERLDASAKVLPCQHTFCKRCLLGIVGSRNELRCPECRTLVGSGVDELPSNILLVRLLDGIKQRPWKPGPGGGGGTTCTNTLRAQGSTVVNCGSKDLQSSQCGQQPRVQAWSPPVRGIPQLPCAKALYNYEGKEPGDLKFSKGDIIILRRQVDENWYHGEVSGVHGFFPTNFVQIIKPLPQPPPQCKALYDFEVKDKEADKDCLPFAKDDVLTVIRRVDENWAEGMLADKIGIFPISYVEFNSAAKQLIEWDKPPVPGVDTAECPSATAQSTSASKHPDTKKNTRKRHSFTSLTMANKSSQGSQNRHSMEISPPVLISSSNPTAAARISELSGLSCSAPSQVHISTTGLIVTPPPSSPVTTGPAFTFPSDVPYQAALGSMNPPLPPPPLLAATVLASTPSGATAAVAAAAAAAAAAGMGPRPVMGSSEQIAHLRPQTRPSVYVAIYPYTPRKEDELELRKGEMFLVFERCQDGWYKGTSMHTSKIGVFPGNYVAPVTRAVTNASQAKVSMSTAGQASRGVTMVSPSTAGGPTQKPQGNGVAGNPSVVPTAVVSAAHIQTSPQAKVLLHMSGQMTVNQARNAVRTVAAHSQERPTAAVTPIQVQNAACLGPASVGLPHHSLASQPLPPMAGPAAHGAAVSISRTNAPMACAAGASLASPNMTSAMLETEPSGRTVTILPGLPTSPESAASACGNSSAGKPDKDSKKEKKGLLKLLSGASTKRKPRVSPPASPTLDVELGAGEAPLQGAVGPELPLGGSHGRVGSCPTDGDGPVAAGTAALAQDAFHRKTSSLDSAVPIAPPPRQACSSLGPVMNEARPVVCERHRVVVSYPPQSEAELELKEGDIVFVHKKREDGWFKGTLQRNGKTGLFPGSFVENI

>Q9Y2G3

MWRWIRQQLGFDPPHQSDTRTIYVANRFPQNGLYTPQKFIDNRIISSKYTVWNFVPKNLFEQFRRVANFYFLIIFLVQLMIDTPTSPVTSGLPLFFVITVTAIKQGYEDWLRHNSDNEVNGAPVYVVRSGGLVKTRSKNIRVGDIVRIAKDEIFPADLVLLSSDRLDGSCHVTTASLDGETNLKTHVAVPETALLQTVANLDTLVAVIECQQPEADLYRFMGRMIITQQMEEIVRPLGPESLLLRGARLKNTKEIFGVAVYTGMETKMALNYKSKSQKRSAVEKSMNTFLIIYLVILISEAVISTILKYTWQAEEKWDEPWYNQKTEHQRNSSKILRFISDFLAFLVLYNFIIPISLYVTVEMQKFLGSFFIGWDLDLYHEESDQKAQVNTSDLNEELGQVEYVFTDKTGTLTENEMQFRECSINGMKYQEINGRLVPEGPTPDSSEGNLSYLSSLSHLNNLSHLTTSSSFRTSPENETELIKEHDLFFKAVSLCHTVQISNVQTDCTGDGPWQSNLAPSQLEYYASSPDEKALVEAAARIGIVFIGNSEETMEVKTLGKLERYKLLHILEFDSDRRRMSVIVQAPSGEKLLFAKGAESSILPKCIGGEIEKTRIHVDEFALKGLRTLCIAYRKFTSKEYEEIDKRIFEARTALQQREEKLAAVFQFIEKDLILLGATAVEDRLQDKVRETIEALRMAGIKVWVLTGDKHETAVSVSLSCGHFHRTMNILELINQKSDSECAEQLRQLARRITEDHVIQHGLVVDGTSLSLALREHEKLFMEVCRNCSAVLCCRMAPLQKAKVIRLIKISPEKPITLAVGDGANDVSMIQEAHVGIGIMGKEGRQAARNSDYAIARFKFLSKLLFVHGHFYYIRIATLVQYFFYKNVCFITPQFLYQFYCLFSQQTLYDSVYLTLYNICFTSLPILIYSLLEQHVDPHVLQNKPTLYRDISKNRLLSIKTFLYWTILGFSHAFIFFFGSYLLIGKDTSLLGNGQMFGNWTFGTLVFTVMVITVTVKMALETHFWTWINHLVTWGSIIFYFVFSLFYGGILWPFLGSQNMYFVFIQLLSSGSAWFAIILMVVTCLFLDIIKKVFDRHLHPTSTEKAQLTETNAGIKCLDSMCCFPEGEAACASVGRMLERVIGRCSPTHISRSWSASDPFYTNDRSILTLSTMDSSTC

>Q5VIR6

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>O00189

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>F4IXW2

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>Q96JA3

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>Q9Y6B7

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>Q28193

MELRPWLFWVVAAAGALVLLVADARGEKVFTNTWAVHIPGGPAVADRVARKHGFLNLGQIFGDYYHFWHRAVTKRSLSPHRLGHNRLQREPQVKWLEQQVAKRRAKRDIYQEPTDPKFPQQWYLSGVTQRDLNVKEAWAQGYTGRGIVVSILDDGIEKNHPDLAGNYDPGASFDVNDQDPDPQPRYTQMNDNRHGTRCAGEVAAVANNGVCGVGVAYNARIGGVRMLDGEVTDAVEARSLGLNPNHIHIYSASWGPEDDGKTVDGPAHLAEEAFFRGVSQGRGGLGSIFVWASGNGGREHDSCNCDGYTNSIYTLSISSATQFGNVPWYSEACSSTLATTYSSGNQNEKQIVTTDLRQKCTESHTGTSAFAPLAAGIIALTLEANKNLTWRDMQHLVVRTSKPAHLNANDWATNGVGRKVSHSYGYGLLDAGAMVALAQNWTTVAPQRKCTIDILTEPKDIGKRLEVRKTVTACLGEPSHITRLEHAQARLTLSYNRRGDLAIHLVSPMGTRSTLLAARPHDYSADGFNDWAFMTTHSWDEDPSGEWVLEIENTSEANNYGTLTKFTLVLYGTAPEGLPTPPESIGCKTLTSSQACVVCEEGFSLHQKNCVQHCPPGFAPQVLDTHYSTENDVEIIRASVCTPCHASCATCQGPAPTDCLSCPSHASLDPVEQTCSRQSQSSRESHQQQPPPPPRPPPAEVATEPRLRADLLPSHLPEVVAGLSCAFIVLVFVTVFLVLQLRSGFSFRGVKVYTMDRGLISYKGLPPEAWQEECPSDSEEDEGRGERTAFIKDQSAL

>P98063

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>Q6UXG2

MAEPGHSHHLSARVRGRTERRIPRLWRLLLWAGTAFQVTQGTGPELHACKESEYHYEYTACDSTGSRWRVAVPHTPGLCTSLPDPIKGTECSFSCNAGEFLDMKDQSCKPCAEGRYSLGTGIRFDEWDELPHGFASLSANMELDDSAAESTGNCTSSKWVPRGDYIASNTDECTATLMYAVNLKQSGTVNFEYYYPDSSIIFEFFVQNDQCQPNADDSRWMKTTEKGWEFHSVELNRGNNVLYWRTTAFSVWTKVPKPVLVRNIAITGVAYTSECFPCKPGTYADKQGSSFCKLCPANSYSNKGETSCHQCDPDKYSEKGSSSCNVRPACTDKDYFYTHTACDANGETQLMYKWAKPKICSEDLEGAVKLPASGVKTHCPPCNPGFFKTNNSTCQPCPYGSYSNGSDCTRCPAGTEPAVGFEYKWWNTLPTNMETTVLSGINFEYKGMTGWEVAGDHIYTAAGASDNDFMILTLVVPGFRPPQSVMADTENKEVARITFVFETLCSVNCELYFMVGVNSRTNTPVETWKGSKGKQSYTYIIEENTTTSFTWAFQRTTFHEASRKYTNDVAKIYSINVTNVMNGVASYCRPCALEASDVGSSCTSCPAGYYIDRDSGTCHSCPTNTILKAHQPYGVQACVPCGPGTKNNKIHSLCYNDCTFSRNTPTRTFNYNFSALANTVTLAGGPSFTSKGLKYFHHFTLSLCGNQGRKMSVCTDNVTDLRIPEGESGFSKSITAYVCQAVIIPPEVTGYKAGVSSQPVSLADRLIGVTTDMTLDGITSPAELFHLESLGIPDVIFFYRSNDVTQSCSSGRSTTIRVRCSPQKTVPGSLLLPGTCSDGTCDGCNFHFLWESAAACPLCSVADYHAIVSSCVAGIQKTTYVWREPKLCSGGISLPEQRVTICKTIDFWLKVGISAGTCTAILLTVLTCYFWKKNQKLEYKYSKLVMNATLKDCDLPAADSCAIMEGEDVEDDLIFTSKKSLFGKIKSFTSKRTPDGFDSVPLKTSSGGLDMDL

>Q9UJY4

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>G5EFV8

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>Q9P1Q0

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>Q8K4K5

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>Q8IZA0

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>P32660

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>Q9UIL1

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>Q6PJW8

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>Q12114

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>Q6WRU0

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>P39524

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>P47160

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>Q8BPQ7

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>Q71RS6

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>Q96AH8

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>Q96A57

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>Q0WQF4

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>Q09175

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>Q9SEL5

MSDVFEGYERQYCELSTNLSRKCHSASVLSNGEEKKGKIAEIKSGIDEADVLIRKMDLEARSLQPSAKAVCLSKLREYKSDLNQLKKEFKRVSSADAKPSSREELMESGMADLHAVSADQRGRLAMSVERLDQSSDRIRESRRLMLETEEVGISIVQDLSQQRQTLLHAHNKLHGVDDAIDKSKKVLTAMSRRMTRNKWIITSVIVALVLAIILIISYKLSH

>Q9ESE1

MASEDNRAPSRPPTGDDGGGGGKEETPTEGGALSLKPGLPIRGIRMKFAVLTGLVEVGEVSNRDIVETVFNLLVGGQFDLEMNFIIQEGESIMCMVELLEKCDVTCQAEVWSMFTAILKKSIRNLQVCTEVGLVEKVLGKIEKVDSMIADLLVDMLGVLASYNLTVRELKLFFSKLQGDKGQWPPHAGKLLSVLKHMPQKYGPDAFFNFPGKSAAAIALPPIARWPYQNGFTFHTWLRMDPVNNINVDKDKPYLYCFRTSKGLGYSAHFVGGCLIITSIKSKGKGFQHCVKFDFKPQKWYMVTIVHIYNRWKNSELRCYVNGELASYGEITWFVNTSDTFDKCFLGSSETADANRVFCGQMTAVYLFSDALNAAQIFAIYQLGLGYKGTFKFKAESDLFLAEHHKLLLYDGKLSSAIAFMYNPRATDAQLCLESSPKDNPSIFVHSPHALMLQDVKAVLTHSIQSAMHSIGGVQVLFPLFAQLDYKQYLSDEVDLTICTTLLAFIMELLKNSIAMQEQMLACKGFLVIGYSLEKSSKSHVSRAVLELCLAFSKYLSNLQNGMPLLKQLCDHILLNPAVWIHTPAKVQLMLYTYLSTEFIGTVNIYNTIRRVGTVLLIMHTLKYYYWAVNPQDRSGITPKGLDGPRPNQKEILSLRAFLLMFIKQLVMKDSGVKEDELQAILNYLLTMHEDDNLMDVLQLLVALMAEHPNSMIPAFDQRNGLRVIYKLLASKSEGIRVQALKALGYFLKHLAPKRKAEVMLGHGLFSLLAERLMLQTNLITMTMYNVLFEILIEQICTQVIHKQHPDPDSTVKIQNPQILKVIATLLRNSPQCPESMEVRRAFLSDMIKLFNNSRENRRSLLQCSVWQEWMLSLCYFNPKNSDEQKITEMVYAIFRILLYHAVKYEWGGWRVWVDTLSITHSKVTFEIHKENLANIFREEQRKGDEETGPCSSSLVPEGTGATRGVDVSVGSQHEDRKDSPISPHFTRNSDENSSIGRASSIDSASNTELQTHDMSSDEKKVERENQELLDQATVEETATNGAKDDLETSSDAAEPVTINSNSLEPGKDTVTISEVSASISSPSEEDAAEMPELLEKSGVEEKEDDDYVELKVEGSPTEEAGLPTELQGEGLSVAASGGREEPDMCGHGCEVQVEAPITKIHNDPETTDSEDSRFPTVATAGSLATSSEVPVPQATVQSDSHEMLDGGMKATNLAGETESVSDCADNVSEAPATSEQKITKLDVSSVASDTERFELKASTSTEAPQPQRHGLEISRQQEQTAQGTAPDAVDQQRRDSRSTMFRIPEFKWSQMHQRLLTDLLFSIETDIQMWRSHSTKTVMDFVNSSDNVIFVHNTIHLISQVMDNMVMACGGILPLLSAATSATHELENIEPTQGLSIEASVTFLQRLISLVDVLIFASSLGFTEIEAEKNMSSGGILRQCLRLVCAVAVRNCLECQQHSQLKARGDTAKSSKTIHSLIPMGKSAAKSPVDIVTGGISSVRDLDRLPARTWTLIGLRAVVFRDIEDSKQAQFLALAVVYFISVLMVSKYRDILEPQDERHSQSLKETSSDNGNASLPDAENTPAEFSSLTLSSVEESLEGTSCTRRRDSGLGEETASGLGSGLSVASPAAPLGVSAGPDAISEVLCTLSLEVNKSQETRIDGGNELDRKVTPSVPVSKNVNVKDILRSLVNMPADGVTVDPALLPPACLGALGDLSVDPPMQFRSFDRSVIIATKKSSVLPSALTTSAPSSAVSVVSSVDPTHASDTGGESPGSRSPKCKTALSCKQLAPSHKTPAAHMSITERLEHALEKAAPLLREIFVDFAPFLSRTLLGSHGQELLIEGTSLVCMKSSSSVVELVMLLCSQEWQNSIQKNAGLAFIELVNEGRLLSQTMKDHLVRVANEAEFILSRQRAEDIHRHAEFESLCAQYSADKREEEKMCDHLIRAAKYRDHVTATQLIQKIINLLTDKHGAWGSSAVSRPREFWRLDYWEDDLRRRRRFVRNPLGSTHPEATLKTAVEHAADEDILAKGKQSIKSQALGNQNSENEALLEGDDDTLSSVDEKDLENLAGPVSLSTPAQLVAPSVVVKGTLSVTSSELYFEVDEEDPNFKKIDPKILAYTEGLHGKWLFTEIRSIFSRRYLLQNTALEIFMANRVAVMFNFPDPATVKKVVNYLPRVGVGTSFGLPQTRRISLATPRQLFKASNMTQRWQHREISNFEYLMFLNTIAGRSYNDLNQYPVFPWVITNYESEELDLTLPSNFRDLSKPIGALNPKRAAFFAERFESWEDDQVPKFHYGTHYSTASFVLAWLLRIEPFTTYFLNLQGGKFDHADRTFSSVSRAWRNSQRDTSDIKELIPEFYYLPEMFVNFNNYNLGVMDDGTVVSDVELPPWAKTSEEFVRINRLALESEFVSCQLHQWIDLIFGYKQQGPEAVRALNVFYYLTYEGAVNLNSITDPVLREAVEAQIRSFGQTPSQLLIEPHPPRGSAMQASPLMFTDQAQQDVIMVLKFPSNSPVTHVAANTQPGLAMPAVITVTANRLFAVNKWHNLPAHQGAVQDQPYQLPVEIDPLIACGTGTHRRQVTDLLDQSIQVHSQCFVITSDNRYILVCGFWDKSFRVYSTDTGKLIQVVFGHWDVVTCLARSESYIGGNCYILSGSRDATLLLWYWNGKSSGIGDNPGGETATPRAILTGHDYEITCAAVCAELGLVLSGSQEGPCLIHSMNGDLLRTLEGPENCLKPKLIQASREGHCVIFYENGCFCTFSVNGKLQATVETDDHIRAIQLSRDGQYLLTGGDNGVVIVRQVSDLKQLFAYPGCDAGIRAMALSFDQRCIISGMASGSIVLFYNDFNRWHHEYQTRY

>O15126

MSDFDSNPFADPDLNNPFKDPSVTQVTRNVPPGLDEYNPFSDSRTPPPGGVKMPNVPNTQPAIMKPTEEHPAYTQIAKEHALAQAELLKRQEELERKAAELDRREREMQNLSQHGRKNNWPPLPSNFPVGPCFYQDFSVDIPVEFQKTVKLMYYLWMFHAVTLFLNIFGCLAWFCVDSARAVDFGLSILWFLLFTPCSFVCWYRPLYGAFRSDSSFRFFVFFFVYICQFAVHVLQAAGFHNWGNCGWISSLTGLNQNIPVGIMMIIIAALFTASAVISLVMFKKVHGLYRTTGASFEKAQQEFATGVMSNKTVQTAAANAASTAASSAAQNAFKGNQI

>Q9JKN1

MLPLSIKDDEYKPPKFNLFGKISGWFRSILSDKTSRNLFFFLCLNLSFAFVELLYGIWSNCLGLISDSFHMFFDSTAILAGLAASVISKWRDNDAFSYGYVRAEVLAGFVNGLFLIFTAFFIFSEGVERALAPPDVHHERLLLVSILGFVVNLVGIFVFNHGGHGHSHGSGHGHSHSLFNGALDHSHGHEDHCHSHEAKHGAAHSHDHDHAHGHGHLHSHDGPSFKATAGPSRQILQGVFLHILADTLGSIGVIASAIMMQNFGLMIADPICSILIAILIVVSVIPLLRESVGILMQRTPPSLENTLPQCYQRVQQLQGVYNLQEQHFWTLCSDVYVGTLKLVVAPDADARWILSQTHNIFTQAGVRQLYVQIDFAAM

>Q9QXV0

MAGSPLLCGPRAGGVGILVLLLLGLLRLPPTLSARPVKEPRSLSAASAPLVETSTPLRLRRAVPRGEAAGAVQELARALAHLLEAERQERARAEAQEAEDQQARVLAQLLRAWGSPRASDPPLAPDDDPDAPAAQLARALLRARLDPAALAAQLVPAPAAAPRPRPPVYDDGPTGPDVEDAGDETPDVDPELLRYLLGRILTGSSEPEAAPAPRRLRRSVDQDLGPEVPPENVLGALLRVKRLENPSPQAPARRLLPP

>Q96T83

MEPGDAARPGSGRATGAPPPRLLLLPLLLGWGLRVAAAASASSSGAAAEDSSAMEELATEKEAEESHRQDSVSLLTFILLLTLTILTIWLFKHRRVRFLHETGLAMIYGLIVGVILRYGTPATSGRDKSLSCTQEDRAFSTLLVNVSGKFFEYTLKGEISPGKINSVEQNDMLRKVTFDPEVFFNILLPPIIFHAGYSLKKRHFFRNLGSILAYAFLGTAVSCFIIGNLMYGVVKLMKIMGQLSDKFYYTDCLFFGAIISATDPVTVLAIFNELHADVDLYALLFGESVLNDAVAIVLSSSIVAYQPAGLNTHAFDAAAFFKSVGIFLGIFSGSFTMGAVTGVNANVTKFTKLHCFPLLETALFFLMSWSTFLLAEACGFTGVVAVLFCGITQAHYTYNNLSVESRSRTKQLFEVLHFLAENFIFSYMGLALFTFQKHVFSPIFIIGAFVAIFLGRAAHIYPLSFFLNLGRRHKIGWNFQHMMMFSGLRGAMAFALAIRDTASYARQMMFTTTLLIVFFTVWIIGGGTTPMLSWLNIRVGVEEPSEEDQNEHHWQYFRVGVDPDQDPPPNNDSFQVLQGDGPDSARGNRTKQESAWIFRLWYSFDHNYLKPILTHSGPPLTTTLPAWCGLLARCLTSPQVYDNQEPLREEDSDFILTEGDLTLTYGDSTVTANGSSSSHTASTSLEGSRRTKSSSEEVLERDLGMGDQKVSSRGTRLVFPLEDNA

>O35587

MSGSSGPLSWPGPRPCALLFLLLLGPSSVLAISFHLPVNSRKCLREEIHKDLLVTGAYEITDQSGGAGGLRTHLKITDSAGHILYAKEDATKGKFAFTTEDYDMFEVCFESKGTGRIPDQLVILDMKHGVEAKNYEEIAKVEKLKPLEVELRRLEDLSESIVNDFAYMKKREEEMRDTNESTNTRVLYFSIFSMLCLIGLATWQVFYLRRFFKAKKLIE

>Q9R1R2

MAKREDSPGPEVQPMDKQFLVCSICLDRYRCPKVLPCLHTFCERCLQNYIPPQSLTLSCPVCRQTSILPEQGVSALQNNFFISSLMEAMQQAPEGAHDPEDPHPLSAVAGRPLSCPNHEGKTMEFYCEACETAMCGECRAGEHREHGTVLLRDVVEQHKAALQRQLEAVRGRLPQLSAAIALVGGISQQLQERKAEALAQISAAFEDLEQALQQRKQALVSDLESICGAKQKVLQTQLDTLRQGQEHIGSSCSFAEQALRLGSAPEVLLVRKHMRERLAALAAQAFPERPHENAQLELVLEVDGLRRSVLNLGALLTTSATAHETVATGEGLRQALVGQPASLTVTTKDKDGRLVRTGSAELCAEITGPDGVRLAVPVVDHKNGTYELVYTARTEGDLLLSVLLYGQPVRGSPFRVRALRPGDLPPSPDDVKRRVKSPGGPGSHVRQKAVRRPSSMYSTGGKRKDNPIEDELVFRVGSRGREKGEFTNLQGVSAASSGRIVVADSNNQCIQVFSNEGQFKFRFGVRGRSPGQLQRPTGVAVDTNGDIIVADYDNRWVSIFSPEGKFKTKIGAGRLMGPKGVAVDRNGHIIVVDNKSCCVFTFQPNGKLVGRFGGRGATDRHFAGPHFVAVNNKNEIVVTDFHNHSVKVYSADGEFLFKFGSHGEGNGQFNAPTGVAVDSNGNIIVADWGNSRIQVFDSSGSFLSYINTSAEPLYGPQGLALTSDGHVVVADAGNHCFKAYRYLQ

>Q0WQ75

MATEAAPMDEKAKRMRDLLSSFYAPDPSISTSGSSINASFDNINSTSFDADQYMDLMIKKSNLEVLLQRHVQMAAEIKNLDTDLQMLVYENYNKFISATDTIKRMKSNIFGMEGNMDQLLQKIMSVQSKSDGVNTSLFEKREHIEKLHRTRNLLRKVQFIYDLPARLQKCIKSEAYGDAVRFYTGAMPILKVYGDTSFQDCRRASEEAIEIIIKNLQTKLFSDSESIQARAEAAVLLKQLDVPVDSLKAKLLEKLEQSLDGLQIKPEEASTLVEDDDSSNDTESNDQHPAKIHEDAVRGFSEAIRAYREIFPDSEERLFKLARALTAMHFEYMELYIKKRVSAADFLGIFRIVWEDVVLMDEVLPEAALSDLSAEAAQVTLKQFVARMFSHLQQDISDTLLKFDINQKEAVEGELLKVVLEASQKAVLQGTTNIFQDFRQLLDEKTGIFIKMKDLISGWIQKGSQDFFRSLEAQFLVLSGKTSSSNDIEGKSSDKIHAGLILVLAQLSVFIEQKVIPRVTEEIAASFSGGNSQAFENGPAFIPGELCRVFHAASEKLLQHYIDTRTQKVSVLLRKRFKTPNWVKHKEPREVHMYVDMFLHELEEVGKEVKQVLPQGTFRKHKRTDSNGSNTTTSSRSNTLHNDKMARSNSQRARSQLFETHLAKLFKQKVEIFTKVEFTQESVVTTTVKLCLKSLQEYVRLQTFNRSGFQQIQLDIQFLKAPLKEAVEDEAAIDFLLDEVIVAASERCLDVIPLEPPILDKLIQAKLAKSKEHNNNTVSS

>P36116

MAEQISHKKSLRVSSLNKDRRLLLREFYNLENEPNKGRQEARIGEKASEAHSGEEQVTDVNIDTEANTEKPVKDDELSATEEDLKEGSEDAEEEIKNLPFKRLVQIHNKLLGKETETNNSIKNTIYENYYDLIKVNDLLKEITNANEDQINKLKQTVESLIKEL

>P09620

MFYNRWLGTWLAMSALIRISVSLPSSEEYKVAYELLPGLSEVPDPSNIPQMHAGHIPLRSEDADEQDSSDLEYFFWKFTNNDSNGNVDRPLIIWLNGGPGCSSMDGALVESGPFRVNSDGKLYLNEGSWISKGDLLFIDQPTGTGFSVEQNKDEGKIDKNKFDEDLEDVTKHFMDFLENYFKIFPEDLTRKIILSGESYAGQYIPFFANAILNHNKFSKIDGDTYDLKALLIGNGWIDPNTQSLSYLPFAMEKKLIDESNPNFKHLTNAHENCQNLINSASTDEAAHFSYQECENILNLLLSYTRESSQKGTADCLNMYNFNLKDSYPSCGMNWPKDISFVSKFFSTPGVIDSLHLDSDKIDHWKECTNSVGTKLSNPISKPSIHLLPGLLESGIEIVLFNGDKDLICNNKGVLDTIDNLKWGGIKGFSDDAVSFDWIHKSKSTDDSEEFSGYVKYDRNLTFVSVYNASHMVPFDKSLVSRGIVDIYSNDVMIIDNNGKNVMITTDDDSDQDATTESGDKPKENLEEEEQEAQNEEGKEKEGNKDKDGDDDNDNDDDDEDDHNSEGDDDDDDDDDEDDNNEKQSNQGLEDSRHKSSEYEQEEEEVEEFAEEISMYKHKAVVVTIVTFLIVVLGVYAYDRRVRRKARHTILVDPNNRQHDSPNKTVSWADDLESGLGAEDDLEQDEQLEGGAPISSTSNKAGSKLKTKKKKKYTSLPNTEIDESFEMTDF

>Q7Z6B0

MDDDDFGGFEAAETFDGGSGETQTTSPAIPWAAFPAVSGVHLSPSSPEIVLDRDHSSSIGCLSSDAIISSPENTHAANSIVSQTIPKAQIQQSTHTHLDISLFPLGLTDEKSNGTIALVDDSEDPGANVSNIQLQQKISSLEIKLKVSEEEKQRIKQDVESLMEKHNVLEKGFLKEKEQEAISFQDRYKELQEKHKQELEDMRKAGHEALSIIVDEYKALLQSSVKQQVEAIEKQYISAIEKQAHKCEELLNAQHQRLLEMLDTEKELLKEKIKEALIQQSQEQKEILEKCLEEERQRNKEALVSAAKLEKEAVKDAVLKVVEEERKNLEKAHAEERELWKTEHAKDQEKVSQEIQKAIQEQRKISQETVKAAIIEEQKRSEKAVEEAVKRTRDELIEYIKEQKRLDQVIRQRSLSSLELFLSCAQKQLSALIATEPVDIE

>Q12674

MGIADGQRRRSSSLRTQMFNKHLYDKYRGRTDDEIELEDINESKTFSGSDNNDKDDRDETSGNYAAEEDYEMEEYGSPDVSYSIITKILDTILDRRRTFHSKDGRHIPIILDHNAIEYKQAATKRDGHLIDERFNKPYCDNRITSSRYTFYSFLPRQLYAQFSKLANTYFFIVAVLQMIPGWSTTGTYTTIIPLCVFMGISMTREAWDDFRRHRLDKEENNKPVGVLVKDGNNDAQEVYTLPSSVVSSTAYLTKSAAAENNPPLNDDRNSSQGHFLDTHFNNFELLKNKYNVHIHQKKWEKLRVGDFVLLTQDDWVPADLLLLTCDGENSECFVETMALDGETNLKSKQPHPELNKLTKAASGLANINAQVTVEDPNIDLYNFEGNLELKNHRNDTIMKYPLGPDNVIYRGSILRNTQNVVGMVIFSGEETKIRMNALKNPRTKAPKLQRKINMIIVFMVFVVATISLFSYLGHVLHKKKYIDQNKAWYLFQADAGVAPTIMSFIIMYNTVIPLSLYVTMEIIKVVQSKMMEWDIDMYHAETNTPCESRTATILEELGQVSYIFSDKTGTLTDNKMIFRKFSLCGSSWLHNVDLGNSEDNFEDNRDNTNSLRLPPKAHNGSSIDVVSIGDQNVLDRLGFSDAPIEKGHRPSLDNFPKSRNSIEYKGNSSAIYTGRPSMRSLFGKDNSHLSKQASVISPSETFSENIKSSFDLIQFIQRYPTALFSQKAKFFFLSLALCHSCLPKKTHNESIGEDSIEYQSSSPDELALVTAARDLGYIVLNRNAQILTIKTFPDGFDGEAKLENYEILNYIDFNSQRKRMSVLVRMPNQPNQVLLICKGADNVIMERLHDRELAAKKMADICTSTKERKDAEAELVLQQRKSLERMVDEEAMARTSLRNSLSSVPRASLSLQAVRKSLSMKNSRTRDPEKQIDSIDQFLETVKKSDQEIGSVVNKSRKSLHKQQIEKYGPRISIDGTHFPNNNVPIDTRKEGLQHDYDTEILEHIGSDELILNEEYVIERTLQAIDEFSTEGLRTLVYAYKWIDIGQYENWNKRYHQAKTSLTDRKIKVDEAGAEIEDGLNLLGVTAIEDKLQDGVSEAIEKIRRAGIKMWMLTGDKRETAINIGYSCMLIKDYSTVVILTTTDENIISKMNAVSQEVDSGNIAHCVVVIDGATMAMFEGNPTYMSVFVELCTKTDSVICCRASPSQKALMVSNIRNTDPNLVTLAIGDGANDIAMIQSADIGVGIAGKEGLQASRVSDYSIGQFRFLLKLLFVHGRYNYIRTSKFMLCTFYKEITFYFTQLIYQRYTMFSGSSLYEPWSLSMFNTLFTSLPVLCIGMFEKDLKPMTLLTVPELYSYGRLSQGFNWLIFMEWVILATTNSLIITFLNVVMWGMSSLSDNTMYPLGLINFTAIVALINVKSQFVEMHNRNWLAFTSVVLSCGGWLVWCCALPILNNTDQIYDVAYGFYNHFGKDITFWCTSLVLALLPITLDIVYKTFKVMIWPSDSDIFAELEQKSDIRKKLELGAYSEMRQGWTWDKDPSTFTRYTDKVLSRPRTNSRASAKTHNSSIYSMSNGNVDHSSKKNFFGNSSKKSSERYEVLPSGKLIKRPSLKTQSSKDSIGGNITTKLTKKLKLPSRNVEDEDVNQIIQARLKDLE

>D4A631

MYEGKKTKNMFLTRALEKILADKEVKKAHHSQLRKACEVALEEIKVETEKQSPPHGEAKAGSGTLPPVKSKTNFIEADKYFLPFELACQSKCPRIVSTSLDCLQKLIAYGHLTGSAPDSTTPGKKLIDRIIETICGCFQGPQTDEGVQLQIIKALLTAVTSQHIEIHEGTVLQAVRTCYNIYLASKNLINQTTAKATLTQMLNVIFARMENQALQEAKQMERERHRQQHHLLQSPVSHHEPESPHLRYLPPQTVDHIAQEQEGDLDPQTHDVDKSLQDDIEPENGSDISSAENEQTEADQATAAETLSKDDVLCDGECEEKPQDIVQSIVEEMVDIIVGDMGEGTAVSASADGNAGAVEDGSDSENVQANGIPGTPISAAYTPSLPDDRLSVSSNDTQESGNSSGPSPGAKFSHILQKDAFLVFRSLCKLSMKPLSDGPPDPKSHELRSKILSLQLLLSILQNAGPVFRTNEMFINAIKQYLCVALSKNGVSSVPEVFELSLSIFLTLLSNFKTHLKMQIEVFFKEIFLYILETSTSSFDHKWMVIQTLTRICADAQSVVDIYVNYDCDLNAANIFERLVNDLSKIAQGRGSQELGMSNVQELSLRKKGLECLVSILKCMVEWSKDQYVNPNSQTTLGQEKPSEQEISEIKHPETINRYGSLNSLESTSSSGIGSYSTQMSGTDNPEQFEVLKQQKEIIEQGIDLFNKKPKRGIQYLQEQGMLGTTPEDIAQFLHQEERLDSTQAGEFLGDNDKFNKEVMYAYVDQHDFSGKDFVSALRLFLEGFRLPGEAQKIDRLMEKFAARYLECNQGQTLFASADTAYVLAYSIIMLTTDLHSPQVKNKMTKEQYIKMNRGINDSKDLPEEYLSAIYNEIAGKKISMKETKELTIPTKSTKQNVASEKQRRLLYNLEMEQMAKTAKALMEAVSHVQAPFTSATHLEHVRPMFKLAWTPFLAAFSVGLQDCDDTDVASLCLEGIRCAIRIACIFSIQLERDAYVQALARFTLLTVSSGITEMKQKNIDTIKTLITVAHTDGNYLGNSWHEILKCISQLELAQLIGTGVKPRYISGTVRGREGSLTGTKDQAPDEFVGLGLVGGNVDWKQIASIQESIGETSSQSVVVAVDRIFTGSTRLDGNAIVDFVRWLCAVSMDELLSTTHPRMFSLQKIVEISYYNMGRIRLQWSRIWEVIGDHFNKVGCNPNEDVAIFAVDSLRQLSMKFLEKGELANFRFQKDFLRPFEHIMKRNRSPTIRDMVVRCIAQMVNSQAANIRSGWKNIFSVFHLAASDQDESIVELAFQTSGHIVTLVFEKHFPATIDSFQDAVKCLSEFACNAAFPDTSMEAIRLIRHCAKYVSDRPQAFKEYTSDDMNVAPEDRVWVRGWFPILFELSCVINRCKLDVRTRGLTVMFEIMKTYGHTYEKHWWQDLFRIVFRIFDNMKLPEQQTEKAEWMTTTCNHALYAICDVFTQYLEVLSDVLLDDIFAQLYWCVQQDNEQLARSGTNCLENVVILNGEKFTLEIWDKTCNCTLDIFKTTIPHALLTWRPTSGEAAPPSPSAMSEKQLDAISQKSVDIHDSAQPRSSDNRQQAPLVSVSPASEEVSKGRPTAKFPEQKLFAALLIKCVVQLELIQTIDNIVFFPATSKKEDAENLAAAQRDAVDFDVRVDTQDQGMYRFLTSQQLFKLLDCLLESHRFAKAFNSNNEQRTALWKAGFKGKSKPNLLKQETSSLACGLRILFRMYTDESRVSAWEEVQQRLLNVCSEALSYFLTLTSESHREAWTNLLLLFLTKVLKISDNRFKAHASFYYPLLCEIMQFDLIPELRAVLRRFFLRIGIVFQISQPPEQELGINKQ

>Q9FHY8

MADTVEEPQLQNGAAPAESETEQNPIPEPQLQTEPKLTGEIPEIEADLTPEEVQSEVTDAKPEEVQSEVKPEEVKTVVTDAKPEEAQSEVKPEEVQSVVTDTKPDLTDVDLSPGGSEEIPIRSTEVEQESTTSVLKKDDDGNKTFTMRELLSELKSEEGDGTPHSSASPFSRESASQPAENNPAMDLINRIQVNDEEGRSRQRVLAFAARKYASAIERNPDDHDALYNWALILQESADNVSPDSVSPSKDDLLEEACKKYDEATRLCPTLYDAYYNWAIAISDRAKIRGRTKEAEELWEQAADNYEKAVQLNWNSSQALNNWGLVLQELSQIVPAREKEKVVRTAISKFRAAIRLQFDFHRAIYNLGTVLYGLAEDTLRTGGSGNGKDMPPGELYSQSAIYIAAAHSLKPSYSVYSSALRLVRSMLPLPHLKVGYLTAPPVGNSLAPHSDWKRTEFELNHERLLQVLKPEPREMGRNLSGKAETMSTNVERKTVKVNITEIVSVTPCADLTLPPGAGLCIDTIHGPVFLVADSWESLDGWLDAIRLVYTIYARGKSDVLAGIITG

>Q9D709

MTEPETLALLDMKEPETPEKSPPQALVLQSEEEGGTESPGTESLRVGSSVGSPIVREGPEDGPDSTISEAATLPWGTDPHPSAPLPDPPGWRDIEPEPLESEAPTKSEEPFKEDANLLPEKTVRAFVPIDLQCIERKPQEERILHRDAGPGELRNFLPARLSHPEPPERKWAEAVVRPPGRSCGGCGSCGGREALRAVASVVAALIFFPCLLYGAYAFLPFDAPRLPTMSSRLVYTLRCGVFATFPIVLGLLVYGLSLLCFSALRPFGEPRREVEIHRQYVAQSVQLFILYFFNLAVLSTYLPQDTLKLLPLLTGLFAISRLIYWLTFAVGRSFRGFGYGLTFLPLLAMLVWNLYYMFVVEPERMLTASESRLDYPDHARSVSDYRPRSWG

>Q96SU4

MASIMEGPLSKWTNVMKGWQYRWFVLDYNAGLLSYYTSKDKMMRGSRRGCVRLRGAVIGIDDEDDSTFTITVDQKTFHFQARDADEREKWIHALEETILRHTLQLQGLDSGFVPSVQDFDKKLTEADAYLQILIEQLKLFDDKLQNCKEDEQRKKIETLKETTNSMVESIKHCIVLLQIAKDQSNAEKHADGMISTINPVDAIYQPSPLEPVISTMPSQTVLPPEPVQLCKSEQRPSSLPVGPVLATLGHHQTPTPNSTGSGHSPPSSSLTSPSHVNLSPNTVPEFSYSSSEDEFYDADEFHQSGSSPKRLIDSSGSASVLTHSSSGNSLKRPDTTESLNSSLSNGTSDADLFDSHDDRDDDAEAGSVEEHKSVIMHLLSQVRLGMDLTKVVLPTFILERRSLLEMYADFFAHPDLFVSISDQKDPKDRMVQVVKWYLSAFHAGRKGSVAKKPYNPILGEIFQCHWTLPNDTEENTELVSEGPVPWVSKNSVTFVAEQVSHHPPISAFYAECFNKKIQFNAHIWTKSKFLGMSIGVHNIGQGCVSCLDYDEHYILTFPNGYGRSILTVPWVELGGECNINCSKTGYSANIIFHTKPFYGGKKHRITAEIFSPNDKKSFCSIEGEWNGVMYAKYATGENTVFVDTKKLPIIKKKVRKLEDQNEYESRSLWKDVTFNLKIRDIDAATEAKHRLEERQRAEARERKEKEIQWETRLFHEDGECWVYDEPLLKRLGAAKH

>Q9ZV02

MFLKVHEIAFLFGLLGNIVSFGVFLSPVPTFYGIYKKKSSKGFQSIPYICALASATLLLYYGIMKTHAYLIISINTFGCFIEISYLFLYILYAPREAKISTLKLIVICNIGGLGLLILLVNLLVPKQHRVSTVGWVCAAYSLAVFASPLSVMRKVIKTKSVEYMPFLLSLSLTLNAVMWFFYGLLIKDKFIAMPNILGFLFGVAQMILYMMYQGSTKTDLPTENQLANKTDVNEVPIVAVELPDVGSDNVEGSVRPMK

>A4D1B5

MALRLVADFDLGKDVLPWLRAQRAVSEASGAGSGGADVLENDYESLHVLNVERNGNIIYTYKDDKGNVVFGLYDCQTRQNELLYTFEKDLQVFSCSVNSERTLLAASLVQSTKEGKRNELQPGSKCLTLLVEIHPVNNVKVLKAVDSYIWVQFLYPHIESHPLPENHLLLISEEKYIEQFRIHVAQEDGNRVVIKNSGHLPRDRIAEDFVWAQWDMSEQRLYYIDLKKSRSILKCIQFYADESYNLMFEVPLDISLSNSGFKLVNFGCDYHQYRDKFSKHLTLCVFTNHTGSLCVCYSPKCASWGQITYSVFYIHKGHSKTFTTSLENVGSHMTKGITFLNLDYYVAVYLPGHFFHLLNVQHPDLICHNLFLTGNNEMIDMLPHCPLQSLSGSLVLDCCSGKLYRALLSQSSLLQLLQNTCLDCEKMAALHCALYCGQGAQFLEAQIIQWISENVSACHSFDLIQEFIIASSYWSVYSETSNMDKLLPHSSVLTWNTEIPGITLVTEDIALPLMKVLSFKGYWEKLNSNLEYVKYAKPHFHYNNSVVRREWHNLISEEKTGKRRSAAYVRNILDNAVKVISNLEARNLGPRLTPLLQEEDSHQRLLMGLMVSELKDHFLRHLQGVEKKKIEQMVLDYISKLLDLICHIVETNWRKHNLHSWVLHFNSRGSAAEFAVFHIMTRILEATNSLFLPLPPGFHTLHTILGVQCLPLHNLLHCIDSGVLLLTETAVIRLMKDLDNTEKNEKLKFSIIVRLPPLIGQKICRLWDHPMSSNIISRNHVTRLLQNYKKQPRNSMINKSSFSVEFLPLNYFIEILTDIESSNQALYPFEGHDNVDAEFVEEAALKHTAMLLGL

>Q5VW38

MAALAPVGSPASRGPRLAAGLRLLPMLGLLQLLAEPGLGRVHHLALKDDVRHKVHLNTFGFFKDGYMVVNVSSLSLNEPEDKDVTIGFSLDRTKNDGFSSYLDEDVNYCILKKQSVSVTLLILDISRSEVRVKSPPEAGTQLPKIIFSRDEKVLGQSQEPNVNPASAGNQTQKTQDGGKSKRSTVDSKAMGEKSFSVHNNGGAVSFQFFFNISTDDQEGLYSLYFHKCLGKELPSDKFTFSLDIEITEKNPDSYLSAGEIPLPKLYISMAFFFFLSGTIWIHILRKRRNDVFKIHWLMAALPFTKSLSLVFHAIDYHYISSQGFPIEGWAVVYYITHLLKGALLFITIALIGTGWAFIKHILSDKDKKIFMIVIPLQVLANVAYIIIESTEEGTTEYGLWKDSLFLVDLLCCGAILFPVVWSIRHLQEASATDGKGDSMGPLQQRANLRAGSRIESHHFAQADLELLASSCPPASVSQRAGITAAINLAKLKLFRHYYVLIVCYIYFTRIIAFLLKLAVPFQWKWLYQLLDETATLVFFVLTGYKFRPASDNPYLQLSQEEEDLEMESVVTTSGVMESMKKVKKVTNGSVEPQGEWEGAV

>O01839

MSSVLDVTKPDFDVEAFVVKLLREKSLDGLVKEEEEMVSAVRRLDSDVHQIVYENYNKFLTATNTVRKIQDEFTQLDSEMKSLSRSMSTISTLIGNLDGVLGEKRDDILQLGSSYKVVNSLKHIFDLPHVLRSEFDERNYGEVLRMFKLAEESLSQYKDVPTVQLVLQKSKKIYDMTENQLMDQLRNPASGAELVSEAVDLLLTIGRDEDEVQKVLLTCSEQSLRVDLKELSANHSDVLDLVDKASESFIPNLTLIATTHDRLFEDKREDLITVLKTEMNSLHALVSKVFLSSSDAKDCSIVVRALDRYFRKISTCRYVIPGLDFLPLTIELINAVSKHEIDLSLTRIKEELKNGLNEVRKALINEEKDLSALASKIEQVFVHQVKTALANLLLFTASDVTFANLPPDEFRQSFSFNAHERLLVQAFHRFSELADEYESGAGEIRFVDPRVHLVFAVALQHLSNKSAVYLLNLCREQFSLSPDDGLTDITVVMSEVKTRAQKLVRCYAEKTGLSMGETLIKGCAMLVQPAATPSAVRASVRRLVEEMNTCDSELTLLLGGDSKPKDSRVSRRPITTALDAARDSLWCERIDFHLQIHFNRASIITVIVKVVLKIFIESIRLQTYSKFGVEQVQVDCYYLQRCLAALVSDEVVVNSMVDQALSSALKRCQDPVLVHPSRLAQLCEQPPANRPSSQASSLGY

>Q8R3J5

MKQESASQSTPPPSLSPAPSSAQPSWGDGDPQALWIFGYGSLVWKPDFAYSDSRVGFVRGYSRRFWQGDTFHRGSDKMPGRVVTLLEDREGCTWGVAYQVRGEQVNEALKYLNVREAVLGGYDTKEVTFYPQDTPDQPLTALAYVATPQNPGYLGPAPEEVIATQILACRGFSGHNLEYLLRLADFMQLCGPQAQDEHLEAIVDAVGTLLPCSYLPEQPLALT

>D3ZGS3

MEPRLPIGAQPLACLHMVAGLEMKGPLREPCVLTLARRNGQYELIIQLHGKEQHVQDIIPINSHFRCVQEAEETLLIDIASNSGCKIRVQGDWTRERHFEIPDEERCLKFLSEVLAAQEAQSQLLVPEQKDSSNWYQKLDTKDKPAYSGLLGFEDNFSSMNLDKKMNTQNPPTGIHREPPPPPSSNRMLPREKEALNKEQPKVTNTMRKLFAPNSQSGQREGLIKHILAKREKEYVNIQSFRFFVGTWNVNGQSPDSSLEPWLNCDPNPPDIYCIGFQELDLSTEAFFYFESVKEQEWAMAVERGLPSKAKYKKVQLVRLVGMMLLVFAKKDQCQYIRDIATETVGTGIMGKMGNKGGVAMRFVFHNTTFCIVNSHLAAHVEEFERRNQDYKDICARMSFSVPNQTLPQVNIMKHDVVIWLGDLNYRLCMPDANEVKSLINKNELQKLLKFDQLNIQRTQKKAFVDFNEGEIKFIPTYKYDSKTDRWDSSGKCRVPAWCDRILWRGINVNQLHYRSHMELKTSDHKPVSALFHIGVKVVDERRYRKVFEDIVRIMDRMENDFLPSLDLSRREFMFENVKFRQLQKEKFQISNNGQVPCHFSFIPKLNDTQYCKPWLRAEPFEGYLEPNETIDISLDVYVSKDSVTILNSGEDKIEDILVLHLDRGKDYFLTISGNYLPSCFGTSLEALCRMKRPIREVPVTKLIDLEEDSFLEKEKSLLQMVPLDEGTSERPLQVPKEIWLLVDHLFKYACHQEDLFQTPGMQEELQQIIDCLDTSIPETIPGSNHSVAEALLIFLEALPEPVICYELYQRCLDSAHDPRICKQVISQLPRCHRNVFRYLMAFLRELLKFSDYNNVSTNMIATLFTSLLLRPPPNLMARQTPSDRQRAIQFLLVFLLGSEED

>Q92681

MSSLPTSDGFNHPARSSGQSPDVGNPMSLARSVSASVCPIKPSDSDRIEPKAVKALKASAEFQLNSEKKEHLSLQDLSDHASSADHAPTDQSPAMPMQNSSEEITVAGNLEKSAERSTQGLKFHLHTRQEASLSVTSTRMHEPQMFLGEKDWHPENQNLSQVSDPQQHEEPGNEQYEVAQQKASHDQEYLCNIGDLELPEERQQNQHKIVDLEATMKGNGLPQNVDPPSAKKSIPSSECSGCSNSETFMEIDTAQQSLVTLLNSTGRQNANVKNIGALDLTLDNPLMEVETSKCNPSSEILNDSISTQDLQPPETNVEIPGTNKEYGHYSSPSLCGSCQPSVESAEESCPSITAALKELHELLVVSSKPASENTSEEVICQSETIAEGQTSIKDLSERWTQNEHLTQNEQCPQVSFHQAISVSVETEKLTGTSSDTGREAVENVNFRSLGDGLSTDKEGVPKSRESINKNRSVTVTSAKTSNQLHCTLGVEISPKLLAGEEDALNQTSEQTKSLSSNFILVKDLGQGIQNSVTDRPETRENVCPDASRPLLEYEPPTSHPSSSPAILPPLIFPATDIDRILRAGFTLQEALGALHRVGGNADLALLVLLAKNIVVPT

>O42930

MFFLTKILPLRGRIFPMFGCLLLIVSLITGCIASPAAEVAETVFDSKPVDFMTFKDSTNTLFLNAEFGDVYLSQDNGQSWRNGVISGQVCPIKKLIKHSFENSRVFALTECDTVYYSYDNGENWDYFTIDHPISITQLPFHFHAKNPDYVIFNNQYCSSSGTWVGKICKPDLYYTKDGFQSDPEPMPVGSSYCIFADSSEKMVVSSEEQIICISLNPNSAARPPFSHHIVYSDDWFQSIVPVQLHNFLGSDGAYGILSTGSFLVAALIDAATRKLFVYVSQDGYYWEEALKFHKGFEFDAFTILPSTEYSFFIDSLDSHPNNPTGILYSLDSESNTFVIRQMNTNRYVDGYTDFMLIDYLDGLQFVNVVENVDEIEVDPQVDKVLSSRITFDGGKTWSTVASPESSCNSMKQCSLHLFLDPHVSHASIASSKFAPGILLASGSVGDRLLSENQMDLFVSEDGGRNWTLSRDGMHLFAMSGFGSIFFASEYLDVINEVYYSLDHGQSWVTVTLDKTIVPIKLFASEDPYAEIFYLLAMTDDGEQSNYSLFSFNFGKFLPKECQFSNSESNKNDFEKWYTRYANGSPICSEMGKKEFFWRKKATSVCSVPKSITDLHGSFDACECTDEDYECNTQFISNDQGECKLLDFIGSLLCASEDLDTFQKIPYRLVPGNKCTPNKRDSHREPQTFNCDSFNEPGTEITSFLYDFDEKIVDVVYLEGTVPEENTFLIGISVNSHVYFSEDEGKTWDKFSKEEFSSVLPHAYNKNSVYMVTSKNIVYFTTNRGKNFYKFKAPSPPNQNGKSLFSFHPSRPAWLLYAGSENCEKNPFADDCRDVVFVSLDFGDTWSRLPSNLEYCSWAKAEKLVVDDTLIFCIRQNTNDPFKKELISSIDFFEYEQDEILNDVVGFMIEDEYVIVAVQDEEGTSLSLDVSINGLNFASCSFPAYLNVHPKQAYTILDSQTHSLFIHVTTNTHLGSEWGDILKSNSNGTYFMTSLANVNRDSVGYVDFERLEGIQGIALANIVSNTKELTDGGTKKLQTLITFNDGLDWSYLNLVGGEKIVPKCGKNCYLHLHGYTERNQFSDPTSTNAAVGLIIGVGSFSPFLIPYEESQTFISRDAGVTWYRIFDSPHLWAFLDSGSIIIAVESISPTNVIKYSADEGRTWQEYQFSEKSKVVVDVSTKPSGVGHQVLLLTTDDENAPISSVLIDFDALYRRTCVFDEENSEESDFVRWVPTDISGKPLCLRGRISSFYRKSIHKKCRVGSSLLVKEEVLSKCECTRADFECDYNYRRLKDGTCVLVSGLQPPDTREEQCSVDDAFEWRQPTGYKRTPLTECEGGVPLDAGTLHPCPGKEDDYYKAHPKPGGWSIFLTIIFSILLAAVAGCILYYYSRRFLKGAIRLGSDSATENPLESGISYTRGAFSSIPIFFSALYQSVRSLFIRSTPTNGEFENAAFLQNYEIDDDDEESV

>Q155U0

MSSATTPPDSDPAQRRRVHSMLKLYYGLNEEGKATEQAESLDPCDINGPHFDPEIYLNKLRKECSLTELMDHESCMVKQIRSLDSDMQTLVYENYNKFISATDTIRKMKNDFKKMEDEMDCLSANMAAITEFSARISGTLQDQHAQITKLSGVHTLLRKLQFLFELPARLNKCLELQAYAQAVSSHRRARCVLQQYSHMPSFRGIQDDCHVIMEQLAQQLRQKFRDGGSSAKDLSECVELLLQLDEPAEELCDKFLSHAQSRLEADLQGLEAELKDSAVTDTGAGSVQKTSPGSNPVSPSSSVSNPFLSPAAGTDILEFIDRGCNEFVSNLCLVIASYQELFINRPQESELASKNIPEMANGKLHVFVDTLAARYFSLVERRIQEEKGVGDNSLLVRALDRFHRRLQAISKLLPGSAVPSQGTEIVVRAARERIKQYLSALQTFYHDSLTDVRQALAAPRLSVGGASASGGGALVGGASSKDAPPSLPELLTSLSNFILNQLKSVLASVHLFTAKDITFSNKPYFKGEFCSQGVREGLVVSFIKFICQSSRQYCESAGDRGGSTPPALLLLLSRLCLDYETSTISYILTLTDEQFLVQHHTPVTPVTALCAEAREAAQKLLNHYVKVQGLIISQMLRKSVETRDWVNTIEPRNVRAVMKRVVEDTTSIDVQVGLLYEEGVRKAHSSDSSKRTFSVYSSSRQQIRYAPSYTPSAPMDTNLLSNIHKLFSERIDIFSPVEFNKVSVLTGIIKISLKTFLECVRLRTFGRYGLQQIQVDCHYLQMYLWRFVSDENLVHFLLDEIVGSAAHRCLDPSPMEQSVIEVICERG

>O43861

MADQIPLYPVRSAAAAAANRKRAAYYSAAGPRPGADRHSRYQLEDESAHLDEMPLMMSEEGFENEESDYHTLPRARIMQRKRGLEWFVCDGWKFLCTSCCGWLINICRRKKELKARTVWLGCPEKCEEKHPRNSIKNQKYNVFTFIPGVLYEQFKFFLNLYFLVISCSQFVPALKIGYLYTYWAPLGFVLAVTMTREAIDEFRRFQRDKEVNSQLYSKLTVRGKVQVKSSDIQVGDLIIVEKNQRIPSDMVFLRTSEKAGSCFIRTDQLDGETDWKLKVAVSCTQQLPALGDLFSISAYVYAQKPQMDIHSFEGTFTREDSDPPIHESLSIENTLWASTIVASGTVIGVVIYTGKETRSVMNTSNPKNKVGLLDLELNRLTKALFLALVALSIVMVTLQGFVGPWYRNLFRFLLLFSYIIPISLRVNLDMGKAVYGWMMMKDENIPGTVVRTSTIPEELGRLVYLLTDKTGTLTQNEMIFKRLHLGTVSYGADTMDEIQSHVRDSYSQMQSQAGGNNTGSTPLRKAQSSAPKVRKSVSSRIHEAVKAIVLCHNVTPVYESRAGVTEETEFAEADQDFSDENRTYQASSPDEVALVQWTESVGLTLVSRDLTSMQLKTPSGQVLSFCILQLFPFTSESKRMGVIVRDESTAEITFYMKGADVAMSPIVQYNDWLEEECGNMAREGLRTLVVAKKALTEEQYQDFESRYTQAKLSMHDRSLKVAAVVESLEREMELLCLTGVEDQLQADVRPTLEMLRNAGIKIWMLTGDKLETATCIAKSSHLVSRTQDIHIFRQVTSRGEAHLELNAFRRKHDCALVISGDSLEVCLKYYEHEFVELACQCPAVVCCRCSPTQKARIVTLLQQHTGRRTCAIGDGGNDVSMIQAADCGIGIEGKEGKQASLAADFSITQFRHIGRLLMVHGRNSYKRSAALGQFVMHRGLIISTMQAVFSSVFYFASVPLYQGFLMVGYATIYTMFPVFSLVLDQDVKPEMAMLYPELYKDLTKGRSLSFKTFLIWVLISIYQGGILMYGALVLFESEFVHVVAISFTALILTELLMVALTVRTWHWLMVVAEFLSLGCYVSSLAFLNEYFGIGRVSFGAFLDVAFITTVTFLWKVSAITVVSCLPLYVLKYLRRKLSPPSYCKLAS

>Q9BXB4

MQGGEPVSTMKVSESEGKLEGQATAVTPNKNSSCGGGISSSSSSRGGSAKGWQYSDHMENVYGYLMKYTNLVTGWQYRFFVLNNEAGLLEYFVNEQSRNQKPRGTLQLAGAVISPSDEDSHTFTVNAASGEQYKLRATDAKERQHWVSRLQICTQHHTEAIGKNNPPLKSRSFSLASSSNSPISQRRPSQNAISFFNVGHSKLQSLSKRTNLPPDHLVEVREMMSHAEGQQRDLIRRIECLPTSGHLSSLDQDLLMLKATSMATMNCLNDCFHILQLQHASHQKGSLPSGTTIEWLEPKISLSNHYKNGADQPFATDQSKPVAVPEEQPVAESGLLAREPEEINADDEIEDTCDHKEDDLGAVEEQRSVILHLLSQLKLGMDLTRVVLPTFILEKRSLLEMYADFMSHPDLFIAITNGATAEDRMIRFVEYYLTSFHEGRKGAIAKKPYNPIIGETFHCSWKMPKSEVASSVFSSSSTQGVTNHAPLSGESLTQVGSDCYTVRFVAEQVSHHPPVSGFYAECTERKMCVNAHVWTKSKFLGMSIGVTMVGEGILSLLEHGEEYTFSLPCAYARSILTVPWVELGGKVSVNCAKTGYSASITFHTKPFYGGKLHRVTAEVKHNITNTVVCRVQGEWNSVLEFTYSNGETKYVDLTKLAVTKKRVRPLEKQDPFESRRLWKNVTDSLRESEIDKATEHKHTLEERQRTEERHRTETGTPWKTKYFIKEGDGWVYHKPLWKIIPTTQPAE

>Q9JKC9

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>P36122

MSFLWGSTKSKKGKNKKAAGSLPSGVVPQQRVKPTRKNVPIDYPRTLEKVHGESLIFRTSLLSELVSTGKSGIGPPDLIHCTELDKFHDEKIGEFFYITGIDASSVSMPIAFLKLIKWNDGKKLKSASLKNDDITTYCTFNIFQKLDIRLRYESEDVYQVNIVDCLNGNNEIPLSDLIWEETFVSCCIRSVIINSDFERKIPGLVELPFVFENRCASDYKRVIDSLCKFLPRFLECGWDSTKSVYATILNNYLTESLLVFLSITPEFITDYAIQVLDNLMTNDPSNSRYYAIVIISIMERSNDRDVEMIKRIHEILDLLLPVLYGLPSDEPYISDLINCITDVLSIQARFLLNNNDYELSLSISTLATNLSSDNFESWYLLSKGYIFSQQYDKALLSINSMPCLAEYDIVKQAQINAFKFYMNYYKAPLCHSREHCTMTSHELNHLMNIMHYENELELKTIIFGRTVMPNESKYGCIEEIWNKSCLELGPICGPQSDNLINFVSQQEVNTVGDMLLLKRSKETRQESWFIKQVRLLLMELVARIGWNALLQLRSDVFVMESKFKMIESSDKLSTELRQKRLCQRWFDAMFLDVYEDLSISTSSQENKATAKYSGLEWELLGLTLLRVSDLPDAVACLRTSILARFDPISCHHLLNFYLTMDFNDEFMRRFDVDIILDLLVKLISFRIRFYDRFQIFSLQVLRKLEGQLGSEIIKNKIINSPYGQAGITSVIDYMLECLSKNRNEACLAYERPLPDLPSTIKPLAD

>Q08754

MITQNSIPEVKEDFIGYALHERRIRLPQFQDLGPADLVTLTKYLPTSSNTNAINSTSRNGAAIIQSPAAVVADDSAASMATNGDASDTAVTTNYTNASIYSSSRNANDGAPMVAELHPLDKLKDEVGTFFYSMGVDTSGPTSIAIFLKEISEVISEKPQVWFGRKKTFNVARISFSTWNAFRRCDINVVVHIPGSIQNFIVDCNGESQNIEMCADYDLIWAETFVSGVVRSIMLMKENAEEGELQNLVETLILNPFTAGQIDDVPEMFIDLFPIVYHKGPLLGAPYYITNVTNTNNYLVETLVEIVKLTRNVSRAEIMLKNLATDNPEAIIILIKIFLVCDQELDAIKLTYDMLSQDKIINNTNNRMDYKSELLCLQAQFLIDKRQDYSLAQNIAQEAVNCSPSEFRPWYLLSKVYVKLNDIENALLILNSCPMSPLKEKYVLKRVAPLPSNNSLHLPLPIDVVLDEVTSLNPQDVQNEHRSADPMLVNLAASNLKSTFQLAYRLLTEIVQITGWENLLKYRSNIFVMEEEYQKSSSSLPKDVNKQEEQPLRAKRLCERWLDNLFMLLYEDLKMYTLWQTEQLYMDAQNNNHNKLTFEWELFGLCARRLGHFPEAAKAFQNGLSQRFSSRCARKLLEYCINERQRVKNFINSPNSHDMVPEIVSSRIRELDNSIIDLCVKICCWNHRWYTEFSISLLDCLSVVIQDMSLTKVSNEISSRYPETVLNLVQENLLNFFTTCTIGCYDA

>Q8BJM5

MGTIHLFRKPQRSFFGKLLQEFRLVAADRRSWKILLFGAINVLCTGFLLMWCSSTNSIALTAYTYLTIFDLFSLITCLISYWVMMRKPSPVYSFGFERLEVLAVFASTVLAQLGALFILKESAERFLEQPEIHTGRLLVGTFVALSFNLFTMLSIRNKPFAYVSEAASTSWLQEHVADLSRSLCGLIPGLSSIFLPRMNPFVLIDLAGAFALCITYMLIEINNYFAVDTASAIAIALMTFGTMYPMSVYSGKVLLQTTPPHVIGQLDKLIREVSTLDGVLEVRNEHFWTLGFGSLAGSVHVRIRRDANEQMVLAHVSNRLCTLVSTLTVQIFKDDWIRPALSSGPVAPNVLNFSDHHVIPMPLLKNVDERTPVTSTPAKPSSPPPEFSFNTPGKNVSPVILLNTQTRPYSLGLNRGHTPYSSVFSQGLAFPGVGAGQGLRPTFPHIPSRYGINRMGQPRP

>Q9SH93

MTLYIRRESSKLWKRFCSEISTEIGLLAENWKYLLAGLICQYIHGLAAKGVHYIHRPGPTLQDLGFFLLPELGQERSYISETVFTSVFLSFFLWTFHPFILKTKKIYTVLIWCRVLAFLVACQFLRVITFYSTQLPGPNYHCREGSKVSRLPWPKSALEVLEINPHGVMYGCGDLIFSSHMIFTLVFVRTYQKYGTKRFIKLFGWLTAIVQSLLIIASRKHYSVDVVVAWYTVNLVVFCLDKKLPELPDRTAVLLPVISKDRTKEENHKLLNGNGVDPADWRPRAQVNGKIDSNGVHTDNTMNGA

>Q8BXL7

MYTLLSGLYKYMFQKDEYCILILGLDNAGKTTFLEQSKTRFNKNYKGMSLSKITTTVGLNIGTVDVGKARLMFWDLGGQEELQSLWDKYYAECHGVIYVIDSTDEERLSESKEAFEKVVSSEALDGVPILVLANKQDVETCLSIPDIKTAFSDCTCKIGRRDCLTQACSALTGKGVREGIEWMVKCVVRNVHRPPRQRDIT

>F4K0C4

MANYLAQFQTIKNSCDRLVAAVEDVCDLWPTVKGLFEEHQPLKRAFLTNKTRNPVFVENLPVEFILTTDARLRSRFPQEQYLFWFREPYATIVLVTCEDLDEFKNILKPRLKLIVQNDEREWFIVFVSKAHPSNDQATKNVKKVYAKLEVDFSSKKRERCCKLDVHGPEGNFWEDLELKITECIRNTLDRRAQFYEDEIRKLSEQRFMPIWNFCNFFILKESLAFIFEMAHLHEDALREYDELELCYLETVNMPGKQRDFGGFDGEDDQAVLLKPGSKPLTQIVQDDSFREFEFRQYLFACQSRLLFKLNRPFEVASRGYSFVISFAKALTLHESVLPFCMREVWVITACLALIEATASHHHDGVVAPDIEKEFFRLQGDLYSLSRVKFMRLGYLIGYGTDIEKSPLNSACLSMLPWPKPAVWPSLPQDASSEVLEKEKTILQATSRTKHFGIQRKALPLEPSVLLRVANRRRASLSTGNIPEMFDGRPSFTEGSGLEASPRTPSSLKVQAPPMSRTNSSPGNFESPLDRPMRLAEIFVAAEHALRLTISDHDLLKTLSSIQDFENKYLNLTKGAAENYHRSWWKRHGVVLDGEIAAVCFKHGKYDLAANSYEKVCALYAGEGWQDLLAEVLPNLAQCQKILDDQAGYMSSCVRLLSLDKGLFSSKERQAFQSEVVTLAHSEMKNPVPLDVSSLITFSGNTGPPLQLCDGDPGNLSVTVWSGFPDDITLDSLSLTLVATNNTDEGGQALKSSAATVLNPGRNTITFALPPQKPGSYVLGVVTGQIGRLRFRSHSFSKGGPADSDDFMSYEKPTRPILKVSKPRALVDLAAAVSSALLINEAQWIGIIVRPIAYSLKGAILHIDTGPGLKIEDSYGIEMERYMDADCDTGASKAEVFVEDSPVSSKRDSEVLNLCDGKIVFSDWASNVSSILWVPVRALSEKLARGSSSVTPLKQDILEGMRTVALKLEFGVHHNQIFERTIAAHFTDPFDVTTRVANKCNDGTLVLQVMLHSLVKANLIVLDVWLDLQDGFIHGQNDGRPTSTFFPLVVSPGSRAAVVFSICLDKSMSSEGKDLQLPESILNIKYGIHGDRAAGAHRPVDADHSETDTEGRDLVFKSAIVLQRPVLDPCLTVGFLPLPSDGLRVGKLITMQWRVERLKELKESEAVEQQHDEVLYEVNANSENWMIAGRKRGHVSLSEEQGSRVVISILCVPLVAGYVRPPQLGLPNVEEANVSSNPSGPHLVCVLPPLLSSSYCLPVK

>Q9XSC3

MASESDTEEFFDAPEDVHLEGGDPIGYPGKVGISALKETENSAYKVGNESTVQELKQDVSKKIIESIIEESQKVIQLEDDSLDSKGKGQSDQATASPVTAGTELSNIPGLLAIDQVLQEDSQKAESQDVSEETELESKQCFPSDDTCEKPVDETTKLTEISSTAQLNVPETVTEVLNKEEVEVKESDVLESASSHSLSTKDFAVVEEVAPAKPPRQLTPEPDIVASTKKPVPARPPPPANFPPPRPPPPSRPAPPPRKKKSELEFEALKTPDLDVPKENITSDTLLTTNMASESTVKDSQPSLDLASATSGDKIVTAQENGKAPDGQTIAGEVMGPQRPRSNSGRELTDEEILASVMIKNLDTGEEIPLSLAEEKLPTGINPLTLHIMRRTKEYVSNDAAQSDDEEKLQSQQTDTDGGRLKQKTTQLKKFLGKSVKRAKHLAEEYGERAVNKVKSVRDEVFHTDQDDPSSSDDEGMPYTRPVKFKAAHGFKGPYDFDQIKVVQDLSGEHMGAVWTMKFSHCGRLLASAGQDNVVRIWALKNAFDYFNNMRMKYNTEGRVSPSPSQESLNSSKSDTDTGVCSGTDEDPDDKNAPFRQRPFCKYKGHTADLLDLSWSKNYFLLSSSMDKTVRLWHISRRECLCCFQHIDFVTAIAFHPRDDRYFLSGSLDGKLRLWNIPDKKVALWNEVDGQTKLITAANFCQNGKYAVIGTYDGRCIFYDTEHLKYHTQIHVRSTRGRNKVGRKITGIEPLPGENKILVTSNDSRIRLYDLRDLSLSMKYKGYVNSSSQIKASFSHDFNYLVSGSEDKYVYIWSTYHDLSKFTSVRRDRNDFWEGIKAHNAVVTSAIFAPNPSLMLSLDVQSEKSEGNEKGEDAEVLETMPSGIMKTDNTEVLLSADFTGAIKVFINKRKNLS

>Q9SU08

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>Q9FY61

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>O59666

MYTTTLSVQGMTCTSCVASIQSMLEGVEGIEQFTISLLLERAIAVHDPSIISPDQIAEKIEDCGFDASVISSTEGEHGVMANYLLLSPMQAEQWTKVHNHINELQGVLSVNCSSSPDAAIRVIYDSEITGPRSIMKEILSMGVKCTFQPVDSSTSRILSLQRGSQIRVWKIRFIISISFSLAVMFLPQIFDSCDSMRAAFLVPHYFGICAGHIISLVLSLPVQFGVGRVYYSAAYHALKRGTANMDVLVSLGSTVAFAASIFFMILYSARHADNPAPIFFDTADMLLTFVTLGRYLESKAKGSTSAALSQLLSLAPSSATIIEDNEQIEILADLIERGDLILVKPGEIIPVDGTVVEGSSYVDESSVSGEPVPVHKTIDDELLSGTANGNGRLLVKATKSPRESQLAVIVDLVQRAQISHAPIQQFADRVAGIFVPVIVALSISTFTFWFLFTKYSSKYPSVFDDPMGKFAVCLKLTISVVVVACPCALGLSTPTAVMVGTGVGALNGIIIKGGEILERLNQVDTVVFDKTGTLTVGKLSVTDISIVDNLEELLDIPKNIFWAFVKASESSSEHPIGKAITEKASEFTDVSEIGIESFNAVPGEGVDVVLRWKERTFHALLGNSLLLEHNNVSIPDDFDSKLKLSSSSGLTCVRIAIDGQFVGFLGCMDQVRPDSYQTVSALKQLGKKVCLLTGDQKATARRVAQGLEIDFSDVYAEAVPSQKAEIIQKLKDQKHCVAMVGDGINDSPSLVLADVGIAPINGSGIALESADVILVRKGVLLDTAVSFDLSRVIVKRIKMNLVWACIYNFVMIPIAMGFFLPWGIYLNPMWASAAMMFSSLSVLASSLLLRRWKKPKSLIFSEADDVETESSTNSSVLQKVYTATRSIFGRNKSSNKYQPVANEV

>O23140

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>O88588

MAERGGAGGGPGGAGGGSSQRGSGVAQSPQQQPPQQPSQPQQPTPPKLAQATSSSSSTSAAAASSSSSSTSTSMAVAVASGSAPPGGPGPGRTPAPVQMNLYATWEVDRSSSSCVPRLFSLTLKKLVMLKEMDKDLNSVVIAVKLQGSKRILRSNEIILPASGLVETELQLTFSLQYPHFLKRDANKLQIMLQRRKRYKNRTILGYKTLAVGLINMAEVMQHPNEGALVLGLHSNVKDVSVPVAEIKIYSLSSQPIDHEGIKSKLSDRSPDIDNYSEEEEESFSSEQEGSDDPLHGQDLFYEDEDLRKVKKTRRKLTSTSAITRQPNIKQKFVALLKRFKVSDEVGFGLEHVSREQIREVEEDLDELYDSLEMYNPSDSGPEMEETESILSTPKPKLKPFFEGMSQSSSQTEIGSLNSKGSLGKDTTSPMELAALEKVKSTWIKNQDDSLTETDTLEITDQDMFGDASTSLVVPEKVKTPMKSSKADLQGSASPSKVEGTHTPRQKRSTPLKERQLSKPLSERTNSSDSERSPDLGHSTQIPRKVVYDQLNQILVSDAALPENVILVNTTDWQGQYVAELLQDQRKPVVCTCSTVEVQAVLSALLTRIQRYCNCNSSMPRPVKVAAVGSQSYLSSILRFFVKSLASKTPDWLGHMRFLIVPLGSHPVAKYLGSVDSRYSSTFLDSAWRDLFSRSEPPVSEPLDVVGRVMQYVNGATTTHQLPVAEAMLTCRHKFPDEDSYQKFIPFIGVVKVGLVEDSPSTAGDGDDSPVVSLTVPSTSPPSSSGLSRDATATPPSSPSMSSALAIVGSPNSPYGDVIGLQVDYWLGHPGERRREGDKRDASSKNTLKSVFRSVQVSRLPHAGEAQLSGTMAMTVVTKEKNKKVPTIFLSKKPREKEVDSKSQVIEGISRLICSAKQQQTMLRVSIDGVEWSDIKFFQLAAQWPTHVKHFPVGLFSGSKPT

>Q5ZLF4

MEEKYSSQALAGGGVLGPVDVPSARLTRYIVLLCFAKFLKAVGLFESYDLLKAVHLVQFIFIVKLGSAFFMVLFQKPFSSGKVVTKHQWIKIFKHAVVGCIISLLWFFGLTLCGPLRTLLLFEHSDVVVLSLLSVLFTSSGGGPAKTRGAAFFIIAVICLLLFDNDDLMAKIAEHPEGHHDSALTHVLYTVIAFLGVADHKGGVLLLVLALCCKVGFHMASRKLSVDVGGAKRLQALSHLVSVLLLCPWVIVLSLTTESKVESWSSLIMPFITVIFFVVILDFYVESICSVKMESSKCARYGSFLIFISALLFGNFWTHPITDQLRAMNKPAHHESTEHVLSGGVVVSAVFFILSANILSSPSRKGQKGTLIGYSPEGTPLYNFMGDAIQQSSQSLPRFIKESLKQILEEYDSRQIFYFLCLNLAFTFVELFYGVWTNSLGLISDGFHMLFDCSALVMGLFAALMTRWKATRIFSYGYGRVEILSGFINGLFLMVIAFFVFMESVARLVDPPDIDTNMLTPVSVGGLIVNLVGICAFSHAHSHGASRGGCHSHEHSHSYHGHSHSHGHGHSHNDHGHSHGHSHVSSGGGMNTNMRGVFLHVLADTLGSVGVIVSTTFIQQFGWLIADPLCSLFIATLIFLSVIPLLKDACQVLLLRIPPEQEKDLHAALEKIQKIDGVISYRDPHFWCHSASVVAGTIHVQVVSDVMEQRIVQQVTAILKDAGVNNLTVQVEKEAYFQHMSGLSTGFQDVLAMTQHLESMKYYKDGTYIM

>P32613

MSLRPCFVSLIDESDKPILIYVPNEAENEMNDVLKYNVLSNISLDYFESALVEWHSLDSKPLLKSIFQLEGVSVFAMLIKQTGLKIVIGFEQKSLSGADDEFEAINQIFETVRKIYIRVKCNPLLVSGDEKSIIKSLERKFDELFISTEVEL

>O14093

MERISSAPSISLGYPPTESSAHLAPSFSDSATSTLSFKSLLEDPVNPIRPVYTPTRTEITPVTLSPIPITPVREFQPYLHEISQEYARYSKQKRASLRRYLEKHGKLEGSMKESSINGSLLRRSSVSTILRPASESSYPNSNSETITYDIDDNVNPSSSLVDNFSISSVPSVFFQSDFNLDDPQIFDVVSEHIDITQTSDAPNSNRNLLLNNSMLQEKISWYLDTVELHLLQEIENASDSFPMIIDNLKQLKKETRDNVEETKHLLEKLTEVNVMCDRHMDAISSEELACHQLTQLKKVVQTLEDIYSEHKKVSEDVKDQRFLEAINGINSIVTQLKKKSTELNVDLLSLPSVKSLREEHKVLYHTVSQSVVQQFSKFLTSDMHKFSTILDSNELKDIYLSKNRLIPSVTKSLPSAMEFDADFLHEVDVCIDCLTLTDSLQAALTLYKTAVFEAFENLAQQYFTDGVEMRSVRKSSDLRRSLSAASLSSLSDSSRRSSSAANPFQSMSITEFAEMLTNIYFSSLECLRRIRSQIKVLIDILSKKDTKQYHLSVILNDLMATSSDVVTQQVTTINNLRFRVLDTYPPNNVIYLFSLHIIFHNELESLCGITQSSFIPTIMRQLLDWFKNFQRYSTQKLASSFERELWEAIPVEPSCQDLANRVFECSGNTPVEWTRLLSPEAEKEDENHRVHHVKVSEDCTATVSFGKQSLHIVRSSVTLLETLDDYGKLLAHFSRLAPEFQTGMLDMFRTLNSRVYQLILGAGTVRSSGLSKVLGKHIALASQTIALFQLSLNSMCRYLSRVTGTRLTNETNKLDQDFTVHHLQIHDKFVSLMRERVAISCSQIASLSWDIDSPHGYIIDLSKSLIKLYKVLHRYSQRDCVEVIPDVIRMFEDRLQLELTDIARNPSKWPGVRIDLSYFYDMMASKCGYAGDRTLLEKFERTPEQQEAA

>A6JFQ6

MGPVSVLPKPQSISTWEGDLAKMTHLQAGLSPDTIEKARLELNENPDVLHQDIQQVRDMIITRPDIGFLRTDDAFILRFLRARKFHQADAFRLLAQYFQYRQLNLDMFKNFKADDPGIKRALIDGFPGVLENRDHYGRKILLLFAANWDQSRNSFTDILRAILLSLEVLIEDPELQINGFILIIDWSNFSFKQASKLTPSILKLAIEGLQDSFPARFGGVHFVNQPWYIHALYTLIKPFLKDKTRKRIFLHGNNLNSLHQLIHPEFLPSEFGGTLPPYDMGTWARTLLGPDYSDENDYTHTSYNAMYVKHTCSNLERECSPKPMKRSQSVVEAGTLKHEEKGENENTQPLLALD

>Q9C865

MEAIRKQAAKLREQVARQQQAVLKHLGHVNADAVVVDEEELHCHQKLQDLYSSTKAAKRLQRNIVRGLEGFIATGTKVVEIGLKFAEDFKKYGDENPDANTPLSRVAHHFGTSYKSVEGERETLLGVLSEQVCEPIRTMIYSAPLEDARHLVNHYDRLRQEVEAQATDVLRRRSKLKESDISEEAYIKLKNSESRLAELKSSMKTLGKEATKAMLEVDDQQQNVTSQRLRALVEAERSYHRNALDILDKLHSEMIAEEEAIGSSPKSLPLHIEDSASLPQQEPNSNSSGEIKSNPLGKIKASRREEIKSNPQEVTKPSPKDEMKSSPQEETKSNHQKEIKSSPQEEIKKSNGSDDHHNHQLLSQNDSYFLAKVVHPFDAQAPGELSLAVDDYVIVRQVAGTGWSEGEYKGKAGWFPSAYVEKQEKAPASKIVESNSKQQ

>P53740

MGLILRWKEKKQLSSKQNAQKSRKPANTSFRQQRLKAWQPILSPQSVLPLLILMACVFAPIGIGLVVSTISVQRLVVNYTECDALAPAKHFETIPSEYVDYHFSKKVAVQPQWMVLTDPELGNQTCRIQFEVPNHIKKSTYVYYRLTNFNQNYREYVQSLDLDQLKGKALIGNDLDPNCDPLRTVENKTIFPCGLIANSMFNDTFGTTLTGVNDTADYLLTTKGIAWDTDSHRYGKTEYNASDIVPPPNWAKLFPNGYTDDNIPDLQNWEQFKIWMRTAALPNFYKLAMKNETNGLGKGIYIADIELNYPVRSFYGTKSFVLTTNSIIGAGNEALGIVYLIVAGIATLFAILFLIKVIFKPRPMHDHSYLNFENSDTPFDESSVVSIPLREIL

>G3V8Y7

MAAVPPLRDRLSFLHRLPILLKGTSDDDIPCPGYLFEEIAKISHESLGSSQCLLEYLLNRLDSSSGHVKLKVLKILLYLCSHGSSSFMLILRRNSALIQEATAFAGPPDPLHGNSLYQKVRAAAQDLGSTLFSDALPQPPSQPPQILPPAGMGAQARPHSALQGFGYTKESSRTGSAGETFLSTIQRAAEVVVNAVRPGPDNPCTKGPLPHGDAYQPAVTPSASHTHPNPGNLLPAAIQGTRAVKHQPGQAGGGWDEMDSSPSSQNSSCTSNLSRASDSVSRSGSDSHSGASREPGDLAERAEGMAPNDCQQELNLVRTVTQGPRVFLSREETQHFIKECGLLNCEAVLELLLQQLVGTSECEQMRALCAIASFGSADLLPQEHILLLCRQQLQELGAGSPGPVTNKATKILRHLEASCGQQFPTLRPCAQPNSAAAVVGPADLLTSPVPPPGSQVFLQPLSSTAVVPRSPVPTPSPDTLPPALQDPGELRTQLVCSSEPGTGSEQRLENTDTPKDSSSPCPWSPNSLFAGMELVACTRLPCPSFQADLQKVTTEPPVSEPSAFAFLNM

>Q5AS50

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>Q9UST3

MQRASTQDVYDGSGDDLNKLDSLKSVLNDVLSSLERFQVDLDVATSDIYKVSERSNKIQVNLNNLKAVESALGAEIDGAILPPDLIKTISTGDMDHPSWNSALEKLTSFLEGGEDDSSLGNMFNSLQINKDQKKLVDKLRDKAIERIRNYIVVTIKMFRQAFVDVFPIRKHRLIANKNYYLFLFKFNRKLALELQRAYINTMNWFYLYHFEQYSRFLDKVHVLKGETIRVEEDRKGLFNLSKGAQQSYGNQMLSVNLRPQDFDMNSVLTASTMHHIESSPQYIERVYCSWELVLTEHVSSEYAFLLEYFNLSKDQQATVFAAIFEKTLHFSRKYITGLISSSIDCIGILKSIRFTQKLALQAQTNIVPVIEPHYNSMILFLWPRFQAVMDMHCESLRKTNLSVKPEEITSRPHPLSQRVAELLYSLSMLSVNVVEAEPVARSASRLAQDYVSMLQNLCKTVNDKRRQSRFLSNNYTLISTVLSGVSGNLAIEQKTYFEKLNENLTNFQ

>Q96F05

MWTALVLIWIFSLSLSESHAASNDPRNFVPNKMWKGLVKRNASVETVDNKTSEDVTMAAASPVTLTKGTSAAHLNSMEVTTEDTSRTDVSEPATSGGAADGVTSIAPTAVASSTTAASITTAASSMTVASSAPTTAASSTTVASIAPTTAASSMTAASSTPMTLALPAPTSTSTGRTPSTTATGHPSLSTALAQVPKSSALPRTATLATLATRAQTVATTANTSSPMSTRPSPSKHMPSDTAASPVPPMRPQAQGPISQVSVDQPVVNTTNKSTPMPSNTTPEPAPTPTVVTTTKAQAREPTASPVPVPHTSPIPEMEAMSPTTQPSPMPYTQRAAGPGTSQAPEQVETEATPGTDSTGPTPRSSGGTKMPATDSCQPSTQGQYMVVTTEPLTQAVVDKTLLLVVLLLGVTLFITVLVLFALQAYESYKKKDYTQVDYLINGMYADSEM

>Q9FLN5

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>P87157

MSSAKRRLYSLIQNATEPYAFEPDLAVNLDIADLINQTGGNLPREAAFAIVRKVNDRNPTVAYLALNLLDICVKNCGYAFRLQIASKEFLNELVRRFPERPPSRLNKIQVMILSLIEEWRKTICRVDRYKEDLGFIRDMHRLLSYKGYTFPEIDKENLAVLSQKSVLKTAEELEKEDREAMSAKLQELIRRGTPADLAEANKLMKVMAGYDTEQKQKYKEHVLVDLEKVKRKAALFGEMLNEVSESDKLASGDLYDELAYSLKAAQRKVDKILEEMSPEDDSYVTVSDLKSLIASLLTQYDHLLEGDFSSARTVAADNNSLLQATTESAKSNSKTSANASNTQSAMDLLIDLDIGSDAQSPSLPASSSQMPTSSFNMESLSQSLLGTVEAPAEVGAISLTESFNSPVSNSSPNVPINNFTSTCAFENSHLNFQITPKSKTRDQVVLLATYTNLSPYDTVENLQSFIAVPKKYNLVLQPQSGTNLSPLQKDGIYQEMIVTKLLDVTELPVRFKLTYKVNGRSQEYTGQSSIRLL

>O59745

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>H2KZ72

MVEYNRIFCVLVIFSTTIKCEYSELMNQKIGVRVEVLNMIYENETTITSTGHPRCRLTLHKSGWDRDTCSSPQFKLNDTLSWSTRVCYKWVCDTTKYAMRVESCWIGSPNMSVYILRDDGCTIEKAILTSPVYTSFNRAAAIGWMAVRQKNMKYMHVGCTIRLCHLCDPKCQTITPPRTCNDNRADDYEAMWNSSSRVKNLCFPEPSTTENLNLNFGNSPFQNVGNIIILLLVFLLR

>P38745

MDRTWLLLTWLLLLCGVVQGNQESINQKYHDVCSGMYSKEDFNGKVDPYISFTLEELSLADEDDDGEGVSVAVFDFQDYEHIGVRLPNGEIQYICDDYALDLGLCEDSSEGQFIIQETAIDPFTSKEHKLTSQILTFTQQELGTNDKVYSINKTGYYCVTTSSFISSSSKFKATVNFRNAYGQLDASEAYKMPIYAFLAVAYAVCTLVYSWLCWKHRHELLPLQRYILVFCIFLTADTIFVWMYYIIENQKGNSSVALHVYMVFISIFSAGKMTFTLLLALLISLGYGIVYPKLDRTLLRRCQIFAIFTFAVCVAFLVQKYSQNSESLSNLILITAIPLVLCLFAFYYLTLSSMNKTMTYLREQNQVVKLNMYRKLIILCYISLFILFLGLLVSTFAYVGMDTVDMIEQYWKTEFLITDTWPSFVYFLVFVIFAFFWRPTSTSYLLACSHQLPTDMENVSEFDLDDINSLSDEALPNREPRNDYQEHDHNMDIDLASDFEEVPSVNANTNANNDVLFDVDYDRDAKNDRSTT

>Q92805

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