

Fly Gene Identifier	Amino Acid Sequence ( <a href="http://www.flybase.org">www.flybase.org</a> ) - longest isoforms were generally used in cases with multiple isoforms
CG8445	MNAAGGGSGAQAAVAAGNNSLSHNALLSTASGATTMPMAQLADGWLELE SDPGLFTLLLKDFGCHDVQVEEVYDLQKPIESPYGFIFLFRWIEERRARR KIVETTAEIFVKDEEAISSIFFAQQVVPNSCATHALLSVLLNCNENNLQL GDTLSRLKTHTKGMSPENKGLAIGNTPELACAHNSHAMPQARRRLERTGA GVSSCRFTGEAFHFVSVFVPINGQLFELDGLKPYPMNHGGWEDSEDWTDKF RRVMAERLGIATGEQDIRFNLMVVPDRRIAITHKLKMLRTNQAIVSGTL QKLLKADEQGESGNGDSQRPDPTTLLLEPSAFTARDLQSLKNDTEIAI NEQHLADENDRRHMFKVDASRRTHNYDKFICTFLSMLAHQGVLGELVSQH LLPSKQVSGQAANRISKQSTTASAGGSTAAGTASTPKTQQQQAAAAKNG KSPSKTPGRRRKGRNKCRKRK
CG4265	MLTWTPLESNPEVLTKYIHKLGVSPAWSVTDVIGLEDDTLEWI PRPVKAF ILLFPCSETYEK HRAEEHDRIKEVEEQHPEDLFYMRQFTHNACGTVALIH SVANNKEVDIDRGVLKDFLEKTASLSPEERGRALEKDEKFTADHEALAE GQTNAANHEKVIHHFIALVNKEGTYELDGRKSFPIKHGPTSEETFVKDA AKVCKEFMARDPNEVRFTVLALTAQQ
CG3431	MGDGAGNWCLIESDPGVFTELIREFGCDGAQVEEIIWLDSESFKNLEPIH GLIFLFKWVQEDEPAGKVVLDRENIFFAQVINNACATQAILSLMLNDH EDIKLGETLTNFKEFCQCFDPYKGLTLSNASQIRTVHNSFARPTLFELD TKNQKKDDDVYHFVGYMPIGGRLYELDGLREGPIDLGEIKSEQNWIDVVR PIIEKRMQRYSDEIHFNLMALISDRQRIYEQQIEKLLNPAPNAMDTEED RQAEISSLRTYIEYEIQKKRYKVENVRKHNYPFIVELLKILGENGQL MPIYEKAKQORALEREQAQRKKDTD
CG5798	MAKLLKLHMSSNLDDLEKMSIIPDLRSKGMKILLNTARKLYMTAEYRLD GDEELAYITYMKYFNMLTAIHKKS DYPSHKTTVRQMLGDTESNRRIMDTL EEIINSLRHRYAQHQAPEPIAPDLVSNRAGVDSPITQPTQYARLGLIT CQDLYRRMQEKSVLVMDCRPSADYEASHLTYCAFNVPEELITPGMSAGR LQARLSSSAKASWASRSVKDSVVLMDWNTKDAQPATNTAISTLLDILKNW DPDVTYRAPIQIVEGGYEFIMMYPTHCTNPSVQAPQONNDIETIDDIE YPSIHDITMKEDISAKDFRPRPDFNRANKPAATRVNEOGISRPSPPAKPI AEIMRDQAEFLQRAEQNDEOLEKASKMWRQAAEGDGLNATEDQELHFRI LQLESKAQDIYIVENNRLREELSRIQELHNVTOQLSQUEVEATRNIESKIR ERQRLDEQHELERQERERLLAIARETKKHYKSPTPSGPPSPGRNLEDVHV VSDSLESLLQLTGDPDPTIAPNKAEIPTFDRAMKQPRNVERTSQRVRDF SPVIGQNVGRGLTGLKNLGNTCYMNSILOCLSNTPQLTEYCISDKYKNYI SRSNKTNGQVIEEVAALIKELWNGQYKCVASRDRLRYVVGQYQKIFRGVDQ QDSHEFLTILMDWLHSDLQTLHVPRQREMI SASEKAWLEFTKAKESMILH LFYGOQKSTVKCVACHKESATYESFSNLSLELPPNSNVCQLNQCMDMYFS GERIHGWNCPSCKTKRDAIKKLDISKLPPVLVHVKRFYADPSNSGSYMK KQNYLRFPLENLDMPYIARAESRAVTPKTYQLYAVSNHYGTMEGGHYTA FCKSANYGKWFKFDDQVVSALDSSNVVSSAAYILFYTWLPPMQVPL

CG8334

MLYAACGGTQRGISFNLLCGLVLI TRGTQAEKTKFLWNLYCNDAGTFII  
KSDYVRNVNLAPFESVSLFAQSERVNF EQFQDWI IKHRNATVLSKWLLSD  
NCVSLTSELETPTFYQSLAGVTHLEEKDIGDLEKEFWRLKNTSQNGQIDL  
QFLGPLISPPIPKNALAGLFNAFDENRDGHIDFKELCCGVSAACRGPVE  
RTRFCFKIFDVDRDGVLSHDETLQMINVLLLVAKENQESQOYKDLTKQLV  
ISDLLLEFGQRRSPDGTPSKLTRDNVSLTAEDFMLWTVQCDLRLMQPLLDL  
IFELCHIVFGLWPQCKHMENDIVRGWLRREERRPYRVGQFWYLITHDWL  
SWMQYTOHTTHTCDYCKRTASQRTAVDEALVCDESFNTHSLEQHDSYSLG  
SGTGSASGSGSASSGISAGRHC GPVRPGPIDNSNLITANPFRNVRTLGE  
GGHLKRDTPLVQNHDFELVPKSLWKALNRWYGDNLPLPRQVIQPPNSDVE  
LELYPLNLRILLHQAQPSQTGVGGGTQLGSWGSTVSGGYGLASGGGYAA  
IAVSSVLQPPKRYLAYTAAFSRLATVRQVGEFLCEQLRLKSEDIRLWHVP  
QLDNGAILLEEDAMCLKELLIRDNDQLLLEIRNKDLTWPEELGSLATAQC  
GQGAGTPGDRRRLTRSSIMSVHAPGATGLHNLGNTCFMNAALQVLFNTQP  
LAQYFQREMHRFEVNAANKLGTKGQLAMRYAELLKEVWTATTRSVAPLKL  
RFCVNKYAPQFAGGGQHDSQELLEWLLDALHEDLNRVMEKPYSELKDSNG  
RPDKIVAAEAWSQHHARNQSI IIDLFYQGLKSKVSCLCGCHESVRFDPFS  
LLSLPLPVENIYFEVLVILLDGSVPIKYGFRNSDCKYSHLKHKLSTMC  
SLPPNMLVCELWNSQIROVLNDDEKLRTQSAKELYVYQLPEQSMRTRSN  
SGLSMHIEQGLKDIQRSSALITSAQDSLSSLSTLQTS SHRASSRVLCNGH  
VSGLDVEGEAEVGT DVSQCNSNSYNPIVSTYSGNGSGDNQVHELLPDEA  
GKDSELAPQRRNCCYSRMIYRRVVF DCECEIRQESASVCFSIESLILSSS  
PENTFMHGAAAQOKRVSSAKLLHTESNTSSMSYTNHSGENSMESLTEPI  
PLADLEPVSSRNGSGGEDCSYRTSPNDSSGLSTGHTLGASLDVDEQAEEG  
NAEDHDQPDQITTSQPETSSGVYSRRSSQPPHKAGKYLVAVHRKITRHDS  
YFLSYHKTRPSLFGVPLLI PNSEGGTHKDLYCAVWLQVSRLLSPLPATTE  
QANHAADCDDSLGYDFPFTLRAVKADGLTCAICPWSSFCRGCEIRCNNDY  
VLOGALPPINAAASNTSTPKMNAKFP SLPNLEAKRTPEY TASLSYTPTK  
YFEDFTIAIDWDPTALHLRYQSTLERLWVDHETIAISRREQVEPVDLNHC  
LRAFTSEEKLEQWYHCSHCKGKKPATKKLQIWKLPPILIVHLKRFNCVNG  
KWVKSQKVVFHFPDFDPTPYLASVPQETILRHKELLELKNDAEMTMATN  
EVVSELDEIDAPSKEVKEELPNQ TGSTKATASPPPTGNILRQSKTKNAVR  
RQRLISTSLTKTPIVDGEFEDYHQHRLKPDVDQFDPRYRLYAVVSHSGML  
NGGHYISYASNATGSWYCYNDSSCREISQKPVIDPSAAYLLFYERKGLDY  
EPLYLPNIEGRTL PNTASVPLEVDETEGELKKLCSIS

CG12082

MEELRKHLSKVNVPKASGAGSPPIYKDECYVSYDNPETPTGLYVCLHSFL  
GFGEAYVREYADKTGNRVFLHIQRVKTIKEGADMEAECAESEAGPERKIT  
RLAIGVEGGYNESDMAKKYEIKDTYSIVVAPHLDKKLPYPPELPMRVTO  
SVEAILAADSIAKLEKATLMGTWDGEVRQASKYADNLQQLDNGKRIPPS  
GWQCEKCDLTNNLWLNLTGDSIMCGRKFFDGSGGNDHAVEHYRVTFPLA  
VKLGTITADGKSDVFSYPEDEMVLDPHLERHLSHFGINMAAMKKSEKSMV  
ELELDINQRIGEWALTETESESELQPVAGPGYTGMRNLGNSCYINSVMQVL  
FVIPDFQQRVFGTGAERYFKEFPSPANDFNIQMAKLGTLQSGKYSSIA  
ENTLDTDHSTGISPAMFKNIVGKNHPDFSTKQQQDANDFYLLHLLTLLDRN  
SRNQTPADALKFLEDRVECLASHKVYNTREEYSFRLPVPLDKATNLD  
EVREFQERKKAARETGQRLPDRDIVRHKVPLQACLERFFGPELIEQFYST  
AIGSKTNARKITRLATMPDCLMIHVGFKFTLGDDWVPKKLDVSVDMPDELD  
LSNWRASAGGLQPGEEALPEPATEEVKFAFDEAVMSELLTMGFPEACKRA  
CYHTKNSGLEAASNWLMEHIADEDISEPFVVPNNSIGDCAANQFVANPES  
LAMLMSMGFDERQAVAALKATDGNVERATDWIFSHADSIGVEDAAPAANS  
SAAAASSTPNKTNYRDGRGKYRLVAFISHMGTSAQVGHYVCHIRKKGEWV  
IFNDSKVAKSQNPPKDLGYLYLYMREQ

CG1490

MEIETDQSIAMDTQDTQOEVEILTSDLQOTQQQRNSPPQLPKFKNLIQPO  
LHAVGAVTQLPSENGMPPQQLLADSSSTSFGDGEAMGIDDESKEDQFRS  
ETTFSTVENNVQLKSQRLSPPVYVRMLPWRIMVIPNDRALGFFLQCNGE  
NDSPTWSCNAIAELRLKCHKPDAQPFTRARIKHLFYSKENDYGYSNFIW  
QELKDSEKSYVHNNSITLEVHVADAPHGVLWDSKKHTGYVGLKNQGATC  
YMNSLLQTLTYFTNSLRLSVYRIPTEADDSSKSVGLSLQRFVHELQFGDRP  
VGTKKLTKSFGWETLDSFMQHDVQEFRLVLLDKLESKMKGTILEGTIPGL  
FEGKMSSYIKCKNVDYNSTRYETFYDIQLNIKDKKNIYESFQDYVAPETL  
EGDNKYDAGVHGLQEASKGVIFTSFPPVLHLHLMRFOYDPVTDSSIKYND  
RFEFYEHINLDRYLAESENTLADYVLHAVLVHSGDNHGGHYVFINPKAD  
GRWFKFDDDVSSCRKQEAIEQNYGGMDDEISFHAKCSNAYMLVYIROSE  
LDRVLDGITESEISSDLVERLDLEKRIEMARRKERGEANTYVSVHVILEE  
NFEEQHKRRLFDLEKVHPRVFRIKQNQTVDELVDLDFVRGFGVSRQRMW  
NLCTAQTKFQSHFDVAEGSRTIEQISTSQKPWVIWLQLAWTDVPGPLPP  
FNPKTESLLFLKYDPRNKRLNYIGCTQOPHTRRLIDLVPDVNSKLGFEF  
DTELTIDYDEYADKKLVNLNEPIESALFIPQDHLQGHILIFERENVDKLD  
LPTVGDYFLDLVYRIEIIIFSDKCNPNPDPFTLELSNRYNYDQLANAVAER  
LNTDPQKLQFFMCINNYKETAGNAVPTYTFKGTIKDLVSYTKQSSTKRIFY  
QRLSLSIHELNDKKQFKCVWVSSDLKDEKELVLYPNKNDTVKGLLEEAAK  
KISFAENSRRKRLRLKISNHKIVAVCKDDIPLDTLLKSNESITTAOQAQK  
TFRIEEVPAEDMQLAENEFLIPVAHFASKELYNSFGIPFLTARQGEPIYGA  
LKQRIQRRLNVQDKEWENYKFCVISMGNADVNDNTPVDLEVYRSWTSQO  
LPFFGLDHINKSRKRSSLNFSEKAIKIYN

CG7023

MGANVSQLEREIGSDLFPPNEHYFGLVNFNGNTCYSNSVLQALYFCKPFRE  
KVLEYKAKNKRPKETLLSCLADLFYSIATQKKKVGSIAPKKFITRLRKEK  
EEFDNYMQQDAHEFLNFLINHINEIILAERNAGPSNGNPKATNQQGSTSA  
MASSIASKSSSTSNSNSNSNSTTNSNGNSSNSTGSLNANTSVLDASGSLT  
ATTTPIISGNGTGTNGANSEPTWHEIFQOGILTSETRCLNCETVSSKDEN  
FFDLQVDVDQNTSITHCLRCFSNTETLCSDNKFKCDNCCSYQEAQKRMV  
KKLPMILALHLKRFKYMEOFNRHIKVSHRVVFPLELRLFNSTDDAVNPDR  
LYDLTAVVIHCGSGPNRGHYISIVKSHGLWLLFDDDMVDKIEASTIEDFY  
GLTSDIHKSSSETGYILFYQSRDCA

CG5384

MPAFKVKVKGRELYTDIVVNTDEEPILFKAQLFALTGVQPDRQKVMCKG  
GILKDDQWNLOIKDGAVVLLLGSKESVPEVPATPVKFI EDMNEAEAATAM  
RLPAGLTNLGNTCYMNATVQCLNAVPELRTALSTFSNDGDTMSTAFSIS  
SAMKSIFAQMEKGTTVTPIVLLQALHRASPOFAQTGENGTYRQODANECW  
AEILKMLQOKLRPKNQEPSNTVQKRHSSFIDQFFGGTFEVKMSSEEDPDE  
PSTVTSENFLQLSCFISMDVKYMQSGLKSKMKEQLVKKSETLGRDAKYIR  
TYLVSRLPAYLTVQFVRFQYKQKEGINAKVLKDIKFPIDFADFELCTPEL  
QNKLCPMRSKFKDLEDKKMEVDVVKRNEPNEEKKDVKYEQFWFDDDLGSN  
NSGYITLQAVLTHKGRSSSSGHYVAWVRSSGDVWFKFDDDEVSAVATDEI  
LRLSGGDWHCAYVLLYAPRRLEKL

CG8494

MSLSSNPNPHPYVEHRNRTIHSSQGHTLANGYAMGDPRSSRCHDKLFSG  
SLKSLARREDSNASDSEGTD TAKSGTGLVGLQNIANTCYMNSALQALSN  
LPPMTHYF INCSDLVEYIAEQSARRCKPGLAKSYRRLMQEIQWQVDDPK  
EFIAPRGILYGIRTVHPMFRGYQQHDTQEFRLRCFMDQLHEELTEQVSMLP  
QTONQPOYQSLQQQPSETDDENDDEAAPASLSHASESEYDTCESSMSER  
SAEVLKTEYFVTPCRTNGSNSGLPEGHSVQLQQAPLQHQQKNASSAEQK  
PIEAARSIISDVFDGKLLSSVQCLTCDRVSTREETFQDLSLPIPNRDFLN  
VLHQTHSLSVQSLNAAETSARTNEGWLSWMMNMLRSWIYGPSVTLYDCMA  
SFFSADELKGDNMYSERCNKLRTGIKYSRVLTLPEVLCIHLKRFRNDLS  
YSSKISSDVYFPLEGFDMRPYIHKDCKSEVAIYNLSSVICHHGTVGGHY  
TCFARNTLNGKWYEFDDQFVTEVSSELVQSCQAYVLFYHKHNPQMKLVRD  
EAMTLTSTHPLCDSDIQFYITREWLSRLATFSEPGPINNQEMLCPHGGIL  
HSKADVISQIAVPISQPLWDYLYRTFGGGPAVNIIFECEICKRAAETLSR  
RQOYELNEFTKYNGLQNEFDSTAIYAIAMPWLRSWQOFSRGKTHKDPGPI  
TNEGIAAPTENGSA TVSCVRLGSDYAQLNARLWRFLHNIYGGGPEIILRQ  
ALSDEDDAEIEIIDQDDECDDEDDQDLEGEDEDEEIAAASYQHNHSDTE  
SNLGIRNTPSPSPSTSPSPSLTGTRQPMETESDLRPSSSKSKRSRSMKV  
SALRLNMRNRGKRNRSAFKQYAEMFGAKGNYNNAHSNAEPVVSEKDEKDKD  
NDRTVAFPSSEYSLPISIPFQSDNFQVNGVHEKSRDKGKLRNSSKSGSTAA  
TKENVTLQKFVTLREANGPSDETDI

CG3016

MESEKILMAAGVTVAAVVGAFVFWGPGSGSRLRQRRGQIAGLHNFGLTCFL  
NTLLQAMAACPOFIAWLQLYNNASPRKSLITSMLENTLEVNGTHATLRG  
DPYSPGAVLRALNALGWVIPQEEHDAHELPHVLLTCLLEEEAIRPOPLGCL  
SDALPTDNDNSSLAGTATPVGGFRSFSMAAGLGASORIGDQPNRPSSA  
MLTDFLNMEYDESTSLQRLVRSEAHTPDSPASVCERDGNDRLGSVLLDAV  
SPGTPFGFPLVSNPDSLATPMLGGERSSRRLPQSQQQQDEGLNRRVSSS  
CRSLERLHRGPGRVSIWSNMMPQVAHPFQAMGAQIVCNGCGSKSAVRY  
DKFDSITLNLPPQRRRTGLSLGHLLSEYITSEDLSDVKCDSNETTTHTKS  
VTFAKLPACLCIHVARTVWLPTGQVCKRKDYVHFPELSMAPYSFVQPHL  
NSOAGTPWGSTMSLYSSSLPMNNGVGGGEGFGTMFPKNLYRLLAVVVHSG  
EANSGHFVTYRRGSLRNAHRWYYTSDTIVREVSIDEVLSVPAYLLFYDRG  
QORQLNLR

CG5603

MNSKSDYEAKEKKTITNRFGDSLENYELSNESSEHKTHVYPKIPNRKN  
GILKNTDANHSAVDNQHLEDVDLADILGTNWPKRAGPAAMILNNKSKTDP  
SNSVDLILKPASPILKIEPEEPLRFTIADYQPLIEIPGTELAIGSLVEVS  
NPGVCELDYGVVRWIGIPPGPQKNVLVGVIEVEDESNLKNVVASDGRHNGV  
RLFTCHDGRAIFVPANRCTADRRFADVDNSISANRVSSNHAKKFGVADCP  
AIYGSIPPLQIHNSDELASICGKFKGIQGHNSCYLDATLFSMFTFTSVF  
DSILYRRPGPQDIRNYSEVQKVLRDEIVNPLRKNVFRSDRVMKLELLD  
QLSSVSGLTCEEKDPPEEFLNSLLSQIMRVEPFLKLSSGQDSYFYQLFVEK  
DEKLTLPVSVQQLFEQSFHSSDIKLEVPSCFIIQMPRFGKNYKMYPRILP  
SOVLDVTDIIENSQRQCSLQGLAEYECRDCFGSLQAGSGLECTAFPCPK  
LKTFFSHIKRTNHVSKKIYSPKEFKIMAEHMVVPRLYMELFAVVCIEYSH  
YVAFVKSGSGPDAPWCFFDSMADRKGEQNGYNIPEITCVPELTQWLSEEG  
ARSINETSTNDKVLPEHAKRIFCDAYMCLYQSTDIMMYH

CG3781

MESPSARTLGNLGGDDSGNGNENGGSGNGNTTMMPHGIYHERQTRHLCG  
LHALNNLFQGPDMFSKSELDDYCTTLTPRNWLNPHRSWIGWGNVDVNVIM  
YALQORNC EAVWFDRRRDPHCLNLSVIFGFILNVPAQMSLGYIPLPFHM  
RHWLALRRLNGSYNLD SKLREP KCLGTEQQFLEFLATQLQMDHELFLVL  
DEETDCKDKSQORWLLPQFRD

CG9448

MCDTKDDAQKWCETCTYENYPSSLKCTMCQASKPLL NEDIFRLSPAQES  
CTVAEEAAA VEAVMSPTPSSTCYSLOPQSQARQSNVADSEKWPKVCTY  
LNWPRSLRCVQCCTKRGGEA IERGKMDNEADGD RAGEALQALRISGSE  
ENLANKPVQLIGATASHRLSLSRGIDDATHLNNLANASHNQSOSQHRQPV  
LQQQMQLQLOPQQQRESSSSAAVPPQQQKQCYVSKWACNSCTYENWPRSI  
KCSMCGKTREREISGSQNDLHASSLSNSQEENQQQLQOPNVDTVSVNNSF  
NKKHIYQLGSSETINNCDTLQERQERRORQIRROVDWQWLNACLGVVENN  
YSAVEAYLSCGGNPARSLTSTEIAALNRNSAFDVGH TL IHLAIRFHREEM  
LPMLLDQISGSGPGIKRVPSYVAPDLAADIRRH FANTLRLRKSGLPCHYV  
QKHATFALPAEIEELPIPIQEQLYDELLDRDAQOLETPPPALNWSLEIT  
ARLSSRMFVLWNRSAGDCLLDSAMQATWGVFDRDNILRRALADTLHQCGH  
VFFTRWKEYEMLQASMLHFTLEDSQFEEDWSTLLSLAGQPGSSLEQLHIF  
ALAHILRRPIIVYGVKYVKSFRGEDIGYARFEGVYLPLFWDQNFCTKSPI  
ALGYTRGHFSALVPEPFTRIDGRRDDVEDV TYLPLMDCELKLLPIHFLT  
QSEVGN EESMMRQWLDVCVTDGGLLVAQQKLSKRPLLVAQM LEEWLNHYR  
RIAQVITAPFIRRPQITHYSSDGSDSEE

<p><b>CG4603</b></p>	<p>MTGSFSVKLKS KKGQFIVNDLNEHTTLGELKTKIVQATDIEATQLHVLVG  YPPKPLDLSQQQEQRALKAVGINSGETLIVEEKAAPAPAAPVPGGTTVED  DEALARRLQAEFEAQLLQETAGGPVAQAADYQLPVAPTESGPNDFNGIL  LKKVVPADNSCLFITSIRFVLNGKVDNEGSEMRRHIIAQEVAADPOSYNDA  VLGKSNAEYCAWIQKADSWGGAIEVSILSNYYGIEIDVVDIQNAIINRFG  EDKNFGLRVFLFDGIHYDPLYMETSPSAAPATIFPVEELGVYQQAQLA  NEAQSSRQYTNVDKFTLRMCQCDVRLVGQVQAQEHAKQTGHKNFGEI</p>
<p><b>CG4968</b></p>	<p>MEPFTHNDGNRDELI IQQRDIEKEISDTTPLVSEQLPLTCLYAEYSGDE  IFTAKIQDLSKKYKFI RRTRPDGNCFRAFAYSYLEYLISNTSAYQEFKK  LAEESKEKLVQLGFPSFTLEDFHETFMEVIQRVSPDNAGGHSTVQDELHK  IFNEQGYSDYVVVYLRLITSGLQEEADFYQNFIEGDLTIEAFRHLEVEP  MYKESDHIHIIALCTALGAGVRVEYLDRGEGTVKAHDFPEGSEPRIYLI  YRPGHYDILYPN</p>
<p><b>CG2224</b></p>	<p>MSKAVNNMSMGDVEPQERMKHLSHCGNLI EVDKNMPVTRYRSGTEMLRM  ANVYLREGNHENAFILYLRMTLFI EKIROHPDYGSVKAEVRDINRKIKD  EIMPTTEKLRKLLTHYQREYEQFLASKEAERVKELERERERERERERQOK  EREKAGSSAIPSLIPANLHVLIDEGNQPSAPDLGLLDQVVYPNDFPTGAN  RSLPGSGLLLPAASEAAADKTTNSKPSFDRNQKPSYNRTDSLLAGSLRLV  YVPGDTMEVFLKLALANTSKNIETCGVLAGHLSQNQLYITHIITPQQOQT  PDSCNTMHEEQIFDVQDQMLITLGIWHTHTPTQTAFLSSVDLHTHCSYQI  MMPEALAIVCAPKYNTTGFFILTPHYGLDYIAQCRQSGFHPHPNDPPLFM  EAQHIRMNDNQAKIKVIDLRR</p>
<p><b>CG18174</b></p>	<p>MDRLLRLGGAMPQAAPPTDAPVVDTAEQVYISSLALLKMLKHGRAGVPM  VMGLMLGEFVDDYTVQVIDVFAFPQTGTGVSVEAVDPVFOAKMLDMLKQT  GRPEMVVGWYHSHPGFGCWLSGVDINTQOSFEALSERAVAVVVDPIQS  VKGVVIDAFRLINPNMLVLGQEPRTTNSNLGHLQKPSVQALIHGLNRHYYS  ISINYRKNELEQKMLLNHLKKS WKDGLTSLSDYNEHCSINEDTVAEMDLA  KNYNKSLEDEEKMTPEQLAIKNVGKQDPKRHLEEKVDKVMQNNIVQCLGA  MLDTIVFK</p>
<p><b>CG6932</b></p>	<p>MEQMEVDVMSAKPSTSSSAAAGSSMAVDKTADQNPQPQGNIMAAAGTSG  SVTISLHPLVIMNISEHWTRFRAQHGEPRQVYGALIGKQKGRNIEIMNSF  ELKTDVIGDETVIN KDY NKKEQYKQVFSDLDFIGWYTTGDNPTADDIK  IQRQIAAINECPIMLQLNPLSRSDHLPLKLFESLIDLVDGEATMLFVPL  TYTLATEEAERIGVDHVARMTSNESEKSVVAEHLVAQDSAIKMLNTRIK  IVLQYIRDVEAGKLRANQEILREAYALCHRLPVMQVPAFQEEFYTQCNDV  GLISYLGTLTKGCNDMHFVNKFNMLYDRQGSARRMRGLYY</p>

<p><b>CG9769</b></p>	<p>MSALNLTVRVHPVVLVLFQVVDAFERRNADSHRVIIGTLLGSVDKGVVEVTNC  FCVPHKEHDDQVEAELSYALDMYDLNRKVNSNESVVGWWATGNDVTNHSS  VIHEYARECNPVHLTVDTSLQGGRMGLRAYVCIQLGVPGGKSGCMFTP  IPVELTSEYEPETFGLKLLQKTGVSPAHRPKTVPPMLDLAQISEASTKLQ  SLLDLILKYVDDVIAHKVTPDNAVGRQLLDLIHSVPHMTHEQFTQMFNAN  VRNLLLVIITLSQLIKTQLQNEKLTFLPTA</p>
<p><b>CG3416</b></p>	<p>MPSQEVSVNKVIVHPLVLLSVVDHFNRMGKIGNQKRVVGVLLGCWRSKGV  LDVSNFSAVDFEDDDKDKSVWFLDHDYLENMYGMFKKVNARERVVGYHT  GPKLHQNDIAINELVRRYCPNSVLVIIDAKPKDLGLPTEAYISVEEVHDD  GSPTSKTFEHPVSEIGAEAEVGVVEHLLRDIKDTTVGSLSQKITNQLMG  LKGLNAQLRDIKQYLQRVGDSKMPINHQIVYQLQDIFNLLPDITNDQFTG  TMYVKTNDQMLVVYLASMVRSIIALHNLINNKLANRDAEEGKSDSKEAKE  KNKDSKDKDNKETKDKDGKKAEEKADKKGKDEGGKGSRK</p>
<p><b>CG5505</b></p>	<p>MPVSMVAVCETANVVNAALRESLGGNSSAGSSTDOAKSGEDTNGSLQNHIV  ANAKRILMAKIEYEEVPNYHESVLENLKSXYIVIKPGNPGAINGFSGKNN  TGKLVGANGHDNNGARKQAEHPNNQSHHINHHNHQHPTSNPNELPKPKRV  LYPRENIRIGWKQSERKWQVGTGMINVGNTCYLNSTLQALLHIPALANWL  VSEQAHLADCNVAEPGSGCIIICAMTKTLLATQSNQSAVRPFLIYSKLGQI  CKHMVVGRQEDAHEFLRFLVEAMERAYLMRFRNYKELDQLVKETTPLGQI  FGGYLRSEVRCLSCNHVSITFQHFQDLLLLDIRKADSLEDAFEGHFSRERL  EDMGYKCEGCKKKVSATKQFSLERAPITLICIQLKRFSMIGNKLTQKQISFK  SRIDLKSKYAARSQAAQAQPLTYRLVSMVTHLGASQHCGHYTAIGSTDTGS  FYNFDDSYVRPIAMHVCNTNAYIMFFELDLSQAASPAANRPNGVRLTNG  HSTTPVPAATVSSPSPTRFIIPQLPAGGANGYTNGNAQKTAIQFKQONQO  SPQNGLQLGTKGFQDTAKPPLVGAHAKGEATSAPTANGNKSSSPSSNSSS  NHKSIHQOYLPISSDDEDEIDEMKPRPTTAQLPSMPNMTENHTEPKAKS  PVKIQVKTTPVKTPLKSLVPYESASEEEEEAPLPNPKRPSGEDSSESDQES  GQTNGHSTNGSHTNGSASSSVHVNSKQKTDIDAIDEIFKSLKKSADSDDED  DDEEEPSIQLTNGWHPQKQSQSQSKAPPSPKTPPSPAVIKSKTGIWKVTR  NDEVDAIEDDQVDDVVVEGSPVKIPTPNKNHRNPFSSSKPSTDSPATPGAK  RQKLLNGSALKSHQQPRVGNQYQSNATSNGSTINELLKQSYRQYGSPLS  WNGKPAELEKETFELVCAKRIAGHGSVEGSDIVEGSAVDAAVTSGSDSK  DVVVIAVALLVDAREQRQRDIDDDEENEMDRGRQRKVKSGSAKGNNASNS  TPGYNPFQYEGQKRWNKNGGGGFPRFYNQNYRQNFQQRNKFKFNRFGG  PGSAKFQQQRALQRHLSAGGGFSRRQPSAQOQQOQT</p>

CG5486

MTDKESEQCTVSVFDQTPGSEQKKINVVVRSHFTVKRVIDLIGTQFSYEK  
FELLLOPHDNKDLVNLNALESQOLMYEVAGFEPQLKNHLILLPSGSDGDV  
TKRFELPIKRVVVKKVMKSDGEKAKSPATGEKKRUVGEKTKKKPASGSS  
SPSKAKTTSEDSLAKTSSISESSPEKTSKIKTTAAKISKPGSEKAPRAS  
EECPPELSTEINSKNTSSESPVAKKTAKVTSKPTLELLSPIKSSPIKELD  
CEPVDTLKQQLSEQQLYPOGRNLISPVDDAPSDLFISDAEQLSDDDLA  
LGASASPTMLGPGYDYGAPTGDSDVEGVTGVTDPTSTIGTDDGTYPALSNF  
YRRKYGGDELRAWQRVNTTGADVFSSATTETEAEARQASLGPRGYVGLVN  
QAMTCYLNLSLLQALFMTPEFRNALYRWEFDNDNEAKNIPYQLQKLFNLQ  
TSPKAAVETDLTRSFGWDSTEAWQOHDIOELCRVMFDDALEHKFKNTKQA  
NLISNLYEGKMNDYVKCLECNTEKTREDTFLDIPLPVRPFGSSSAYGSIE  
EALRAFVQPETLDGNNQYLCEKCKKKCDAAHGLHFKSFPYILTTLHLKRF  
FDYQTMHRIKLNDRVTFPQTLNLNTFINRSGNSGEQNSQLNGTVDDCSTA  
DSGSAMEDNLSSGVVTTASSSQHENLNDDEDEGIDMSSSSTSKSAKQSG  
PYLYELFAIMIHSASGGHYAYIKDFDNNEWFCFNDQNVTSITQEDIQ  
RSFGGPNGSYSSAYTSSTNAYMLMYRQVDAKRNELVAKVADFPHEIKTL  
LPKLHSEETRVSRLGRHITVTDLALPDLYKPRVYFYNPSLKKMKITRVY  
VSQSFNINLVMSAYEMLNVEQFAPLSRCRLVAYNSSMDTIIQSLESCTD  
PALTELRAAQNYSLDFLLEYRAEDQEFEVYPPNGITWYVFKVDLSTMAM  
GPFLVYSAAREREASDVLRRSIALRLHISEQQFLLATVRATVPKAFVSYD  
PHPTPEALQHLQNMANTQFKSITYFYLNVPNTDAATLEMLGVPTVESVEC  
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ETSKLPCVCEWVYNANTTAEQAKKELVAKLHRIDAKYATLSVQNCRIWLK  
GGRIPIKILSDDETLYCDMRSSIAAEFIVQEEEEEVDPOPKDDSLTLFVR  
RWCPAKLEFGKFQEIITLDQDSEIRLSLSQISDIPIDKLSYMKLNSNFPCT  
SISALSVNESSSWYSVPTTLDKYPLNSTQTGNIYLYKDRTVPARELTLEE  
RRLMNAREKARLDRVGCVSTTRYAQRERRALKIYLDSPKSSNVTASAPM  
DVHVNN



MCEVCADFQNLLELYEVRVASSDLKFQLLKSEIETTFNYIQSWPQRCM  
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KPPVGPCTPPPPQTANPOHKSHLQYTEEPWILPEVEKLLVLVSKVFLNF  
PLYIAHKHGMHSRLDDLQAEAAHLLALICDLHDNDLPIYLLRNVSFLCNS  
GGFGAMSLCFEHPDLPVSTAHSMTAAVSNVKLWLNHYHCNTQLFVPLRSRI  
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VQHLFGPNLHVEIVKQAHVLLNFLAVENQISEEDIKLIWQATQLKHCSKT  
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DTSRSQMNLMQDHLGNSVTASSSDSGSIEGSNTEDDHVGADDSSIASGG  
GGGGVGNKSPIDGVTCPKQARHRRHICDPTTEKQKQISPEDMAKVDLV  
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SPCEEELAQLVSSRANCSDVPPAFAAAAAAMMVAQSAMALQKSGESNVAA  
AAAAVAAAAAATGTAQOTLVAMNRQASVAAAAAVVAAAKAKSDSDVDLMD  
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IGQLGESLALAEKALATLLCFMSMDRQLRTKFIGCLYNVANRRSVIVSL  
RLLPKLFAFQOFRPSDTHSMTMWAERNHRMMQCFNNIRHYARRHAEVL  
ITQNGEQOQQOLGGQLYSHKTQVSVRLQFLSSIFSTVGSFKSFRLTLEQL  
DALWEWLAHDPECADCYFSWLQAQAKGGDQHALGIEALQHLYLKLP  
PEEFMVALGLFQQLCSFARIAMAEYDNHSDQISASASAVGMYHLWKIAL  
RAQSNVSLAAIQYINMYMGQQLRLEKEFVSQCMENLVQAATALESIDD  
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GPPLRIVLQOAGLSEKSLLOMHACDLIADLKAESKWWESLOTGLAAPVL  
GLLLSDGPLRIITQGOELTSDYDERSLGDAGFKDNQIVYVSLGGRGARRK  
ESNLEHPSMLPPPPKECLPTVLLLQPKYFEKLFCLMQTLGDMQPOASTVN  
POHHTKAQLLSRRVWDILAMLPTNPHILDFAFKSLVTDLSELEQLDAGGEE  
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PSTGLQDVETEASSSSGGDKENQPKQHSKRQKKGETFEQEKERPVCSTP  
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LALNEWRHDCLASLLRILWLLGFEELOSADAHVLMRPHPFMLQLMEVPO  
CLTRLSSILNDEVHQHQASSANPLVFPYQFQHLRTGFWGRAQLIQFAMN  
ILVSFVHASAEARRLLWAPTGTDHCRWLQKFILEDPEPAVRREICAGLYR  
ICLGNHASYRLLLAPLLHKLIALLLPLAEQMSSGNQHTQFLLSEEGKDPYG  
PACRDYFWLLARLVDTLSPMVAEEHIDIEMLCESISQSILTREYYELRH  
GYQDDGLVGLLNLMSNLIKDYDTTFKYTPKALSFIGLIGFLDMPSPADR  
QKPKCKSASSRASAYDLLVELCRGCATNYAYLHGRLLAQHKSQPKOPYPW  
DYWPRDEGRAECGYVGLTNLGATCYMASCVQHLYMMPQARAVALRVPPNA  
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LPQILCFNTMRYTFNMVMTLKEKVNTHFSFPLRLNMCHYVEKTLMPQQYK  
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ADGGHYYSFIKERTKTSYHTHERWFLFNDAEVKPFDPQSQIAAECFGGEMT  
SKTYDSVTEKYLDFSEKTNMAYMLFYERRLPEHLQRRHSELLVTPTPSP  
TVEEKSEAEPTKMETSSSEIKADVDEVEVEEKDKEKPAQTDTESKETP  
AKEEIAADKSKQDEPEEKKIEKQSRGEEKSETDEKPTMTTVSTEEEEKQ  
PTANCDNHQONNSNSKASNDQOPSTSKAAQKLQFLRPLLNKELEDWIWQ  
DNRQFLQDRNIFEHTYFNFMWQICGHIPOSLISETDVTMAAKLSVSFFI  
ETFIHAKEKPTMVPWVVELLTKQFNASQEAQEWFLSHMSQEPYWPVQVLIQ  
CPNOMVROMEFORLVTHVTOQLPASHAHLVLEVEFTDEDDKFTJGQASCVTR

CG5794

**CG4165**

MVKKRQADSRDHDCSTDSGNEDLHHRKGLGSPGQSDGATPTTASCQHIKK  
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TFEFDNTLWLCLKCGSQLCGRARHKHALEHYQTPHSDSHALAMNTRSFDI  
WCYECMDKICSNLRKNLLECVLKVKLAQKPPTSTVTPSTPTISYIEEKL  
KAALEHLTPIVPMTGGSFDDSSSRGSLAAAGGGGGVSSRNQVAIPMP  
PEPSSGLSTSDSLTSVPGMAKRIDQYSATTNGNTGNKRLLTLETPRIENE  
RLPRVRGLTNLGNTCFFNAVMOCLAQTPFLLSVLKELSEPGEFIFLPGGT  
FTIKDKGDIELPMIKGTLSSWGGLTAALANALEELOAGGSVFTPRKLFDR  
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NSVSEEMRQKCKIYGNQAGDRILRPEQVFRGFLVSTLTCQDCHNVSSRHE  
YFLDMSLPVAVEKPPQRRKPSPELSLTSSSSSVTPSTGQPTINTKFTD  
GSVNFTASSPSFFLHAHEAASLGPSKSOVKKEKERQRKAKRAAKRQKSS  
LNLNGNDSGNGNELAESVDQDDASLASLGAGDQANDGLEQTNGQTEDST  
TSSVTTSEHSDADVEDNLVEDTAAPSTNNVPSSTASLTAPSKTYMDSNGN  
AOPPGEKRDDTPEHMDKDSLEEDENDSGIATSPAPTATNSSTSTSATGNN  
NSVAGSGLSGSSGALEDPLAPASLVTAGLSEKASVIRQVSVGAEQOGASN  
GTEDADGEAKAIEQPEKTPSOAQAMAQAQARTKRVRTQSYSDWSTTIAPR  
YQCEDEGCSVQSLNFTAVELMTGQNKVGCDSCTQRINGSDPKAKSVNT  
NATKQLLVSSPPAVLILHLKRFQLGPRCIFRKLTRPVSYPNLLDIAAFCG  
SKVKNLPNIDRKQKLLYALYGVVEHSGGMYGGHYTAYVKVRPKVAPGDK  
RWKFLPHGSKAELDQDDQLKKLEELLAKEKAREQHLKVLDDSDDFSNS  
SNSSTSDSQTPATPLEEQQTQQAQQPQQPQQLEEAANVRAPPKWKWYVVS  
DSRVQEVSEDTALKAQAYLLFYERIY

**CG7288**

MAQTQAPAAKRMKLEKTPANPVEEDETSPVFNPKYRVCPYLDITNRNLLD  
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HTLRFYCLPDNYEIIDSSLDDIKYVLNPTFTTRQEISKLDQLQPKHSRTVD  
GVLVYLPVVGLNNIKANDYCNVVLHALSHVGPLRDYFLQKQSYAHVVRPP  
GDSVFTLVQRFGELMRKMWNPRNFKSHVSPHEMLQAVVLWSSKRFQITEQ  
GDPIDFLSWFLNTHRALKGNKHPNSSILYKIFLGEMKIYTRKMPPVELD  
DAAKAQLLATEEYKDQVEDKNFIYLTCDLPPPPLFTDEFRENIIPQVNL  
QLLSKFNGTAEKEYKTYKANFMKRFEITRLPQFIILYIKRFTKNTFFLEK  
NPTIVNFPKIHVDFGDILGMRQRDKDKTKYNLVANIVHDGDPKKGTYR  
AHILHKANGQWYEMQDLHVTEILPQMITLTESYIQIYERCPNSS

**CG7857**

MCDGDVAIAELESRLDEVSLDIGARHRRERKDLQAKLQAMKKNAPKNNK  
NKRKEFLEEMARLEGELEQRHKAELKAAEAMEAPVLEPVVKEPAEKPET  
EVTDDDIEEKEEQ LAPNQRVSKAQKRRDKKAKEARAREAEIKTELQNA  
NQPTPKLIELQOITAKLSQRQLSLHNIPSDGDCLYQSIRHQLIVNALPGH  
SVQELREETANYVRAHKDSLISYMIHPETGDILNDQOFEQYCHDIAKTHA  
WGGHIELKAISLLRVPIEVIQAEAGAPTLGQEEFFGGSPLIICYHRHIYQ  
LGAHYNSTVPAA

CG15817

MHEYDVNERKEEPASLPPTONETTEINSQLRQDQONQEQENPLRQODNSH  
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RRVYVADTLRCYSLRSRQEPATKDPLEGGLKQPDVVPPPPVQAPSPTPT  
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EIQSPETA AAAIAAAQAE LNAAGKSGAAGARSSRKRTNTMSLYDRRFQTTT  
EERRVANGYGGNAARSVTGSSSNEIESQEPQSHQYYGPNNGGSNAAGAGAG  
LNGSAAALNHAPSMGTLCNIGNSCYLNSVVYTLRFAPHFHLNHLHHLIQDL  
NVVQOTIVRQOTARSASLGKNVSAAOLEHARSWSSKDLATSTDQYSGQNG  
GVNSGNGGSGSSKSTHQSVTEKLHELYNNLHGNEMADSTEPYHADTLLHA  
IQDVNATFEGNQQDAHEFLMCV LNCIRETNQSLIKAIGECPEVIANGYI  
ANPDEVDTGEGQDRDSTASQNLNAGNGSLATSQTTTTTKTSFFSRKSKRK  
DEVKPSKSTRVQSPLKENSPTAGGITGAGTAHATANS LFYLN TVDLSGAS  
STSGSASTSASGVVSTSAALPTPPQATKYSSDDEMNSATVLKDKMRLEER  
IRELNLNFFSSDFEGIVVLTTKCLSCETITRQKQGM LDISVPVPI SGYDN  
ADLQDKPSTYIQNSCITKEYFRGENKYSCNQCTGYTEAIRSISYEVLPRL  
LVIQLNRFSGGMEKVSTYVPTTFTLPCFCATCCELGEGNKLHVYKLYSVI  
THVGATLTVGHYIAYTCFLDLASDYVNC PKDRRNTMTNSQTMASQAVPSN  
ENAAPNNGSSSVASTPVIAAASALASSGNILMKMKFGRSKASSSGDMSK  
NVKQVNGIISK NITNGIGKLSISTTCQGVNCCAMRLCCTQOTSSSNSTSC  
SDFSEESLQNGSNSNLSFGGSGSTYPTGYGSTGRGGVRANYAHGGPDIW  
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GSSTTPPPSSAQSSWSNENVSSGSHKI

CG14619

MMLDIKKTRGFHKIPQASKLQSTTKTSSVVATSASSQNEVPSPGGSAGSK  
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RSRAGEDSRNNNYNTSRAPTLINMRRPSLFNGNQOPTTTNSTTINNTSR  
NTTSNTSNGVLKYSVRSTTATATSTSTRNYGK LKPLNNNQTTAGVAMNG  
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ISTTKTSICYFKPITPPLQLRHEQNQVQOQEEQOPQSSSKSASHRYPRK  
STIIASAHSNFAASF EKFSGLYRQTNGETNIESKTSSNARRYGIDSLSI  
KASIEKFNNLSGQKRQNP GSGGIGPGSATASGLGGRLSVASRSNHGSQ  
AGGSSSNLQORYSSDLNIRVAAGYSSSLTRAA YRTTATMNSVSTPVAVT  
SELGGPISGDGGETATAMQOPTSKVTVRGAHSNRQPIECDSVVL TNKASK  
DATTAATPTVATATATHTPATSSVSTVTVTAAAPNSASDSTLARS GTGSS  
STARSVLPMTPTSSRYWDRDSGTSRSSIGTSSALNSSSLKHNSDDGYKT  
ASSSRDEKSEGLCGLRNIGNTCFMNSVIQCLSHTQELTRFLRSHHGSRSL  
STKDQQILHEFAKLIQEMWTANVHTVTPMELKRAFSTKHRMYS DYNQODA  
QEFLRFFLDSLH SALNSGVKGETLNIDDNLSDNKKADLTWEWYTRHENS L  
VRDLFVGQLKSTLKTTCGNTSVTFDPFDL SVPLPSSSRCKLEACLDLF  
IREEVLGD EMTCAKCKTRRKCTKSFTIQRFPKYLVIHLKRFSETRWSK  
LSNIVEFPTSDELNMGSYGANSNSNVHYSLYAISNHMGSTAGGHYVALC  
KHPVSRKWHEFNDNIVSDALSENHLVSSSAYILFYERT

CG8830

MAVKQNNSEAGDNASDNAGGAGNGIPPNAKPMSANGMANAEENVLPKGM  
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PPSCAVAIVFQFLDSTQILEAVHSLLEQNVQDSSIKKTVNLLCDWITYC  
TFCSTLNLWVLALLKGLRDQGMALLDEIAMDNIEKLFHVMIFPALRQKA  
APVVFHMLSTINQTPPEVFKILPRIPRVLQYVKNQSTTMDEIGLETKKCL  
QQLVDLTSALMLRFYDQDELYVATKKALQTYEPPNCVALAKAMHENAQP  
WGRRNARVGLVNLGNTCYMNSVLQALAMTSDFSRQILLIECNSVLLMKVQ  
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SNSDNCNHKPTPTPPATPTKATNGLKQOQOQVDQAKPPSTIDKTFAGKLS  
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KLDGDNQYFCPQCKKLCDAERHIGVTQAPKNLILTLKQFKYDQKYHFRTK  
LMHKVFHDESVTVKMSAKDSLQEMSTVHYDLYAGVVHAGYSMDSGHYFTF  
AADQAKNWKFNNDNVVTHSKPEEMHNLTSNPYILFYKMGHSNESNSV  
TASCSSSMVSGSNDQVVSPLSPPLKLEELPRRLRDYVRKDNHVYNEELK  
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VF

CG6091

MTIKPVSAPPSAKRVAGNVDPDNKEAQVVVVEQSVVSQTHNHANHRNVV  
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CTTVPTAQVQVQSTSTAAANLLKTVEETFSGYNSGDEHHQPKERLIPVEEW  
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MDYIHENREYFGQFVTEINYSIQKRARDAHGNHIEIQAISEIYSRTVE  
VYCYQSNPINIFNSEQSQAGYPLRLSYQRGSHYNAILDYPYNATVGVGLG  
LAGYKPEIQTKAVRLSEOLEIEQTMFEDKLTDDWEATNEAIEEQIARE  
SYLQWCRENTQORSRNSNTAAGSATSTVTSAEALTDSDASPSKYSACGGT  
GSSGNPPVALTSGSGGDGAGPAFSLSPKTLNQFHKLPQEVNELGGYDSD  
ATDMSSTSSVGHSGGSSSPSTAASQSRGKGSQRRTALRKKRRHETRE  
TTLASKSAEALPLRKSPPKRSAPSVARADTPEAEQRPSTSKQSSHSPQ  
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QKRKFLFGP

CG30421

MGTTKERREQSEGDAATTHLTTTATATTGAIVAAGVTTTLPATKTTTAA  
DTSTTNAAKKIRRTFSMPRNPFRWTRKFKTAVAVTSSAGAENDNESGKNN  
GARERRGSHTAISSCVGGGRGRSGSIVSLSSYEAPFISSTNNNTTASNG  
NNNNSSSNINSKRTRALRRSSFRKFLNRIAQHLSSTVNVVSEEKHPAN  
RIAFIEIVPFYTGWRRKEANKHGQPSVSGSSSGGGGAGGPGGGERVPP  
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DLKRRNKINSRKFGTKGELTEQLANVLKALWTCKNESDHSTSFKAVVDY  
GTQFRSSTQHDAQEFLFWLLDKVHEDLNTASKRRYKSLKNSYGRSDEVIA  
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QLTQQTIFVTVVYMLRTRLPQVRMGLRVPAGSPIVALREQLQADTGIEGSR  
MVLVDLNAEGFTRVIFYDTQPVELSSIETIYCI EVPAAATPVAKAATPSET  
GDKSAPTAVTPSPAAAQSQADLLLLVANVYRAKDGADITRFGAPFSMKAP  
RDCSYQDLQKRMLREMAPLLKPEVFSYATPLAEMFRIRLQDPSADPD TYL  
EQVEHPLLTEMIDMALSVLSSEAGPQHIKLLLEWSSPEAHFISKQODTEE  
AVVEHESVARLSASKPSDTAALTLEQCLEHYTKAETLSAEDAWRCPHCQQ  
YLPVVKTLGLWSLPDILVVHFKRFRQHOSKGPQAAKLTTMVKFPLTAFDM  
SPHLARGVHESASSSLGMGTGIGLGLGSGSNPWKKARSVDSRSSTLNSRC  
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DDIEQDIINNEAYMLFYQRRSVDAGECSGSSNSGDHWVSRIAPASSSSA  
SSTSGKEREVPKLEENTESPAAVEVTEKAQSKPVDIVCQDKAKGTADGPD  
ADQEQTTVPHDLQIEELAFADADVDTSLGETIKAEVNLA AKDEPKKVEVE  
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SSSSSSSESSLSSRSPRSLSTSVTAASTLQSKFNHMSAAPALFNGNG  
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SFSTSSNYTETLSSLLRKSANTCSKDTLLFIDQQSHHHTAGLIEDDDDSY  
MGRSLWISPVTPHKLITVSPKN

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VANSSLPGGGSGSLDGNQDQOPATDSQSSDDVAASLSANSVDSTITIVPP  
EKLISSFP'TTKLRSLTQKISNPRWVVPVLPEQELEVLLNAAIELTQAGVD  
HDCEPCVEFYRNLSTSFAKILTDEAVNSWKNNIHHCILVSCGKLLHLIA  
IHMQRDNPYLLDLLAIVFDPENKFNTFNAGRQPECFAAPDYIWGOLDSNK  
MYARPPPEPKNARGWLVDLINRFGQLGGFDNLLERFNIGLELLKRNQKNC  
TGKNISVEGRVENGAQDNRLTLALIHSLLRPFQCYELLMPATIAKYFMP  
TWNVVLDLLDSFTDEELKREVKPEGRNDYINGIVKSARLLASRLTGQOEE  
IRDLEMFRLKMILRLLQVSSFNGKMNALNEINKVLSSVAYFSHRSOPLPH  
CMPEDMDWLTADRMAQWIKSSDVLGVVLKDSLHQPQYVEKLEKIIRFLI  
KEQALTLDDLDVWRAQAGKHEAIVKNVHDLAKLAWDFTPEQDLHLFEA  
FQASMTTANKRQERLELIRRLAEDDKNGVMAQKVLKLFWTLAHSQVEP  
PEVLDQALGAHVKILDYSCSQERDAQKTIWLDKCVDELKSGDGWVLPALR  
LIRDICCLYD'TTNHAQRTQTSTNRQOVIERLQNDYSLVILVTNSLTAYM  
EKVRQMVTDSPGLDATRILIDGRFPHHVQIAERLEFLKFLKDGQWLCA  
DQAKQIWHCLAVNAVFPADREECFRWFGKLMGEEPDLDPGINKDFFENNI  
LQLDPHLLTESGIKCFERFFKAVNSKEDKLKAIHRGYMLDNEDLIGKDYL  
WRVIT'TGEEIASKAIDLLKEVSTALGPRLQENIAEFHEMFIGECCSRLR  
THYGNIVILGKTQLQEELDAPDQSDNTNDESKDSKMRFIEAEKMCRIKLV  
LQEYVKECDRSFSGDRVHLPLSRVTRGKNTILYIRFQNPGRSIDDMEIVT  
HSNETMAAFKRNLKRIKGTSTANIKVDLFYANDEMIGVSEINPLYQYT  
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KIMCKVPKAAVTVAVTGDKIAKDEEEKLYPTEQAGIEDEEEHCTPEQMFL  
HPTPAQVLYNLSVLHGLLIPALDPLGESALLVQSAMHSGCAHFVLELLT  
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SRSQVDILKQNFSTMPSSSQGTLRAISAKLAVILAREMLSASPEGDRCRT  
LFSSTLQWSCPDI'STIKAVVOLAWASSCGNLQALGNSSGDFEDEVIVPDG  
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QVASEQLFLASTY'CAGDRRPFVYMVNLLVGALKTLVPQYESTCAEFFSVL  
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RKNYHVVILKHVQAI'FAHLGHSALQYYVPRGLWTHFKLLGEPVNLREQQD  
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VKKLPVLAIQ'LRFEYDYERVCAIKFNDYFEP'PRILDMEPYTVSGLAKL  
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NITRHSIAVEWLQ'GELDRQ'RGIGCOYNSYSWSPPAQSN'DNTNGYMLERS  
QSAKNTWSMAFELCPDEVSEKT'DENNEPNLETNMDENKSEPVAQPGGVLE  
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GSTSGGSAPT'ALSALTTAGSGANSETESSAQ'ETTGETTINGL'TNSLDQMEI  
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CG1945

**CG32479**

MASTSSSASTTAGSSGAAGGGAATPISTPSTPQPSGVSSGPGNNGNNNNN  
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DYHGPRHLQOQQLITLPPQOQLPPPDPGANPGLQLQPDQIGQQLAPPEAHM  
QHLOQYAAAPPTYAYGPYSPYFPTQHANVQPPNATAAQATGTPLFIS  
GPLMYNPAWFNHGGYIYPMHPAEYQYVPELAGQPGVDERGAQPDGGMTO  
IWHQGPYAEDEFALQOQOQOQOQVAVHPNGGAVSVADELNHNSSSLPSSE  
TSSMISPNIPIYDPQMHMQHMGMQIFDDGQMAALQPIHPGAGPLPQY  
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QAAHQNSYHDQHPLPQOQOPOQOQOPORPKPSOQYNQAQOQOQVRRKYSSE  
YNHHHHQHGSSTGTGIQTTKTMSWTNSAQHKKSTQSVSVTASPNSVNNNGPG  
VGAAGKANYSHTTKFTFTNQOQHYQOQHYHTQNSYNNNSSGGGSSSNSSSSS  
SNNQPOVRNYGTMKMPSSPVAWTAPTPERKNSQAAAAAPAAATASAAPVA  
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VKTPVTNAMMSFMTNFSSLSGLRLRLNLLNKGSKGKDDFVGSDLQCD  
MAFEPTEIYKLWNSREEHVEGRQEDAEFLGYVLNKLNDMELVIKLI  
KPTPQONGQEPAPEDGGDVWQMICNNRNKGSVTRQTDGRTPVSDIFRG  
ELRSRLQREGESTDVIQPFFTLQLNIEKAASVKEALEILVGRDQLEGVT  
GSKTKQEVVAWQOMTLEKLPVVLILHLKYFDYRSDGCTKILKKVDFPVEL  
KIDAKILGSKKTSQKQRAYRLFVAVYHDGKEASKGHYITDVFHTGYSSWL  
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**CG4166**

MSETGCRHYQSIVKEHSYDTRVIDAYFAACVNRDARERKAIHCNCFECG  
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PNQITIGLRGLLNLGATCFMNCIVQALVHTPLLSDYFMSDRHDCGSKSSHK  
CLVCEVSRLFQEFYSGSRSPSLHRLHLIWNHAKHLAGYEQODAHEFFI  
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IFTGMLQSDVVCQACNGVSTTYDPFWDISLDLGETTTHGGVTPKTLIDCL  
ERYTRAHGLGSAKIKCSTCKSYQESTKQFSLRTLPSVVSFHLKRFEHSA  
LIDRKISSFIQFPVEFDMTPFMSEKKNAYGDFRFSLYAVVNHVGTIDTGH  
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**CG8232**

MDYVYCGTDPIGASEDILSVYDAGSAPGNHGFSPSFNGFNIGTTDPEYVE  
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VHATDIVRDI STLDSGVLALTQ TSLRHQIRRGLPKFTFKSNMKEMVSML  
QLSPHRLVMAGLQDELIDFLRLTKETRIEHVGAGGCTVLRKNSRYLFIG  
DQLGTVTLRDLNLSVQHTIKTHTNILSDFSVQGNLLISCGYSGRQNNLA  
IDRFLMVYDLRMLRLI APIQVMIDPQMLKFLPSLTSQLAVVSSYGQVQLV  
DTVELSEPRVSMYQINTNGSQCLSFDISSSSQAMAFGDQSGHINMIAAVQ  
TPQPQFNLYSRSTEFADVVPQLPMVSITDTNFP LSSVMLPHLTTGTQWFS  
DWPEELLRYRYHRPKTIDPEVLSNMKMOGPIGYSPNPRRTARRNQIPYVIE  
QGGVCSPNGNGTAAATKAENGVKII PRRYRKVELKYTKLGTQDFDFDQHN  
QTCFAGLEATLPNSYCNAMLQILYFTDALRVKLLHSCIKEFCLSCELGF  
LFNMLDKSTASSPCQASNFLRSFRTPVPEASALGLILTDRSSNVNLISLIQ  
NWNRFILHQMHYEIFDSSKNASTYSGSVQTSSTNAENAGSSETSGSSDLYD  
SISDENSKEDDRERSKINAETDISKIFGTKQICINRCIKCQEEKIKESIL  
LACNLSYPNHIKSDSDQYFNFGTILKRSLSSSEKSIQAF CERCCKKFSPTNQS  
VKVTS LQPILSINCGLNNEKDITFLKRQLNRCSEKTTVDAAASLSTSKPC  
RYGANCSRSDCHFMPDRKSPSHTSQPNAVNNSPNGRQKSWFPLTFTMGI  
NDQGEVQVQTSQSDASSGKSEQEEETEKPPTKGLDNNRMYALHAVVCQVDD  
GTQKNLVSLINVQRPYHTMKLAESADDPQSQWYIFNDFSISPVSPOESVW  
FTLDWKVPCILFYRHVEDDSESASTTSSTVTESEETIPSESSSGSPTNLS  
NPFLEEIVSPMLGNLSADATLQPLQSDEMPQSGDLVAMDAEFVTLNPEEN  
EIRPDGKTATIKPCHMSVARISCIRGQGAEGVPMDDYISTQEKVVDYL  
TQFSGIKPGDL DANF SKRRLTALKYSYQKLKYLVDVGVI FVGHGLKNDFR  
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CG2904

MIKFRYKRKEPTNVVGVAAPTAGAAALGSGASSTPGTSPTSPVSVVPVQ  
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LAKVASSVELAVMGYNSTGNNGNSNGHINSAGNSERDRGINAVIELFQQLQ  
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PDDGDSCESSACIAHRRFAMRVIEQSVCKCGANSEQLPFTQMVHYVSASA  
LTSQKSLALQSHQQLSFGQLLRAAGNMGDIRDCPNTCGAKIGICRALLNR  
PEVVSIGIVWDSERPAADQVHAVLKAVGTSLRLGDVVFHQVSEPRWAQQQTQ  
HELVGIVSYYGKHYTTFFFHTKLKVVVYFDDANVKEVGPSEWEGVVDKCSR  
GRYQPLLLLYAVPQQPTVGNVGVIGHVDVAMPASAPSIAGSVVRRAVTPS  
PEKPSLGNTRRAITPTPLRTPNDYQNLQSVIQKNIFPSNLAMGTDETDAY  
ISRKTVEHVLSAQYQNLQSVIQDKIGGGNGVGVGQQSVDKDGGFLSRKPIE  
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RRDSGNWSGDRNSASSASSTLDNPYLYMVAKRGVAAVPOSPTRHGLPYD  
PGYDSFSLSSSTDSYPPKHALNPQLAKIPEAAMGVVPPNGGAMPHGHGNGQL  
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YSNPHTMTFARMKHNTCVMRARS LHRRILVEKGAETEAMPELKHMRGREGST  
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QALEAASKQQRQQLSLEGTTSILAQLQQRQHLLKLRKEQANHPGAATD  
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LSQPQGSQQLGQLRTQMNGLPNGNAKMDVDEVDAMPVRNSLPAALSAHQ  
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**CG12743**

MDMQVQRPITSGSRQAPDPYDQYLESRGLYRKHTARDASSLFRVIAEQMY  
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EYIERAAICQSIQAFKLLYQKLFKLPDVSFAVEIMLHPHTFNWDRFNVEFD  
DKGYMVRIHCTDGRVFKLDLPGDTNCILENYKLCNFHSTNGNQ SINARKG  
GRLEIKNQEERKASGSSGHEPNDLLPMCPNRLESCVRQLLDDGISPFYK  
VAKSMDPYMYRNIEFDCWNDMRKEAKLYNVYINDYNFKVGAACKVELPNE  
TEMYTCHVQONISKDKNYCHVFFVERIGKEIVVPYESLHPLPPDEYRPSLP  
FRYHRQMPRLPLPKYAGKANKSSKWKKNKLFEMDQYFEHSKCDLMPYMPV  
DNCYQGVHIQDDEQRDNDPEQNDQNPTEQRDREEPQAQKQHQRTKASR  
VQPONSSSSQNOEVSQSAAPPPTQYMNYPVMI PSRPGHLPPPWPASPMAI  
AEEFPFPI SGTPHPPPTEGCVYMPFGGYGPPPPGAVALSGPHPFMPLPSP  
PLNVTGIGEP RRS LHPNGEDLPVDMVTLRYFYNMGVDLHWRMSHHTPDE  
LGMFGYHQONNTDQQAGRTVVIGATEDNLTAVESTPPPSPEVANATEQSP  
LEKSAYAKRNLNSVKVRGKRPEQLQDIKDSLGPAAFLPTPTPSPSSNGSQ  
FSFYTTSPPHHLITPPRLLQPPPPPIFYHKAGPPQLGGAAQGOTPYAW  
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RHH

**CG14884**

MDSDAAQKTWELENNIQTLPSCDEIFRYDAEQQRQIIDAKPWEKDPHFFK  
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ETRVNAQAQAYEYMTAYMEAAKEVGRMEHAVGWYHSHPGYGCWLSGIDVS  
TQMLNQTYQEPFVAIVVDPVRTVSAGKVCLGAFRTYPKGYKPPNEEPSEY  
QTIPLNKIEDFGVHCKQYYPLEISYFKSALDRLLDSLWNKYWVNTLGSS  
GLLTNTEYTTGQIMDLSEKLEQSENFLGRGTDVNEKRSEDKLSKATRDCS  
RSTIELIHGLMAQIVKDKLFNKVGLGK

**CG9124**

MANRANRHAARTEDSDNTINYVQCDGLAVMKMKHCHEESSNMDLAQ GAL  
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YQSSDVGNLSMALLESOYHYQTSIEESVVVYDQKSSRGFLCCKAYRL  
TPQAIQMYKDGDFTPFAFRTLKVGYENLFAEIPIVIKNSPLTNIMMSELN  
ELLPEDKGNFLDLGTATVLENQMRSLIERVDELYQEAVRYNKYQQVVF  
QDTEKHRALAKLAAENAVRTSKGEPTVPEEEVIKQFRPMTAPNRLTATIT  
SGQINTHAQHIAQFCSQSLAKLFITESLQIAKEAKETK

CG8877

MSIPPYMI PQNAWAAQLMAQQAYAAAHAQQAQLHAQQOMANQIQOIPPPG  
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IAQWGTWIMMRREKRDRRHFKRMRFPFDDDEEPLDYADNVLDVEPLEA  
IQIELDNEDNAVYKWFYDHRPLVDTQFVNGTTYRKWNLSLPQLATLYRL  
ANQLLTDLVDNFFYLFDPKSFFTAKALNMAIPGGPKFEPLIKDHNVDGE  
DWNFEFNDINKVIIRQPIRTEYRIAFPYLYNNMPHFVHLSWYHTPNVVYIK  
TEDPDLPAFYFDPLINPISHRNANSKIQEPLPDDDEDFTLPDDVQPFLOD  
TPLYTDNTANGIALWAPRPFNMRSGRSRAIDVPLVKCWYKEHCPPGHP  
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HDIVDMMEGKIQONKARTILOHLSEAWRCWKANIPWKVPGLPPIPIENMIL  
RYVKMKADWWTNTAHYNRERIRRGATVDKTVCKKNLGRLTRLYLKAEQER  
QHNYLKDGPYISPEEAVAIYTTTVHWLESRRFAPIPFPPLSYKHDTKLLI  
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EFKQYQVLKQNPFWWTHQRHDGKLNWLNNYRTDMIQALGGVEGILEHTLF  
KGYFFPTWEGLFWEKASGFEE SMK YKLTNAQRSGLNQIPNRRFTLWWS  
TINRANVYVGFQVQDLTGIFMHGKIPTLKISLIQIFRAHLWQKI HESIV  
MDLCQVFDQELDALEIETVQKETIHPKSYKMNSSCADILLFPAYKWNVS  
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NMSIYPSPTGVLIAIDLAYNLHSAYGNWFPGCKTLIQOAMAKIMKANPAL  
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LPFQACLKVEKFGDLILKATEPQMVLFNLYDDWLKTISSYTAFSRLILIL  
RALHVNTERTKIILKPKDTTITEAHHIWPTLTDEEWIKVEVQLKDLILAD  
YGKKNVNVASLTQSEIRDIILGMEISAPSAQRQOIAEIEKQTKEQNQLT  
ATTTTRTNKHGDEIITSTTSNYETQTFSSKTEWRVRAISATNLHLRTNHI  
YVSSDDIKETGYTYILPKNILKKFVTISDLRAQIAGYLYGVSPDPNPQVK  
EIRCIVMPPQWGTHQ TINLPNTLPTHQYLKDMEPLGWIHTQPNELPQLSP  
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CG4751

MENGVEHGVDES GENQVLSSSDGEGDCDGDGEVEGEVLQPPPPPPLQITN  
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LGQKFVGDLLADGKIKSHETETIFLTPSAWAMHCKRIINPDK KSGCGWAS  
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QDQLLLV GWYHSHPKFQAEPTLRDCDAQLDYQIKMRGASDLTYTPCVSLI  
ISPYDENPTLESVVKCIWIVPPNENRQSMEYGRPMLMQYSVLPDKEIPE  
EVRSEIQLCVDYYSQYRSEMVKFRNIYNNDV TYNEKLNKNTLYPKFPSKQS  
DKALWNWICAVLDCEQEDDFIPPKTIKIIDNDDLEVKEEDKPVV LMDLSG  
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