

>DP01589|P9WJA9#1-18 #19-33 #34-54 #150-162
MTDMNPDIKEKDQTSDEVTETSVFRADFLSELDAPAQAQAGTESAVSGVEGLPPGSALLVVKR
GPNAGSRFLLDQAITSAAGRHPDSDFLDDVTSRRHAEFRLENNEFNVVDVGSNLNGTYVNREP
VDSAFLANGDEVQIGKFRLVFLTGPQKQGEDDGSTGGP
>DP00748|P46108#121-133 #192-223 #224-237 #238-293
MAGNFDEERSSWYWGRLSRQEAVALLQGQRHGVFLVRDSSTSPGDYVLSVSENSRVSHYII
NSSGPRPPVPPSPAQPQPGVSPSRLRIGDQEFDSPALLEFYKIHYLTTLIEPVRSRSRQGSGVI
LRQEEAEYVRALFDFNGNDEEDLPFKKGDLRIRDKPEEQWWNAEDSEKGKRMIPVPYVEKY
RPASASVSALIGGNQEGSHPQPLGGPEPGPYAQPSVNTPLPNLQNGPIYARVIQKRVPNAYDK
TALALEVGEVKVTKINVSGQWECECNGKRGHFPTHVRLLDQQNPDEDFS
>DP00900|Q04660#535-570
MMAKNNKTTEAKMSKKRAASEESDVEEDEDKLLSVGLIDAEEAESDEDDDEYESAVEEKE
SSSDKEAQDDSDDDSDAELNKLLAEEEYGDEEDYDSSEFSDDTSLTDRLSGVKLQTIVDPNI
YSKYADGSDRIIKPEINPVYDSDDSDAETQNTIGNIPLSAYDEMPHIGYDINGKrimrPAKGS
LDQLLSDIELPEGWTGLLDKNSGSSLNLTKEELELISKIQRNEQTDDINSNPYEPLIDWFTRHEEV
MPLTAVPEPKRRFVPSKNEAKRVMKIVRAIREGRIIPPKKLKEMKEKEKIENYQYDLWGDSTE
TNDHVMHLRAPKLPPPTNEESYNPPEEYLLSPEEKEAWENTEYSERERNFIPQKYSALRKVPG
YGESIRERFERSLDLYLAPRVRKNKLNIDPNNSLIPELPPSPKDLRPFIRCSTIYAGHKGKVRTLSI
DPSGLWLATGSDDGTVRVWEILTGREVYRTTLIDDEENPDYHIECIEWNPDAANNGILAVAVG
ENIHLIVPPIFGYDIENNGTKIEDGFGYDTFGTVKKSLEVNEENGDDGEDGENESAKNAVKK
QVAQWNKPSQKQLEKDICITISCKTVKKLSWRKGDYFVTVQPDSGNTSVLIHQVSKHLTQ
SPFKSKGIIMDAKFHPFKPQLFVCSQRVRYDLSQQILVKKLLPGARWLSKIDIHPRGDNL
ASSFDKRVLWHDDLALSTPYKTLRYHEKA VRSVNFKKLPLFSSAADDGTIHVFATVYDD
MMKNPMIVPLKKLTGHKVINSGLVLDIWHPREAWLFSAGADNTARLWTT
>DP00764|O89467#6-25 #45-78
MLNLADRRIPGTAEENLQKSSGGVPGQNTGGQEARPANYHCQLCFLRSLGIDYLDASLRKKNK
QRLKAIQQGRQPQYLL
>DP01336|P03709#42-80
MTKDELIARLRLSLGEQLNRDVSLTGTKEELALRVAELKEELDDTDEAGQDTPLSRENVLTG
HENEVGSAQPDVTILDSELVTVALVKLHTDALHATRDEPVAFVLPGTAFRVSAGVAAEMT
ERGLARMQ
>DP01861|P01042#438-531
MKLITILFLCSRLLLSLTQESQSEEIDCNDKDLFKAVDAALKYNSQNQSNNQFVLYRITEATK
TVGSDTFYSFKYEIKEGDCPVQSGKTWQDCEYKDAAKAATGECTATVGKRSSTKFSVATQT
CQITPAEGPVVTAQYDCLGCVHPISTQSPDLEPILRHGIQYFNNNTQHSSLFMLNEVKRAQRQ
VVAGLNFRITYSIVQTNCSKENFLFTPDCKSLWNGDTGECTDNAYIDIQLRIASFQNCIDIYP
GKDFVQPPPTKICVGCPDIPTNSPELEETLTHTITKLNAENNATFYFKIDNVKKARVQVVAGK
KYFIDFVARETCSKESNEELTESCETKLGQSLDCNAEVYVVPWEKKIYPTVNCQPLGMISL
MKRPPGFSPFRSSRIGEIKEETTVSPPHTSMAPAQDEERDSGKEQGHTRRHGWGHEKQRKHN
LGHGHKHERDQGHGHQRGHGLGHGHEQQHGLGHFKLDDLEHQGGHVLDHGHKHK
HGHGHGKHKNKGKNGKHNGWKTEHLASSSEDSTTPSAQTQEKTGPTPIPLAKPGVTVTF
SDFQDSLIA(TMMPPI)PAPIQSDDDWIPDIQIDPNGLSFNPISDFPDTTSPKCPGRPWSVSEIN
PTTQMKEYYFDLTDGLS
>DP01095|Q9BP38#25-54
MTWMKMFYLTIAVTAVLLVTVAADDDEDASSGLCNQYNQNVTTRPNNPKMFLRKNI
NFEIISVHNIWRDPNTVYWCDFSLEEEDGIKHWRHYDFNATHWWVEKGCSGTVVVEECNTK
DITNPGPRSTAGKSPMQGTLAAPKPVANWMSIMSRSRFDMGTWDKEGFNML

>DP01701|Q5VZK9|#1005-1020

MTEESSDVPRELIESIKDVIGRKIKISVKKVKLEVKGDKVENKVLVLTCRAFLVTARIPTKL
ELTFSYLEIHGVVCSKSAQMIVETEKCSIMKMASPEDVSEVLAHIGTCLRKIFPGLSPVRIMK
KVSMEPSERLASLQALWDSQTVAEQGPCGGFSQMYACVCDWLGFSYREEVQWDVDVTIYL
QDTRELNQDFSHLDHRDLIPPIAALEYQNQWFTKLSSKDLKLSTDVCEQILRVVSRSNRLEELV
LENAGLRTDFAQKLASALAHNPNSGLHTINLAGNPLEDRGVSSLSIQFAKLPGKGLKHLNLSKT
SLSPKGVNLSQSLSANPLTASTLVHLDLSGNVRGDDLSHMYNFLAQPNAAVHLDLSNTECS
LDMVCGALLRGCLQYLAVLNLSRTVFSHRKGEVPPSFQFFFSSALMHINLSGTKLSPPEPL
KALLLGLACNHNLKGVSLLDNCELRSGGAAQVLEG CIAEIHNTSLSIDSNGLESDLSTLIVWL
SKNRSIQHLALGKNFNNMKSKNLTPVLDNLVQMIQDEESPLQLSLADSKLKTEVTIIINALGS
NTSLTKVDISNGMGDMGAKMLAKALQINTKLRTVIWDKNNITAQGFQDIAVAMEKNYTLR
FMPPIPMDASQALKTNPEKTEDALQKIENYLLRNHETRKYLQEQQYRLQQGIVTSTTQQMID
RICVKVQDHLSRNCGGDAIQEDLKSAERLMRDAKNSKTLPLNLYHVGGASWAGASGLLS
SPIQETLESIMAGEVTRVVDEQLKALLESMVDAEENLCPNVMKKAHIRQDLIHASTEKISIPRT
FVKNVLLEQSGIDILNKISEVKLTVASFLSDRIVDEILDALSHCHHKLADHFSRRGKLPQQES
LEIELAEEKPVKRSIIUTVEELTEIERLEDLDTCMMPKSKRKSISRSRMLPVSRAFEMEFDLDK
ALEEVPIHIEDPPFPSLRQEKRSSGFISELPSEEKKLEHFTKLRLPKRNKKQOPTQAACVAA
SQDGEQNGLMGRVDEGVDEFITKKVTKMDSKWSTRGSESHELNEGGDEKKRDSRKSSG
FLNLIKSRSKSERPPTILMTEEPSSPKGAVRSPPVDCPRKD TAAEHNGN SERIEEIKTPDSFEES
QGEEIGKVERSDSKSSPQAGRRYGVQVMGSGLLAEMKAKQEKAACAAQKKLGNDAVSQDS
SSPALSGVERSDGGGAVPKLHPGLPENRFGLGTPEKNTKAEPKAEAGSRSRSSSSTPTSPKPLL
QSPKPSLAARPVIPQKPRTA SRPDDIPDSPSSPKVALLPPVLKKVPSDKERDGQSSPQSPRTFS
QEVSRRSWGQQAQEYQEQQKQRSSSKDGHQGSKSNDSGEEAEKEFIFV

>DP00092|Q08209|#1-13 #373-521

MSEPKAIDPKLSTTDVVKA VPFPPSHRLTAKEVFDNDGKPRVDILKAHLMKEGRLEESVAL
RIITEGASILRQEKNLLDIDAPVTVCVDIHGQFFDLMKLFEVGGSPANTRYLFLG DYVDRGYFS
IECVLYLWALKILYPKTLFLRGHECRHLTEYFTFKQECKIKYSERVYDACMDAFDCLPLAA
LMNQQFLCVHGGLSPEINTLDDRKFKEPPAYGPMCDILWSDPLEDFGNEKTQEHTFHNT
VRGCSYFYSYPAVCEFLQHNLLSILRAHEAQDAGYRMYRKSQTTGFPSLITIFSAPNYLDVY
NNKA AVLKYENNVMNIRQFNCSHPYWLPNFMDVFTWSLPFVGKVT EMLVNWLNICSDDE
LGSEEDGFDGATAARKEVIRNKIRAI GKM ARVFSV LREESE SVTLKGLPTGMPSGVLSG
GKQLQSATVEAIEADEAIKGFS PQHKITSFEEAKGLDRINERMP PRRDAMPSDANLNSINKAL
TSETNGTDSNGSNSSNIQ

>DP01239|P20591|#438-447 #532-572

MVVSEVDIAKADPAAASHPLLNGDATVAQKNPGSVAENNLC SQYE EKVRPCIDLDSL RAL
GVEQDLALPAIAVGDQSSGKSSVLEALSGVALPRGSGIVTRCPLVLKLKLVNEDKWRGKV
SYQDYIEISDA SEVEKEINKAQN AIGEGMGISH ELITTLEISSRDVPDLTLIDLPGITRVAVGNQ
PADIGYKIKTLIKKYIQRQETISL VVVPSNVDIATTEALSMAQEV DPEGDRTIGILT KPD LV DKG
TEDKVV DVVRNLVFHLKKGYMIVKCRGQ QEIQDQLSLSEALQREKIFFENHPYFRDLLEEGK
ATVPC LAEKL TSELITHICKSLPLLENQIKETHQRITEELQKYGV DIPEDENEKMF FLIDKVNAF
NQDITALMQGEETVGEEDIRLFTRLRHEFHKWSTIENN FQEGHKILSRKIQKFENQYRGRELP
GFVN YRTFETIVKQQIKALEEPAV DMLHTV DMVRLAFTDVSIK NFEFFNLHRTAKSKIEDIR
AEQERE GEKLIRLHFQMEQIVYCQDQVYRGALQKVREKELEEEKKK SWDFGAFQSSSATDS
SMEEIFQHLMAYHQEASKRIS SHIPLI IQFFMLQTYGQQQLQKAMLQLQDKDTYSWLLKERSD
TSDKRKFLKERLARLTQARRRLAQFPG

>DP01385|P0CU48|#1-227

MSGRN VESHMERNEKV VVNNSGHADV KKQQQVEHTEFTHTEVKAPLIHPAPPIISTGAAGL

AAEIVGQGFTASAARISGGTAEVHLQPSAAMTEEARRDQERYRQEESIAKQQEREMEKTE
AYRKTAEAEAEKIRKELEKQHARDVEFRKDLIESTIDRQKREV DLEAKMAKRELDREGQLAK
EALERSRLATNVEVNFDSAAGHTVSGGTTVSTSDKMEIKRN

>DP00448|Q9Y613|#1104-116

MAGGEDRGDGEPEVS VTVRVQYLED TDPFACANFPEP RAPTC SLD GALPLGAQIPAVH RLL
GAPLKLED CALQVSPSGYYLDTELSLEE QREM LEGFYEEISKGRKPTLILRTQLSVRVNAILEK
LYSSSGPELRRSLFSLKQIFQEDKDLVPEF VHSEGLSCLIRVGAAADHNYQSYILRALGQLMLF
VDGMLGVVAHS DTIQWL YTLCASLSRLVVKTALK L VFVEY SENNAPLFIRA VNSVASTTG
APPWANLVSILEEKNGADPELLVYT VTLINK TLA ALPDQDSFYDVTDALEQQGMEALVQRHL
GTAGTDVDLRTQLVLYENALKLED GDIEEAPGAGGRRERRKPSSEEGKRSRRSLEGGC PAR
APEPGPTGPASPVGPTSSTGPALLTGPASSPVGPPSGLQASVNLFPTISVAPSADTS SERSIYKAR
FLENVAAAETEKQVALAQGRAETLAGAMPNEAGGH P D ARQLWDSPETAPAARTPQSPAPCV
LLRAQRSLA PEP K EPLIP ASPKA EPI WELP TRAP RLSIGD LDFSDL GEDEDQDMLN VESVEAGK
DIPAPSPPLPLL SGVPPPPP L P PPPPIKGPF PPPPLA APLPHSVPDSSALPTKRKTVKLFWREL
KLAGGHGVSA SRFGPCATLWASLDPV SVD TAR LEH LFESRAKEVLP SKKAGEGR RTMTTVL
DPKRSNAINIGL TLPPV HVIKA ALLNFDEFAVSKDGIEKLLTMMPTEEERQKIEEAQ LANPDI
PLGPAENFLMTLASIGGLAARLQLWAFKLDYDSMEREIAEPLFDLKVGMEQLVQNATFRCIL
ATLLAVGNFLNGSQSSGFELSYLEKVSEVKDTVRRQSLHHLC S LVLQTRP ESSDLYSEIPALT
RCAKVD FEQLTENLGQLERRSRAAEESLRSLAKHE LAPALRARLTHFLDQCARRVAML RIVH
RRVCNRFHAFLLYLGYTPQAAREVRIMQFC HTLREFALEYRTCRERVLQQQKQATYRERN
KTRGRMITETEKFSGVAGEAPS NPSVP AVSSGPG RDADSH ASMKSL TS R PEDTTHNRRSR
GMVQSSSPIMPTVGP STASPEEPPGSSLPSDT SDEIM DLLVQS VTKSS PRAL AARERKRSRG NR
KSLRRTL KSGL GDDL VQAL GLSKGP GLEV

>DP00301|P0ABQ4#9-24 #63-72 #116-132 #142-150

MISLIAALAVDRVIGMENAMPWNL PADLAWFKRNTLNKP VIMGRHTWESIGRPLPGRK NIILS
SQPGTDDRVTVKSVDEAIAACGDVPEIMVIGG GRVYEQFLPKA QKLYLTHIDA EVEGD THF
PDYEPDDWESVFSE FHDADAQNSHSYCFEILERR

>DP01026|A5YV76#1975-1990 #2188-2212

MEEVVIAGMSGKLPESENLEEF WANLIGGVDMVTADD RWKAGLYGLPR RMGKLKDLSRF
DASFFGVHSKQANTMDPQLRMLLEV TYEAIVDGGINPASLRGTSTGVWVGVSSSDASEALSR
DPETLVGYSMIGCQRAMMANRLSFFFDFK GPSITIDTACSSLLALQSAYQAIRGGECSAAVV
GGLNVLLKPNSSLQFMKLGMLS QDGTCR SFDAEGTGYCRAEAVVAVLLTKSLARRV YATI
LNAGTNTDGSKEQGVTFPSGDVQEQLIRSLYAPAGPD PESLEYIEAHGTGT KVGDPQELNGIV
NALCATRREPLLIGSTS NM GHPEPASGVAALIKVLLSLEHGVWAPNLHYHTPNPEIPALQDG
RLQVVDRPLPIRGGNVGINSFGFGGSNVH VILQPNSRPAPPAQHAALP RLLQASGRTLEAVQ
TLEQGLRHSRDLAFVGMLNEIAAVSPVAMPFRGYAVLGGEAGSQEVQQVPGSKRPVWFICS
GMGAQWQGMGLSLMRLDRFRDSILRS DQALKPLGLRVSDLLSTDEAVLDDIVSSFVSLTSIQ
IALIDLLTSLGLQPDGIIGHSLGEVACGYADGCLTQEEAVLSSYWRGYCIKEANVLPGAMA AV
GLSWECKQRCPGP IV PACHNSKDTVTISGPQAAMSEFLQQLKREDVFVKEV RTGGIAFHSYF
MESIAP TLLRQLRKVILD PKPRSKRWLSTS IPEAQWQGSLARTFS AEY SVNNL VSPVLFQEALQ
HVP AHAVV VEIA PHALL QAVL KRSLESS C TIIPLM KKDH RDNLEFFLSNVGR LHAGV SVNP N
GLFPV EFPAPR GTPLISPHXKWDHSQAWD VPSAADF PGSSCS VAVYKF DVSPESP DHYLV
DH CIDGRVLFPGTGYLWTWKTLARALS QNLEETPV FEDV TLHQATILPKTGT VSVLE VRLL E
ASHAFEVSDSNGSLIASGK VYQWESPDPKLF DTRA AVDPADSTA EFR LSQGDVYKDLRLRGY
DYGPFFQLVLES DLEGNRGRLQWNDSWV SFLDAM LHM SILA PGQL GLYLPTRFTSIRIDPV TH
RQKLYTLQDTTQAADV VVDRNLNTV VAGG ALFLGAHSSVAPRRPQEHLKPILEKFCFTPHVE
SGCLAGNTALQEELQLC RGLA QALQT KVAQQGLKM VVPG LDGAQAP REAPQQSLP RLLAA

ACQLQLNGNLQLELGQVLAQERPLLCDDPLLSGLDAPALKACVDTALENMASPKMKVVEV
LAGDGQLYSRIPALLNTQPVMDDLDTATDRNPQALEAAQAKLEQLHVTQGQWDPANPAPGS
LGKADLLVCNCALATLGDPAAVGNMAATLKEGGFLLLHTLLAGHPLGEMVGFLTSPEQGG
RHLLSQDQWESLFAGASLHLVALKRSFYGSVFLCRQQTPQDSPVFLSVEDTSFRWVDSDLKI
LADASSRPVWLMAVGCSTSGVGMVNCLRKEPGGHRIRCVLVSNLSSTSPAEMHPSSSELQ
KVLQGDLVMNVYRDGAWGAFRHFPLEQDRPEKQTEHAFVNVLSRGDLSIRWVCSPHYAL
PASCQDRLCSVYYTSLNFRDVMLATGKLSPDSIPGKWLTTRDCMLGMEFSGRDASGRVMGM
VPAEGLATSVLLLQHATWEVPSTWTLEEAASPIVYTAYYSLVVRGRMQPGESVLIHSGSG
GVGQAAIAIALSRGCRVFTTVGSAEKRAYLQARFPQLDETCFANSRDTSFHQVLRHTAGKG
VDLVLSLAEKLQASVRCLAQHGRFLEIGKFDSLNNHALGMAVFLKNVTFHGILLDLSLFE
GGATWQEVSSELLKAGIQEJVQPLKCTVFPRTKVEAAFRYMAQGKHIGKVVIQVREEEQGP
APRGLPPIALTGLSKTFCPHKSYVITGGLGGFLQLAQWLRLRGAQKLVLSRSGIRTGYQA
RQVREWRRQGVQVLVSTSNASSLGARSLITEATQLGPVGGVFNLMVLRAVLENQTPEFF
QDVSKPKYSGTANLDRVTRACPELDYFVIFSSVSCGRGNAGQANYGFANSAMERICEKRRH
DGLPGLAVQWGAIGDGVVLETMGTNDTVIGGTLPQRIASCLEVLDLFLSQPHPVLSSFVLA
KKAAPRDGSSQKDLVKAVAHILGIRDVASINPDSTLVDLGLDSLMGVEVRQILEREHDLVLS
MREVRLQLRKLQELSSKTSTDADPATPTSHEDSPVRQQATLNLLTNPEGPTLTRLNSVQ
SAERPLFLVHPIEGSITVHGGLAAKLSIPTYGLQCTGAAPLDSIQSLASYYIECIRVQPEGPYRI
AGYSYGACVAFEMCSQLQAQQSATPGNHSFLFDGSHTFVLAYTQSVRAKMTPGCEAEAEA
KAMYFFVQQFTDMEQGKVLEALIPLQLEARVAATVDLITQSHAGLDRHALSFAARSFYQKL
RAAENYWPQATYHGNVTLLRAKTGGAYGEDLGADYNLSQVCDGKVSVHIEGDHRTLLEG
SGLESILSIIHSCLAEPRVSVREG

>DP00583|P16006|#63-83

MKASTVLIQIAYLVSQESKCCSWKVGAVIEKNGRIISTGYNGSPAGGVNCCDYAAEQGWLLN
KPKHAIQGHKPECVSGSTDRFVLAKEHRSAHSEWSSKNEIHAELNAILFAARNGSSIEGATM
YVTLSPCPDCAKAIAQSGIKKLVYCETYDKNKPGWDDILRNAGIEVFNPKKNLNKLNWENI
NEFCGE

>DP02011|P32684|#253-290

MLPDSSVRLNKYISESGICSRREADYIEQGNVFLNGKRATIGDQVKPGDVVKVNGQLIEPRE
AEDLVLIALNKPVGIVSTTEDGERDNIVDFVNHSKRVFPIGRLDKDSQGLIFLTNHGDLVNKIL
RAGNDHEKEYLTVVDKPITEFIRGMSAGVPILGTVKKCKVKKEAPFVFRITLVQGLNRQIR
RMCEHFGYEVKKLERTRIMNVSLSGIPLGEWRDLTDDELIDLFKLIENSSEVKPKAKAKPKT
AGIKRPVVKMEKTAEKGGGRPASNGKRTSPGRKKKGR

>DP01735|P80644|#173-191

MRVITLAGSPRFPSRSSLLEYAREKLNGLDVEVYHWNLQNFAPEDELLYARFDSPALKTFTEQ
LQQADGLIVATPVYKAAYSGALKTLLDLLPERALQGKVVLPLATGGTVAHLLAVDYALKPV
LSALKAQEILHGVFADDSQVIDYHHRPQFTPNLQTRLDTAETFWQALHRRDVQVPDLLSLR
GNAHA

>DP00678|P11171|#800-864

MTTEKSLVTEAENSQHQKKEEGEEAINSGQQEPQQEESCQTAEGDNWCEQKLKASNGDTP
THEDLTKNKERTSESRGSLRFLSSFLKRPKSQVSEEEGKEVESDKEKGEGGQKEIEFGTSLDEE
IILKAPIAAPPEPELKTDPSLDLHSLSAETQPAQEELREDPDFEIKEGEGLEECSKIEVKEESPQS
KAETELKASQKPIRKHRNMHCKVSLLDDTVYECVVEKHAKGQDLLKRVCEHNLLEEDYFG
LAIWDNATSktWLDSAKEIKKQVRGVPWNFTFNKFYPPDPAQLTEDITYYLCLQLRQDIV
AGRLPCSFATLALLGSYTIQSELGDYDPELHGVDYVSDFKLAPNQTKELEEKVMELHKSYS
MTPAQADLEFLENACKLMSYGVDLHKAKDLEGVDIILGVCSSGLLVYKDCLRINRFPWPKVL
KISYKRSSFFIKIRPGEQEYESTIGFKLPSYRAAKKLWKVCVEHHTFFRLTSTDTPKSKFLAL

GSKFRYSGRTQAQTRQASALIDRPAPHFERTASKRASRSLDGAAAVDSADRSRPTSAPAITQ
GQVAEGGVLDASAKKTVPKAQKETVKAEVKKEDEPPEQAEPEPTEAWKVEKTHIEVTVP
SNGDQTQKLAEKTEDLIRMRKKRERLDGENIYIRHSNLMLEDDKSQEEIKHHASISELKK
NFMESVPEPRPSEWDKRLSTHSPFRTLNINGQIPTGEPPVLTQTVTISDNANAVKSEIPTKD
VPIVHTETKTITYEAAQTDNSGDLDPGVLLTAQITSETPSSTTTQITKTVKGGSSETRIEKRI
VITGDADIDHDQVLVQAIKEAKEQHPDMSVTKVVHQETEIAD

>DP01996|Q07009|#245-260 #292-321 #437-459 #527-536

MAGIAMKLAKDREAAEGLGSHERAIKYLNQDYETLRNECLEAGALFQDPSFPALPSSLGFKE
LGPYSSKTRGIEWKRPTEICADPQFIIGGATRTDICQGALGDCWLLAAIASLTNEEILARVVPL
DQSFQENYAGIFHFQFWQYGEWVEVVVDDRPLPTKDGELLFVHSAEGSEFWSALLEKAYAKI
NGCYEALSGGATTEGFEDFTGGIAEWYELRKPPNLFKIIQKALEKGSLLGCSIDITSAADSEA
VTYQKLVKGHAYSVTGAEEVESSGSLQKLIRNPWGQVEWTGKWNDNCPSWNTVDPEVR
ANLTERQEDGEFWMSFSDFLRHYSRLEICNLTPDTLCDSYKKWKLTMDGNWRRGSTAGG
CRNYPNTFWMNQPQLIKLEEDEDDEDGERGCTFLVGLIQKHRRRQRKMGEDMHTIGFGIYE
VPEELTGQTNIHLSKNFFLTRARERSDTFINLREVLNRFKLPPGEYVLVPSTFEHKNGDFCIR
VFSEKKADYQTVDDEIEANIEEANEEDIDGDFRRLFAQLAGEDAEISAFELQTLRRVLAKR
EDIKSDGFSIETCKIMVDMDEDGSGKGLKEFYILWTKIQKYQKIYREIDVDRSGTMNSYEM
RKALEEAGFKLPCQLHQVIVARFADDELIIDFDNFVRCLVRLEILFKIFKQLDPENTGTIQLDLI
SWLSFSVL

>DP02049|O74774#1-155 #204-259

MSRHRDVKNLDDDYELDEEPGEELTEEQEEFRSAVATVRETLLGVPISEKEIADTVWYY
YFDVEKSVNYLLQKASSKAGAKEKQNTDSQKEKKQNKSKEARADAKDPLDESSNGIKNLSL
NKNDEPAFQTNGEVKMKNSSESDNQPEKKIKKQNPQNTDLVSVPEIFEQSNSPKPVVHLVVTGH
VDSGKSTMLGRIMFELGEINSRSMQKLHNEAANSGKGSFSYAWLLDTTEERARGVTMDVA
STTFESDKKIYEIGDAPGHRDFISGMIAGASSADFAVLVVDSSQNNFERGLENGQTREHAYL
LRALGISEIVSVNKL禄MSWSEDRFQEIKNIVSDFLIKMVGFKTSNVHFVPISAISGTNLIQKD
SSDLYKWYKGPTLLSALDQLVPPEKPYRKPLRLSIDDVYRSPRSVTGRVEAGNVQVNQL
YDVSSQEDAYVKNVIRNSDPSSTWAAGDTVTLQLADIEVNQLRPGDILSNYENPVRRVRSF
VAEIQTFDIHGPILSGSTLVLHGRTVTSVSLKIVTVNNKRSRHIASRKRALVRISFLDGLFPLC
LAEECPALGRFILRRSGDVTAAAGIVKELC

>DP00557|Q00955|#2048-2080

MSEESLFESSPKMEYEITNYSERHTEPGHFIGLNTVDKLEESPLRDFVKSHGGHTVISKILIA
NNGLAAVKEIRSVRKWAYETFGDDRTVQFVAMATPEDLEANAЕYIRMADQYIEVPGGTNNN
NYANVDLIVDIAERADVDAWAGWGHASENPLLPEKLSQSKRKVIFIGPPGNAMRSLGDKIS
STIVAQSAKVPCIPWSGTGVDTVHVDEKTGLVSVDDDIYQKGCCCTSPEDGLQKAKRIGFPVMI
KASEGGGGKGIRQVEREEDFIALYHQAANEIPGSPIFIMKLAGRARHLEVQLLADQYGTNISLF
GRDCSVQRRHQKIIEEAPVTIKAETFHEMEKAAVRLGKLVGYVSAGTVEYLYSHDDGKFYF
LELNPLRQVEHPTTEMVSGVNLPAQLQIAMGIPMHRISDIRTLYGMNPHSASEIDFEFKTQD
ATKKQRRPIPKGHCTACRITSEDPNDFKPGSGTLHELNFRSSNVWGYFSVGNNGNIHSFSD
SQFGHIFAFGENRQASRKHMVALKELSIRGDFRTTVEYLKLLETEDFEDNTITTGWLDDLIT
HKMTAEKPDTLAVICGAATKAFLASEEARHKYIESLQKGQVLSKDLLQTMFPVDIHEGKR
YKFTVAKSGNDRTLFINGSKCDIILRQLSDGGLIAIGGKSHTIYWKEEVAATRLSVDSMTTL
LEVENDPTQLRTPSPGKLVKFLVENGEHIKGQPYAEIEVMKMQMPLVSQENGIVQLLKQPGS
TIVAGDIMAIMTLDPSKVKHALPFEGLPDFGSPVIEGTPKPAYFKSLVSTLENILKGYDNQ
VIMNASLQQLIEVLRNPKLPYSEWKLHISALHSRLPAKLDEQMEELVARSLRRGAVFPARQLS
KLIDMAVKNPEYNPDKLLGAVVEPLADIAHKYSNGLEAHEHSIFVHFLEYYEVEKLFNGPN
VREENIILKLRDENPKDLDKVALTVLSHSKVSAKNNLILAILKHYQPLCKLSSKVSIAFSTPLQ

HIVELESKATAKVALQAREILIQGALPSVKERTEQIEHILKSSVKVAYGSSNPKRSEPDNLILK
DLIDSNYVVFDVLLQFLTHQDPVTAAAAQVYIRRAYRAYTIGDIRVHEGVTVPIVEWKQL
PSAAFSTFPTVKSKGMNRAVSVDLSYVANSQSSPLREGILMAVDHLDVDDEILSQLEVIP
RHQSSSNGPAPDRSGSSASLSNVANCVASTEGFESEEILVRLREILDLNKQELINASIRRITF
MFGFKDGSYPKYYTFNGPNYNENETIRHIEPALAFQLELGRSLNFNIKPIFTDNRNIHVYEAVS
KTSPLDKRFTRGIIRTGHIRDDISIQEYLSEANRLMSDILDNLEVTDTNSDLNHIFINFIAVFD
ISPEDVEAAFGGLERFGKRLRLRVSSAEIRIIKDPQTGAPVPLRALINNVSGYVIKTEMYTE
VKNAKGEWVFKSLGKPGSMHLRPIATPYVKEWLQPKRYKAHLMGTTVYDFPELFRQASS
SQWKNFSADVAKLTDDFFISNELIEDENGELTEVEREPGANAIMVAFKITVKTPYPRGRQFV
VVANDITFKIGSFGPQEDEFFNKVTEYARKRGIPRIYLAANSGARIGMAEEIVPLFQVAWNDA
ANPDKGFAQYLYLTSEGMETLKKFDKENSVLTERTINGEERFVIKTIIGSEDGLGVECLRGSQL
IAGATSRAYHDIFTITLVTCRSGIGAYLVRGQRAIQVEGQPILTGAPAINKMLGREVYTSNL
QLGGTQIMYNNGVSHLTAVDDLADGVEKIVEWMSYVPAKRNMPPVILETKDTWDRPVDFPT
NDETYDVRWMIEGRETESGFYGLFDKGFFFETLSGWAKGVVVGRARLGGIPLGVIGVETRT
VENLIPADPANPNSAETLIQEPGVWHPNSAFKTAQAINDFNNGEQLPMMILANWRGFSGGQ
RDMFNEVLKYGSFIVDALVDYKQPIIYIPPTGELRGGSVVVDPTINADQMEMYADVNARA
GVLEPQGMVGIGKFRREKLLTMNRLLDKYRELRSQLSNKSLAPEVHQISKQLADRERELLPI
YQQISLQFADLHDRSSRMVAKGVISKELEWEARRFFFWRLRRRLNEEYLIKRLSHQVGEAS
RLEKARIARSWYPASVDHEDDRQVATWIEENYKTLDDKLKGLKLESFAQDLAKKIRSDHDNA
IDGLSEVIKMLSTDDEKEKLKTLK

>DP01563|Q9CXY6|#29-44 #347-390

MRGDRGRGRGGRFGSRGGPGGGFRPFVPHIPFDYLCEMAFTPVRKPAPPDETSFSEALLKRNQ
DLAPNSAEQASILSLVTKINNVIDNLIVAPGTFEVQIEEVQVGSYKKGTMTGHNVADLVI
LKILPTLEAVAALGNKVVESLRAQDPSEVLTMLTNETGFEISSLATVKILITVPPNLRKLDPE
LHLDIKVLQSLAAIRHARWFEENASQSTVKVLIRLLKDLRIRFCPEPLTPWILDLLGHYAV
MNNPTRQPLALNVAYRRCLQILAAGLFLPGSVGITDPCESGNFRVHTVMTLEQQDMVCYTA
QTLVRILSHGGFRKILGQEGDASYLASEISTWDGVIVTPSEKAYEKPPEKKEGEEEEENTEEPP
QGEEEEESMETQE

>DP00057|P15340|#1-62

MARYRRSRTRSRSRSPRSRRRRSGRRSPRRRRYGSARRSRRSVGGRRRYGSRRRRRRY

>DP02138|P63159|#73-99 #165-184 #184-214

MGKGDPKKPRGKMSSYAFFVQTCREEHKKHPDASVNFSEFSKKCSERWKTMSAKEKGKFE
DMAKADKARYEREMKTYIPPKGETKKFKDPNAPKRPPSAFFLFCSEYRPKIKGEHPGLSIGD
VAKKLGEMWNNTAADDKQPYEKKAALKYEKDIAYRAKGKPDAAKGVVKAESKSK
KKKEEDDEEDEEEEEEDEDEEEEDDE

>DP00089|P0ABJ1|#1-35 #113-124

MRLRKYNKSLGWSLFLAGTVLLSGCNSALLDPKGQIGLEQRSLILTAFLGMLIVVIPAILMAV
GFAWKYRASNKDAKYSPNWSHSNKVEAVVWTVPILIIIFLAVLTWKTTHALEPSKPLAHDEK
PITIEVVSMDWKWFFIYPEQGIATVNEIAFPANTPVYFKVTSNSVMNSFFPRLGSQIYAMAGM
QTRLHLIANEPGYTDGISASYSGPGFSGMKFKAIATPDRAAFDQWVAKAKQSPNTMSDMAAF
EKLAAPSEYNQVEYFSNVKPDLFADVINKFMAHGKSMDMTQPEGEHSAHEGMEGMDMSHA
ESAH

>DP01561|P08235|#1-169 #247-385

METKGYHSLPEGLDMERRWGQV р QAVERSSLGPTERTDENNYMEIVNVSCVSGAIPNNSTQ
GSSKEKQELLPCLOUDNNRPGILTSDIKTELESKELSATVAESMGLYMDSVRDADYSYEQQN
QQGSMSPAKEYQNVEQLVKFYKGNNGHRPSTLSCVNTPLRSFMSDSGSSVNGVMRAVVKSPI
MCHEKSPSVCSPNMTSSVCSPAGINSVSSTASFGSFVHSPITQGTPLTCSPNVENRGSRSHS

PAHASNVGSPLSSPLSMKSSISSPPSHCSVKSPVSSPNVTLSSVSSPANINNSRCVSSPSNT
NNRSTLSSPAASTVGSICSPVNNAFSYTASGTSAGSSTLRDVVPSPDTQEKGQAQEVFPKTEEV
ESAISNGVTGQLNIVQYIKPEPDGAFSSCLGGNSKINSDSSFSVPIKQESTKHSCSGTSFKGNPT
VNPFPMGDGSYFSFMDDKDYYSLSGILGPPVPGFDGNCEGSGFPVGIKQEPDDGSYYPEASIPS
SAIVGVNSGGQSFHYRIGAQGTISLSRSARDQSFQHLSSFPVNTLVEWKSHGDLSSRRSDGY
PVLEYIPENVSSSTLRSVSTGSSRPSKICLVCGDEASGCHYGVVTGSCKVFFKRAVEGQHNY
LCAGRNDIIDLKIRRKNCACRLQKCLQAGMNLGARKSKKLKGKGIHEEQPQQQPPPPPPP
PQSPEEGTTIAPAKEPSVNTALVPQLSTISRALTSPVMVLENIEPEIVYAGYDSSKPDTAENL
LSTLNRLAGKQMIQVVWKAKVLPGFKNLPLEDQITLIQYSWMCLSSFALSWRSYKHTNSQFL
YFAPDLVFNEEKMHQSAMYELCQGMHQISLQFVRLQLTFEEYTIMKVLLLSTIPKDGLKSQ
AAFEEMRTNYIKELRKMTKCPNNSGQSWQRFYQLTKLLDSMHDLVSDLLEFCFYTFRESH
ALKVEFPAMLVEIIISDQLPKVESGNAKPLYFHRK

>DP01382|P0CU47|#1-414

MATKESKYERVEKVNVDADGATLVKNIGEDRGKEDPGMNFDQDKRPANLVPAGAPAGVIPNRI
ESLPTDRAQQLREHLSESERLRVRSSTSKEVEPSLKYRGEIGPIGKNGEFVASSNRQNS
SSNVSSSDNSERASPASRNSNPGMNNGMTTQRTTVITESSVQGLGAQRTVPIQPHQREDHEV
ITHESHARAPETTVVTIPTTRFESAQLESRRDGRTYTEDKELTIPAVVAPQIHAHQVNMSGG
TSATIHATTDLHLASEAQINDMGPEEYERYRAKVEALARIHEDETSRAAAAYRNAVEADEL
IRQTLERQHMRDIEFRKDLVESSVDRQQQEIRLEAEYAMRALEQERVNARAALDQAMASTNI
DVNIDSIAIGTTHSQGRVTTSESRTSQARGPATAAVI

>DP00489|P21793|#31-51

MKATIIFLLVAQVSWAGPFQQKGLDFMLEDEASGIGPEEHFPEVPEIEPMGPVCPFRCQCHL
RVVQCSIDLGLEVKPKDLPPTALLDLQNNKITEIKDGDFKNLKNLHTLILINNKISKISPGAF
PLVKLERLYLSKNQLKELPEKMPKTLQELRVHENEITKVRKSVFNGLNQMIVVELGTNPLKSS
GIENGAFQGMKKLSYIRIADTNITTIPQGLPPSLTELHLDGNKITKVDAAISLKGNNLA
FNSISAVDNGSLANTPHLRELHLNNNKLVKVPGGLADHKYIQQVYLHNNNISAIGSNDFCPPG
YNTKKASYSGVSLFSNPVQYWEIQPSTFRCVYVRAAVQLGNYK

>DP01613|Q96AC1|#1-15 #339-358

MALDGIRMPDGCYADGTWELSVHVTDLNRDVTLRVTGEVHIGGVMLKLVEKLDVKKDWS
DHALWWEKKRTWLLKTHWTLDKYGIQADAKLQFTPQHKLLRLQLPNMKYVKVKVNFSDR
VFKAVSDICKTFNIRHPEELSLLKKPRDPTKKKKKKLDDQSEDEALELEGPLTPGSGSIYSSPG
LYSKTMTPTYDAHDGSPLSPTSAWFGDSALSEGNPGILAQSQITSPEILAKMFKPQALLDKA
KINQGWLDSSRSRSLMEQDVKENEALLRFKYYSSFDLNPKYDAIRINQLYEQAKWAILLEEIEC
TEEEMMMFAALQYHINKLSIMTSENHLNNSDKEVDEVDAALSDLEITLEGGKTSTILGDTISIP
ELADYIKVFKPKKLTGKYKQYWCTFKDTISCYKSKEESSGTPAHQMNLRGCEVTPDVNIS
GQKFNKLLIPVAEGMNEWLRCNEKQYAHWMAACRLASKGKTMADSSYNLEVQNILSFL
KMQHLPDPQLIPEQITTDITPECLVSPRYLKYKNKQITARILEAHQNVAQMSLIEAKMRFIQ
AWQSLPEFGITHFIARFQGGKKEELIGIAYNRLIRMDASTGDAIKTWRFNSNMKQWNVNWEIK
MVTVEFADEVRLSFICTEVDCVVHEFIGGYIFLSTRAKDQNESLDEEMFYKLTSGWV

>DP00726|Q5UPJ7|#150-170

MENTDHTNNEHRLTQLLSIAEECETLDRLKQLVDSGRIFTAYNGFEPSGRIHIAQALITVMNTN
NIIECGGQMIYIADWFAKMNLKMNGDINKIRELGRYFIEVKACGINLDGTRFIWASEFIASNP
SYIERMLDIAEFSTISRVKRCCQIMGRNESDCLKASQIFYPCMQAADVfelVPEGIDICQLGIDQ
RKVNMLAIEYANDRGLKIPISLHHMLMSLSPKKMSKSDPQGAIFMDDTEQEVEKISRAY
CTDETFDNPIFEYIKYLLRWFGTLNLCGKIYTDIESIQEDFSSMNKRELKTDVANYINTIIDL
REHFKKPELSELLSNVKSYYQQPSK

>DP00333|P27797|#1-417

MLLSVPLLLGLGLAVAEPNAVFKEQFLDGDGWTSRWIESKHSDFGKFVLSSGFYGDEEK
DKGLQTSQDARFYALSASFEPFSNKGQTLVVQFTVKHEQNIDCGGGYVKLFPNSLDQTMH
GDSEYNIMFGPDICPGTKVHVIFNYKGKNVLINKDIRCKDDEFTHLYTLIVRPDNTYEVKI
DNSQVESGSLEDDWDFLPPKKIKDPDASKPEDWDERAKIDDPTDSKPEDWDKPEHIPDPDAK
KPEDWDEEMDGEWEPPVIQNPEYKGEWKPRQIDNPDYKGTWIHPEIDNPEYSPDPSIAYDN
FGVGLDLWQVKSGTIFDNFLITNDEAYAEEFGNETWGVTKAAEKQMKDQDEEQRKKEEE
EDKKRKEEEEAEDEDKEDDEDEDEEDEEDEKEEDEEDVPGQAKDEL

>DP00922|P67966|#67-115

MPNWGGKKCVCQKAVYFAEEVQCEGSSFHKSCFLCMVCKKNLDSTTVAVHGDEIYCKS
CYGKKYGPKGYYGMAGTLSTDGESLGKYEQSHRPTNPASRMAQKVGGSDGCPR
CGQAVYAAEKVIGAGKSWHKSCFRCAKCGKSLESTTLADKDGIEYCKGCYAKNFGPKGFGF
GQQGAGALIHSQ

>DP01249|P61073|#1-26

MEGISIYTSNDYTEEMGSGDYDSMKEPCFREEANFNKIFLPTIYSIIFLTGIVGNGLVILVMGY
QKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVIL
AFISLDRYLAIVHATNSQRPRKLLAEKVVYVGWIPALLTIPDFIFANVSEADDRYICDRFYP
NDLWVVVFQFHIMVGLLPGIVILSCYCIISKLHSKGHQKRKALKTTVILAFFACWLPHY
IGISIDSFILLEIIKGCEFENTVHKWISITEALAFFHCCLNPILY AFLGAKFKTSQAHLTSVRG
SSLKILSKGKRGGHSSVSTESESSSFHSS

>DP00851|Q9KX51|#1-17 #177-256

MSVTTEETAGAAAGSDAIVDLRGMWVGAGLNIFYLIVRIYEQIYGWRAGLDSFAPEFQTY
WLSILWTEIPLELVSGLAGWLWKRDRNDAVAPREELRRHVVLEWLVVAVAYIWG
ASFFTEQDGTWHMTVIRDTDFTPSHIIEFYSYPIYSIMA VGAFFYAKTRIPYFAHGFSLAFLIV
AIGPFMIIPNVGLNEWGHTFWFMEELFVAPLHWGFVFFGWMALGVFGVVLQILMGVKRLIG
KDCVAALVG

>DP00994|P39015|#1-8 #85-121 #142-168 #177-273

MSNPFDLLGNDVEDADVVVLPPKEIVKSNTSSKKADVPPPSADPSKARKNRPRPSGNEGAIRD
KTAGRNNRSKDVTDATTKKSNTRRATDRHSRTGKTDTKKVNQGWGDDKKELSAEKEA
QADAAAIAEAAEAEDAGKPKTAQLSLQDYLNNQANNQFNKVPEAKKVELDAERIETAEK
EAYVPATKVKNVSKQLKTKYLEFDATFVESNTRKNFGDRNNNSRNNFNNRRGGRGARK
GNNTANATNSANTVQKNRNIDVSNLPSLA

>DP02498|A7YK37|#1-227

MRMSDGAAPKANGSEASGQDLVPTAVEQAVPIQPVAGSALAAPAAGQINQIDPWIFQNFVQC
PLGEFSISPRNTPGEILFDLALGPGLNPYLAHLSAMYTGWVGNEVQLLAGNAFTAGKVV
ALVPPYFPKGSLTTAQITCFPHVMCDVRTLEPIQLPLLDVRRVLWHATQDQEESMRLVCMLY
TPLRTNSPGDESFVSGRLLSKPAADNFVYLTTPPIERTIYRMVDLPLVLPQLCTHARWPAPIY
GLLVDPSPSNPQWQNGRVHDGTLGTTPVSGSVSCFAAEAAAYEFQSGTGEVATFTLIEQ
DGSAYVPGDRAAPLGYPDFSGQLEIEVQTETTKTGDKLKVTFEMILGPTTNVDQAPYQGRV
YASLTAVASLDLVDGRVRAVPRSIYGFQDVPIEYNDGLVPLAPPIGPFLPGEVLLRFRTYMR
QLDTADAAAIAIDCALPQEFISWFASNAFTVQSDALLRYRNTLTGQLLFECKLYSEGYIALS
YSGSGPLTFPTDGFFEVVSWVPRLFQLASVGSLTTGRTLQ

>DP01269|Q8NG31|#150-175 #190-200

MDGVSSEANEENDNIERPVRHHSSILKPPRSPLQDLRGGNERVQESNALRNKNSRRVSFAD
TIKVFQTESHMKIVRKSEMEGCSAMVPSQLQLPPGFKRFSCSLPETETGENLLLQNKLED
NYCEITGMNTLLSAPIHTQMQQKEFSIIEHTRERKHANDQTVIFS DENQMDLTSSHTVMITKG
LLDNPISEKSTKIDTTSFLANLKLTEDSRMKKEVNFSVDQNTSENKIDFNDFIKRLKTGKCS
AFPDVPDKENFEIPIYSKEPNSASSTHQMHVSLKEDENNSNITRLFREKDDGMNFTQCHTANI

QTLIPTSSETNSRESKGNDITIYGNDMDLTNFNHTLQILPATGNFSEIENQTQNAMDVTGYGT
KASGNKTVFKSKQNTAFQDLSINSADKIHIRSHIMGAETHIVSQTCNQDARILAMTPESIYSN
PSIQGCKTVFYSSCNDAMEMTKCLSNMREEKNLLKHDNSYAKMYCNPDAMSSLTEKTIYSG
EENMDITKSHTVAIDNQIFKQDQSVQIAAAPTPEKEMLQNLMTTSEDGKMNVCNSVPH
VSKERIQSQLSNPLSISLTDRKTELLSGENMDLTESHTSNLSQVPLAAYNLAPESTSESHSQS
KSSSDECEEITKSRNEPFQRSIIAKNSLTDWNKDKDWVLKILPYLDKDSPQSADCNQEIASTS
HNIVYCGGVLDKQITNRNTVSWEQLFSTTKPLFSSGQFSMKNHDTAISSHTVKSVLGQNSKL
AEPLRKSLSNPTPDYCHDKMIICSEEQNMDLTSHTVVIGFGPSELQELGKTNLEHTTGQLTT
MNRQIAVKVEKCGKSPIEKSGVLSNCIMDVLEDESVQKPKFPKEKQNVKIWGRKSVGGPKI
DKTIVFSEDDKNDMDITKSYTIEINHRPLLEKRDCHLVPLAGTSETILYTCRQDDMEITRSHTT
ALECKTVSPDEITTRPMKDVTVFVDNHVELEMTESHTVFIDYQEKEERTDRPNFELSQRKSLGT
PTVICTPTTEESVFFPGNGESDRLVANDSQLTLEEVSNRGPVEVADNMELSKSATCKNIKDV
QSPGFLNEPLSSKSQRRKSLKLKNDKTIVFSENHKNDMDITQSCMVIEDNESALEDKEDFHLA
GASKTILYSCGQDDMEITRSHTTALECKTLLPNEIAIRPMDKTVLFTDNYSDELTVDSHTVFID
CQATEKILEENPKFGIGKGKNLGVSPFKDNCSVQEIAEKQALAVGNKIVLHTEQKQQQLFAATN
RTTNEIIFHSAAMDEKVGKVVDDQACTLEKAQVESQLNNRDRRNVDFTSSHATAVCGSSD
NYSLCPNVISCTDNLEGSAMLLCDKDEEKANYCPVQNDLAYANDFASEYYLESEGQPLSAPC
PLLEKEEVIQTSTKGQLDCVITLHKDQDLIKDPRNLLANQTLVYSQDLGEMTKLNSKRVSFKL
PKDQMVKVYVDDIYVIPQPHFSTDQPLPKKGQSSINKEEVILSKAGNKSNIENSSAPICENKP
KILNSEWFAAACKKELKENIQTTNTALDFHSNSDVTQVIQTHVNAGEAPDPVITSNVP
FHSIKPNLNNLNNGKTGEFLAFQTVHLPPLEQLLELGNAHNDMHIVQATEIHNNIISNAKD
SRDEENKKSHNGAETTSLPPKTVFKDKVRRCISLGFILPRLPNKRNCSVTGIDDLEQIPADTTDI
NHLETQPVSSKDSGIGSVAGKLNLSPSQYINEENLPVYPDEINSSDSINIETEEKALIETYQKEIS
PYENKMGKTCNSQKRTWVQEEEDIHKEKKIRKNEIKFSDTTQDREIFDHTEEDIDKSANSVL
IKNLSRTPSSCSSLDSIKADGTSDFSTYRSSQMESQLRDTICEESLREKLQDGRITIREFFILL
QVHILIQKPRQSNLPGNFTVNTPPTPEDMLSQYVYRPKIQIYREDCEARRQKIEELKLSASNQ
DKLLVDINKLWEKMRHCSDELKAFCIYLNIKSCFTKMTKVFTHQGVLYGKLVQSAQ
NEREKLQIKIDEMDKILKIDNCLTEMETETKNLEDEEKNNPVEWDSEMRAAEKELEQLKT
EEEELQRNLLELEVQKEQTLAQIDFMQKQRNRTTELLDQLSLEWDVVEWSDDQAVFTFVY
DTIQLTITFEESVVGFPFLDKRYRKIVDVFQSLDEDQAPPSSLLVHKLIFQYVEEKESWKKT
CTTQHQLPKMLEEFLSVVHHCRLLGEEIEYLKRWGPVYQNLNMIDINNNELRLFSSAAFAKF
EITLFLSAYYPSVPLPSTIQNHVGNTSQDDIATLSKVPLENNYLKNVVKQIYQDLFQDCHFYH
>DP02254|P14598|#213-228

MGDTFIRHIALLGFEKRFVPSQHYVYMFLVKWQDLSEKVVYRRFTEIYEFHKTLCMFPIEAG
AINPENRIIPHLPAPKWFQDGQRAAENRQGTLTEYCSTLMSLPTKISRCPHLLDFKVRPDDLKL
PTDNQTKKPETYLMQPKDGKSTATDITGPIILQTYRAIANYEKTSGSEMALSTGDVVEVVEKSE
SGWWFCQMKAKRGWIPASFLEPLDSPDETEDPEPNEYAGEPYVAIKAYTAVEGDEVSLLEG
VEVIHKLLDGWWVIRKDDVTGYFPSMYLQSGQDVSAQRQIKRGAPPRSSIRNAHSIHQR
SRKRLSQDAYRRNSVRFLQQRQQARPGPQSPGSPLEERQTQRSKPQPAVPPRPSADLILNR
CSESTKRKLASAV

>DP00113|P31109|#1-93

MSSSTPFDPYALSEHDEERPQNVQSKSRTAELQAEIDDTVGIMRDNINKVAERGERLTSIEDK
ADNLAVSAQGFKRGANVRKAMWYKDLKMKMCLALVIIILLVIIIVPIAVHFSR

>DP01867|P47047|#361-389 #699-713 #943-961

MDSTDLFDVFEETPVELPTDSNGEKNADTNVGDTDPHTQDKKHGLEEEKEEHEENNSENKKI
KSNKSKTEDKNKKVVVPVLADSFEQEASREVDASKGLTNSETLQVEQDGKVRSLHQVRHQV
ALPPNYDYTPIAEHKRVNEARTYPFTLDPFQDTAISCIORGESVLSAHTSAGKTVVAEYAIA

QSLKNKQRVIYSPIKALSNQKYRELLAEFGDVGLMTGDTINPDAGCLVMTTEILRSMLYRG
SEVMREVAWVFDEVHYMRDKERGVVWEETIILLPDKVRYVFLSATIPNAMEFAEWICKIHS
QPCHIVYTNRPTPLQHYLFPAGHLDGIYLVDEKSTFREENFQKAMASISNQIGDDPNSTD
GKKGQTYKGGSAKGDAKGDIYKIVKMIWKKYNPIVFSFSKRDCEELALKMSKLDNFNSDD
EKEALT KIFNNAIALLPETDRELPOIKHILPLRRGIGIHSGLLPILKEVIEILFQEGFLKVL
FAT ETFSIGLNMPAKTVVFTSVRKWDQQFRWVSGGEYIQMSGRA
GRRGLDDRGI
VIMMIDEKM EPQVAKGMVKQADRLDSAFHLGYNMILNLMRVEGISPEFM
LEHSFFQFQN
VISVPVMEK
KL AELKKDFDGIEVEDEENVKEYHEIEQA
IKGYREDVRQVVTHP
ANALSFLQPGRLVEISVNGKD NYGWGAVVDFAKRINKRNPSAVYTDHESYIVNVVVNTMYIDSPV
NLLKPFN
P
TLPEGIRPAE EGEKSICAVIPITLDSIKSIGNLRLYMPKDIRASGQKETVGKSL
REVNR
RFDGIPVLDPVK
NM KIEDEDFLKLMKKIDVLNTKLSSNPLTN
SMRLEELYGKYSRKHDLHEDMKQLKR
KISESQAVI QLDDLR
RRKRVLRLGFC
TPNDI
IELKGRVACEISSGDELLT
ELIFNGNFNELKPEQAA
ALLS CFAFQERCKEAPRLKPELA
PLKAMREIA
AKIMKDSKIEV
VEKDY
VESFR
HELMEV
VYE WCRGATFTQICKMTDV
YEGSLIRMFKR
LEELV
KELV
DV
ANTIGN
SSL
KEK
MEA
VLKLI
HRDI VSAGSLYL

>DP00787|B2LME8|#32-155

MFRFKGIRIMINHKLF
IYSAIATSSALSHAATINNA
GFESGFSNW
NETDP
AAISSDAYSGSKSL KI
QGSPARVYQVVDI
QPNTEY
TLSAYV
LGKGQIGV
NDLNG
LKF
KNQTFN
VSSWT
KVTK
TFTSA NT
NSLQVFAK
HYN
NTSDV
RFDN
FSLIE
GS
GGS
GG
SD
GGS
DN
NG
STIP
SS
IT
GS
IFD
LEGDN PN
PLV
DD
STL
V
F
V
PLEA
QH
IT
PNG
NG
WR
HEY
KV
KE
SL
RV
AM
TQ
TY
EV
FEAT
VK
V
EM
SD
GG
K TI
ISQH
HAS
DT
GT
ISK
VY
V
SD
T
DE
SF
N
DS
V
AN
NG
IF
DV
V
RL
RT
SG
NEEK
F
AL
GT
MT
S
GET FN
LR
V
NN
Y
GD
VE
V
TA
FG
NS
FG
IP
VED
DS
QS
SY
F
K
FG
NY
L
Q
SQ
DP
Y
TLD
KC
GE
AG
NS
SF
K
NC F
E
DL
G
ITES
KV
T
MT
NV
SY
T
RE
TN

>DP00047|P02687|#1-169

AAQKRPSQRS
KYL
LAS
AST
MDHAR
HGFLPR
H
DTG
ILD
SL
GR
FFG
SDR
GAP
K
RG
SG
K
DGH
HA ART
THY
G
SLP
PKA
Q
G
H
RP
Q
DEN
PV
V
HFF
K
N
I
V
P
T
P
P
P
S
Q
G
K
G
R
G
L
S
R
F
S
W
G
A
E
G
Q
K
P
G FG
Y
G
G
R
A
S
D
Y
K
S
A
H
K
G
L
K
G
H
D
A
Q
G
T
L
S
K
I
F
K
L
G
G
R
D
S
R
G
S
P
M
A
R
R

>DP01118|Q12834|#81-164 #477-499

MAQFAFESDLH
SLL
QLD
API
PNAPP
W
QR
K
AKE
A
AG
P
A
P
S
P
M
R
A
A
N
R
S
H
S
A
G
R
T
P
G
R
T
P
G
K SSSKV
QT
PSK
PG
G
DR
Y
I
PH
R
S
A
A
Q
M
E
V
A
S
F
L
S
K
E
N
Q
P
E
N
S
Q
T
P
T
K
K
E
H
Q
K
A
W
A
L
N
L
N
G
F
D VEEAK
I
L
R
L
S
G
K
P
Q
N
A
P
E
G
Y
Q
N
R
L
K
V
L
Y
S
Q
K
A
T
P
G
S
S
R
K
T
C
R
Y
I
P
S
L
P
R
I
L
D
A
P
E
I
R
N
D
Y
Y
L
N L
V
D
W
S
S
G
N
V
L
A
V
A
L
D
N
S
V
Y
L
W
S
A
S
S
G
D
I
L
Q
L
Q
M
E
Q
P
G
E
Y
I
S
S
V
A
W
I
K
E
G
N
Y
L
A
V
G
T
S
S
A
E VQL
W
D
V
Q
Q
Q
K
R
L
R
N
M
T
S
H
S
A
R
V
G
S
L
W
N
S
Y
I
L
S
S
G
R
S
G
H
I
H
H
D
V
R
V
A
E
H
H
V
A
T
L
S
G
H
S
Q
EVC
GLR
W
A
P
D
G
R
H
L
A
S
G
G
N
D
N
L
V
N
W
P
A
P
G
E
G
G
W
V
P
L
Q
T
F
T
Q
H
Q
G
A
V
K
A
V
A
W
C
P
W
Q
S
N VL
AT
G
G
G
T
S
D
R
H
I
R
I
W
N
V
C
S
G
A
C
L
S
A
V
D
A
H
S
Q
V
C
S
I
L
W
S
P
H
Y
K
E
L
I
S
G
H
G
F
A
Q
N
Q
L
V
I
W
K
Y
P
T
M
A
K
V
A
E
L
K
G
H
T
S
R
V
L
S
L
M
S
P
D
G
A
T
V
A
S
A
A
D
E
T
L
R
L
W
R
C
F
E
L
D
P
A
R
R
R
E
K
A
S
A
K
S
L
I
H
Q
G
I
R

>DP01402|Q06406|#1-10

MSGK
A
S
T
E
G
S
V
T
E
F
L
S
D
I
I
G
K
T
V
N
V
K
L
A
S
G
L
L
Y
S
G
R
L
E
I
D
G
F
M
N
V
A
L
S
S
A
T
E
H
Y
E
S
N
N
N
K
L
N
K
F
N
S
D
V
F
L
R
G
T
Q
V
M
Y
I
S
E
Q
K
I

>DP01323|Q8R316|#358-380

MVWEV
K
T
N
Q
M
P
N
A
V
Q
K
L
L
V
M
D
K
R
A
P
G
M
S
D
S
L
E
L
L
Q
C
N
E
N
L
P
S
P
G
Y
N
S
C
D
E
H
M
E
L
D
L
P
E
L
Q
A
V
Q
S
D
P
T
Q
S
A
I
Y
Q
L
S
S
D
V
H
Q
E
Y
P
R
S
S
W
S
Q
N
T
S
D
I
P
E
N
T
H
R
E
D
E
V
D
W
L
T
E
L
A
N
I
A
T
S
P
Q
S
P
L
M
Q
C
S
F
Y
N
R
S
P
V
H
I
I
A
T
S
K
S
L
H
S
Y
A
R
P
P
P
V
S
S
S
K
S
G
P
A
F
P
H
D
H
W
K
E
E
T
P
V
R
H
E
R
A
N
S
E
S
E
G
I
F
C
M
S
S
I
L
S
D
D
D
L
G
W
C
N
S
W
P
S
T
I
W
H
C
F
L
K
G
T
R
L
C
F
H
K
E
S
N
K
E
W
Q
D
V
E
F
A
R
A
S
C
D
N
E
E
I
Q
M
G
T
H
K
G
Y
G
S
D
G
L
K
L
L
S
H
E
E
S
V
F
G
E
S
V
L
K
L
T
F
D
P
G
T
V
E
D
G
L
L
T
V
E
C
K
L
D
H
P
F
Y
V
K
N
K
G
W
S
S
F
Y
P
S
L
T
V
V
Q
H
G
I
P
C
C
E
I
H
I
G
D
V
C
L
P
P
G
H
P
D
A
I
N
F
D
D
S
G
V
F
D
T
F
K
S
Y
D
F
T
P
M
D
S
S
A
V
Y
V
L
S
S
M
A
R

QRRASLSCGGPGTQEFSKSCGSPGSSQLSSSLYAKAVKSHSSGTVSATSPNKCKRP
MNAFMLFAKKYRVEYTQMYPGKDNRaisVILGDRWKKMKNEERRMYTLEAKALAEQKR
LNPDCKRKRTNSGSQQH

>DP00253|P26645|#1-309

MGAQFSKTAAKGEATAERPGEAAVASSPSKANGQENGHVVKVNGDASPAAAEPGAKEELQA
NGSAPAADKEEPASGSAAATPAAAEEKDEAAAAATEPGAGAADKEAAEAEPSSPAAEAEAGA
SASSTSSPKAEDGAAPSPSSETPKKKKRFKSFKLSGFSFKSKKESGEGAEAEGATAEGA
KDEAAAAAGGEGAAAPGEQAGGAGAEGAAGGEPREAAEAEPEQPEQPEQPAEEPQAEEQS
EAAGEKAEEPAPGATAGDASSAAGPEQEAPAATDEAAASAAPAASPEPQPECSPEAPPATAE
>DP00866|O54465|#42-72

METKYELNNTKVKVANAFGLNEEDTNLLINAVLDIKNMQUEISSELQQSEQSKQKQYGTTLQ
NLAKQNRIIK

>DP01521|Q5RJL0|#1-282

MTDTPVTLGSECNGDRPPENGQPSSQTRKTTDADETQTYYGVEPSLQHLPAKENQEESGN
SKGNVLPRGSEDEKILNENTEEFLVVHQAIQDLSLQETSADTVFQEGHPWKIPLNSHNLD
MSRQKERIVHQHLEQREDESAAHQATEIEWLGFQKSSQVDILHSKCDEEEEVWNEEINEEDV
DECAEDEGEDEVRVIEFKRKYREGSPLKEESLAREDSPLSQPGTPDEQLVLGKKGDIARN
SYSRYNTISYRKIRKGNTKQRIDEFESMMHL

>DP01843|P03404|#1-25

MGGKWSKSSVIGWPAVRERMRAAEPADGVGAASRDLEKHGAISSNTAANNAACAWLEA
QEEEKVGFPVTPQVPLRPMTYKAAVDSLHFLKEKGGLEGLIHSQRRQDILDLWIYHTQGYFP
DWQNYTPGPGIRYPLTFGWCYKLVPVEPDKVEEANKGENTSLHPVSLHGMDDPEREVLEW
RFDSRALFHVARELHPEYFKNC

>DP01003|O12161|#1-101

MEPVDPNLEPWNPQPKTACNNCYCKRCSYHCLVCFTKGLGISYGRKKRRQRRSAPPSS
EDHQNPPIPKQPLPQTRGDQTGSEESKKKVESKTETDPFD

>DP00566|P13102|#141-175

MDIRPIISSLISTCVQADRICVGYLSTNSTEKVDTLLENDVPVTSSIDLVETNHTGTYCSLDGIS
PVHLGDCSFEGWIVGNPACTSNFGIREWSYLIEDPSAPHGLCYPGELDNNGELRHLSGIRSF
RTELIAPTSWGEVNDGATSACRDNTGTSFYRNLVWFVKKGNSYPVISRTYNNTGRDVLV
MWGLHHPVSTDTEKSLYVNSDPYTLVSTSSWSKKYKLETGVRPGYNGQRSWMKIYWVLMH
PGESITFESNGGLAPRGYIIIEYGKGRIFQSPIRIARCNTRCQTSVGGINTNKTQNIERNALG
NCPKYIKSGQLKLATGLRNPAISNRGLFGAIAGFIEGGWPGLINGWYGFHQNEQGVGIAA
DKESTQKAIDQITTINNIIDKMNGNYDSIRGEFSQVEQRINMLADRIDA VTDVWSYNACKL
VLLENDKTLDMHDANVRNLHEQVRRTLKANAIDEENGCFELLHKCNDSCMDTIRNGTYNH
AEYAEESKLKRQEIEGIKLKSEDNVYKALSIYSCIASSVVLVGLLAFIMWACSSGNCRFNVC
>DP00816|P41236|#9-164

MAASTASHRPIKGILKNKTSTTSSMVASAEQPRGNVDEELSKKSQKWDEMNILATYHPADKD
YGLMKIDEPSTPYHSMMGDDEDACSDTEATEAMAPDILARKLAAAEGLEPKYRIQEQQESSGE
EDSDLSPEREKKRQFEMKRKLHYNEGLNIKLARQLISKDLHDDDDEDEEMLETADGESMNTE
ESNQGSTPSDQQQNKLRS

>DP01974|P39748|#45-61 #106-130 #330-342

MGIQGLAKLIADVAPSIARENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHL
MGMFYRTIRMMEGKPVYVFQDGKPPQLKSGELAKRSERRAEAEKQLQQAQAAQAEQEVE
KFTKRLVKVTQHNDCKHLLSLMGIPYLDAPSEAEASCAALVKAGKVYAAATEDMDCLTF
GSPVLMRHLTASEAKLPIQEFHLSRILQELGLNQEKFVQDLCILLGSDYCSESIRGIGPKRAVDLI
QKHKSIEEIVRRLDPNKYPVPENWLHKEAHQLFLEPEVLDPEVELKWSEPNEEELIKFMCGE

KQFSEERIRSGVKRLSKSRQGSTQGRLLDFKVTGSLSSAKRKEPEPKGSTKKAKTGAAGKF
KRGK

>DP01015|Q83AR4#132-188

MATHSTNEFRGGLKVMVDGDPCSIIDNEFKPGKGQAFNRVKFRNLKTGRVLERTFKSGETL
PAADVVEVEMQYLYNDGEFWHFMSENYEQHAASKEAVAEAKQWLKEEALCMVTMWNG
VPLSVEPPNFVELKITETEPGVRGDTATGGTKRAKLETGAVVRVPLFLNEGEIJKVDTRGEY
VSRAK

>DP01898|O60885#86-96

MSAESPGTRGLRNLPVMGDGETSQMSTTQAQAQPQPANAASTNPPPETSNPNPKRQTNQ
LQYLLRVVLKTLWKHQFAWPFFQQPVDAVKNLPDYYKIIKTPMDMGTIKKRLENNYYWNA
QEClQDFNTMFTNCYTINYKPGDDIVLMAEALEKLFLQKINELPTEETEIMIVQAKGRGRKRKE
TGTAKPGVSTVPNTTQASTPPQTQTPQPNPPPQATPHPFAVTPDLIVQTPVMTVVPPQPLQT
PPPVPQPPQPPAPAPQPVQSHPIIAATPQPVTKKGKVKRKADTTPTTIDPIHEPPSLPPEPKT
TKLGQRRESSRPVKPPKKDVPDSQHQPAEKSSKVSEQLKCCSGILKEMFAKKHAAAYAWPFY
KPVDEALGLHDYCDIHKPMDMSTIKSKLEAREYRDAQEFGADVRLMFSNCYKYNPPDHE
VVAMARKLQDVFEMRFAKMPDEPEEPVVAVSSPAVPPPTKVVAPPSSSDSSSDSDSSTD
DSEEERAQRALAEQLKAHVHEQLAALSQPQQNKPKKEKDKEKKKEHKRKEEVEENK
KSKAKEPPPKKTKNNSSNSNVSKKEPAPMKSKEPPTYESEEEDCKCPMSYEEKRQLSLDINK
LPGEKLRVVHIIQSREPSLKNNSPDEIEIDFETLKPSLRELERYVTSLRKRPQAEKVDVI
AGSSKMKGFSSESESSESSSDSEDSETEMAPSCKKKGHPGREQKKHHHHHQMQQQAPA
PVPQQPPPPQQPPPPQQ
FDPIGHFTQPIHLQPQELPPHPQPEHSTPPHLNQHAVVSPPALHNALPQPSRPSNRAALP
PKPARPPAVSPALTQTPLLQOPPMAQPPQVLLDEEPPAPPLTSMQMQLYLQQLQKVQPPPTL
LPSVKVQSQPPPLPPPHPSVQQQLQQQQQQQQQQQQQQQQQQQQQQQQQQ
QPPPPQGQQQPHPPPGQQQQQQQPAKPQQVIQHHHSPRHHKSDPYSTGHLREAPSPLMIHSPQM
SQFQLTHQSPQQNVQPKKQELRAASVQQPQLVVVKEEIHSPPIRSEFSPSLRPEPPKHPE
SIKAPVHLQPQREMVKPDVGRPVIRPPEQNAPPGAPDKDKQKQEPKTPVAPKKDLKIKNMG
SWASLVQKHPTPSSTAKSSDSFEQFRRAAREKEEREKALKAQAEHAKEKERLRQERMRS
REDEDALEQARRAHEEARRRQEQQQQQRQEQQQQQQAAAVAAAATPQAQSSQPQSML
DQQRELARKREQERRREAMAATIDMFQSDLLSIFEENLF

>DP00252|P0A877#54-74 #80-87 #180-188

MERYESLFAQLKERKEGAFVPVTLGDPGIEQLSKIIDTLIEAGADALELGIPFSDPLADGPTIQ
NATLRAFAAGVTPAQCFEMLALIRQKHPTIPIGLLMYANLVFNKGIDEFYAQCEKVGVDSDL
VADVPVEESAPFRQAALRHNVAPIFCPPNADDLLRQIASYGRGYTYLLSAGVTGAENRA
ALPLNHLVAKLKEYNAAPPLQGFGISAPDQVKAAIDAGAAGAISGSAIVKIIEQHINEPEKMLA
ALKVFVQPMKAATRS

>DP01526|Q9UJX6#1-14 #30-52 #221-231 #305-319 #459-475 #731-822

MAAAVVVAEGSDSRPGQELLVAWNTVSTGLVPPAALGLVSSRTSGAVPPKEELRAAVEV
LRGHGLHSVLEWFVEVLQNDLQANISPEFWNAISQCENSADEPQCLLDAFGLLESRLDP
YLRSELLEKWTRLGLLMGTGAQGLREEVHTMLRGVLFFSTPRTFQEMIQRLYGCFLRVYM
QSKRKGEGGTDPELEGELDSRYARRYYRLLQSPLCAGCSSDKQQCWCRCQALEQFHQLSQV
LHRLSLLERVSAEAVTTLHQVTRERMEDRCRGEYERSFLREFHKWIERVVGWLGVFLQD
GPARPASPEAGNTLRRWRCHVQRFFYRIYASLRIEELFSIVRDFPDSRPAIEDLKYCLERTDQR
QQLLVSLSKAALTRLLHPGVNTCDIITLYISAIAKALVLDPSMVILEVACEPIRRLRTREDTV
QIVAGLTGDSGTGDLAELSXTDPASLETGQDSEDDSGEPEDWVPDPVDADPGKSSSKRRS
SDIISLLVSIYGSKDLFINEYRSLLADRLLHQFSFSPEREIRNVELLKLRFGEAPMHCEVMLKD
MADSRRINANIREEDEKRPAEEQPPFGVYAVILSSEFWPPFKDEKLEVPEDIRAALEAYCKKY

EQLKAMRTLSWKHTLGLVTMDVELADRTLSAVTPVQAVILLYFQDQASWTLEELSKAVK
MPVALLRRRMSVWLQQGVLREEPPGTFSVIEERPQDRDNMVLIDSDDESDSGMASQADQK
EEELLFWTYIQAMLTNLESLSLDRIYNMLRMFVVTGPALAEIDLQELQGYLQKKVRDQQLV
YSAGVYRLPKNC

>DP01119|P35222|#19-44

MATQADLMELDMAMEPDRKAAVSHWQQSYLDGIHSGATTAPSLSGKGPNPEEDVDT
QVLYEWEQGFSQSFTQEJVADIDGQYAMTRAQRVRAAMFPETLDEGMQIPSTQFDAAHPTN
VQRLAEPSQLKHAVVNINQDDAELATRAIPELTKLNDDEQVVNKAAVMVHQLSKK
EASRHAIMRSPQMVSIAVRTMQNTNDVETARCTAGTLHNLSHREGLLAIFKSGGIPALVKM
LGSPVDSVLFYAITLHNLLHQEGAKMAVRLAGGLQKMVALLNKTNVFLAITDCLQILA
YGNQESKLIIASGGPQALVNIMRTTYEKLLWTTSRVLKVLSVCSSNKPAIVEAGGMQALG
LHLTDPSQLVQNCLWTLRNLSDAATKQEGMEGLLGLTVQLLGSDDINVTCAGILSNLTC
NNYKNKMMVCQVGIEALVRTVLRAGDREDITEPAICALRHLSRHQEAEAMAQNANRHY
GLPVVVKLLHPPSHWPLIKATVGLIRNLALCPANHAPLREQGAIPRLVQLLVRAHQDTQRRTS
MGGTQQQFVEGVRMEEIVEGCTGALHILARDVHNRIVIRGLNTIPLFVQLLYSPIENIQRVAAG
VLCELAQDKEAAEAIAEAGATAPLTELLHSRNEGVATYAAAVLFRMSEDKPQDYKKRLSVEL
TSSLFRTEPMAWNEDADLGLDIGAQGEPLGYRQDDPSYRSFHSGGYGQDALGMDPMMHE
MGGHHPGADYPVDGLPDLGHAQDLMGGLPPGDSNQLAWFDTDL

>DP00296|P0AE73|#45-28

MIHSSVKRGNSPAVRIPATLMQALNLNIDDEVKIDLVDGKLIIEPVRKEPVFTLAELVNDITP
ENLHENIDWGEPKDKEVW

>DP00382|O28362|#1-16 #79-102

MRGRQLQVELIARDWIGLMVEVVEESPNHSEVGIKGEVVDETQNTLKIMTEKGLKVVAKRGR
TFRVWYKGKIMRIKGDLINFRPEDRIKRGMLMMLKRAKGVWI

>DP02008|Q9M4V2|#1-80

MEILDSSGGVTMPTENGADLTLRHRKPBSDSSNGLLPDSVTVDADVRDRVDSAVENTQG
KANLAGENEIRESGGEAGGNVDVRYTYRPSVPAHRRVRESPLSSDAIFKQSHAGLFNLCVVV
LVAVNSRLIIENLMKYGWLIRTDWFSSTLSRDWPLFMCCSLSIPLAAFTVEKLVLQKCISE
PVVIIHLIIIITMTEVLYPVYVTLRCDSAFLSGVTMLLTCIVWLKLVSYAHNTYDIRTLANSSD
KANPEVSYYVSLKSLAYFMLAPTLCYQPSYPRSPCIRKGWVARQFAKLIIFTGFMGFIIEQYIN
PIVRNSKHPLKGDLLYGVERVLKLSVPNLYVWLCKMFYCFHLWLNILAELLCFGDREFYKD
WWNAKSVGDYWRMWNMPVHKWMVRHVYFPCLRRNIPKVPAILAFLVSAVFHEL CIAVPC
RLFKLWAFLGIMFQVPLVFITNYLQERFGSMVGNMIFWFTFCIFGQPMCVLYYYYHDLMRKG
KMS

>DP02330|C4PB33|#361-395

MWLPLTVLLLAGIVSADYDHGWHVNNEYIYLVRSRTLVLNLNELDQHTGILMKALLTIQVK
DPQMLTAKVSQSQYARILKSLPEGWD A EISDQM L E R D M P L S G K P F N I K L K H G V I R D I I V D R T I
PTWEVNILKSIVSQLQVDSLGENAIRTSEM Q I P T D E H P Y G M F R A M E D S V G G K C E V L Y D I T P L P
EQNVYVQPELVPVPDLKREGQYIDIRSKSKNFNKC D Q R M N Y Q F G I T G N K Y W E A G S N K N G K F F
SQSAMRIIISGTLKSYTIQSAVTTNIMYISPRFYDHEHGMVTSRMNLTAAVKKITNPLPKPNS
PESTGNLVYIYSNPYSDMEERRVGKVVEDSDNMMLS DSISI SSEEATKGQNYRSLSSDSSSS
SSFSNSEEDHYWQPKPTMEDAPQNPLSSIYIGYMGKYIGKSNEVDVVEKSKE L ISQIANEMED
PNDVYENHILEKYTVLCNLLRTMKEQMLQVDKHVRLSPHELKSMDKTQVLKQNAWTVLK
SAVAQAGTGP AFLVIKNWIEMKEVDSKRGADLLAKLPKTA RAPTA EYIMEFFKLATGETVKN
DLALNSSAIIAFSELVYNAQVSRKGLHNHYPVHTYGR LTPKHNKA VTEYYIPYLETELK KAVE
SGQSTVIQTYIMALGNIGHPKILPVLEPYLEGKVRMTVQR TL MVSTLAKLAENFPKLARSILY
KIYLNTMEEHQRCTAVFILMQTDPLTMLQRMAEFTKIDKNKYVNSAVKSTLES LANLKDA

EYQTLAKKARVAKNLLSPSDYSYHYSRGYITESIMDEGNIISHMMLKYIGSDDSLIPNAIYYAV
FSTYGDFKLPPFEVVTMVSSIRSILENTSPEEKERIKLAAEKAIEQLNIISDEFPLEGNIMWNG
KYGARFLPFDQSCLSLRELLMYLKGESEGKLINRLGSYDITYGFPTETGLPVYNFELPMILL
KITGAMNNEAKNLKTIKMKTDFRILYAMKIQGRMSFVTPFEHQEYIAGVDVDFNLHLPMKLT
LDIDLPKQSFEIKIWPLKGEDKAQLLHYSVPYVANHNILSRPLLTEKTAQMIIPDDIYLDTIS
DSDLLKVVLETDKSYDYKNWLDDIDLNVVIAPWSSNDNYRKVDVFLNLREQVAPFV
LKMSYDFMEMAPTAEDAHLWTPKATAMEPSDKHPDSEVRKQWMDEAKGVSAKSQVI
DIRLEVPTSEETIMNVITVATSNSEIEKKGRTLVYWNFETLFEVCAASQTKVTPDNTVFYEEV
AQLPKVEFNADFRIGKVCSTGEQLNINSVATQSKELRERIKNSSLIKTCQECKMQQQGNKILRA
CQNAAAISMILDQITISVDFQSQHFINFITKALNVMMNIDYLNEIAIHTSDLKVAGKRKIDI
VANLTNDFESADVLISTPNMNIYANDIDLSALEISAEDVLMMAADEMDIQNLLYNEDEPACIL
DKTRAQTFDSKEYPLRLGKCWHVVVTYPRVNPNNPNEKMRMHKFDSVSILTRDMENGQR
EMKVLLGDKELKFPVTSSQPKIFVNEQLIKVTKDMSWQEKMDDDEVLYEIFQINDHSVGLVSD
EYELNLVYDGKRIMMKAGDKFRKAIRGLCGNYDGKLINDFMAPEKCVFRKPEQFIASYALT
EECESEFFENSKLLMDQDCVYEENHLSNVISDKESRRDIEESNWGYHKQTKSQCTIMKA
HMKEIEHMICFTIRQVPSCAPGCWATEMKPKDYQYHCMKRNAASLALKARIEKGAKPDLSQ
KSVTLTEPINVPLACKA

>DP00771|P20435|#1-71

MSDYEEAFNDGNENFEDFDVEHFSDEETYEEKPQFKDGETTDANGKTIVTGGNGPEDFQQHE
QIRRKTKEKAIPKDQRATTYPMTKYERARILGTRALQISMNAPVFDLEGEDPLRIAMKEL
AEKKIPLVIRRYLPDGSFEDWSVEELIVDL

>DP01572|P0C0Y1|#1-11

MADKSDLGYTGLTDEQAQELHSVYMSGLOWPFSAVAIVAHЛАVYIWRPW

>DP02132|P04386|#107-144

MKLLSSIEQACDICRLLKKCSKEPKCAKCLKNNWECRYSPTKRSPLTRAHLTEVESRLER
LEQLFLIFPREDDLMILKMDSLQDIKALLTGLVQDNVNKDAVTDRLASVETDMPPLRQH
RISATSSSEESSNKGQRQLTVSIDSAAHHDNSTIPLDFMPRDALHGFDWSEEDDMSDGLPFLK
TDPNNNGFFGDGSLLCILRSIGFKPENYTNVNRLPTMITDRYTLASRSTSRLQSYLNNFH
PYCPIVHSPTLMMLYNNQIEIASKDQWQILFNCILAIGAWCIEGESTIDVFYYQNAKSHLTSK
VFESGSIIVLTAHLLSRTQWRQKNTSYNFHSFSIRMAISLGLNRDLPSSFSDSSILEQRRRI
WWSVYSWEIQLSLLYGRSIQLSQNTISFPSSVDDVQRTTGPTIYHGIETARLLQVFTKIYELD
KTVAEKSPICAKKCLMICNEIEEVSQRQAPKFLQMDISTTALTNLLKEHPWLSFTRFELKWQ
LSLIIYVLRDFFTNTQKKSQLEQDQNDHQSYEVKRCSIMLSAAQRTVMSVSSYMDNHNVT
PYFAWNCSYLYFNAVLVPIKTLSSNSKSNAENNETAQLLQQINTVMLKKLATFKIQTCEKY
IQVLEEVCAFLLSQCAIPLPHISYNNNSNSAIKNIVGSATIAQYPTLPEENVNNISVKYVSPGSV
GPSPVPLKSGASFSDLVKLLSNRPPSRNSPVTIPRSTPSHRSVTPFLGQQQLQSLVPLTPSALF
GGANFNQSGNIADSSLFTFTNNSNGPNLITTQTNSQLSQPIASSNVHDNFMNNEITASKIDD
GNNSKPLSPGWTDQTAYNAFGITTGMFTTMDDVNYLFDDDEDTPPNPKKE

>DP00423|P53551|#166-258

MAPKKSTTKTTSKGKKPATSKGKEKSTSAAIKTTAKKEEASSKSYRELIIEGLTALKERKG
SSRPALKKFIKENYPIVGSASNFDLYFNNAIKKGVEAGDFEQPKGAGAVKLAKKSPEVKKE
KEVSPKPKQAATSVSATASKAKAASKTAKLAPKKVVKKKSPTVAKKASSPSSLTYKEMILKSM
PQLNDKGSSRIVLKKYVKDTFSSKLKTSSNFDYLNFNSAIKKCVENGELVQPKGPSGIKLNKK
KVKLST

>DP01292|P49768|#1-77

MTELPAPLSYFQNAQMSEDNHSNTVRSQNDNRERQEHNDRSLGHPEPLSNGRPQGNSRQ
VVEQDEEDEELTLKYGAKHVIMLFVPTLCMVVVVATIKSVSFYTRKDQLIYTPFTEDTET

VGQRALHSILNAAIMISVIVVMTILLVVLYKYRCYKVIHAWLISSLLLFFSFIYLGEVFKTY
NVAVDYITVALLIWNFGVVGMIHWKGPLRLQQAYLIMISALMALVFIKYLPEWTAWLILA
VISVYDLVAVLCPKGPLRMLVETAQERNETLFPALIYSSTMVWLVNMAEGDPEAQRRVSKNS
KYNAESTERESQDTVAENDDGGFSEWEAQRDSHLGHRSTPESRAAVQELSSSILAGEDPEE
RGVKLGLGDFIFYSVLVGKASATASGDWNTTIACFVAILIGLCLLLLAIFFKKALPALPISITF
GLVFYFATDYLVQPFMDQLAFHQFYI

>DP01938|P11021|#1-24 #634-654

MKLSLVAAMLLLSAARAEEDKKEDVGTVGIDLGTTYSVGVFKNGRVEIIANDQGNRIT
PSYVAFTPEGERLIGDAAKNQLTSNPENTVFDAKRLIGRTWNDPNVQQDIKFLPFKVVEKTK
PYIQVDIGGGQTKTFAPEEISAMVLTKMKETAEAYLGKKVTHAVVTVPAYFNDAQRQATKD
AGTIAGLNVMRIINEPTAAAIAYGLDKREGEKNILVFDLGGGTFDVSLLTIDNGVFEVVATNG
DTHLGGEDFDQRVMEHFIKLYKKKTGKDVRKDNRAVQKLRREVEAKRALSSQHQARIEIE
SFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLESDLKKSIDEIVLVGGSTRIPKIQQQL
VKEFFNGKEPSRGINPDEAVAYGAAVQAGVLSGDDQDTGDLVLLDVCPLTLGIETVGGVMTK
LIPRNTVVPTKKSQIFSTASDNQPTVTIKVYEGERPLTKDNHLLGTFDLTGIPPAPRGVPQIEVT
FEIDVNGILRVTAEDKGTCGNKNKITITNDQNRLTPEEIERMVNDAEKFAEEDKKLKERIDTRN
ELESYAYSLKNQIGDKEKLGGKLSSEDKETMEKAVEEKIEWLESHQDADIEDFKAKKKELEEI
VQPIISKLYGSAGPPPTGEEDTAEKDEL

>DP01313|Q9N4U5|#163-223

MADNPNTLRNADFRKLLTSARSDRPAVSFAKPADPKTGDDKPASFHKHKLKPAFKKKPQA
AAHGKAKKEKTEADEDEAALKNILKNYRDRRAAERRKQGDEKEDPSKLTAAVRAVPGDARS
AQDQADLRKQAIKESKYLGGDLEHTHLVKGKDYSLLNKVRSEIDKSDDDDDDDDIDTAFDEKV
TSSSSSSKPSEASLLAQELAQSHSENRMVRSLHRVLFKNEVPLHNQLFAKGRMAYVVELEDE
ETDIPTLLRSLHDLPRAESAQSIQANNLILKLSHVLSHLRAEPKKKKKEFRVQLGSRDAPG
AAAAAPGAKGDSIYDDDDYVPSRKSRSRDAGRRGSRRDRSRDRSRDRDRDRDNDRDRY
FEKSANSRREEEQNRREQQRERERAQEQQERREREKEREQEKAKEREKKRKELEESSGYDECY
PGGLVEMGGAWDSDEEADYSKMDAGPKKNQAVNRWDFDTEEEYASYMEGREALPKAAYQ
YGVKNGEGGRKNKKQSAVSDAKRLDRELNEINKIMDKRKAGGDGAGGGGDYKKPKY

>DP00374|H2I233|#140-148

MKDLVDTTEMYLRTIYELEEEGVTPLRARIAERLEQSGPTVSQTVARMERDGLVVVASDRSL
QMTPTRGTLATAVMRKHRLAERLLTDIIGLDINKVHDEACRWEHVMDSERVERLVKVLKDV
SRSPFGNPIPGLDELGVGNSDAAAPGTRVIDAATSMPRKVIRVQINEIFQVETDQFTQLLDADI
RVGSEVEJVDRDGHIITLSNGKDVEILLDDLAHTIRIEEL

DP01580|P06239|#69-86 #97-114

MCGCSSHEDDWENIDVCENCHYPIVPLDGKGTLLIRNGSEVRDPLVTYEGSNPPASPLQ
DNLVIALHSYEPHDGLGFEKGEQLRILEQSGEWWKAQSLTTGQEGFIPFNFKVAKANSLEPE
PWFFKNLSRKDAERQLLAPGNTHGSFLIRESESTAGSFSLSVRDFDQNQGEVVKHYKIRNLDN
GGFYISPRITFPGLHELVRHYTNASDGLCTRLSRPCQTQKPQKPWEDEWEVPRETLKLVERL
GAGQFGEVWMGYYNIGHTKAVKSLKQGSMSPDAFLAEANLMKQLHQQLVRLYAVVTQE
PIYIITEYMENGSLVDFLKTPSGIKLTINKLLDMAAQIAEGMAFIEERNYIHRDLRAANILVSDT
LSCKIADFGGLARLIEDNEYTAREGAKFPIKWTAPEAINYGTFTIKSDVWSFGILLTEIVTHGRIP
YPGMTNPEVIQNLERGYRMVRPDNCPEELYQLMRLCWKERPEDRPTFDYLRSVLEDFFTATE
GQYQPQP

>DP02493|O56139|#154-370 #379-395 #440-469

MYVLLTILTSVLVCEAIIRVSLSSSTREETCFGDSTNPEMIEGAWDSLREEEMPEELSCSISGIREVK
KTSSQELYRALKAIIAADGLNNITCHGKDPEKISLIKGPPHKRKGIVRCERRDAKQIGRKTMAGIAMTVPALAVFALAPVVFAEDPHLRNRPGKGHN
YIDGMTQEDATCKPVTYAGACSSF

DVLLEKGKFPLFQSYYAHRTLLEAVHDTIIAKADPPSCDLLSAHGNPCMKEKLVMKTHCPND
YQSAHHLNNDGKMASVKCPPKYELTEDCNFCRQMTGASLKKGSYPLQDLFCQSSEDDGSKL
KTGMKGVCVGVQALKKCDGQLSTAHEVVPFAVFNSKKVYLDKLDLKTEENLLPDSFVCF
EHKGQYKGTMDSGQTRELKSFDISQCPKIGGHGSKKCTGDAAFCSAYECTAQYANAYCSH
ANGSGIVQIQVSGVWKKPLCVGYERVVVKRELSAKPIQRVEPCTTCITKCEPHGLVVRSTGFK
ISSAVACASGVCVTGSQSPSTEITLKYPGISQSSGGDIGVHMAHDDQS VSSKIVAHCPPQDPCL
VHDCIVCAHGLINYQCHTALSAFVVVFVFSIAIICLAILYRVLKCLKIAPRKVLNPLMWITA
RWIYKKMVARVADNINQVNREIGWMEGGQLVLGNPAPIPRHAPIPRYSTYLMLLIVSYASA
CSELIQASSRTTCSTEGVNTKCRLSGTALIRAGSVGAEACMLKGVKEDQTKFLKLKTVSSEL
SCREGQSYWTGSFSPKCLSSRRCHLVGECHVNRCLSWRDNETSAEFSFVGESTTMRENKCFE
QCGGWGCGCFNVNPSCLFVHTYLQSVRKEALRVFNCIDWVHKLTLEITDFGSVSTIDLGAS
SSRFTNWGSVSLSLDAEGISGSNSFSFIESPGKGYAIVDEPFSEIPRQGFLGEIRCNSESSVLSAH
ESCLRAPNLISYKPMIDQLECTTNLIDPFVVERGSLPQTRNDKTFAASKGNRGVQAFSKGSV
QADLTLMDNFNFVDFVGAAVSCDAFLNLTCYSCNAGARVCLSITSTGTGSLSAHNKDGL
HIVLPSENGTKDQCQILHFTVPEVEEEFMYS CDGDERPLLVKGTLIAIDPFDDRREAGGESTVV
NPKSGSWNFFDWFSGLMSWFGGPLKTILLICLYVALSIGLFFLIYLGGTGLSKMWLAATKKA
S

>DP00112|P22239|#1-155

MAQFGGEKYGGRHTDEYGNPIQQGAGAHRGGGIMGGGQQAGQHGTGVLGHGTAGQHGT
TGGGLGHGTAGTGGALGGQHRRSGSSSSSSSESDGEGGRRKKGMKDKMKEKLPGGHGT
DQQQYGTAAHGQAQQHEKKGIMDKIKEKLPGGQH

>DP00899|P44654|#28-62 #131-150

MINMTKVSKILAGLFTALFAGSLMASDAPAVGKDLTQAAENIPPAFHNA PRQGELPALNYV
NQPPMVPHSVANYQVTKNVNQCLNCHSPENSRLSGATRISPTHFMDRDGVGSSSPRRYFC
LQCHVSQANVDPIVPNDFKPMKGYGN

>DP00243|P23025|#168-179 #206-218

MAAADGALPEAAALEQPAELPASVRASIERKRQRALMLRQARLAARPYSATAAAATGGMA
NVKAAPKIIDTGGGFILEEEEEEEQKIGKVVHQPGPVMEFDYVICEECGKEFMDSYLMNHFDL
PTCDNCRDADDKHKLITKTEAKQEYLLKDCDLEKREPPLKFIVKKNPHHSQWGDMKLYLKL
QIVKRSLEVWGSQEALLEEAKEVQRQENREKMKQKKFDKKVKELRRAVSSVWKRETIVHQHE
YGPEENLEDDMYRKCTCMCGHELTYEKM

>DP00013|P0DN86|#132-165

MEMFQGLLLLLLSMGGTWASKEPLRPRCRPINATLAVEKEGCPVCITVNTTICAGYCPTMT
RVLQGVLPALPVVCNYRDVRFESIRLPGCPRGVNPVVSYAVALSCQCALCRRSTDCGGPK
DHPLTCDDPRFQDSSSKAPPSLPSPSRLPGPSDTPILPQ

>DP02120|Q00944|#363-393 #573-584

MAAAYLDPNLNHTPSSAKTHLGTGMERSPGAMERVLKVFHYFENSSEPTTWASIIRHGDAT
DVRGIIQKIVDCHKVKNVACYGLRLSHLQSEEVHWLHLDGVSNVREKFELAHPPEEWKYE
LRIRYLPKGFLNQFTEDKPTLNFFYQQVKNDYMIEIADQVDQEIALKLCLEIRRSYGEMRGN
ALEKKSNYEVLEKDVGRLRRFPKSLLDSVAKTRLKLIQQTFRQFANLNREESILKFFEILSPV
YRFDKECFKCALGSSIISVELAIGPEEGISYLTDKGANPTHLADFNQVQTIQYSNSEDKDRKG
MLQLKIAGAPEPLTVTAPSLTIAENMADLIDGYCRLVNGATQSFII RPQKEGERALPSIPKLAN
NEKQGVRSHTVSSETDDYAEIIDEDTYTMPSTRDYEIQRERIELGRCIGEGQFGDVHQGIY
MSPENPAMAVAIKTCKNCTS DS VREKFLQE ALTMRQFDHPHIVKLIGVITENPVWIIMELCTL
GELRSFLQVRKFSDLLASLILYAYQLSTALAYLESKRFVHRDIAARNVLVSATDCVKLGDFGL
SRYMEDSTYYKASKGKLPKWMAPESINFRRFTSASDVWMFGVCMWEILMHGVKPFQGVK
NNDVIGRIENERLPMPPNCPTLYSLMTKWAYDPSRRPRFTELKAQLSTILEEKLQQEER

MRMESRRQVTWSWDSGGSDEAPPKPSRPGYPSPRSSEGFYPSPQHMVQPNHYQVSGYSGSHG
IPAMAGSIYPGQASLLDQTDSWNHRPQEVSQWQPNMEDSGTLDRGMQVLPTHLMEEERLI
RQQQEMEEDQRWLEKEERFLVMKPDVRLSRGSIEREDGGLQGPAGNQHIYQPVGKPDHAAP
PKKPPRPGAPHGLSLASLNSPVDSYNEGVKIKPQEISPPPTANLDRSNDKVYENVTLVKAIE
MSSKIQPAPPEEYVPMVKEVGLALRTLLATVDESLPVLPASTHREIEMAQKLLNSDLAELINK
MKLAQQYVMTSLQQEYKKQMLTAAHALAVDAKNLLVIDQARLKMISQRPH

>DP00073|P04818|#1-27 #107-128 #146-153

MPVAGSELPRRPLPPAAQERDAEPRRPHGEQYLQHQIHLRCGVRKDDRTGTGTLVFGMQ
ARYSLRDEFPLLLTKRVFWKGVLLELLWFIKGSTNAKESSKGVKIWWDANGSRDFLDLSGFST
REEGDLGPVYGFQWRHFGAEYRDMESEDYSGQGVQLQRVIDTIKTNPDDRRIIMCAWNPRD
LPLMALPPCHALCQFYVVNSELSCQLYQRSGDMGLGVPFNIASYALLTYMIAHITGLKPGDFI
HTLGDAHIYNHIEPLKIQQLQREPRPFPKLRLRKVEKIDDFKAEDFQIEGYNPHPTIKMEMAV

>DP00279|P08523|##35-49 #57-68 #84-99

MAEDGPQKQQLDMPVLVDQDLTKQMRLRVESLKQRGEKKQDGKLLRPAESVYRLDFIQQ
QLQFDHWNVVLDKPGKVITGTSQNWTPLTLMTRQLLDPAAIFWRKEDSDAMDWNEA
DALEFGERLSDLAKIRKVMYFLITFGEVGEVANEKASVVFNL

>DP00914|I7MK25|#1-17

MPKNKGRGGNYRRGKNESETKRELVFKEEGMEYAQVIKMLGNRLEVFCFDGKRRIGHIC
GRLKKVWISMDDIVLVGLRDFQDDKCDILLKYLPCDEVNLKQYGEIDENIKINDKSGADQA
DVVFEDSDSDDKDDDDDEEQPTRQTNTRVNQMVESSDEEDNKETGNYEEQKYDQKHQN
KKDDIDIDDI

>DP01925|Q02078|#75-86

MGRKKIQITRIMDERNRQVTFTKRKGKMKAYELSVCDCELALIIFNSSNKLFQYASTDM
KVLLKYTEYNEPHESRTNSDIVEALNKKEHRCDSPPDTSYVLTPTHEEKYKKINEEFDM
MRNHKIAPIGLPPQNFSMSVTVPVTSPNALSYTNGSSLVSPSLAASSTLTSSMLSPPQTTLHR
NVSPGAPQRPPSTGNAGGMLSTTDLTVNGAGSSPVGNGFVNSRASPNLIGATGANSLGKVM
PTKSPPPGGGNLGMNSRKPDLRVVIPIPSSKGMMPLSEEELNTQRISSQATQPLATPV
SVTTPSLPPQGLVYSAMPTAYNTDYSLTSADLSALQGFNSPGMLSLGQVSAWQQHHLGQAA
LSSLVAGGQLSQGSNLSINTQNISIKSEPISPRDRMTPSGFQQQQQQQQPPPPPQPQP
PQPQPRQEMGRSPVDSLSSSSSYDGSDREDPRGDFHSPIVLRPPNTEDRESPSVKRMMDA
WVT

>DP01919|Q9V0U0|#513-633

MMVMTDKFNYEELGLKVGLEIHRQLDTKLFSPVPSLSDKVEFTFQRRRLRPTMSELGEIDPA
ALEEFKKGRVYYEGNYELTDLVYMDEPPRGPDREALEVALQIAYLLNAKPVDEVYYMRK
IVIDGSNVSGFQRTAIATDGKVETPWGAvgIPTICLEEDAARIERKDKEVIYRLDRLGIPLIEIS
TTPDIHPEQAKVVAFIGDALRATKKVKRGLGTIRQLNVSIGGARIEIKGVQELDMIPIIE
REVERQLNLLKIRDELKRGVKPKDIKEFYDVTDFENTKSIIARVIKGGKVLAIKLPKFR
GLIGREIQPGRRLGTEFADRAKKYVPGIFHIDELPNYGISQEEVNKVIERLNLEEDAFVLVAA
EEEKAKNALREVIKRAREAIEGVPEETRRALPDGNTEYMRPLPGKARMYPETDIPPLRIPDDL
KKKIKENLPELPQAKVERYVKEYKLDRLSLAQTLVDDERDELFEELVSMGVKPSLAASILVV
LKGLRKEVPIENVTDEHIREAFQLYLEGKIAKEAFEEIFKELARNPSKSAREVAEKGLTLLSE
EEVTRIIEVIQQNIEVVAKGMGAMGLIMGRVMAKVRGKADGKLVSQIVRRKLQEISGG

>DP01248|O95292|#1-125

MAKVEQVLSLEPQHELKFRGPFTDVVTNLKLGNPTRNVCFKVTTAPRRYCVRPNSIID
AGASINVSVMLQPFDYDPNEKSKHKFMVQSMFAPTDTSDMEAIVWEAKPEDLMDSKLRCV
FELPAENDKPHDVEINKIISTTASKTETPIVSKSLSSSLDDTEVKVMEECKRLQGEVQLREE
NKQFKEEDGLRMRKTVQSNSPISALAPTGKEEGLSTRLLALVVLFFIVGVIIGKIAL

>DP02491|Q9WBP8#1-216

MAADGYLPDWLEDNLSEGIREWWDLKPAGPKKANQQKQDDGRGLVPGYKYLGPNGLD
KGEPVNAADAAALEHDKAYDQQLKAGDNPYLRYNHADADEFQERLQEDTSFGGNLGRAVFQ
AKKRVLEPLGLVEEGAKTAPGKKRPVEQSPQEPDSSSGIGKTGQQPAKKRLNFGQTGDSESV
PDPQPLGEPPATPAAVGPTTMASGGGAPMADNNEGADGVGNASGNWHCDSTWLGDRVITT
STRTWALPTYNHHLYKQISSASTGASNDNHYFGYSTPWGYDFNRFHCHFSPRDWQRЛИNN
WGFRPKRLNFKLNIQVKEVTTNDGVTIANNLTSTVQVFSDEYQLPYVLGSAHQGCLPPFP
ADVFMIPQYGYTLNNGSQAVGRSSFYCLEYFPSQMLRTGNNFTFSYTFEEVPFHSSYAHQS
LDRLMNPLIDQYLYYLNRNTQNQSGSAQNKKLLSRGSPAGMSVQPKNWLPGPGCYRQQRVSK
TKTDNNNSNFTWTGASKYNLNGRESIINPGTAMASHKDDEDKFFPMMSGVMIFGKESAGASNT
ALDNVMITDEEEIKATNPVATERFGTVAVNFQSSSTDATGDVHAMGALPGMVWQDRDVYL
QGPIWAKIPTDGHFHPSPLMGGFLKNPPPQILIKNTPVANPPAEFSATKFASFITQYSTGQV
SVEIEWELQKENSKRWNPEVQYTSNYAKSANVDFTVDNNGLYTEPRPIGTRYLTRPL

>DP01060|A8CDV5#1-118

MGSLEMVPMGAGPPSPGGDPDGDDGGNNSQYPSASGSSGNTPTPPNDEERESNEEPPPPYED
PYWGNGDRHSDYQPLGTQDQSLYLGHQHDGNDGLPPPYSRDDSSQHIYEEAGRГ

>DP00080|P15337#101-119 #120-144 #134-144 #146-160

MTMDSGADNQQSGDAAVTEAESQQMTVQAQPQIAQVSMAPAHHATSSAPTVTLVQLPN
GQTVQHGVIQAAQPSVIQSPQVQTVQSSCKDLKRLFSGTQISTIAESEDSQESVDSVTDSQKR
REILSRRPSYRKILNDLSSDAPGVPRIEEKSEEETSAPIATTVTVPPIYQTSSGQYIAITQGGAI
QLANNGTDGVQGLQTLTMTNAAATQPGTTILQYAQTTDGQQILVPSNQVVVQAASGDVQTY
QIRTAPTSTIAPGVVMASSPALPTQPAEEAARKREVRLMKNREAARECRKKKEYVKCLENR
VAVLENQNKTIEELKALKDLYCHKSD

>DP00848|Q49ZM2#1-49

MKKLVTATLTAGIGAAIVGLDHGNEADAAEQTQPTNQSTTQSTSGSSANLYTAGQCTWYV
YDKVGGNIGSTWGNANNWASAASSAGYTVNNSSPEAGSILQSTAGGYGHVAYVENVNSDGS
VEVSEMNYNGGPFSVSERTISAGEASSNYIHLN

>DP02329|K7J0R2#335-372 #351-385

MWSPAIIILIGATFANQQNGWTNGKQTYAINSRTIAFNQQSKYLSGIVIEAYLTVQPNGE
DTLRAKIWQPRYSPIHTQLENGWDSEIPQNLINLQTFPLSGKPFEIKTKNGVVRDLIVDKDVPT
WEVNVLKGIVSQLQIDTSGENVKSKRNQLPEENQPFACKAMEDSVGGKCEVLYDISPLPE
QLQNKPELAPMPRELREDGDMISLVTKKNYSNCERQAGYHFNINGRNAWEPGSNERKYLS
RSSVSRIISGNLRKYTIQSSVTTNKVVHADNQEENQGMVASRMNLTLHKVEDMSEPMES
PVNPQSTGNLVVYNNSPIDSIARRPNKYNQKRSDEKNKNSDESDSESDGSVFDNNDDS
YLQPKPKLTDAPSPLLPFFIGNNGNSILKNKKDAVKSATSIAQEIGNEMQNPDIMFAEQTLE
KFTILSKLIRTMNSEQIASVRSLYERAQSLNQLKQNPQLSRRNAWVAFRDAVAQAGTGP
ALVNIKQWVQNKQIEGTEATHVIDTLAKSVRIPTPEYMDTYFELIKMEEVKRELIVRDAAVLS
FADLIRHAVVNKKSAHNHYPVHAFGRLLPKNFRQLHEKYIPYLEEELLKAVDAGDSRIHTY
TIALGKTAHPRVLAVFEPYLEGKKPISPYQRLVMVLSLNKLASIFPKVGRSVLYKIYSNTADY
HEIRTAavyllmqsnpasmlqrmaeftnydtskyvnsavkstieslaqlhdnheyqgllds
ARAAQPLLTSESYGPQYSKQMFFNLRNPLTQSDYFIQASTIGSEDIIIPKGVYVITIPTYNGMK
MPKIEIGGEVSSLKNLWNFVQQRISNSQRSDSNEK PENQKYS PENLA KLLGIYGEETE QIEGFA
FINDKFANHFLTDFNHTLEKIPGMLRQLAEDMKQGRSF DATKLKNF EVTISFPTETGFPRFTV
KNPTITSVSGVSHLKTTSGSGRSEWPKASLSGNVRIVYGLQTQKRLGFVTPFEHQEYMGID
KDMQVYLPVRSEIEYDVNKGETRLRIQPNENLDEFKIIQYRTQPFTSKHDILNLEPITKDSNTA
TVHKNRATSSQIELNDNNNKQRLQFNWERQMRHLEEIGNSYNKRQNAMEAMCKLTQSISS
MFYLNVDSEYQKYSVKVSPGSDMSAEMRISHDSMITENSETDNSESWSPNAKTVHLERSL

SEQERKQTLLEASKNINSAEANVVDISLQLNGDMQSSVALTAAFADSNVDRKSALLYASV
ETKGGQDYHVSAGFEGKNPNIESTDFEEILKANDRREYDLNVHYGIGTNENDENKQNRIKVR
GEIKQTEERKKQIRQSHDARVCMDQQSLHGDKMTSACKRINKRASLADAGDFTVTFPNKSP
MREIVMSAWDAEARMTQSVSHWKNRMIKEEDNKVKVTFEMSPNDEKVDVTVKTPEGQIQ
LNNIKVALISNKNNGNVKDNRNEDDEELNKLNDNVQCQLDKTQARTFDNHRYPLQLGSCWH
AMTPYPKHDPPSKKLEIPENMQSILTRENENGQKELKITLGESIELSASGPRQTHAKVNG
NKVHYSKHKSYKEKKHGKVLFELFELSDESLKLVSKYDIEIVYDGYRAQIETGERYRDSVR
GLCGNDGESMNDQQTPKGCLLQKPEEFSATYALTNDQCQGPAIRNAADEAKSQCSYQT
RPGNVISEKEAGRETELSQDSDGAKHCMTHRTKIIRSKNEICFLRPIPTCLSKCSPSSI
FHCVAKSASQKVAERVEKGANPDLTQKSCTLTEQLPINCKA

>DP00506|P07766#1-11 #153-207

MQSGTHWRVGLCLLSVGWQGDNEEMGGITQTPYKVSISGTTVILTCPQYPGEILWQHN
DKNIGGDEDKKNIGSDEDHLSLKEFSELEQSGYYVCYPRGSKPEDANFYLYLRARVCENCME
MDVMSVATIVIVDICITGLLLLVYYWSKRNKA
AKPVTRGAGAGGRQRGQNKERPPPVPN
PDYEPIRGQRDLYSGLNQRRI

>DP00517|P52179#836-931

MSLPFYQRCHQHYDLSYRNKDV
RSTVSHYQREKKRSAYTQGSTAYSSRSSAAHRRESEAF
RRASASSSSQQQASQHALSSEVRKA
ASA
YDYGSSHGLTDSSL
LLDDYSSKLS
PKPKRAHS
LL
SGEEKENLPSDYMVP
IFSGRQKH
VSGITD
TEERIKE
AAAYIA
QRNLL
ASEEGIT
TSKQSTASK
QSTASK
QSTASRQ
STASRQ
SVSKQ
ATSAL
LQQEET
SEK
SRKV
VIRE
KAER
LSLRKT
LEETETY
HAKLN
NEDHLL
HAPEFI
IKPRS
HTVWE
KENV
LHCS
AGW
PEP
RVTWY
K
QVP
INV
HAN
PGKY
II
ESRY
GMHT
LE
ING
CDF
FTA
QY
RAS
AM
NV
KG
EL
SAY
AS
VV
KRY
KG
EF
DE
TRF
HAG
AST
MPL
SF
GV
TPY
GY
AS
RF
EI
HF
DD
KF
DV
SF
GRE
GET
MSL
GCR
V
V
IT
PE
IKH
FQ
PEI
QWY
RNG
VPL
PSK
WV
QTL
WS
GER
AT
LT
F
SHLN
KE
DE
GLY
T
IR
VR
M
GE
YY
EQ
SAY
VF
RD
ADA
E
IE
GAP
A
PL
DV
CLE
ANK
DY
II
IS
WK
QPA
V
DGG
SP
IL
GY
FID
K
CE
VG
T
D
S
W
S
QC
ND
T
PV
K
F
AR
F
PV
T
G
L
I
E
G
R
S
Y
I
F
R
V
R
A
V
N
K
M
G
I
G
F
P
R
S
V
S
E
P
V
A
A
L
D
P
A
E
K
A
R
L
K
S
R
P
S
A
P
W
T
G
Q
II
V
T
EE
P
S
E
G
I
V
P
G
P
T
D
L
S
V
T
E
A
R
S
Y
V
V
L
S
W
K
P
P
G
Q
R
G
H
E
G
I
M
Y
F
V
E
K
C
E
A
G
T
E
N
W
Q
R
V
N
T
EL
P
V
K
S
P
R
F
A
L
F
D
L
A
E
G
K
S
Y
C
F
R
V
R
C
S
N
S
A
G
V
G
E
P
S
E
A
T
E
V
T
V
V
G
D
K
L
D
I
P
K
A
P
G
K
I
I
P
S
R
N
T
D
T
S
V
V
V
S
W
E
E
S
K
D
A
K
E
L
V
G
Y
Y
I
E
A
S
V
A
G
S
G
K
W
E
P
C
N
N
P
V
K
G
S
R
F
T
C
H
G
L
V
T
G
Q
S
Y
I
F
R
V
R
A
V
N
A
A
G
L
S
E
Y
S
Q
D
S
E
A
I
E
V
K
A
I
G
G
G
V
S
P
D
V
C
P
A
L
S
D
E
P
G
G
L
T
A
S
R
G
R
V
H
E
A
S
P
P
T
F
Q
K
D
A
L
L
G
S
K
P
S
L
P
S
S
Q
N
L
G
Q
T
E
V
S
K
V
S
E
T
V
Q
E
E
L
T
P
P
P
Q
K
A
P
Q
G
K
S
K
S
D
P
L
K
K
T
D
R
A
P
P
S
P
C
D
I
T
C
L
E
S
F
R
D
S
M
V
L
G
W
K
Q
P
D
K
I
G
G
A
E
I
T
G
Y
Y
V
N
Y
R
E
V
I
D
G
V
P
G
K
W
R
E
A
N
V
K
A
V
S
E
E
A
Y
K
I
N
L
K
E
R
D
R
E
I
S
V
D
E
K
H
D
F
K
D
I
C
T
L
I
T
E
F
S
K
K
D
A
G
I
Y
E
V
I
L
K
D
D
R
G
K
S
R
L
K
L
V
D
E
A
F
K
E
L
M
M
E
V
C
K
K
I
A
L
S
A
T
D
L
K
I
Q
S
T
A
E
G
I
Q
L
Y
S
F
V
T
Y
Y
V
E
D
L
K
V
N
W
S
H
N
G
S
A
I
R
Y
S
D
R
V
K
T
G
V
T
G
E
Q
I
W
L
Q
I
N
E
P
T
P
N
D
K
G
K
Y
V
M
E
L
F
D
G
K
T
G
H
Q
K
T
V
D
L
S
G
Q
A
Y
D
E
A
Y
A
F
Q
R
L
K
Q
A
A
I
E
K
N
R
A
R
V
L
G
G
P
D
V
V
T
I
Q
E
G
K
A
L
N
L
C
N
V
W
G
D
P
P
E
V
S
W
L
K
N
E
K
A
L
S
D
H
C
N
L
K
F
E
A
G
R
T
A
Y
F
T
I
N
G
V
S
T
A
D
S
G
K
Y
G
L
V
V
K
N
Y
G
S
E
T
S
D
F
T
V
S
F
I
P
E
E
A
R
M
A
A
L
S
K
G
G
K
K
A
K

>DP01172|O43516#2-101 #407-503

MPVPPPAPPPPPTFALANTEKPTLNKTEQAGR
NALLSDISK
GKKLK
KTV
NDR
SAPI
LDK
PKG
AGAGGGGGFGGGGGFGGGGGGGGGF
GGGGPPGL
GLFQAGMP
KLR
STAN
RD
ND
SGGS

RPLLPPGGRSTSAKPFSPPSGPGRFPVSPGHRSGPPEQQRNRMPPPRDVGSKPDSSIPPVPS
PRPIQSSPHNRGSPPVPGGPRQPSPGPPTPPPFGNRGTALGGGSIRQSPLSSSPFSNRPLPPTPS
RALDDKPPPPPPPVGNRPSIHREA VPPPPPQNNKPPVPSTPRPSASSQAPPPPPPSRPGPLPPLPPS
SSGNDETPRLPQRNLSLSSSTPPLSPGRSGPLPPPSERPPPPVRDPPGRSGPLPPPPVSRNGST
SRALPATPQLPSRGVDSPRGPRPPLPPDRPSAGAPPPPPSTSIRNGFQDSPCEDEWESRFYF
HPISDLPPPEPYVQTTKSYPSKLARNESRSRSGSNRRERGAPPLPIPR

>DP01184|O96013|#9-68

MFGKKRVEISAPSNEFHRVHTGFDQHEQKFTGLPRQWSLIEESARRPKPLVDPACITSIQP
GAPKTIVRGSKGAKDGALTLLDEFENMSVTRNSLRRDSPPPQARQENGMPPEPATTAR
GGPGKAGSRGRFAGHSEAGGGSDRRRAAGPEKRKPSSREGSGGPQESSRDKRPLSGPDVGTP
QPAGLASGAKLAAGRPFNTYPRADTDHSRGAQGEHDVAPNGPSAGGLAIPQSSSSSRPPT
RARGAPSPGVLGPHASEPQLAPPACTPAAPAVPGPPGRSPQREPQRVSHEQFRAALQLVVDP
GDPRSÝLDNFÍKIGEGSTGIVCIATVRSSGKLVAVKKMDLRKQQRRELLFNEVVIMRDYQHEN
VVEMYNSYLVGDELWVVMFLEGGALTDIVTHTRMNEEQIAAVCLAVLQALSVLHAQGVIH
RDIKSDSLTHDGRVKLSDFGFCAQVSKEVPRRKSLVGTPYWMAPELISRLPYGPEVDIWSL
GIMVIEMVDGEPPYFNEPPLKAMKMIRDNLPPRLKNLHKVSPSLKGFLDRLLVRDPAQRATA
AELLKHPFLAKAGPPASIVPLMRQNRTR

>DP01279|Q8N5Y2|#226-246

MSASEGMKFKFHSGEKVLCFEPDKARVLYDAKIVDVIVGKDEKGRKIPEYLIHFNGWNRS
WDRWAAEDHVLRDTDENRLQRLARKAVARLRSTGRKKRCRLPGVDSVLKGLPTEEKD
ENDENSLSSSSDCSENKDEEISEESDIEEKTEVKEEPELQTRREMEERTITIEIPEVLKKQLEDDC
YYINRRKRLVKLPCQTNIIITLESYVHFNAIAFSANERPRHHVMMPHANMVHYIPAENV
DLCKEMVDGLRITFDYTLPLVLLYPYEQAQYKKVTSSKFFLPIKESATSTNRSQEELSPSPPLL
NPSTPQSTESQPTTGEPATPKRRKAPEALQLSRRSTRHSANCDRLESSASQPQPKRQQDTS
SMPKLFHLLEKKTPVHSRSSSPILTPSKEGSAVFAGFEGRTNEINEVLSWKLVPDNYPGDQ
PPPPSYIYGAQHLLRLFVKLPEILGKMSFSEKNLKALLKHFDLFLRFLAHEYHDDFFPESAYVAA
CEAHYSTKNPRAIJ

>DP01425|Q15004|#1-111 #50-77

MVRTKADSVPGTYRKVVAARAPRKVLGSSTSATNSTVSSRKAENKYAGGNPVCVRPTPKW
OKGIGEEFRJSPKDSEKENOIPFAGSSGI GKAKRKACPLQPDHTNDEKE

2025 RELEASE UNDER E.O. 14176

MFEQRVNSDVLTVSTVNSQDQVTQKPLRDSVKQALKNYFAQLNGQDVNDLYELVLAEVEQ
PLIDMVMOVTBGNOTRAJLMMGJNRGTIRKKLKKVGMN

>DB01205|B02263|#1_13, #118_128

>DF01205|F02205#1-15 #116-128
MSGRGKQGGKARAKAKSRSSRAGLQFPVGRVHRLRKGNYAERVGAGAPVYLAALVLEYLT
AEILELAGNAARDNKKTRIIPRHLQLAIRNDELNKLLGKVTAQGGVLVPNQAVLLPKKTDSH
KAKAK

>DP01246|Q13916|#25-80

MLRRNPTAIQITAEDVLAYDEEKL RQTL DSESTTEEALQKNEESTRLSPEKKIIRERRIGITQIF
DSSMHPHSOGGAQOS

DP01399|G0S4M4|#573-637

MPQPLSTREANLFRTVIRHYEDKQYKRLKAAEQILKKNPKHGDTMSMKALILNAQGKTEE
AFALAKEALTIDMKSYICWHVYGILYRTNKFDEAIKAYFALKLEPESHQIQRDLAVLQIQM
RDYAGYVQSRLNMLKARPQIRQNWTALAIAYHLEGNLEKAEHILTTYEKSLTTPPKTDLEH
SEALLYKNTIIAERGDIERALQHLETCKHCLDRЛАVMELRASYLSKLARKDEAAKAYRALL
DRNPEHMDYYKGLISALDISADDEEAQKAVYDEYAAKYPRSDAAKRLPLNFLSGERFRRTAK
AYLTLMFDFKGVPSTFANLKHLYSDFKKETLASLAEYLNEYVNARPSDNQADGDGSKGKG

AALYYLAQHYNYYMSRDLTRALEYVEKAIELDPKNVDFHMTKARIFKHQGDLAKAAETMD
YARSMDPKDRYINSKAALKYQLRNNNEKALATMGLFTRAETAGGPLADLTDQCWFLTED
GEAWQRRGNTALALKRYHTVFSIFDTWQEDQFDHSFLRGQIRAYVDMVRWEDRLREHP
FYFRAALDAVNLYLSMYDKPQSANGANGTEAANPNGEDAAEKKKAACKKARKEAQKAERE
AAERAQDQPNKPGAQKGKEEDIKKDDDPNGEKLAAKTDPLGDAMKFLNYILQFSPKNID
GQIAGFEVYIRKKKYLLALRCLKAASAIDKNHPNVLEQAQLRKIVSSALGSMAPKLREVIQA
ELVGVPGA

>DP00508|P09693|#139-182

MEQGKGLAVLILAIILLQGTLAQSIKGHNHLVKVYDYQEDGSVLLTCDAEAKNITWFKDGM
GFLTEDKKWNLGSNAKDPGRMYQCKGSQNKSPLQVYYRMCQNCIELNAATISGFLFAEI
VSIFVLAVGVYFIAGQDGVRQRSASDKQTLLPNDQLYQPLKDREDDQYSHLQGNQLRRN

>DP01378|P0CU43|#1-224

MSNYQQESSYQYSRDRSNGQQQEQQEKKEVEHSSYTHTDVKVNMNPNIAPFISSAGLAQEL
VGE GFQASVSRITGASGELTVIDTEAETEEARRDMEA KAREQELLSRQFEKELERKTEAYRKQ
QE VETEKIRKELEKQHLDVFRKELMEQTIENQRQIDLEARYAKKELERERNKVKRVLER
SKFH TDQVNMEA AAGSTHSGSSSVAVSESEKFQTNN

>DP00262|Q16665|#403-698 #776-826

MEGAGGANDKKKISSERRKEKS RDAARSRRSKESEVFYELAHQLPLPHNVSSHLDKASVMRL
TISYLVRKLLDAGDLDIEDDMKAQMNCFYLKALDGFMVLTDDGDMYISDNVNKYMGL
TQFELTGHSVDFTHPCDHEEMREMLTHRNGLVKKGKEQNTQRSFFLMKCTLTSRGRTMNI
KSATWKVLHCTGHIVYDTNSNQPQCGYKKPPMTCLVLICEPIPHPSNIEIPLDSKTFLSRHSL
DMKFSYCDERITELMGYEPEELLGRSIYEEYHALDSDHLTKTHDMFTKGQVTTGQYRMLA
KRGGYVVWETQATVIYNTKNSQPQ CIVCVNYYVSGIIQHDLIFLSLQQTECVLKPVESSDMKM
TQLFTKVESED TSSLFDKLKKEPDALTLLAPAAGDTIISLDGSNDTETDDQQLEEVPLYNDV
MLPSPNEKLQNINLAMSPLTAETPKPLRSSADPALNQEVALKLEPNPESLELSFTMPQI QDQT
PS PSDGSTRQSSPEPNSPSEYCFYVDSDMVNEFKLELVEKLF AEDTEAKNPFSTQDT DLEM
LAPYIPMDDDFQLRSFDQLSPLESSASPESASPQSTVVFQQTQI QEP TANATT TATT DELKT
VT KDRMEDIKILLASPSPTHIKETTSATSSPYRDTQSRTASN RAGKGVIEQTEKSHPRSPNVL
SVALSQRTTVPEEELNPKILALQNAQRKRM EHDSL FQLTSYDCEVNAPIQGSRNLLQGE
RVKGCKSSEQNGMEQKTIILIPSDLACRLLGQSMDESLPQLT SYDCEVNAPIQGSRNLLQGE
ELLRALDQVN

>DP00742|Q99LM3|#1-341 #455-459

MEQTEGNSSEDGTTVSPTAGNLET PGSQGIAEEVAEGTVGTS DKEGPSDWAEHLCKAASKSG
ESGGSPGEASILDELKTDLQGEARGKDEAQGDLAEEKVGKEDTTAASQEDTGKKEETKPEPN
EVREKEEAMLASEKQKVDEKETNLESKEKSDVNDKAKPEPKEDAGAEVTVNEAETESQEEA
DVKDQAKPELPEVDGKETGSDTKELVEPESPTEEQE QGKEN ESEERA AVIPSSPEEW PESPTDE
GPSLSPDGLAESTGETPSASESSPSEVPGSPTEPQPSEKKDRAPERRVSAPS RPRGPRAQNR
KAIMDKFGGAASGPTALFRNTKAAGAAIGGVKNMLLEWC RAMTRN YEHVDIQNFSSWSSG
MAFCALIHKKFPEAFDYAELDPAKRRHNTLAFSTA KLADCAQLLEVDDMVRLAVPDSKCV
YTYIQELYRSLVQKGLVKT KKK

>DP01116|Q03164|#140-160

MAHSCRWRFPARP GTTGGGGGRRGLGGAPRQRP ALLPPGPPVGGGP GAPPSPPAVA
AAAAAAGSSGAGVPGAAAASAASSSSASSSSASSGPALLRVGPGFDAALQV SAAIGT
NLRRFRAVFGESGGGGSGEDEQFLGFGSDEEVVRVRSPTRS PVKTS PRKPRGRPRSGSDRNS
AILSDPSVFSPLNKSETKSGDKIKKDSKSIEKKRGRPPTFPGVKIKITHGKD ISEL PKGNKEDS
LKKIKRTPSATFQQATKIKKLRAGKLSPLKSFKTGKLQIGRKGVQIVRRRGRPPSTERIKTPS
GLL INSELEKPQKVRKDKEGT PPLTKEDKT VVRQSPRRIKPVRIIPSSKRT DATIAKQLLQRAK

KGAQKKIEKEAAQLQGRKVKTQVKNIRQFIMPVVSAISSRIIKTPRRFIEDEDYDPPIKIARLES
TPNSRFSAPSCGSSEKSSAASQHSSQMSSDSSRSSPSVDTSTDQSQAEEIQVLPEERSDTPEVH
PPLPISQSPENESNDRRSRRYSVSERSFGSRTTKLSTLQSAPQQTSSSSPPPPLTPPPPLQPASS
ISDHTPWLMPPTIPLASPFLPASTAMPQGKRKSILREPTFRWTSKHSRSEPQYFSSAKYAKEG
LIRKPIFDNFRRPPPLTPEDVGFSAGFSAGTAASARLFSPHLHSGRFDMHKRSPLLRAFPFTPSE
AHSRIFESVTLPNSNRTSAGTSSSGVSNRKRKRKFSPRSEPRSPSHSMRTRSGRLSSSELSPLTP
PSSVSSSLISVSPLAGTSALNPTFTFPSHSLTQSGESAEKNQRPRKQTSAEAEFPSSSPTPLFWF
TPGSQTERGRNKDKAPEELSKDRDADSKVEKDERSERDREREKENKRESRKEKRKKGSEIQS
SSALYPVGRVSKEKVVGEDVATSSAKATGRKKSSHDSGTDITSVTLGDTAVTKTILIKK
GRGNLEKTNLDLGPTAPSLEKEKTLCLSTPSSSTVKHSTSSIGSMLAQADKLPMTDKRVASLL
KKAKAQLCKIEKSLSKQTDQPKAQGQESDSSETSVRGPRIKHVCRAAVALGRKRAVFDD
MPTLSALPWEEREKILSSMGNDDKSSIAGSEDAEPLAPPKPKPVTRNKAPQEPPVKKGRSSR
RCGQCPGCQVPEDCGVCTNCLDKPKFGGRNIKKQCCMRKCQNLQWMPSKAYLQKQAKA
VKKKEKKSKTSEKKDSKESSVVNVNVDSSQKPTPSAREDPAPKKSSEPPRKPVEEKSEGN
VSAPGPESKQATTPASRKSSQVSPALVIPPQPPPTGPPRKEVPKTPSEPKKKQPPPESGPE
QSKQKKVAPRPSIPVKQKPKEKEKPPPVNQKENAGTLNILSTLSNGNSKQKIPADGVHRIRV
DFKEDCEAENVWEMGLGILTSVPITPRVVCFLCASSGHVEFVYCQVCCEPFHKFCLEENERP
LEDQLENWCCRCKFCHVCGRHQATKQLLECNKCRNSYHPECLGPNYPTKPTKKKKVWIC
TKCVRCKSCGSTTPGKGWDAQWSHDFSLCHDCAKLFAKGNFCPLCDKCYDDDDYESKMM
QCGKCDRWVHSKCENLSDEMYEILSNLPESVAYTCVNCTERHPAEWRLALEKELQISLKQVL
TALLNSRTTSHLLRYRQAQKPPDLNPETEESIPSRSPEGPDPPVLTEVSKQDDQQPLDLEGVK
RKMDQGNYTSVLEFSDDIVKIIQAAINSDDGGQPEIKKANSMVKSFFIRQMERVFPWFSVKKSR
FWEPNKVSSNSGMLPNAVLPPSLDHNYAQWQEREENSHTEQPPLMKKIIPAPKPKGPGEPDSP
TPLHPPPTPILSTDRSREDSPELNPPPGIEDNRQCALCLTYGDDSANDAGRLLYIGQNEWTHVN
CALWSAEVFEDDDGSLKNVHMAVIRGKQLRCEFCQKPGATVGCLTSCTSINYHFMCRAKN
CVFLDDKKVYCQRHRDLIKGEVVPENGFEVFRRVFVDFEGISLRRKFLNGLEPENIHMMIGSM
TIDCLGILNLDLSDCEDKLPIGYQCSRKYWSTTDARKRCVYTCKIVECRPPVVEDINSTEHD
ENRTIAHSPTSFTESSSKESQNTAEIISPPSPDRPPHSQTSGSCYYHVISKVPRIRTPSYSPQRSP
GCRPLPSAGSPTPTTHEITVGDPLLSSGLSIGSRRHSTSSLSPQRSKLRIMSPMRTGNTYSRN
NVSSVTTGTATDLESSAKVVDHVGLPLNSSTLGQNTSTSSNLQRTVVTGNKNSHLDGSSS
SEMKGSSASDLVSKSSLKGEKTKVLSSKSSEGAHNVAYPGIPKLAPQVHNTSRELNVSKI
GSFAEPSSVSFSSKEALSFPHLHLRGQRNDRDQHTDSTSANSPPDEDTEVKTLKLSGMSNRS
SIINEHMSSSRDRRKQGKKSCKETFKEKHSSKSLEPGQVTGEENLKPENMFDEVLTPEYM
GQRPCNNVSSDKIGDKGLMPGVKAAPPMQVEGSAKELQAPRKRTVKVTLTPLKMENESQS
KNALKESSPASPLQIESTSPTEPISASENPGDGPVAQPSPNNTSCQDSQSNNYQNLPVQDRNLM
LPDGPKPQEDGSFKRRYPRRSARARSNMFFGLPLYGVRSYGEEDIPFYSSSTGKRGKRSAE
GQVDGADDLSTSDEDDLYYYNFRTVISSGGEERLASHNLFREEQCDLPKISQLDGVDDGTE
SDTSVTATTRKSSQIPKRNGKENGTENLKIDRPEDAGEKEHVTKSSVGHKNEPKMDNCHSVS
RVKTQGQDSLEAQLSSLESSRRVHTSTPSDKNLLDTYNTELLKSDSDNNNSDDCGNILPSDIM
DFVLKNTPSMQLGESPESSSSELLNLGEGLGLDSNREKDMGLFEVFSQLPTEPVDSVSSS
ISAEEQFELPLEPSDLSVLTTRSPVPSQNPSRLAVISDSGEKRVITITEKSVASSESDPALLSPG
VDPTPEGHMTDHFIQGHMDADHISSPPCGSVEQGHGNQDLTRNSSTPGLQVPVSPTVPIQN
QKYVPNSTDSPGPSQISNAAVQTTTPhLKPATKEKLIVVNQNMQPLYVLQTLPNGVTQKIQLTS
SVSSTPSVMETNTSVLPGMGGGLTLLTGLNPLTSQSLFPSASKGLLPMSSHQHLHSFPAAT
QSSFPPNISNPPSGLLIGVQPPPDPQLLVSESSQRTDLSTTVATPSSGLKKRPIISRLQTRKNKKLA
PSSTPSNIAPSDVVSNMTLINFTPSQLPNHPSLLDLGSLNTSSHRTVNPNIKRSKSSIMYFEPAPLL
PQSVGGTAATAAGTSTISQDTSHLTSGSVGLASSSSVNVVSMQTITPTSSASVPGHVTLTN

PRLLGTPDIGSISNLLIKASQQSLGIQDQPVALPPSSGMFPQLGTSQTPSTAITAASSICVLPST
QTGTGITAASPSGEADEHYQLQHVNVNLASKTGIHSSQRDLDSASGPQVSNTQTVDAPNSMG
LEQNKA
LSSAVQASPTSPGGSPSSGQRSASPVPGPTKPKP
KTFRQLPLDKNGKKHV
SHLR
TSSSEAHIPDQETTS
LTS
GTGAEAEQQDTASVEQSSQKECGQAGQAVLPEVQVT
QNP
ANEQESAE
PKTVEEEE
NFSSPLMLWLQQE
QKR
KESITE
KKPKKGLV
FEISSDDGFQICAE
SIEDAWKSLTDKVQEARSNARLKQLSFAGVNGRLMLGILHD
AVVFLIEQLSGAKHCRNYKFR
FHK
PEEANE
PPLNPHGSARA
EVHLRKSA
FDMFN
FLASKHR
QPPEYN
PNDEEEE
VQLKSARR
ATSM
DLPMPMR
RHLKKTS
KEAVGVY
RSPIHGRGL
FCRNID
AGE
M
VIEYAGN
VIRSI
QTDK
REKYY
DSKGIG
GYCM
FRIDD
SEVV
D
ATMH
GNAAR
FINH
SCEP
NCYS
RVIN
IDGQK
HIVIFAMRK
IYR
GEELTYDYK
F
PIEDAS
NK
LPCNC
AKK
CRKFLN

>DP01724|O95644|#391-400 #416-425 #435-458 #538-559

MPSTS
FPVPSKFPLG
PAAAV
FG
RGETLG
PAPRAG
GTM
KSA
EEE
HYGY
ASS
NV
SPAL
PLPTAHS
TLP
APCHNL
Q
T
PGI
H
PPAD
H
PS
GY
GA
AL
D
GG
P
AG
Y
FL
SS
GH
TR
PD
GA
PA
LE
SP
RI
E
ITS
CL
GL
YH
NNN
QFF
HD
VE
VED
VLP
SS
KR
SP
STAT
L
S
L
P
S
L
E
AY
RDP
S
C
L
S
P
ASS
L
S
R
SC
N
E
ASS
Y
ES
N
Y
S
Y
P
Y
A
SP
QT
SP
W
Q
S
P
C
V
S
P
K
T
T
D
P
EE
G
F
P
R
G
L
A
C
T
L
L
G
S
P
P
P
A
D
F
A
P
E
D
Y
S
S
F
Q
H
I
R
K
G
G
F
C
D
Q
Y
L
A
V
P
Q
H
P
Y
Q
W
A
K
P
K
L
S
P
T
S
Y
M
S
P
T
L
P
A
L
D
W
Q
L
P
S
H
G
P
Y
E
L
R
I
E
V
Q
P
K
S
H
R
A
H
Y
E
T
E
G
S
R
G
A
V
K
A
S
A
G
G
H
P
I
V
Q
L
H
G
Y
L
E
N
E
P
L
M
L
Q
L
F
I
G
T
A
D
R
L
R
P
H
A
F
Y
Q
V
H
R
I
T
G
K
T
V
S
T
T
S
H
E
A
I
L
S
N
T
K
V
L
E
I
P
L
P
E
N
S
M
R
A
I
D
C
A
G
I
L
K
L
R
N
S
D
I
E
L
R
K
G
E
T
D
I
G
R
K
N
T
R
V
R
L
V
F
R
V
H
V
P
Q
P
S
G
R
T
L
S
I
Q
V
A
S
N
P
I
E
C
S
Q
R
S
A
Q
E
L
P
L
V
E
K
Q
S
T
D
S
Y
P
V
V
G
G
K
K
M
V
L
S
G
H
N
F
L
Q
D
S
K
V
I
F
V
E
K
A
P
D
G
H
V
E
M
E
A
K
T
D
R
D
L
C
K
P
N
S
L
V
V
I
P
P
F
R
N
Q
R
I
T
S
P
V
H
V
S
F
Y
C
N
G
K
R
K
R
S
Q
Y
Q
R
F
T
Y
L
P
A
A
P
I
I
K
T
E
P
T
D
D
Y
E
P
A
T
C
G
P
V
S
Q
G
L
S
P
L
P
Y
S
Q
Q
L
A
M
P
P
D
P
S
C
L
V
A
G
F
P
C
P
Q
R
S
T
L
M
P
A
A
P
G
V
S
P
K
L
H
D
L
S
P
A
A
Y
T
K
G
V
A
S
P
G
H
C
H
L
G
L
P
Q
P
A
G
E
A
P
A
V
Q
D
V
P
R
P
V
A
T
H
P
G
S
P
G
Q
P
P
A
L
L
P
T
S
V
R
R
D
E
S
P
T
H
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T
V
K
R
E
P
E
L
D
Q
L
Y
L
D
D
V
N
E
I
I
R
N
D
L
S
S
T
S
H
S
E
S
P
L
L
P
E
V
H
E
D
G
S
P
N
L
A
P
I
P
T

MAASRWLRAVLLFLCASDLLLPPPNAAADTPGEATPPPRKKDIRDYNDADMARLLEQW
EKDDDIIEGDLPEHKRPSAPIDFSKLDPGKPESILKMTKGKTLMMFVTSGNPTEKETEEITS
LWQGSLFNANYDVQRIVGSDRAIFMLRDGSYAWEIKDFLVSQDRCAEVTLLEGQMYPGKGG
GSKEKNKTKEPEAKKKEGDPKPRASKEDNRAGSRREDL

>DP00780|P10175|#25-35

MLRLAPTVRLQAPLRGWAVPKAHITAKPAKPTSPKEQAIGLSVTFLSFLLPAGWVLYHLD
NYKKSSAA

>DP01169|P24255|#1-105

MKQGLQLRLSQQLAMTPQLQQAIRLLQLSTLELQQELQQALESNPILLEQIDTHEEIDTRETQD
SETLDTADALEQKEMPEELPLDASWDTIYTGTSGDYIDDELPVYQGETTQLQDYL
WQVELTPFSDTDRAIATSIVDAVDETGYLTVPLEDILESIGDEEIDIDEVEAVLKRIQRFDVG
AAKDLRDCLLIQLSQFDKTPWLEEARLIISDHLDLLANHDFRTLMRVTRLKEDVLKEAVNLI
QLDPRPGQSIQTGEPEYVIPDVLVRKHNGHWTVELNSDSIPRLQINQHYASMCNNARNDGD
SQFIRSNLQDAKWLIKSLESRNDTLLRVSRCIVEQQQAFFEQGEEYMKPMVLADIAQAVEMH
ESTISRVTTQKYLHSPRGIFELKYFFSSHVNTEGGGEASSTAIRALVKKLIAAENPAKPLSDSKL
TSLLSEQGIMVARRTVAKYRESLSIPPSNQRKQLV

>DP01981|P76407|#147-158

MAEFPASLLNLNGKSTDNLPLREAIMLREEGMTIHVRVTWEKGDAARYVEEARKFGVATVI
AGGGDGTINEVSTALIQCEGDDIPALGILPLGTANDFATSVGIPEALDKALKLAIAGDAIAIDM
AQVNKQTCFINMATGGFGTRITTEPEKLKAALGSVSYIIHGLMRMDTLQPDRCERGENFW
QGDALVIGIGNGRQAGGGQQQLCPNALINDGLLQLRIFTGDEILPALVSTLKSDEDNPNIIEGAS
SWFDIQAPHDITFNLDGEPLSGQNHFIEILPAALRCRLPPDCPLLR

>DP02050|P41814|#61-78 #88-188 #453-478

MNALTTIDFNQHVIVRLPSKNYKIVELKPNTSVSLGKGFAGEVNDIIGYPGLTFEIYYDGEV
SSDENRDSKPKNKIPIGKVRLLSQEIKDVNNKDGGQSEPLSIKEKSVSLELSSIDSSATNQL
VNMGSKAQELTVEEIEKMKQESLSSKEIIDKJIKSHKSFHNKTVYSQEKYVNRKKQKFAKYFT
VEYLSSNLLQFLIDKQDIQRVLDMSQESMGMLLNANIQSEGNYLCMDETGGLLVYFLER
MFGGDNESKSKGVIVIHEHANLDLLKFANYSEKFIKEHVHTISLLDFFEPPTLQEIQSRFTP
LPKEEARALKGGKKNSYYRKLRWYNTQWQILELTGEFLYDGLVMATTLHLPTLVPKLAEKI
HGSRPIVCYQFKETLLELAHTLYSDLRFLAPSILETRCRPYQSIRGKLHPLMTMKGGGYLM
WCHRVIPAPEPVSENATAADSSEKLAEHGAKKQKI

>DP01790|P15941|#1185-1255

MTPGTQSPFLLLLLTVLTVVTGSGHASSTPGGEKETSATQRSSVPSSTEKNAVSMTSSVLSH
SPGSGSSTTQGQDVT LAPATEPASGAATWGQDVTSPVTRPALGSTTPAHDVTSAPDNKP
APGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPG
STAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAP
PAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAH
GVTSAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT
SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAP
DTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTR
PAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAP
GSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGST
APPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPP
AHGVTSAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHG
VTSAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT
APDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPD
TRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDTRPAPGSTAPPAHGVT SAPDNRP

ALGSTAPPVHNVTASGSASGSASTLVHNGTSARATTPASKSTPFSIPSHSDTPTLASHST
KTDASSTHHSSVPPLTSSNHSTSPQLSTGVSSFFLSFHISNLQFNSSLEDPSTDYYQELQRDISE
MFLQIYKQGGFLGLSNIKFRPGSVVQLTLAFREGTINVHDVETQFNQYKTEASRYNLTISD
VSVDVPFPFSAQSGAGVPGWGIALLVLVCVLVALAIVYLIALAVCQCRRKNYGQLDIFPARD
TYHPMSEYPTYHTHGRYVPPSSTDRSPYEKSAGNGGSSLSYTNPAVAATSANL
>DP02879|P59594|#1-17 #1-260 #661-673 #812-831 #1059-1196
MFIFLLFLTLTSGSDLDRCTTFDDVQAPNYTQHTSSMRGVYYPDEIFRSDTLYLTQDLFLPFYS
NVTGFHTINHTFGNPVIPFKDGIFAATEKSNNVVRGVFGSTMNNKSQSVIIINNSTNVIRAC
NFELCDNPFFAVSKPMGTQTHTMIFDNAFNCTFEYISDAFSLDVSEKSGNFKHLREFVFKNKD
GFLYVYKGYQPIDVVRDLPSGFNTLKPIFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVG
YLKPTTFMLKYDENGTTDAVDCSQNPLAEKCSVKSFEIDKGYQTSNFRVPSGDVVRFPNI
TNLCPFGEVFNATKFPSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSN
VYADSFVVKGDDVRQIAPGQTGVIADNYKLPDDFMGCVLAWNTRNIDATSTGNYNKYR
YLRHGKLRPFERDISNVPSPDGKPCPTPALNCYWPLNDYGFYTTGIGYQPYRVVVLSEL
NAPATVCGPKLSTDLIKNQCVNFNGLTGTGVLTPSSKRQFQQFGRDVSDFDSVRDPKT
SEILDISPCSFGGSVITPGTNASSEAVAVLYQDVNCTDVSTAIHADQLTPAWRIYSTGNNVFQT
QAGCLIGAEHVDTSYECDIPIGAGICASYHTVSLRSTSQKSIVAYTMSLGADSSIAYSNNTIAI
PTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLQYGSFCTQLNRALSGIAAEQDRN
TREVFAQVKQMYKPTLKYFGGFNFSQLPDKPTKRSFIEDLLFNKVTLADAGFMKQYGE
CLGDINARDLICAQKFNGLTVLPLLTDMMIAAYTAALVSGTATAGWTGAGAAALQIPFAMQ
MAYRFNGIGVTQNVLYENQKQIANQFNKAISQIQESLTTSTALGKLQDVNVNAQALNTLV
KQLSSNFGAISSVNLNDILSRLDKVEAEVQIDRLITGRLQLQSLQTYVTQQLIRAAEIRASANLAAT
KMSECVLGQSCKRVDFCGKGYHLMSPQAAPHGVVFLHVTYVPSQERNFTTAPACHEGKAY
FPREGVVFNGTSWFITQRNFFSPQIITDNTFVSGNCVVGIIINNTVYDPLQPELDSFKEELD
KYFKNHTSPDVDLGDISGINASVNIQKEIDRLNEVAKNLNESIDLQELGKYEQYIKWPWYV
WLGFIAGLIAIVMVTIILCCMTSCCSCLKGACSCGSCCKFDEDDEPVLKGVKLHYT
>DP01295|Q98XH7|#1-72
MEPVDPKLEPWKHPGSQPKTACNNCYCKRCLHCQCFMTKGLGIYYGRKKRRQRRASQ
DRQTHQDSLSEQ
>DP01958|Q63450|#1-11 #54-63 #164-181
MPGAVEGPRWKQAEDIRDIYDFRDVLGTGAFSEVILAEDKRTQKLVAIKCIAKKALEGKEGS
MENEIAVLHKIKHPNIVALDDIYESGGHLYLIMQLVSGGELFDRIVEKGFYTERDASRLIFQLV
DAVKYLHDLGIVHRDLKPENLLYSLDEDSKIMISDFGLSKMEDPGSVLSTACGTPGYVAPE
VLAQKPYSKAVDCWSIGVIAYILLCGYPPFYDENDAKLFQEILKAEYEFDSPYWDDISDSAKD
FIRHLMKDPEKRTCEQALQHPWIAGDTALDKNIHQSVSEQIKKNFAKSKWKQAFNATAVV
RHMRKLQLGTSQEGQQTASHGELLPTAGGPAGGCCRDCCVEPGSELPPAPPSSRAMD
>DP00062|P19793|#1-130 #169-189 #202-206
MDTKHFLPLDFSTQVNSSLTSPTGRGSMAAPSLHPSLPGIGSPGQLHSPISTLSSPINGMGPPF
SVISSLPMGPHSMSVPTPTLGFSTGSPQLSSPMNPVSSSEDIKPLGLNGVLKVPAHPSGNMAS
FTKHICAICGDRSSGKHGVYCEGCKGFFKRTVRKDLTYTCRDNKDCLIDKRQRNRCQYCR
YQKCLAMGMKREAVQEERQRGKDRNENEVESTSSANEDMPVERILEAELAVEPKTETYVEA
NMGLNPSSPDVTNICQAADKQLFTLVEWAKRIPHSELPLDDQVILLRAGWNELLIASFSH
RSIAVKDGILLATGLHVHRNSAHSAGVGAIFDRVLTTELVSKMRDMQMIDKTELGCLRAIVLFN
PDSKGLSNPAEVEALREKVYASLEAYCKHYPEQPGRAKLLRLPALRSIGLKCLEHLFFFK
LIGDTPIDTFLMEMLEAPHQMT
>DP02157|P35729|#30-52
MACLSRIDANLLQYYEKPEPNNTVDLYVSNNNSNNNGLKEGDKSISTPVPQPYGSEYSNCLLSS

NSEYICYHFSSRSTLLTFYPLSDAYHGKTINIHLPNASMNQRYTLTIQEVEQQLLVNVLKDGS
FLTLQLPLSFLFSSANTLNGEWFHLQNPyDFTVRVPHFLFYSPQFSVVLEDGGLLGLKKVD
GVHYEPPLLFDNSYLNKSLTRFFSRSSKSDYDSVISCKLFHERYLIVLTQNCHLKIWDLTSFTLIQ
DYDMVSQSDSDPSHFRKVEAVGEYLSLYNNTLVTLLENGLFQMGTLLVDSSGILTYTFQN
NIPTNLSASAIWSIVDLVLTRPLENVEASYLNIVLWKSGTAKLQILNVNDESFKNYEWIES
VNKSLVDLQSEHDLDIVTKGDVERGFCNLKSRYGTQIFERAQQILSENKIIAHNEDEEYLA
NLETILRDVKTAFNEASSITLYGDEIILVNCFQPYNHSLYKLNTTVENWFYNMHSETDGSELF
KYLRTLNGFASTLSNDVRSISKKFLDIITGELPDSMTTVEKTDIFKNCLENQFEITNLKILFDE
LNSFDIPVVLNDLINNQMKPGFWKKDFISAIFDGFTSIISLES LHQLLSIHYRITLQVLLTFVLF
DLDTEIFGQHISTLLDLHYKQFLLNLYRQDKCLAEVLLKDSSEFSFGVKFFNYGQLIAYIDS
LNSNVYNASITENSFFMFFRSYIIDENTSHKNIRFFLENVECPFYLRHNEVQEPMFAMTLFSCG
NFDQSYEIFQLHDYPEAINDKLPFEDLKSENYHGDSIWKDLLCTFTVPYRHSAFYYQLSLF
DRNNSQEFALKCISKSAEYSLKEIQUIEELQDFKEKQHIHYNLLIHFRMFEEVLDVRLRGHECL
SDTVRTNFLQLLLQEDIYSRDFFSTLLRLCNAHSDNGELYLRTVDIKIVDSILSQNLRSGDWEC
FKKLYCFRMLNKSERAAAEVLYQYILMQADLDVIRKRKCYLMVINVLSSFDSAYDQWILNG
SKVVTLTDLRDELRLG

>DP01201|Q47184#1-30 #60-147

MDTSTTASVASANASTSTS MAYDLGMSKDDVIDLFNKLGVFQAAILMFAYMYQAQSDLSI
AKFADMNEASKESTTAQKMANLVDAKIADVQSSDKNAKAQLPDEVISYINDPRNDITISGID
NINAQLGAGDLQTVKAAISAKANNLTTVNNSQLIEIQQMSNTLNLLTSARSDMQLQYRTIS
GISLGK

>DP01291|P0AE72|#1-77 #48-82 #51-82

MIHSSVKRWGNSPAVERPATLMQALNLNIDDEVKIDLVDGKLIIEPVKEPVFTLAELVNDITP
ENLHENIDWGEPKDKEVW

>DP02302|Q15843#69-81

MLIKVKTLTGKEIEIDIEPTDKVERIKERVEEKEGIPPQQQRILIYSGKQMNEKTAADYKILGG
SVLHLVLALRGGGGLRQ

>DP02480|Q12102#423-625

MTYKYNCCDDGS GTTGVSVRFDNVTLLIDPGWNPSKVSYEQCIKYWEKVIPEIDVIILSQPTI
ECLGAHSLLYYNFTSHFISRIQVYATLPVINLGRVSTIDS YASAGVIGPYDTNKL DLEDIEISFD
HIVPLKYSQLVDRSRYDGLTLLAYNAGVCPGGSIW CISTYSEKLVYAKRWNHTRDNL NAA
SILDATGP LSTMRPSAIITLDRFGSSQPFKKRSKIFKDTLKG LSSDG SVIIPVDMMSGKFLDL
FTQVHELLFESTKINAHTQPVVLILSYARGRTLTYAKSMLEWLSPSLLKT WENRNNTSPFEIGS
RIKIIAPNELSKYPGSKICFVSEVGALINEVIKVGNSEKTTLITKPSFECASSLDKILEIVEQDER
NWKTFPEDGKSFLCDNYISIDTIKEEPLSKEETEAFKVQLKEKKRDRRNKILLVKRESKKLAN
GNAIIDDTNGERAMRNQDILVENVNGVPPIDHIMGGDEDDEEEENDNLLNLLKDNEKSAA
KKNTEPVVDIIIQPSAASKHMF PNPAKIKKDDYGTVVDFTMFLPDDSDNVNQNSRKPLK
DGA KTTSPVNEEDNKNEEEDGYNMNSDPISKRSKHRASRYSGFSGTGEAENFDNLDYLKIDKT
LSKRTISTVNVLQKCSVVILNLQSLVDQRSASIWP SLKSRKIVLSAPKQI QNEEITAKLIKKNIE
VVNMPLNKIVEFSTTIKTL DISIDS NLDNLLKWQRISDSYTVATVVGRLVKE SPQVNHHQKT
ASRSKVLKPLHGSSRSHTGALSIGDVRLAQLKLLTEK NYIAEFKGE GTLVINEKVA VRKI
NDAETIIDGTPSELFDTVKKLVT DMLAKI

>DP01401|P47093#68-109

MSATLKDYLNKRVVIKVDGECLIASLNGFDKNTNLFITNVFN RISKEFICKAQLRGSEIALV
GLIDAENDDSLAPIDEKKVPMLKDTKNKIEHVIWEK VYESKTK

>DP01741|Q6PHW0#32-70 #161-178 #199-211

MYFLTPILVAILCILVVWIFKNADRSMEKKGEPRTRAEARPWVDEDLK DSSDLHQAEEDAD

EWQESEENVEHIPFSHNHYPEKEMVKRSQFYELLNKRRSVRFISNEQVPMEVIDNVIRTAGT
APSGAHTEPWTFVVVKDPDVKHKIRKIIIEEEEINYMCRMGRWVTDLKKLRTNWIKEYLDT
APILILIFKQVHGFAANGKKVHYYNEISVSIACGILLAALQNAGLVTVTTPLNCGPRLRVLL
GRPAHEKLLMLLPVGYPSSKEATVPDLKRKPQIMVTV

>DP00562|Q9Y296|#124-130

MAIFSVYVNVNKAAGLIYQLDSYAPRAEAEKTSYPLDLLKLHDERVLVAFGQRDGIRVGHA
VLAINGMDVNGRYTADGKEVLEYLGNPANYPVSIRFGRPRLTSNEKMLASMFHSLFAIGSQ
LSPEQGSSGIEMLETDTFKLHCYQTLTGKFLADPRQAGIDSLLRKIYEIYSDALKNPFYSQ
EMPIRCERLDQNLKLALEVAEKAAGTGFPGS

>DP01430|Q03071|#77-99

MSQDFVTLSKDDKEYEISRSAAMISPTLKAMIEGPFRESKGRIELKQFDSHILEKAVEYLNYN
LKYSGVSEDDDEIPEFEIPTEMSLELLAADYLSI

>DP00591|J7QLC0|#1006-1706

MQQSHIQAGYANAADRESGIPAAVLGIKAVAKEKNATLMFRLVNPHSTSLLIAEGVATKGLG
VHAKSSDWGLQAGYIPVNPNLSKLFGRAPEVIARADNDVNSSLAHGHTAVDLTLSKERLDYL
RQAGLVTGMADGVVASNHAGYEQFEFRVKETSDGRYAVQYRRKGDDFEAVKVIGNAAGI
PLTADIDMFAIMPHLSNFRDSARSSVTGDSVTDYLARTRRAASEATGGLDRERIDLLWKIAR
AGARSAGVTEARRQFRYDGDMNIGVITDFELEVRNALNRRAHAVGAQDVVQHGTEQNNPFP
EADEKIFVVSATGESQMLTRGQLKEYIGQQRGEFYVYENRAYGVAGKSLFDDGLGAAPGV
PSGRSKFSPDVLETVPASPGLRRPSLGAVERQDSGYDSDLGVGSRSFSLGEVSDMAAVEAAEL
EMTRQLVHLAGARQDDAEPGVSGASAHWGQRALQGAQAAAQRLVHAIALMTQFGRAGS
TNTPQEAASLSAAVFGLGEASSAVAETVSGFFRGSSRWAGGGFGVAGGAMALGGGIAAAVGA
GMSLTDDAPAGQKAAAGAEIALQLTGGTVELASSIALALAARGVTSQLQVAGASAGAAAG
ALAAAALSPMEIYGLVQQSHYADQLDKLAQESSAYGYEGDALLAQLYRDKTAAEGAVAGVS
AVLSTVGAASVAAAASVVGAPVAVVTSLLTGAJNGILRGVQQPIIEKLANDYARKIDELGGP
QAYFEKNLQARHEQLANSDGLRKMLADLQAGWNASSVIGVQTTEISKSALEAAITGNADN
LKSVDVFVDRFVQGERVAGQPVLDVAAGGIDIASKGERPALTFITPLAAPGEEQRRRTKTG
KSEFTTFVEIVGKQDRWRIRDGAADTTIDLAKVSQLVDANGVLKHSIKLDVIGGDGDDVV
ANASRIHYDGGAGTNTVSYAALGRQDSITVSADGERFNVRKQLNNANVYREGVATQTTAYG
KRTENVQYRHVELARVQLVEVDTLEHVQHIIIGGAGNDSITGNAHDNFLAGGSGDDRLDGG
AGNDTLVGGEGQNTVIGGAGDDVFLQDLGVWSNQLDGGAGVDTVCKYNVHQSEERLERM
GDTGIADLQKGTVEKWPALNFSVDHVKNIENLHGSRLNDRIAGDDQDNELGHDGNDTI
RGRGGDDILRGGLGLDTLYGEDGNDIFLQDDETVSDDIDGGAGLDTVDYSAMIHPGRIVAPH
EYFGFIEADLSREWVRKASALGVDDYDNVRNVENIGTSMDVILGDAQANTLMGQGGDD
TVRGGDGDDLLFGGDNDMLYGDAGNDTLYGGLGDDTLEGGAGNDWFGQTQAREHDVLR
GGDGVDTVDYSQTGAHAGIAAGRIGLILADLGAGRVDKLGEAGSSAYDTVSGIENVVGTEL
ADRITGDAQANVLRGAGGADVLAGGEVGDDVLLGGDGDDQLSGDAGRDRLYGEAGDDWFF
QDAANAGNLLDGGDGRDTVDFSGPGRGLDAGAKGVFLSLGKGFASLMDEPETSNVLRIEN
AVGSARDDVLIGDAGANVNLGLAGNDVLSGGAGDDVLLGDEGSDLLSGDAGNDDLFGGQG
DDTYLFGVGYGHDTIYESGGGHDITRINAGADQLWFARQNDLEIRILGTDDALTVDWYR
DADHRVEIIHAANQAVDQAGIEKLVEAMAQYPDPGAAAAAPPAARVPDTLMQSLAVNWR

>DP02526|C4R4Y0|#1454-1743

MSQFPYSSAPLSVKEVQFGLSPEEIRAISVVKIEYPEIMDESQRQPREGGLNDPKLGSIDRN
KCQTCGEGMAECPGHFGHMELAKPVFHIGFIPKIKKVCCEICMNCGKLLLDETNPNTMAQAIR
RDPKKRNFNAVWQLCKTMVCEADAPVDEYSEQKVVSRGCGNTQPVVRKDGMKLWGTW
KKSGFSDRDAQPERKLLTPGEILNVFKHISPEDCFRLGFNEDYARPEWMIITVLPVPPPQVRPSI
AMDETTQGQDDLTHKLSDILKANINVQKLEMDSGPQHIIINEVEQLQFHVATYMDNDIAGQP

QALQKSGRPVKAIRARLKGKEGRLRGNLMGKRVDFSARTVISGDPNLELDQVGVPISIAKTLS
YPETVTQYNIHRLTEYVRNGPNEHPGAKYVIRDNGDRIDLRYHKRAGDIVLQYGWVKVERHL
MDDDPVLNRQPSLHKMSMMAHRVKVMPYSTFRLNLSVTSPYNADFDGDEMNLHVPQSEE
TRAELSQLCAVPLQIVSPQSNKPVMGIVQDTLCGVRKMTLRDTIEYEQVMNMLFWVPSWD
GVVPQPAILKPKPLWTGKQLLSIAPIPSGIHLQRTDGGSLLSPKDNGMLIVDGKVMFGVVDKK
TVGSGGGGLIHTVMREKGPKICAELFGNIQKVNVLLHNGFSIGIGDAIADASTMKEITHAI
SSAKEQVQEIIYKAQHNELELKPGMTLRESFEVSRSLNDARDSAGRSAEMNLKDLNNVKQ
MVSAGSKGSFINIAQMSACVGQQMVEGKRIAEGFADRSLPHFTKDDFSPESKGFVENSYL RG
LTPQEFFFHAMAGREGLIDTAVKTAETGYIQRRLVKALEDIMVHYDGTTRNSLGDIIQFLYGE
DGLDGTQVERQTIDTIPGSDKAFHKRYYVDLMDEKNSIKPDVIEYAADILGDVELQKELNSEY
EQLVSDRKFLREIVFVNGDHNWPLPVNLRIIQNAQQIFHLDRAKASDLTIPEIIHGVRDLCKK
LFVLRGENELIKEAQQNATSLFQCLVRARLATRRILEFRLNRDAFEWVLGTIEAQFQRSLVH
PGEMVGVIAAQSIGEPATQMTLNTFHAGVSSKNVTLGVPRLKEILNVAKNIKTPALT VYLD
REIALDIEKAKVIQSSIEYTLKNVTSATEIYYDPDPTSTVIEEDFTVEAYFSIPDEKVEETIDK
QSPWLLRLELDRARMLDKQLTMNQVADKISEVFSDDL FVMWSEDNADKLIIRCVRIDPKA
MDEELEAEEDQMLKRIEAHMLDLIALRGIPGISKVYMVKH KVSV PDES GEYKNEELWAETD
GINLAEVMAVPGVDSSRTYSNSFVEILSVLGIEATRSSLYKEILNVIADFDSYVNYRH MALLV
DVMTSRG YLMAITRHGINRADTGALMRC SFEETVEILFEAGAAAELDDCRGVSENVMLGQL
APMGTGAFDVMIDEKLLTSLPADYAPTMPLFKGKATQGSATPYDNNAQYDDEFNHDDVAD
VMFSPMAETGSGDRSGGLTEYAGIQSPYQPTSPGLSATSPGFAPTSPGFAPTSPRYSPTSPGY
SPTSPSYSP TS P SPTSP SYSP TSP SPTSP SYSP TSP SPTSP SYSP TSP SPTSP Q
YSPTSPQYSPTSPQYSPTSPQYSPTSPQYSPTSPQYSPTSPQYSPTSPQYSPTSPQYSPT
SPQYSPTSPQYSPTSPQYSPTSPQYSPTSPQYSPTSPQYSPTSPQYSPTSPQYSPT
>DP00265|P04925|#23-120

MANLGWLLALFVTMWTDVGLCKKR PKPGGWNTGGSRYPQGSPGNRYPPQGGTWGQP
HGGGWGQPHGGSGWQPHGGSWQPHGGWGQPHGGWQGGGTHNQWNKPSKP KTNLKHVAGAAA
AGAVVGGLGGYMLGSAMSRPMIHFGNDWEDRYYRENMYRYPNQVYYRPVDQYSNQNNFV
HDCVNITIKQHTVTTTKGENFTEDVKMMERVVEQMCVTQYQKESQAYYDGRSSSTVLF
SSPPVILLISFLIFLIVG

>DP00128|P40357|#401-651

MGLKKFFKIKPPEEATPEQNKDTLMELGISVKNPSKKRKEKFAAYGKFANDKAEDK VY APPG
YEQYARPQDELEDLNASPLDANANEATAGSNRGSSGTQDLNGNGAESNSMQDPYAIENDDYR
YDDDPYARFQANKSNGRGSVNAAPYGDYGGGNGTSLNSYNN DGPY SNQNTSNSWVNAN
GRNSLNHSNSTLNVGPSRQTRQPPVSTNSLSDQRSPLANPMQEKRNPYADMNSYGGAYD
SNTNRSSGTRQGSSKNANPYASMANDSYSNGNLNRSANPYSSRSVRQPQSQQAPMTYTPSFI
ASDEAARNSEVDLNEEPRTEFD FEDEVYADKSAENRAALDEPD LNAVMTNEDSIDLNASEVD
HSSRQQQQQQWFMD EQQQQQQHFNATNNQYGDQRGYKT FEEIQKEEEARQQ QEEDEAVDE
IKQEIKFTKQSSVASTRTLKMAQDAERAGMNTLGMLGHQSEQLNNVEGNLDLMKVQNKV
ADEKVAELKKLNRSLAVHVSNPNSKRRREREEQLKNRKIEEKL MREQTSQQLSQSTQRIE
GAMNANNNISEVRERYQRKNVLEKAKRYQFENDEEDDEMELEIDRNLDQIQQVSNRLKKMA
LTTGKELDSQQKRLNNIEESTDDLDINLHMNTNRLAGIR

>DP00706|Q15517|#60-171

MGSSRAPWMGRVGGHGM ALLLAGLLPGTLAKSIGTFSDPCKDPTRITSPNDPCLTGKGDS
SGFSSYSGSSSSGSSI SSARSSGGGGSSSSGSSIAQGGSAGSFKPGTGYQS VSYSSGSGSSLQGA
SGSSQLGSSSSHSGNSGSHGSSSSHSSSSSFQFSSSFQVGNGS ALPTNDNSYRGILNPSQPGQ
SSSSSQTSGVSSSGQSVSSNQRPCSSDIPDSCPGGPIVSHSGPYIPSSHVS VGGQRPVVVV DQ
HGSGAPGVVQGPPCSNGGLPGKPCPPITSV DKSYGGYEVVGGSSDSYLVPGMTYSKGKIY PV

GYFTKENPVKGSPGVPSFAAGPPISEGKYFSSNPIPSQAASSAIAFPVGTGGVQLCGGGSTG
SKGPCPSSSRVPSSSISSSSGSPYHPCGSASQSPCSPPGTGSFSSSSSQSSGKIIQPCGSKSSS
SGHPCMCSVSSLTGGPDGSPHPDPSAGAKPCGSSAGKIPCRSIRDILAQVKPLGPQLADPEV
FLPQGEELLDSP

>DP01448|P10923|#17-294

MRLAVICFCFLFGIASSLPVKVTDSGSSEEKLYSLHPDPIATWLVPDPSQKQNLLAPQNAVSSEE
KDDFKQETLPSNSNESHDHMDDDDDDDDGDHAESEDSVDSDESDESHSDESDETVTAS
TQADTFPIVPTVDVPNGRGDSLAYGLRSKRSRFQVSDEQYPDATDEDLTSHMKSGESKESLD
VIPVAQLLSMPSDQDNNGKGSHESSQLDEPSLETHRLEHSKESQESADQSDVIDSQASSKASL
EHQSHKFHSHKDVLDPKSKEDDRYLKFRISHELESSSEVN

>DP00659|P16458|#233-385

MSKGASAPQQSAFKQLYTELFNNEGDFSKVSSNLKKPLCYVKESYPHFLVTDGYFFVAPY
FTKEAVNEFHAKFPNVIVDLTDKVIVINNWSLELRVNSAEVFTSYANLEARLIVHSFKPNL
QERLNPTRYPVNLFRDDEFKTTIQHFRHTALQAAINKTVKGDNLVDISKVADAAGKKGKVD
AGIVKASASKGDEFSDFSKEGNTATLKIADIFVQEKGKDALNKAADHTDGAKVKGGAKGK
GKAAAKAAKGKKLSAKKGDSAADVRKSVDKIVKYTPSKGSRKDTPQKSQAPAAGKSSAK
KGGKAVPSAPSPSGKKSALTIDKMTMAQFVKYLDWHEKKGGKVSSGGKVLGKRSAGK
ASATSGKASKASKKTAACK

>DP01058|Q9SIN5|#41-139

MAMSLSGAVLSGMSSFHNVGAKQSGVGTVRVGRKSELVVVAQRKSLIYAVKSDGNILD
DLNEATKKASDFVTDKTKEALADGEKTDYIVEKTIEANETATEEAKKALDYVTEKGKEAG
NKAEEFVEGKAEEAKNATKS

>DP02522|Q9BE39|#807-1935

MVDAEMAAFGEAAPYLRKSEKERLEAQTRPFDLKKDVFPDDKEEVKATILSREGGKVTA
ETEHGKTVTVKEDQVLQQNPPFKIEDMAMLTFLHEPAVLYNLKERYASWMIYTSGLC
VTINPYKWLKVYNAEVVAAYRGKKRSEAPPHIFSISDNAYQYMLTDRENQSILITGESGAGKT
VNTKRVIQYFAVIAIGDRSKKEQATGKTLLEDQIIQANPALEAFGNAKTVRNDNSSRGKFI
RIHFGATGKLASADIETYLEKSRSVIFQLKAERDYHIFYQILSNKKPELDMLLITNNPYDYAFI
SQGETTVASIDDAEELMATDNAFDVLGFTTEEKNNSMYKLTGAIMHFGNMFKLKQREEQAE
PDGTEEADKSAYLMGLNSADLLKGLCHPRVKVGNEYVTKGQNVQQVYAKGALAKAVYE
RMFNWMVTRINATLETQPRQYFIGVLDIAGFEIFDFNSFEQLCINFNEKLQQFFNHMFVL
EQEEYKEGIEWEIFDFGMDLQACIDLIEKPMGIMSIIEEECMFPKATDMTFKAKLFDNHLGK
SSNFQKPRNIKGKPEAHFSLIHYAGTVVDYNIIGWLQKQNKDPLNETVVDLYKKSSLKMLSSLFA
NYAGFDTPIEKKGKAKKGSSFQTVSALHRENLNKLMTNLRSTPHFVRCIIPNETKSPGVID
NPLVMHQLRCNGVLEGIRICRKGFPNRILYGDFRQRYRILNPAAIPEGQFIDSRKGAEKLLGSL
DIDHNQYKFGHTKVFFKAGLLGLEEMRDERLSRIITRIQAQSRGVLSRMEFKKLERRDSLLI
IQWNIRAFMGVKNWPWMKLYFKIKPLLKSAETEKEIALMKEEFGRLKEALEKSEARRKELEE
KMVSLLQEKNLQLQVQAEQDNLADAERCDQLIKNKIQLEAKVKEMTERLEDEEEMNAEL
TAKKRKLEDECSELKRDIDDLLETLAKVEKEKHATENKVKNLTEEMAGLDEIIAKLTKEKKA
LQEAHQQALDDLQAEEDKVNTLTKAKVKLEQHVDDLEGSLEQEKKVVRMDLERAKRLEGD
LKLTQESIMDLENDKQQQLDERLKKDFELNALNARIEDEQALGSQLQKQLKELQARIEELEE
LEAERTARAKVEKLRSDLSRELEEISERLEEAGGATSVQIEMKKREAQKMRDLEEATLQ
HEATAAALRKKHADSVASEQIDNLQRVKQKLEKEKSEFKLEDDVTSNMEQIIKAKANLE
KMCRTLEDQMNEHRSKAETQRSVNDLTSQRALKTENGELSRQLDEKEALISQLTRGKLT
TQQLEDLKRQLEEEVKAKNALAHALQSARHDCDLLREQYEEETEAKAELQRVLSKANSEVA
QWRTKYETDAIQRTEELLEEAKKLAQRLQDAEEAVEAVNAKCSSLEKTKHRLQNEIEDLMV
DVERSAAAAALDKKQRNFDKILAEWKQKYEESQSELESSQKEARSLSTELFKLKNAYEESL

EHLETFKRENKNLQEEISDLTEQLGSSGKTIHELEKVRKQLEAKLELQSALEEAEASLEQEEG
KILRAQLEFNQIKAEMERKLAEKDEEMEQAKRNHLRVVDSLQTSLDAETRSRNEALRVKKK
MEGDLNEMEIQLSHANRLAAEAQKVSLQSLLKDTIQQLDDAVRANDDLKENIAIVERNN
NLLQAEELELRAVVEQTERSRLAEGELETSERVQLLHSQNTSLINQKKMEADLSQLQTEV
EEAVQECRNAEEKAKKAITDAAMMAEELKEQDTSAHLEMKKMEQTICKLQHRLDEAE
QIALKGKKQLQKLEARVRELENEAEQKRNAESVKGMRKSERRIKELTYQTEEDRKNLLR
LQDLVDKLQLKVKAYKRQAEEAQANTNSKFRKVQHELDEAEERADIAESQVNKLRAKS
RDIGTKGLNEE

>DP00340|P62965|#1-137

MPNFAGTWKMRSSNFDELLKALGVNAMLKVA VAAASKPHVEIRQDGDFYIKTSTTVRT
TEINFKVGEFEEETVDGRKCRSLPTWENENKIHCTQTLLEGDPKTYWTRELANDELITFG
ADDVVCTRIVRE

>DP00708|O35613|#566-739

MATDDSIIVLDDDEDEAAAQPGPSNLPPNPASTGPGPGLSQQATGLSEPRVDGGSSNSGSRK
CYKLDNEKLFEELCKTETSDHPEVVFLHKLQQRAQSVFLASAECFCNILSRVLARSRKRP
AKIYVYINELCTVLKAHSIKKLNAPAASTSEASGPNPTEPPSLNTENTASEASRTRGS
RRQIQRLEQLLALYVAEIRRLQEKEELDSELDDPDSSYLQEARLKRKLJRLFGRCELKDCSSL
TGRVIEQRIPYRGTRYPEVNRRIERLINKPGLDTFPDYGDVLRAVEKAATRHSGLPRQQLQL
LAQDAFRDVGVRQLQERRHLDLIYNFGCHLTDDYRPGVDPALSDPTLARRLRENRTLAMNRL
DEVISKYAMMQDKTEGERQKRRARLLGTAPQPSDPPQASSESGEGPSGMASQECPTTSKAE
TDDDDDDDDDDDEDNEESEEEEEEEKEATEDEDEDLEQLQEDQGGDEEEEGGDNEGNE
SPTSPSDFHRRNSEPAEGLRTPEGQQKRGLETTPASPPGASLDPPSTDAAESSGEQLLEPLLGDE
SPVSQALAELEMALPEERDISSPRKKSEDSLPTILENGAAVVTSTSNGRVSSHTWRDASPPSK
RFRKEKKQLGSGLLGNSYIKEPMAQQDSGQNTSVQPMPSPLASVASVADSSTRVDSPSHEL
VTSSLCSPPSLLQTPQAQSLRQCIYKTSVATQCDPEEIVLSDSD

>DP02231|Q99958|#134-144

MQARYSVSDPNALGVVYLSEQNYYRAAGSYGGMASPMGVYSGHPEQYSAGMGRSYAPY
HHHQPAAPKDLVKPPSYIALITMAIQNAPEKKITLNGIYQFIMDRFPFYRENKQGWQNSIRH
NLSLNECFVKVPRDDKKPGKGSYWTLDPSYNMFENGSLRRRRRFKKDVSKEKEERAHL
KEPPPAASKGAPATPHLADAPKEAEKKVVIKSEAASPALPVITKVETLSPESALQGSPRSAAST
PAGSPDGLPEHAAAPNGLPGFSVENIMTLRTSPPGELSPGAGRAGLVVPLALPYAAAPP
AAYGQPCAQGLEAGAAGGYQCSMRAMSLYTGAERPAHMCVPPALDEALSDHPSGPTSPSLA
LNLAAGQEGALAATGHHHQHHGHIIHPQAPPPPAPQPQPTPQPGAAAAQAASWYLNHSGD
LNHLPGHTFAAQQTFPNVREMFnSHRLGIENSTLGESQVSGNASCQLPYRSTPPLYRHAAPY
SYDCTKY

>DP00004|P49913|#134-170

MKTQRNGHSLGRWSLVLLLGLVMPLAIIAQVLSYKEAVLRAIDGINQRSSDANLYRLLDLD
PRPTMDGDPDTPKPVSFTVKETVCPRTTQQSPEDCDFKKDGLVKRCMGTVTLNQARGSFDIS
CDKDNKRFALLGDFFRKSKKEIGKEFKRIVQRIKDFLRNLVPRTES

>DP01150|P03255|#1-139

MRHIICHGGVITEEMAASLLDQLIEEVVLADNLPPPSHFEPPTLHELYDLDVTAPEDPNEEAVSQ
IFPDSVMLAVQEgidLLTFPPAPGSPEPPHLSRQPEQPEQRALGPVSMPLNVPEVIDLTCHEAGF
PPSDDEDEEGEEFVLDYVEHPGHCRSCHYHRRNTGDPDIMCSLCYMTGFMVYSPVSEPE
PEPEPEPEPARPTRPKMAPAILRRPTSPVRECNSTDSCDGSNTPPEIHPVVPLCPIKPVAV
RVGGRRQAVERCIEDLLNEPGQPLDLSCRPRP

>DP01512|P03050|#1-53

MKGMSKMPQFNLRWPREVLDLVRKVAEENGRSVNSEIYQRVMESFKKEGRIGA

>DP01394|P04879#1-60
MDNLTKVREYLKSYSRLDQAVGEIDEIEAQRAEKSNYELFQEDGVEEHTRPSYFQAADDSDT
ESEPEIEDNQGLYVPDPEAEQVEGFIQGPLDDYADDDDVVFSDWKQPELESDEHGKTLRL
TLPEGLSGEQKSQWLSTIKAVVQSAKHWNLAECTFEASGEGVIKKRQITPDVYKVTPVMNT
HPSQSEAVSDVWWSLSKTSMTQPKKASLQPLTVSLDEFSSRGFISVGGNGRMSHKEAILLG
LRYKKLYNQARVKYSL
>DP01228|Q9UMZ1#1-101
MSDAAVDTSETTEDLKEKKEVVEEAENGDRAPADEENGEQEADNEVDEEQEEGGEEEGD
GEEEDGDEDEGAESATDKRAAEDDEDNDVDTKKQKTDEDD
>DP00211|P24592#214-240
MTPHRLLPPLLLLALLAASPGGALARCPGCGQGVQAGCPGCCVEEDGGSPAEGCAEAEG
CLRREGQECGVYTPNCAPGLQCHPPKDDEAPLRAALLGRGRCLPARAPAVAENPKESKPQA
GTARPQDVNRDQQQRNPGBTTPSQNSAGVQDTEMGPCRRHLDSDLQQLQTEVYRGAQTL
YVPNCDHRGFYRKRCRSSQGQRRGPCWCVDRMGKSLPGSPDGNGSSCPTGSSG
>DP01539|O57173#1-50
MLSMFMCNNIVDYVDGIVQDIEDEASNNDVHDYVYPLPENMVYRFDKSTNILDYLSTERDH
VMMAVRYYMSKQRLDDLRYQLPTKTRSYIDIINYYCDKVSNDYNRDMNIMYDMASTSFTV
YDINNEVNTILMDNKGLGVRLATISFITELGRRCMNPVKTIKMFTLLSHTICDDCFVDYITDISP
PDNTIPNTSTREYLKLIGITAIMFATYKTLKYMIG
>DP00222|P32499#1-720
MAKRVADAQIQRETYDSNESDDDVTPTSKVASSAVMNRKIAMPKRRMAFKPFGSAKSDET
KQASSFSFLNRADGTGEAQVDNSPTTESNSRLKALNLQFKAKVDDLVLGKPLADLRPLFTRY
ELYIKNILEAPVKSIEPNPTQTKGNDAKPAKVEDVQKSSDSSSEDEVKVEGPKFTIDAKPPISDS
VFSFGPKKENRKKDESDSENDIEIKGPEFKFSGTVSSDVFKLNPSTDKNEKKTETNAKPFSS
ATSTTEQTKSKNPLSLTEATKTNVDNNSKAEASFTFGTKHAADSQNNKPSFVFGQAAAKPSL
EKSSFTFGSTTIEKKNDENSTSNSKPEKSSDSDNSNPSFSFSIPSKNTPDASKPSFSFGVPNSSKN
ETSKPVFSFGAATPSAKEASQEDDNNNEVKPSSKPAFNLIISAGTEKEKESESKKDKSKPAFSFGIS
NGSESKDSDKPSLPSAVDGENDKKEATKPAFSFGINTNTTKTADTKAPTFTFGSSALADNKED
VKKPFSFGTSQPNNTPSFSFGKTTANLPANSSTSPAPSIPSTGFKFSLPFEQKGSQTTNDSKEES
TTEATGNESQDATKVADTPEEKSPINLQNGEDEVALFSQKAKLMTFNAETKSYDSRGVGEN
KLLKKKDDPSKVRLLCRSDGMGNVLLNATVVDSFKYEPLAPGNDNLIKAPTVAADGKLVTY
IVKFKQKEEGRSFTKAIEDAKKEMK
>DP00351|Q27974#547-813
MDSSGASSPDMEPSYGGGLFDMVKGAGRLFSNLKDNLKDTLKDTSRVIQSVTSYTKGDL
DFTYVTSRIIVMSFPLDSVDIGFRNVDDIRSLDSRHLDHYTVNLSPKSYRTAKFHSRVSEC
SWPIRQAPSLHNLFAVCRNMYNWLLQNPKNVCVHCLDGRAASSILVGAMIFCNLYSTPGP
AVRLLYAKRPGIGLSPSHRRYLGYMCDLLADKPYRPHFKPLTIKSITVSPVFFNKQRNGCRP
YCDVLIGETKIYTTCADFERMKEYRVQDGKIFIPLSITVQGDVVVSMYHLRSTIGSRLQAKVT
NTQIFQLQFHTGFIPLDTTFLKFTKPELDACDVPEKYPQLFQVTLDVELQPHDKVMELOPPWE
HYCTKDVNPSILFSSHQEHQDTLVLGGQAPIDIPPDNPRHFGQGGFFSTLCWQDQKSEKSFC
EDHAALVNQESEQSDDELLTLSSPHGNANGDKPHAARKPSKKQQEPAAPAPPEDVDLLGLEG
SAVSKNFSSPAAPPSNSELLSDLFGGGGAAGPVQSGQSGVDDVFHPSGPTSTQSTPRRSATSTS
ASPTLRVGEGATFDPGAPSKPSGQDLLGSFLNTASASSDPFLQPTRSPSPTVHASTPAVNIQP
DVSGAWDWHTKPGFGMGSKSAATSPGSSHGTPTHQNKPQTLDPFADLGLTGGSSFASKPS
TPTGLGGGFPLSSPQKASPQPMGGWQQGGGYNWQQTQSKPQSSMPHSSPQNRPNVNSF
SSMPGGQNERGKAAANLEGKQKAADFEDLLSGQGFNAHKDKKGPRITAEMRKEEMAKEMD
PEKLKILEWIEGKERNIRALLSTMHTVLWAGETKWKPGMADLVTPEQVKVYRKAVLVV

HPDKATGQPYEQYAKMIFMELNDAWSEFENQGQKPLY

>DP00049|P70475|#487-606

MDVDAEEKRHRTRSKGVRVPVEPAIQELFSCPTPGCDGTGHVSGKYARHRSVYGCPLAKKR
KTQDKQPQEPAKRKPFAVKADSSVDECYESDGTEDMDDKEEDDEEFSEDNDEQGDDDD
EDEVDREREDEEEIEEEDDEDDEDDEDGGDVEEEEDDDDEEEEEEEENEDHQMSCTRIMQD
PEKDDNNNDEYDNYDELVAKSLLNLGKIAEDAAYRARTESEVNSNTSNSLEDHSSKNENLGR
KSELSDLSDVVRETDSLKLLAQGHGVVLSENISDRSYAEGMSQQDSRNMNYVMLGKPM
NNGLMEKMVEEDEEVCLSSLECLRNQCFDLARKLSETNPQDRSQPPNMSVRQHVRQEDDF
PGRTPDRSYSDEMMNLMRLEEQLSPRSRTFSSCAKEDGCHERDDDTTVNSDRSEEVFDMTKG
NLTLEKAIALETERAKAMREKMAMDAGRRDNLSYEDQSPPQLAGEDRKSKSSDHVKKP
YYDPSRTEKRESKCPTPGCDGTGHVNGLYPHHRSLSGCPHKDRVPPPEILAMHENVLKCPTPG
CTGRGHVNSNRNSHRSLSGCPIAAEKLAKAQEKHQSCDVSKSNQASDRVLRPMCFVKQLEI
PQYGYRNNVPTTPRSNLAKELEYKSCTSFEYNSYDNHTYGKRAIAPKVQTRDISPKGYDDA
KRYCKNASPSSSTTSSYAPSSSNLSCGGGSSASSTCSKSSFDYTHDMEAHHMAATAILNLSTR
CREMPQNLSKPKQDLCTARNPDMEVDENGTLDSMNKQRPRDSCCPVLTPLEPMSPQQAV
MSSRCFQLSEGDCWDLPDYTKMKPRRVDEDPKEITPEDLDPFQEALERRYPGEVTIPSPK
PKYPQCKESKKDLITLSCGPLADKSIRSMLATSSQELKCPTPGCDGSGHITGNYASHRSLSGCP
RAKKSGIRIAQSKEKDQEPICPVPGCDGQGHITGKYASHRSASGCPLAAKRQKDGYLNG
SQFSWKSVKTEGMSCPTPGCDGSVGSFLTHRSLSGCPRATSAMKKAKLSGEQMLTIKQR
ASNGIENDEEIKQLDEEIKELNESNSQMEADMILRTQVTITMESNLKTIEEENKIEQQNES
LLHELANLSQSLIHSANIQLPHMDPINEQNFADYVTTLEMVNTQDRYQSPENKALLENIKQ
AVRGIVV

>DP00249|P63315|#103-161

MDDIYKAAVEQLTEEQKNEFKAAFIDIFVLGAEDGCISTKELGKVMRMLGQNPTPEELQEMID
EVDEDGSGTVDFDEFLVMMVRCMKDDSKGKSEEELSDLFRMFDKNADGYIDLEELKIMLQA
TGETITEDIEELMKDGDKNNDGRIDYDEFLEFMKGVE

>DP00954|Q9YGY0|#435-465 #483-504

MSVKKGKGFPLDGGSFTEDAPRPPVPGEEGELITTDQRPFSHYYSLKNDGIKNETSTATPRRP
DLDLGYEPEGASPTPPYLKWAESLHSLLDDQDGHLFRFLQQENCADLLDFWFACSGFRKL
EPNDSKVEKRLKLAKAIYKKVLDNSNGIVSRQIKPATKSFIKDCVLRQQIDPAMFDQAQMEIQ
SMMEDNTYPVFLKSDIYLETTIGGESPKNYSQSSGSGTGKPGSGYLPTLNEDEEWRCDDQG
GEHERERECIPSSLFSQKLALDSSSHCAGSNRRLSDGREFRPGTWREPVNPYYVNTGYAGAPV
TSANDSEQSMSDDADTMSLTDSVDGIPYRRLKHRYREMQESANANGRGPLPHIPRTYHM
PKDIHVDPEKFAAELISRLEGVLRDREAEQKLEERLKRVRAEEGDDGDVSSGPSVISHKLPSG
PPMHFFNSRYSETGCVGMQIRDAAHENPESILDEHVQRVMKTPGCQSPGTGRHSPKSRSRPG
HLSKTLPGSLGTMQTGHGKHSSKSTAKVDSGNLHHHKHVYHHVHHGGVKPKEQIDGESTQ
RVQTNFPWNVESNYATKSNYAESMGMAPNPMDSLAYSQKVMSLSKRNAKKADLGKSES
ASHEMPVPEDSERHQKILQWIMEGEKEIIRHKKSNHSSSAKKQPPTELARPLSIERPGAVHP
WVSAQLRNVQPSHPFIQDPTMPPNPAPNPLTVSKPGARLEEEKKAAKMPQKQRLKPQK
KNVSAPSQPCDNIVVAYYFCGEPINYRTMVKGRVVTLGQFKELLTKGNYRYYFKVSDEFD
CGVVFEEVREDDMILPIYEKIIQVEKID

>DP02316|O43663|#467-620

MRRSEVLAESIVCLQKALNHLREIWELIGIPEDQRLQRTEVVKKHIKELDMMAEEESLKER
LIKSISVCQKELNTLCSELHVEPFQEEGETTILQLEKDLRTQVELMRKQKKERKQELKLQEQ
DQELCEILCMPHYDIDSASVPSLEELNQFRQHVTLRETkasreefvsikrqiilcmealdhtp
DTSFERDVVCEDEDAFCLSLENIA TLQKLLRQLEMKSQNEAVCEGLRTQIRELWDRQLIPEE
EREAVATIMSGSKAKVRKALQLEVDRLEELKMQNMKVIEAIRVELVQYWDQCFYSQEQRQ

AFAPFCAEDYTESLLQLHDAEIVRLKNYYEVHKELFEGVQKWEETWRLFLEFERKASDPNRF
TNRGGNLLKEEKQRAKLQKMLPKLEELKARIELWEQEHSKAFMVNGQKFMEYVAEQWEM
HRLEKERAKQERQLKNKKQTETEMLYGSAPRTPSKRRGLAPNTPGKARKLNTTMSNATAN
SSIRPIFGGTVYHSPVSRLPPSGSKPVAASTCSGKKTPRTGRHGANKENLELNGSILSGGYPGS
APLQRNFSINSVASTYSEFAKDPSLSDSSTVGLQRELSKASKSDATSGILNSTNIQS

>DP00896|P10121|#1-187

MAKEKKRGFFSWLGFQKEQTPEKETEVQNEQPVVEEIVQAQEPVKASEQAVEEQPQAHT
AEAETFAADVVEVTEQVAESEKAQPEAEVVAQPEPVVEETPEPVAIEREEELPLPEDVNAEAVS
PEEWQAEAEETVEIVEAAEEEAAKEEITDEELETALAAEAAEEAVMVVPPAEEEQPVEEIAQE
EKPTKEGFFARLKRSLLKTKENLGGFISLFRGKKIDDLFEELEEQLLIADGVETTRKIITNL
TEGASRKQLRDAEALYGLLKEEMGEILAKVDEPLNEVGKAPFVILMVGVGKTTTIGKLA
RQFEQQGKSVMLAAGDTFRAAAVEQLQVWGQRNNIPVIAQHTGADSASVIFDAIQAAKARN
IDVLIADTAGRLQNKSHLMEELKKIVRVMKKLDVEAPHEVMLTIDASTGQNAVSQAKLFHEA
VGLTGITLTKLDGTAKGGVIFSVADQFGIPIRYIGVGERIEDLRPFKADDFIEALFARED

>DP02128|P06437|#31-109 #460-492

MHQGAPSWGRRWFVVWALLGLTLGVLVASAAPTSPGTPGVAATQAANGGPATPAPPPLG
AAPTGDPKPKNKKPKNPTPPRAGDNATVAAGHATLREHLRDIKAENTDANFYVCPPPTGA
TVVQFEQPRRCPTPEGQNYTEGIAVVFKENIAPYKFKATMYYKDVTSQVWFGHRSQFM
GIFEDRAPVPFEEVIDKINAKGVCRSTAKYVRNNLETTAFHRDDHETDMELKPANAATRTSR
GWHTTDLKYNPSRVEAFHRYGTTVNCIVEVDARSVYPYDEFVLATGDFVYMSPFYGYREG
SHTEHTTYAADRFKQVDFYARDLTTKARATAPTRNLLTPKFTVAWDWVPKRPSVCTMT
KWQEVDEmLRSEYGGSFRSSDAISTTFTNLTEYPLSRVDLGDCIGKDARDAMDRIFARRY
NATHIKVGQPQYYQANGGFLIAYQPLLSNTLAELYVREHLREQSRKPPNPTPPPGASANASV
ERIKTTSSIEFARLQFTYNHIQRHVNDMLGRVIAIWCELQNHELTWNEARKLPNAIASVT
GRRVSARMLGDVMAVSTCVPVAADNVIVQNSMRISSRPGACYSRPLVSFRYEDQGPLVEGQ
LGENNELLRLTRDAIEPCTVGHRRYFTFGGGYVYFEYAYSHQLSRADITTVSTFIDLNTMLED
HEFVPLEVYTRHEIKDSGLDYTEVQRRNQLHDLRFADIDTVIHADANAAMFAGLGAFFEGM
GDLGRAVGKVVMGIVGGVSAVGVSSFMSNPGALAVGLLVLAGLAAAFFAFRYVMRLQ
SNPMKALYPLTTKELKNPTNPDasGEGEEGGDFDEAKLAEAREMIRYMALVSAMERTEKA
KKKGTSALLSAKVTDMVMRKRRTNTYTQVPNKDGADEDLL

>DP00657|P31168|#1-265

MAEYKNNVPEHETPTVATEESPATTTEVTDRGLFDLGFKEEVKPQETTLESEFDHKAQI
SEPELAAEHEEVKENKITLLEELQEKEEDEENKPSVIEKLHRSNSSSSSSDEEGEEKKEKK
KIVEGEEDKKGLVEKIKEKLPGHHDKTAEDDVPVSTTIPVSESVVEHDHPEEKKGLVEKI
KEKLPGHHDEKAEDSPAVENTSTPLVVTEHPVEPTTELVEHPEEKKGILEKIKEKLPGYHAKTTE
EEVKKEKESDD

>DP01474|P06748|#1-130 #189-259

MEDSMMDMSPLRPQNYLFGCELKADKDYHFKVDNDENEHQLSLRTVSLGAGAKDELHIV
EAEAMNYEGSPIKVTATLKMSVQPTVSLGGFEITPPVRLKCGSGPVHISGQHLVAVEEDA
ESEDEEEEDVKLISGKRSAPGGGSKVPQKKVLAADEDDDDDEEDDDDEDDDDDFDDE
EAEEKAPVKKSIKDTPAKNAQKSQNQNGKDSKPSSTPRSKGQESFKQEKTPKTPKGSSVEDI
KAKMQASIEKGGLPKVEAKFINYVKNCFRMTDQEAIQDLWQWRKSL

>DP01576|O14777|#1-79 #202-215

MKRSSVSSGGAGRLSMQELRSQDVNKQGLYTPQTKEKPTFGKLSINKPTSERKVS LGKRTS
GHGSRNSQLGIFSSSEKIKDPRPLNDKAFIQQCIRQLCEFLTENGYAHNVSMKSLQAPSVKDFL
KIFTFLYGFLCPSYELPDTKFEEEVPRIFKDLGYPFALKSSMYTVGAPHWTWHIVAALVWLID
CIKIHTAMKESSPLFDDGQPWGEETEDGIMHNKLFLDYTIKCYESMSGADSDEMNAELQS

KLKDLFNVDAFKLESLEAKNRALNEQIARLEQEREKEPNRLESRKLKASLQGDVQKYQAY
MSNLESHSAILDQKLNGLNEEIARVELECECETIKQENTRLQNIIDNQKYSVADIERINHERNELQ
QTINKLTKDLEAEQQKLWNEELKYARGKEAIETQLAEYHKLARKLKLIPKGAEINSKGYDFEI
KFNPEAGANCLVKYRAQVYVPLKELLNETEEEINKALNKKMGLEDTLEQLNAMITESKRSVR
TLKEEVQKLDLYQQKIKEAEEEDEKCASELESLEKHKLLESTVNQGLSEAMNELDAVQRE
YQLVVQTTTEERRKVGNNLQRLEMVATHGSVEKHLEEQIAKVDREYEECMSEDLSENIKE
IRDKYEKKATLIKSSEE

>DP00432|P11632#1-23

MVTPREPKKRTTRKKKDNPNAKRALSAWMFFANENRDIRSENPDITFGQVGKKLGEKWKA
LTPEEKQPYEAKAQADKKRYESEKELYNATLA

>DP00984|P12357#70-167

MAAATASLSSTLLAPCSSKQPQPQQHQHQLCKSFGLRPLKLNISNNSSSSLSMSSARRS
MTCRAELSPSLVISLSTGLSLFLGRFVFFFNFQRENMAKQVPEQNGMSHFEAGDTRAKEYVSLL
KSNDPVGFNIVDVLAWSIGHIVAYYILATASNGYDPSFF

>DP01533|Q9NS23-4#1-50

MGEAEAPSFEMTWSSTTSSGYCSQEDSDSELEQYFTARTSLARRPRRDQDEPVEWETPDLSQ
AEIEQKIKEYNAQINSNLMSLNKDGSYTGFIVQLKLVRPVSVPSKPPSLQDARRGPGRG
TSVRRRTSFYLPKDAVKHLHVLSRTRAREVIEALLRKFLVVDDPRKFALFERAERHGQVYLR
KLLDDEQPLRLRLLAGPSDKALSFVLKENDSGEVNWDAFSMPELHNFLRILQREEEEHLRQIL
QKYSYCRQKIQEALHACPLG

>DP00728|P00760#18-27 #145-155 #187-198 #217-224

MKTFIFLALLGAAVAFVDDDKIVGGYTCANTVPYQVSLNSGYHFCGGSLINSQWVVSA
AHCYKSGIQVRLGEDNINVVEGNEQFISASKSIVHPSYNSNTLNNDIMILKLKSAASLNSRVAS
ISLPTSCASAGTQCLISGWNTKSSGTSYPDVLKCLKAPILDSSCKSAYPGQITSNMFCAGYL
EGGKDSCQGDGGPVCVSGKLQGIVSWGSGCAQKNKPGVYTKVCNYVSWIKQTIASN

>DP01555|Q9EPU7#4-91

MAVDLLAARGTEPVTFRDVAVSFSQDEWLHLDPAQRTLYREVMLENYSNLASLGQFQASIPPV
IGKLQKGQDPCMEREAPEDTCLDFQIQSEIEASSPEQDVFIEGPSRGLLKRNSTKCAYWKISFG
ELVKYERLETAQEKEKKAHEPGAASPKEVTSEDGIPTDPELEKPLFMNKALVSQETDPIERVP
GMYHTSEKDLQDFDLMRFQIYPGQKPYVCSECKGKFSQSLHLEHKRIHTGEKPYKCSEC
GKSFSHRSSLLAHQRHTGEKPYKCSECEKAFGSSSTLIKHLRVHTGEKPYRCRECGKAFCQC
STLTVHQRIHTGEKLYKCAECDKAFNCRAKLHRHQRIHTGEKPYKCAECKGKGSQFPSLAEH
QRLHTGGQLCQCLQCGRTFTRVSTLIEHQRIHTGQKPYQCNECGKTFNQYSSFNEHRKIHTGE
KLYTCEECGKAFGCKSNLYRHQRIHTGEKPYQCNQCGKAFSQYSLTEHERIHTGEKLYKCM
ECGKAYSYRSNLCRHKVHLKERLYKKEYGTPFMYGSSLAPHQRCLKGEKPEDLNSSL

>DP00274|P02458#71-97

MIRLGAPQTLVLLTLLVAAVLRCQGQDVQEAGSCVQDGQRYNDKDVWKPEPCRICVCDTGT
VLCDDIIICEDVKDCLSPEIPFGECCPICPTDLATASGQPGPKQKGEPGDIKDIVGPKGPPGPQG
PAGEQGPRGRDKGEKGAPGPRGRDGEPEGTPGNPGPPGPPGPPGLGGNFAAQMAGGF
DEKAGGAQLGVMQGPMGPMGPRGPPGPAGAPGPQGFQGNPGEPEPGVSGPMGPRGPPGP
GKPGDDGEAGKPGKAGERGPPGPQGARGFPGLPGVKHRYGYPGLDGAKGEAGAPGVK
GESGSPGENGSPGPMGPRGLPGERGRTGPAGAAGARGNDQPGPAGPPGPVGPAGGPGFPG
APGAKGEAGPTGARGPEGAQGPRGEPEGTPGSPGPAGASGNPGTDIPGAKGSAGAPGIAGAP
GFPGPRGPPGPQGATGPLGPKGQTGEPEGIAGFKGEQGPKGEPGPAGPQGAPGPAGEEGKRGA
RGEPGVGPIGPPGERGAPGNRGFPQGDGLAGPKGAPGERGPSLAGPKGANGDPGRPGEPG
LPGARGLTGRPGDAGPQGKVGPGAPGEDGRGPQGPQGARGQPGVMGFPGPKGANEPGK
AGEKGLPGAPGLRGLPGKDGETGAAGPPGPAGPAGERGEQGAPGPSGFQGLPGPPGPGEgg

KPGDQGVGEAGAPGLVGPRGERGFPGERGSPGAQGLQGPRGLPGTPGTDGPKGASGPAGPP
GAQGPPGLQGMPGERGAAGIAGPKGDRGDVGEKGPEGAPGKDGGRGLTGPIGPPGPAGANG
EKGEVGVPPGPAGSAGARGAPGERGETGPPGPAGFAGPPGADGQPGAKGEQGEAGQKGDAG
APGPQGPSGAPGPQGPTGVTGPKGARGAQGPPGATGFGAAGRVGPPGSNGNPGPGRP
GKDGPKGARGDSGPPGRAGEPGLQGPAGPPGEKGEPEGDDGPSGAEGPPGPQGLAGQRGIVGL
PGQRGERGFPLGPSPGEPGKQGAGPAGASGDGRGPPGPVGPPGLTGPAGEGPREGSPGADGPPGR
DGAAGVKGDGETGAVGAPGAPGPPGSPGPAGPTGKQGDRGEAGAQGPMGPSPGAGARGI
QGPQGPRGDKGAGEPGERGLKGHRGFTGLQGLPAGPPGSDQGASGPAGPSGPRGPPGPVG
PSGKDANGIPGPIGPPGPRGRSGETGPAGPPGNPGPPGPAGPAGIDMSAFAGLGPREKGP
PLQYMRADQAAGGLRQHDAEVDATLKSNNQIESIRSPEGSRKNPARTCRDLKLCHPEWKSG
DYWIDPNQGCTLDAMKVFCNMETGETCVYPNPANVPKKNWSSKSKEKKHIWFGETINGG
FHFSYGDDNLAPNTANQMTFLRLSTEGSQNITYHCKNSIAYLDEAAGNLKKALLIQGSND
VEIRAEGNSRFTYTALKDGCTKHTGKWGKTIEYRSQKTSRLPIIDIAPMDIGGPEQEFGVDIG
PVCFL

>DP01017|P56254|#72-88

MAKFTVCLLCLLAAFGSELSDSHKTLVNEIAEKMLQRKILDGVEATLVTDAEK
FLRKMKAEAKTSETADQVFLKQLQLKGLPVCGETCVGGTCNTPGCTCSWPVCTRNGLPSLA
A

>DP02193|P21734|#150-172

MSRAKRIMKEIQAVKDDPAAHITLEFVSESDIHLKGTLGPPGTPYEGGKFVV
DIEVPMEMPFKPPKMQFDTKVYHPNISSVTGAICLDILKNAWSPVITLKSALISLQALLQSPE
PNDPQDAEVAQHYLRDRESFNKTAALWTRLYASETSNGQGNVEESDLYGIDHDLIDE
FESQGFEKDKIVEVLRRLGVKSLDPNDNNNTANRIIEELLK

>DP01085|Q9SKI4|#106-193

MPVSLTPNAITAIHDGVNLKPLLQVLEIKMIGRSQERSQERYRFISDG
VSAQHAMVAVQLNDRVKGQFEKGSIVQLDYICSDVKGRKLIVVLN
METIVQQSETIGNPTIFGETDTEAQKTFSGTGNIPPPNRVVFNEPMV
QHSVNRAAPPGVNIQNQANNTPSFRPSVQPSYQPPASYRNHGPM
KNEAPARVPIAALNPYQGRWAIKARVTAKGDIRRYNNAKGDGK
VFSFDLLDYDGGEIRVTCFNALVDRFYDVTEVGKVY
LISKGSKPAQKNFNHLKNEWEIFLESTSTVELCPDEDGS
SIPKQQFSFRPISDIENAENNTILDVIGVVT
SVNPSVILRKNGMETHRRILNLKDESGKAVEVTLWGEFCN
RDGRQLEEMVDSA
FHPVLAIKAGKVSDFGSKVGT
ISSTQLFINPDFPEAHKLRTWF
DYGGKDTASFSISRDTMPGGVSRNEIRKNVSQ
IKEEGLGRSDKPDWITVKATISFI
KTDSCYTACPLMIGDKQC
CNKKVTRSGTNRWLC
DCRNQESDEC
DYRYLLQVQI
QDHTGLTWITA
FQETGEEIMGC
PAKKLYAM
KYELEKEEEFA
EIVRDR
LHFHQYMLKL
IKEESYG
DEQRVK
MTVV
KVDKV
NYTSE
SKYML
DLLVR

>DP00254|O75365|#70-77

MARMNRPAPVEVSYKHMRFLITHN
PNTNATLSTFIEDLKKY
GATTVV
RVCEV
TYDK
TPLE
KDGITV
VWDWP
FDDGAPP
PGKV
VEDWL
SLV
KAKF
CEAP
GSC
VAHV
CAGL
RAPV
LVAL
ALIES
GM
MKYEDAI
QFIR
QKRR
GAINS
SKQL
TYLE
KYRP
KQRL
FKDP
HTK
TRCC
V

>DP02337|O46385|#1-830

MKRKERIARRLEGI
ETDTQ
PILLQS
CCTGLV
THRLL
EEDTP
RYMR
ATDP
ASPHI
GRS
NEEE
ETSD
SSLEK
QTRS
KQCT
ETSG
IHAD
SPYSS
GIMDT
QSL
ESKA
ERIARY
KAERR
RQLAE
KYGL
TLDPEA
DSE
TPS
RYS
RSR
KDPE
AAE
KRG
VRS
ERSA
ESSR
DAG
SSYS
RT
EL
SGL
RT
CA
AES
KD
YGL
HRSD
GV
SDT
EV
LLN
AEN
QRR
GQE
PAT
GL
ARDL
PLA
GE
VSS
SF
SGR
DS
AL
GE
V
PR
SP
KA
V
HSL
PS
PG
QP
AS
PSH
STS
DL
PL
PA
EAR
ASI
GKP
HEW
FL
QKD
SEG
DTP
SLIN
WPS
RV
KV
RE
KL
V
RE
ES
AR
SS
PELT
SE
SLT
QRR
HQT
APGH
YLAF
QSE
NSAF
DRV
SGK
VASS
AR
QPI
RGY
V
QPA
EV
VHT
ITL
V
TS
DTP
PES
ISE
GS
WVG
PAP
QTV
KPP
SKV
LEG
ERR
DTP
VLH
ICES
KA
ED
VLF
SALE
KTR
KTL

AVLEDRGSGRSQEAPSGTEDLSQPAVGIVTAEPQKESES LAHPPMAQQQPTERMGRSEMV MY
VQSEAVSQGHRKEVPTRKHLRVLTRSLSDYTGPQLQALKAKAPAKRDAESQTSKAELGL
LDTKVSAQLRNAFLESARASRKPELHSRVEGSSEGPVERERGSRKPRRYFSPGENKT SER
FRTQPITS AERKESDRSTS NSEMPAAEDEEKVDERARLSVAAKRLLFREMEKS FDEKSVPKRR
SRNAAVEQRLLRQLDRSHTQPVTTEEVVIAAEPTPASC VATHPMTRHPSPTVAKSPVQPAR
TLQASAHQKALARDQTNESKDSAEQGEPDSSTLSLAEKLALFNKLSQPVSKAISTRNRLDMR
QRRMNARYQTQPVTLG EVEQVQSGKLMAFSPTINTSVSTVASTVPPMYAGNLRTKPLPDDSF
GATEQKFASSLENSDSPVRSILKSQGWQPSVEGAGSKAMLREFEETERKGGLTGGDGGVTKY
GSFEEAELSYPVLSRVREGDNHKEAIYALPRKGSLELAHPPIAQLGDDLKEFSTPKSTMQASP
DWKERQLFEEKVDLENVTKRKFSLKAAEFG EPTSEQTGAAAGKPAAPTATPVSWKPQDPSE
QPQE KRYQSPCAMFAAGEIKAPAVEGSLDSPSKTMSIKERLALLKKS GEEDWRNRLNRKQ EY
GKASITSSLHIQETEQSLKKKRVTESRESQMTIEERKHLITVREDAWKTRGKG AANDSTQFTV
AGRMVKRGLASPTAITPVASP VSSKARGTPVSRPLEDIEARPDMQLES DLKLDRL ETFLRRL
NNKVGGMQETVLTGKSVKEVMKPDDDETFAKFYRSVDSSLPRSPVELDEDFDVIFDPYAP
RLTSSVAEHKRAVRPKRRVQASKNPLKMLAAREDL LQEYTEQRLNVAFVESKRMKVEKLSA
NSSFSEVTLAGLASKENFSNVSLRSVNLTEQNSNNSAV PYKKMLLQVKGRRHVQTRLVEPR
APSLNSGDCFLLSPHCF LWVGEFANVIEKAKASELASLI QT KREL GCRAT YI QTVEEGINTH
THAAKDFWKL LGGQASYQSAGDPKEDELYETAI IETNCIYRLMDDKL VPDD DYWG KIPKCS L
LQSKEVLVFDFGSEVYVWHGKEVTLAQRKIAFQLAKHL WNGTFDYENCDINPLDPGECNPLI
PRKGQGRPDWAIFGRLTEHNETILFKEKFLDWTELKR PNEKNASELAQHKDDARA EVKPYD
VTRMVPVPQTTAGTVLDGVNVGRGYGLVEGDDR RQFEIASISVDV WHILEFDY SRLPKQSIG
QFH EGDAYVVVKWFIVSTA VGSRQKG EHS VRVAGKEKC VYFFWQGRQSTVSEKGT SALMT
VELDEERGAQVQVLQGKEPPCFLQCFQGGMV VHS GRREEEENT QSEWRL YCVRGE VPVEG
NLLEVACHCSSLRSRTSMVVLNVHKALIYLW HGCKAQAHTKEVGR TAANKIKDQC PLEAGL
HSSSKVTIHECDEGSEPLGFWDALGRRDRKAYDCMLQDPGNFNF PRLFILSSSSGDFSATEF
MYPARDPSVVSMPFLQEDLYSAPQPALFLVDNHHEVYLWQGWWPIENKITGSARIRWASD
RKSAMETV LQYCRGKNLKKPPKSYLIHAGLEPLTFTNMFPSWEHREDIAEITEMDTEVSNQI
TLVEDVLA KLCKTIYPLADLLARPLPEGVDPKLEIYLTDED FEFALDMTRDEYNALPAWKQ
VNLKKAKGLF

>DP00975|Q86FP9|#20-79

MKHFAILILAVVASAVVMAYPERDSAKEGNQE QERALHV KVQKRTDG DADYDEYEED GTT
PTPDPTAPTA KPRLRGNKP

>DP00973|P46108-2#1-204

MAGNF DSEERSSWYWGRLSRQEAVALLQGQRHGFLVRDSSTSPGDYVLSVENS RVSHYII
NSSGPRPPVPPSPAQPPPVGSPSRLRIGDQEFDSPALLEFYKIHYLDTT LIEPVSR SRQGSGVI
LRQEEA EYVRALDFNGNDEEDLPFKKG DILRIRD KPEEQWWNAEDSEGKRG MIPV PYVEKY
RPASASV S ALIGGNQEGSH PQPLGGPEPGPYAQPSVNPLPNLQNGPIYARVIQKRV PNAYDK
TALALEV GELVKVTKINVSGQWE GECNGKRGHF PFTHV RLLDQQNP DEDFS

>DP01808|Q9I832#90-120

MKLTLLCLCFISITA APVSKSKQHA ISASSEE KYDPRSHH THRYH QDHV DSQS QEH LQQTQ
NDL ASL QQTHYS SEENAD VPEQPDFD VPSKSQETV DDDDDDDN DSND TDESDEVFTDFPTE
APVAPFNR GDNA GRGDSV AYGFRAKA HVVK ASKIRKA ARK LIEDD ATT EDGDSQ PAGLW
PKESREQNSRE LPQHQ SVENDSRPKFD SREV DGGDSK ASAGVDS RESQGS VPAV DASN QTLE
SAEDAEDRHSIENNEVTR

>DP00400|P60752#351-358 #378-386

MHNDKDLSTWQTFRRLWPTIAPFKAGLIVAGVALILNAASDTFMLSLLKPLDDFGKTD RS
VLVWMP LVVIGLMILRGITSYVSSYCISWVSGKV VMTMRRRLFGHMMGMPV SF DFKQ STGT

LLSRITYDSEQVASSSSGALITVVREGASIIGLFIMMFYYSWQLSIIILIVLAPIVSIAIRVVSKRFR
NISKNMQNTMGQVTTSAEQMLKGKHEVLFQGQEVTKRFDKVSNRMRLQGMKMSASSIS
DPIIQLIASLALAFVLYAASFPSVMDSLTAGTITVVFSSMIALMRPLKSLTNVNAQFQRGMAAC
QTLFTILDSEQEKDEGKRVIERATGDVEFRNVTFTYPGRDVPAURNLNKIPAGKTVVALVGRS
GSGKSTIASLITRFYDIDEGEILMDGHDLREYTLASLRNQVALVSQNVHLFNDTVANNIAYAR
TEQYSREQIEEAARMAYAMDFINKMDNGLDTVIGENGVLSSGGQRQRIAIARALLRDSPILIL
DEATSALDTESERAIQAALDELQKNRTSLVIAHRLSTIEKADEIVVVEDGVIVERGTHNDLLEH
RGVYAQQLHKMQFGQ

>DP01083|Q7TP21|#89-167

MQQGDTSIKPVLQVINIRPITTGNSSPRYRLLMSDGLNTLSSFMLATQLNALVEGGQLASNCV
CQVHRFIVNTLKDGRRVILMDLEVVKSAVEGVVKIGNPVNEGHAAQQAVSAPASAATP
PASKPQPQNGSLGVGSTVAKAYGASKPFGKPAGTGLLQPTSGTQSCKVVIASLTPYQSKWTIC
ARVTNKSQIRTWSNSRGEGLFSIELVDESGEIRATAFNEQVDKFFPLIEVNKVYYFSKGTLSKI
ANKQFSAVKNDYEMTFNNETSVLPCEGDGHHLPTVQFDFTGIGDLESKSKDSLVDIIGICKSYE
DATKITVKSNNREVAKRNICLMDMSGKVVTATLWGEDADKFDSRQPVMAIKGARVSDFG
GRSLSVLSSSTVLVNPDIPEAYKLRGWHYVFGDGGGLKALLHRQAHDPLMNLESQRKQLELK
CCVLTLPGRQGFNSCVLESSAESISGLRCGQLMWGFDSEGQALDGVSISDLRSGGTGGSNT
NWKTLYEAKSENLGQGDKADYFSTVATVVFLRKENCAMYQACPTQDCNKKVIDQQNGLYRC
EKCDREFPNFKYRMILSVNIADFQENQWVTCFQESAEAILGQNTVYLGELKEKVGCFVSMN
EQAFEEVFQNANFRSFTFRIRVKLETYNDERSIKATVIDVKPVDYRDYSKRLIMNIRKNI

>DP01565|Q9GSG7|#1-112

MDPSDRGFDAAVGHMGPLSPQDMKPDLKPDISLLNGSVGPFSPGNNCGPASPGAFNQQVA
AALQQQQQNVNSLNSQQSGGGGGGGGTTPTPTNMSQQYPPNPLSGSKHLCsicGDRASG
KHYGVYSCEGCKGFFKRTVRKDLSYACREDKNCTIDKRQRNRCQYCRYQKCLACGMKREA
VQEERQRSSKFSIKSEEINSTSSVRDVTIERIHEAEQLSEQKSGDNAIPYLRVGSNSMIPPEYKG
AVSHLCQMVNQKQIYQLIDFARRVPHFINLPRDDQVMLLRCGWNEMLIAAVAWRSMEYIETE
RSSDGSRITVRQPQLMCLGPNTLHRNSAQAGVDTLFDRILCELGKMKRLDVTRAELGVL
KAIILFNPDIRGLKCQKEIDGMREKIYACLDEHCKQQHPSEDGRFAQLLLRLPALRSISLKCLD
HLDNFIRLLSDKHLDHFIVEMLDMP

>DP02501|P00800|#1-232

MKMKMKLASFLAAGLAQVFLPYNALASTEHVTWNQQFQTPQFISGDLLKVNGTSPEELV
YQYVEKENKFHKHENAKDTQLKEKKNDNLGFTFMRFQQTYKGIPVFGAVVTSHVKDGT
TALSGLTIPNLDTKGSLKSGKKLSEKQARDIAEKLTVANVTKEVPEYEQGKDTEFVVYVNGD
EASLAYVVLNFLTPEPGNWLYIIDAVDGKILNKFNQLDAAKPGDVKSITGTSTVGVRGVL
GDQKNINTTYSTYYLQDNTRNGNGIFTYDAKYRTTLPGLWADADNQFFASYDAPAVDAHY
YAGVTYDYYKNVHNRLSYDGNNAAIRSSVHYSQGYNNAFWNGSQMVYGDGDGQTFIPLSG
GIDVVAHELTHAVTDYTAGLIYQNESGAINEAISDIFGTLVEFYANKNPDWEIGEDVYTPGISG
DSLRSMSDPAKYGDPDHYSKRYTGTQDNGGVHINSIGKAAYLISQGGTHYGVSVVGIGRD
KLGKIFYRALTQYLTPTSNFSQLRAAVQSATDLYGSTSQEVASVKQAFDAVGVK

>DP01086|Q10Q08|#105-180

MDSDAAPSVTPGAFAVFLENASPDAAATGVPVPEIVLQVVDLKPIGTRFTFLASDGKDKIKTML
LTQLAPEVRSGNIQNLGVIRVLDYTCTIGEKQEKLITKLEVVFKALDSEIKCEAKQEEKP
AILLSPKEESVVLKPTNAPPLPPVVLKPQEVKSASQIVNEQRGNAAPAARLAMTRRVHPLIS
LNPYQGNWIICKRVRTSKGNLRTYKNARGEFCVNVELTDVDTGQTIQATMFNEAAKKFYPMF
ELGKVVYISKGSLRVANKQFKTVHNDYEMTLNENA VVEEAEGETFIPQIQYNFVKIDQLGPY
VGGRELVDVIGVVQSVSPTLSVRRKIDNETIPKRDIVVADDSSKTVTISLWNDLATTGQELL
DMVDSAPIIAIKSLKVSDFQGLSLSTVGRSTIVVNPDLPEAEQLRAWYDSEGKGTSMASIGSD

MGASRVGGARSMYSDRVFLSHITSDPNLGQDKPVFFSLNA YISLIKPDQTMWYRACKTCNKK
VTEAIGSGYWCEGCQKNDAECSLRYIMVIKVSDPTGEAWLSLFNDQAERIVGCSADELDRIR
KEEGDDSYLLKLKEATWVPHLFRSVTQNEYMNEKRQRITVRSEAPVDHAAEAKYMLEEIA
KLTGC

>DP01036|I1JLC8|#1-105

MASRQNNKQELDERARQGETVVPGGTGGKSLEAQHQHLAEGRSKGQTRKEQLGTEGYQEM
GRKGLSTVEKSGEERAQEEGIGIDESKFRTGNKNQNQNEDQDK

>DP00449|P53563|#31-80

MSQSNNRELVVDLFSYKLSQKGYSWSQFSDVEENRTEAPEETEPERETPSAINGNPSWHLADSP
AVNGATGHSSLDAREVIPMAAVKQALREAGDEFELRYRRAFSQLTSQHITPGTAYQSFEQ
VVNELFRDGVNWGRIVAFFSGGALCVESVDKEMQVLVSRIASWMATYLNDHLEPWIQENG
GWDTFVDLYGNAAAESRKQERFNRWFLTGMTVAGVVLGSLFSRK

>DP02156|P46673|#1-43

MTIDDSNRLLMDVDQFDLDDGTAQLSNKTDEEEQLYKRDGVSGAILVPMTVNDQPIEKNG
DKMPLKFKLGPLSYQNMAFITAKDKYKLYPVIPRLDTSKEFSAYVSGLFEIYRDLGDDRVFN
VPTIGVVNSNFAKEHNATVNLAMEAILNELEVFIGRVKDQDGRVNRFYELEESTVLNCLRT
MYFILDGQDVEENRSEFIESLLNWINRSDGEPDEEYIEQVFSVKDSTAGKKVFETQYFWKLLN
QLVLRGLLSQAIGCIERSDLLPYLSDTCAVSFDAVSDSIELLKQYPKDSSTFREWKNVLKLS
QAFGSSATDISGELRDYIEDFLLVIGGNQRKILQYSRTWYESFCGFLLYYIPSLELSAEYLQMSL
EANVVDTNDWEQPCVDIISGKIHSILPVMESLDSCTAAFTAMICEAKGLIENIFEGEREKSDDYS
NEDNEMLEDLFSYRNGMASYMLNSFAFELCSLGDKELWPVAIGLIALSATGTRSAKKMVIAE
LLPHYPFVTNDDIEWMLSICVEWRLPEIAKEIYTTLGNQMLSAHNIIESIANFSRAGKYELVKS
YSWLLFEASCMEGQKLDDPVLAIVSKNSPAEDDVIIQPQDILDCVVTNSMRQLAPYAVLSQF
YELRDREDWGQALRLLLLIEFPYLPKHVLVLLVAKFLYPIFLDDKKLMDEDSVATVIEVIE
TKWDDADEKSSNLYETIIEADKSLPSSMATLLKNRKKLNFKLCQAFM

>DP01317|O60741|#1-93

MEGGGKPNSNSRDDGNSVFPAKASATGAGPAAAEEKRLGTPPGGGAGAKEHGNSCFKV
DGGGGGGGGGGGGEEPAGGFEDAEGPQQYGMQRQFTSMLQPGVNFSLRMFGSQKAVE
KEQERVKTAGFWIHPYSDFRFYWDLIMLIMMVGNLVIIPVGITFFTEQTTPWIIFNVASDTV
LLDLIMNFRGTVNEDSSEIILDPKVIKMNYLKSFWVVDFISSIPVDYIFLIVEKGMDSEVYKTA
RALRIVRFTKILSLLRLSRLIRYIHQWEEIFHMTYDLASAVVRIFNLIGMMLLCHWDGCL
QFLVPLLQDFPPDCWVSLNEMVNDSWGKQSYALFKAMSHMLCIGYGAQAPVMSDLWIT
MLSMIVGATCYAMFVGHATALIQSLDSSRRQYQEYKQVEQYMSFHKLPADMRQKIHDDY
EHRYQGKIFDEENILNELDPLREEIVNFNCRKLVATMPLFANADPNFTAMLSKLRFEVFQP
GDYIIREGAVGKKMYFIQHGVAVGVITKSSKEMKLTGSYFGEICLLTKGRRTASVRADTYCR
LYSLVDNFNEVLEYPMMRRAFETVAIDRLDRIGKNSILLQFKQKDLNTGVFNNQENEILK
QIVKHDREMVQAIAPINYPQM TTLNSTSSTTPTSRMRTQSPPVYTATSLSHSNLHSPSPSTQT
PQPSAILSPCSYTTAVCSPPVQSPLAARTFHYASPTASQLSLMQQQPQQVQQSQPPQTQPQQ
PSPQPQTPGSSTPKNEVHKSTQALHNTLTVRPLSASQPSLPEVSTLISRPHPTVGESLASI
PQPVTAVPGTGLQAGGRSTVQRVTLFRQMSSGAIPPNRGVPPAPPAAALPRESSSVLNTDP
DAEKPRFASNL

>DP00818|P40422|#1-24

MSREGFQIPTNLAAAAGTSQARTATLKYICAECSSKLSLSRTDAVRCKDCGHRILLKARTKR
LVQFEAR

>DP01559|Q04964|#1-104

MQNSQDYFYAQNRCQQQQAPSTLRTVTMAEFRRVPLPPMAEVPMNSTQNSMGSSASASASS
LEMWEKDLEERLNSIDHDMNNNKFGSGELKSMFNQGKVEEMDF

>DP00524|Q9NQC3|#1-200 #1155-1187

MEDLDQSPLVSSSDSPPRQPQAFKYQFVREPEDEEEEEEEDEDLEELEVLERKPAAGLS
AAPVPTAPAAGAPLMDFGNDVFPPAPRGPLPAAPPVAPERQPSWDPSPSVTVPAPSPLSAAA
VSPSKLPEDDEPPARPPPPPASVSPQAEPWTTPAPAPAAPPSTPAAPKRRGSSGSVDETLFAL
PAASEPVISSAENMDLKEQPGNTISAGQEDFPSVLLETAASLPSLPLSAASFKEHEYLGNLST
VLPTEGTLQENVSEASKEVSEAKTLLIDRDLTEFSELEYSEMSSFSVSPKAESAVIVANPRE
EIVKNKDEEEKLVSNNILHNQQELPTALTKLVKEDEVVSSEKAKDSFNEKRVAVEAPMREEY
ADFKPFERVWEVKDSKEDSDMLAAGGKIESNLESKVDKKCFADSLEQTNHEKDSESSNDDTS
FPSTPEGIKDRSGAYITCAPFNPAATESIATNIFPLLGDPTESENKTDEKKIEEKKAQIVTEKNTST
KTSNPLVAAQDSETDYVTTDNLTKVTEEVANMPEGLTPDLVQEACESELNEVTGTKIAYE
TKMDLVQTSEVMQESLYPAACQLCPFFESEATPSPVLPDIVMEAPLNSAVPSAGASVIQPSSP
LEASSVNYESIKHEPENPPYYEAMSVSLKKVSGIKEEIKEPENINAALQETEAPYISIACDLIKE
TKLSAEPAPDFSDYSEMAKVEQPVPDHSELVEDSSPDSEPVDFSDSIPDVPQKQDETVMVL
KESLTETSFESMIEYENKEKLSALPPEGGKPYLESFKLSLDNTKDTLLPDEVSTLSKKEKIPLQ
MEELSTAVSNDDLFISKEAQIRETETFSDSPIEIIDEFTLISSKTDFSKLALEYTDLEVSHKS
EIANAPDGAGSLPCTELPHDSLKNIQPKVEEKISFSDDFSKNGSATSKVLLPPDVSALATQA
EIESIVKPVLVKEAEKKLPSDTEKEDRSPSAIFSAELSKTSVVDLLYWWRDIKKTGVVFGASLF
LLLSLTFSIVSVTAYIALALLSVTISFRYKGVIQAIQKSDEGHPFRAYLESEVAISEELVQKYS
NSALGHVNCTIKELRRRLFLVDDLVDLSKFAVLMWVFTYVGALFNGLTLALISLFSVPVIYE
RHQAQIDHYLGLANKNVKDAMAKIQAKIPGLKRKAE

>DP00882|G1TDB3|#1-40 #116-125

MPPKDDKKKDAGSAKKDKDPVNKGKAKKKWWSKGKVRDKLNNLVLFDKATYDKL
CKEVPNYKLITPAVVSERLKIRGSLARAALQELLSKGLIKLVSKHRAQVIYTRNTKGGDAPAA
GEDA

>DP01160|P9WPI9|#1-81

MSSPRERRPASQAPRLSRRPPAHQTSRSSPDTTAPTGSGLSNRFVNDNGIVTDTTASGTNCPPP
PRAAARRASSPGESPQLVIFDLDGTLTDSARGIVSSFRHALNHIGAPVPEGDLATHIVGPPMHE
TLRAMGLGESAAEAIVAYRADYSARGWAMNSLFDGIGPLLADLRTAGVRLAVATSKAEP
RRILRHFGIEQHFEVIAGASTDGSRGSKVDVLAHALAQLRPLPERLVMVGDRSHDV
GIDTVVVGWGYGRADFIDKTSTTVTHAATIDELREALGV

>DP01783|Q2JIZ5|#1-30

MDTETWAAAARPSRDALINRITHQIRQSLELDQILRATVEEVRAFLGTDRAVKVYRFDPEGHGT
VVAEARGGERLPSLLGLTFPGADIPEEARLFRЛАQVRVIVDVEAQSRISQPEWGLSARVPL
GEPLQRPVDPCHVHLKSMGVASSLVPPLMHQELWGLLVSНHAЕРРРYSQEELQVVQLA
DQVSIAIAQAEELLEQARQKAQQERLINQIAALVYSPLHPETTLLTVLEQLAAGLQGIGARLRIH
FMGADTLCCHGVPQPPASYDTWLQEQLGRAGGAGGWV рKMWSLSHLEKWP
ELQEQMKTPI
RGLLVAQLAWNDQPGWLSVFRGAVYQETHWAGYRWFTQGDPRQELPLISFAAWRELKID
EPKAWSAAEQELMSRVGVHLALSITQNQLYRQLQTLNARLEQEVQERTAALQRS
LAMDALL
QRVTDQRSSLEEAQILRAVVQELALGLPIQGCDLCLYDWASQATV
REYTSALPPAGGIT
LTLADYPDLYRHLQGGQAVQFC
HLPQGWIPRREG
LTLVCPLRDDQGVL
GDLWLAKPAAK
CFDELEVQV
VQVQVAD
HCAIAIR
QARLYQASV
QQIG
ELERLN
RLKDD
FLSTV
SHEL
RTPI
NMR
MAIQLL
KTARAP
QKREQ
YLKILE
QEC
CERE
AEL
VND
LLD
LQR
LEQ
GSK
TLH
LEE
VPL
ATWL
PS
VLE
PFL
LQRA
QVN
QQL
QWQ
IA
PN
VGK
VLT
DQG
GLER
VV
QEL
VNN
ACK
YTP
PGCS
IWTA
QR
PGP
QQV
EIR
VINE
GVE
ISP
AE
QER
IFE
KFY
RIP
SGDP
WK
RGG
TGL
GL
ALV
KQWM
QRL
GG
SV
ESS
SQG
KTC
CTL
VLP
QG
SLP
VQT
SPL
AHN
CA

>DP01857|P09012|#102-117

MAVPETRNHTIYINNLNEKIKKDELKKSLYAIFSQFGQILDILVSRSLKMRGQAFVIFKEVSSA

TNALRSMQGFPFYDKPMRIQYAKTSDIIAKMKGTVERDRKREKRKPQSQETPATKKAVQGGATPVVGAVQGPVPGMPPMTQAPRIMHHMPGQPPYMPPPGMIPPPGLAPQIIPGAMPPQQLMPGQMPPAQPLSENPPNHILFLTNLPEETNELMSMLFNQPGFKEVRLVPGRHDIASFEDNEVQAGAARDALQGFKITQNNAMKISFAKK

>DP00874|Q12406|#204-214 #262-276 #353-379

MTLNKRKCVVIHNGSHRTVAGFSNVELPQCIIPSSYIKRTDEGGAEFIFGTYNMIDAAAERNGDEVYTLVDSQGLPYNWDALEMQWRLYDTQLKVSPPELPLVITMPATNGKPDMAILERYYELAFDKLNVVFQIVIEPLAIALSMGKSSAFVIDIGASGCNTPIIDGIVVKNAVRSKFGGDFLDFQVHERLAPLIKEENDMENMADEQKRSTDVWEASTWIQQFKSTMLQVSEKDLFELERYYKEQADIYAKQQEQLKQMDQQLQYTALTGSPNNPLVQKKNFLFKPLNKTLLDLKECYQFAEYLFKPQLISDKFSPEDGLGPLMAKSVKKAGASINSMKANTSTNPNGLGTSHINTNVGDNNSTASSSNISPEQVYSLLLTVNIITGSTSLIEGMERIICKELSIRFPQYKLTTFANQVMMDRKIQGWLGALTMANLPWSLGKWYSKEDYETLKRDRKQSQATNATN

>DP01660|P12301|#97-116 #84-119

MAQAMASMAGLRGASQAVALGSLQISGSNRLSGPTTSRVAVPKMGLNIRAQQVSAEAETSRAMLGFAAGLASGSFVKAVLAEARPIVVGPPPPLSGGLPGTENSDQARDGTLPTYKDRFYLQPLPTEAAQRAKVSASEILNVKQFIDRKAWPSLQNDLRLRASYLRYDLKTVISAKPKDEKKS LQELTSKLFSSIDNLDHAAKIKSPTAEKYYGQTVSNINEVLAKG

>DP01979|Q6CMF0|#1-39 #631-656 #818-828

MDQQFVAQLEQALGAIVQPTGSLKDATKTLQSQFYTQSAALPALIHILQNSSNDGIKQLAGVEARKQVSKHWGSLDAATQTSVKQSLLNSAFNEGKDAVRHANARVIASIGSEELDEKKWPELIPNLLQAACDSNPKIRETAIFIILSLESFNANLALHIDDFNLNFAQTINDSASLETRSLSAQALSYVSSLIEEEGEINPQYAAKFASLIPSVVQVLADTIREGDTNTKLIFNCLNDFLLLDSQLTGNTIADLVKLALQIAVNSDVDEDIRVFAVQFVTSALVYRKSINKQAKLGPEITLAALKVASEEIDVEDELTNEDEAGENEENTPALTALRLISNASGELSPSQVGVPPIEHLPTMLSSNPFERRSILLAISVLTGSPDYTLSQFDKJIPATVTGLKDSEAVVQLAALKCIVQLSTNLQDEVARYHEQYPLVIDIIDSAKHVVIKYATLALDGLEFIAHNDIYLDPLMNKLQFMLETQQSPKLRAAIVSAIGSCAAF AAGSGFVPYFKTSVQYLQQFIQNVSQIEGLSEDDIELKALTTFENISTMGRAVKSAAFAEYAEPVLNAAYEAIKTD SARLRESGYAFIANMAKVGKDFAPFLQTIPEIFKTLQEELYQFNFDGEDFLEGIEDLDEEELQSKFTVNTGIAYEKEVAAAALSELAIASKEHFLEYVEPSLKVLAEQVNESYGLKETALHSMWAIVKAVLLTANLKEGEYPKGVPGSYVDASALAVIQTREVSLNNVIEEVETSMVISVFQDLSEMLRLFGPIIMDNGDSTHLDQLCREASVLKGEHACQTIHFEEDVPEDEDL DASETEATLLDVALDIYVALSTNLVGGFAQVFTTAKPVILQLCQSKSKNKRFSFAVGALSEIAL GMRDENPFIQELLEALIISLTNDKSLERVRCNASYGVGLLIEYSSFDVSAIYSPVLKSLYEILSVADEKNLATEDDEATKEIVDRTFSNVCGCVARMILKHQNLVPLEHTIPALLSHLPNTAFEEYDPIFKLFLKLFQEQNSTIINEAPKVIAIFATVFEKESERIEETNSTLGREENLEKRKQFQSEEIKQQVIELLKHLNQQFNGAVAQNPVLAQVIA

>DP01285|Q97W59|#18-139

MSSEKEYVEMLDRLYSKLPKGRKEGTQSLPNMIILNIGNTTIIRNFAEYCDRIRREDKICMKYLLKELAAPGNVDDKGELVIQGKFSSQVINTLMERFLKAYVECSTCKSLDTILKKEKKSWEIVCLACGAQTPVKPL

>DP00689|P30185|#1-186

MASYQNRPGGQATDEYGNPIQQYDEYGNPMGGGGYGTGGGGATGGQGYGTGGQGYGS GGQGYGTGGQGYGTGTGTEGFGTGGGARHHGQEQLHKESGGGLGGMLHRSGSGSSSSSED DGQGGRRKKGITQKIKEKLPGHHDQSGQAQAMGGMGSGYDAGGYGGEHHEKKGMMDKIK EKLPGGGR

>DP00226|Q9CXW3|#48-77 #178-229

MASVLEELQKDLEEVKVLLEKSTRKRLRDTLTSEKSKIETELKNKMQQKSQKKPELDNEKPA
AVVAPLTTGYTVKISNYGWDQSDKFVKIYITLTGVHQVPTENVQVHFTERSFDLLVKNLNGK
NYSMIVNNLLKPISESSKKVKTDTVIILCRKKAENTRWDYLTVQVEKEKEKEKPSYDTEAD
PSEGLMNVLKKIYEDGDDDMKRTINKAWVESREKQAREDTEF

>DP01582|Q868N5|#336-385 #358-392

MLLLTLLLFACTVAADFQHNWQVGNEYTYLVRSLTSLGDLSDVHTGILIKALLTVQAKD
SNVLAAKVWNGQYARVQQSMPDGWETEISDQMELRDLPISGKPFQIRMKHGLIRDLIVDRD
VPTWEVNILKSIVGQLQVDTQGENAVKVNSVQVPTDDEPYASFKAMEDSVGGKCEVLYDIA
PLSDFVIHRSPELVPMPTLKGDRGRHMEVIKIKNFNDNCQRINYHFGMTDNRLEPGTNKNGKF
FSRSSTSREVISESLKHFTIQSSVTTSKMMVSPRLYDRQNGLVLSRMNLTLAKMEKTSKPLPMV
DNPESTGNLVYIYNNPFSDEERRVSKTAMNSNQIVSDNSLSSSEEKLQDILNLRTDISSSSS
ISSSEENDFWQPKPTLEDAPQNSLLPNFVGKKGKHIGKSGKVDVINAAKELIFQIANELEDASN
IPVHATLEKFMILCNLMRTMNRQKISELESNMQISPNELKPNDKSQVIQKNTWTVFRDAITQT
GTGPAFLTIKEWIERGTTKSMEAANIMSKLPKTVRTPTDSYIIRSFFELLQNPKVSNEQFLNTAA
TLSFCEMIHNAQVNKRSHNNYPVHTFGRITSKHDNSLYDEYIPFLERELRKAHQEKDSPRIQT
YIMALGMIGEPKILSVFEPYLEGKQQMTVFQRTLMVGSGLGKLTETNPKLARSVLYKIYLNMT
ESHEVRCTAVFLLMKTNPPLSMLQRMAEFTKLDTNRQVNSAVKSTIQLMKLKSPEWKDLA
KKARSVNHLLTHHEYDYELSRGYIDEKILENQNIITHMILNYVGSEDSVPRILYLTWYSSNGD
IKVPSTKVLAMISSVKSFMELSRSVKDRETIISAAEKAIEELKIVPEELVPLEGNLMINNKYAL
KFFPFDKHILDKLPTLISNYIEAVKEGKFMNVNMLDTYESVHSFPTETGLPFVYTFNVIKLTKT
SGTVQAQINPDFAFIVNSNLLRTFSKNVQGRVGFVTPFEHRHFISGIDSNLHVYAPLKISLDVN
TPKGNMQWKIWPMKGEEKSRLFHYSVVPFVSNHDILNLRPLSMEKGTRPMIPDDNTSLALPK
NEGPFRLNVETAKTNEEMWELIDTEKLTDRLPYPWTMDNERYVKVDMYMNLEGEQKDPVIF
STSFDISKVMTRPDTDSENWTPKMMAVEPTDKQANSKTRRQEMMREAGRGIESTAKSYVVDV
RVHVPGESESETVTLAWSESNEVKRLLGFWRVEMPRSNADYEVCIQSQIMVSPETLLSY
DEKMDQPKMDFNVDIRYGNCGKGERIDMNGKLRQSPRLKELVGATSIKDCVEDMKRGN
KILRTCQKAVVLSMLLDEVDISMEVPSDALIALYSQGLFSLSEIDNLDVSLDSNPKNAGKKI
DVRALKNEYLDKADVIVNTPIMDAHKDVKLSDFGSTEDILTADEDLLINNVFYEDDETSC
MLDKTRAQTFDGKDYPLRLGPCWHAVMTTYPRINPDNHNEKLHIPKDKSVSLSRENEAGQ
KEVKVLLGSDKIKFVPGTTSQPEVFVNGEKIVSRNKAYQKVEENEIIFEIYKMGDRFIGLTSQ
KFDVSLALDGERVMLKASEDYRYSVRGLCGNFDHDSTNDFVGPKNCLFRKPEHFVASYALIS
NQCEGDSLNVAKSLQDHDCIRQERTQQRNVISDSESGRLDTEMSTWGYHHNVNKHCTIERT
QVKETDDKICFTMRPVVSCASGCTAVETKSCKPYKFHCMEKNEAAMKLKKRIEKGANPDLQ
KPVSTTEELTVPFVCKA

>DP00054|P78356|#1-33 #220-250 #304-342 #373-390

MSSNCTTTAVAVAPLSASKTKKKHFVCQVKLFRASEPILSVLMWGVNHTINELSNVPV
PVMLMPDDFKAYS KIKV DNL FN KEN LPS RKF KEY CPM VFR NL RER FG I DD QD Y QNS VTRS
API NS DS QGRC GTR FL TT YD RRF VIK T VS SED VA EM HN IL KY HQ FIVE CH GNT LL PQ F LG MY
R L TV D G V E TY M V V T R N V F SH RL T V HR K Y DL KG ST V A RE A SD KE A K D L P T F K D N D F L N E G Q
K LH V GE E SK K N F LE KL K RD V E FL A Q L K I M D Y S L L V G I H D V D R A E Q E E M E V E E R A E D E E C E N D
G V G G N L L C S Y G T P P D S P G N L L S F P R F G P G E F D P S V D V Y A M K S H E S S P K K E V Y F M A I I D I L T P Y
D T K K K A A H A A K T V K H G A G A E I S T V N P E Q Y S K R F N E F M S N I L T

>DP02523|Q9UKL0|#1-307 #1-485 #441-485

MPAMVEKGPEVSGKRRGRNAAASASAAAASAAACASPAATAASGAAASSASAAAAS
AAAAPNNGQNKLAAAAPNGNSSNSWEEGSSGSSDEEHGGGGMRVGPQYQAVVPDFDP
AKLARRSQRERDNLGMLVWSPNQLSEAKLDEYIAIAKEKHGYNMEQALGMLFWKHNIEK
SLADLPNFTPFPDEWTVEDKVLFEQAFSFHGKTFHRIQQMLPDKSIASLVKFYYSWKKTRTKT

SVMDRHARKQKRERESEDELEEANGNNPIDIEVDQNKEVKKEVPPTEVPQVKKEKHSTQA
KNRAKRKPPKGFLSQEDVEAVSANATAATTVLRLQDMELVSVKRQIQNIQQTNSALKEKL
DGGIEPYRLPEVIQKCNRWTTEEQLLAVQAIRKYGRDFQAISDVIGNKSVVQVNFFVNYR
RRFNIDEVLQEWEAEHGKEETNGPSNQKPVKSPDNSIKMPEEEDEAPVLDVRYASAS

>DP00702|P46937|#101-171 #230-238

MDPGQQPPQPAPQGQQQPSQPPQGQGPPSGPGQAPAPAATQAAPQAPPAGHQIVHVRGDSE
TDLEALFNAVMNPKTANVPQTVPMLRKLPDSFFKPPPEPKSHSRQASTDAGTAGALTTPQHVR
AHSSPASLQLGAVSPGTLPTGVSGPAAPTAQHLRQSSFEIPDDVPLPAGWEMAKTSSGQR
YFLNHIDQTTWQDPRKAMLSQMNVTAPTSPPVQQNMMSASGPLPDGWEQAMTQDGEIY
YINHKNKTTSWLDPRLDPRFAMNQRISQSAPVKQPPPLAPQSPQGGVMGGNSNQQQMRL
QQLQMEKERLRLKQQELLRQAMRNINPSTANS PKCQELALRSQPLTLEQDGQTQNPVSSPGM
SQELRTMTTNSSDPFLNSGTYHSRDESTDGLSMSSYSVPRTPDDFLNSVDEMDTGTINQST
LPSQQNRFPDYLEAIPGTNVDLGTLEGDMNIEGEELMPSLQEALSSDILNDMESVLAATKLD
KESFLTWL

>DP00827|O31467|#42-70

MFSNIGIPGLILIFVIALIIFGPSKLPEIGRAAGRRTLLEFKSATKSL VSGDEKEEKS AELTAVKQD
KNAG

>DP01055|Q8GT36|#1-103

MSSLPFVFGAAASSRVVTAAAAGTAETKQEKFVDWLLGKITKEDQFYETDPILRGGDVKS
SGSTSGKKGGTSGKKGTVSIPSKKNGNGVFGGLFAKKD

>DP01612|O88597|#124-150

MEGSKASSSTMQSFVCQRCSQPLKLDTSFKILDRTIQLTAPLLTAQAKPGETQEEEANS
GEEPFIETRQDGVSRRFIPPARMMSTESANSFTLIGEASDGGMENLSRRLKVTGDLFDIMSGQ
TDVDHPLCEECTTLLDQLDTQLNTENEQNYKRCLEILEQMNEDDSEQLQRELKELALEE
ERLIQELEDVEKNRKVVVAENLEKVQAEAERLDQEEAQYQREYSEFKRQQLELDDELKSVEN
QVRYAQIQLDKLKKTNVFNATFHIWHSGQFGTINNFRGLRPLPSVPVEWNEINA AWGQTVLLL
HALANKMGLKFQRYRLVPYGNHSYLESLTDKSKELPLYCSGGLRFFWDNKFDHAMVAFLD
CVQQFKEEVEKGETRFCLPYRMDVEKGKI ETDGGSGGSYSIKTQFNSEEQWTKALKFMLTNL
KWGLAWVSSQFYNK

>DP02012|Q9Z8L4|#1-94 #386-399

MAASGGTGGLGGTQGVNLAAVEAAA KADAAEVVASQEGSEMNM IQSQDLTNPAAATR
TKKKEEKFQTLESRKKGAEAGKA EKKSESTEKPDTDLADKYASGNSEISGQELRGLRDAIGD
DASPEDILALVQE KIKDPALQSTALDYLVQTTPPSQGKLKEALIQARNTHTEQFGRTAIGAKNI
LFASQEYADQLNVSPSGLRLSYLEVTDHTCDQLLSMLQDRYTYQDMAIVSSFLMKGMAT
ELKRQGPYVPSAQLQVLMTETRNLQAVLTSYDYFESRVPILLDSLKAEGIQTPSDLNFVKVAE
SYHKIINDKFPTASKVEREVRNLIGDDVDSVTGVNLFFSALRQTSSRLFSSADKRQQLGAMI
ANALDAVNINNEDYPKASDFPKPYPWS

>DP00048|P03406|#1-83 #146-184

MGKGWSKSSVGWPTVRERMRAEPAADGVGAASRDLEKHGAI TSSNTAATNAACAWLE
AQEEEVEGFVTPQVPLRPMTYKAAV DLSHFLKEGGLEGLIHSQRRQDILDLWIYHTQGYFP
DWQNYTPGPVRYPLTFGWCYKL VPVEPDKVEEANKGENTSLHPVSLHGMDDPEREVLE
WRFDSRLAFHHVARELHPEYFKNC

>DP00079|Q92731|#1-103

MDIKNSPSSLNSPSSYNCQSILPLEHGSIYIPSSYVDSHHEYPAMTFYSPA VMNYSIPSNTNL
EGGPGRQTTSPNVLWPTPGHLSPLVVHRQLSHLYAEPQKSPWCEARSLEHTLPVNRETLKRK
VSGNRCAСПVTGPGSKRDAHFCAVCS DYASGYHYGVWSCEGCKAFFKRSI QGHNDYICPAT
NQCTIDKNRRKSCQACRLRKCYEVGMVKCGSRRERCYRLVRRQRSADEQLHCAGKAKRS

GGHAPRVRELLLDALSPSQLVLTLEAEPHVLSRPSAPFTEASMMMSLTKLADKELVHMIS
WAKKIPGFVELSLFDQVRLLSCWMEVLMGMLWRSIDHPGKLIFAPDLVLDREGKCVEG
ILEIFDMILLATTSRFRELKLQHKEYLCVKAMILLNNSMYPLVTATQDADSSRKLAHLLNAVTD
ALVWVIAKSGISSLQQSMRLANLLMHSVRHASNKGMEMHLLNMKCKNVVPYDLLLEM
NAHVLRGCKSSITGSECSPAEDSKSKEGSQNQPSQ

>DP0032|P21815|#1-317

MKTALILLSILGMACAFSMKNLHRRVKIEDSEENGVFKYRPRYYLYKHAYFYPHLKRFPVQG
SSDSSEENGDDSEEEEEEEETSNEGENNEESNEDEDSEAENTTLSATTLYGEDATPGTGYT
GLAAIQLPKKAGDITNKATKEKESDEEEEEEEGNENESEAEVDENEQGINGTSTNSTEAEN
GNGSSGGDNGEEGEEEESVTGANADETTETGRQKGTSKTTSPNGFEPTTPQVYRTTSPPF
GKTTTVEYEGEREYETGANEYDNGYEIYESENGEPRGDNYRAYEDEYSYFKGQGYDGYDGQ
NYYHHQ

>DP00145|P0A7S3|#1-27

MATVNQLVRKPRARKVAKSNVPALEACPQKRGVCTRVTTPKKPNSALRKVCRVRLTNGF
EVTSYIGGEGHNLQEHSVILIRGGRVKDLPGVRYHTVRGALDCSGVKDRKQARSKYGVKR
KA

>DP01452|Q13042|#94-126 #96-123 #96-126 #528-620 #534-620

MNLERLRKVRQYLDQQYQSAWFADKVASLSREEPQDIYWLAQCLYLTAQYHRAAHAL
RSRKLDKLYEACRYLAARCHYAAKEHQALDVLMEEPINKRLFEKYLKDESGFKDPSSDW
EMSQSSIKSSICLLRGKIYDALDNRTLATYSYKEALKLDVYCFEADLLTSHHMLTAQEEKEL
LESLPLSKLCNEEQELLRFENKLKYNKPSETVIPESVDGLQENLDVVVSLAERHYYNCDF
KMCYKLTSVVMEKDPFHASCCLPVHIGTLVELNKANEFLYLSHKLVLDLYPSNPVSWAVGCY
YLMVGHKNEHARRYLSKATTLEKTYGPAPIAYGHSFAVESEHDQAMAAYFTAQLMKGC
HLPMLYIGLEYGLTNNSKLAERFFSQALSIAPEDPFVMHEVGVVAFQNGEWKTAEKWFLDAL
EKIKAIGNEVTVDKWEPLNNLGHVCRKLYAEALDYHRQALVLIPQNASTYSAIGYIHSL
MGNFENAVDYFHTALGLRRDDTSVTMLGHCIEMYIGDSEAYIGADIKKLCYDFDVHTM
KTLKNIISPPWDREFEVEKQTAETGLPLETSRKTPDSRPSLEETFEIEMNESDMMLETSMS
DHST

>DP00138|P12272|#9-15 #28-34

MQRRLVQQWSVAVFLSYAVPSCGRSVEGLSRRKRAVSEHQLLHDKGKSIQDLRRRFFLH
HLIAEIHTAEIRATSEVSPNSKPSNPKNTKNHPVRFGSDEGRYLTQETNKVETYKEQLKTPGKK
KKGKPGKRKEQEKKKRRRSAWLDGVTGSGLEGDHLSDTSTSLELDSRRH

>DP00863|Q9X0Q3|#130-201

MDLKKLLPCGKVIVFRKGEIVKHQDDPIEDVLILLEGTLKTEHVSENGKTLIDEIKPVQIIASG
FIFSSEPRFPNVVAGENSKILSIPKEVFLDLMKDRELLFFLKDVEHFRVSEKLFLLTTKT
LREKLMNFLVRHMNEKRELTPVTLEELSRLFGCARPALSRVFQELEREGLYIEKHGRRIKVLK
NPFEHDRI

>DP01398|G0SCY6|#1-25 #43-56

MAAEDRQPADIVEGATAGDVEEEVAPAASKAEDRKAALSKLDAHADEDMAPAREVDQE
AVKNAMSALSGASTEKKEVKKVKVDPADVNLVEELELSKAKATELLKAHDGDAIKAMKA
YIQPAF

>DP02338|O60701|#468-494

MFEIKKICCIGAGYVGGPTCSVIAHMCPEIRTVVDVNESRINAWSNPTLPIYEPGLKEVVES
RGKNLFFSTNIDDAIKEADLVFISVNTPTKTYGMGKGRAADLKYEACARRIVQNSNGYKIVT
EKSTVPVRAAESIRRIFDANTKPNLNQVLSNPEFLAEGTAIKDLKNPDRVLIGGDETPEGQRA
VQALCAVYEHWVPREKILTTNTWSSELSKLAANAFLAQRISSINSISALCEATGADVEEVATAI
GMDQRIGNKFLKASVGF GGSCFQKDVLNLVYLCEALNLPEVARYWQQVIDMNDYQRRRFA

SRIIDSLFNTVDKKIAILGFAFKKDTGDTRESSSIYISKYLMDEGAHLHIYDPKVPREQIVVDL
SHPGVSEDDQVSRLVTISKDPYEACDGAHAVVICTEWDMFKELDYERIHKKMLKPAFIFDGR
RVLDGLHNELQTIGFQIETIGKKVSSKRIPYAPSGEIPKFLSQDPPNKKPKV
>DP01619|Q9NR28|#56-65 #56-67 #56-69 #56-70
MAALKSWLSRSVTSFFRYRQCLCPVVANFKKRCFSELIRPWHKTIGFGVTLCAVPIAQKS
EPHSLSSALMRRAVSLVTDSTSTFLSQTTYALIEAITEYTKAVYLTSLYRQYTSLLGKMNSE
EEDEVWQVIIGARAEMTSKHQEYLKLETTWMTAVGLSEMAAAAYQTGADQASITARNHIQ
LVKLQVEEVHQLSRKAETKLAEQIEELRQKTQEEGEERAEESEQEAYLRED
>DP02006|P04183|#1-17 #64-73 #193-234
MSCINLPTVLPGSPSKTRGQIQVILGPMFSGKSTELMRRVRRFQIAQYKCLVIKYAKDTRYSSS
FCTHDRTNTEALPACLLRDVAQEALGVAVIGIDEQQFPDIVEFCEAMANAGKTVIVAALDG
TFQRKPGAILNLVPLAESVVKLTAVCMECFREAAYTKRLGTEKEVEVIGGADKYHSVCRLC
YFKKASGQPAGPDNKENCNPVPGKPGPEAVAARKLFAPQQILQCSPAN
>DP00864|Q9BQ15|#11-18 #28-37 #71-81 #110-211
MTTETFVKDIKPGLKNLNLFIVLETGRVTKTDGHEVRTCKVADKTGSINISVWDDVGNLIQ
PGDIIRLTGYASVFKGCLTLTYTGRGGDLQKIGEFCMVYSEVPNFSEPNPEYSTQQAPNKAVQ
NDSNPSASQPTTGPSAASPASENQNGNGLSAPPGPGGGPHPPHTPSHPPSTRITRSQPNHTPAG
PPGPSSNPVSNKGKETRRSSKR
>DP01805|P40855|#1-165 #4-182 #278-297
MAAAEEGCSVGAEADRELEELLESALDDFDKAKPSPAPPSTTAPDASGPQKRSPGDTAKDA
LFASQEKFQELFDSELASQATAEFEKAMKELAEEEPHLVEQFQKLSEAAGRVGSDMTSQQE
FTSCLKETLSGLAKNATDLQNSMSEEELTKAMEGLGMDEGDGEGNILPIMQSIMQNLLSKD
VLYPSLKEITEKYPEWLQSHRESLPPEQFEKYQEQQHSVMCKICEQFEAETPTDSETTQKARFE
MVLDLMQQLQDLGHPPKELAGEMPPGLNFLDALNLSGPPGASGEQCLIM
>DP00815|Q9DCL8|#1-206
MAASTASHRPIKGILKNKTSAAASPVVPSAEQPRPIVEEELSKKSQKWDEMNILATYHPADKD
YGLMKIDEPNTPYHMIGDDEDAYSDSEGNEVMTPDILAKLAAAEGSEPKYRTREQESSGE
EDNDLSPEREKKRQFEMKRKLHYNEGLNIKLRQLISKDLHDDDDEDEEMAETADGDSMV
EESSQGSTTSDHLQHKSQSS
>DP00349|P06709|#98-103 #116-124 #140-146 #194-199 #212-234
MKDNTVPLKLIALLANGFHSQEQLGETLGMSRAAINKHIQTLRDWGVDVFVPGKGYSLPE
PIQLLNAKQILGQLDGGSVAVLPVIDSTNQYLLDRIGELKSGDACIAEYQQAGRGRGRKWF
PFGANLYLSMFWRLEQGPAAAIGSLVIGIVMAEVLRKLGADKVRVKWPNDLYLQDRKLAG
ILVELTGKTGDAAQIVIGAGINMAMRRVEESVNQGWITLQEAGINLDRNTLAAMIRELRA
ALELFEQEGLAPYLSRWEKLDNFINRPVKLIIGDKEIFGISRGIDKQGALLLEQDGIIKPWMGG
EISLRSAEK
>DP00610|Q9SLF3|#1-455
MGDGTEFVVRSDREDKKLAEDRISDEQVVKNELVRSDEVRDDNEDEVFEEAIGSENDEQEEE
EDPKRELFSDDLPLVETLKSSMVEHEVEDFEEAVGLDDETSSNEGGVKDFTAVGESHGAGE
AEFDVLATKMNGDKGEGGGGGSYDKVESSLVDVDTENATSTNTNGSNLAAEHVGIENGKT
HSFLNGNIASPKNKEVVAEVIPKDDGIEEPWNDGIEVDNWEERVDGIQTEQEVEEGEGTTENQ
FEKRTEEEVVEGEGTSKNLFEKQTEQDVVEGEGTSKDLFENGSCMDSESEAERNGETGAAY
TSNIVTNASGDNEVSSAVTSSPLEESSSGEKGETEGDSTCLKPEQHLASSPHSYPESTEVHSNS
GSPGVTSREHKPVQSANGGHDVQSPQPNKELEKQQSSRVHVDPEITENSHVETEPEVVSSVSP
TESRSNPAALPPARPARGLGRASPLLEPASRAPQQSRVNGNGSHNQFQQAEDSTTTEADEHDET
REKLQLIRVKFLRLAHRLGQTPHNVVVAQVLYRLGLAEQLRGRNGSRVGAFSFDRASAMAE
QLEAAGQDPLDFSCTIMVLGKSGVGKSATINSIFDEVKFCTDAFQMGTKRVQDVEGLVQGIK

VRVIDTPGLLPSWSDQAKNEKILNSVKAFIKKNPPDIVLYLDRLLDMQSRDSDGMPLLRRTISDV
FGPSIWNAIVGLTHAASVPPDGPGNGTASSYDMFTQRSHVIQQAIRQAAGDMRLMNPVSLV
ENHSACRTNRAGQRVLPGQVWKPHLLLFSASKILAECANALLKLQDNIPGRPFAARSKAPP
LPFLLSSLLQSRPQPKLPEQQYGDDEEDEDLEESSDSDEESEYDQLPPFKSLTKAQMATLSKSQ
KKQYLDEMEYREKLLMKQMKKEERKRRKMFKKFAAEIKDLPDGYSENVEESGGPASVPVP
MPDLSLPASFDSDNPTHRYRYLDSSNQWLVRPVLETHGWDHDIGYEGVNAERLFVVKEKIP
SVSGQVTDKKDANVQLEMASSVKHGEKGKSTSLGFDMQTVGKELAYTLRSETRFNNFRNK
AAAGLSVTHLGDSVSAGLKVEDKFIASKWFRIVMSGGAMTSRGDFAYGGTLEAQLRDKDYP
LGRFLTTLGLSVMWDHGDLAIGGNIQSQVPIGRSSNLIARANLNRGAGQSVRVNSSEQLQ
LAMVAIVPLFKKLLSYYYYPQTQYGQ

>DP01856|Q9NQC3-3#162-194

MDGQKKNWKDKVVDLLYWRDIKKTVFGASLFLSLTVFSIVSVTAYIALALLSVTISFRI
YKGVIQAIQKSDEGHPFRAYLESEVAISEELVQKYSNSALGHVNCTIKELRRFLVDDLVDSDL
KFAVLMWVFTYVGALFNGLLILALISLFSVPVIYERHQAQIDHYLGLANKNVKDAMAKIQ
AKIPGLRKAE

>DP02263|P32120#385-394

MGEKPGTRVFKKSSPNKLTVYLGKRDFVDHLDKVDPVGVLVDPDYLKDRKVFVTLTC
AFRYGREDDLVGLSFRKDLFIANYQAFPPPTNPPRPPTRLQERLLRKLQHAHPFFFFTIPQNL
PCSVTLQPGPDGTGKACGVDFEIRAFCAKSLEEKSHKRNSVRLVIRKVQFAPEKPGPQPSAETT
RHFLMSDRSLHLEASLDKELYHGEPLNVNVHVTNNSTKTVKKIKVSRQYADICLFSTAQY
KCPVAQVEQDDQVSPSSTFCKVYTITPLSNNREKRLALDGKLKHEDTNLASSTIVKEGAN
KEVLGILVSYRKVKLVVSRRGDSVELPFVLMHPKPHDHALPRPQSAATHPPTLLPSAVPE
TDAPVDTNLIEFETNYATDDDIVFEDFARLRLKGLKDEDYDDQFC

>DP01579|P34233#420-500

MSSLYIKTPLHALSAGPDASHANSSYYDNLLPSFSNLSSNISRNNITTDNNINSASPRKYSFHSL
NVSPILSPISLANEILGKKSNTAPASPHMDYNPISSLTPGSPEFNKASLSQISFTNPLNYGSGL
GFSSNSQRLPLLDRLSSVSLSKRPERPQQSLPSLRHLQLLSPLLQENAARFPDTSKRTSNWK
TDLTHWCKDTNYQDYVKIREEVAFKPLSIPNLTNQNQNNDSFNYGKELESTRSSKFHSPSKES
FDRTKLIPSILEAKDQFKDLSNNAWSITPPVTPPMSPPTNRTMERTTLRGVEASFFEGKSSNND
SIFNPIIYEKLVQEVKHQRLRGNSFPMPNASHKKTSFKALQIKKLLANRDILSNNSKSNSVRK
PSKNKISKQASNVFGNTARQLVMKLDNASYSSVSASSSPSPSTPTKSGKMRSSSPVRPKAY
TPSPRSPNYHRFALDSPPQSPRSSLSSITKKGSRRSSGSPTRHTTRVCVSCHSSDSPCWRPSW
SPRKQDQLCNSCGLRYKKTHRCLNDLCRKIPTKGEINIMKSNGIDKEFVPERNCEIEGYRCLF
CNYITETVEN

>DP01972|P13693#37-68

MIYRDLISHDEMFSIYKIREIADGLCLEVEGKMSRTEGNIDDSLIGGNASAEGPEGEGETEST
VITGVDIVMNHHLQETSFTKEAYKKYIKDYMKSIKGKLEEQRPERVKPFMTGAAEQIKHILAN
FKNYQFFIGENMNPDMVALDYREDGVTPYMIFFKDGLEMEKC

>DP00615|Q9WMX2#2213-2314

MSTNPKPQRKTKRNTNRRPQDVKFPGGGQIVGGVYLLPRRGPRLGVRATRKTTERSQPRGRR
QPIPKARQPEGRAWAQPGYPWPLYGNEGLGWAGWLLSPRGSRPSWGPTDPRRSRNLGKVI
DTLTCGFADLMGYIPLVGAPLGAARALAHGVRVLEDGVNYATGNLPGCSFSIPLLALLSCL
TIPASAYEVNVSGVYHTNDCSNASIVYEADMIMHTPGCVPCVRENNSSRCWVALPTLA
ARNASVPTTIRRHVDLLVGAAALCSAMYVGDLCGSVFLVAQLFTSPRRHETVQDCNCISY
PGHVTGHRMAWDMMMNWSPTAALVVSQLLRIPQA VVDMVAGAHGVLAGLAYYSMVG
NWAKVLIVMLLFAVGDDGTYVTGGTMAKNTLGITSLFSPGSSQKIQQLVNTNGSWHINRTALN
CNDSLNTGFLAALFYVHKFNSSGCPERMASCSPIDAFFAQGWGPITYNESHSSDQRPYCWHYA

PRPCGIVPAAQVCGPVYCFTPSPVVVGTTDRFGVPTYSWGENETDVLLNNTRPPQGNWFH
TWMNSTGFTKTCGGPPCNIGGIGNKLTCPDCFRKHPEATYTKCGSPWLPRCLVHYPYR
LWHYPCTVNFTIFKVRMYVGGVEHRLEAACNWTRGERCNLEDRDRSELSPLLLSTTEWQL
PCSFTTLPALSTGLIHLHQNVVDVQYLYGIGSAVVSFAIKWEYVLLFLLADARVCACLWM
MLLIAQAEAALENLVLNAAASVAGAHGILSFLVFFCAAWYIKGRLVPGAAAYALYGVWPLL
LLLALPPRAYAMDREMAASC GGAVFVGLILLTSPHYKLFLARLIWWLQYFITRAE AHLQVW
IPPLNVRGGRDAVILLTCAIHPELIFTITKILLAILGPLMVLQAGITKVPYFVRAHGLIRACMLV
RKVAGGHYVQM ALMKLAALTGTYVYDHLTPLRDWAHAGLRLAVAVEPVVFSDMETKVI
TWGADTAACGDIILGLPVSARRGREIHLGPADSLEGQGWRL LAPITASQQT RGLLGCIITS LT
GRDRNQVEGEVQVVSTATQSFLATCVNGVCWTYHGAGSKTLAGPKGPITQMYTNVDQDL
VGWQAPPGARSLTPCTCGSSDLYL VTRADVIPVRRRGDSRGSSLSPRVSYLKGS GGPLL C
PSGHAVGIFRAAVCTRVAKA VDFVPVESMETTMRSPVFTDNSSPPAVPQT FQVAHLHAPT G
SGKSTKVPAAYAAQGYKVLVLPNSVAATLGFGAYMSKAHGIDPNIRTGVRTITTGA PITY STY
GKFLADGGCSGGAYDIIICDECHSTDSTT ILGIGTVLDQAETAGARLVV LATA TPGS VTV PHP
NIEEVALSSTGEIPFYGKAIPETIKGGRHLIFCHSKKKCDELAAKL SGLGLNAV AYYRGL DVS
VIPTSGDVIVVATDALMTGFTGDFDSVIDCNCVTQTVDFSLDPFTIETT VPQDA VSRS QRR
GRTGRGRMGIYRFVTPGERPSGMFDSSVLC ECYDAGCAWYELTPAETSVRLRAYLNTPGLPV
CQDHLEFWESVFTGLTHIDAHFLSQTKQAGDNFPYLVAYQATVCARAQAPPSWDQM WKC
LIRLKPTLHGPTPL YRLGAVQNEVTTTHPITKYIMACMSADLEV VTSTWVLVGGVLAALAA
YCLTTGSVVIVGRIILSGKPAIIPDREVLYREFDEMEECASHLPYIEQGMQLAEQFKQKAIGLL
QTATKQAEAAPVVESKWR TLEAFWAKHMWNFISGIQYLAGLSTLPGNPAIASLMAFTASIT
SPLTTQHTLLFNILGGWVAAQLAPPSAASA FVGAGIAGAA VGSIGLGKVLVDIAGY GAGVA
GALVAFKVMSGEMPSTEDLVNLLPAILSPGALVVGVVCAILRRHVGPGEGAVQWMNR LIA
FASRGNHVSPHYVPESDAAARVTQILSSLTITQLLKRLHQWINEDCSTPCSGSWLRDVWDWI
CTVLTDFKTWLQSKLLPRLPGVPFFSCQRGYKGVWRGDGIMQTTCP CGAQITGHVKNGSMRI
VGPRCSNTWHGTFPINAYTTGCTPSPAPNYSRALWRVAAEYVEVTRVGDFHYVTGM ITT
DNVKCPCQVPAPEFFTEVDGVRLHRYAPACKPLLREEVTFLVGLNQYLVSQLPCEPEPDVA
VLTSMLTDPSHITAETAKRRLARGSPPSLASSSASQLSAPSLKATCTTRHDSPDADLIEANLLW
RQE MGGNITRVESENKVVILDSFEPLQAEEDEREVSPAEILRRSRKFPR AMPIWARPDYN PPL
LESWKDPDYVPPVHG CPLPPAKAPPIPPP RRKRTVVLSESTVSSALAE LATKTFGSSESSA VD
SGTATASPDQPSDDGDAGSDV ESYSSM PPLEGE PGDPDLS DG SWSTVSEEASE DVVCCMSY
TWTGALITPCAAEETKL PINALSNSLLRHNLVYATT SRSA SLRQKKVTF DRLQV LDDHY RD
VLKEMKAKASTVKA KLLSVEEACKL TPPHSARS KFGYAKD VRNLSSKA VN HIR SVW K DLL
EDTETPIDTTIMAKNEVFCVQPEKGRKPARLIVFPDLGVRVCEK M ALYDV VSTLPQAVM GS
SYGFQYSPGQRVEFLVNAWKAKKCPMGFAYDTRCFDSTV TENDIRVEE SIYQCCD LAPEAR Q
AIRSLTERLYIGGPLTNSKGQNCGYRRCRASGVLTSCGNTLCYLKAAA ACRAA KLQD CTM
LVC GDDL VVICESAGTQEDEASL RAFTEAMTRY SAPP GDPPKPEYD LEIT SCSS NVSAH DA
SGKRVYYLTRDPTTPLARA AWETARH TPVNSW LGNI IMYAP TLWARMILM THFFSILLA QEQ
LEKA LDCQIYGACYSIEPLDLPQIIQRLHGLSAFSLHSYSPGEINRVA SCLR KLG VPP LRV WRH
RARS VRARLLS QGG RAATCG KYLF NWAV RTKL KLTP IPAAS QDL SS WFVAGY SGG DIY HSL
SRARPRWFMWC LLLL S VGV GIYLL PNR

>DP00724|Q9LQT8|#11-113

MKRDHHHHHQDKKTMMNEEDDGNGMDELLAVLGYKVRSSEADVAQKLEQLEVMM
SNVQEDDLSQLATEVHYNPAELYTWLDSMLTDLNPPSSNAEYDLKAIPGDAILNQFAIDSAS
SSNQGGGGDTYTNKRLKCSNGVVETTTAESTRHVVLVDSQENGVRLVHALLACAEAVQ
KENLTVAEALVKQIGFLAVSQIGAMRKVATYFAEALARRIYRLSPSQSPIDHSLSDTLQMHFY
ETCPYLKFAHFTANQAILEAFQGKKRVHVIDFSMSQGLQWPALMQALALRPGGPPVFRLTGI

GPPAPDNFDYLHEVGCKLAHLAEAIHVEFEYRGFVANTLADLDASMLEARPSEIESVAVNSVF
ELHKLLGRPGAIKVLGVVNQIKPEIFTVVEQESNHNSPIFLDRFTESLHYYSTLFDSLEGVPSG
QDKVMSEVYLGKQICNVVACDGPDVERHETLSQRNRFGSAGFAAHIGSNAFKQASMLL
ALFNGGEGYRVEESDGCLMLGWHTRPLIATSAWLSTN

>DP01644|P09038|#142-163

MVGVGGDVEDVTPRPGCQISGRGARGCNGIPGAAAWEAALPDRRRRHPNVNPRSRAG
SPRTRGRRTEERPSGSRLGDRGRRALPGGRLGGRGRAPERVGGRGRGRGTAAAPRAAPA
ARGSRPGAGTMAAGSITTPALPEDGGSGAFPPGHFKDPKRLYCKNGFFLRIHPDGRVDG
VREKSDPHIKLQLQAEERGVVSIKGVCANRYLAMKEDGRLLASKCVTDECFFFERLESNNYN
TYRSRKYT SWYVALKRTGQYKLGSKTGPQKAILFLPMSAKS

>DP01002|O87120|#1-70

MKKFLPGLLLMLVACSSNQRMSDYSQPESQSDLAPKSSTTQFPQPLLSKASSMPLNLLSSS
KNGQVSPSEPSNFMTLMQNGALLTVWALAKRNWLWAYPNIYSQDFGNIRNWKIEPGKHR
EYFRFVNQSLGTCIEAYGNGLIHDTCSLDKLAQEFEELLPTDSGAVVIKSVSQGRCTYNPVSPT
YYSTVTLSTCDGATEPLRDQTWYLAPPVLEATAVN

>DP01948|Q9HZJ8|#1-42

MQTSHSLPSAQLPLFQEAFWASNNGAPLDDVIDSPSSASIEEPAAFSELSSLGLPGHCLTLLAPI
LRELSEEQDARWLTIAAPPASLTHEWLRRAGLNRRERILLQAKDNAAALALSCEALRLGRSHT
VVSWLEPLSRAARKQLSRAAQLGQAQSLNIRLG

>DP01320|P36152|#234-348

MSQYKTGLLLIHPAVTTPELVENTKAQAASKVKFVDQFLINKLNDGSITLENAKYETVHY
LTPEAQTDIKFPKKLISVLADSLKPNGSLIGLSDIYKVDALINGFEIINEPDYCWIKMDSKLNQ
TVSIPLKKKTNNTKLQSGSKLPTFKKASSSTSNLPSFKKADHSRQPIVKETDSFKPPSFKMTT
EPKVRVVDDLIEDSDDDFSSDSSKAQYFDQVDTSSDIEEEELIDEDGSGKSMITMITCGKS
KTKKKKACKDCTCGMKEQEENEINDIRSQQDKVVKFTEDELTEIDFTIDGKKVGGCGSCSLG
DAFRCSGCPYGLPAFKPGQPINLDSISDDL

>DP01243|P25638|#92-111

MSQFEKQKEQGNSLFQQLYREAVHCYDQLITAQPQNPVGYSNKAMALIKLGEYTQAIQMC
QQGLRYTSTAEHVAIRSKLQYRLEAQGAVGSVQIPVEVDELPEGYDRS

>DP01431|C6ZFX3|#1-94

MARSFTNIKAISALVAEEFSNSLARRGYAATAQSAGRVGASMSGKMGSTKSGEEKAAAREK
VSWVPDPVTGYYKPNENIKEIDVAELRSAVLGKN

>DP00461|P08083|#1-90

MGSNGADNAHNNAFGGGKNPGIGNTSGAGSNGSASSNRGNSNGWSWSNKPHKNDGFHSDG
SYHITFHGDNNSKPKPGNGNSGNRGNNGDGASAKVGEITITPDNSKPGRYISSNPEYSLLAKLID
AESIKGETVYTfhTRKGQYKVTVPDSNIDKMRVDYVNWKGPKYNNKLVKRFVSQFLLFRK
EEKEKNEKEALLKASELVSGMGDKLGEYLGVKYKNAKEVANDIKNFHGRNIRSYNEAMAS
LNKVLANPKMKVNKSDKDAIVNAWKQVNAKDMANKIGNLGKAFKADLAIKVEKIREKSI
EGYNTGNWGPLLLEVESWIIGGVVAGVAISLFGAVLSFLPISGLAVTALGVIGIMTISYLSSFID
ANRVSNINNISSVIR

>DP01749|P51023|#142-158

MELAICKTDLSATKFMLPPALPSSAAIGSSSAVASTASHFLDKAAHELPQLNAINGHLFKSPAS
SHLNSVGSPSILSQLNGIGNSGNHSGQVSTMRLKKNRKVTFLSSLVESKNIFIKEEPHGCKDLC
SLSDISDHEASLEVPTALPPLPGTNRKVNEVLKASFASWEKEVQKCNITKDPREWTEEHVY
WLNWAKNEFSLVSMNLDPFYKMKGRAMVDLGKEKFLAITPPFTGDILWEHLDILQKDCEKP
NEDIVHGNSFESATTASVCGSDHQVANYPNETHANSNNSSINSRLSMDYVTSAAGNSDNKNFH
RATPHSHNGYNTSNTHDRINNSTPPQQQSQPTVNGSGSASSNNNSMLPPAVQQSNENN

NTSSNTNNSNNNNSGSNNSNAGSNNNNNNNNFMAAAIFQHLKEEPGTQNGIG
GYGGGSNSQNDPTDLSSYGLPAHLAAYGGGSGSGPTGGRSSGGGDESDYHSTISAQDHQSQ
QSSGGNGSGGASGGSTGNSNGYLDSSSEFYGSYAGRNRFHDPYPEFTPYDAQSFQSMGPQP
TAMDQWGAAHAAHQHPAAYMSTLGLDKGLGGYTTQGGVPCFTGSGPIQLWQFLLELLDK
TCQSFISWTGDGWEFKLTDPDEVARRWGIRKNPKMNYEKLSRGLRYYYDKNIHKTAGKR
YVYRFVCDLQLNVGHTPEELVAKYDLKIEKKDVD

>DP02497|P05844|#735-960

MSTSKATATYLSIMLPENG PASIPDDITERHILKQETSSYNLEVS ESGS GLLVCFPGAPGS RVG
AHYRWNLNQTALEFDQWLETS QDLKKAFNYGRLISRKYDIQSSTLPAGLYALNGTLNAATFE
GSLSEVESLTYSNLSMSLTTNPQDKVNNQLVTKGITVLNLPTGFDKPYVRLEDTPQGPQSMN
GARMRCTAAIA PRRYEIDLPSERLPTVAATGTPTTIYEGNADIVNSTAVTGDTFQLEAEPVNE
TRFDFILQFLGLDNDVPVVTTSSTLV TADNYRGASAKFTQSIPTEMITKPITRVK LAYQLNQQ
TAIANAATLGAKGPASVFS SGNVPGVLRPITLVAYEKMTPQSILT VAGVSNYELIPNP DLL
KNMVTKYGKYDPEGLNYAKMILSHREELDIRTVWRTEEYKERTRAFKEITDFTSDLPTSKAW
GWRDLVRGIRKVAAPVLSTLFPMAAPLIGAADQFIGDLTKTNSAGGRYLSHAAGGRYHDVM
DSWASGSEAGSYSKHLKTRLESNNYEEVELPKPTKGVI FPVVHTVESAPGEAF GSLVVVIPEA
YPELLDPNQQVLSYFKNDTGCVWGIGEDIPFEGDDMCYTALPLKEIKRNGNIVVEKIFAGPAM
GPSSQLALSLLVNDI EGIPRMVFTGEIADDEETVPI CGVDIKAIAAHEHGLPLIGCQPGVDEM
VANTS LASHLIQGGALPVQKAQGACRRIKYLGQLMRTTASGMDAELQGLLQATMARAKEV
KDAEVFKLLKLM SWTRKNDLTDHMYEWSKEDPDAIKFGRLVSTPPKHQEKP KGP DQHTAQE
AKATRISLDAVKAGADFASPEWIAENN YRGPS PGQF KYYMITGRVPNPGE EYEDYVRKPITRP
TDMDKIRRLANSVYGLPHQEPA PDDFYQAVVEVFAENGGRGP DQDMQDLRDLARQM KRR
PRPAETRRQT KTPPRAATSSGSRFTPSGDDGEV

>DP01244|O76074|#128-145 #395-406 #840-850

MERAGPSFGQQRQQQQPKQQRDQDSVEAWLDDHWDFTSYFVRKATREMVNAWFA
ERVHTIPVCCKEGIRGHTESCSCPLQQSPRADNSAPGTPTRKISASEFDRPLRPIVVKDSEGTVSF
LSDSEKKEQMPLTPPRFDHDEGDQCSRLLLEVVKDISSHLDVTALCHKIFLHIHGLISADRYSLF
LVCEDSSNDKFLISRLFDVAEGSTLEEVSNNCIRLEWNKGIVGHVAALGEPLNIKDAYEDPRF
NAEVHQITGYKTQSILCMPIKNHREEVVGVAQAINKKSGNGGTTEKDEKDFAAYLAFCGIV
LHNAQLYETSLLENKRNQVLLDLASLIFEQQSLEVILKKIAATIISFMQVQKCTIFIVDEDCCSD
SFSSVFHMECEELEKSSDTLTREHDANKINMYAQYVKTMEPLNIPDVSKDKRFPWTENT
GNVNQQCIRSLLCPTIKNGKKNKVIGVCQLVNKMEENTGKVKPFRNRNDEQFLEAFVIFCGLGI
QNTQMYEAVERAMAKQMVTLVLSYHASAAEEETRELQSLAAAVVPSAQLKITDFSFSDFE
LSDLETALCTIRMFTDNLVQNQFMKHEVLCRWILSVKKNYRKNVAYHNWRHAFNTAQCML
FAALKAGKIQNKLTDLIELALLIAALSHLDLHRGVNNSYIQRSEHPLAQLYCHSIMEHHHFQDQ
CLMILNSPGNQILSGLSIEEYKTTLKIJKQAILATDLALYIKRRGEFFELIRKNQFNLEDPHQKEL
FLAMLMTACDLSAITKPWPIQQRIALVATEFFDQGDRERKELNIEPTDLMNREKKNKIPSMQ
VGFIDAICLQLYEALTHVSEDCFPLLDGCRKNRQKWQALAEQQEKMLINGESGQAKRN

>DP00757|Q9BSY4|#94-109

MQAALEVTCYCGRELEQYGQCVAAKPESWQRDCHYLKMSIAQCTSSHPIIRQIRQACAQPF
EAFFEECLRQNEAAVGNCAEHMRRFLQCAEQVQPPRSATVEAQPLPAS

>DP00082|P39935|#393-490

MTDETAHPTQSASKQESAALKQTGDDQQESQQQRGYTNYNNGSNYTQKKPYNSNRPHQQR
GGKFGPNRYNNRGNYNGGSFRGGHMGANSSNVPWTGYYNNYPVYYQPQQMAAAGSAPA
NPIPVEEKSPVPTKIEITTKSGEHLDLKEQHKAKLQSQERSTVSPQESKLKETSDSTSTPTPT
PSTNDSKASSEENISEAEKTRRNFIEQVKLRKAALEKKRKEQLEGSSGNNPIMKTTPENVEE
KGSDKPEVTEKTKPAEEKSAEPEVKQETPAEEGEQGEKGQIKEESTPKVLTFAERLKLKKQQK

EREEKTEGKENKEVPVQEETKSAIESAPVPPSEQVKEETEVAETEQSNIDESATTPAIPKSDEA
EAEVEAEAGDAGTKIGLEAEIETTDDETDDGTNTVSHILNVLKDATPIEDVFSFNYPEGIEGPDI
KYKKEHVKYTYGPTFLQFKDKLNVKADAЕWVQSTASKIVIPPGMGRGNRSRDSGRFGNN
SRGHDFRNTSVRNMDDRANSRTSSKRSSRMNDDRNSRNSYTSRRDRERGSYRNEEKREDD
KPKEEVAPLVP SANRWVPKFKSKTEKKLAPDGKTELKDDEVERKMSLLNKLTLEMFDA
ISSEILAIANISVWETNGETLKAVIEQIFLKACDEPHWSSMYAQLCGKVVKELNPDTDETNEG
KTGPKLVLHYLVARCHAEFDKGWTDKLPTNEDGTPLEPEMMSEEYYAAASAKRRLGLVRF
IGFLYRLNLLTGKMMFECFRRLMKDLTDSPSEETLESVVELLNTVGEQFETDSFRGQATLEG
SQLLSLFGILDNIQTAKISSRIKFKLIDIKELRHDKNWNSDKKDNGPKTIQQIHEEEEQRQL
KNNSRSNSRRTNNSSNRHSFRRDAPPASKDSFITRTYSQRNSQRAPPKEEPAAPTSTATNMF
SALMGESDDEE

>DP01838|P68005|#1-13

YPAKPEAPGEDASPEELSRYYASLRHYLNVLTRQRY

>DP00327|O14832|#31-42 #165-172 #223-233 #303-318

MEQLRAAARLQIVLGHGRPSAGAVVAHPTSGTISSASFHPQQFQYTLDDNNVLTLEQRKFYE
ENGFLVIKNLVPDADIQRFRNEFEKICRKEVKPLGLTVMRDVTSKSEYAPSEKMITKVQDFQE
DKELFRYCTLPEILKYVECFTGPNIAMHTMLINKPPDSGKKTSRHPLHQDLHYFPFRPSDLIV
CAWTAMEHISRNNGCLVVLPGTHKGSLKPHDYPKWEGGVNMFHGIQDYEEENKARVHLV
MEKGDTVFFHPLLIHGSGQNKTQGFRKAISCHFASADCHYIDVKGTSQENIEKEVVGIAHKFF
GAENSVNLKDIWMFRARLVKGERTNL

>DP00955|P06836|#1-242

MLCCMRRTKQVEKNDEDQKIEQDGKPEDKAHKAAATKIQASFRGHITRKKLKGEKKGDAPA
AEAEANEKDEAAVAEGTEKKEGEGSTPAEAAPGAGPKPEEKTKAGETPSEEKKGEGAPDA
ATEQAAPQAPAPSEEKAGSAETESATKASTDNSPSSKAEDAPAKEPKQADVPAAVTAAAAT
APAAEDAAAMATAQPPTETAESSQAEEKIEAVDET KPKDSARQDEGKGEEREADQEHA

>DP00184|P11473|#16-164

MEAMAAASTSLPPGDFDRNVPRICGVCGDRATGFHFNAMTCEGCKGFRRSMRKALFTCP
FNGDCRITKDNRRCQACRLKRCVDIGMMKEFILTDEEVQRKREAMILRKEEEALKDSLKP
LSEEQQRIIAILDAHHKTYDPTYSDFCQFRPPVRVNDGGGSHPSRPNSRHTPSFSGDSSSCSD
HCITSSDMMDSSFSNLDLSEEDSDDPVTLELSQLSMLPHLADLVSYSIQKVIGFAKMPIGFR
DLTSEDQIVLLKSSAIEVIMRSNESFTMDDMSWTCGNQDYKRVSDVTKAGHSLELIEPLIK
FQVGLKKLNHLHEEHVLLMAICIVSPDRPGVQDAALIEAIQDRLSNTLQTYIRCRHPPPGSHLL
YAKMIQKLADLRLSNEEHSKQYRCLSFQPECSMKLTPLVLEVFGNEIS

>DP01645|P20239|#563-584

MARWQRKASVSSPCGRSIYRFLSLLFTLVTSVNSVSLPQSENPAFPGLICDKDEVRIEFSSRFD
MEKWNPSSVDTLGSEILNCTYALDLERFVLFPYETCTIKVVGGYQVNIRVGDTTDVRYKD
DMYHFFCPAIQAETHEISEIVVCRRLISFSFPQLFSRLADENQNVSEMGWIVKIGNGTRAHILP
LKDAIVQGFNLLIDSQKVTLHVPANATGIVHYVQESSYLYTVQLELLFSTTGQKIVFSSHAICA
PDLSVACNATHMLTIPEFGKLESVDFGQWSIPEDQWHANGIDKEATNGLRLNFRKSSLKT
KPSEKCPFYQFYLSSLKLTFYFQGNMLSTVIDPECHCESPVSIDECAQDGFMDFEVYSHQTKP
ALNLDLTVGNSSCQPIFKVQSVGLARFHIPNGCGTRQKFEGDKVIYENEIHALWENPPSNIV
FRNSEFRMTVRCYYIRDSSLNAHVKGHPSPEAFVKPGPLVLVLQTPDQSYQRPYRKDEYP
LVRYLQPIYMEVKVLSRNDPNIKLVLDDCWATSSEDAPASAPQWQIVMDGCEYELDNYRTTF
HPAGSSAAHSGHYQRFDVKTFAVFSEARGLSSLIYFHCSALICNQVSLDPLCSVTCPASLRSK
REANKEDTMTVSLPGPILLSDVSSSKGVDPSSSEITKDIIAKDIASKTLGAVAALVGSAILGF
ICYLYKKRTIRFNH

>DP01188|Q5XXP4|#1728-1744

MDPVYVDIDADSAFLKALQRAYPMFEVEPRQVTPNDHANARAFSHLAIKLIEQEIDPDSTILDI
GSAPARRMMSDRKYHCVCPMRSAEDPERLANYARKLASAAGKVLDRNISEKIGDLQAVMA
VPDAETPTFCLHTDVSCRQRADVAIYQDVYAVHAPTSLYHQAIGVRVAYWIGFDTPFMY
NAMAGAYPSYSTNWADEQVLKAKNIGLCSTDTEGRRGKLSIMRGKKMKPCDRVLFSVGST
LYPESRKLLKSWHLPVFHLKGKLSFTCRCDTVSCEGYVVKRITISPGLYGKTTGYAVTHHA
DGFLMCKTTDTDGERVSFSVCTYVPATICDQMTGILATEVTPEDAQKLLVGLNQRIVVNNGR
TQRNTNTMKNYLLPVVAQAFSKWAKECRKDMEDEKLLGIRERTLTCCCLWAFKKQKTHTV
YKR PDTQSIIQKVPAEFD SVVPSLWSSGLSIPLRTRIKWLLSKVPKTDLIPYSGDAKEARDAEK
EAEEEREAEALTREALPPLQAAQDDVQVEIDVEQLEDRAGAGIETPRGAIKVTAQPTDHVVGE
YLVLSPQTVLRSQKLSLIHALAEQVKTCTHSGRAGRYAVEAYDGRILVPSGYAISPEDFQSLSE
SATMVYNEREFVNRKLHIALHGPA LNTDEESYELVRAERTEHEYVYDQRRCCKKEEAA
GLVLVGDLTNPPYHEFAYEGLRIRPACPYK TAVIGVFGVPGSGKSIAIKNLVTRQDLVTSGKK
ENCQEISTDVMRQRNLEISARTVDSLLLNGCNRPDVLYVDEAFACHSGTLLALIALVRPRQK
VVLCGDPKQCFFNMMQMVKVNYNHNICTQVYHKSISRRCTLPVTAIVSSLHYEGKMRTTNE
YNKP IVVDTTGSTKPDGDLVLTFCRGWVKQLQIDYRGHEVMTAAASQGLTRKGVYAVRQ
KVNE NPLYASTSEHVNVLLTRTEGKLVWKTLSGDPWI KTLQNPPKG NFKA TIKEWEVEHASI
MAGICNHQVTFDTFQNKANVCWAKSLVPILETAGIKLNDRQWSQIIQAFKEDRAY SPEVALN
EICTRMYGV DLSGLFSKPLVSVHYADNHWDNRPGKMF G FNPEAASILERKYPFTKGKWN
TNKQICVTRRIEDFNPNNTNIIPANRRLPHSLVAEHPVKG ERM EWL VN KINGHHVLL VSGYN
LVLPTKRV TWVAPLGIRGADYT NLELGLPATLG RYDLVI NIHTTPFRIHHYQQCVDHAMKL
QMLGGDSLRLKPGGSLLIRAYGYADRTSERVVCVLGRKF RSSRAL KPPCVTSNTEMFFLFSN
FDNGRRNFTTHVMNNQLNAFVGQATRAGCAPSYRVK RMDIAKND ECVVNAANPRGLPG
DG VCK A VYKKWPESFKNSATPGTAKTV MCGTYPVI A VGPNFSN YSESEGDR EAA YRE
VAKEVTRLGVNSVAIPLLSTGVYSGGKDRLT QSLNHLFTAL DSTDADV VIYCRDKEWEKKIA
EAIQMRTQVELLDEHISVDCIIRVHPDSSLAGRKGYSTTEGSLYSLEGTRFH QTAVDMAEV
YTMWPQTEANEQVCLYALGESIESIRQKCPVDDADASSPPKTVPCLCRYAMTPERVTRLRM
NHVT SII VCSSFPLPKYKIEGVQKVCSKVMLFDHN VPSRVSPREYKSPQETAQEV SSTS LTH
SQFDLSVDGEELPAPS DLEADAPIPEPTPDDR A VTL PPTIDN FSAVSDW VMNTAPVAPP RRR
GKNLNVTCDEREGNVLPMASVRFFRADLHSIVQETAEIRDTAASLQAPLSVATEPNQLPISFG
APNETFPITFGDFDEGEIESLSELLTFGDFSPGEVDDLTSDDWSTCS DTDDELXLDraggyifs
SDTGP GHLQQR SRVQ TVLPVNT LEEVQEEKCYPPKLDEVKEQ LLLKKLQESASMANRSRYQS
RKVENMKATIVQLKGGCKLYLMSETPKVPTYRTTYPAPVY SPPINIRLSNPESA VACNEFL
ARNYPTVASYQITDEYDAYLDMVDGSE SCLDRATFNPSKLR SYPKQHSY HAPTIRSAVPSPFQ
NTLQNVLA AATKRNCNTQMRELPTLDSA VFNVECFKKFACNQEY WKEFAASPIRITENLT
TYVTKLKGPKAA ALFAKTHNLLPLQEVPM DRFTVDMKRDVKVTPGT KHT EERPKVQV IQAA
EPLATAYLCGIHREL VRRLNAVLLPNVHTLFDM SAEDFD AII AA HF KPGDAV LETDIASFDKS
QDDSLALTALM LLED LGVDHPLLDLIEAAFGEI SSCHLPTGTRFKFGAMMKG MF TL FVN T
LNITIASRVLEDRLTRSACA FIGDDNIIHG VVS DELMAARCATWMNMEV KIIDAV VSQKAPY
FCGGFILYDTVAGTACRVADPLKRLF KLGKPLAAGDEQDDDR RRALADEV VRWQRTGLTDE
LEKAVHSRYEVQGISVVVMSMATFASSRSNFEKLRGPVVTLYGGPK

>DP01011|P68390|#1-65

VEVDCSRFPNTTNEEGKDV LVCTEDLRPICGTDGVTHSECLLCAYNIEYGTNISKEHDGECRE
AVPMDCSRYPNTTSEEGKVMILCNKALNPVC GTDGV TYDNECVLC AHNLEQGT SGK KH
GECRK ELAAV SVD CSEY PKPACTLEYRPLCGSDNKT YGNKCNFCNAV VESNGT LSH FGK C

>DP01105|P20444|#606-672

MADVYPANDSTASQDVANRFARKGALRQKNVHEVKDHKFIARFFKQPTFC SHCTDFI WGF G
KQGFQCQVCCFVVH KR CHEVTFSCPGADKG PDTDD PRSKHKF KIHTYGSPTFC DHCGS LLY

GLIHQGMKCDTCDMNVHKQCVNDPSLCGMDHTEKRGRYLKAEVTDKLVTVRDAKNLI
PMDPNGLSDPYVKLKLIPDPKNESQKTKTIRSNLPQWESFTFKLKPSDKDRRLSVEIWD
WDRTRNDFMGSLSGVSELMKMPASGWYKAHNQEEGEYYNVPIPEGDEEGNMELRQKFE
KAKLGPGVGNKVISPSEDRKQPSNNLDRVKLTDNFLMVLGKGSGKVMLADRKGTEELYAI
KILKKDVVIQDDDVECTMVEKRVALLDKPPFLTQLHSCFQTVDRLYFVMEYVNGGDLMYH
IQQVGKFKEPQAVFYAAEISIGLFLHKRGIIYRDLKLNVMNLNSEGHIKIADFGMCHEHMM
GVTTRTFCGTPDYIAPEIIAYQPYGKSVDWWAYGVLLYEMLAGQPPFDGEDEDELQSIMEH
NVSYPKSLSKREA VSICKGLMTKQPAKRLGCGPEGERDVREHAFFRIDWEKLENREIQPPFKP
KVCVGKAENFDKFFTRGQPVLTPPDQLVIANIDQSDFEGFSYVNPQFVHPILQSAV

>DP01509|P9WIP5|#56-71

MSTNPFDGGNGAFFVLVNDEDQHSLWPVFADIPAGWRVVHGEASRAACLDYVEKNWTDLR
PKSLRDAMVED

>DP01460|P41351|#431-449

MREVISIHVQGGIQVGNACWELFCLEHGIQPDGQMPSDKTIGGGDDAFNTFFSETGAGKH
PRAVFLDLEPTVIDERTGTYRQLFHPQLISGKEDAANNFARGHYTIGKEIVDLCLDRIRKLA
DNCTGLQGFLVFNSVGGGTGSGLGSLLERLSVDYGKKSKLGFTIYPSPQVSTAVVEPYN
STHSLLLEHTDVA VMLDNEAIYDICRRNLDIERPTYTNLRLIAQVISSLTASLRFDGALNVDIT
EFQTNLVPYPRIFMLSSYAPIISAEKAYHEQLSVAEITNSAFE PANMMAKCDPRHGKYM
MACS MMYRGDVVPKDVNASIATIKTKRTIQFVWCPTGFVGINYQPPTVPGGLAKVMRAVCM
ISNSTAIAEVFSRLDHKFDLMYAKRAFVHWYVGEGMEEGFSEAREDLAALEKDYEEVGIET
AEGEGEEEGY

>DP01311|Q6NUK1|#50-78 #99-109 #159-170

MLRWLRDFVLPACQDAEQPTRYETLFQALDRNGDGVDIGELQEGLRNLGIPLGQDAEE
KIFTTGDVNKGKLDFEFMKYLKDHEKKMCLAFKSLDKNNDGKIEASEIVQLQLTGLTISE
QQAEILQSIDVDGTMTVDNEWRDYFLNPVTDIEIIRFWKHSTGIDGDSLTI
PDEFTEDE KKSGQWWRQQLLAGGIAGAVSRTSTAPLDRKIMMQVHGSKSDKMNIFGGFRQMVK
EGGIRS LWRNGNTVNIKIAPIETAVKFWAYEQYKLLTEEGQKIGTFERFISGSMAGATA
QTFIYPMEV MKTRLAVGKTGQYS
GIYDCAKKILKHEGLGAFYKGYVPNLLGI
PYAGIDLAVYELLKSYWL DNFADSVNPGVMVLLGCGALSSTCQLASYPLA
VRTRMQAQAMLEGSPQLNMVGLFRI ISKEGIPGLYRGITPNFMKVLPAVG
ISYVVYENMKQTLGVTQK

>DP00260|P01106|#1-167

MPLNVSFTNRNYDLDYDSVQPYFYCDEEENFYQQQQSELQPPAPS
EDIWKKFELLPTPLSP SRRSGLCSPSYVAVTPFSLRGNDGGGSF
STADQLEMVTELLGGDMVNQSFICDPDDETFIK NIIIQDCMW
SGFSAAKLVSEK
LASYQAARKDSGSPNPARGHSVC
STSSLYLQDLSAAASECI DPSVVF
PYPLNDSSSPKSCASQDSSAFSPSSDS
LSSTESSPQGSPEPLV
LHEETP
PTTSSDSEE
QEDEEEIDV
VSVEKRQAPGKRSE
SGSPSAGGH
SKPPHSPL
VLKRCHV
STHQHNYAAPPSTRKD
YPAAKRV
KLD
SVR
VLRQ
ISNN
RKCT
SPRSS
DTEEN
V
KRR
THN
V
LER
QR
RN
EL
KRS
FF
AL
RD
QI
PELEN
NEKAP
VV
IL
KKAT
AY
IL
SV
QA
EE
QKL
I
SE
D
LL
RK
R
EQL
KH
KLE
QL
RN
SCA

>DP01153|P9WI73|#1-75

MAKASETERSGPGTQPADAQTATSATVRPLSTQAVFRP
DGFEDNFPHPTLGP
DTEPQDRMA TTSRV
RPPV
RRLGG
LVEIP
RAPD
IDPLE
ALMT
NPV
PESK
RCW
NC
GRPV
GRSD
SETKG
ASE GWCPY
CGSPY
SFLP
QLNPG
DIVAG
QYEVK
GCIAH
GGLG
WIYL
ALDRN
VNGRP
VVL
KGLV
HSG
GDAEA
QAMAMA
ERQFL
AEV
VHPSIV
QIFN
FVEHT
DRH
GDP
VGYIV
MEYV
GGQSL
KRS
KGQK LP
VA
EA
AI
AY
LLE
IL
PAL
SYL
HSIGL
VY
NDL
KPE
NIML
TEE
QLK
LID
LGA
VSR
INS
FGYLY
GTP
GF
QA
PEI
VRT
GPT
VAT
DIY
TV
GRT
LA
ALT
LDL
PTR
NGRY
VDGL
PED
DPV
LKY
DSY
G
RLL
RAID
PD
PR
QR
FTTA
EE
MSA
QLT
GV
VL
REV
VA
Q
DTG
V
P
R
P
GL
STI
F
SPS
R
STF
GV
D
LL
VA
HTD
V
YLD
GQ
V
HAE
KL
TANE
I
V
T
A
L
S
V
P
L
V
D
P
T
D
V
A
A
S
V
L
Q
A
T
V
L
S
Q
P
V
Q
T
L
D
S
L
R
A
A
R
H
G
A
L
D
A
G
V
D
F
S
E

SVELPLMEVRALLDLGDVAKATRKLDLAERVGWRWRLVWYRAVAELLTGDYDSATKHF
TEVLDTFPGELAPKLALAATAELAGNTDEHKFYQTWSTNDGVISAAGFLARARSAEGDRV
GAVRTLDEVPPTSRHFTTARLTSATLLSGRSTSEVTEEQIRDAARRVEALPPTEPRVLQIRAL
VLGGALDWLKDNKASTNHILGFPTSHGLRLGVEASLRSLARVAPTQRHRYTLVDMANKVR
PTSTF

>DP01752|Q60598|#82-324

MWKASAGHAVSITQDDGGADDWETDPDFVNDVSEKEQRWGAKTVQGSGHQEHINIHKLRE
NVFQEHQTLKEKELETGPKASHGYGGKFGVEQDRMDRSAVGHEYQSKLSKHCSQVDSVRGF
GGKFGVQMDRVDQSAGVFEYQGKTEKHASKDYSQGKFGVQSERQDSSAVGFDYKERLAKHESQQ
KTEKHESQKDYSKGFGGKYGIDDKVDKSAVGFEYQGKTEKHESQKDYSQGKFGVQT
DRQDKCALGWDHQEKLQLHESQKDYSQGKFGVQSERQDSSAVGFDYKERLAKHESQQ
DYAKGFGGKYGVQKDRMDKNASTFEEVVQVPSAYQKTVPIEAVTSKTSNIRANFENLAKER
EQEDRRKAEAERAQRMAKERQECEEARRKLEEQARAKKQTTPASPSPQIEDRPPSSPIYEDA
APFKAEPYRGSEPEPEYSIEAGIPEAGSQQGLTYTSEPVYETTEAPGHYQAEDDTYDGYES
DLGITAIALYDYQAAGDDEISFPDDIITNIEMIDDGWWRGVCKGRYGLFPANYVELRQ

>DP00325|P01099|#1-166

MEQDNSPRKIQFTVPLLEPHLDPEAAEQIRRRRPTPATLVLTSQSSPEVDED RIPNPLLKPSLA
MSPRQRKKMTRTTPTMKELOQMMVEHHLGQQEQGEEPEGAAEGTGAQESQPPGPTGTGAES
RLGPSATAQKPAQPSPRAQERRGEEPSTAKTSQDSQGASAV

>DP01028|Q59471|#1-45

MEINEKLLRQIIEDVLSEMKGSDKPVSFNAPAASAAPQATPPAGDGFLTEVGEARQGTQQDE
VIIAVGPAFGLAQTVNIVGIPHKSILREVIAGIEEGIKARVIRCFKSSDVAFAVEGNRLSGSGI
SIGIQSKGTTVIHQQGLPLSNLELFQAPLLTLEYRQIGKNAARYAKRESPQPVPTLNDQMA
RPKYQAKSAILHIKETKYVVTGKNPQELRVAL

>DP01759|Q0GBY3|#1-68

MSKIFVNPSAIRAGLADLEMAETVDLJNRNIEDNQAHLQGEPIEVDDLPEDMKRLHLDDEKS
SNLGEMVRVGEKYREDFQMDEGEDPNLLFQSILNVGVQIVRQMRSGERFLKIWSQTVEE
IVSYVTVNFPNPPRRSSENKSTQTTGRELKETTSAFSQRESQPSKARMVAQVAPGPPALEWS
ATNEEDDLSVEAEIAHQIAESFSKKYKFPSRSSGIFLYNFEQLKMNLDDIVKEAKNVPGVTRL
AHDGSKIPLRCVLGYVALANSKKFQLLVEADKLSKIMQDDLNRYTSC

>DP00148|P03347|#378-432

MGARASVLSGGELDRWEKIRLRPGGKKYKLKHIVWASRELERFAVNPGLETSEGCRQILG
QLQPSLQTGSEELRSLYNTVATLYCVHQRIEKDTKEALDKIEEEQNKSKKKAQQAAADTGH
SSQVSQNYPIVQNIQGQMVHQAISSRTLNAWVKVVEEKAFSPEVPMFSALSEGATPQDLNT
MLNTVGGHQAAMQMLKETINEAAEWDRVHPVHAGPIAPGQMREPRGSIDIAGTTSTLQEIQI
GWMTNNPIPVGEIFYKRWIILGLNKIVRMYSPTSILDIRQGPKEFRDYVDRFYKTLRAEQASQ
EVKNWMTETLLVQNANPDCKTILKALGPAATLEEMMTACQGVGGPGHKARVLAEMSQT
NTATIMMQRGNFRNQRKMVKFCNCGKEGHTARNCRAPRKKGWCWCGKEGHQMKDCTERQ
ANFLGIWPSYKGRPGNFLQSRPEPTAPPFLQSRPEPTAPPEESFRSGVETTPPKQEPIDKEL
YPLTLSLRLFGNDPSSQ

>DP00652|P00441|#69-78 #127-142

MATKAVCVLKGDPVQGIINFEQKESNGPVKVWGSIKGLTEGLHGFHVHEFGDNTAGCTSA
GPHFNPLSRKHGGPKDEERHVGDLGNVTADKDGVADSVISIEDSVISLSDHCIIGRTLVVHEKA
DDLGKGGNEESTKTGNAGSRLACGVIGIAQ

>DP00795|P62326|#1-44

MSDKPDMAIEIEKFDKSKLKKTETQEKNPLPSKETIEQEKGAGES

>DP00939|P04859|#474-516

MDQDAFILKEDSEVEREAPGGRESLSDVIGFLDAVLssePTDIGGDRSWLHNTINTPQGPGSA
HRAKSEGEVEVSTPSTQDNRSGEESRVSGRTSKPEAEAHAGNLDKQNIHRAFGGRTGTSVS
QDLGDGGDSGILENPPNERGYPRSGIEDENREMAAHPDKRGEQAEGLPEEVRGGTSLPDEG
EGGASNNGRSMEPGSSHSARVTGLVIPSPELEEAVLRRNKRPTNSGSKPLTPATVPGTRSPP
LNRYNSTGSPPGKPPSTQDEHINSGDTPAVRKDRKPIGTRSVSDCPANGRPIHPGLESDSTK
KGIGENTSSMKEMATLLTSLGVIQSAQEFESSIONDASYVFARRALKSANYAEMTFNVCGLILSA
EKSSARKVDENKQLLKQIQESVESFRDIYKRFSEYQKEQNSLLMSNLSTLHIITDRGGKTDNT
DSLTRSPSVFAKSKENKTAKTRDPSMETLEDMKYKPDLIREDERDEIRNPVYQERDTEPRA
SNASRLPSKEKPTMHSRLVIESSPLSRAEKAAYVKSLSKCKTDQEVKAVMELVEEDIESLT
N

>DP00981|P02470|#165-173

MDIAIQHPWFKRTLGPFPYSRLFDQFFGEGLFEYDLPFLSSTISPYYRQLFRTVLDGISEVR
SDRDKFVIFLDVHKHFSPEDLTVKVQEDFVEIHGHNERQDDHGYISREFHRRYRLPSNVDQSA
LSCSLAADGMLTFSGPKIPSGVDAGHSERAIPVSREEKPSSAPSS

>DP00174|P16949|#1-149

MASSDIQVKELEKRASGQAFELILSPRSKESVPEFPLSPPKKDLSLEEIQKKLEAAEERRKSHE
AEVLKQLAEKREHEKEVLQKAIEENNFSKMAEEKLTHKMEANKENREAQMAAKLERLRE
KDKHIEEVRKNKESKDPADETEAD

>DP00962|P42224|#710-719 #720-750

MSQWYELQQQLDSKFLEQVHQLYDDSFPMEIRQYLAQWLEKQDWEHAANDVSATIRFHDL
SQLDDQYSRFSLENNFLQHNIRSKRNLQDNFQEDPIQMSMIYSCLEERKILENAQRFNQA
QSGNIQSTVMLDKQKELDSKVRNVKDKVMCIEHEIKSLEDLQDEYDFKCKTLQNREHETNG
VAKSDQKQEQLLKKMYLMDNKRKEVVHKIIELLNVTELQNALINDELVEWKRRQQSAC
IGGPPNACLDQLQNWFIVAESLQQVRQQLKLEELEQKYTYEHDPITKNKQVLWDRTFSLF
QQLIQSSFVVERQPCMPTHPQRPLVLTKGVQFTVKLRLVKLQELNYNLKVVKVLFKD
VNERNTVKGFRKFNILGHTKVMNMEESTNGSLAAEFRHLQLKEQKNAGTRTNEG
PLIVTEELHSLSFETQLCQPGLVIDLETTSLPVVVISNVSQPSGWASILWYNMLVAEP
RNLSSFLTPPCARWAQLSEVLSWFSSVTKRGPNVDQLNMLGEKLLGPNASPDGLIP
WTRFCKENINDKNFPFWLWI
ESILELIKHHLLPLWNDGCIMGFISKERERALLKDQQPGTFLRFSESSREGAITFT
WVERSQNGGEPDFHAVEPYTKKELSAVTFPDIIRNYKVMAAENIPNPLKYL
YPNIDKDHAFGKYYSRPKEAPEPMELDGPKGTYIKTELISVSEV
HPSRLQTTDNLLPMSPEEFDEVSRIVGSVEFD
SMMNTV

>DP00144|Q9VAN6|#1-27 #58-65 #76-90 #97-175

MLCEDQHMSVENTPQKGSGSLNSSASSISIDVKPTMQSWAQEVRAEF
GHSDEASSLNSSAASCGSLAKKETADGNLESKDGE
GREMAFEFLDG
VNEVKFERLVKEEKLKTPYKRRHSFTPPSNE
NSRSNSPNSSNSANGDAAAPKG
GGNNPHRSNSKKSGNFRAH
KEEKRVRHNSYTSS
SSSSYT
EADPA
ILSRRQKQIDY
GKNTAAY
ERYVEM
VPKDER
TRDHP
RTPNK
YKG
YSR
PK
EAPEPMELDGP
KGTY
IKTEL
ISVSEV
HPSRL
QTTDN
LLPMS
PEEF
DEV
SRIV
GSVE
FD
SMMNT

>DP01515|P25344|#235-249

MEDGKQAINEGSNDASP
DLVN
G
T
IL
MN
N
E
DF
SQ
WS
V
DD
V
IT
WC
I
ST
L
VE
E
T
D
P
LC
Q
RL
RE
ND
IV
GD
LL
PE
CL
L
Q
DC
Q
D
G
D
L
N
K
A
I
K
F
K
I
L
I
N
K
M
R
D
S
K
L
E
W
K
D
D
K
T
Q
E
D
M
I
T
V
L
K
N
L
Y
T
T
T
S
A
K
L
Q
E
F
Q
S
Q
Y
T
R
L
R
M
D
V
L
D
V
M
K
T
S
S
S
S
P
I
N
T
H
G
V
S
T
T
V
P
S
S
N
N
T
I
P
S
S
D
G
V
S
L
S
Q
T
D
Y
F
D
T
V
H
N
R
Q
S
P
S
R
R
E
S
P
V
T
F
R
Q
P
S
L
H
S
K
S
L
H
K
D
S
K
N
K
V
P
Q
I
S
T
N
Q
S
H
P
S
A
V
S
T
A
N
T
P
G
P
S
P
N
E
A
L
K
Q
L
R
A
S
K
E
D
S
C
E
R
I
L
K
N
A
M
K
R
H
N
L
A
D
Q
D
W
R
Q
Y
V
L
V
I
C
Y
G
D
Q
E
R
L
L
E
L
N
E
K
P
V
I
I
F
K
N
L
K
Q
Q
G
L
H
P
A
I
M
L
R
R
R
G
D
F
E
E
V
A
M
M
N
G
S
D
N
V
T
P
G
G
R
L

>DP00347|P04972|#1-87

MNLEPPKAEIRSATVMGGPVTPRGPKFKQRQFKSKPPKG
VQGF
GDD
IPGM
EGL
GT

DITVICPWEAFNHLELHELAQYGI

>DP00104|P32773|#1-10 #88-105 #210-240

MSNAEASRVYEIIIVESVVNEVREDFENAGIDEQLQDLKNIWQKKLTETKVTTFSWDNFNE
GNINGVQNDLFNLATPGVNSSEFNIKEENTGNEGLILPNINSNNNIPHSGETNINTNTVEATN
NSGATLNTNTSGNTNADVTSPKIEVKPEIELTINNANITTVENIDDESEKKDDEEKEEDVEKT
RKEKEQIEQVQLQAKKEKRSALLDTDEVGSELDDSDDYLISEGEEDGPDENMLCLYDKVT
RTKARWKCSLKDGVVTINRNDYTFQKAQVEAEWV

>DP00110|P40881|#1-37

MMFNKQIFTILJLSLALAGSGCISEGAEDNVVAQEITVDEFSNIRENPVTPWNPEPSAPVIDPT
AYIDPQASVIGEVТИGANVMVSPMASIRSDEGMPIFVGDRSNVQDGVLHALETINEEGEPIED
NIVEVDGKEYAVYIGNNVS LAHQS QVHGPAAVGDDTFIGMQAFVFKSKVGNNCVLEPRSAAI
GV TIPDGRYI PAGMV VTSQAEADKLPEVTDY AYSHTNEAVVYVN VH LAEGYKETS

>DP00580|O24172|#34-50

DEAQFKECYDTCHKECSDKNGFTFCEMKCDTDCSVKDVK EKLEN YKPKN

>DP00765|O00585|#1-7 #71-111

MAQSLALSLLILVLA FGIPRTQGSDGGAQD CCLKYSQRKIPAKVVR SYRKQEP SLGC SIPA ILF
LPRKRSQAELCADPKELWVQQLM QHLDKTPSPQKPAQGCRKDRGASKTGKKKGSKGCKR
TERS QTPKGP

>DP01570|P12931|#1-84

MGSNKSKPKDASQRSSLEPAENVHGAGGGAFPASQTPSKPASADGH RGPSAAFAPAAAEP
KLFGGFNSSDTVTSPQRAGPLAGGVTTVALYDYESRTETDLSFKKGERLQIVNNTEGDWWL
AHSLSTGQTGYIPS NYVAPS DS IQAAE WYFGKIRRESERLLLNAENPRGTFLVRESETTKGAY
CLS VSDFDNAKGLNVKHYKIRKLD SG GFYITSRTQF NSLQLQV VAYYSK HAD GLCHRLTTVCP
TSKPQTQGLAKDAWEIPRESLRLEV KLGQ GCFGEVWM GTWNGTTRVAIKTLKPGTMSPEAF
LQE AQV MKKL RHEKL VQLY AVVSE EPIYIVTEYMSKG SLLDFLKG ETGKYLRLPQLV DMAA
QIASGMAYVERMNYVHRDLRAANILVGENLVCKVADFLARLIEDNEY TARQGAKFPIKWT
APEAALYGRFTIKSDVWSFGILLTELTKGRVPYPMVNREVLDQVERGYRMPCPPECPESLH
DLMCQCWRKEPEERPTFEYLQAFLEDYFTSTEPQYQPGENL

>DP01331|P23828|#28-42

MSERNQRKVYVGRVVSDKMDKTITVLVETYKKPLYGKRVKYSKKYKAHDEHNEAKVGDI
VKIMETRPLSATKRFRLVEIVEKAVVL

>DP00359|A6Q0K5|#28-107

MMLTKSVVISRPAPRVSTRRAVVVRASGQPAVDLNKKVQDAVKEAEDACAKGTSADC
AWDTVEELSAAVSHKKDAVKADVTLDPLEAFCKDAPDADEC R VYED

>DP01146|O34800|#1-56

MERA FQNRCEPRAKPKILKKRSTS VASYQVSPHTARIFKENERL IDEYKRKKA

>DP02123|P52948|#2-150

MFNKSFGTPFGGGTGGFGTTSTFGQNTGFGTTSGGAFGTSAGFSSNNTGGLFGNSQTKPGGLF
GTSSFSQPATSTSTGFGFGTSTGTANTLFGTASTGTSLFSSQNNFAQNKPTGFGNFGTSTSSG
GLFGTTNTTSNPFGSTSGSLFGPSSFTAAPTGT I FKFN PPTG TD MV KAGV STNISTKHQCITA
MKEYESKSLEELLEDYQANRKGPQNQVGAGTTGLFGSSPATSSATGLFSSSTNSGFAYG
QNKTAFGTSTTGF GTNP GGLFGQQNQ QTTS LFSKPFQATT TQNTGFSFG NTSTIGQPSTNTM
GLFGVTQASQPGGLFGTATNTSTGTAFGTG LFGQNTGFGAVG STLFGNNKL TTFGSSTS
APSFGTTSGGLFGNKPTLTLGTNTNTSNFGFGNTSGNSIFGSKPAPGTLGTGLGAGFGTALG
AGQASLFGNNQPKIGGPLGTGAFGAPGFNTTATLFGFAPQAPVALTDPNASAAQQAVLQQ
HINSLTYSPFGDSPLFRNPM SDPKKEERLKPTNPAAQKALTTPTHYKLTPRPATVRPKALQ
TTGTAKSHLF DGLDDDEPSLANGAFMPKKS IKKL VLKNLNNNSNLSPVNRDSEN LASPSEYPE

NGERFSFLSKPVDENHQQDGDEDLVSHTYTNPIAKPIPQTPEAGNKHSNSNSVDDTIVALN
MRAALRNGLEGSSEETSFHDESLQDDREEIENNHYMHPAGIILTKVGYYTIPSMDDLAKITN
EKGECLIVSDFTIGRKGYGSIYFEGDVNLTNLNDIVIIRRKEVVYLDNNQKPPVGEGLNRK
AEVTLDGVWPTDKTSRCLIKSPDRLADINYEGRLEAVSRKQGAQFKEYRPETGSWVFVSHF
SKYGLQDSDEEEEHPSKTSTKLKTAAPLPPASQTTPLQMALNGKPAPPPQSQSPEVEQLGRV
VELDSMDMVDITQEPVLDTMLEESMPEDQEPEVSASTHIASSLGINPHVLQIMKASLLTDEEDVD
MALDQRFSRLPSKADTSQEICSPRLPISASHSSKTRSLVGGLLQSKFTSGAFLSPSVSQECRTP
RAASLMNIPSTSSWSVPPPLSVFTMPSPAPEVPLKTVGTRRLQGLVPREKSVTYGKGKLLMD
MALFMGRSFRVGWGPNTLANSGEQLNGSHELENHQIADSMEFGFLPNPVAVKPLTESPFK
VHLEKLSLRQRKPDEDMKLQYQTPLELKLKHSTVHVDELCPILVNLGVAVIHDYADWVKEA
SGDLPEAQIVKHWSTWTLCALWGHLKELDSQLNEPREYIQLERRRAFSRWLSCTATPQIE
EEVSLTQKNSPVEAVFSYLTGKRISEACSLAQSGDHRLALLSQFVGQSQSVRELLTQLVD
WHQLQADSFIFQDERLRLIFALLAGKPVWQLSEKKQINVCSDLWKRSLAIHLWYLLPPTASIR
ALSMYEEAFQNTSDSDRYACSPLPSYLEGSGCIAEEQNSQTPLRDVCFHLLKLYSDRHYDLN
QLLEPRSITADPLDYRLSWHLWEVLRALNYTHLSAQCEGVLQASYAGQLESEGLWEWAIFVL
LHIDNSGIREKAVRELLTRHCQLLETPEWAKETFLTQKLRVPACKIHEAKAVRAHMESDKH
LEALCLFKAEHWRCHKLIIRHLASDAIINENYDYLKGFLEDLAPPERSSIQDWETSGLVYLD
YIRVIEMLRHIQQVDCSGNDLEQLHIKVTSLCSRIEQIQCYSAKDRLAQSDMAKRVANLLRVV
LSLHPPDRTSDSTPDPQRVPLRLLAPHIGRLPMPEDYAMDELRSLTQSYLRELAVGSL

>DP01588|P52799|#253-300 #301-322 #323-333

MAVRDSDVWKYCWGVLVLCRTAISKSVLEPIYWNSNSKFLPGQGLVLYPQIGDKLDIICP
KVDSKTVGQYEYYKVMVDKDQADRCKENTPLNCAPDQDIKFTIKFQEFSPLNWGL
EFQKNKDYYIISTSNGSLEGDNQEGGVCQTRAMKILMKVGQDASSAGSTRNKPDRRPELE
AGTNGRSSTTSPFKPNPGSTDGNSAGHSGNNILGSEVALFAGIASGCIIFIVIITLVVLLKY
RRRHRKHSPQHTTTLSSLATPKRSGNNNGSEPSDIIPRLTADSVFCPHYEKVSGDYGHPVY
IVQEMPPQSPANIYYKV

>DP01342|P52564|#1-43

MSQSKGKKRNPGKIPKEAFEQPQTSSTPPRDLDSKACISIGNQNFEVKADDLEPIMELGRGA
YGVVEKMRHVPKGQIMAVKRIRATVNSQEKRLLMDLDISMRTVDCPFTVTFYGALFREGD
VWICMELMDTSLDFYKQVIDKGQTIPEDILGKIAVSIVKALEHLHSKLSVIIRDVKPSNVLIN
ALGQVKMCDGFGISGYLVDSVAKTIDAGCKPYMAPERINPELNQKGYSVKSIDIWSLGITMIELA
ILRFPYDSWGTFFQQLKQVVEPSPQLPADKFAEFVDFTSQCLKKNSKERPTYPELMQHPFF
TLHESKGTDVASFVKLILGD

>DP00419|P03176|#1-45 #148-152 #265-278

MASYPCHQHASAFDQAARSRGHNRRTALPRRRQQEATEVRPEQKMPULLRVYIDGPHGMG
KTTTQLVALGSRDDIVYVPEPMTYWRVLGASETIANIYTTQHRLDQGEISAGDAAVVMTS
AQITMGMPYAVTDAVLAPHIGGEAGSSHAPPALTIFDRHPIAALLCYPAARYLMGSMPQ
AVLAFVALIPPTLPGTNIVLGALPEDRHIDRLAKRQRPGERLDLAMLAIRRVYGLANTVRY
LQCGGSWREDWGQLSGTAVPPQGAEPQSNAGPRPHIGDTLFTLFRAPELLAPNGDLYNVFA
WALDVLAKRRLRSMHVFILEDYDQSPAGCRDALLQLTSGMVQTHVTPGSIPTICDLARTFARE
MGEAN

>DP01939|Q5JJ98|#493-588

MQYLRRDLIEPRVYQEVIYARCKEANCLVVLPTGLGKTLIAMIADYRLSKYGGKVMLAPT
KPLAVQHAESFKKLFNIPPEKINVLTGELSPKQRAEVWKNSVVITATPQTVENTILTGRISLED
VVLLVFDEAHRAVGNSYVFIKEYLKTAKHPLVLGLTASPGSDEEKIREIVRNLGIERIEIRT
ESSPDVKPYVQKIAFEWVKVDLPGIYKEVRSILREMLKESLKPLAQFKLVSTYSPDISKKEVLQ
AGSKINQEVARGNYELGRLRMHQAKAVKLLHAELLETQGLTALRAYLKKLEDKRTKSSK

ELMEDPRMRKVIYLLVQAKESGLDHPKMEKLKELVKEQLGKKPSSKIIVFTNYRDTGKKIVE
ELRSMGITAERFIGQASRKDDRGMSREQKEVLDLRSRGEFNVLVATSVGEEGLDVPEVDLV
VFYEPVPSAIRSIQRRGRTGRHRPGRVILMAKGTRDEAYYWASRRKEKGMFDAIKKIAREL
EKLQRARIKAQGEEGKIHAGVEKSKGVDVSKGKIAPLDAFLPKKVENTIRESKAVGKAA
PQASEEKSAEKPKETTEELPIKPIFVRPKGIVVVYVDSRELRSVPKHLRELGAEVVRTLDVA
DYVVSEEVGIERKSANDFIQSIIIDGRLFDQVERLKRAYEKPVIIIEGELYGIRNVHPNAIRGAIA
AVTLDWGVPILFSSGPEETAQFIYLMAKREQEERKKEVRLRSEKKALT LAERQRLIVEGLPNV
SATLAKRLLKHFGNVERVFTATEELKEVEGIGPKKAREIRR VITGTLR

>DP01738|P04271|#18-28 #80-91

MSELEKAMVALIDVFHQYSREGDKHKLKKSELKELINNELSHFLEEIKEQEVVVDKVMETLD
NDGDGECDFQEAFMAFVAMVTACHEFFEHE

>DP00935|P31087|#47-58 #61-67 #68-80

MSHSVKIYDTCIGCTQCVRACPLDVLEMVPWDGCKAGQIASSPRTEDCVGCKRCETACPTDF
LSIRVYLGAEETTRSMGLAY

>DP01296|Q6BBK3|#1-52

MSDIQEKEQARQEAHAISEEKGATSPDAAA A WDAVEELQAEAAHQRQQKSETEPFFGDYCS
ENPDAAECLYYDD

>DP01748|P05556|#784-798

MNLQPIFWIGLISSVCCVFAQTDENRCLKANAKSCGE CIQAGPNC GWCTNSTFLQEGMPTSA
RCDDLEALKKKGCPPDDIENPRGSKDIKKKNVNTRSKGTAEKLKPEDITQIQPQLVLRLRS
GEPQTFTLKFKRAEDYPIDL YYLMDLSYSMKDDLENV KSLGTDLMNEMRRITSDFRIGFGSFV
EKTVMPISTTPAKLRNPCTSEQNCTSPFSYKNVLSLTNKGEVFNELVGKQRISGNLDSPEGGF
DAIMQVAVCGSLIGWRNVTRLLVFSTDAGFHAGDGKLGIVLPNDGQCHLENNMYTM SHY
YDYP SIAHLVQKLSENNIQTIFAVTEEFQPVYKELKNLIPKSAVGTLSANSSNVIQLIIDAYNSL
SSEVILENGKLSEGVTISYKSYCKNGVNGTGENGRKCSNISIGDEVQFEISITSNKCPKKDSDF
KIRPLGFTEEVEVILQYICECECQSEGIPESPKCHEGNGTFECGACRCNEGRVGRHCECSTDEV
NSEDMDAYCRKENSSEICSNNGECVCGQCVCRKRDNTNEIYSGKFCEDNFNCDRSNGLICG
GNGVCKCRVCECNPNTGSACDCSLDTSTCEASNGQICNGRGICECGVCKCTDPKFQGQTCE
MCQTCLGVCAEHKEVQCRAFNKGEEKDTCTQEC SYFNITKVESRDKL P QPVQDP DVSHCK
EKDVDDCWFYFTYSVNGNNEVMVHVENPECPTGPDIPIVAGVVAGIVLIGLALLIWKLL
MIIHDRREFAKFEKEKMNAKWDTGENPIYKSAVTTVVNPKYEGK

>DP01997|E2IHW6|#726-825

MTNSISGDQPTVTTFTSSTSASGASGSLGASSVTTANATVTQTANATNSAATSSIQTGETV
VNYTN SASAPTVTVSTSSSTQATATSNKTSQA VAGKITSPDTSESSETSTSSDHIPS DYEPIS
TTENIYENIYESIDDSSTSGPENTSGGAAALNSLRGSSYSNYDDAAADYEPISTTENIYESIDDS
TSDPENTSGGAAALNSLRGSSYSNYDDAAADYEPISTTENIYESIDDSSTSDPENTSGGAAALNSLRGSSYSNY
AALNSLRGSSYSNYDDAAADYEPISTTENIYESIDDSSTSDPENTSGGAAALNSLRGSSYSNYDDAAADYEPISTTENI
YENIYESIDGSSTD PENTSGGAAALNSLRGSSYT GPRNEG VFGPGPEGLPDMSLPSYDPTN
KTSLLTFLSNPHVKSMLENSGHFVFI DTD RSS FILV PNGNWDQVCSIKVQNGKTKE DLDIKD
LENMCAKFC TGFNKFSGDWDSRVEPMMSAKAGVASGGNLPNTVIINNKFKTCVAYGPWNS
REASSGYTPSAWRRGHQVNFGIFEKANDFNKINWGTQAGPSSE DDGISNETPGAGPAAAP
SPTPSSIPVINVN VNGGTNVNIRD TNVNTTPTTQSTDASTDTSIDNINTNNQ TDINTTD
KDSDGAGGVNGDISETESSGDDSGVSSSES DKNASVGNDGPAMKDILSAVRKHD VVY PG
DN GGSTE GPLQANQ TLG DIVQDMETT GTSQETV VSPWKGSTS STGSAGGSGSVQ TL LPSPP PT
PSTT LRT GTGATT SLM MGG PIKADI ITGG GRIPGGT LEKLL PRIRAHLD ISFDGQ GD L VS
TEEPQLGSIVNKFRKETGSGGIVASVESAPGKPGSAQVLTGTGGDKGNLFQAAA AVTQALGN

VAGKVNLAIQGQKLSSLVNDDGKGSVGRDLFQAATQTQALSSLIDTVG

>DP01237|P36100|#195-482

MDRPIDDIVKNLLKFVVRGFYGGSFVLVLDAILFHSVLAEDDLKQLLSINKTELGPLIARLRSD
RLISIHKQREYPPNSKSVERVYYYYVKYPHAIDAICWKVHQVVQRLKDLDKNSEPNGYMCPI
CLTKYTQLEAVQLLNFDRTFELCSLCDEPLVEDDSGKKNEKQDKLNRLMDQIQPIIDSLKKI
DDSRIEENTFEIALARLIPPNQSHAAYTYPKKGSTMFRPGDSAPLPNLMTALGNDSSRRA
GANSQATLHINITTASDEVAQRELQERQAEERKRNQNAVPEWHKQSTIGKTALGRLDNEEEFD
PVVTASAMDSINPDNEPAQETSYQNNRTLTEQEMEERENEKTLDYYAALAKKQAKLNKEE
EEEEEEEDEEEEEEEMEDVMDDNDETARENALEDEFEDVTDTAGTAKTESNTSNDVKQES
INDKTEDAVNATATASGPSANAKPNDGDDDDDDDEMDIEFEDV

>DP00039|P05204|#1-90

MPKRKAEGDAKGDKAKVKDEPQRSSARLSAKPAPPKPEPKPKAPAKKGEKVPKGKKGKA
DAGKEGNPNAENGDAKTDQAQKAEGAGDAK

>DP00718|P37231|#9-111 #112-174 #175-211 #238-278 #279-298 #443-452 #453-477

MGETLGDSPIDPESDSFTTLSANISQEMTMVDTEMPFWPTNGFISSVDSLVMEDHSHSFDIKP
FTTVDFSSISTPHYEDIPFTRTDVVADYKYDLKLQEQYQSAIKVEPASPPYYSEKTQLYNKPHE
EPSNSLMAIECRVCGDKASGFHYGVHACEGCKGFFRRTIRLKLIDRCDLNCRIHKKSRNKCQ
YCRFQKCLAVGM SHNAIRFGRMPQAEKEKLLAEISSIDQLNPESADL RALAKHYDSYIKSF
PLTKAKARAILTGTTDKSPFVIYDMNSLMMGEDKIKFKHITPLQEKSKEAIRIFQGCQFRSV
EAVQEITEYAKSIPGFVNLDLNDQVTLLKYGVHEIIYTMLASLMNKDGVLISEGQGFMTREFL
KSLRKPF GDFMEPKFEFAVKFN ALELDDSDL AIFI AVIILSGDRPGLLNVKPIEDIQDNLLQALE
LQLKLNHPESSQLFAKLLQKMTDLRQIVTEHVQLLQVIKKTEDMSLHPLLQEIYKDLY

>DP01510|O25010|#1-30

MEKTENTDET RL RGTKNKLGRKP KADANK TRAV SLYFSDEQYQKLEKMANEEEVG SYI
KRYILKALRKIE

>DP01339|P0A903|#26-98

MAYSVQKSRLAKVAGVSLVLLAACSSDSRYKRQVSGDEAYLEAAPLAELHAPAGMILPVT
SGDYAIPVTNGSGAVGKALDIRPPAQPLALVSGARTQFTGDTASLLVENRGNTLWPQVVSV
LQAKNYTITQRDDAGQTLTTDWVQWNRLDEDEQYRGRYQISVKPQGYQQAVTVKLLNLEQ
AGKP VADAASMQRYS T EMMNVISAGLDKSATDAANAAQNRA STMDVQSAADDTGLPML
VVRGP FN VVWQRLPAALEKVGMKVT DSTRSQGNMAVTYKPLSDSDWQELGASDPGLASGD
YKLQVGDLNRSSLQFIDPKGHTLTQS QNDALVAVFQAAFSK

>DP02203|Q9Q6P4|#899-919

MSKKPGPGKSR A VNM LKRGMP RVLS IGLKRAM ILSIDGKGPIRF VLALLAFFRFTAIPTR
AVLDRWRGVNKQTAMKHLLSFKELGTLTSAINRRSSKQKKRGGKTGIAVMIGLIASVGAV
TLSNFQGVMMTVNATDVTDVITIPTAAGKNLCIVRAMDVG YM CDDTITYECPVLSAGNDP
EDIDCWCTKSAVYVRYGRCTKTRHSRRSLS TVQTHGESTLANKKGAWMDSTKATRYLV
KTESWILRNPGYALVAAVIGMLGSNTMQRVVFV VLLL VAPAYS FNC LGM SNR DFLEGVS
GATWVDLVLEGDCVTIMSKDKPTIDVKMMNMEAANLAEVRSYCYLATVDSLSTKAACPT
MGEAHNDKRADPAFVCRQGVVDRGWGNCGLFGKGSIDTCAKFACSTKAIGRTILKENIKY
EVAIFVHGPTT VESHGNYSTQVGATQAGRFSITPAAPS YTLKGEYGEVTDCEPRSGIDTNA
YYVMTVGTKTFLVHREWFM DLNPWSSAGSTVWRNRETLMEFEEPHATKQS VIALGSQEGA
LHQALAGAIPVEFSSNTVKLTSGHLKCRVKMEKLQLKGTTYGVCSKAFKFLGTPADTGHGTV
VLELQYTGT DGPCKVPISSV ASLNDLTPVGR LVTVNP FV SV ATANAKV LIELEP PFGDSYIVVG
RGEQQINHHWHKSGSSIGKAFTT LKG AQR LA ALGDT AWDFGSVGGVFTSVGKA VHQVF GG
AFRSLFGGMSWITQGLL GALLWMGINARDRSIALTFLAVGGVLLFLSVNVHADTGCAIDISR
QELRCGSGVFIHNDVEAWMDRYKYY PETPQGLAKIIQKAHKEGVCG LRS VSR LEHQ MWEAV

KDELNTLLKENGVDLSVVVEKQEGMYKSAPKRLTATTEKLEIGWKAWGKSILFAPELANNT
FVVDGPETKECPTQNRAWNSLEVEDFGFGLTSTRMFLKVRESNTTECDDSKIIGTAVKNLAIH
SDLSYWIESRLNDTWKLERAVLGEVKSCWPETHTLWGDGILESDLIIPVLAGPRSNHNRRP
GYKTQNQGPWDEGRVEIDFDYCPGITVTLSESCGHRGPATRTTESGKLITDWCCRSCLPPL
RYQTDSGCWYGMEIRPQRHDEKTLVQSQVNAYNADMIDPQLGLLVVFLATQEVLRKWT
AKISMPAILALLVLVFGGITYTDVLRYVILVGAFAESNSGGDVVHLALMATFKIQPVFMVA
SFLKARWTNQENILLMLAAVFFQMAHDARQILLWEIPDVLNSLAVALMILRAITFTTSNV
VVPLLALLTPGLRCLNLDVYRILLMVIGSLIREKRSAAKKKGASLLCLALASTGLFNPML
AAGLIACDPNRKRGWPATEVMTAVGLMFAIVGGLAELDIDSMAIPMTIAGLMFAAFVISGKS
TDMWIERTADISWESDAITGSSERVDVRLDDGNFQLMNDPGAPWKIWMRLMVCLAISAY
TPWAILPSVVGFWITLQYT KRGGVLDTPSPKEYKKGDTTGVRIMTRGLLGSYQAGAGV
MVEGFHTLWHTTKGAALMSGEGRLDPYWSVKEDRLCYGGPWKLQHKWNGQDEVQMI
VVEPGKVNKVQTKPGVFKPEGEIGAVTLDFTGTSGSPIVDKNGDVIGLYGNGVIMPNGS
YISAIVQGERMDEPIAGFEPEMLRKQITVLDLHPGAGKTRRILPQIIKEAINRRLRTAVLAPT
RVVAAEMAEALRGLPIRYQTSAVPREHNGNEIVDVMCHATLTHRLMSPHRVPNYNLFVMDE
AHFTDPASIAARGYISTKVELGEAAAIFMTATPPGTSDPFPESNSPISDLQTEIPDRAWNSGYE
WITEYTGKTVWFVPSVKMGNEIALCLQRAGKKVQLNRKSYETEYPKCKNDDWDFVITTDI
SEMGANFKASRVIDSRKSVKPTIITEGEGRVILGEPSAVTAASAAQRGRIGRNPSQVGDEYC
YGGHTNEDDSNFAHWTEARIMLDNINMPNGLIAQFYQPEREKVTMDGEYRLGEERKNFL
ELLRTADLPVWLAYKVAAGVSYHDRRWCDFGRTNTILEDNNNEVEVITKLGERKILRPRWI
DARVYSDHQALKAFKDFASGKRSQIGLIEVLGKMPEHFMGKTWEALDTMYVVATAEKGGR
AHRMALEELPDALQTIALIALLSVMTMGVFFLMQRKGIGKIGLGGAVLGVATFFCWMAEV
PGTKIAGMLLSLLLMLVIPEPEKQRSQTDNQLAVFLICVMTLVSABAANEMGWLDKTKSDI
SSLFGQRIEVKENFSMGEFLDLRPATAWSLYAVTTAVLPLLKHLITSDYINTSLTSINVQAS
ALFTLARGFPFVDPGVSAALLAACGCGWQVLTVTVAATLLFCHYAYMVPGWQAEAMRSA
QRRTAAGIMKNAVVDGIVATDVPELERTPIMQKKVGQIMLILVSLAAVVVNPSPVKTREAG
ILITAAAVTLWENGASSVWNATTAGLCHIMRGGWLSCLSITWTLIKMEKPLKRGGAKG
TLGEVWKERLNQMTKEEFTTRYKEAIIEVDRSAAKHARKEGNVTGGHPVSRGTAKLRWLVE
RRFLEPGVKVIDLGCGRGGWCYYMATQKRVQEVRGTYKGGPGHEEPQLVQSYGWNIVTMK
SGVDVFYRPSECCDTLLCDIGESSSSAEVEEHRTIRVLEMVEDWLHRGPREFCVKVLCPYMPK
VIEKMELLQRRYGGGLVRNPLSRNSTHEMYWVSRASGNVHSVNMTSQVLLGRMEKRTWK
GPQYEEDVNLGGSGTRAVGKPLLNSDTSKIKNRIERLREYSSTWHHDENHPYRTWNYHGSY
DVKPTGSASSLVNGVVRLLSKPWDTITNVTTMAMTDTPFGQQRFKEKVDTKAPEPPEGV
KYVLNETTNWLWAFLAREKRPRMCREEFIRKVNSNAALGAMFEEQNQWRSAREAVEDPK
FWEMVDEEREALRGECHTCIYNMMGKREKKPGEFGKAKGSRAIWFMWL GARFLEFEALG
FLNEDHWLGRKNSGGVEGLGLQKLGYILREVGTRPGKQIYADDTAGWDTRITRADLENEA
KVLELLDGEHRRRLARAIIELTYRHKKVVMRPAADGRTVMDVISREDQRGSGQVVTVYALNT
FTNLAVQLVRMMEGEGVIGPDDVEKLTKGKGPKVRTWLFENGEE RL SRMAVSGDDCVV
LDDRFATSLHFLNAMSKVRKDIQEWPSTGWDWQQVFCNSHFTELIMKDGR
QDELVGRARISPGAGWNRD TA CLAKSYAQMWLLYFRRDLRLMANAICS
GRTTWSIHAGGEWMTEDMLEVWNRVWIEENEW MEDKTPVEKWS
LIGTRARATWAENIQVAINQVRAII
>DP01768|P58753|#15-35
MASSTSLPAPGSRPKKPLGK MADWFRQTLKKPKKRPN
TSPSLPPTHASDGS
GAIVSEL
LRFMYYV
L

>DP01600|Q93KQ4#51-81
MGSIMKINDLKLISMQIAEFGGEGIKRLKSTLQQVSTQAITSDERRAYAVLEHAKNTILNR
QDVAKLLPRASNFEISQGKKGEVILKGLRVEQLSLEDAKLLLDAVTRKMQKL
>DP01461|Q13188#314-427
MEQPPAPSKLKKLSEDSTKQPPEVFVLEKLGEGSYGSVKAIHKESGVVAIKQVPVESD
LQEIIKEISIMQQCDSPYVVKYYGSYFKNTDLWIVMEYCGAGSVSDIIRLRNKTIEDEATILK
STLKGLEYLHFMRKIHRDIKAGNILLNTEGHAKLADFGVAGQLTDTMAKRNTVIGTPFWMAP
EVIQEIGYNCVADIWSLGTSIEMAEGKPPYADIHPMRAIFMIPTNPPPTFRKPELWSDDFTDFV
KKCLVKVNPEQRATATQLQHPFIKNAPVSLRDLITEAMEIKAKRHEEQQRELEEEEENSDE
DELDSDHTMVKTTSVSGTMRASTMSEGATMIEHNSTMLESDLGTMVINSEDEEEEDGTM
KRNATSPQVQRPSFMDYFDKQDFKNKSHENCQNMFPMKSNVFPDNWKVPQDGDFDF
LKNLSLEELQMRLKALDPMMEREIEELRQRTAKRQPILDAMDAKKRRQQNF
>DP00083|P03069#101-134 #225-281
MSEYQPSLFALNPMPGFSPLDGSKSTNENVSASTSTAKPMVGQLIFDKFIKTEEDPIIKQDTPSN
LDFDFALPQTATAPDAKTVLPIPELDDAVVESFFSSSTDSTPMFEYENLEDNSKEWTSLFNDI
PVTTDDVSLADKAIESTEEVSLVPSNLEVSTTSFLPTPVLEDAKLTQTRKVKKPNSVVKSHH
VGKDDESRLDHGVVAYNRKQRSIPLSPIVPESSDPAALKRARNTAARRSRARKLQRMKQL
EDKVEELLSKNYHLENEVARLKKLVGER
>DP01663|P27177#25-143 #200-217
MARLLTTCCLLALLAACTDVALSKKGKGPSSGGWGAGSHRQPSYPRQPGYPHNPGYPHN
PGYPHPNGYPHPNGYPHPNGYPQNPQGPNGYPNGPGQGQGYNPSSGGSYHNQKPWKPPTNF
KHVAGAAAAGAVVGLGGYAMGRVMSGMNYHFDSPDEYRWWSENSARYPNRVYYRDYS
SPVPQDFVADCWNITVTEYSIGPAAKKNTSEAVAAANQTEVEMENKVVTKVIREMCVQQY
REYRLASGIQLHPADTWLAVLLLLTLFAMH
>DP00976|P04578#127-196 #297-331
MRVKEKYQHLWRWGWRWTMLGMLMICSATEKLWVTVYYGVPWKEATTLCASDA
KAYDTEHVNVWATHACVPTDPNPQEVLVNVTFNMFNMKNDMVEQMHEIDIISLWDQSLK
PCVKLTPLCVSLKCTDLKNDTNTNSSGRMIMEKGEIKNCNFNISTSIRGKVQKEYAFFYKLDI
IPIDNDTTSYKLTSCNTSVITQACPKVSFEPPIHYCAPAGFAILKCNNKTFNGTGPTNVSTVQ
CTHGIRPVVSTQLLNGSLAEEEVIRSVNFTDNAKTIIVQLNTSVEINCTRPNNNTRKRIRIQR
GPGRAFVTIGKIGNMRQAHCNISRACKWNNTLKQIASKLREQFGNNKTIIFKQSSGGDPEIVTHS
FNCGGEFFYCNSTQLFNSTWFNSTWSTEGLSNTTEGSDTITLPCRICKQIINMWQKVGKAMYAPP
ISGQIRCSSNITGLLTDGGNSNNESEIFRPGGDMRDNRSELYKYKVVKIEPLGVAPTKA
KRRVVQREKRAVGIGALFLGFLGAAGSTMGAASMTLTQARQLLSGIVQQQNNLLRAIEAQ
QHLLQLTVWGIKQLQARILAVERYLKDQQLGIWGCSGKLICTTAVPWNASWSNKSLEQIW
NHTTWMEWDREINNNYTSIHSLIESQNNQEKNEQELLELDKWASLWNWFNITNWLYIKL
FIMIVGGLVGLRIVFAVLSIVNRVRQGYSPLSFQTHLPTPRGPDRPEGIEEGGERDRDRSIRLV
NGSLALIWDDLRSCLFSYHRLRDLLIVTRIVELLGRRGWEALKYWWNLLQYWSQELKNS
AVSLLNATAIAVAEGTDRVIEVVQGACRAIRHIPRRIRQGLERILL
>DP00086|P04637#1-93 #94-312 #320-393
MEEPQSDPSVEPPLSQETSDLWKLPPENNVLSPPLPSQAMDDMLSPDDIEQWFTEDPGPDEA
PRMPEAAPPVAPAPAAPTPAAPAPAPSWPLSSVPSQKTYQGSYGFRLGFLHSGTAKSVTCTY
SPALNKMFCQLAKTCPVQLWVDSTPPPGRVRAAMAIYKQSQHMTEVVRRCPHHERCSDSDG
LAPPQHLIRVEGNLRVEYLLDRNTFRHSVVVPYEPPEVGSDDCTTIHYNMCMSSCMGGMNRR
PILTIITLEDSSGNLLGRNSFEVRVCACPGRDRRTEENLRKKGEPHHELPPGSTKRALPNNTSS
SPQPKKKPLDGEYFTLQIRGRERFEMFRELNEALELKDAQAGKEPGGSRAHSSHLSKKGQS
TSRHKKLMFKTEGPDS

>DP00196|P20810#137-277

MNPTETKAIPVSQQMEGPHLPNKKHKKQAVKTEPEKKSQSTKLSVVHEKKSQEGKPKEHT
EPKSLPKQASDTGSNDAHNKKAVRSQAEQPSEKSTEPKTPQDMISAGGESVAGITAISGKP
GDKKKEKKSLTPAVPVESKPDKGKSGMDAALDDLIIDTLGGPEETEEENTTYTGPEVSDPM
SSTYIEELGKREVTIPPKYRELLAKKEGITGPPADSSKPIGPDDAIDALSSDFTCGSPAAGKKT
EKEESTEVLKAQSAGTVRSAAPPQEKKRKVEKDTMSDQALEALSASLGTRQAEPEDLRSIK
EVDEAKAKEEKLEKGEDDETIPSEYRLKPATDKDGKPLLPEPEEKPKPRSESELIDELSEDFD
RSECKEKPSKPTEKTEESKAAAPAPVSEAVCRTSMCSIQSAPPATLKGTVPDDAVEALADS
L GKKEADPEDGKPVMDKVKEKAKEEDREKLGEKEETIPPDYRLEEVKDKDGKPLLKESKE
QLPPMSDFLLDALSEDMSGPQNASSLKFEDAKLAAISEVVSQTPASTTQAGAPRDTSQSD
KDLDDALDKLSDLGQRQDPDENKPMEDKVKEKAKAHRDKLGERDDTIPPEYRHLLDDN
GQDKPVKPPKKSEDSKKPADDQDPIDALSGDLDSCPSTTETSQNTAKDKCKKAASSSKAPK
NGGAKDASAKTTEETSKPKDD

>DP01159|A6NF83#1-97

MEAPAERALPRLQALARPPPISYEEELYDCLDYYYL RDFPACGAGR SKGRTRREQALRTNW
PAPGGHERKVAQKLLNGQRKRRQRQLHPKMRTRLT

>DP00337|P06968#137-151

MKKIDVKILDPRVGKEFPLPTYATSGSAGLDLRACLND AVELAPGD TTLVPTGLAIHIADPSL
AAMMLPRSGLGHKHGIVLGNLVGLIDS DYQQLMISVWNRGQDSFTI QPGERIAQMIFVPVV
QAEFNLVEDFDATDRGEGGFHSGRQ

>DP00136|P15865#1-30 #31-119 #120-217

MSETAPAAPAAPAPAEKPIKKKARKAAGGAKRKASGPPVSE LITKAVAASKERSGVSLAAL
KKALAAAGYDVEKNNSRIKGLKSLVSKGTLVQT KGTGASGSFKLNKKAASGEAKPKAKKA
GAAKAKKPAGAACPKKATGTATPKKSTKKTPKAKK PAAAAGAKKAKSPKKAKATKAK
KAPKSPA KARAVKPKAAPKPKTSKPKAAPKKTAAK K

>DP00989|P0ACX9#1-20

MRYTDSRKLT PETDANHKTASPQPIRRISSQTLLGP DGKLIIDHDGQEYLLRKTQAGKLLTK

>DP00436|P50477#1-45 #228-244 #427-445

MAFSARFPLWLLGVVLLASVSASFAHSGHSGGEAEDESEESRAQNNPYLFRSNKFLTLFKN
QHGSRLLQRFNEDTEKLENLRDYRVLEYCSKPNTLLPHHSDSL LVLVLEGQAILVLVNP D
GRDTYKLDQGDAIKIQAGTPFYLINPDNNQNLRLKFAITFRRPGTVEDFFLSSTKRLPSYLSAF
SKNFLEASYDSPYDEIEQTLLQEEQEGVIVKMPKDQI QEISKHAQSSSRKTLSSQDKPFNLR SR
DPIYSNNYGKLYEITPEKNSQLR LDILLNCLQMNEGALFVPHNSRATVILVANE GRAEVEL
VGLEQQQQGLESML RRYAATLSEGDIIVIPSSFPVALKAASDLNMVGIGVNAENNERNFL
AGHKENVIRQIPRQVSDLTFPGSGEEVEEL ENQKESYFVDGQPR HIDAGGKARRAHLPNLFR
TFY

>DP01973|Q09514#167-181 #216-266

MGATLCAPKKKKTQVGASWVGNESENPF DLALNKKDRTLLRET WQR LDDPKDIVGLIFLD I
VNDIEPDLKKVFGVDRAPRAAMLKMPFGGHILRFYEFMEQLT SMLGTSENLTGAWQLVRK
TGRSHVRQGFLEQNQNQMEKNYFEIVINV FIERLIPFLTGEQELPSSEGKENKKVRFAQNYTT S
QITDVWKKFLNTVISQMTDSF ELERAKQKSAQTTKALAPHQHIEISERKKRVAEKQSEIENT
AVSNEPKAQEQMFEDPF

>DP02485|P40709#1-244

MVTHRQRYREKVSQMVS WGHWFALFNILLATLLGSRYLFVADWPTTLAGRIYSYLSIVGHFS
FLVFATYLLILFPLTFIVMSQRLMRLSAILATAGMTLLIDSEVFTRFHLHLNPIVWELVINPD
QNEMARDWQLMFISVPVILLIEMLFATWSWQKLRSLTRRRHFARPLAFFFVSIASHLIYIW
ADANFYRPITMQRANLPLSYPMTARRFLEKHGLLDAQEYQ RRLVEQGNPEAVSVQYPLS NL

HYRDMGTQNVLITVDGLNYSRFEKQMPELATFAEQNIDFTRHMSSGNTTDNGIFGLFYGIS
PGYMDGVLSTRTPAALITALNQQGYQLGLFSSDGFASPLYRQALLSDFSMPAAQTQSADAQTA
SQWIDWLGRYAQEDNRWFSWISFNGTNIDDSNQNFVKRYASAASDVDAQINRVLNALREA
GKFDNTVVIITAGRGIPLTPEENRFDSQGHLQVPLVIHWPGTPAQRINVLTIDHTDMTTLM
QRLLHVSTPANEYSQGQDIFTVPRRHNVTAADGSTLAITTPQMTLVNNNGHYQTYDLHG
EKIKDQKPQLSLLQVLTEEKRFIAN

>DP01537|O00429-3|#514-613

MEALIPVINKLQDVFTVGADIQLPQIVVVTQSSGKSSVLESVGRDLLPRGTGIVRRPLIL
QLVHVSQEDKRKTGEENGVEAEEWGKFLHTKNLYTDFDEIRQEIEENERISGNNGVSP
EPIHLKIFSPNVVNLTLDLPGMTKPVGDQPKDIELQIRELILRFISNPNSIILAVTAANTDMA
TSEALKISREVDPDGRRTLAVITKL禄MDAGTDAMDVLGRVIPVKLGIIGVVNRSQLDINNK
KSVDTSIRDEYAFLQKKYPSLANRNGTKYLARTLNRLLMHHIRDCLPELKTRINVLAAQYQS
LLNSYGEVDDKSATLLQLITKFATEYCNTIEGTAKYIETSELCGGARICYIFHETFGRTLESVD
PLGGLNTIDILTAIRNATGPRPALFVPEVSFELLVKRQIKRLEEPSLRVCVELVHEEMQRIIQHCS
NYSTQELLRFPKLHDAIVEVVTCLLRKRLPTNEMVHNLVAIELAYINTKHPDFADACGLMN
NNIEEQRRNRLARELPSAVSRDKLIQDSRRETKNVASGGGGVGDGVQEPTGNWRGMLKTS
KAEELLAEEKSKPIMPASPQKGHAVNLLDPVPVARKLSAREQRDCEVIERLIKSYFLIVRK
NIQDSVPKAVMHFLVNHVKDTLQSELVGQLYKSSLDDLTESEDMAQRRKEAADMALKALQ
GASQIIAEIRETHLW

>DP01606|Q06208|#49-60 #152-186

MEHVDSDFAPIRRSKVVDSDKIVKAISDDLEQKNFTVLRKLNLPPIKSVSSPKVCKPSPVK
ERVDHFYQKFMSMALQELGTYNLSISYVPSLSKFLSKNLRSMKNCIVFFDKVEHIHQYAGID
RAVSETLSLVDINVVIEMNDYLMKEGIQSSKSKECIESMGQASYSGQLDFEASEKPSNHTSDL
MMVMVRKINNDESIDHIVYFKFEQLDKLSTSTIIEPSKLTEFINVLSVLEKSNNIAFKVLIYSNN
VSISSLSTSLLKKLNTKYTVFEMPILTCQAQEYQYKMKFTFDGSKLLQSYNSLVTSQLNN
KESNLAIFFEFLKVFPHPTYLFNAYTEIIIVQSRTFDELLDKIRNRLLTIKNYPHSAYNFKKNQRL
PLKLTRKVHDR

>DP02258|Q9JLC3|#1-18 #31-44 #105-116

MSFCSSFGGEVFQNHFEPGVYVCAKCSYELFSSHSKYAHSSPWPAFTETIHPDSVTKCPEKNR
PEALKVSCGKCGNGLHEFLNDGPKRGQSRFUIFSSSLKFVPKGKEAAASQGH

>DP00675|P19711|#169-270

MELITNELLYKTYKQKPGVVEEPVYDQAGDPLFGERGAVHPQSTLKLPHKRGERTDVPTNLAS
LPKRGDCRSGNSRGPVSGIYLPKGPLFYQDYKGPVYHRAPLELFEEGSMCETTKRIGRTVGSD
GKLYHIYVICIDCIIKSATRSYQRVFRVHNRLDCPLWVTTCSDTKEEGATKKTQKPDRL
RGKMKIVPKESEKDSKTPPDATIVVEGVKYQVRKKGKTKSKNTQDGLYHNKNKPQESRKK
LEKALLAWAIIAIVLFQVTMGENITQWNLQDNGTEGIQRAMFQRGVNRSLHGIWPEKICTGV
PSHLATDIELKTIHGMMDASEKTNTYCCRLQRHEWNKHGWCNWYNIPEWILVMNRTQANL
TEGQPPRECAVTCRYDRASDLNVVTQARDSPTPLTGCKKGKNFSAGILMRGPCNFEIAASD
VLFKEHERISMFQDTTLVLDGLTNLEGARQGTAKLTTWLGKQLGILGKKLENKSKTWFG
AYAASPYCDVDRKIGIYIWYTKNCTPACLPKNTKIVGPGKFGTNAEDGKILHEMGGHLSEVLL
LSLVVLSDFAPETASVMYLILHFSIPQSHVDVMDCDKTQLNLTVELTTAEVIPGSVWNLGKYV
CIRPNWWPYETTVVLAFEEVSQVVKVLRALRDLTRIWNAATTAAFLVCLVKIVRGQMVGQI
LWLLLITGVQGHLDCKPEFSYAIAKDERIGQLGAEGLTTWKEYSPGMKLEDTMVIACEDG
KLMYLQRCTRETRYLAILHTRALPTSUVFKKLFDGRKQEDVVEMDNFEGLCPDAKPIVR
GKFNTLLNGPAFQMVCPIGWTVSCTSFMNDTLATTVVRTYRRSKPFPHRQGCITQKNLG
EDLHNCILGGNWTCVPGDQLLYKGGSIESCKWCGYQFKESEGLPHYPIGKCKLENETGYRLV
DSTSCNREGVAIVPQGTLKCKIGKTTVQVIAMDTKLGPMPCRPYEIISSEGPVEKTACTFNYTK

TLKNKYFEPRDSYFQQYMLKGEYQYWFDLEVTDHHRDYFAESILVVVALLGGRYVLWLL
VTYMLVSEQKALGIQYGSGEVMMGNLLTHNNIEVVVTYFLLYLLLREESVKWVLLLYHI
LVVHPIKSIVILLMIGDVVKADSGGQEYLGKIDLCFTTVVLIVIGLIIARRDPTIVPLVTIMAAL
RVTELTHQPGVDIAAVAVMTITLLMVSYVTDYFRYKKWLQCILSLSAFLIRSLIYLGRIEMPE
VTIPNWRPLTLILLYLISTTIVTRWKVDVAGLLQCVPILLVTTLWADFLTLLILPTEYELVKL
YYLKTVRTDTERSWLGGIDYTRVDSIYDVDESGEGVYLFPSRQKAQGNFSILLPLIKATLISCV
SSKWQLIYMSYLDFMYYMHRKVIEEISGGTNIISRLVAALIELNWSMEEEESKGLKKFYLL
SGRLRNLIHKVVRNETVASWYGEDEVYGMPIKMTIKAUTSKSRHCIICTVCEGREWGTT
CPKCGRHGKPTCGMSLADFEERHYKRIFIREGNFEGMCSCRCQGKHRRFEMDREPKSARYCA
ECNRLHPAEEGDFWAESSMLGLKITYFALMDGKVYDITEWAGCQRVGISPDTHRVPCHISFG
SRMPFRQEYNGFVQYTARGQLFLRNLPVLATVKMLMVGNLGEIGNLEHLGWILRGPAVC
KKITEHEKCHINILDKLTAFFGIMPRGTTPRAPVRFPTSLKVRRGLETAWAYTHQGGISSVDH
VTAGKDLLVCDSMGRTRVVCQSNNRLTDETEYGVKTDSGCPDGARCYVLNPEAVNISGSKG
AVVHLQKTGGEFTCVTASGTPAFFDLKNLKGWSGLPIFEASSGRVGRVKVGKNEESKPTKI
MSGIQTFSKNRADLTEMVKITSMNRGDFKQITLATGAGKTTELPKAVIEEIGRHKRLVLIP
LRAAAESVYQYMRLKHPISFNLRIGDMKEGDMATGITYASYGYFCQMPQPKLRAAMVEYS
YIFLDEYHCATPEQLAIIGKIHRSSESIRVVAMTATPAGSVTTGQKHPIEEFIAPEVMKGEDLG
SQFLDIAGLKIPVDEMKGMLVFVPTRNMAVEAKKLKAKGYNSSYSGEDPANLRVVT
QSPYVIVATNAIESGVTLPLDTVIDTGLKCEKRVRSKIPFIVTGLKRMAVTVGEQAQRRG
RVGRVKPGRYYRSQETATGSKDYHYDLLQAQRYGIEDGINVTKSREMNYDWSLYEEDSLI
TQLEILNNLLISEDLPAAVKNIMARTDHPEPIQLAYNSYEVQVPVLFPKIRNGEVTDTYENYSF
LNARKLGEDVPVYIYATEDEDLAVIDLLGLDPDGPQNQVVETGKALKQVTGLSSAENALLV
ALFGYVGYZQALSKRHPVPMITDIYTIEDQRLEDTHLQYAPNAIKTDGTETELKELASGDVEKI
MGAISDYAAGGLEFVKSQAEKIKTAPLFKENAEAKGYVQKFIDS LIENKEEIRYGLWGHTHT
ALYKSIAARLGHETAFAVLKWLAFGGESVSDHVQAAVDLVVYYVMNKPSFPGDSETQQ
EGRRFVASLFISALATYTWTWNYHNLSKVVEPALALPYATSALKMFTPTRLESVILSTTI
YKTYLSIRKGKSDGLGTGISAAMEILSQNPVGISVMLGVAIAAHNAIESSEQRTLLMK
VFVKNFLDQAATDELVKENPEKIIMALFEAVQTIGNPLRLIYHLYGVYYKGWEAKELERTA
GRNLFTLIMFEAFELLGMDSQGKIRNLSGNYILDLYGLHQINRGLKKMVLGWAPAPFSCD
WTPSDERIRLPTDNYLRVETRCPCGYEMKAFKNVGGKLTKEESGPFLCRNRPGRPVNYRV
TKYYDDNLREIKPVAKLEGQVEHYYKGVTAKIDYSKGKMLLATDKWEVEHGVTRLAKRYT
GVGFNGAYLGDEPNHRALVERDCATITKNTVQFLKMKKGCAFTYDLTISNLTRLIELVHRNN
LEEKEIPTATVITWLAYTFVNEDVGTIKPVLGERVIPDPVVDINLQPEVQVDTSEVGITIIGRET
LMTTGVTPVLEKVEPDASDNQNSVKIGLDEGNYPGPGIQTHLTTEEIHNRDARPFIMILGSRNS
ISNRAKTARNINLYTGNDPREIRDLMAGRMLVVALRDVDPPELSEMVDKGTFLDREALEAL
SLGQPKPKQVTKEAVRNLIEQKKDVEIPNWFAASDDPVFLEVALKNDKYYLVGDVGEKDQA
KALGATDQTRRIKEVGSRTYAMKLSSWFLKASNQMSLTPLFEELLRCPPATSNKGHMAS
AYQLAQGNWEPLCGVHLGTIPARRVKIHPYEAYLKLKDFIEEEKKPRVKDTVIREHNKWI
LKKIRFQGNLNTKMLNPGKLSEQLDREGRKRNIYNHQIGTIMSSAGIRLEKLPIVRAQTDTK
TFHEAIRDKIDKSENQNPELHNKLEIFHTIAQPTLKHTYGEVTWEQLEAGVNRKGAAAGFLE
KKNIGEVLDSEKHLVEQLVRDLKAGRKIKYYETAIPKNEKRDVSDDWQAGDLVVEKRPRVI
QYPEAKTRLAITKVMYNWVKQQPVIPGYEGKPLFNIFDKVRKEWDSFNEPVAVSFDTKA
WDTQVTSKDLQLIGEIQKYYYKKEWHKFIDTIDHMTEVPVITADGEVYIRNGQRGSGQPD
SAGNSMLNVLTMGYFCESTGVPYKSFNRVARIHVCGDDGFLITEKGLGLKFANKGMQILH
EAGKPQKITEGEKMKVAYRFEDIEFCSHTPVPRWSNDTSSH MAGRTA VILSKMATRLDSS
GERGTAYEKAVAFSFLLMYSWNPLVRRICLLVLSQQPETDSPSKHATYYYKGDPIGAYKDV
GRNLSELKRTGFEKLANLNSLSTLGWTKHTSKRIIQDCVAIGKEEGNWLVKPDRLISSKTG

HLYIPDKGFTLQGKHYEQLQLRTETNPVMGVGTERYKLGPIVNLLRLKILLMTAVGVSS
>DP00699|Q9IK91|#1-406

MDKLELVNDGLNIIDFIQKNQKEIQKTYGRSSIQQPSIKDQTKAWEDFLQCTSGESEQVEGGM
SKDDGDVERRNLEDLSSTSPTDGTIGKRVSNTRDWAEGSDDIQLDPVVTDVYHDHGGECT
GYGFTSSPERGWSDYTSGANGNVCLVSDAKMLSYAPEIAVSKEDRETDLVHLENKLSTTGL
NPTAVPFTLRNLSDPAKDSPVIAEHYYGLVKEQNVGPQTSRNVNLDISIKLYTSDDEEADQLE
FEDEFAGSSSEIVGISPEDEEPSSVGKPNEIGRTIEQGSIRDNLQAKDNKSTDVPGAGPKDS
AVKEEPPQKRLPMLAEEFECGSEDPIIRELLKENSINCQQGKDAQPPYHWSIERSISPDKTEI
VNGAVQTADRQRPGTPMPKSRGIPKKGTDAKYPSAGTENVPGSKSGATRHVRGSPPYQEGK
SVNAENVQLNASTAVKETDKSEVNPVDDNDSLDDKYIMPSDDFSNTFFPHDTDRLNHYADH
LGDYDLETLCESVLMGVINSIKLINLDMRLNHIEQVKIEPKINKLESIDRVLAKTNALSTIE
GHLVSMIMIPGKGKGERKGKNNPELKPVIGRDILEQQSLFSFDNVKNFRDGSLTNEPYGAA
VQLREDLILPELNFEETNASQFVPMADDSSRDVIKTLIRTHIKDRELSELIGYLNAENDEEIQ
EIANTVNDIIDGNI

>DP00412|P0A6G1|#17-31

MNIRPLHDRVIVKRKEVETKSAGGIVLTGSAAKSTRGEVLAGNGRILENGEVKPLDVKVG
DIVIFNDGYGVKSEKIDNEEVLIMSESIDLAIIVEA

>DP01984|B4Y891|#1-213

MAADGYLPDWLEDNLSEGIREWWDLKPGAPPKANQQKQDDGRGLVLPGYKYLGPNGLD
KGEPVNAADAAAELHDKAYDQQLKAGDNPYLRYNHADAEOFQERLQEDTSFGGNLGRAVFQ
AKKRVLEPLGLVEEGAKTAPGKKRPLESPQEPDSSSGIGKKGKQPAKKRLNFEEDTGAGDGP
PEGSDTSAMSSDIEMRAAPGGNAVDAGQQGSDGVGNASGDWHCDSTWSEGKVTTSTRTWV
LPTYNNHLYLRLGTTNSNTYNGFSTPWGYFDFNRFHCFSPRDWQRLINNNWGLRPKAMR
VKIFNIQVKEVTTSGETTVANNLSTVQIFADSSYELPYVMDAGQEGLPPFPNDVFMVPQY
GYCGIVTGENQNQTDRNAFYCLEYFPSQMLRTGNNFEMAYNFEKVPFHSMYAHSQSLDRM
NPLLDQYLWHLQSTTSGETLNQGNAATTFGKIRSGDFAFYRKWNLPGPCVKQQRFSKTASQ
NYKIPASGGNALLKYDTHYTLNNRWSNIAPGPPMATAGPSDGFDSNAQLIFPGPSVTGNTTS
ANNLLFTSEEEIAATNPRDTDMFGQIADNNQNATTAPITGNVTAMGVLPGMWQNRIYYQ
GPIWAKIPHADGHFHPSPILLGGFGLKHPPPQIFIKNTPVPANPATTFTAARVDSFITQYSTGQVA
VQIEWIEKERSKRWNPEVQFTSNYGNQSSMLWAPDTGKYTEPRVIGSRYLTNHL

>DP00546|Q9NX55|#1-129

MRRRGEDMATEGDVELELETETSGPERPPEKPRKHDSGAADLERVTDYAEKEIQSSNLETA
MSVIGDRRSREQKAKQEREKELAKVTIKKEDLELIMTEMEISRAAAERSLREHMGNVVEALI
ALTN

>DP00968|Q60795|#1-98

MMDLELPPPGLQSQQDMDLIDILWRQDIDLGVREVDFSQRQKDYELEKQKKLEKERQEQL
QKEQEKAFFAQQLDEETGEFLPIQPAQHIQTDTSGSASYSQVAHIPQDALYFEDCMQLLAE
TFPFVDDHESLALDIPSHAESSVFTAPHQAQSLNSSLEAAMTDLSSIEQDMEQVWQELFSIPEL
QCLNTENQLADTTAVPSPEATLTEMDSNYHFYSSISLEKEVGNCGPHFLHGFEDSFSSILST
DDASQLTSLDSNPTLNTDFGDEFYSAFIAEPSDGGSMPSAAISQSLSELLDGTIEGCDLSLCKA
FNPKHAEGTMFNDSDSGISLNTSPSRASPEHSVESSIYGDPPPGFDSEMEELDSAPGSVKQN
GPKAQPAHSPGDTVQPLSPAQGHSAPMRESQCENTTKKEPVSPGHQKAPFTKDKHSSRLEA
HLTRDELRAKALHIPFPVEKIINLPVDDFNEMMSKEQFNEAQLALIRDIRRGGKNKVAACNCR
KRKLENIVELEQDLGHLKDEREKLREKGENDRNLHLLKRRRLSTLYLEVFSMLRDEDGKPYS
PSEYSLQQTRDGNVFLVPKSKPDTKNN

>DP01840|P38968|#770-1100

MVKLAEFSRTATFAWSHDKIPLLVSGTVSGTVDANFSTDSSLELWSLLAADSEKPIASLQVDS

KFNDLDWSHNNKIIAGALDNGSLEYSTNEANNAINSMARFSNHSSSVKTVKFNAKQDNVLA
SGGNNGEIFIWDMNKCTESPSNYTPLTPGQSMSSVDEVISLAWNQSLAHVFASAGSSNFASIW
DLKAKKEVIHLSYTSPNSGIKQQLSVVEWHPKNSTRVATATGSDNDPSILIWDLRNANTPLQT
LNQGHQKGILSLDWCHQDEHLLSSGRDNTVLLWNPESAEQLSQFPARGNWCFKTKFAPEA
PDLFACASFDNKIEVQLQNLNTLDEQETETKQQESETDFWNNVSREESKEKPTVFHLQAPT
WYGEPSAAHWAFGGKLVQITPDGKGVSITNPKISGLESNTLSEALKDFKPLINQRLVKVI
DDVNEEDWNLLEKLSMDGTEFLKEALAFNDESDAQDDANNEKEDDGEEFFQQIETNFQP
EGDFSLSGNIEQTISKNLVSGNIKSAVKNSLENDLLMEAMVIALDSNNERLKESVKNAYFAKY
GSKSSLRILYSISKREVDDLVENLDVSQWKFISKAIQNLYPNDIAQRNEMLIKLGDRLKENGH
RQDSLTYLAAGSLDKVASICLSEFPDLEDLKDDNKTIEAHSECLTEFIERFTVFSNFINGSS
TINNEQLIAKFLEFINLTSTGNFELATEFLNSLPSDNEEVKTEKARVLIASGKSLPAQNPATAT
TSKAKYTNAKTNKVPVLPTPGMPSTSIPSMQAPFYGMTPGASANALPPKPYVPATTSAPV
HTEGKYAPPSQPSMASPFVNKTNSTRLNSFAPPNPYATATVPATNVSTTSIPQNTFAPIQPG
MPIMGDYNAQSSIPSQPPINAvgQTPHLNRKANDGWNDLPLKVKEKPSRAKAVSVAPPN
STPTPLNGIPANAAMTPPPPLSRAPSSVSMVSPPLHKNRSVPSLVATSESPRASISNPYAPPQS
SQQFPIGTISTANQTSNTAQVASSNPYAPPPQQRVATPLSGGVPPAPLPKASNPYAPTATTQPN
GSSYPTGPYTNHMTSPPPVPNKPPTGPPISMKKRSNKLASIEQNPSQGATYPPTLSSASP
LQPSQPTLASQVNTSAENVSHEIPADQQPIVDFLKEELARVTPLTPKEYSKQLKDCDKRLKIL
FYHLEKQDLLTQPTIDCLHDLVALMKEKKYKEAMVIHANIATNHAQEGGNWLTGVKR
AEATLN

>DP01968|A4C1A5|#1-86

MAKSQQTFSKSEKEKRLKKRQDKQKKMDARKADRDEHGPGSIQFAYVDHGNLTDTPPD
PELKVEYELEDIQISVSKKEDLPEEDPVRKGKVSSFDSSKGFGFIIDMENNEKYFTHVSGLIDDI
VENDKVSFELERGMRGMNAVKT
KI

>DP01825|P25644|#5-24 #55-79 #422-469

MSFFGLENSGNARDGPLDFEESYKGYGEHELEENDYLNDETFGDNVQVGTDFFGNPHSSGS
SGNAIGGNGVGATARSYVAATAEGISGRTDGTAAAGPLDLKPMESLWSTAPPAMAPSPQS
TMAPAPAPQQMAPLQPILSMQDLERQRQMQQQFMNFHAMGHPQGLPQGPPQQFPMQPA
SGQPGPSQFAPPPPPGVNVNMNQMPMGPVQPVQASPSPIGMSNTPSPGPVVGATKMPLQS
GRRSKRDLSPEEQRLQIRHAKVEKILKYSGLMTPRDKFITRYQLSQIVTEDPYNEDFYFQV
YKIIQRGGITSESNKGLIARAYLEHSGHRLGGRYKRTDIALQRMQSQVEKAVTAKERPSKLK
DQQAAAGNSSQDNKQANTVLGKISSTLNKNPRRQLQIPRQQPSDPDALKDVTDSLTVN
DLASSGSSSTGSSAAA VASKQRRRSSYAFNNGNGATNLNKGKFILELIETVYEEILDLEANLRN
GQQTDESTAMWEALHIDDSSYDVNPFIMLSFDKGKIMPRIFNFLDKQQKLKILQKIFNELSHL
QIIILSSYKTPKPTLTQLKKVDLFQMIILKIIVSFLSNNNSNIEIMGLLQLIRNNNVSFL
ITSKIG LNLITILISRAALIKQDSSRSNILSSPEISTWNEIYDKLFTSLESKIQLIFPPREYNDH
IMRLQNDKF MDEAYIWQFLASLALSGKLNHQRIIDEVREIFATINEAETLQKKEKELSVLP
QRSQELDT ELK KSIIYNKEKLYQDLNLFLNVMGLVYRDGEISELK

>DP00775|P15311|#130-150 #506-586

MPKPINVRVTTMDAELEFAIQPNTTGKQLFDQVVKTIGLREVWYFGLHYVDNKG
FPTWLKL DKKVSAQEVRKENPLQFKFRAKFYPEDVAELIQQDITQKLFFLQVKE
GILSDEIYCPPETAVLL GSYAVQAKFGDYNKEVHKSGYLSSERLIPQRVMDQHKL
TRDQWEDRIQVWHAEHRGMLKD NAMLEYLKIAQDLEMYGINYFEIKNKK
GTDLWLGVDALGLNIYEKDDKLTPKIGFPWSEIRNI SFNDKKFVIK
PIDKKAPDFVYAPRRLINKRILQLCMGNHELYMRRRK
PDTIEVQQMKAQAR EEKHQK
QLERQQLETEKKRRETVEREKEQMMREKEMLRLQDYEEK
TKKAERELSEQIQR ALQLEE
ERKRAQEEAERLEADRMAALRAKEELRQA
VDQIKSQEQLAAELAEYTA
KIALLEE ARRRKEDEVEEWQHRAKEAQDDLVKTKEELHLVMT APPPPP
VYEPVSYHVQESLQDEGA

EPTGYSAEELSSEGIRDDRNEEKRITEAEKNERVQRQLTLSSELSQARDENKRTHNDIIHNENM
RQGRDKYKTLRQIRQGNTKQRIDEFEAL

>DP01863|O75533|#1-462 #190-340 #378-424

MAKI AKT HEDIEAQIREIQGKKA ALDEAQGVGLDSTGYYDQEYGGSDSRFAGYVTSIAATEL
EDDDDDYSSSTSLLGQKPGYHAPVALLNDIPQSTEQYDPFAEHRPPKIA DREDEYKKHRR
MIISPERLDPFADGGKTPDPKMNARTYMDVMREQHLTKEEREIRQQLAEKAKAGE LKV VNG
AAASQPPSKRKRRWDQTADQTPGATPKKLSSWDQAETPGHTPSLRWDETPGRAKGSETPGA
TPGSKIWDPTPSHTPAGAATPGRGDTPGHATPGHGGATSSARKNRWDETPKTERDTPGHGSG
WAETPRTDRGGDSIGETPTPGASKRKS RWDETPASQMGGSTPVLTGKTPIGTPAMNMATPT
PGHIMSMTPEQLQAWRWEREIDERNRPLSDEELDAMFPEGYKVLPPPAGYVPI RTPARKLTA
TPTPLGGMTGFHMQTEDRTMKSVDQPSGNLPFLKPDDI QYFDKLLVDVDESTLSPEEQKER
KIMKLLLKIKNGTPPMRKAALRQITDKAREFGAGPLFNQILPLMSPTLEDQERHLLVKVIDRI
LYKLDLV RP YVHKILV VIEPLLIDEDYYARVEGREIISNLAKAAGLATMISTMRPDIDNMDE
YVRNTTARAFAVVASALGIPSLLPFLKAVCKSKSWQARHTGKIVQQAILMGCA ILPHLRS
VEIIEHGLVDEQQKV RTISAL AIAA LAEAATPYGIESFDSVLKPLWKGIRQHRGKG LA AFLKAI
GYLIPLMDAEYANYYTREVMLILIREFQSPDEEMKKIVLKVV KQCCGTDGVE ANYIKTEILPP
FFKHF WQH RMA LD RR NYRQLVDTTVELANKVGAAEII SRIVDDLKDEAEQYRKMVMETIEKI
MGNLGAADIDHKLEEQLIDGILYAFQEQT TEDS VMLNGFGTVVN ALGKRVKP YLPQICGTVL
WRLNNKSAKVRQQAADLISRTAVVMKTCQEEKLMGHLGVV LY EYLGE EYPEV LGSILGALK
AIVNVIGMHKMT PPIKDLPLR LTIPLKRN RHEK VQENCIDL VGR IADRGAEYVS AREWM RICFE
LLELLKAHKKAIR RATVNTFGYIAKAIGPHDVLA TLLNNLK VQER QNRVCTTVAIAIV AETCS
PFTVLPALMNEYRVPELNVQNGVLKSLSL FEYIGEMGKD YIYAVT P LLEDALMDRDLVHRQ
TASAVVQHMSLGVYGF CEDSLN HLLNYVWP NVFETSPHVIQAVMGALEG LRV AIGPCRML
QYCLQGLFHPARKV RDVYWKIYNSIYIGSQ DALIAHYPRIY NDDKNTYI RYELDYIL

>DP00177|Q9Y5B0#879-961

MEVPAAGR VPAEGAPTA AAEVRCGPAPL RLLEWRVAAGAA VRIGSVL AVF EAA ASA QSS
GASQSRV ASGGCVRPARPERR SERAGV VRELCAQPGQV VAPGAVL VRLEGCSHPV VMKG
LCAECGQDLTQLQSNGKQQVPLSTATVSMVHSVP ELMVSSEQAEQLGREDQQLR HNRK L
VLMV DLDQ TLI HTTEQHC QQMSNK GIFH FQLGR GEPM LHT RL PHCKDF LEKIA KLYELHV F
TF GSRL YAHTIAGFLDPEKKLF SHRIL S RDECIDPFSKTGNLRNLF PCGDS M VCI IDDREDV WK
FAPNLITVKKVYFQGTGDMNAPP GSRESQTRKKV NHSGTEVSEPSPPV RDPEGVTQAPGV
EPSN GLEK PAREL NGSEAATPRDSPR PGK PDERDIWPPA QAPTSSQ ELAGA PEPQ GSCA QG GR
VAPGQRPAQGATGTDLDFLSSD SESS SEGT KSSSSA SDGE SEG KRG RQKP KA APEGAG AL
AQGSSLEPGRPAAPSLP GEAEPGAHAPDKEPELGGQEEGERD GLC GLNG CADR KEAETES Q
NSELSGV TAGESLDQSMEEE EEDT DEDDH LIY LEEIL VRVHTD YYAKYDRYLNKEIEEAPDI
RKIVPEL SKV LADV AII FSGL HPTNFPIEKTREHYHATALGAKILTRLV LSPDAPDRATHLIA A
RAGTEKVLQAQECGHLHVNPDWLWSCLERWDKVEEQLFPLR DDTKAQREN SPAFP DR
EGVPTALFHPMPVLPKAQPGPEV RIYDSNTGKLIRTGARGPPAPSSLPIRQEPSSFRAV PPPQ
PQMFGEELPDAQDGEQPGPSRRKRQPSMSETMPLYTLCKEDLESMDKEVDDILGE GEGS DSDS
EKRRPEE QEEEPQPRKPGTRRERTLGAPASSERSAAGGRGPRGHKRKLNEEDAASESSRESSN
EDEGSSEADEMAKALEAELNDLM

>DP01914|Q96RI1#275-290

MVMQFQGLENP IQISPHCSCTPSGFFMEMMSM KPAKGVLTEQVAGPLGQNLEVEPYSQYSN
VQFPQVQPQI SSSYYSNLGFPQPEEWYSPGIYELRRM PAETLYQGETEVAE MPVTKKPR
MGASAGRIKGDEL CVVCGDRASGYHYNALTCEGCKGFFRSITK NAVYKCKNGGN CVM DM
YMRRKCQECRLRKCKEMGMLAECMYTGLL TEI QCKSKRLRKNVQHADQ TVNEDSEGRDL
RQVTSTKSCREKTEL TDQ QTLLHFIMDSYNKQRMPQEITNKILKEEFS AEE NFL TEMATN

HVQVLVEFTKKLPGFQTLDHEDQIALLKGSAVEAMFLRSAEIFNKKLPSGHSDLLEERIRNSGI
SDEYITPMFSFYKSIGELKMTQEYALLTAIVLSPDRQYIKDREAVERKLQEPLLDVQLKLCI
HQOPENPQHFACLLGRLTELRTFNHHAEMLMSWRVNDHKFTPLLCEIWVDVQ

>DP01951|P04083|#1-14 #2-26 #116-185

MAMVSEFLKQAWFIENEEQEYVQTVKSSKGPGSAVSPYPTFPNPSSDVAALHKAIMVKGV
EATIIDILTKRNNAQRQQIKAAYLQETGKPLDETLKKALTGHLEEVVLALLKTPAQFDAELR
AAMKGLGTDEDLIEILASRTNKEIRDINRVYREELKRDLAKDITSDTSGDFRNALLSLAKGD
RSEDFGVNEDLADSDARALYEAGERRKTDVNPFNTILTRSYPLRRVFQKYTKYSKHD
NKVLDELKGDIKCLTAIVKCATSKPAFFAEKLHQAMKGVGTRHKALIRIMVSSEIDMNDI
KAFYQKMYGISLCQAILDETKGDYEKILVALCGGN

>DP00398|P07342|#580-595 #647-687

MIRQSTLKNFAIKRCFQHIAZRNTPAMRSVALAQRFYSSSSRYYASASPLPASKRPEPAPS
PLEQPAEPSKLAKKLRAEPDMDSVGLTGGQIFNEMMSRQNVDVTFGYPGGAILPVYDAIH
NSDKFNFVLPKHEQGAGHMAEGYARASGKPGVVLVTSGPGATNVVTPMADAFADGIPMV
FTGQVPTSAIGTDAFQEADVVGIRSCTKWNVMVKSVEELPLRINEAFEIATSGRPGPVLVDLP
KDVTAAILRNPIPTKTLPSNALNQLTSRAQDEFVMQSINKAADLINLAKPVLYVGAGILNH
ADGPRLLKELSRAQIPVTTLQGLGSFDQEDPKSLDMLGMHGATANLAVQNADLIIAVGA
RFDDRTGNISKFAPEARRAAAEGRGGIIHFEVSPKNINKVVTQIAVEGDATTNLGKMMMSKI
FPVKERSEWFAQINKWKKEYPYAYMEETPGSKIKPQTVIKKLSKVANDTGRHVIVTTGVGQH
QMWAQHWTWRNPHTFITSGLGTMGYGLPAAIGAQVAKPESLVIDIDGDASFNMTEL
SAVQAGTPVKILLNNEEQGMVTQWQSLFYEHRYSHTHQLNPDFIKLAEAMGLKGLRVKKQ
EELDAKLKEFVSTKGPVLLEVVEDKKVPVLMVAGGSLDEFINFDPEVERQQTELHKRTG
GKH

>DP00102|P10587|#200-217 #406-415 #452-457 #573-577 #627-656

MSQKPLSDDEKFLFVDKNFVNNPLAQADWSAKKLWWVPSEKHGFEAASIKEKGDEV
QENGKKVTLSKDDIQKMNPBKFSKVEDMAELTCNEASVLHNLRERYFSGLIYTYSGLFC
NPYKQLPIYSEKIIDMYKGKKRHEMPPHIYAIADTAYRSMLQDREDQSILCTGESGAGKTENT
KKVIQYLAVVASSHKGKDKTSITQGPSFSYGELEKQLQANPILEAFGNAKTVKNDN
SSRGK FIRINFDTGYIVGANIETYLLEKSRAIRQAKDERTFHIFYLIAGASEQMRND
LLLEGFNNYTF LSNGHVPPIPQQDDEMFMQETLEAMTIMGTEEEQTSILRVVSS
VQLGNIVFKKERNTDQASM PDNTAAQKVCHLMGINVDFTRSI
LTPTRIKVGRDV
VQKAQTKEQADFAIEALAKAKFERLFR WILTRVN
KALDKTKRQGASFLGILD
IAGFEIFEINSFEQLCINY
NEKLQLQFNHTMFILEQEEY QREGIEWNFIDFGLDLQPCIEL
IERPTNPPGV
ALLDEECWF
PKATDTSF
VKEKL
IQE
QGN
HAKF QKS
KQL
DK
KTE
CIL
HYAG
KVTY
NASAW
LT
KNMD
PL
DN
V
TS
LN
QSS
DK
F
V
ADL
W
DVD RIV
GLD
QMA
KT
TE
SSL
PS
ASK
TK
KG
MF
RT
VG
QLY
KE
QL
TK
LM
T
LR
NT
NP
NF
VR
CI
IP
HEK RAG
KLD
AHL
VLE
QL
RC
NG
V
LEG
IR
IC
RQ
GF
PN
RIV
F
QE
FR
Q
RY
E
ILA
ANA
A
IP
KG
F
MD
GK
Q
ACI LMI
KALE
LD
PN
LY
RIG
QS
KIFF
RT
GV
LA
H
LEE
ER
DL
KIT
D
V
II
A
F
QA
QC
RG
YL
ARK
A
FA
KR
QQ
LT
AM
KVI
QR
NCA
AY
L
K
RN
W
Q
W
R
L
FT
K
V
K
P
L
L
Q
V
T
R
Q
EE
EM
Q
AK
DE
EL
Q
RT
K
ER
QQ
KA
E
A
EL
KE
L
Q
K
H
T
Q
L
C
E
E
K
N
L
Q
A
E
T
Y
A
E
A
E
M
R
V
R
L
A
A
K
K
Q
E
E
E
I
L
H
E
M
E
A
R
I
E
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q
S
K
I
F
F
R
T
G
V
L
A
H
L
E
E
R
D
L
K
I
T
D
V
I
I
A
F
Q
A
Q
C
R
G
Y
L
A
R
K
A
F
A
K
R
Q
Q
Q
K
A
E
A
E
E
E
R
S
Q
Q
L
Q
A
E
K
K
M
Q
Q
M
L
D
L
E
E
Q
L
F
R
Q
R
Y
E
I
L
A
A
N
A
I
P
K
G
F
M
D
G
K
Q
A
C
I
L
M
I
K
A
L
D
P
N
L
Y
R
I
G
Q

LVVDLDNQRQLVSNLEKKQKKFDQMLAEEKNISSKYADERDRAEAEAREKETKALSLARAL
EEALEAKEELERTNKMLKAEMEDLVSSKDDVGKNVHELEKSRTLEQQVEEMKTQLEELED
ELQAAEDAKLRLEVNMQAMKSQFERDLQARDEQNEEKRRQLLQLHEHETELEDERKQRA
LAAAACKKLEVDVKDLESQVDSANKAREEAIKQLRKLQAQMKDYQRDLDDARAAREEIFA
TARENNEKKAKNLEAEIQLQEDLAAAERARKQADLEKEEMAELASANSGRTSLQDEKRL
EARIAQLEELDEEHSNIETMSDRMRKAVQQAEQLNNELATERATAQKNENARQQLERQNK
ELRSKLQEMEGAVKSFKSTIAALEAKIASLEEQUEAREKQAAAKTLRQKDKKLKDALLQ
VEDERKQAEQYKDQAEKGNLRLKQLRKQLEEAEEESQRINANRRKLQRELDEATESNDALG
REVAALKSKLRRGNEPVSFAPPRRSGGRRVIENATDGGEEDIDGRDGDFNGKASE

>DP00278|P08050|#255-316 #326-341 #346-382

MGDW SALG KLL DVQAY STAGG KVW LSV LFIF RILL GTAV E AWG D EQSA FRC NT Q Q PGC
ENV CY DK SFPI SHV RF WVL QI IF VS VPT LL YLA HV FY VM RKEE KLN KKEE EL KV A QT DG VNV
EMHL KQIE KKF KYG IEE HG KV KM RG GL RTY IIS IL F KV S F EV AF LLI QW YI YGF SLS A VY TC
KRDP CPH QV DCFL SRP TEK TIFI FML VV SL VSL AL NI ELY VFF KV KDR V KGR SD PY HATT
GPLSPSKDCGSPKYAYFNGCSSPTAPLSPMSPPGYKLVTGDRNNSSCRN Y NKQASEQN W ANY
SAEQNRMGQAGSTISNSHAQPFDFPDDNQNAKKVAAGHELQPLAIVDQRPSSRASSRASSRP
RP D D LEI

>DP01014|O94742|#1-89

MSTDV AAA QA QSK ID LT KK NEE IN KKS LEED DE FED F PID TWAN GET IKS NAV T QT NI WEEN
WDDV E V D D D FT NEL KAEL DRY KRENQ

>DP01789|A0A1Z3GD08|#1-136

MAEEKHHHLFHHKEGEDFQPAADGGVDTYGYSTETVVTATGNDGEYERITKEEKHHKHKE
HLGEMGAAAAGAFALYEKHEAKKDPEHAHKHKEEEEVAAAAAVGAGGFVFHEHHEKKQD
HKEAKEASGEKHHHLFG

>DP00915|Q5JH72|#1-27

MDRK LDEF IGDATPKKV SKEKP VRRK RLKPT SLD SFLPEEHINYFRDLRIGSKKIRNAKIEEL
>DP02163|Q02388|#1940-1978

MTLRL LVA AL CAG IL AE APR VRA QHR ER VT CT RLY A ADIV FLL DGSS SIG RSN F REV RS FLEG
LVLPFSGAASAQGVRFATVQYSDDPRTEFGLDALGSGGDVIRAI REL SY KGGN RTGA AILHV
ADHVFLPQLARP GVPKVCILITDGKSQDLVDTAAQRLKGQGVKLFAVGIKNADPEELKRVAS
QPTS DFFF VND FSIL RTLL PLV SRR VCT TAGG VPV TRP DD STSAP RD VL SEP SS QSL RVQW
TAASGPV TGY KV QYT PLT GLG QPL PSER QEV NV PA GET SVR LRL RPL TEY QVT VIALY ANSI
GEAVSGT ART TALE GP EL TI QNT TAHS LL VAW RSV PG AT GY RVT W RV LSGG PT QQ QEL GP
QGSVLL RD LEP GTD YEV TV STLF GR SVGP AT SLM ART DAS VE QTL RP VIL GPT SILL SW NL VPE
ARGYR LEWR RET GLE PPQ KV VLP PSDV TRY QLD GLQ PG TEY RLT LY TL LEG HEV AT PAT VV PT
GPELPVSPVTDLQATELPGQR VR VWS PV PG AT QY RI IV RST QG VERT LV LG SQT AF D LDD V
QAGL SYTV RVS ARV GP REG SAS VLT V REP ET PLA VPG LRV VV SDAT RV RA WGP VPG AS G
FRISWSTGSGPESSQTLPPDSTATDITGLQPGTTYQVA VSL RG REEG PA AV VART DPL GP V R
TVHVTQASSSSVTITWTRVPGATGYRVSWHSAHGPEKSQLVSGEATVAELDGLEPDTEYTVH
VRAHVAGV DGP PASVV VRTA PE PVGRV SRL QIL NASS DVL RIT WVG VGT GAT AY RLA WGR SE
GGPMRHQILPGNTDSA EIR GLE GG VSY SVR VT ALVG DREG TPV SIV VTP PE APP ALG TLH VV
QRGEHSLRLRWE PV PRA QG FLL HW QPEGG QE QS RVL GPEL SSY HLD GL EPAT QY RV RLS VL G
PAGE GPS A E VT ART E SP RVPSI EL RVV DT SIDS VTL AW TPV S RASSY ILS WRPL RG PG QEV PGS
PQ TL PG I SSS QR V T GLE PG VSY IFS LTP VLD GVR GPE AS VT QTP VCP RGL ADV VFL PHAT QDNA
HRAEAT RRV LER LVL ALG PL GP QAV QV GLL SY SHR P S PL FPL NG SHDL GIIL QRI RD MPY MDP
SGNNL GTAV VTA HRY ML APD AP GRR QH VP GVM LL VDE PL RG DI FSPIRE A QAS GL NV VML
GMAGADPEQLRRLAPGMDSVQTFFAVDDGPSLDQAVSGLATALCQASFTTQPRPEPCPVYCP

KGQKGEPEMGLRGQVGPPGDPGLPGRTGAPGPQGPPGSATAKGERGFPGADGRPGSPGRA
GNPGTPGAPGLKGSPGLPGRDPGERGPRGPKEPGAPGQVIGGEGPGLPGRKGDPGPSPGPP
GPRGPLGDPGPRGPPGLPTAMKGDKGDKGDRGERGPPGPGEGGIAPGEPLPGLPGSPGPQGPV
GPPGKKGEKDSEDGAPGLPQPGSPGEQGPRGPPGAIGPKGDGRGFPGLGEAGEKGERGPP
GPAGSRLPVGAGRGAKGPEGPPGPTGRQGEKGEPEGRGPDAVVGPAVAGPKGEKGDVGP
AGPRGATGVQGERGPPGLVLPGDPGPKGDPGDRGPIGLTGRAGPPGDSGPGEKGDGRPGP
PGPVGRGRDGEVGEKGDEGPPGDPGLPGKAGERGLRGAPGVRGPVGEKGDQGDGEDGR
NGSPGSSGPKGDRGEPEGPGPGRGLVDTGPGAREKGEPEGDRGQEGPRGPKGDPGLPGAPGER
GIEGFRGPPGPQGDGPVVRGPAGEKGDRGPPGLDGRSGLDGKPKGAAGPSGPNGAAGKAGDPG
RDGLPGLRGEQGLPGPSGPPGLPGKPGEDGKPGLNGKNGEPEGDPGEDGRKGEKGDSGASGR
EGRDGPKGERGAPGILGPQGPGLPGVGPPGQGFPGVPGGTGPKGDRGETGSKGEQGLPGE
RGLRGEPGSVPNVDRLLETAGIKASALREIVETWDESSGSFLPVPERRRGPKGDSGEQGPPGK
EGPIGFPGERGLKGDRGDPGPQGPGLALGERGPPGPSGLAGEPGKPGIPGLPGRAGGVGEAG
RPGERGERGEKGERGEQGRDGPPGLPGTPGPPGPVKVSVDEPGPGLSGEQGPPGLKGAKG
EPGSNGDQGPKGDRGVPGIKGDRGEPEGPGRQDGPNPLGERGMAGPEGKPGLQGPRGPPGP
VGGHGDPGPPGAPGLAGPAGPQGPGLKGEPEGETGPPGRGLTGPTGAVGLPGPPGSLVGP
QGSPGLPGQVGETKPGAPGRDGASGKDGDRGSPGVPGSPGLPGVGPKGEPGPTGAPGQA
VVGLPGAKGEKGAPGGLAGDLVGEPEGAKGDRGLPGPRGEKGEAGRAGEPEGDPGEDQKGA
PGPKGFKGDPGVGVPGSPGPVGPKVGDGLPLPGAPGVVGFPGQTGPRGEMQPGPSGE
RGLAGPPGREGPGLPGPPGSVGPPGASGLKGDKGDPGVGLPGPRGERGEPEGIRGEDGRP
QEGRPRGLTGPPGSRGERGEKGDVGSAGLKGDKGDSAVILGPPGPRGAKGDMGERGPRGLD
GDKGPRGDNGDGPDKGSKGEPGDKGSAGLPGLRLGPQGQGAAGIPGDPGSPGKDGVPG
IRGEKGDVGFMGPRGLKGERGVKGACGLDGEKGDKGEAGPPGRGLAGHKGEMGEPGVPG
QSGAPGKEGLIGPKGDRCFDGQPGPKGDQGEKGERGTPGIGGFPGPSNDGSAGPPGPPGSV
GPRGPEGLQQQKGERGPPGERVVGAPGVPGAPGERGEQGRGPAGPRGEKGEAALTDIRG
FVRQEMSQHCACQQQFIASGSRPLPSYAADTAGSQLHAVPVLRVSHAEEERVPPEDEYSE
YSEYSVEEYQDPEAPWDSDDPCSLPLDEGSCTAYTLRWYHRAVTGSTEACHPFVYGGCGGN
ANRGFTREACERRCPRVVQSQGTGTAQD

>DP0003|P03265|#174-179 #294-334 #454-464

MASREEEQRETTPERGRGAARRPPTMEDVSSPSPPPPRAPPKKRMRRRIESEDEEDSSQDAL
VPRTPSRPSTSAADLAIAPKKKKRPSPKPERPPSPEVIVDSEEEREDVALQMVGFSNPPVLIK
HKGGGKRTVRLNEDDPVARGMRTQEEEEEPSEAESEITVMNPLSVPIVSaweKGMEAARA
LMDKYHVDNDLKANFKLLPDQVEALAAVCKTWLNEEHRLQLTFTSKTFVTMMGRFLQA
YLQSFAEVTYKHEPTGCALWLHRCAEIEGELKCLHSIMINKEHVIEMDVTSENGQRALK
QSSKAKIVKNWRGRNVVQISNTDARCCVHDAACPANQSGKSCGMFFSEGAKAQAFKQIK
AFMQALYPNAQTGHGHLLMLRCECNKPGHAPFLGRQLPKLTPFALSNAEDLDADLISDKS
VLASVHPALIVFQCCNPVYRNSRAQGGGPNCDFKISAPDLLNALVMVRSLWSENFTELPRM
VVPEFKWSTKHQYRNVSLPVAHSDARQNPFD

>DP01278|Q68DK7|#558-568

MTMRSAVFKAAAAPAGGNPEQRLDYERAALGGPEDEPGAAEAHFLPRHRKLKEPGPPLAS
SQGGSPAPSPAGCGGKGRGLLPAGAAPGQQEESWGSVPLCPPPPATKQAGIGGEPAAGA
GCSRPKYQAVLPIQTGSLVAAAKEPTPWAGDKGGAAASPAAATASDPAGPPPLPLGPPPPLAPT
ATAGTLAASEGRWKSMRKSPLGGGGSGASSQAACKQILLQLDLIEQQQQQLQAKEKEIE
ELKSERDTLLARIERMERRMQLVKKDNEKERHKLQFYETEEERETESEKIKLECPPELSET
SQLPPKPFSCGRSGKGHKRKSPFGSTERKTPVKLAPEFSKVKTTPKHSPIKEEPCGSLSET
VCKRELRSQETPEKPRSSVDTPPRLSTPKGPSTHPKEKAQSSEIEDLPYLS TEMYLCRWHQP
PPSPLPLRESSPKKEETVARCLMPSSVAGETSVLAVPSWRDHSVEPLRDPNPSDLLENLDDSVF

SKRHAKLELDEKRRKRWDIQRIREQRILQLQLRMYKKGIQESEPEVTSFFPEPDDVESLMIT
PFLPVVAFGRPLPKLTPQNFEWPWLDERSRCRLEIQKKQTPHRTCRK
>DP00932|P35926|#1-76
MKTIEQKIEQCRKWQKAARERAIRQREKLADPVWRESQYQKMRDTLDRIAKQKERPPAS
KTRKSAVKIKSRGLKGRTPTAEERRIANALGALPCIACYMHGVISNEVSLHHIAGRATPGCHK
KQLPLCRWHHQHAAPAEVREKYPWLVPVADGVVGGKEFTLLNKSEMELLADAYEMANI
MH
>DP01776|Q8GYN5|#1-211
MARSNVPKFGNWEAEENVPYTAYFDKARKTRAPGSKIMNPNDPEYNSDSQSQAPPSSRT
KPEQVDTVRRSREHMRSEEESELKQFGDAGGSSNEAANKRQGRASQNSYDNKSPLHKNSY
DTGKSRPKPTNLRADESPEKVTVPKFGDWENNPPSADGYTHIFNKVREERSSGANVSGS
SRPTHQSSRNPNNTSSCCCFGFGGK
>DP02204|Q5UB51|#1413-1438
MNNQRKKTGKPSINMLKRVNRVSTGSQLAKRFSRGLLNGQGPMKLVMafiaFLRFLAIPT
AGVLARWGTFFKSGAIKVLFKGKKEISNMLSIINKRKKTSLCLMMILPATLAFHTSRDGEPR
MIVGKNERGKSSLFKTASGINMCTLIAMDLGEMCDDTVTYKCPLIAEVEPEDIDWCNLTST
WVTYGTNCAGEHRRDKRSVALAPHVGMLDTRTQTWMSAEGAWRQVEKVTWALRHP
GFTILALFLAHYIGTSLTQKVVFILLMLVTPSMTMRCVGVGNRDFVEGLSGATWVDVVLEH
GGCVTTMAKNKPTLDIELQKTEATQLATLRKLCIEGKITNITDSRCPTQGEAILPEEQDQNYV
CKHTYVDRGWNGCGLFGKGSVTCAKFQCLEPIEGKVVQHENLKTYVIITVHTGDQHQVG
NDTQGVTVETPQASTVEAILPEYGTGLECSVRTGLDFNEMILLTMKNKAWMVHRQWFFDL
PLPWTSAGTTEAPTWNRKELLVTFKNAHAKKQEVVVLGSQEGAMHTALTGATEIQNSGGTSI
FAAGHLKCRKMDKLELKGMSYAMCLNTFVLKVESETQHGTILIKVEYKGEDAPCKIPFSTE
DGQGKAHNGRLITANPVTKKEEPVNIEAEPFGESNIVIGIDKALKINWYKKGSSIGKMFE
ATARGARRMAILGDTAWDFGSVGGVNLNGKVMHQIFGSAYTALFSGVSWIMKIGIVLLT
WIGLNSKNTSMSFSCIAIGIITLYLGAVVQADMGCVINWKGKELKGSGIFVTNEVHTWTEQY
KFQADSPKRATAIAGAWENGVCIRSTTRMENLLWKQIANELNYILWENNKLTVVVGDI
GVLEQGKRTLTPQPMELKYSWKTWGKAKIVTAETQNSSFIIDGPNTPECPASRAWNVWEVE
DYGFGVFTTNIWLKLREVYTQSCDHRLMSAAIKDERAVHADMGYWIESQKNGSWKLEKASF
IEVKTCTWPKSHTLWSNGVLESDMIIPKSLAGPISQHNHRPGYHTQTAGPWHLGKLELDFNY
CEGTTVVITENCGRGSLRATTVSGKLIHEWCCRSTLPLRYMGEDGCWYGMEIRPVNEK
EENMVKSLVSAGSGKVDNFTMGVLCLAILFEEMRGKFGKKHMIAGVLFVLLSGQITW
RDMATHLIMIGSNASDRMGMGVTCALIATFKIQPFLALGFFLRKLTRENLLGVGLAMAT
TLQLPEDIEQMANGIALGLMTKLITQFETYQLWTALVSLTCNTIFTLTVAWRTATLAGVS
LLPVCQSSSMRKTDWLPMTVAAMGVPLPLFIFSLKDALKRRSWPLNEGVMAGVLSIASS
LLRNDVPMAGPLVAGGLIACYVITGTSADLTVEKAADVTWEEEAEQTGVSHNLMITVDDD
GTMRIKDDETENILTULLKTALLIVSGIFPYSIPATLLVWHTWQKQTQRSGVLWDVPSPPETQ
KAELEEGVYRIKQQGIFGKTQVGVGQKEGVHTMWHVTRGAVLTHNGKRLEPNWASVKK
DLISYGGGWRLSAQWQKGEEVQVIAVEPGKNPKNFQTMPGIFQTTGEIGAIALDFKPGTSGS
PIINREGKVVGLYGNGVVTNGGGYVSGIAQTNAEPDGPTPELEEEMFKKRNLTIMDLHPGSG
KTRKYLPAIVREAICRRLRTLAPTRVVAEEMEEALKGLPIRYQTTATKSEHTGREIVDLMC
HATFTMRLLSPVRVPNLYNLIIMDEAHFTDPASIAARGYISTRVMGEAAAIFMTATPPGTAEA
FPQSNAPIQDEERDIPERSWNSGNEWITDFVGKTVWFVPSIKAGNDIANCLRNGKKVIQSLR
KTFDTEYQTKLNDWDFVVTTDISEMGANFKADRVIDPRRCLKPVILTDGPERVILAGPMPV
TAASAAQRRGRVGRNPQKENDQYIFTGQPLNNDEDHAHTEAKMLLDNINTPEGIIPALFEP
EREKSAAIIDGEYRLKGESRKTVELMRRGDLPVWLAHKVASEGIKYTDRKWCFDGERNNQI
LEENMDVEIWTKEGERKLRPRWLDARTYSDPLALKEFKDFAAGRKSIALDLVTEIGRVPSH

LAHRTRNALDNLVMLHTSEHGGRAYRHAVEELPETMETLLLGLMILLTGGAMLFLISGKGIGKTSIGLICVIASSGMLWMADVPLQWIASAIVLEFFMMVLLIPEPEKQRTPQDNQLAYVVIGITLAAIVAANEMGLLETTKRNLMGSKEPGVVSPTSYLDVDLHPASAWTLYAVATTVITPMLRHTIENSTANVSLAAIANQAVVLMGLDKGWPISKMDLGVPALLGCYSQVNPLTLAAVLLVTHYAIIGPGLQAKATREAQKRTAACIMKNPTVDGIMTIDLDPIYDSKFEKQLGQVMLLVLCAVQLLMKTSWALCEVLTATGPITTLWEGSPGFNWNTIAVS MANIFRGSYLAGAGLAFSIMKSVGTGKRGTSQGETLGEWKKKLNQLSRKEFDLYKKSGITEVDRTEAKEGLKRGEITHHAVSRGSAKLQWFVERNMVIPEGRVIDLGCGRGGWSYYCAGLKKVTEVRGYTKGGPGHEEPVPMSTYGNIVKLMMSGKDVFYLPPEKCDTLLCDIGESSPSPTVEESRTIRVLKMVEWLKNNQFCIKVLPYMPVTIEHLERLQRKHGMLVRNPLSRNSTHEMYWISNGTGNIVSSVNMVSRLLLNRFTMTHRRPTIEKDVDLGAGTRHVNAEPETPNMDVIGERIKRIKEEHSSSTWHYDDENPYKTWAYHGSYEVKATGSASSMINGVVKLLTKPWDVVPMTQMAMTDTPFGQQRVFKEKVDTTRPRPMPGTRKVMETAEWLWRTLGRNKRRLCTREEFTKKVRTNAAMGAVFTEENQWDSARA AVEDEEFWKLVDRE RELHKLKGCGSCVYNMMGKREKKLGEFGKAKGSRAIWYMWLGARYLEFEALGFLNEDHWFSRENSYSGVEGEGLHKLGYILRDISKIPGGAMYADDTAGWDT RITEDDLHNEEKITQQMDPEHRQLANAIFKLT YQNKVVVKVQRPTPKGTVMDIISRKDQRGSGQVGTYGLNTFTNMEAQLVRQMEGEGVLSKADLENPHPLEKKITQWLETKGVERLKRM AISGDDCVVKPIDDRFAN ALLALNDMGKVRKDIPQWQPSKGWHDWQQVPCSHFH E LIMKDGRKLV VPCRPQDELIGRARISQGAGWSL KETA CLGKAYAQMW SLMYFRRDLRLASNAICSA PVHWVPTSRTTWSIHAHHQWMTTEDMLTVWNRVWIEDNPW MEDKTPVTTWEDVPYLGKREDQWC GSLIGLTSRATWAQN ILIAIQQVRSLIGDEEFLDYMPMSKRF RKEEESEGAIW>DP02264|Q12306|#1-23
MSDSEVNQEAKPEVKPEVKPETHINLKVS DGSSEIFFKIKKTTPLRRLMEAFAKRQGKEMDSL RFLYDGIRIQA DQTPEDLDMEDNDIIEAHREQIGGATY>DP00414|P0ABS| #1-6 #17-33 #71-75
MQEGQNRKTSSLSILAIAGVEPYQEKPGEYMNEAQLAHFR RILEAWRNQLRDEV DRTVTHMQDEAANFPDPDVDR AAQEEFSLELRNRDRERKLIK KIEKTLK VEDED FGYCESCGVEIGIR RLEARPTADLCIDCKT LAEIREKQ MAG>DP01518|P26367|#1-130
MQNSHSGVNQLGGVFVN GRPLDSTRQKIVELAHSGARPCDISRILQVSNGCVSKILGRYYET GSIRPRAIGGSKPRVATPEVVS KIAQYKRECPSI AWEIRDRL SEGVCTNDNIPS VSSINR VRL NLASEKQQMGADG MYDKLRLM LNGQTGSWGTRPGWY PGTSVPGQPTQDGCQQEGGGENT NSISSNGEDSDEAQ MRLQLKRKLQRNRTSFTQEQIEALEKEFERTHYPDV FARERLA AKIDLP EARIQVWFSNRAKWR REEKLRNQ RRQASNTP SHIPISSSF STSVYQPIPQPTPVSSFTSGSML GRTDTALTNTY SALPP MPSFTM ANNLP MQPPVPS QTSSYSCMLPTSPSVNGRSYD TYTPPHM QTHMNSQPMG TSGTTSTGLISP GVS VPVQVPGSEPDMSQYWP RLQ>DP02479|O60502| #11-58 #341-370 #335-372 #696-706
MVQKESQATLEERESELSSNPAASAGASLEPPAAPAPGEDNPAGAGGA AVAGAAGGARRFL CGVVEGFYGRPWVMEQRKELF RRLQKWE LNTYLYAPKDDYKHRMF WRE MYSVEAEQLM TLISAAREYEIEFIY AISPGLDITFSNPKEVSTLKRKL DQV S QFGCRSF ALLFDDIDHNMC AADK EVFSSFAHAQVSITNEIYQYLGE PETFLFCPT EYCGTFCY PNV SQSPY LRTVGEKLLPGIEV LW TGPKVVSKEIPVESIEEVSKIIKRAPV IWDNIH ANDYDQKRLFLGPYKGR STELI PRLKGVL TNP NCEFEANYVAIHTLATWYKSNMNGVRKD VVMTDSEDSTVSIQKLEN EGSD EDIETDV LYSP QMALKLALTEWLQEFGVPHQYSSRQVAHSGAKASVVDGTPLVAAPS LNATTVVTTVYQ EPI MSQGAALS GEPTTLTKEEK KQPDEEPMDM VVEKQEE TDHKNDNQILSEIVEAKMAEELKP MDTDKESIAESKSPEMSMQEDCISDIAPMQT DEQTNKEQFVPGPNEKPLYTAEPV TLEDLQLL ADLFYLPYEHGPKG AQMLREFQWL RANS SVS VNCKGDSEKIEEW RSRAAK FEEM CGLV

MGMFTRLNSCANRTILYDMYSVWDIKSIMSMVKSFVQWLGRSHSSAQFLIGDQEWAFF
GGLAGEFQRLLPIDGANDLFFQPPPLTPTSKVYTIRPYFPKDEASVYKICREMYDDGVGLPFQS
QPDLIGDKLVGGLLSLSLDYCFVLEDEDGICGYALGTVDPFPFIKKCKISWIPFMQEKYTKPN
GDKELSEAKIMLSFHEEQEVLVPETFLANFPSLIKMDIHKKVTDPSSVAKSMMACLLSSLKANG
SRGAFCEVRPDDKRILEFYSKLCFIAKMEGFPKDVVILGRSL

>DP00847|P20220|#74-112

MAQLNSYKMAEIMYKILEKKGELTLEDILAQFEISVPSAYNIQRALKAIKERHPDECEVQYK
NRKTTFKWIKQEQQEEQKQEQTQDNIAKIFDAQPANFEQTDQGFIKAKQ
>DP00457|Q9Y3D6#1-7 #121-145

ME AVI NEL VSVEDU LKEEKKE

MEAVNEEVSEDEELKPEKKPQSKRAAGSVSKSTQFETAWCLVRSKYIINDDIRKGIVELLLL
PKGSKEEQRDYVFYLAvgNYRLKEYEKALKYVRGLLQTEPQNNQAKELERLIDKAMKKDG
LVGMAIVGGMALGVAGLAGLIGLAVSKSKS

>DP01784|Q86UX7|#142-224

MAGMKTASG DYIDSSWELRVFVG EEDPEAESVTLRVTGESHIGGVLLKIVEQINRKQDWSDH
AIWWEQKRQWLQTHWTLDKYGILADARLFFGPQHRPVILRLPNRRALRLRASF SQPLFQAV
AAICRLLSIRHPEELSLLRAPEKKEKKKEKEPEEEELYDLSKVVLAGGVAPALFRGMPAHFSD
SAQTEACYHMLSRPQPPPDPPLLQLRPLRPSSLSDKTQLHSRWLDSSRCLMQQGIKAGDALWL
RFKYYSSFDLDPKTDPVRLTQLYEQARWDLLL EIDCTEEEMMVFAALQYHINKLSQSGEVG
EPAGTDPGLDLDVALSNEVKLEGSAPTDVLDSTTIPELKDHLRIFRIPRRPKLTKGYRQ
HWVVFKETTLSYYKSQDEAPGDPIQLNLKGCEVVPDVNVSGQKFCIKLLVPSPEGMSEIYLR
CQDEQQYARWMAGCRLASKGRTMADSSYTSEVQAILAFLSLQRTGSGGPGNHPHPDASAE
GLNPYGLVAPRFQRKFKAQLTPRIEAHQNV AQLS LAEAQLRFIQAWQSLPDFGISYVMVR
FKGSRKDEILGIANNRLIRIDLAVGDVVKTWRFSNM RQWNVNWDIRQVAIEFDEHINVAFSC
VSASCRIVHEYIGGYIFLSTRERARGEELDEDLFQLTTGGHEAF

>DP00341|Q02248|#1-133 #664-781

MATQADLMELDMAMEPDRKAAVSHWQQQSYLDGSGATTAPSLSGKGNPEEVDTS
QVLYEWEQGFSQSFTQEJVADIDGQYAMTRAQRVRAAMFPETLDEGMQIPSTQFDAAHPTN
VQRLAEPSQMLKHAVVNINYQDDAELATRAIPELTKLLNDEDQVVVNKAAMVWHQLSKK
EASRHAIMRSPQMVSIAVRTMQNTNDVETARCTAGTLHNLSHREGLLAIFKSGGIPALVKM
LGSPVDSVLFYAITLHNLLLHQEGAKMAVRLAGGLQKMVALLNKTNVKFLAITTDCLQILA
YGNQESKLILASGGPQALVNIMRTTYEKLLWTTSRVLKVLVCSSNKPAIVEAGGMQALG
LHLTDPSQRLVQNCLWTLRNLSDAATKQEGMEGLLGLTVQLLGSSDINVVTCAAGILSNLTC
NNYKNKMMVCQVGIEALVRTVLRAGDREDITEPAICALRHLTSRQEAEAMAQN AVR LHY
GLPVVVKLLHPPSHWPLIKATVGLIRNLALCPANHAPLREQGAIPRLVQLLVRAHQDTQRRTS
MGGTQQFVEGVRMEEIVEGCTGALHILARDVHNIRIVGLNTIPLFVQLLYSPIENIQRVAAG
VLCELAQDKEAEEAIEAEGATAPLTELHSRNEGVTYAAAVLFRMSEDKPQDYKKRLSVEL
TSSLFRTEPMAWNEDADLGLDIGAQGEALGYRQDDPSYRSFHSGGYGQDALGMDPMMEHE
MGGHHPGADYPVDGLPDLGHAQDLMMDGLPPGDSNQLAWFDTDL

>DP00404|O00204|#13-26

MDGPAEPQIPGLWDTYEDDISEISQKLPGEYFRYKGVPFPVGLYSLEISISLAENTQDVRDDDFI
ITYPKSGTTWMIEIICLILKEGDPWSIRSVPIWERAPWCETIVGAFSLPDQYSPLRMSSHLPQIF
TKAFFSSAKVIYMGRNPRDVVVSLYHYSKIAQLKDPLGTPDQFLRDFLKGEVQFGSWFDHI
KGWLRMKGKDNFLITYEELQQDLQGSVERICGFLGRPLGKEALGSVVAHSTSAMKANTM
SNYTLLPPSLLDHRRGAFLRKGVCGDWKNHFTVAQSEAFDRAYRKQMRGMPFPWDEDPEE
DGSPDPPEPSPEPEPKPSLEPNTSLEREPRPNSSPSPGOASETPHPRPS

>DP00768|O28181-4#1499 #117-166 #184-255 #272-590

MLGWVORVLPOPPGTPOKTKQEEEGTEPEPELEPKPETAPEETELEEVSLPPEEPVCVGKEVA

VTLGPQGTQETALTPPTSLQAQVSVAPEAHSSPRGWVLTWLRKGVEKVPQPAHSSRPSQNI
AAGLESPDQQAGAQILGQCGTGGSDEPSEPSRAEDPGPGPWLLRWFEQNLEKMLPQPPKISEG
WRDEPTDAALGPEPPGPALEIKPMLQAQESPSLAPGPPEPEEEPIPEPQPTIQASSLPPPQDSAR
LMAWILHRLEMALPQPVIRKGGEQEsdAPVTCDVQTISILPGEQEESHILEEVDPHWEDE
HQEGSTSTSPRTSEAAPADEFEEKGVVEQTPRELPRIQEKEDEEEKEDGEEEEEGREKEEEE
GEEKEEEEGRKEEEEGRKEEEEGRGEKEDEEGREKEEEEGRGKEEEEGRGEKEEEE
GRGKEEVEGREEEEDEEEQDHSVLLSYLVPQSEEDRSEESETQDQSEVGAQAQGEVGGA
QALSESETQDQSEVGAQDQSEVGAQAQGEVGGAQEQDGVGGAQDQSTSHQELQEEAL
ADSSGPATEEHPELQVEDADADSRPLIAEENPPSPVQLPLSPAksDTLAVPGSATGSLRKRLP
SQDDEAEELKMLSPAASPVAWSDPTSPQGTDDQDRATSTASQNSAIINDRLQELVKLFKERT
EKVKEKLIDPDVTSDEESPKPSPAKKAPEPAPEVKPAEAGQVEEHYCEMLCCKFKRRPWKK
YQFPQSIDPLTNLMYILWLFFVVLAWNWNCWLIPVRWAFPYQTPDNIHLWLLMDYLCDIYL
LDITVFQMRLQFVRGGDIITDKEMRNNYVKSQRFKMDMLCLLPLDLLYLKFGVNPLLRLPR
CLKYMAFFEFNNRLESILSKAYVYRVIRTTAYLLYSLHNSCLYYWASAYEGLGSTHWVYD
GVGNSYIRCYYWAVKTLITIGGLPPRRTLFEIVFQGLNYFTGVFAFSVMIGQMRDVVGAATA
GQTYYRSCMDSTVKYMNFYKIPRSVQNRVKTWYEYTWHSGMLDESELMVQLPDKMRLD
LAIDVNYSIVSKVALFQGCDRQMIFDMLKRLRSVVYLPNDYVCKKGEIGREMYIIQAGQVQV
LGGPDGKSVLVTLKAGSVFGEISLLAVGGGNRTANVVAHFTNLFILDKDLNEILVHYPES
QKLLRKKARRMLRNNNPKKEKSVLILPPRAGTPKLFNAALAAAGKMGAKGGRGGRLALLR
ARLKELAALEAAARQQQLEQAKSSEDAAVGEEGSASPEQPPRPEPPAPEAAPAPEPTAPEPLA
PEAAPAPEAPAPSSPPPASQERPEGDKDAARPEEHVRIHVTLGPDSEQILLVEVPEKQEEKEK
KEEETEEKEEGERKEKEEE

>DP00319|O15350|#487-491 #549-564

MAQSTATSPDGTTFEHLWSSLEPDSTYFDLQPSSRGNNEVVGGTDSSMDVFHLEGMTTSV
MAQFNLLSSTMQMSRAASASPYTPEHAASVPTHSPYAQPSSTFDTMSPAPVIPSNTDYPGP
HHFEVTFQQSSTAKSATWTYSPLLKKLYCQIAKTCPIQKVSTPPPGTAIRAMPVYKKAEHVT
DVVKRCNPHELGRDFNEGQSAPASHLIRVEGNNLSQYVDDPVTRQSVVVPYEPQVGTEFT
TILYNFMCNSSCVGGMNRRLPILIIITLEMRDGQVLGRRSFEGRICACPGRDRKADEDHYREQQ
ALNESSAKNGAASKRAFKQSPPAVPALGAGVKRRHGDEDTYYLQVRGRENFEILMKLSES
LELMELVPQPLVDSYRQQQQLLQRPSHLQPPSYGPVLSPMNKVHGMNKLPSVNQLVGQPP
PHSSAATPNLGPVPGMLNNHGAVPANGEMSSHSAQSMVSGSHCTPPPYHADPSLVSFL
TGLGCPNCIEYFTSQGLQSIYHLQNLTIEDLGALKIPEQYRMTIWRLQDLKQGHDYSTAQQL
LRSSNAATISIGGSGELQRQRVMEAVHFRVRHTITIPNRGGPGGGDEWADFGFDLDPCKARK
QPIKEEFTEAEIH

>DP01797|O96017|#254-268 #370-387 #505-543

MSRESDVEAQQSHGSSACSQPHGVTQSQGSSSQGISSSTSTMPNSSQSSHSSGTLSLET
VSTQELYSIPEDQEPEPEDQEEPTPAPWARLWALQDGFANLECVNDNYWGRDKSCEYCFDE
PLLKRTDKYRTYSKKHFRIFREVGPKN SYIA YIEDHSNGNTFVNTELVGKGKRRPLNNSEIA
LSLSRNKVFVFFDLTVDDQSVYPKALRDEYIMSKTLGSGACGEVKLAFERKTCKVAIKIISK
RKFAIGSAREADPALNVETEIEILKKLNHPCIIKIKKNFFDAEDYYIVLELMEGGELFDKVVGNK
RLKEATCKLYFYQMLLAVQYLHENGIIHSDLK彭VLLSSQEDCLIKITDFGHSKILGETSLM
RTLCGTPTYLAPEVLVSGTAGYNRAVDCWSLGVILFICLSGYPPFSEHRTQVSLKDQITSGK
YNFIPEVWAEVSEKALDLVKLLVVDPKARFTTEEALRHPWLQDEDMKRKFQDLLSEENEST
ALPQVLAQPSTS RKRPREGEAEGAETTKRPAVCAAVL

>DP01144|P08008|#1-100

MKISSFISTSLPLPTS VSGSSVGEMSGRSVSQQTSDQYANNLAGRTESPQGSSLASRIIERLSSV
AHSVIGFIQRMFSEGSHKPVVTPAPTPAQMPSPSTSFSDSIKQLAAETLPKYMQQLNSLDAEML

QKNHDQFATGSGPLRGSITQCQGLMQFCGGELQAEASAILNTPVCGIPFSQWGTIGGAASAY
VASGVDLTQAANEIKGLAQQMVKLLSLM
>DP00759|P80220|#48-77
MDLVKNHLMYAVREEVEILKEQIRELVEKNSQLERENTLLKTLASPEQLEKFQSRLSPEEPAP
ETPEAPEAPGGSAV
>DP00778|P46670|#1-30 #220-245
MDFTAKIKELERELSETSDYKTLQKKTISLRSELNTLSHSLTSYEKEHFSNDIENVLKSIANKLS
ESKGKKRLFSFKQKNSSSAVHKNVERTELANAPAYTTLKKHYVLEKGDSAFENLEFCTVTS
TTDYSGNSALSGSLCFRNITKCVINLQRIFFQTGSIFITDCTDISIIFLRSPSDKDFQIRLRDLKNCK
ILIEKLSPSIDCKQVIIENCHKCIFNASTRDHЛИQDFSNPFQSEETEDNSAFAFEDFDICNKDM
QLFRAYL
>DP01946|S6AWC2|#1-158
MEGEKNSSGDLMSSSKLVAEAAKTAYEKKSVEGIDKEKVAASADILDAKYGKLEDKPV
GQYLEKAEGYLKQYSSGGTEKEKTDAPAAADAPKPDAPKEAAPAPAPAEEKSSDGFGLD
DVMKGAASLSGKKGSEEKESGGGGFMKMAQGFMK
>DP02247|P10721|#544-565
MRGARGAWDFLCVLNLLRVQTGSSQPSVSPGEPPSPSIHPGKSDLIVRGDEIRLLCTDPGFV
KWTFEILDETNEKQNNEWITEKAETNTGKYTCTNHGLNSNIYVFVRDPAKLFVDRSLYG
KEDNDTLVRCPLTDPEVTNYSKGCQGKPLPKDLRFIPDPKAGIMIKSVKRAYHRLCLHCSVD
QECKSVLSEKFLKVRPAFKAVPVVSISKASYLLREGEETVTCTIKDVSSVYSTWKRENSQ
TKLQECKYNSWHGDFNYERQATLTISSARVNDSGVFMCYANNTFGSANVTTLEVVDKGFI
NIFPMINTTVFVNDGENVDLIVEYEAFPKPEHQWQIYMNRTFTDKWEDYPKSENESNIRYVSE
LHLTRLKGTEGGTYTFLVSNSDVNAIAFNVYVNTKPEILTYDRLVNGMLQCVAGFPEPTID
WYFCPGTEQRCSASVLPDVQTLNSSGPPFGKLVVQSSIDSSAFKHNGTVECKAYNDVGKTS
AYFNFAFKGNNEQIHPHLFTPLIGFIVAGMMCIVMILTYKYLQKPMYEVQWKVVEEIN
GNNYVYIDPTQLPYDHKWEFPRNRLSGKTLGAGAFGKVVEATAYGLJKSDAAMTVAVKM
LKPSAHLTEREALMSELKVLSYLGHNHMNIVNLLGACTIGGPTLVITEYCCYGDLLNFLRRKRD
SFICSKQEDHAEAALYKNLLHSKESSCSDSTNEYMDMKPGVSYVPTKADKRRSVRIGSYIER
DVTPAIMEDDELADLEDLLSFSYQVAKGMAFLASKNCIHRDLAARNILLTHGRITKICDFGL
ARDIKNDSNYVVKGNAWRPVKWMAPESIFNCVYTFSVDVWSYGINFLWELFLGSSPYPGMPV
DSKFYKMIKEGFRMLSPEHAPAEMYDIMKTCWDADPLKRPTFKQIVQLIEKQISESTNHIYSN
LANCSPNRQKPVDHSVRINSVGSTASSSQPLVHDDV
>DP01110|Q9UHD9|#450-624
MAENGESSGPPRSRGAAAQGSAAAAPAEPKIIVKTVKTPKEKEEFAVPENSSVQQFKEAISKR
FKSQTDQLVLIFAGKILKDQDTLIQHGIHDGLTVHLVIKSQNRPQGQSTQPSNAAGTNITSAST
PRSNSTPISTSNSPFGGLAGLSSLGSLSTNFSELQSQQQLMASPEMMIQIMENPFVQ
SMLSNPDLMRQLIMANPQMQLIQRNPEISHLLNNPDIMRQTLIEARNPAMMQEMMRNQDL
ALSNLESIPGGYNALRRMYTDIQEPMNAAQEFGGNPFASVGSSSSGEQTQPSRTENRDPL
PNPWAPPATQSSATTSTTGSTSGSGNSSSNATGNTVAAANYVASIFSTPGMQSLLQQITENP
QLIQNMLSAPYMRSMMSQLSQNPDLAAQMMLNSPLFTANPQLQEQQMRPQLPAFLQQMQNP
DTLSAMSNPRAMQALMQIQQGLQLTATEAPGLIPSFTPVGVGVLGTAIGPVGVPVPIGP
VPFTPIGPIGPIGPTGAPPGSTGSGGPTGPTVSSAAPSETTSPTSESQPNQQFIQQMVQALAG
ANAPQLNPVEVRFQQQLEQLNAMGLNREANLQALIATGGDINAAIERLLGSQPS
>DP00907|Q9HB71-2|#48-80
MASEELQKDLEEVKVLLEKATRKRVRDALTAEKSKIETEIKNMQQKSQKKAELLDNEKPA
AVVAPITTGYTVKISNYGWDQSDKFVKIYITLTGVHQVPTENVQVHFTERSFDLLVKNLNGK
SYSMIVNNLLKPISEVGSSKKVKTDTVLILCRKKVENTRWDYLTQVEKEKEKPSYDTE

DPSEGLMVNLKKIYEDGDDDMKRTINKAWVESREKQAKGDTEF

>DP00350|Q56311|#37-49 #109-122

MKTLADALKEFEVLSFEIDEQALAFDVNIEMVIEKSIDTPVPKSRHFVEGVINLRGRIIPVVNL
AKILGISFDEQKMKSIIVARTKDVEVGFLVDRVLGVLRITEQLDLTNVSDKFGKKSKGVLVKT
DGRLIYLDIDKIIIEITVKEGV

>DP00378|P08047|#153-215 #342-495 #620-625 #648-633

MSDQDHSMDEMTAVVKIEKGVGGNNNGNGNGGGAFSQARSSSTGSSSTGGGGQESQPSP
ALLAATCSRESPNENSNSQGPSQSGGTGELDLTATQLSQGANGWQIISSSGATPTSKEQSG
SSTNGSNGSESSKNRTVSGGQYVVAAPNLQNQQVLTGLPGMPNIQYQVIPQFQTVDGQQL
QFAATGAQVQQDGSGQIQIIPGANQQIITNRSGGNIAAMPNLLQQAVPLQGLANNVLSGQT
QYVTNVPAVALNGNITLLPVNSVSAATLTPSSQAVTISSSGSQESGSQPVTSGTTISSASLVSSQA
SSSSFTNANSYSTTTTSNMGIMNFTTSGSSGNTSQGQTPQRVSGLQGSDALNIQQNQTSGGS
LQAGQQKEGEQNQQTQQQQILIQPQLVQGGQALQALQAAPLSGQTFTTQAISQETLQNLQLQ
AVPNSGPIIRPTVGPNGQVSWQLQLQNLQVQNPQAQTITLAPMQGVSLGQTSSNTLTP
ASAASIPAGTVTVNAACLSSMPGLQTINLSALGTSGIQVHPIQGLPLAIANAPGDHGAQLGLH
GAGGGDGIHDDTAGGEEGENSPDAQPQAGRTRREACTCPYCKDSEGRGSGDPGKKQHICHI
QCGCKVYGKTSHLRAHLRWTGERPFMCTWSYCGKRFTRSDELQRHKRTHTGEKKFACPE
CPKRFMRSDHLSKHICKTHQNKKGGPGVALSVGTLPLDSGAGSESGTATPSALITTMVAME
AICPEGIARLANSGINVMQVADLQSINISGNF

>DP01166|O30916|#1-168 #171-181

MQIQSFYHSASLKTQEAFKSLQKTLYNGMQILSGQGKAPAKAPDARPEIIVLREPGATWGNY
LQHQKASNHSLNLYNLQRDLTVAAATVLGKQDPVLTSMANQMELAKVKADRPATKQEAE
AAKALKKNLIELIAARTQQQDGPAKEAHRAAAVFRDAQVKQLNNQPWTIKNTLTHNGH
HYTNTQLPAAEMKIGAKDIFPSAYEGKGVCWDTKNIHHANLWMSTVSVHEDGKDFTLC
GIRHGVLSPYHEKDPLLHRVGAENAKEVLTAAFLSKPELLNKALAGEAVSLKLVSVGLTA
SNIFGKEGTMVEDQMRAWQSLTQPGKMIHLKIRNKGDLQTVKJPKDVAAFNVGVNELALK
LGFGLKASDSYNAEALHQLLGNDLRPEARPGWVGEWLAQYPDNYEVVNTLARQIKDIWK
NNQHHKDGGEPYKLAQRMLAHEIDAVPAWNCKSGKDRTGMMDEIKREIISLHQTHMLS
APGSLPDGGQKIFQKVLLNSGNLEIQQNTGGAGNVMKNLSPEVLNLSYQKRVGDENIW
QSVKGSSLITS

>DP00176|P42512|#38-55 #81-95 #504-513 #551-568

MKTETKVIKGRQGIARNRHTPLCLGLLLALSPAAA VADARKDGETELPDMVISGESTSATQP
PGVTTLGKVPLKPRELPQSASVIDHERLEQQNLFSLDEAMQQATGTVQPFQLLTAYYVRG
FKVDSFELDGVPALLGNTASSPQDMAIYERVEILRGNSGLLHGTGNPAATVNLVRKRPQREF
AASTTLSAGRWDRYRAEVDVGGPLSASGNVRGRAVAAYEDRDYFYDVADQGTRLLYGVTE
FDLSPDTLLTVGAQYQHIDSITNMAGVPMAKDGSNLGLSRDTYLDVDWDRFKWDTYRAFGS
LEQQLGGGWKGKVSAYEQEADSLRYAGSFGAIDPQTGDGGQLMGAAYKFKSIQRSLDANL
NGPVRLFGLTHELLGGVTYAQGETRQDTARFLNLPNTPVNVRWDPHGVPRPQIGQYTSPGT
TTTQKGLYALGRIKLAEPLTLVVGGRSWWDQDTPATRFKPGQRQFTPYGGIWFDFARDWS
WYVSYAEVYQPQADRQTNSEPLSPVEGKTYETGKGEADGRNLNSLAFRIDLENNPQED
PDHPGPPNNPFYISGGKVRSGFELEGTYLTPYWSLSAGYTYTSTEYLKDSQNDSGTRYSTF
TPRHLLRLWSNYDLPWQDRRWSVGGGLQAQSDYSVDYRGVSMRQGGYALVNMRLGYKID
EHWTAAVNVNNLFDRYYYQSLSNPNWNNRYGEPRSFNVSLRGAF

>DP01625|P07567|#546-565

MGQELSQHERYVEQLKQALKTRGVVKVYADLLKFFDFVKDTCWPFPQEGTIDIKRWRRVGD
CFQDYNTFGPEKVPVTAFSYWNLIKEIDKKEVNPQVMAAVAQTEEILKSNSQTDLTKTSQ
NPDLDDISLSDDEGAKSSSLQDKGLSSTKKPKRFPVLLTAQTSKDPEDPNPSEVDWDGLEDE

AAKYHNPDWPPFLTRPPYNKATPSAPTVMAVVNPKEELKEKIAQLEEQIKLEELHQALISKL
QKLKTGNETVTHPDTAGGLSRTPHWPGQHIPKGKCCASREKEEIQPKDIFPVETVDGQQQA
WRHHNGFDFAVIKELKTAASQYGATAPYTLAIVESADNLWTPTDWNTLRAVLGGDHILL
WKSEFFENCRDТАRNQQAGNGWDFMLTGSGNYSSTDAMQYDPGLFAQIQAATKAW
RKLPVKGDGPASLTGVKQGPDEPFADFVHLITTAGRIFGSAEAGVDYVKQLAYENANPACQ
AAIRPYRKKTDLTGYIRLCSDIGPSYQQGLAMAAAFSGQTVKDFLNNKNEKGGCCFKCGK
KGHFAKNCHEHAHNNAEPKVPGLCPRCKRGKHANECKSKTDNQGNPIPPHQNGWRGQP
QAPKQAYGAVSFVPANKNNPQSLPEPPQEVDWTSVPPPTQY

>DP0169|P05434|#1-23

MSYKAKTVVSARRDQKKGRVGLTEEQKQEIREAFDLFDTDGSGTIDAKELKVAMRALGFEP
KKEEIKKMISEIDKDGSGTIDFEEFLTMMTAKMGERDSREEILKAFLRFDDNSGTITIKDLRR
VAKELGENLTEELQEMIAEADRNRDDNEIDEDEFIRIMKKTSLF

>DP00786|G4NEJ8|#1-38 #117-158

MAPKMTSKKRARDEEAQSGGSEAETKPAPVKKAKSKASNPQGSQVDAEGNPWEISDKRRV
GISQFKKMDFINIREYYEAGGEMKPGKKIGLTVDQYTAFLKAIPAINAELRSRGHDITDDSD
GGGAPVVAKPEGNAKKSTKQEKKANIEATSDEGSGSD

>DP01056|A7UMX5|#1-996

MIQSAAPSIPRVEVILDCSDREKEAPKSLAERGCVDSQVEGGQSEAPPSLPSFAISSEGTEQGED
NQHSEKDHRPLKHRARHARLRRSESLSEKQVKEAKSKCKSIALLTAAPNPNSKGVLMFKKR
RQRARKYTLVSYGTGELERDEDEGEEGEVEEGDKENTFEVSLLATSESEIDEDFFSIDNDKKI
VTFDWDSLLEVEKKTSGDEMQLPETTGKGALMFARRRQRMQITAEQEEMKARTAHA
EEQREVTSENFKVSSAYQTKEEMLRQQPCISKYADVSQNDKIVQQNGFGVAPDTSL
SFQSSEAQKAASLNRTAKPFPFGVQNRAAAPFSPTRNVTSPSLDPAPPPYCSISPPPEALYRPL
SAPAASKAAPILWSHTEPTERIASRDERIAVPAKRTGILQEAKRRSTSCKMFSFKEAPKVSPNP
ALLSLVHNAEGKKGSGAGFESGPEEDYLSLGAEACNFMQSQASKQKAPPТАPKPSLKVSPA
AGTPVSPVWSPAVASNKAPSFPAPASPQAAYPAPLKSPQYPHSPSANPPNTLNSGPFKGPQA
TLASPNHPAKTPPTPSAGETKPFEMPPEMRKGAGQLFARRHSRMEKYVVDSETVQANMARA
SSPTPSLPASWKYSSNVRAPPPVAYNPIHSPSYPPAATKPFPKSTAATKNTKRKKGLNALDI
MKHQPYQLDASLFTFQPPSNKESLGKQIPKLPSTSQATSLRLPGSASPTVRASSVYSVPAYS
SQPSFQSNASTPVNESYPTGYSAFSKPESTSSLFTAPRPKFSAKKAGVIAQERSSGRSLSLPG
KPSFISRATSPSPLIFQPAPDYFSKPDTAADKPGKRLTPWEAAKSPLGLVDEAFRPQNMQES
IAANVVSAAHRKTLPEPPDEWKQKVSYEPPGPSASLALLGGKQPGVTSARKSSLVSNATTQ
AGSQQQYAYCSQRSQTDPDIMSDSRSDYGLSTADSNYNPQPRGWRRPT

>DP02520|G0S3L5|#1114-1185 #1213-1252 #1-699

MAEPNGQSAPNGTTNSGRPSYAEKHKLPAHFIGGNRLENAPPSKVKDFVAEHGGHTVITNVL
IANNGIAAVKEIRSVRKWAYETFGDERAIKFTVMATPEDLQANADYIRMADHYVEVPGGTN
NHNYANVELIVDVAERMDVHAVWAGWGHASENPKLPESLAASPKKIVFIGPPGSAMRSLGD
KISSTIVAQHANVPTIPWSGSGVSEVHIDENGIVTVPEEVYLKGCVNSWEEGLEKAREIGFPVM
IKASEGGGGKGIRKCMNEDQFEELYKAAAAEIPGSPFIMKLADSARHLEVQLADQYGNMIS
LFGRDCSVQRHQKIIEEPVTIASPTTFRAMEEAAVRLGKLVGYVSAGTVEYLYSHADDKF
YFLENPRLQVEHPTTEMVSGVNLPAQLQIAMGIPLHRIIRDILLYGVDPKAATEIDFEFKNP
ESEKTQRRPAPKGHTTACRITSEDPGEGFKPSSGMLQELNFRSSNVWGYFSVGTAGGIHSFS
DSQFGHIFAYGENRAASRKHMIVALKELSIRGDFRTTVEYLIKLLTQAFEENTITTGWLDI
SKKLTAERPDTNLAIICGAVIRAHTESEKSLADYRAGLEKGQVPSKDLKTVSSVDFIYEGLRY
KFTVTRSSVDTYRLFINGSQCEVGVRTLSDGGLVLLGGHSHNVYWKDEATGTRISIDGKTCL
LEQENDPTQLRTPSPGKLVKYTVESGSHIRAGQTFAEVEVMKMYMPLVAQEDGIVQFIKQPG
ATLEAGDILGILALDDPSRVKQAQFVGQLPQYGSPVVVGSKPAQRFAVLYGTMCDILNGYD

NQVVMQQKLKEFIEVLRDPKLPYSEFSAQFSALHARMPHKLDAQLTQVLERAQNRRGAEFPA
RQLLKVNFKLDDNVPKTDQDLLKSTLEPLTSVLNLYLDGQKARELNLIADLLSMYADVEC
QFSGRRLQDEEAILKLRDQYKDNIQKVNTVLSHKNVMSKNSVLALLDEYRPNKPNVGNV
GKHLRPVLRLTELESRQSAKVSLLKAREVLILCALPSLEERTAQMEHILRSSVQSRYGETGW
SHRRPDREVLKEVVDSKYTVFDVTLFFAHEDPYVALAALEVYVRRAYRAYNLREVRYHDE
ERPYFIDWDFALRKSGANQTESSMHMQSVVPSSPATPVENDFKRIHSISDMTYLARRTRDEPI
RKGVIWPCKDLLDAEEALSRALEVPLAHKETKDKDRKQQPGIAADLAQRRLPGTPLRLEGIG
ELSAVVNVAVRDAEGKNDEEILALIKPWVQNSKADLLARRVRLTFICGRNDGSYPSYYTFR
GPDYAEADDISRHIPESLAFQLEGLRLSKFKLTPVFTQNKNIHVYEAVGRGVETDRRYFTRAVV
RPGRLRDEISTAELYISEADRVVNDIFDALEIIGTNKTDLNHMFINFSHTFQVTADEVAESLQGF
LDRFGPRGWRRLRVHQVEIRINCMRSDDNNDENDTMPLRVIITNTSGFVIQIELYEEKLSEKGEW
VYYYVSGNAKIGSMHLLPVSTPYPTKNWLQPKRYKAHILGTQYVYDFPELFRQAIQNSWTEA
VKKIPS LAAKQPAIGECIDYNEVLGDQDNLAEVSRMNSTGMVGWLINARTPEYPDGRK
FIVVANDITFKIGSFGPKEDTFFFKCTELARKMGIPRIYLSANS GARLGLAEELMPHFNVAWND
PAKPEAGFKYL YLSDEAKRRFENEVITEEIVEDGEKRHKIITIVGAEEGLGVECLRGSGLIAGA
TSRAYNDIFTCTLVTCSRSGIGAYLVR LGQRAVQVEGQPIILT GAPALNSLLGREVYTSNQL
GGTQIMYRNGVSHLTAKDDFDGVTKIVQWLSFIPDQRNNPLPILSPSPDPWDRDVVYT PPK
QTYDVRWMIAGKEDEDGFQPGFLFDKDSFVETLGGWARTVVVGRARLGGIPMGVIAVTRTI
ENITPADPANPDSIEQVTNEAGGVWYPNSAFKTAQAINDFNYGEQLPLMILANWRGFSGGQR
DMYNEVLKYGSFIVDALTRFEKPIFIYIPPHGELRGGSWVVVDPTINPASMEMYADEEARGGV
LEPEGIPIKYKKDKQLETMARLDPVYRSLKKEMAKEGLSKEESDNIKKKMQQREELLPIYH
QICVQFADLHDRA GRMKAKGVIRQLQWRQSRRFFYWRVRRRLIEDDILRRIEEAINPAGKR
RHDPENTSLAASPETRSPLHVQLESWVGIPGFKTNDREVVEWYEQNQDRINEKLEKLKESIA
DQMRELLRAAESNPVAWSGVRDLLRMMPVEEREKVVEYLKQV

>DP01736|P52597|#1-10

MMLGPEGGE GFVV KLRGLPWSCSVEDVQNFLSDCTIHGAAGVHFIY TREGRQS GEA FVEL
GSEDDVKMALKKDRESMGHRYIEVFKSHRTEM DWVLKHSGPNSADSANDGFVRLRGLPFG
CTKEEIVQFFSGLEIVPNGITLPVDP EGKITGEAFVQFASQELAEKALGKH KERIGHRYIEVFKS
SQEEVRSYSDPPLKFMSVQRPGPYDRPGTARRYIGIVKQAGLERMRPGAYSTGYGGYEEYSG
LSDGYGFTTDLFGRDLSYCLSGMYDHRYGDSEFTVQSTTGHCVHMRGLPYKATENDIYNFFS
PLNPVRVHIEIGPDGRVTGEADVEFATHEEAVAAMSKDRANMQHRYIELFLNSTTGASNGAY
SSQVMQGMGVSAQATYSGLESQSVSGCYGAGYSGQNSMGGYD

>DP01873|Q99075|#73-106

MKLLPSVVLKFLAAVLSALVTGESLERLRRGLAAGTSNPDPP TVSTDQLLPLGGGRDRKVR
DLQEADLDLLRVTLSKPQALATPNKEEHGKRKKKGKGLGKRDPC LRKYKDFCIHGECKY
VKELRAPSCICH PGYHGERCHGLSLPVENRLYTYDHTT ILAVVAVV LSSVCLL VIVGLLMFRY
HRRGGYDVENE EKVKLGMTNSH

>DP01623|Q03834|#1-304

MAPATPKTSKTAHFENGSTSSQKKMKQSSLSSFSKQVPSGTPSKVQKPTPATLENTATDKI
TKNPQGGKTGKLFVDVDEDNDLTIAEETVSTVRSDIMHSQEPQSDTMLNSNTTEPKSTTTDED
LSSSQSRRNHKRRVNYAESDDDDSDTTFTAKRKKGKVVDSESDEDEYLPDKNDGDEDDIA
DDKEDIKGELAEDSGDDDDLISLAETTSKKFSYNTSHSSSPFTRNISRDNSKKSRPNQAPSR
SYNPSHSQPSATSKSSKFNKQNEERYQWLVDERDAQRRPKSDPEYDPRTLYIPSSAWNKFPTF
EKQYWEIKSKMWDCIVFFKKGKFELYEKDALLANALFDLKIAGGGRANMQLAGIPEMSFE
YWAAQFIQMGYKVAKVDQRESMLAKEMREGSKGIVKRELQCILTSGLTDGDMLHSDLATF
CLAIREEPGNFYNETQLDSSSTIVQKLNTKIFGAAFIDTATGELQM LEFEDSECTKLDLMSQV
RPMEVVMERNNLSTLANKIVKFNSAPNAIFNEVKAGEEFYDCDKTYAEIISSEYFSTEEDWPE

VLKSYYDTGKKVGFSAFGGLYYLKWLKLDKNLISMKNKEYDFVKSQHSMVLDGITLQNL
EIFNSFDGSDKGTLFKFNRAITPMGKRMMKKWLMHPLLRKNDIESRLDSVDSLQDITLRE
QLEITFSKLPDLERMLARIHSRTIKVKDFEKVITAFETIIEQDSLKNNDLKGDVSKYISSFPEG
VEAVKSWTNAFERQKAINENIIVPQRGF DIEFDKSMDRIQELEDELMEILMTYRKQFKCSNIQ
YKDSGKEIYTIEPISATKNVPSNWVQMAANKTYKRYYSDEVRALARSMAEAKEIHKTLEED
LKNRLCQKFDAHYNTIWMPTIQAISNIDCLLAIRTRSEYLGAPSCRPTIVDEVDSKTNTQLNGF
LKFKSLRHPCFN LGATTAKDFIPNDIELGKEQPRLGLTGANAAGKSTILRMACIAVIMAQM
CYVPCESAVLTPIDRIMTRLGANDNIMQGKSTFFVELAETKKILD MATNRSLVVDELGRGGS
SSDGFAIAESVLHHVATHIQSLGFFATHYGT LASSFKHHPQVRPLKMSILVDEATRNVTFLYK
MLEGQSEGSFGMHVASMCGISKEIIDNAQIAADNLEHTSRLVKERDLAANNLNGEVSVPGG
LQSDFVRIAYGDGLKNTKLGSGEGVLYDWNIKRNVLKSLFSIIDLQ
>DP00348|P45481|#2059-2152

MAENLLDGPPNPKRAKLSSPGFSANDNTDFGSLFDLENDLPDELIPNGELSLLNSGNLVPDAA
SKHKQLSELLRGSGSSINPGIGNVSASSPVQQGLGGQAQGQPNSTNMASLGAMGKSPLNQG
DSSTPNLPKQA ASTSGPTPPASQALNPQAQKVGLVTSSPATSGTGPICMNANFNQTHPG
NSNSGHSLMNQAQQGQAQVMNGSLGAAGRGRGAGMPYPAPAMQGATSSVLAETLTQVSP
QMAGHAGLNTAQAGGMTKMGMTGTTSPFGQPFQSQTGGQQMAGTVNPQLASKQSMVN
PAFPDIKNTSVTTVPNMSQLQTSGIVPTQAIATGPTADPEKRKLIQQQLVLLLHAHKCQRR
EQANGEVRACSLPHCRTMKNVLNHMTHCQAGKACQVAHCASSRQIISHWKNC
LPLKNASDKRNQQTILGSPASGIQNTIGSVGAGQQNATSLSNPNDPSSMQRAYAALGLPY
NQPQTQLQPQVPGQQPAQPPAHQMRTLNALGNNPMSIPAGGITTDQQPPNLISESALPTSLG
ATNPLMNDGSNSGNISLSTIPTAAPPSTGVRKGWHEHVTQDRLRSHLVHKLVQAIFPTPDPA
ALKDRRMENLVAYAKKVEGDMYESANSRDEYYHLLAEKIYKIQKEEEKRRSR
LKQGILG
NQPALPASGAQPPVIPPAQSVRPPNGPLPLPVNRMQVSQGMNSNPMSLGNVQLPQAPM
GR
AASPMNHSVQMNSMASVPGMAISPSRMPQPPNMMGTHANNIMAQAPTQNQFLPQNQFP
SSS
GAMS VNSVGMQPAAQAGVSQGQVPGAA LPNPLNMLAPQASQLCP
PPV TQSPLHPTPPPAS
TAAGMP SLQHPTAPGMTPPQPAAPTQ P STPVSSGQTPTPGS
VPSAAQTQSTPTVQAAAQAQ
VTPQPQTPVQPPSVATPQSSQQQPTPVHTQPPG
TPLSQAASIDNRVPTPSSV
TAETSSQQPGP
DVP
MLEM KTEVQ TD
DAEPEPTESKGEPRSEM
MEEDLQGSSQVKEE
DTTEQKSEP
MEVEEK
KPEV
KVEAKEEE
ENSSNDT
ASQSTS
PSQPRKK
I FK
PEELRQAL
MPTLEAL
YRQDP
ESLPFR
QPV
DPQLL
GIPDYF
DIV
KNPM
DLSTIK
RKL
DTG
QYQEP
WQYV
DDV
WLM
FNN
AWL
YNR
KTS
RVY
KFC
SKL
AEV
FEQE
IDP
V
M
Q
SL
GY
CC
GR
KY
EF
SP
QT
LCC
Y
G
K
QL
CT
P
R
D
A
Y
Y
S
Y
Q
N
R
Y
H
F
C
E
K
CF
TE
I
Q
GEN
V
T
L
G
DD
P
S
Q
P
Q
T
T
I
S
K
D
Q
F
E
K
K
N
D
T
L
D
P
E
P
F
V
D
C
K
E
C
G
R
K
M
H
Q
I
C
V
L
H
Y
D
II
W
PS
GF
V
CD
N
C
L
K
K
T
G
R
P
R
K
L
E
R
M
A
T
M
N
T
R
N
V
P
Q
Q
S
L
P
S
T
S
A
P
P
G
T
P
T
Q
Q
P
S
T
P
Q
P
P
S
V
N
M
S
P
A
G
F
P
N
V
A
R
T
Q
P
P
T
I
V
S
A
G
K
P
T
N
Q
V
P
A
P
P
P
A
Q
P
P
A
V
E
A
A
R
Q
I
E
R
A
Q
Q
Q
H
L
Y
R
A
N
I
N
G
M
P
P
G
R
A
G
M
G
T
P
G
S
Q
M
T
P
V
G
L
N
V
P
R
P
N
Q
V
S
G
P
V
M
S
M
P
P
G
Q
W
Q
Q
A
P
I
P
Q
Q
P
M
P
G
M
P
R
P
V
M
S
M
Q
A
Q
A
A
V
A
G
P
R
M
P
N
V
Q
P
R
S
I
P
S
A
L
Q
D
L
L
R
T
L
K
S
P
S
P
Q
Q
Q
V
L
N
I
L
K
S
N
P
Q
L
M
A
A
F
I
K
Q
R
T
A
K
Y
V
A
N
Q
P
G
M
Q
P
Q
G
L
Q
S
Q
P
G
M
Q
P
G
M
H
Q
Q
P
S
L
Q
N
L
N
A
M
Q
A
G
V
P
R
P
G
V
P
P
P
Q
A
M
G
G
L
N
P
Q
G
Q

ALNIMNPONGPNMNTNMNPQYREMVRQLLHQQQQQQQQQQQNSASLAGGMAGH
SQFQQPGPGGYAPAMQQQRMQQHLPIQGSSMGQMAAPMGQLGQMGQPGLGADSTPNIQQ
ALQQRILQQQMKQQIGSPGQPNPMSPQQHMLSGQPQASHLPQGQIATSLSNQVRSPAPVQS
PRPQSQPPHSSPSPRIQPQSPHPHVSPQTGSPHPGLAVTMASSMDQGHGNPEQSALPQLNT
PNRSALSELSLVGDTTGDITLEKFVEGL

>DP01751|O43172|#1-169

MASSRASSTQATKTKAPDDLVAPVVKKPHIYGSLEEKERERLAKGESGILGKDGLKAGIEA
GNINITGEVFEIEEHISERQAEVLAEFERRKRARQINVSTDSEVKACRALGEPLITFGECPA
ERRERLRNILSVVGTDAKKTKDDEKSJKSKEEYQQTWYHEGPNSLKVARLWIANYSLPR
AMKRLEEARLHKEIPETRTSQMQUELHKSLRSLNNFCSQIGDDRPISYCHFSPNSKMLATACW
SGLCKLWSVPDCNLLHTLRGHNTNVGAIVFPKSTVSLDPKDVLASCAADGSVKLWSLDS
DEPVADIEGHTVRVARVMWHPSGRFLGTTCYDRSWRLWDLEAQEEILHQEGHSMGVYDIAF
HQDGSLAGTGGLDAFGRVWDLRTGRCIMFLEGHLKEIYGINFSPNGYHIATGSDNTCKVW
DLRQRRCVYTIPAHQNLVTGVKFEPIHGNFLTGAYDNTAKIWTHPGWSPLKTLAGHEGKV
MGLDISSDGQLIATCSYDRTFKLWMAE

>DP02196|P37455|#107-171

MNDRVVLVGRLTKDPELRYTPNGAAVATFTLVNRTFTNQSGEREADFINCVTWRRQAENV
ANFLKKKGSLAGVDGRLQTRNYENQQGQRVFVTEVQAESVQFLEPKNGGGSGSGGYNEGNS
GGGQYFGGGQNDNPFGGNQNNQRRNQNSFNDDPFANDGKPIDISDDLPF

>DP01347|Q9UNL4|#119-188

MAAGMYLEHYLDIENLPFELQRNFQLMRDLDQRTEDLKAEIDKLATEYMSSARSLSEEKL
ALLKQIQEAYGKCKEFGDDKVQLAMQTYEMVDKHIRRLDTLARFEADLKEKQIESSDYDS
SSSKGKKKGRTQKEKKAARARSKGKNSDEEAPKTAQKKLKLVRTSPEYGMPSVTFGSVHPS
DVLDMPVDPNEPTYCLCHQVSYGEIGCDNPDCSIEWHFACVGLTTKPRGKWFCPRCSQER
KKK

>DP02173|Q9BS26|#328-358 #351-372

MHPAVFLSLPDLCRCSLLLLVTWVFTPVTEITSLDTENIDEILNNADVALVNFYADWCRFSQM
LHPIFEASDVIKEFPNENQVVFARVDCDQHSDIAQRYRISKYPTLKLFRNGMMKREYRG
QRSVKALADYIRQQKSDPIQEIRDIAEITLDRSKRNIIGYFEQKDSDNYRVFERVANILHDDC
AFLSAFGDVSKPERYSGDNIYKPPGHSAPDMVYLGAMTNFDVTYNWIQDKCVPLVREITFE
NGEELTEEGLPFLILFHMKEDTESLEIFQNEVARQLISEKGTINFLHADCDKFRHPLLHIQKTPA
DCPVIAIDSFRHMYVFGDFKDVLIPGKLQFVFDLHSGKLHREFHHGPDPDTAPGEQAQDV
ASSPPESSFQKLAPSEYRYTLLRDRDEL

>DP01764|O95718|#169-194

MSSDDRHLGSSCGSFIKTEPSSPSSGIDALSHHSPGSSDASGGFLALGTHANGLDSPPMAG
AGLGGTPCRKSYEDCASGIMEDAICMELNAIPKRLCLVCGDIASGYHYGVASCEACKAF
FKRTIQGNEYSCPATNECEITKRRRKSCQACRFMKCLKVGMKEVRLDRVRRGGRQKYKRR
LDSESSPYLSLQISPPAKPLTKIVSYLLVAEPDKLYAMPPPGMPEGDIKALTLCSDLADRELV
VIIGWAKHIPGFSSLQLGDQMSLLQSAWMEILILGIVYRSLPYDDKLVYAEDYIMDEEHSLA
GLLEYRAILQLVRRYKKLKVEKEEVTLKALALANSDSMYIEDLEAVQKLQDLLHEALQDY
ELSQRHEEPWRTGKLLTLPLLRQTAAKAVQHFYSVKLQGKVPMHKLLEMLEAKV

>DP00240|P35611|#430-737

MNGDSRAAVTSPPTTAPHKERYFDRVDENNPEYLRERNMAPDLRQDFNMMEQKKRVSM
ILQSPAFCEELESMIQEKFKKGKNPTGLLALQQIADFMNTNVPNVPAAPQGGMAALNMSLG
MVTVPNDLGSDSAIDKGEKLLRCKLAAFYRLADLFGWSQLIYNHITRVNSEQEHFLIVPF
GLLYSEVTASSLVKINLQGDIVDRGSTNLGVNQAGFTLHSAIYAARPDVKCVVHHTPAGAA
VSAMKCGLLPISPEALSLGEVAYHDYHGILVDEEAKVLIQKNLGPKSKVLLRNHGLVSVGES

VEEAFFYYIHNLVVACEIQVRTLASAGGPDLVLLNPEKYKAKSRSPGSPVGETGSPPKWQIG
EQEFEALMRMLDNLGYRTGYPYRYPALREKSKKYSDVEVPASVTGYSFASDGDSGTCSPRL
HSFKQQREKTRWLNSGRGDEASEEGQNGSSPKSKTKWTKEDGHRTSTSAVPNLVPLNTNP
KEVQEMRNKIREQNLQDIKTAGPQSQVLCGVVMDRSLVQGELVTASKAIIEKEYQPHVIVSTT
GPNPFTTLTDRELEEVREVERKQKGSEENLDEAREQKEKSPPDQAVPHPPPSTPIKLEEDLV
PEPTGDDSDAATFKPTLPDLSPDEPSEALGFPMLEKEEEAHRPPSPEAPTEASPEPAPDPAPV
AEEAAPSAYEEGAAADPGSDGSPGKSPSKKKKFRTPSFLKKSKKKSDS

>DP01500|Q5R6Q2#169-232

MSMEDPFFVVKGEVQKAVNTAQGLFQRWTELLQDPSTATREEIDWTTNELRNNLRSIEWDL
EDLDETISIVEANPRKFNLDATELSIRKAFTSTRQVVRDMKDQMSTSSVQALAERKNRQALL
GDSGSQNWSTGTTDKYGRILDRELQRANSHFIEEQQAQQQLIVEQQDEQLELVSGSIGVLKNM
SQRIGGELEEQAVMLEDFSHELESTQSRLDNVMKKLAKVSHMTSDRRQWCIAILFAVLLVV
LILFLVL

>DP01545|M5BF30#568-589

MEAKIVKVLDSRCEDFGKCRKRAASYAAYVTGVSCAKLQNVPPPNCQCIPDKRRRLEG
ENKLSAYENRSGKALVRYYTIFYKKTGIAKRVMMYENGEWNDLPEHVICAIQNEEEKSAAIE
FKLCGHSFILDFLHMQRLLDMETGAKTPLAWIDNAGKCFPEIYESDERTNYCHHKCVEDPKQ
NAPHDIKLRLIEDVNGGETPRLNLEECSDESGDNMMDVPLAQRSSNEHYDEATEDCSRKL
EAAVSKWDETDAIVVSGAKLTGSEVLDKDAVKKMFAVGTASLGHPVPLDVGRFSSEIAEAR
LALFQKQVEITKKHRGDANVRYAWLPAKREVLSAVMMQGLVGGAFIRKSIYVGVIHLTAA
DCPYFSARYCDVDENGVRYMVLCRVIMGNMELLRGDKAQFFSGGEYDNGVDDIESPKNYI
VWNINMNTHIFPEFVVRFKLSNLPNAEGNLIAKRDNSGVTLEGPKDLPPQLESNQGARGSGSA
NSVGSSTTRPKSPWMPFTLFAAISHKVAENDMLLINADYQQLRDKKMTRAEFVRKLRVIVG
DDLLRSTITTLQNQPKSKEIPGSIRDHEEGAGGL

>DP01445|P30260#171-450 #180-447 #767-824 #769-824

MTVLQEPUQAAIWQALNHAYRDAVFLAERLYAEVHSEEALFLLATCYYRSGKAYKAYRL
LKGHSCTTPQCKYLLAKCCVDSLKLAEGEQILSGGVFNQKSHDDIVTEFGDSACFTLSLLGH
VYCKTDRLAGSCEYQKSLSLNPFLWSPFESLCEIGEKPDQTFKFTSLQNFNSNCLPNSCTTQ
VPNHSLSHRQPETVLTETPQDTIELNRLNLESSNSKYSLNTDSSVSYIDSAVISPTVPLGTGT
LSKQVQNKPKTGRSLLGGPAALSPLETPSPGDGSYLQNYTNTPPVIDVPSTGAPSK
KSVARIGQTGTSVFSQSGNSREVTPILAQTQSSGPQTSTTPQVLSPTITSPPNALP
RRSSRLFTS
DSSTTKENSKKLKMFKPPKIPNRKTKSNTKGGITQPNINDSLEITKLDSSIIS
EGKISTITPQIQA
FNLQKAAAEGLMSLLREMKGYLA
LCSYNC
KEAINILSHLPSHHNTGWVLCQIGRAYFELS
EYMQAERIFSEVRIENYRVEGMEIYST
LWHLQKDVALSVLSKDLTMDKNSPEAWCAAG
NCFSLQREHDIAKFFQRAIQVDPNYAYAYTLL
GHEFVLTEELDKALACFRNAIRVNPRHYNA
WYGLGMIIYKQEKFSLAEMHFQKALDINP
QSSVLLCHIGVVQHALKKSEKALDTLN
KAIVID
PKNPLCKFHRASVLFANEKYKSALQ
EELKQIVPKESL
VYFLIGKVYKKLGQTHL
ALMNFS
WAMLDLDPKGANNQIKEA
IDKRYLPD
DEEPITQEEQIMGTDES
QESSMTDADDTQL
HAAESDE
F

>DP01136|P22470#1-164 #281-610

MSESGQEQRGNTNTSPNNAENNNSNAASGPLNGGAEQTRNITVSIQSYFTPERLAHLSNIS
NNDNNENNNSAASGSTIANGTGPSFGIGNGGHQPDGALVLSFRDVPASTPQDRLNSFISVAQL
AMERFNRLNRPKGISKDEFDKLPVLQVSDLPKAEGPLCSICYDEYEDEV
DSTKAKRKRDSEN
EEESEGTTK
KRKDNEGAPLRTTADND
NSPSITNATVVE
P
PSI
LTE
QQRTL
NDEET
N
PSYKH
SPI
KLPCGHIFGRECIYKWSRLENSCPLCRQKISE
SVG
V
QRAAQ
QDT
DEVA
A
NEA
FER
IRR
V
LYD
PTAV
NST
N
EN
SS
A
P
S
E
NT
S
A
P
S
E
NT
T
V
P
T
I
G
N
A
S
S
G
E
Q
M
L
S
R
T
G
F
F
L
V
P
Q
N
G
Q
L
H
N
P
V
R
L
P
N
D
S
D
R
NG
V
N
G
P
S
T
T
Q
N
P
P
S
N
G
G
S
N
N
Q
S
P
R
W
V
P
I
P
L
T
F
Q
F
H
S
P
N
P
N
P
S
A
D
S
S
A
P
S
A
A
N
G
P
N
S
N
N

TSSDATDPHHNRLRAVLDHIFNVAQRGTSCTSATTAPGAQTVHNQGRNDSSSDTTQGSSFLE
NISRLTGHFTNGSRDNNNDNNHSNDQQRGGSTGENNRNNLFSSGVASYRNQNGDVITVELR
NNNSAAFPPDENPSQQGQGSSSDTTIHNDVPNDNNEQRSSQ

>DP02137|P0AGE0#113-178

MASRGVNKVLVGNLGQDPREVYMPNGAVANITLATSESWRDKATGEMKEQTEWHRVVL
FGKLAEVASEYLRKGSQVYIEGQLRTRKWTDQSGQDRYTTEVVNVGGTMQMLGGRQGGG
APAGGNIGGGQPQGGWGQPQQPQGGNQFSGGAQSRRPQQSAPAAPSNEPPMDFDDDIPIF

>DP02066|Q9FG31#1-158

MQSMKETASNIAASAKSGMDKTAKTLEEKAEKMTRDPVQKQMATQVKEDKINQAEMQK
RETRQHNAAMKEAAGAGTGLGLGTATHSTTGQVGHGTGTHQMSALPGHGTGQLDRVVEG
TAVTDPIGRNTGTGRTTAHNTHVGGGGATGYGTGGGYTG

>DP01491|P22059#346-379

MAATELRGVVGPGPAIAALGGGGAGPPVVGGGGRGDAGPGSGAASGTVVAAAAGGPGP
GAGGVAAAGPAPAPPTGGSGSGAGGSGSAREGWLFKWTNYIKGYQRRWFVLSNGLSYY
RSKAEMRHTCRGTINLATANITVEDSCNFISNGGAQTYHLKASSEVERQRWVTALELAKAK
AVKMLAESDESGDEESVSQTDKTELQNTLRTLSSKVEDLSTCNDLIAKHGTALQRSLSELES
KLPAESNEKIKQVNERATLFRITSNAMINACRDFMLAQTHSKWQKSLQYERDQRIRLEETL
EQLAKQHNHLERAFRGATVLPANTPGNVSGKDQCCSGKGDMDSDEDDENEFFDAPEIITMPE
NLGHKRTGSNISGASSDISLDEQYKHQLEETKKEKRTRIPYKPNYSNLWSIMKNCIGKELSKI
PMPVNFNEPLSMLQRLTEDLEYHELLDRAAKCENSLEQLCYVAAFTVSSYSTTVVRTSKPFPNP
LLGETFELDRLEENGYRSLCEQVSHPPAAAHAEKNGWTLRQEIKITSKFRGKYLSIMPLG
TIHCIFHATGHHTWKVTTTVHNIVGKLWIDQSGEIDIVNHKTGDKCNLKFPVSYFSRDV
ARKVTGEVTDPGKVFALLGTWDEKMECFKVQPVIGENGDDARQRGHEAEESRVMLWKR
NPLPKNAENMYYFSELALTLNAWESGTAPTDRLRPDQRLMENGRWDEANAEKQRLEEKQ
RLSRKKREAEAMKATEDGTPYDPYKALWFERKKDPVTKELTHIYGEYWECKEKQDWSSCP
DIF

>DP02327|Q00169#1-12 #119-190 #233-270

MVLLKEYRVILPVSVDEYQVGQLYSVAEASKNETGGGEVENEPLYEKGQYTHKI
YHLQSKVPTFVRMLAPEGALNIHEKAWNAYPYCRTVITNEYMKEDFLIKETWHKPDLGTQE
NVHKLEPEAWKHVEAVYIDIADRSQVLSKDYKAEEDPAFKSIKTGRGPLGPWNWKQELVNQ
KDCPYMCAYKLTVKFWGLQNKVENFIHKQERRLFTNFHRQLFCWLDKWVDLTMDDI
RRMEEETKRQLDEMQRKDPVKGMTADD

>DP00263|P02693#29-36

MAFDGTWKVDRNENYEKFMEKMGINVVKRKLGAHDNLKLTITQEGNKFTVKESSNFRNIDV
VFELGVDFAYSLADGTELGTWTMEGNKLVGKFKRVDNGKELIAVREISGNELIQTETYEGV
EAKRIFKKE

>DP01640|Q13351#51-90

MATAETALPSISTLTALGPFPDTQDDFLKWWRSEEAQDMGPGPDPTEPPLHVKSEDQPGEEE
DDERGADATWDL DLLTNFSGPEPGAPQTICALPSEASGAQYPPPTEPLGAYAGGPGLVAG
LLGSEDHSGWVRPALRARAPDAFVGPA LAPAPAPEPKALALQPVYPGPGAGSSGGYFRTGL
SVPAASGAPYGLLSGYPAMYPA PQYQGHFQLRGLQGPAPGPATSPSFLSCLPGTVGTGLG
GTAEDPGVIAETAPSKRGRRSWARKRQAAHTCAHPGCGKS YT KSSH LKAHLRHTGEKPYA
CTWEGCGWRFARSDELTRHYRKHTGQRPFRCQLCPRAFSRSIDLALHMKRHL

>DP01488|P69346#53-83

MRTISYSEARQNL SATMMKAVEDHAPI LTRQN GEACV LMS LEE YNS LEETAY LLRSPANAR
RLMDSIDSLKSGKGTEKDIIE

>DP01442|Q2Q4X9#1-260

MSQEQRSPQAGQDPIKYGDVLPVSGDLSQKPTPEDAAMMQSAESRVLGQTQPGGVASVM
QSAATRNEQAGIVGHKDVTDTVGDGRVTVTETQVPGRRIITETVGGQVVGQFVEPTPVQVGL
TGAVRESALTIGEALEATAHTVGDKPVEQSDASAIQAAEV RATGSNVITPGGLASMAQSAAA
FNAECQREEEKIMGNVLTGATAKLPADKAATRQDAAGVASAEMRNNPDATATPGGVAAS
VAAAARLNENVGNVM

>DP00221|P07476|#1-585

MSQQHTLPVTLSPLSQELLKTVPPPNTHQEQMKQPTPLPPPCQKVPVELPVEVPSKQEEKH
MTAVKGLPEQECEQQQKEPQEQLQQQHWEQHEYQKAENPEQQLKQEKTQRDQQLNKQL
EEEKKLLDQQLDQELVKRDEQLGMKKEQLLELPEQQEGHLKHLEQQEGQLKHPEQQEGGLE
LPEQQEGQLELPEQQEGQLELPEQQEGQLELPEQQEGQLELPQQEGQLELSE
QQEGQLELSEQQEGQLKHLHQEGQLEVPEEQMQLKYLEQQEGQLKHLQQEKQPELPEQ
QMQLKHLHQEGQPKHLEQQEGQLEQLEEQQEGQLKHLHQEGQLEHLEHQEGQLGLPEQQ
VLQLKQLEKQQGQPKHLEEEGQLKHLVQQEGQLKHLVQQEGQLEQQERQVEHLEQQVGQ
LKHLLEQQEGQLKHLLEQQGQLEVPEQQVGQPKNLEQEEKQLELPEQQEGQVKHLEKQEAQL
ELPEQQVGQPKHLEQQEKHLEHPEQQDGQLKHLHQEGQLKDLQQKGQLEQPVFAPAPGQ
VQDIQPALPTKGEVLLPVEHQQQKQEVQWPPKHK

>DP01010|P51177|#2-18 #132-144 #191-204

MGQQFSWEEAEENGAVGAADAAQLQEWYKKFLEECPSGTLFMHEFKRFFKVPDNEEATQY
VEAMFRAFDTNGDNTIDFLEYVAALNLVRGTLHKLKWTFKIYDKDRNGCIDRQELLDIVE
SIYKLKKACSVEVEAEQQGKLLTPEEVVDRIFLLVDENGDGQLSNEFVEGARRDKWVMKM
LQMDLNPSWISQQRRKSAMF

>DP00346|P07140|#142-173 #613-623

MAISCRQSRVLPMSPPLTIPPLVVLVSLHLSGVCGVIDRLVVQTSSGPVRGRSVTVQGREV
HVYTGIPYAKPPVEDLRFRKPVPAEPWHGVLDATGLSATCVQERYEYFPFGSGEEIWPNTN
VSEDCLYINVWAPAKARLRHGRGANGGEHPNGKQADTDHLLIHNGNPQNTTNGLPILIYGG
GFMGTGSATLDIYNADIMAAGVNIVASFQYRVAFGFLHLAPEMPSEFAEAPGNVGLWDQ
ALAIRWLKDNAHAFFGNPEWMTLFGESAGSSVNAQLMSPVTRGLVKRGMMQSGTMNAP
WSHMTSEKAVEIGKALINDCNCNASMLKTNPAHVMSCMRSDAKTISVQQWNSYSGILSFPS
APTIDGAFLPADPMTLMKTADLKDYDILMGNVRDEGYFLLYDFIDYFDKDDATALPRDKYL
EIMNNIFGKATQAEREAIIFQYTSWEGNPGYQNQQQIGRAVGDHFFTCPTNEYAQALAERGA
SVHYYFTHRTSTSLWGEWMGVHGDEIEYFFGQPLNNSLQYRPVERELGKRMLSAVIEFAK
TGNPAQDGEEWPNSKEDPVYYIFSTDDKIEKLARGPLAACSFWNDYLPKVRSWAGTCDG
DSGSASISPRLLQGIAALIYICAALRTKRVF

>DP01123|P43403|#258-302 #484-500

MPDPAAHLPFFYGSISRAEAEELKLAGMADGLFLRQCLRSLLGGYVLSLVHDVRFHHFPIER
QLNGTYAIAGGKAHC GPAELCEFYSRDPDGLPCNLRKPCNRPSGLEPQPGVFDCLRDMAMVRD
YVRQTWKLEGAELEQAIISQAPQVEKLIATTAKERMPWYHSSLTREEAERKLYSGAQTDGKF
LLRPRKEQGTYALSLIYGKTVYHYLISQDKAGKYCIPEGTKFDLWQLVEYLKLKADGLIYCL
KEACPNSSASNAGAAAPTLPAHPSTLTHPQRRIIDLNSDGYTPEPARITS PDKPRPMPMDTSV
YESPYSDPEELKDKKLFKRDNLLIADI ELCGCGNFGSVRQGVYRMRKKQIDVAIKVLKQGTE
KADTEEMMREAQIMHQLDNPYIVRLIGVCQAEALMLVMEMAGGGPLHKFLVGKREEIPVSN
VAELLHQVSMGMKYLEEKNFVHRDLAARNVLLVNRHYAKISDFGLSKALGADDSYTARS
AGKWPLKWWAPECINFRKFSSRSDVWSYGV TMWEALS YGQKPYKKMKGPEVMAFIEQGKR
MECPPECPPELYALMSDCWIYKWEDRPFLTVEQRMRACYYSLASKVEGPPGSTQKAEAAC
A

>DP02494|O56139|#1-216

MAADGYLPDWLEDNLSEGIREWWALKPGVPQPKANQQHQNRRGLVLPGYKYLGPNGL

DKGEPVNEADAAALEHDKAYDQLKAGDNPYLKYNHADAEGQERLQEDTSFGGNLGRAVF
QAKKRILEPLGLVEEAAKTAPGKKRVDQSPQEPDSSSGVGKSGKQPARCKRLNFGQTGDSES
VPDPQPLGEPPAAPTSLGNTMASGGAPMADNNNEGADGVGNSSGNWHCDSQWLGDRTVIT
TSTRTWALPTYNHLYKQISSQSGASNDNHYFGYSTPWGYFDFNRFHCHFSRWDWQRLLINNN
WGFRPKKLSFKLFNIQVKETQNDTTIANLTSTVQVFTDSEYQLPYVLGSAHQGCLPPFP
ADVFMVPQYGYLTNNNGSQAVERSSFYCLEYFPSQMLRTGNNFQFSYTFEDVPFHSSYAHQS
SLDRLMNPLIDQYLYLNRTQGTTSQAGPQSMSLQARNWLPGPCYRQQRLS
KTANDNNNSNFPWTAASKYHLNGRDSLVPGPAMASHKDDEKFFPMHGNLIFGKEGTAS
NAELDNVMITDEEEIRTTNPVATEQYGTAVANNLQSSNTAPTRTVNDQGALPGMVWQDRDV
YLQGPIWAKIPHDTGHFHPPLMGFGLKHPHQIMIKNTPVPANPPTFSPAKFASFITQYSTG
QVSVEIEWELQKENSKRWNPEIQYTSYNKSVNVDFVTDTNGVYSEPRPIGTRYLTRNL
>DP00820|O73557|#1-29 #71-99

MGNKQAKAPESKDSPRASLIPDATHLGPFCKSCWFENKGLVECNNHYLCLNCLLSSVN
RCPICKMPLPTKLPSAAPTAPPTGAADSIRPPPYS
>DP00201|P02721|#33-108

MILQRLFRLSSAVQSAISVSWRRNIGITAVAFNKELDPVQKLFVDKIREYRTKRQTSGGPVDA
GPEYQQDLDRELFKLKQMYGKADMNTFPNFTFEDPKFEVVEKPQS
>DP01280|P05067|#672-686 #672-711 #697-711

MLPGLALLLAATWARALEVPTDGNAGLLAEPQIAMFCGRLNMHMNVQNGKWDSDPSTK
TCIDTKEGILQYCQEYVPELQITNVVEANQPVTIQNWCKGRKQCKTHPHFVIPYRCLVGEFV
SDALLVPDKCKFLHQERMDVCETHLHWHTVAKETCSEKSTNLHDYGMLLPCGIDKFRGVEF
VCCPLAEESDNVDSADAEEEDSDVWWGGADTDYADGSEDKVVEVAEEEEVAEVEEEEADD
DEDDEDGDEVEEEAEPPYEATERITSIATTTTTESVEEVREVCSEQAETGPCRAMISRW
YFDVTEGKCAPFFYGGCGGNRNNFDTEEYCMAVCGSAMSQSLKTTQEPLARDPVKLPTTA
ASTPDAVDKYLETPGDENEHAHFQKAKERLEAKHRERMSQVMREWEEAERQAKNLPKADK
KAVIQHFQEKEVSELEQEAANERQQLVETHMARVEAMLNDRRRLALENYITALQAVPPRPRH
VFNMLKKYVRAEQKDRQHTLKHFEHVRMVDPKAAQIRSQVMTHLRVIYERMNQSLLLY
NVPAVAEEIQDEVDELLQKEQNYSDVLANMISEPRISYGNALMPSLTETKTTVELLPVNGE
FSLDDLQPWHSGFADSVPANTEVEPVDARPAADRGTLTRPGSLTNKTEEISEVKMDADEF
RHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVIATVIVITLVMLKKQYTSIHHGVVE
VDAAVTPEERHLSKMQQNGYENPTYKFFEQMQN
>DP01941|Q4JC68|#99-143

MLKLRDWQEKLKDKVIEGLRNNFLVALNAPTGSGKTLFSLLSLEVPKVLFVVRTHNEFYP
IYRDLTKIREKRNITFSFLVGKPSSCLYAEKGAESEDIPCKYCELKGSIVEVKTDDPLSLVKKL
KKDGLQDKFCPPYSLLNSLYKADVIALTYPYFFIDRYREFIDIDLREYMIVIDEAHNLKVNEL
EERSLSEITIQMAIKQSKSEESRRILSKLLNQLREVVLPEDEKYIKVENVPKLSKEELEILADDYE
DIRKDSLKQGKVNKIHIGSILRFFSLLSIGSFIPFSYSKRLVIKNPEISYYLNLLNDNELSIILMSGT
LPPREYMEKVWGIKRNMLYLDVEREIQKRVSGSYECYIGVDVTSKYDMRSNDNMWKRYADY
LLKIYFQAKANVLVVFPSYEIMDRVMSRISLPKYVESEDSSVEDLYSAISANNKVLIGSVGKG
KLAEGIELRNNDRSLISDVIVGIPYPPPDDYLKILAQRVSLKMNRENEEFLFKIPALVTIKQAI
GRAIRDVNDKCNVWLLDKRFESLYWKKNLKCLNANKMKL
>DP00903|P47813|#1-27 #124-144

MPKNKGKGGKNRRRGKNENESEKRELVFKEDGQEYAQVIKMLGNGRLEAMCFDGVKRLCH
IRGKLRKKWINTSDIILVGLRDYQDNKADVLKYNADEARSLKAYGELPEHAKINETDTFGP
GDDDEIQFDDIGDDDEDIDDI
>DP00873|Q9H981|#401-507

MTQAEKGDTENGKEKGGEKEKEQRGVKRPIVPALVPESLQEIQSNFIIVIHPGSTTLRIGRAT

DTLPASIPHVIARRHKQQGQPLYKDSWLLREGLNKPESEQRQNGLKMVDQAIWSKKMSNG
TRRIPVSPEQARSYNKQMRPAILDHCSGNKWTNTSHPEYLVGEEALYVNPLDCYNIHWP
RGQLNIHPGPGGSLAVLADIEVIWSHAIQKYLEIPLKDLKYYRCILLIPDIYNKQHV
KELVNM
ILMKMGFSGIVVHQESVCATYGSGLSSTCIVDVGDKTSVCCVEDGVSHRNTRLCLAYGGSD
VSRCFYWLMQRAGFPYRECQLTNKMDCLLQHLKETFCHLDDQDISGLQDHEFQIRHPDSPAL
LYQFRLGDEKLQAPMALFYPATFGIVGQKMTTLQHRSQGDPEPDHFDEHYLLATQSKQE
QSA
KATADRKSASKPIGFEGDLRGQSSDLPERLHSQEVDLGSAQGDGLMAGNDSEEALTALMSRK
TAISLFEKGALGLDKAILHSIDCCSDDTKKKMYSSILVVGGLMFHKAQEFLQH
RILNKMPP
SFRRRIENVDVITRPKDMDPRLIAWKGGAVLACLDTTQELWIYQREWQRFGVRMLRERA
AFV
W

>DP01597|P52945|#204-283

MNGEEQYYAATQLYKDPCAFQRGPAPEFSASPPACLYMGRQPPPPPHFPFGALGALEQGSPP
DISPYEVPLADDPAVAHLHHHLPAQLALPHPPAGPFPEGAEPGVLEEPNRVQLFPWMKSTK
AHAWKGQWAGGAYAAEPEENKRRTAYTRAQLLEKEFLFNKYISRPRRVELAVMLNLTE
RHIFIWFQNRRMKWKKEEDKKRGGGTAVGGGGVAEPEQDCAVTSGEELLALPPPPP
GGAV
PPAAPVAAREGRLPPGLSASPQPSSVAPRRPQEPR

>DP01069|Q6MRH6|#1-101

MKRLLVLSILLTGFAGTASADENANRPVNPGEDPNEAFRSTPFEATT
SALGDCRECIAYRT
GATTGKGSRRHDDTVSREIKGSSATPGGSEKAGTGRQ

>DP00273|P04695|#340-350

MGAGASAEKHSRELEKKLKEDA
KDARTVKLLLLGAGESGKSTIVKQMIIHQDGYSLEEC
LEFIAIYGN
TLQSILAIVRAMTTLN
IYQGDSARQDDARKLMHMADTIEEGT
MPKEMSDIIQLR
WKDSGIQACFDRA
SEYQLNDSAGYY
LSDLERLVT
PGYVPTEQDV
LRSRVKT
TGIETQFSFKD
LNFRMFDVGG
QRSERKK
WIHC
FEGVTCI
IFIA
ALSA
YDMV
LVED
DEV
NRM
HESL
HLFNSICN
HRYFATT
SIVLFLN
KKDV
FSEK
IKKA
HLSIC
CPDY
NGPNTY
EDAG
NYIK
VQF
LELN
MRRDV
KE
IYSH
MTCAT
DTQNV
KFV
FDAV
TDII
KENL
KDCGLF

>DP01439|A5F384|#101-110

MIGKKSQT
NVYRMSK
FDTYIFNN
LYINDY
KMF
WIDSGIA
KLID
KNCL
VSYE
INSS
I
LLKKN
SIQR
FSL
TLS
DEN
INV
SVIT
ISDS
FIR
SLK
SYI
LG
DLM
IR
RNLY
SEN
K
DLL
WNCE
HNDI
AVL
SEV
VNG
FRE
IN
Y
S
DEF
LK
VFF
SGFF
SK
VE
KK
Y
NS
I
F
DD
L
D
AME
K
IS
CL
V
K
SD
I
TR
N
WR
WAD
IC
GE
L
RT
N
R
M
IL
K
KE
L
E
SR
GV
F
RE
L
I
N
R
I
S
Y
S
I
S
L
M
K
T
G
E
F
K
I
K
Q
I
A
Y
Q
SG
F
A
S
V
S
Y
F
S
T
V
F
K
S
T
M
N
VAP
SEY
LF
MLT
GV
AE
K

>DP00633|Q09472|#401-566

MAENV
VEPG
PPSA
KRP
KLSS
PALS
ASAS
ADGT
DFG
SLFD
LEHD
LPDE
INST
ELGL
TN
GDI
NQL
Q
T
SLGM
V
QDA
ASK
KH
KQL
SELL
RG
SSP
NL
NM
VG
GG
PG
QV
MAS
QA
QQ
SP
GL
L
IN
SM
VK
SP
MT
QAGL
T
SPN
M
GM
GT
SG
PN
QG
PT
Q
ST
GM
MN
SP
PV
N
Q
PAM
GM
NT
GM
NA
GM
NP
GM
LA
AG
NG
Q
G
IMP
N
QVM
M
NG
SIG
AGR
GR
Q
NM
Q
YP
N
PG
MG
S
AG
N
LL
TE
PL
L
QQ
G
SP
QM
GG
QT
GL
RG
P
Q
PL
K
MG
MM
NN
NP
PY
G
SP
YT
Q
NP
G
QQ
I
G
AS
GL
L
Q
I
QT
K
T
V
L
S
N
N
L
S
P
F
AM
DK
K
A
V
P
GG
MP
NM
G
QQ
P
Q
G
Q
SP
Q
G
M
R
PM
S
N
MS
A
SP
M
G
V
N
G
V
G
V
Q
TP
S
L
S
D
S
M
L
H
S
A
I
N
S
Q
N
P
M
M
S
E
V
P
S
L
G
P
M
P
T
A
A
Q
P
S
T
T
G
I
R
K
Q
W
H
E
D
I
T
Q
D
L
R
N
H
L
V
H
K
L
V
Q
A
I
F
P
T
P
D
P
A
A
L
K
D
R
R
M
E
N
L
V
A
Y
A
R
K
V
E
G
D
M
Y
E
S
A
N
R
A
E
Y
Y
H
L
A
E
K
I
Y
K
I
Q
K
E
E
K
R
R
T
L
Q
K
Q
N
M
L
P
N
A
A
G
M
V
P
V
S
M
P
G
Q
P
G
M
T
S
N
G
P
L
P
D
P
S
M
I
R
G
S
V
P
N
Q
M
P
R
I
T
P
Q
S
G
L
N
Q
F
G
Q
M
S
M
A
Q
P
P
I
V
P
R
Q
T
P
L
Q
H
G
Q
L
A
Q
P
G
A
L
N
P
P
M
G
Y
G
P
R
M
Q
P
S
N
Q
G
Q
F
L
P
Q
T
Q
F
P
S
Q
G
M
N
V
T
N
I
P
L
A
P
S
S
G
Q
A
P
V
S
Q
G
S
H
I
C
P
Q
L
P
Q
P
A
L
H
Q
N
S
P
P
V
P
S
R
T
P
H
T
P
S
I
G
A
Q
Q
P
P
A
T
T

PAPVPTPPAMPPGPQSQALHPPRQTPTPPTQLPQQVQPSLPAAPSADQPQQQPRSQQSTAAS
VPTPTAPLLPPQPATPLSQAVSIEGQVSNPPSTSSTEVSQIAEKQPSQEVKMEA KMEVDQP
EPADTQPEDISESKVEDCKMESTETEERSTELKTEIKEEDQPSTSATQSSPAPGQSKKIFKPE
ELRQALMPTLEALYRQDPESLPFRQPVDPQLLGIPDYFDIVKSPMDLSTIKRKLDTGQYQEPW
QYVDDIWL MFNNAWLYNRKTSRVYK YCSKLSEVFEQEIDPVMQSLGYCCGRKLEFSPQTLC
CYGKQLCTIPRDATYYSYQNRYHFCEKCFNEIQGESVSLGDDPSQPQTINKEQFSKRNDTL
DPELFVECTECGRKMHQICVLHHEIIWPAGVCDGCLKSARTRKENKFSAKRLPSTR LGTF
ENRVNDFLRRQNHPESGEVTVRVVA SDKTVEVKPGMKARFVDSGEMAESFPYRTKALFA
EEIDGV D L C F F G M H V Q E Y G S D C P P N Q R R V Y I S Y L D S V H F F R P K C L R T A V Y H E I L I G Y L E Y V K
K L G Y T T G H I W A C P P S E G D D Y I F H C H P P D Q K I P K P K R L Q E W Y K K M L D K A V S E R I V H D Y K D I F K
QATEDRLTSAKELPYFEGDFWPNVLEESIKELEQEEEERKREENTSNESTDVTKGDSKNAKKK
NNKKTSKNKSSLRG NKKPGMPNVSN DLSQKL YATMEKHKEVFFVIRL A G P A A N S L P P I V
DPDPLIPCDLMDGRDAFLT LARDKHLEFSSLRRAQWSTM CML VELHTQSQDRFVYTCNECK
HHVETRWHCTVCEDYDLCITCYNTKNHDHKMEKLGLGLDDESNNQQAATQSPGDSRRLSI
QR CI QSLVHACQCRNANC SLPSCQKM KRVVQHTKGCKRKTNGCPICKQLIALCCYHAKHC
QENKCPVPFC LNIKQKLRQQQLQHRLQQAQM LRRMASM QRTGVVGQQGLPSPTPATPTT
PTGQQPTTPQTPQPTS QPQPTPPNSMPPYL PRTQAAGPV SQGKAAGQVTPPTPPQTAQ PPLPGP
PPAAVEMAMQI QRAETQRQMAHVQIFQRPIQHQMPPMTPMAPMG MN PPPMTRG PGS GHLE P
GMGPTGMQQQPPWSQGGLPQPQQLQSGMP R PAMMSVAQHGQPLNMAPQ PGLGQVG ISPLK
PGTVSQQALQNLRLRSPSSPLQQQVLSILHANPQ LLA AFIKQRAAKYANSNPQPIPQPG
MPQGQPGLQPP TMPGQQGVHSNP AMQNMNP MQAGVQRAGLPQQPQQQLQPPMGGMSPQ
AQQMNMNHNTMPSQFRDILRRQQMMQQQQGAGPGIGPGMANHNQFQQPQGVGYPPQQ
QCRMQHHMQQMQQGNMGQIGQLPQ ALGA EAGASLQAYQQRLLQQQMGS PVQPNPMSPQQ
HMLPNQAQSPHLQGQQIPNSLSNQVRSPQPVPS PR PQS QPPHSSPSRMQPQSPH VSPQTSS
PHPGLVAAQANPMEQGHFASPDQNSMLS SQLASNP GMAN LH GASATDLG LSTD NSDL NSNLS
QSTLDIH

>DP01478|Q9UJX5|#304-317 #431-444 #458-469 #458-472 #480-521 #758-808

MLRFPTCFPSFRVVGEKQLPQEIIFLVWSPKRDLIALANTAGEVLLHRLASFHRVWSFPPNENT
GKEVTCLAWRPDGKLLAFALADTKIVLCDVEKPESLHSFSVEAPVSCMHWMEVTVESSVL
TSFYNAEDESNLLPKLPTLPKNYSNTSKIFSEENSDEIIKLLGDVRLNIVLGGSSGFIELYAYG
MF KIARVTGIAGTCLALCLSSDLKSLSVTEVSTNGASEVS YFQLETNLLYSFLPEVTRMARK
FTHISALLQYINLSLTCMCEAWEELMQMD SRLTKFVQE KNTTSVQDEFM HLLW GKASAE
LQTLLMNQLTVKGLKKLGQSIESSYSSIQKL VISHLQSGSE SLLYHLSELKG MASWK QKYEPL
GLDAAGIEEAITA VGSFILKANE LLQVIDSSMKNFKAFFRWLYVAML RTEDHVLPELN KMT
QKDITFVAEFLTEHFNEAPDLYNRKGKYFNVERVGQYLKDE DDDLVSPNTEGNQWYDFLQ
NSSHLKESPLLFPYYPRKSLHFV KRRMENIDQCLQKPADVIGKSMNQ AICIPL YRDT RSED ST
RRLF KFPFLWNNKTSNLHYLLFTILED SLYKMCILR RHTDISQSVNSNLIAIKFGSFTYATTEKV
RRSIY SCLDAQFY DDET VTVVLKDTVGREGDRLLVQLPLSLVYNSEDSA EYQFTGT YSTR L
DEQCSAIPTRTM HF EKHW RLLES MKAQYVAGNGFRKVSCV LSSN LRH RVFEM DIDE WEL
DESSDEEEEASNKPVKIKEEV LSESEA ENQQAGAA ALAPEIVIKVEKLDPELDS

>DP00445|P02511|#165-175

MDIAIHPWIRPF PFHSPSRLFDQFFGEHLL EDLFTSTS LSPF YLRPPSFLRAP SWF DT GLS
EMR LEKDRFSVNLDVKHFSPEELKVVL GDVIEV HGKHEER QDEHGFISREF HRK YRIP ADV
DPLTITSS LSSDG VLT VNGPRKQVSGPERTIPI TREEKPAVTAAPKK

>DP01765|Q9NQA5|#587-725

MGGFLPKAEGPGSQLQKL LPSFLVREQDWQHLDKLHMLQQKRILESPLL RASKENDLS VL
QLLDCTCDVRQR GALGETALHIAALYDNLEAALV LMEA APEL VFEPTTCEAFAG QTALHIA

VVNQNVNLVRALLTRRASVSARATGTAFRRSPRNLIYFGEHPLSFAACVNSEEIVRLLIEHGA
DIRAQDSLGNLTVLHILILQPQNKTFACQMYNLLSYDGHGDLQPLDVLVNHQGLTPFKLAGV
EGNTVMFQHLMQKRRHIQWTYGPLTSILYDLTEIDSWGEELSFLVVSSDKREARQILEQTP
VKELVSKWNKYGRPYFCILAALYLGYMICFTTCCVYRPLKFRRGNRTHSRDITILQQKLLQE
AYETREDIIRLVGELVSIVGAVIILLEIPDIFRGASRYFGKILGGPFHVIITYASLVLVTMVM
RLTNNTGEVVPMSFALVLGWCVMYFTRGFQMLGPFTIMIQKMIFGDLMRFCWLMAVVILG
FASAFYIIFQTEDPTSLGQFYDYPMALFTTFLFLTVIDAPANYDVDPFMFSIVNFAFAIIATLL
MLNLFIAMMGDTHWRVAQERDELWRAQVVATTVMLERKLPRCLWPRSGICGCEFLGDR
WFLRVENHNDQNPLRVLRYVEVFKNSDKEDDQEHPSEKQPSGAESGTLARASLAALPTSSLR
TASQSSHHRGWEILRQNTLGHNLGLNLEGDGEELYHF

>DP01507|Q9UQC2|#504-524

MSGGGDVVCTGWLRSPEKKLRRYAWKKRWFLRSGRMSGDPDVLEYYKNDHSKKPLRII
NLNFCEQVDAGLTFNKELQDSFVFDIKTSERTFYLVAETEEDMNWKVQSCIQICGFNQAEE
TDSLNVSSAGHGPRSSPAELSSSQHLLRERKSSAPSHSSQPTLFTFEPPVSNHMQPTLSTSAP
QEYLYLHQCISRRAENARSASFSGTRASFLMSRTAVQKLAQNGNGHCVNGISGQVHGFYSL
PKPSRHNTFRDSTYDPLRSLASHGHTKGSLTGSETDNEDVYTFKTPSNTLCREFGDLLVDNM
DVPATPLSAQIPRTFTLDKNHNAMTVATPGDSAIAPPPCKPSQAETPRWGSPQRPPISEN
SRSVAATIPRNRNLPAMDNSRLHRASSCETYEPQRGGESAGRSAEESMSDGVGSFLPGKIV
GRSDSTNSENYVPMNPGSSTLLAMERAGDNSQSYYIPMSPGAHHFDLSLGYPSTTLPVHRGP
SRGSEIQPPPVRNRLKPDRKAKPTPLDRNNTVIDELPKSPITKWSRANHTFNSSSQYCRPI
STQSITSTDGSEENYVPMQNPVSASPVGSGTNSPAPKKSTGSVDYLALDFQPSSPSHRKPS
TSSVTSDKEKVVDYVQVDKEKTQALQNTMQEWTDVRQSSEPSKGAKL

>DP00030|P04150|#77-262

MDSKESLTPGREENPSSVLAQERGDVMDFYKTLGGATVKVSASSPSLAVASQSDSKQRLL
VDFPKGSVSNAQQPDLSKAVSLSMGLYMGETETKVMGNDLGFPQQGQISLSSGETDLKLEE
SIANLNRSTSVENPKSSASTAVSAAPTEKEFPKTHSDVSSEQQHLKGQTGTNGGNVKLYTTD
QSTFDILQDLEFSSGSPGKETNESPWRS DLLIDENCLLSPLAGEDDSFLLEGNSNEDCKPLILPD
TKPKIKDNGDLVSSPSNVTLPQVKTEKEDFIELCTPGVIKQEKLGTVYCQASPGGANIGNKM
SAISVHGVSTSGGQMYHYDMNTASLSQQQQDKPIFNVIPPIPGSENWNRCQGSDDNLTS
GTLNFPGRTRVFSNGYSSPSMRPDVSSPPSSSTATTGPPP KLCVCSDEASGCHYGVLCGSCK
VFFKRAVEGQHNYLCAGRNDIIDKIRRNCACRYRKCLQAGMNLEAR KKKKIKGIQQAT
TGVSQETSENPGNKTIVPATLPQLPTLVSLEVIEPEVLYAGYDSSVPDSTWRIMTLNMLGG
RQVIAAVKWAKAIPGFRNLHLDQM TLQYSWMFLMAFALGWRSYRQSSANLLCFAPDLII
NEQRMTLPCM YDQCKHMLYVSELHRLQVSYEEYLCMKTLLLSSVPKDGLKSQELFDEIR
MTYIKELGKAIVKREGNSSQN WQRFYQLTKLLDSMHEVVENLLNYCFQTFLDKTMSIEFPEM
LAEIITNQIPKYSNGNIKKLLFHQK

>DP00520|Q969F2|#1-217

MGKLQSKHAAARKRRESPEGDSVASAYASGRKGAEAAERRARDKQELPNGDPKEGP FRE
DQCPLQVALPAEKAEGREHPGQLLSADDGERAANREGPRGP GGQRLNIDALQCDVSVEEDD
RQEWTFTLYYDFDNC GKVTREDMSSLMHTIYEVVDASVNHSSGSSKTLRVKLT VSEPESSKRK
EGPPAGQDREPTRCRM EGE LAEEPRVADRR LSAHVRRPSTD P QPCSERGPYCVDENERRNH
YLDLAGIENYTSRGPGSPPVQAKQEPQGRASHLQARSRSQEPDTHAVVHRRSQLV EHVVP
ASEPAARALDTQPRPKGPEKQFLKSPKGSGKPGV PASSKSGKA FSYYLPAVLPPQAPQDGHH
LPQPPPPPYGHKRYRQKGREGHSPLKAPHAQPATVEHEVVRDLPPTPAGEGYAVPVIQRHEH
HHHHEHHHHHHHHHFHPS

>DP00187|P04273|#23-106 #90-126 #138-143 #165-171

MANLSYWLLALFVAMWTDVGLCKRPKGPGWNTGGSRYPGQGSPGNRYPPQGGTWGQ

PHGGGWGQPHGGWGQPHGGWGQPHGGWGQGGGTHNQWNKPSKPCTNMKHMAGA
AAAGAVVGGLLGGYMLGSAMSRPMHMFGNDWEDRYYRENMNRYPNQYYRPVDQYNNQ
NNFVHDCVNITIKQHTVTITKGENFTETDIKIMERVVEQMCTTQYQKESQAYDGRSSAV
LFSSPPVILLISFLIFLMVG

>DP01527|Q57904|#46-101

MFGSIFDIYYKTLDAIFMPIKVLHPALAILIIAIIVSLIINIATKLLVDQKRAELKKEIQEfvKF
KKMSKNPEMMEKLQEEQQRIMQLNAELMKMSFRPMIYTWWPIILIFIYLRHVYFGGVYQEL
NPGWNGVVVYLPILSKILFIDFWHLGSIFYKGGFKIVSNTALGWLGYILCSFATSTVLRKI
LGIK

>DP00995|P01097|#28-50

MLPRSLARSLQLQRGVAARFYSEGSTGTPRGSGSEDSFVKRERATEDFFVRQREKEQLRHL
KEQLEKQRKKIDSLENKIDSMTK

>DP01157|P04908|#1-27 #98-130

MSGRGKQGGKARAKAKTRSSRAGLQFPVGRVHRLRKGNYSERVGAGAPVYLAALVLEYLT
AEILELAGNAARDNKKTRIIPRHLQAIRNDEELNKLGRVTIAQGGVLPNIQAVLLPKKTESH
HKAKGK

>DP01975|O74958|#282-327

MSNTNFSTSRSKSIPELPNLEALRSLWPPPSLNESGDTRSVWTTHTGEPVASSVLSTSGSNNS
SPLKRPAPESHDAPIGRRLMVDDPRLIKHGKYDFSRHCTDYGHSYEWPYFRSLRRESMLYHT
SGSYPESQPPYSSYSTDAPHYYHAGSESSAYYDSRSRLHGIQPPPKRRTLSPPRRLADPVVVG
SSRYVEEVYRRPPYTLASEVPSSASAYQAGYSSYPVRSSPQLSHEDTRHGIASSGSTRYPFVP
ANTRASHSPSLLEPYAHSLPSSVAPVGAYPEKSSYLLNSNSNDASRKEKPKARASTPPPLNFS
RASEHRNEKGERISMINPRVVLDENGISHRSRYFIMLCDNETAIAHAKKTSIWAVKKDSSKRIS
DAYKKASVYFIFVAQQTYNALGYAQVVSIDLNSTELPFWSDSSHAGGVRIKWIKTCNLFSAEIS
EIVSHMDHGSEARDGMEMMYDEGSRLCTLINYAIMKRIGRDR

>DP01887|P08592|#672-687

MLPSLALLLAATVRALEVPTDGNAGLLAEPQIAMFCGKLNMHMNVQNGKWESEPSGT
TCIGTKEGILQYCQEVPTELQITNVVEANQPVTIQNWCKRGRKQCKTHTHIVIPYRCLVGEFV
SDALLVPDKCKFLHQERMDVCETHLHWHTVAKETCSEKSTNLHDYGMLLPCGIDKFRGV
VCCPLAEESDSIDSADEEDDSDVWWGGADTDYADGGEDKVVEAEEEEVADVEEEEAE
DEDVEDGDEVEEEAEPYEEATERTTSIATTTTTESVEEVVREVCSEQAETGPCRAMISRW
YFDVTEGKCAPFFYGGCGGNRNNFDTEEYCMAVCGVSSQSLLKTSEPLQDPVKLPTTAA
STPDAVDKYLETPGDENEHAHFQKAKERLEAKHRERMSQVMREWEEAERQAKNLPKADKK
AVIQHFQEKEVSELEQEAANERQQLVETHMARVEAMLNDRRRLALENYITALQAVPPRPHHV
FNMLKKYVRAEQKDRQHTLKHFVHVRMVDPKKAAQIRSQVMTHLRLVIYERMNQSLSLYN
VPAVAEEIQDEVDELLQKEQNYSDDVLANMISEPRISYGNALMPSLTEKTTVELLPVN
GEF SLDDLQWPWHFGVDSVPANTEVEPVDARPAADRGLTTRPGSGLTNKTEEISEVKMDAEF
GHDSGFEVRHQKLVFAEDVGSNKGAIIGLMVGGVVIATVIVITLVMLKKQYTSIHGVVE
VDAAVTPEERHLSKMQQNGYENPTYKFFEQMQN

>DP00364|Q15382|#33-41 #171-181

MPQSKSRKIAILGYRSVGKSSLTIQFVEGQFVDSYDPTIENTFTKLITVNGQEQYHLQLVDTAGQ
DEYSIFPQTYSIDINGYILVYSVTSIKSFEVIKVIHGKLLDMVGKVQIPIMLVGNKKDLHMERVI
SYEEGKALAESWNAAFLESSAKENQTAVDVFRRILAEKMDGAASQGKSSCSV
M

>DP00776|P0ACF8|#57-89

MSEALKILNNIRTLRAQARECTLETLEEMLEKLEVNVNERREEESAAAAEVEERTKLQQYR
EMLIADGIDPNELLNSLAAVKGSTKAKRAQRPAKYSYVDENGETKTWTGQGRTPAVIKKAM
DEQGKSLDDFLIKQ

>DP01308|O60828#1-35 #95-265

MPLPVALQTRLAKRGILKHLEPEPEEEEIAEDYDDDPVDYEATRLEGLPPSWYKVFDPSCGLP
YYWNADTDLVWLSPHDPSVVTSAKKLRSSNADAEEKLDRSHDKSDRGHDKSDRSHEK
LDRGHDKSDRGHDKSDRDRERGYDKVDRERERDRERDRDRGYDKADREEGKERRHHRREE
LAPYPKSKKAVSRKDEELDPMDPSSYDAPRGTWSTGLPKRNEAKTGADTTAAGPLFQQRPY
PSPGAVLRANAEASRTKQQD

>DP00998|Q05127#20-48

MTTRTKGRGHTAATTQNDRMPGPELSGWISEQLMTGRIPVSDIFCDIENNPGLCYASQMQQT
KPNPKTRNSQTQTDPICNHSFEVVQTLASLATVVQQQTIASESLEQRITSLENLKPVYDMA
KTISSLNRVCAEMVAKYDLLVMTTGRATAAAATEAYWAEHGQPPPGPSLYEESAIRGKIES
RDETVPQSvreafnnlnsttslteeNGKPDISAKDLRNIMYDHLPFGTAFHQLVQVICKLG
KDSNSLDIIHAEFQASLAEGDSPQCALIQITKRVPIFQDAAPPVIHRSRGDIPRACQKSLRPVPP
SPKIDRGWCVFQLQDGKTLGLKI

>DP02517|Q64487-12/#585-854

MVPVARPLSLLTFFLCACAETPPRFTRTPVDQTGVSGGVASFICQATGDPRPKIVWNKKGKK
VSNQRFEVIEFDGSGSVLRIQPLRTPRDEAIYECVASNNVGEISVSTRRTLVRDQIPRGFPTI
DMGPQLKVVERTRTATMLCAASGNPDPEITWFKDLPVDTSNNGRIKQLRSESIGGTPIRGA
LQIEQSEESDQGKYECVATNSAGTRYSAPANLYVRELREVRRVPPRFSIPPTNHEIMPGGSVNI
TCVAVGSPMPYVKWMLGAEDLTPEDDMPIGRNVLENDVRQSANYTCVAMSTLGVIEAIAQ
ITVKALPKPPGTPVVTTESTATSITLTWDSGNPEPVSYIIQHKPKNSEEPYKEIDGIATTRYSVA
GLSPYSDYEFRVVAVNNIGRPASEPVLTQTSEQAPSSAPRDVQARMLSSTTILVQWKEPEEEP
NGQIQGYRVYYTMDPTQHVNNWMKHNVADSQITTIGNLVPQKTYSVKVLAFTSIGDGPLSS
DIQVITQTGVPGQPLNFKAEPESSETSILLSWTPPRSDTIASYELVYRDGDQGEEQRITIEPGTSY
RLQGLKPNSLYYFRLSARSPQGLGASTAEISARTMQSMFAKNFHVKAVMKTSVLLSWEIPEN
YNSAMPFKILYDDGKMVEVDGRATQKLIVNLKPEKSYSFVLTNRGNSAGGLQHRVTAKTA
PDVLRTKPAFIGKTNLDGMITVQLPDVPANENIKGYIIIVPLKKSRGFKIPWESPDEMELDE
LLKEISRKRIRSIRYGREVELKPYIAAHFDVLPTEFTLGDDKHGGFTNKQLQSGQEYVFFVLA
VMDHAESKMYATSPYSDPVVSMDDLPQPITDEEEGLIWVVGVLAVVFIICIVIAILLYKRKR
AEESRKSSLPNSKEVPSHHPTDPVELRRLNFQTPGMASHPPPILEADHIERLKANDNLKFSQ
EYESIDPGQQFTWEHSNLEVNPKNRYANVIAYDHSRVLLSAIEGIPGSYDVNANYIDGYRKQ
NAYIATQGSLPETFGDFWRMIWEQRSATVMMTKLEERSRVKCDQYWPSRGTEETHGLVQVT
LLDTVELATYCVRTFALYKNGSSEKREVRQFQFTAWPDHGVPEHPTPFLAFLRRVKTCNPPD
AGPMVVHCSAGVGRGCFIVIDAMLERIKHEKTVDIYGHVTLMRAQRNYMVQTEDQYIFIHD
ALLEAVTCGNTEVPARNLYAYIQKLTQIETGENVTGMELEFKRLASSKAHTSRFISANLPCNK
FKNRLVNIMPYESTRVCLQPIRGVEGSDYINASFLDGYRQQKAYIATQGPLAETTEDFWRML
WEHNSTIVVMLTKLREMGREKCHQYWPAERSARYQYFVVDPMAEYNMPQYILREFKVTDA
RDGQSRTVRQFQFTDWPEQGVPKSGEGFIDFIGQVHKTKEQFGQDGPISVHCSAGVGRGVFI
TLSIVLERMRYEGVVDIFQTVKMLRTQRPAMVQTEDQYQFCYRAALEYLGSFDHYAT

>DP01332|P17931#1-115 #20-100

MADNFSLHDALSGSGNPNPQGWPGAWGNQPAGAGGYPGASYPGAYPGQAPPGAYPGQAPP
GAYPGAPGAYPGAPAPGVYPGPPSGPGAYPSSGQPSATGAYPATGPGYGAAGPLIVPYNLPPLP
GGVPRMLITILGTVKPNANRIALDFQRGNDVAFHFNPRFNENNRRVIVCNTKLDNNWGREE
RQSVFPFESGKPKIQVLVEPDHFKVAVNDAHLLQYNHRVKKLNEISKLGISGDIDLTSASYT
MI

>DP01281|Q9JM54#16-42 #73-93

MPGRKARRNAPVNPTRAELPPEAAQLRKIGDKVYCTWSAPDITVVLAQMPGKSQKSRMRS
PSPTRVPADLKDECAQLRIGDKVNLRQKLLNLISKLFNLVT

>DP01158|P06899#1-38
MPEPAKSAPAPKKGSKKAVTKAQKKDGKKRKRKRSRKESYSIYVYKVLKQVHPDTGISSKAMG
IMNSFVNDFERIAGEASRLAHYNKRSTITSREIQTAVRLLLPGELAKHAVSEGTKAVTKYTS
K
>DP01528|P15273#36-50
MNLSLSDLHRQSVRLVQQESGDCTGKLGNVAANKETTFQGLTIASGARESEKVFAQTVLSH
VANIVLTQEDTAKLLQSTVKHNLNNYELRSVGNGNSVLVSLRSDQMTLQDAKVLLEAALRQ
ESGARGHVSSHSHSVLHAPGTPVREGLRSHLDPPRERHTSGHIGAGEARATAPSTV
SPYGPEARAELSSRLTTLRNTLAPATNDPRYLQACGGEKLNFRDIQCCRQTAVRADLNANYI
QVGNTRTIACQYPLQSLESHFRMLAENRTPVLAVLASSSEIANQRFGMPDYFRQSGTYGSIT
VESKMTQQVGLGDGIMADMYTLTIREAGQKTISVPVVHVGNNWPDQTAVSSEVTKALASLV
QTAETKRNMYEKGSSAVADDSKLRPVIHCRAVGRTAQLIGAMCMNDSRNSQLSVEDMVS
QMRVQRNGIMVQKDEQLDVLIKLAEGQGRPLLNS
>DP00343|Q9Y6Q9#1018-1088
MSGLEGENLDPLASDSRKRKLPCTPGQGLTCSGEKRRREQESKYIEELAELISANLSDIDNFNV
KPDKCAILKETVRQIRQIKEQGKTISNDDDVQKADVSSTGQGVIDKDSLGPLLQALDGFLFV
VNRDGNIVFVSENVQTQYLQYKQEDLVNTSVYNILHEEDRKDFLKKNLPKSTVNGVSWTNETQ
RQKSHTFNCRMLMKTPHDILEDINASPEMRQRYETMQCFALSQPRAMMEEGEDLQSCMICV
ARRITTGERTFPSNPESFITRHDLSGKVVNIDTNSRSSMRPGFEDIIRRCIQRFFSLNDQSQWSQ
KRHYQEAYLNGHAETPVYRFSLADGTIVTAQTKSKLFRNPVTNDRHGFVSTHFLQREQNGYR
PNPNPVGQGIRPPMAGCNSSVGGMSMSPNQGLQMPSSRAYGLADPSTTGQMSGARYGGSSN
IASLTPGPGMQSPSSYQNNNYGLNMSSPHGSPGLAPNQNNIMISPRNRGSPKIASHQFSPVAG
VHSPMASSGNTGNHSFSSSSLSALQAISEGVGTSLLSTLSSPGPKLDNSPNMNTQPSKVSNQD
SKSPLGFYCDQNPVESSMCQNSRDHLSDKESKESSVEGAENQRGPLESKGHKLLQLLTCS
DDRGHSSLTNSPLDSSCKESSVSVTSPSGVSSSTSGVSSTSNMHGSSLQEKRILHKLLQNGN
SPAEVAKITAETGKDTSSITSCGDGNVVKQEQLSPKKKENNALLRYLLRDDPSDALSKELQ
PQVEGVDNKMSQCTSSTIPSSSQEKDPKIKTETSEEQSGDLDNLDAILGDLTSSDFYNNSISSNG
SHLGTKQQVFQGTNSLGLKSSQSVQSIQPPYNRAVSLDSPVVGSSPPVKNISAFPMLPKQPM
GGNPRMMDSQENYGSMSMGGPNRNTVTQTPSSGDWGLPNSKAGRMEPMNSNSMGRPGGD
YNTSLPRPALGGSIPTLPLRSNSIPGARPVLQQQQMLQMRRGEIPMGMGANPYGQAAASNQ
LGSPWDGMLSMEQVSHGTQNRPLLRNSLDDLVGPPSNLEGQSDERALLDQLHTLLSNTDAT
GLEEIDRALGIPELVNQGQALEPKQDAFQGQEAVMMDQKAGLYGQTYPAQGPPMQGGFH
LQGQSPSFNSMMNQMNNQQGNFPLQGMHPRANIMRPTNTPKQLRMQLQQLQQFLNQS
RQALEKMENTAGGAAVMRPMMPQPVSSQQGFLNAQMVAQRSRELLSHFRQQRVAMM
MQQQQQQQQQQQQQQQQQQQQQQQQQQTQAFSPPPNVTASPSMDGLLAGPTMPQAP
PQQFPYQPQNYGMGQQPDPAFGRVSSPPNAMMSSRMGPSQNPMQMHPQAASIYQSEMKGW
PSGNLARNSSFSQQQFAHQGNPAVYSMVHMNGSSGHMGQMNMPMSGMPGPDQKY
C
>DP01428|P03120#286-365
METLCQRLNVCQDKILTHYENDSTLIRDHIDYWKHMRLECAIYYKAREMGFKHINHQVVPT
LAVSKNKALQAIELQLTLETIYNSQYSNEKWTLDVSLEVLTAPTGCICKHGTVEVQFDG
DICNTMHYTNWTHIYICEEASVTVEGQVDYYGLYYVHEGIRTYFVQFKDDAEKYSKNKVV
EVHAGGQVILCPTSVFSSNEVSSPEIIRQHLANHPAATHTKAVALGTEETQTTIQPRSEPDGT
NPCHTTKLLHRDSVDSAPILTAFNSSHKGRINCNSNTTPIVHLKGDAANTLKCLRYRFKKHCTL
YTAVSSTWHWTGHNVKHKSIAVTLYDSEWQRDQFLSQVKIPKTTIVSTGFMSI
>DP00901|O75496#70-91
MNPSMKQKQEEIKENIKNSSVPRRTLKMIQPSASGSLVGRENELSAGLSKRKHRNDHLTSTS

SPGVIVPESSENKNLGGVTQESFDLMIKENPSSQYWKEVAEKRKALYEALKENEKLHKEIEQ
KDNEIARLKKENKELAEGAHEVQYMAELIERLNGEPLDNFESLDNQEFDSEEETVEDSLVEDS
EIGTCAEGTVSSSTDAKPCI

>DP01043|Q80FJ1|#2-31

MGSGPSNFVNHAPEGAIVTGLEKGADKVAGTISHTIWEVIAGLVALLTFLAFGFWLKYLQK
RRERRRQLTEFKRYLRNSYRLSEIQRPISQHEYEDPYEPPSRRKPPPPYSTYVNIDNVSAI

>DP01450|Q9UKT4|#1-318 #332-355 #437-447

MSRPCSCALRPPRCSCASPAVTAAGRPRPSDSCKEESSTLSVKMKCDFNCNVHSGLKLV
KPDDIGRLVSYTPAYLEGSKDCIKDYERLSCIGSPIVSPRIVQLETESKRLHNKENQHVQQTL
NSTNEIEALETSRLYEDSGYSSFSLQSGLSEHEEGSLLEENFGDSLQSCLLQIQSPDQYPNKNLL
PVLHFEKVCSTLKKNAKRNPKVDRMLKEIIARGNFRLQNIIGRMGLECVDILSELFRRGL
RHVLATILAQLSDMDLINVSKVTTWKKILEDDKGAFQLYSKAIQRVTENNKFSPHASTREY
VMFRTPLASVQKSAAQTSLKKDAQTKLSNQGDQKGSTYSRHNEFSEVAKTLKKNESLKACIR
CNSPAKEYDCYLQRATCKREGCGFDYCTKCLCNYHTTKDCSDGKLLKASCKIGPLPGTKKSK
KNLRRRL

>DP02212|P05769|#1442-1465

MSKKPGPGKPRVVNMLKRGIPRVFPLVGVKRVVMNLLDGRGPIRFVLALLAFFRFTALAPT
KALMRRWKSVNKTTAMKHLTSFKKELGTLIDVVNVKRGKKQKRGGSSETVLMIFMLIGFA
AALKLSTFQGKIMMTVNATDIADVIAIPTPKGPNCWIRAI DIGFMCDDTITYECPKLESGNPD
EDIDCWCDKQAVYVNYGRCTRARHSKRSRRSITVQTHGESTLVNKKDAWLDSTKATRYLTK
TENWIRNPYALVAVVLGWMGLGSNTGQKVIFTVLLLVA PAYSFNCLGMSSRDFIEGASGA
TWVDLVLEGDSITIMAADKPTLDIRMMNIEATNLALVRNYCYAATVSDVSTVSNCPTTGES
HNTKRADHNYLCKRGVTDRGWNGCGLFGKGSIDTCAKFTCSNSAAGRLLPEDIKYEVGVF
VHGSTDSTS HGNYSTQIGANQAVRFTISPNA PAITAKMGDYGEVTVECEPRSGLNTEAYYVM
TIGTKHFLVHREWFDNLLPWTSPASTEWRNREILVEFEPEHATKQSVVALGSQEGALHQAL
AGAIPVEFSSSTLKLTSGLKCRVKMEKLKLKGTYGMCTEKFTFSKNPADTGHGTVVLELQ
YTGSDGPCKIPISSVASLNDMTPVGRMVTA NPYVASSTANAKVLVEIEPPFGDSYIVVGRGDK
QINHHWHKEGSSIGKAFSTTLKGAQRLAALGDTAWDFGSVGGVFNSIGKAVHQVFGGA FRT
LFGGMSWISPGPLL GALLWMGVNARDKSIALAFLATGGVLLFLATNVHADTGCAIDITRREL
KCGSGIFIHNDVEAWIDRYKYL PETPKQLAKVVENAHKG SICGIRSVNRFEHQMWESVRDEL
NALLKENAIDL SVVVEKQKG MYRAAPNRLRLTVEELDIGWKA WGKSLLFAAELANSTFVVD
GPETAECPN SKRAWNSFEIEDFGF GITSTRGWLKLREENTSEC DSIIGTAVKGNA VHSDL SY
WIESGLNGTWKLERAIFGEVK S CTWPETHTLWGDAVEETELI PVTLAGPRSKHNRREGYKV
QVQGPWDEEDIKLD FDYCPGTTVSEHCGKRGPSVTTDSGKL VTDWCCRSCTL PPLRFT
TASGCWYGMEIRPMKHDESTLVKS RVQAFNGDMIDPFQLG LLVMFLATQEVL RKRWTARLT
LPAAVGALLVLLGGITYTDLVRYLILVGS AFAESNNGGDV IHLALIAVFKVQPAFLV ASLTR
SRWTNQENLV LVLGAAFFQMAASDLELTIPG LNSAATAWMV L RAMA FPSTS AIA MPM LAM
LAPGMRMLHLD TYRIVLLIGCSLLNERRRSVEKKGA VLIGALTSTGYFSPTIMAAGLMIC
NPNKKRGWPATEVLTAVGLMFAIVGGLAELDIDS MSVPFTIAGLMLVSYVISG KATDMWLE
RAADVSWEAGAAITGT SERLDVQLDDDGDFHLLNDPGVPW KIWVLRMTCLS VAAITPRA ILP
SAFGYWLTLKYTKRGGVFWDTPSPK VY PKGD TPGVYRIMARGILGRYQAGVG VMHEGVF
HTLWHTTRGAAIMSGEGR LTPY WGNVKEDRV TYGGPW KLDQ KWNGVDDVQMIVVEPGKP
AINVQT KPGIFKTAHGEIGAVSLD YPIGTSGSP IVNSNG EII GLYNGV ILNGA YVSAIVQGER
VEEPVPEAYNPEMLKKRQLTVLDLHPGAGKTRRILPQIIKDAI QKRL RTAVLAPTRVVA AEM
AEALRGLPVRYLTPA VQREHSGNEIVDVMCHATLTHRLMSPLRV PNYNLFVMDEAHFTDPA
SIAARGYIATRVEAGEAAAIFMTATPPGTSDPFPDTNSPVHDV SSEIPDRA WSSGF EWITDYAG
KTVWFVASVKMSNEIAQCLQRAGKRV IQLNRKSYDTEYPKCKNGDWDFV ITTDISEMGANF

GASRVIDCRKSVKPTILDEGEGRVILSVPSTAITSASAQAQRRGRVGRNPSQIGDEYHYGGTSED
DTMLAHWTEAKILLNIHLNGLVAQLYGPERDKTYTMDGEYRLRGEERKTLELIKTAADLP
VWLAYKVASNGIQYNDRKWCDFGPRSNIILEDNNEVEIITRIGERKVLKPRWLDARVYSDHQ
SLKWFKDFAAGKRSAGIFFEVLGRMPEHAGKTREALDTMYLVATSEKGGAHRMALEELP
DALETITLIAALGVMTAGFFLMMQRKGIGKLGLGALVLVVATFLWMSDVSGTKIAGVLLL
ALLMMVVLIPPEPKQRSQTDNQLAVFLICVLLVVGVAANEYGMERTKTDIRNLFGKSLIEE
NEVHIPPFDFFTLDLKPATAWALYGGSTVVLTPLIKHLVTSQYVITSLASINAQAGSLFTLPKG
IPFTDFDLVALVFLCGWQVTLIMATILVTLHYGYLLPGWQAEALRAAQKRTAAGIMK
NAVVDGIVATDVPELERITTPQMVKRLGQILLVLASVAAVCVNPRITTIREAGILCTAAALTLW
DNNASAAWNSTATGLCHVMRGSWIAGASIAWTLIKNAEKPAFKRGRAGGRTLGEQWKEK
LNAMGKEEFFSYRKEAILEVDRTEARRARREGNKVGHPVSRGTAKLRWLVERRFVQPIGK
VVDLGCGRGGWSYYAATMKNVQEVRGYTKGGPGHEEPMLMQSYGWNIVTMKSGVDVFY
KPSEISDTLLCDIGESSPSAEIEEQRTLRILEMVSDWLSRGPKFCIKILCPYMPKVIEKLESLQR
RFGGGLVRVPLSRNSNHEMYWVSGASGNIVHAVNMITSQVLIGRMDKKIWKGPKYEEDVNL
GSGTRAVGKGVQHTDYKRIKSRIEKLKEEYAAWTWHTDDNHPYRTWTYHGSYEVKPSGAST
LVNGVVRLLSKPWDAITGVITMAMTDTPFGQQRFKEVKDCAPEPPQGVKTVMDETTN
WLWAYLARNKKARLCTREEFKVKVNSHAALGAMFEEQNQWKNAREAVEDPKFWEMVDE
ERECHLRGECRTCIYNMMGKREKKPGEFGKAKGSRAIFMWMWL GARFLEFEALGFLNEDHW
MSRENSGGVVEGAGIQKLGYILRDVAQKPGGKIYADDTAGWDTRITQADLENEAKVLELME
GEQRTLARAIIELTYRHKKVVKVMRPAAGGKTVMDVISREDQRGSGQVVTYALNTFTNIAVQL
VRLMEAЕAVIGPDDIESIERKKFAVRTWL FENAEERVQRMA VSGDDCVKPLDDRSTALH
FLNAMSKVRKDQEWKPSQGWYDWQQVPCSNHFQEVIKDGRTL VVPCRGQDELIGRARI
SPGSGWNVVRTACLAКАYAQMWL VLYFHRRDLRLMANAICSSVPDVWPTGRTTWSIHGK
GEWMTTEDMLS VWNRVWILENEWMEDKTTVSDWTEVPYVGKREDIWCGLIGTRTRATW
AENIYAAINQVRSVIGKEKYVDYVQSLRRYEETHVSEDRLV

>DP00558|P49354|#1-54 #368-379

MAATEGVGEAAQGGEPGQPAQPPPQPHPPPQQHKEEMAЕAGEAVASPMDDGFVSLDSP
SYVLYRDRAEWADIDPVQPQNDGPNPVQIIYSDKFRDVYDYFRAVLQRDERSERAFKLTRDA
IELNAANYTVWHFRRVLLKSLQKDLHEEMNYITAIIIEQPKNYQVWHHRRVLVEWL RDPSQ
ELEFIADI LNQDAKNYHAWQHRQWVQEFKLWDNELQYVDQLLKEDVRNNSVWNQRYFVI
SNTTGYNDRAVLEREVQYTLEMIKLVPHNESAWNLYLKGILQDRGLSKYPNLLNQLLDLQPSH
SSPYLIAFLVDIYEDMLENQCDNKEDILNKALECEILAKEKDTRKEYWRYIGRSLQSKHSTE
NDSPTNVQQ

>DP00797|O15273|#91-167

MATSELSCEVSEENCERREAFWAEWKDLTLSTRPEEGCSLHEEDTQRHETYHQQQQCQVLV
QRSPWLMMRMGILGRGLQEYQLPYQRVLPPIFTPAGATKEEREDTPIQLQELLALETAL
GGQCVDRQEVAEITKQLPPVVPVSKPGALRRSLSRSMSQEAQRG

>DP02162|P16050|#22-162

MGLYRIRVSTGASLYAGSNNQVQLWLVGQHGEAALGKRLWPARGKETELKVEVPEYLGPL
LFVKLKRKHLLKDDAWFCNWISVQGPGAGDEVRFPCYRWVEGNGVLSPEGTGRVGEDPQ
GLFQKHREEELEERRKLYRWGNWKDGLILNMAGAKLYDLPVDERFLEDKRVDFEVSLAKGL
ADLAIKDSLNVLTCKDLDNFNRIFWCQSKLAERVRDSWKEDALFGYQFLNGANPVVLRR
SAHLPARLVFPPGMEELQAQLEKELEGGLFEADSLLDGIKANVILCSQQHLAAPLVMLKLQ
PDGKLLPMVIQLQLPRTGSPPPLFLPTDPPMAWLLAKCWVRSSDFQLHELQSHLLRGHLMA
EVIVVATMRCLPSIHPIFIKLIIPLHRYTLEINVRARTGLVSDMGIFDQIMSTGGGGHVQLLKQA
GAFLTYSSFCPPDDLADRGLLGVKSSFYAQDALRLWEIYRYVEGIVSLHYKTDVAVKDDPEL
QTWCREITEIGLQGAQDRGFPVSLQARDQVCHFVTMCIFTCTGQHASVHLGQLDWYSWVPN

APCTMRLPPPTKDATLETVMATLPNFHQASLQMSITWQLGRRQPVMAVGQHEEEYFSGP
EPKAVLKKFREELAALDKEIEIRNAKLDMPYEYLPSVVENSAI
>DP01970|M1GUG5|#1-86
TSANSRTHGATSTHGATSTAKPAASTPPKAAATSTIKPTVTPKAATSTTEPTVTTKPSA
KPAASNTAKPAASTPKKPHDER
>DP00168|Q9NVS9|#1-48
MTCWLRGVTATFGRPAEWPGLSHLCRSAAMDLGPMRKSYRGDREAFEETHLTSLDPVK
QFAAWFEEAVQCPCIGEANAMCLATCTRDKPSARMLLKFGKGFDGFRFFTNFESRKGKEL
DSNPFAFLVFYWEPLNRQVRVEGPVKLPEEEACFYFHSRPKSSQIGAVVSHQSSVIPDREYL
RKKNEELEQLYQDQEVPKPKSWGGYVLYPQVMFWQGQTNRLHDRIVFRRGLPTGDSPLGP
MTHRGEEDWLYERLAP
>DP01618|P03070|#17-26 #39-48 #68-87 #103-117
MDKVLNREESLQLMDLLGLERSAWGNIPMRKAYLKKCKEFHPDKGGDEEKMKKMNTLY
KKMEDGVKYAHQPDFGGFWDATEIPTYGTDEWEQWWNAFNEENLFCSEEMPSSDDEATAD
SQHSTPPKKRKVEDPKDFPSELLSFLSHAVFSNRTLACFAIYTKEKAALLYKKIMEKYSVTF
ISRHNSYNHNILFFLTPHRHRSAINNYAQKLCTFSFLICKGVNKEYLMYSALTRDPFSVIEESL
PGGLKEHDFNPEEAETKQSVWKLVTEYAMETKCDDVLLLLGMYLEFQYSFEMCLKCIKKE
QPSHYKYHEKHYANAAIFADSKNQKTCQQAVDTVLAKKRVDSLQLTREQMLTNRFNDLLD
RMDIMFGSTGSADIEWMAGVAWLHCLPKMDSVVYDFLKCMVYNIPKKRYWLFKGPIIDS
GKTTLAAALLECGGKALNVNLPLDRLNFLGVAIDQFLVVFEDVKGTGGESRDLPSGQGIN
NLDNLRDYLDGSVKVNLEKKHLNKRTQIFPPGIVTMNEFSVPKTLQARFKQIDFRAKDYLK
HCLERSEFLLEKRIIQSGIALLMLIWIYRPVAEFAQSIQSRIEWKERLDKEFSLSVYQKMKFN
VAMGIGVLDWLRNSDDDEDSQENADKNEDGGEKNMEDSGHETGIDSQSQGSFQAPQSSQS
VHDHNQPYHICRGFTCFKKPPPEPET
>DP00957|C0J347|#264-464
MSARIQVPLSQRRTNVAVVRYTKNGVRLEIACYKNKVISYRGGIETRMDEVLQVERVFTNV
SRGLYSSEKEIEAVFGKGTEKEALQYILDHGELQVAQQERAEEIDQMFIDIAVIISQKCVNEV
TQRPFPSQVIEQALHSIGAAVKLDQPVKKQALAFIHQLIDAKTIPIARARMKLRCVVPDEPSLE
KLVWCETNGTSILQKVVEAGGSDAALQIHSLLLQPHLFRDIERFVKTEMPPGGSVHVIENA
AMDVGEGDVMDAELIARANAHTMGASGVGNADKSHCTGSSSNPHAESNRGRKGKGGSRK
PQGVQRVLGKDDGTDQQTVTTAELSSTPAVGENDDELKVALSKVLVLDETNGSRDEDYDGK
GRRGKKKAKRRQGEPHQKQQQQPATPKTVEVDEQQGSDEEVLVNRKQRKQAAARVRVK
DDKRNEYWNDADDDDYDYGYEDEDAGEVRD
>DP00202|P0A8H9|#40-65
MSETITVNCPTCGKTVVWGEISPFRFCSKRCQLIDLGEWAAEERIPSSGDLSESDDWSEEPK
Q
>DP01657|Q5XJY5|#166-232
MVLLAAVCTKAGKAIUSRQFVEMTRTRIEGLAAFPKLMNTGKQHTFVETESVRYVYQPM
EKLYMVLITTKNSNILEDLETLRLFSRVIPEYCRALEENEISEHCFDLIFAFDEIVALGYRENVN
LAQIRTFTEMDSHEEKVFRAVRETQEREAKAEMRRKAKELQQARRDAERQGKKAPGFGGGF
SSAVSGGSTAAMITIIETDKPKVAPAPARPSGPSKALKLGAKGKEVDNFVDKLKSEGETIM
SSNMGKRTSEATKVHAPPINMESVHMKIEEKITLTCGRDGLQNMELHGMMLRISDDKFGRI
RLHVENEDKKGVQLQTHPNVDKLLFTAESLIGLKNPEKSFVNSDVGVLKWRLQTEESFIPL
TINCWPSESGNGCDVNIEYELQEDNLENDVVITIPLPSVGVGAPVIGEIDGEYRHDSRRNTLEW
CLPVIDAKNKGSLFSIPGQPNDFFPVQVSFISKKNYCNIQVTKVTQVDGNSPVRFSTETTFLV
DKYEIL
>DP00024|P03129|#1-98

MHGDTPTLHEYMLDLQPETTDLYCYEQLNDSSEEDEIDGPAGQAEPDRAHYNIVTFCCKCD
STLRLCVQSTHVDIRTLEDLLMGTGIVCPICSQKP

>DP00576|P54252|#174-364

MESIFHEKQEGSLCAQHCLNNLLQGEYFSPVELSSIAHQLDEEERMRMAEGGVTSEDYRTFL
QQPSGNMDDSGFFSIQVISNALKVWGLELILFNSPEYQRLRIDPINERSFICNYKEHWFTVRKL
GKQWFNLNSLLTGPELISDTYLALFLAQLQQEGYSIFVVKGDLPDCEADQLQMIRVQQMHR
PKLIGEELAQLKEQRVHKTDLERVLEANDSGMLDEDEEDLQRALALSRQEIDMEDEEADLR
RAIQLSMQGSSRNISQDMQTSGTNTSEECLRKRREAYFEKQQQKQQQQQQQGDLSGQ
SSHPCERPATSSGALGSDLGKACSPFIMFATFTLYLTYELHVIFALHYSSFPL

>DP00233|P14448|#19-44 #238-504

MIPVTILCVLLCLNLAWAQDGKTTFEKEGGGGRGPRILENMHESSCKYEKNWPICVDDDWG
TKCPSCCRMQGIIDDTDQNYQRIDNIRQQLADSQNKYKTSNRVIVETINILKPGLEAQQLDE
NYGHVSTELRRRIVTLKQRVATQVNRIKALQNSIQEVVEMKRLEVDidIKIRACKGSCARSH
DYQVDKEGYDNIQKHTQASSIDMHPDFQTTLSTLKMPLKDSNVPEHFKLKPSPEMQAMS
AFNNIKQMQVVLERPETDHVAEARGDSSPSHTGKLITSSHRRESPSLVDKTSSASSVHRCRT
VTKKVISGPDPREEIVEKMSVSDGSDCSHLQGGREGSTYHFSGTGDFHKLDRLLPDLESFFT
HDSVSTSSRHISGSSTSSHVTGAGSSHGTGGKDKFTDLGEEEEDDFGGLQPSGFAAGSASHS
KTVLTSSSSFNKGSTFETKSLKTRETSEQLGGVQHDQSAEDTPDFKARSFRPAAMSTRRSY
NGKDCDDIRQKHTSGAKSGIFKIPEGSNKVLSVYCDQETTLGGWLIQQRMDGSVNFNRTW
QDYRRGFGSVDKGQGELWLGNENIHLLTQNDTLLRVELEDWDGNAAYAEYIVQVGTEAE
GYALTUVSSYEGTAGDALVAGWLEEGSEYTSHAQMZFSTFDRDQDHWEESCAEVYGGGWW
YNSCQAANLNGIYYPGGHYDPRYNVPYEIENGVVWIPFRASDYSLKVVRMKIRPLETL

>DP01547|P29274|#293-412

MPIMGSSVYITVELAIAVLAIGNVLVCWAVWLNSNLQNVNTYFVVS LAAADIAVGVLAIPIF
AITISTGFCAACHGCLFIACFVLVLTQSSIFSLLAIAIDRYIAIRIPLRYNGLVTGTRAKGIIACW
VLSFAIGLTPMLGWNNCQPKEGKNHSQCGCSEGQVACLFEDVVPNMVMVFNFACVLVP
LLLMLGVYLRIFLAARRQLKQMESQPLPERARSTLQKEVHAAKSLAIVGLFALCWPLHII
NCFTFFCPDCSHAPLWLMYLAIVLSHTNSVNPFIYAYRIREFRQTFRKIIRSHVLRQQEPFKA
AGTSARVLAAHGSDGEQVSLRLNGHPPGVWANGSAPHERRPNGYALGLVSGGSAQESQGN
TGLPDVELLSHELGVCPEPPGLDDPLAQDGAGVS

>DP01935|P83731|#123-157 #125-157

MKVELCSFSGYKIYPGHGRRYARTDGKVFQFLNAKCESAFLSKRNPRQINWTVLYRRKHKK
GQSEEIQKKRTRRAVKFQRAITGASLADIMAKRNQKPEVRKAQREQAIRAAKEAKKAKQAS
KKTAMAAA KAPTKAAPKQKIVKPVKVSAPRVGGKR

>DP01520|Q02297-10|#1-75

MEIYSPDMSEVAAERSSSPSTQLSADPSLDGLPAAEDMPEPQTEDGRTPGLVGLAVPCCACLE
AERLRGCLNSEKICIVPILACLVSLLCIAGLKWFVDKIFYEYDSPTHLDPGGLQDPIISLDAT
AASAVWVSSEAYTSPVSRAQSESEVQVTVQGDKAVVSFEPSAAPTPKNRIFAFSFLPSTAPSFP
SPTRNPVERTPKSATQPQTETNLQTAGPLSTSTTGTSHLVKCAEKEKTCVNGGECFMVK
DLSNPSRYLCKCPNEFTGDRQCNYVMASFYSTSTPFLSLPE

>DP01024|P27708|#1994-2003 #2148-2163

MAALVLEDGSVLRGQPFGAAVSTAGEVVFQTGMVGYPEALTDPSYKAQILVLTYPPLIGNYGI
PPDEMDEFGLCKWFESSGIHVAALVVGECCTPSHWSATRTLHEWLQQHQHGPGLQGVDTREL
TKKLREQGSLLGKLVQNGTEPSSLFLDPNARPLVPEVSIKTPRVFTGGAPRILALDCGLKYN
QIRCLCQRGAEVTVPWDHALDSQEYEGLFLSNGPGDPASYPSVVSTLSRVLSEPNPRPVFGI
CLGHQLLALAIGAKTYKMRYGNRGNQPCLLVGSGRCFLTSQLNHGFAVETDSLWAPLF
TNANDGSNEGIVHNSLPFFSVQFHPEHQAGPSDMELLFDIFLETVKEATAGNPGGQTVRERLT

ERLCPPGIPPGSGLPPPRKVLILGSGLSIGQAGEFDYSGSQAALKKEENIQTLLINPNIATVQ
TSQGLADKVFYFLPITPHYVTQVIRNERPDGVLLTFGGQTALNCGVELTKAGVLARYGVRVLG
TPVETIELTEDRRAFAARMAEIGEHVAPSEAANSLEQAQAAAERLGYPVLVRAAFALGGLGS
GFASNREELSLAVAPAFAHSTSQVLVDKSLKGWKEIEYEVVRDAYGNCTVCNMENLDPLGI
HTGESIVVAPSQTLNDREYQLLRQTAIKVTQHLGIVGECNVQYALNPESEQYYIIEVNARLSRS
SALASKATGYPLAYVAAKLALGIPPLPELRNSVTGGTAAFEPVDYCVVKIPRWDLSKFLRVST
KIGSCMKSVGEMGIGRSFEEAFQKALRMVDENCVGFDHTVKPVSDMELETPTDKRIFVVAA
ALWAGYSVDRLYELTRIDRWFLHMRMKRIIAHAQLLEQHRGQPLPDLQQAKCLGFSDKQIA
LAVLSTELAVRKLRQELGICPAVKQIDTVAAEWPATQNYLYLTYWGTTHDLTFRTPHVLVLG
SGVYRIGSSVEFDWCAVGCIQQLRKMGYKTIMVNYPETVSTDYDMCDRLYFDEISFEVVM
DIYELENPEGVILSMGGQLPNNMAMALHRQQCRVLGTSPEAIDSAENRFKFSRLLDTIGISQPQ
WRELSDLESARQFCQTVGYPCCVVRPSYVLSGAAMNVAYTDGDLERFLSSAAVSKEHPVVIS
KFIQEAKEIDVDAVASDGVVAIAISEHVENAGVHSGDATLVTTPQDITAKTLERIKAIVHAV
GQELQVTGPFLNLQIAKDDQLKVICNVRVSRSPFVSKTLGVDLVALATRVIMGEEVEPVGL
MTGSGVVGKVVPQFSFSRLAGADVVLGEMTSTGEVAGFGERCEAYLKAMLSTGFKIPKK
NILLTIGSYKNKSELLPTVRLLESGLYSLYASLGTADFYTEHGVKVTAVDWHFEEAVDGECPP
QRSILEQLAEKNFELVINLSMRGAGGRRLLSSFTKGYRTRRLAADFSVPLIIDIKCTKLVEAL
GQIGPAPPLKVHVDCMTSQKLVRPLGLIDVHVHLREPGGTHKEDFASGTAALAGGITMVCA
MPNTRPPIIDAPALALAQKLAEGARCDFALFLGASSENAGTLGTVAGSAAGLKYLNFTSE
LRLDSVVQWMEHFETWPSHLPIVAHAEQQTVAAVLMVAQLTQRSVHICHVARKEEILLKAA
KARGLPVTCVAPHHLFLSHDDLRLGPDKGEVRPELGSRQDVETLWENMAVIDCFASDHA
PHTLEEKCGSRPPPGFPGETMLPLLTAVSEGRSLDDLLQRLHHNPRIHLPQEDTYVEV
DLEHEWTIPSHMPFSKAHWTPFEGQKVKGTVRRVVLRGEVAYIDGQVLVPPGYGQDVRKWP
QGAVPQLPPSAPATSEMTTPERPRRGIPGLPDGRFHLPRIHRSADPGLPAEEPKEKSSRKVA
EPELMGTPDGTCPYPPPVPVRQASPQNLGTPGKGEVRPELGSRQDVETLWENMAVIDCFASDHA
FNVAHTLMMVQKERSLDILKGKVMASMFYEVSTRTSSFAAMARLGGAVLSFSEATSSV
QKGESLADSVQTMSCYADVVVLRHPQPGAVELAAKHCRPVINAGDGVGEHPTQALLDIFTI
REELGTVNGMTITMVGDLKHGRTVHSLACLLTQYRSLRYVAPPRLMPPTVRAFVASRGT
KQEEFESIEALPDTDVLYMTRIKERFGSTQEYEAFCGQFILTPHIMTRAKKMVVMHPMPR
VNEISVEVDSDPRAAYFRQAENGMYIRMALLATVLGRF

>DP00164|P05318|#1-106

MSTESALSYAALILADSEIEISSEKLLTLTNAANVPVENIWADIFAKALDGQNLKDLLVNFSA
AAAPAGVAGGVAGGEAGEAEAEKEEEEAKEESDDDMGFGLFD

>DP00937|Q12972|#144-225

MAAAANGSSLPLFDCPTWAGKPPGLHLDVVKGDKLIEKLIIDEKKYYLGRNPDLCDFTID
HQCSRVAHALVYHKHLKRVFLIDLNSTHTGFLGHIRLEPHKPQQPIDSTVSGASTRAYTLR
EKPQTLPSAVKGDEKMGGEDDELKGLLGLPEEETELDNLTEFNTAHNKRISTLTIEEGNLDIQ
RPKRKRKNSRVTFSEDDEIINPEDVDPGVFRNMVQTAVVVKKRVEGPGSLGLEESGSRR
MQNFAFSGGLYGLLPTHSEAGSQPHGIHGTLIGGLPMPYPNLAPDVLTPVVPNAVNMNP
APNPAYNPEAVNEPKKKYAKEAWPGKKPTPSLLI

>DP01404|Q92913|#213-237

MAAAIASLIRQKRQAREREKSACKCVSSPSKGKTSCDKNKNLNVFSRVKLFGSKKRRRRP
EPQLKGIVTKLYSRQGYHLQLQADGTIDGKDEDSTYTLFNLIPVGLRVVAIQGVQTKLYLA
MNSEGYYLTSELFPECKFKESVFENYYVTYSSMIYRQQQSGRGWYGLNKEGEIMKGHN
KKNKPAAHFLPKPLKVAMYKEPSLHDLTEFSRSGSGTPTKSRVSGVNLNGKSMHNEST

>DP01454|P60006|#57-121

MSTLFPSLFPRVTETLWFNLDRPCVEETELQQQEQQHQAWLQSIAEKDNNLVPIGKPASEHY

DDEEEEDDEDSEEDSEDDEDMQDMDEMNDYNESPDDGEVNEVDMEGNEQDQDWMI
>DP00693|P45561|#2-173
MGTWILFACLLGAAFSMPLPPHPGHPGYINFSYEVLTPLKWYQNMIRHPYTSYGYEPMGGW
LHHQIIPVVSQQTPQSHALQPHHHPMVPAQQPGIPQQPMMPLPGQHSMTPTQHHQPNLPLPA
QQPFQPQPVQPQPHQPLQPQSPMHPIQPLLPQPPMFSMQSLLPDPLEAWPATDKTKREE
VD
>DP01252|P01137|#240-261
MPPSGLLLLLLPLLWLLVLTPGRPAAGLSTCKTIDMELVKRKRIEARGQILSKLRLASPPSQ
GEVPPGPLPEAVLALYNSTRDRVAGESAEPEPEPEADYYAKEVTRVLMVETHNEIYDKFKQS
THSIYMFFNTSELREAVPEPVLLSRAELRLRLKLKVEQHVELYQKYSNNSWRYLSNRLLAPS
DSPEWLSFDVTGVVRQWLSRGGEIEGFRSLAHCSCDSRDLNTLQVDINGFTGRRGDLATIHG
MNRPFLLMATPLERAQHLQSSRHRRALDTNYCFSSTEKNCCVRQLYIDFRKDLGWKWIHEP
KGYHANFCCLGPCPYIWSLDTQYSKVLALYNQHNPASAAPCCVPQALEPLPIVYYVGRPKV
EQLSNMIVRSCKCS
>DP02772|P0DTC2|#1-26 #70-79 #73-78 #144-164 #173-185 #246-262 #330-335 #469-488 #621-640
#677-687 #828-853 #1148-1273
MFVFLVLLPLVSSQCVNLTRTQLPPAYTNNSFRGVYYPDKVFRSSVLHSTQDLFLPFFSNVT
WFHAIHVGNTKRFDPNVPFNDGVYFASTEKSNIIRGWIFGTLDSTQSLIVNNATNV
VIKVCEQFCNDPFLGVYYHKNNKSWMESEFRVYSSANNCTFEYVSQPFMDLEGKQGNFK
NLREFVFKNIDGYFKIYSKHTPINLVRDLPQGFSALEPLVDLPIGINITRFQTLLALHRSYLTPG
DSSSGWTAGAAAYVGYLQPRTFLLKYNENGTTDAVDCALDPLSETKCTLKSFTVEKGIIYQ
TSNFRVQPTESIVRFPNITNLCPFGEVFNATRFASVYAWNRKRISNCVADYSVLYNSASFSTFK
CYGVSPTKLNDLCFTNVYADSFVIRGDEVQRQIAPGQTGKIADYNYKLPDDFTGCVIAWNSNN
LDSKVGGNNYLYRLFRKSNLKPFERDISTEIYQAGSTPCNGVEGFNCYFPLQSYGFQPTNGV
GYQPYRVVVLSEELLHAPATVCGPKKSTNLVKNKCVNFNFNGLTGTGVLTESNKKFLPFQQF
GRDIADTTAVERDPQTLIEJLDITPCSFGGVSITPGNTTSNQAVLYQDVNCTEVPAIHADQ
LTPTWRVYSTGSNFQTRAGCLIGAEHVNNSYEDIPIGAGICASYQTQNSPRRARVASQSI
IAYTMSLGAENSVAYSNNSSIAPTNFTISVTTEILPVSMKTSVDCTMYICGDSTECNLLLQYG
SFCTQLNRALTGIAVEQDKNTQEVAQVKQIYKTPPIKDFGGFNFSQILPDPSKPSKRSFIEDLL
FNKVTLADAGFIKQYGDCLGRIAARDLICAQKFNGLTVLPLLTDEMIAQYTSALLAGTITSG
WTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKLIANQNSAIGKIQDSSLSTASALGK
LQDVVNQNAQALNTLVKQLSSNFGAISSVLDILSRLDKVEAEVQIDRLITGRLQLSQLQTYVTQ
QLIRAAEIRASANLAATKMSECVLGQSKRVDFCGKGYHLMSPQSAPHGVFLHVTYVPAQE
KNFTTAPAICHDGKAHFREGVFVNSNGTHWFVTQRNFYEPQIITDNTFVSGNCDVIGIVNN
TVYDPLQPELDSFKEELDKYFKNHTSPDVDLGDISGINASVVNIQKEIDRLNEVAKNLNESLID
LQELGKYEQYIKWPWYIWLGFIAGLIAIVMTIMLCCMTSCSCLKGCCSCCGSCCKFDEDDSE
PVLKGVKLHYT
>DP01064|Q6PBE3|#1-44 #266-296
MGFVKVVKNKAYFKRYQVKFRRREGKTDYYARKRLVIQDKNKYNTPKYRMIVRVTNRDII
CQIAYARIEGDMIVCAAYAHELTKYGVKVLNTYAAAYCTGLLARRLNKGLDKVYEGQ
VEVTGDEYNVESIDGEPEGAFTCYLDAGLRTTGKVGALKGAVDGGLSIPHSTKRFPGYD
SESKEFNAEVHRKHIFGQNIAEYMRLLTEEDEDAFKKQFSQYIKNGVTADQMEDIYKKAHAG
IRENPVHEKKPKKEVKKKRWNRAKLSAQKKDRVAQKKASFLRAQEKAADS
>DP01089|D0VWX1|#7-13
GCEGKQCGLFRSCGGGCRCWPTVTPGVGICSSS
>DP01490|Q9NR61|#553-685
MAAASRSASGWALLLVALWQQRAAGSGVQLQLQEFINERGVLASGRPCEPGCRTFFRVC

LKHFAQVSPGPCTFGTVSTPVLGTSFAVRDDSSGGRNPLQLPFNFTWPGTFSLIIEAWHA
PGDDLRPEALPPDALISKIAIQGSLAVGQNWLDEQTSTLTRLRYSYRVICSDNYGDNCSR
CKKRNDHFHYVCQPDGNLSCLPGWTGEYCQQPICLSGCHEQNGYCSKPAECLCRPGWQGR
LCNECIPHNGCRHGTCSWPQCTCDEGWGLFCDDQDLYNCTHSPCKNGATCSNSGQRSYT
CTCRPGYTGVDCLELSECDSNPCRNNGSCKDQEDGYHCLCPPYYGLHCEHSTLSCADSPC
FNGGSCRERNQGANYACECPPNFTGSNCEKKVDRCTSNPCANGQCLNRGPSRMCRCRPGF
TGTYCELHVSDCARNPCAHHGTCHDLENGLMCTCPAGFSGRRCEVRTSIDACASSPCFN RAT
CYTDLSTDTFVCNCPYGFVGSRCEFPVGLPPSFVAVSLGVLAVLLVLLGMVA VAVRQL
RLRRPDDGSREAMNNLSDFQKDNLIPAAQLKNTNQKELEVDCGLDKSNCGKQQNHTLDY
NLAPGPLGRGTMPGKFPHSDKSLGEKAPRLHSEKPECRISAICSPRDSMYQS VCLISEERNEC
VIATEV

>DP01477|P63277|#17-50 #184-210

MGTWILFACLLGAAFAMPLPPHPGSPGYINLSYEKSHSQINTDRTALVLTPLKWYQSMIRQP
YPSYGYEPMGGWLHHQIIPVLSQQHPPSHTLQPHHHLPVVPAQQPVAPQQPMMPVPGHHSM
TPTQHQPNIPPSAQQPFQQFQPQPAIPPQSHQPMQPQSPLHPMQPLAPQPPLPPLFSMQPLSPI
LPELPLEAWPATDKTKREEVD

>DP00305|P43155|#621-626

MLAFAARTVVVKPLGLKPFSLMKASSRFKAHQDALPRLPVPPQQSLDHYLKALQPIVSEEE
WAHTKQLVDEFQASGGVGERLQKGLERRARKTENWLSEWWLKTAYLQYRQPVVIYSSPGV
MLPKQDFVDLQGQLRFAAKLIEGVLDKFVMIDNETLPVEYLGGKPLCMNQYYQILSSCRVPG
PKQDTVSNSKTKKPPTHITVVHNYQFFELDVYHSDGTPLTADQIFVQLEKIWNSSLQTNKEP
VGILTSNHRNSWAKAYNTLIKDKVNRSVRSIQKSIFTVCLDATMPRVSEDVYRSHVAGQML
HGGGSRLNSGNRWFDKTLQFIVAEKGSCGLVYEAAAEGPPIVTLLDYVIEYTKKPELVRSP
VPLPMPKKLRFNITPEIKSDIEKAKQNL SIMIQLDITVMVFHHFGKDFPKSEKLS PDAFIQM AL
QLAYYRIYGQACATYESASLRMFHLGRTDTIRSASMDSLTFVKAMDDSSVTEHQKVELLRKA
VQAHRGYTDRAIRGEAFDRHLLGLK LQAIEDLVSMPDFIMDTSYAIAMHFHLSTS QVPAKTD
CVMFFGPVVPDGYGV CYNPMEAHI NSLSAYNSCAETNAARLAHYLEKALLDMR ALLQSHP
RAKL

>DP01262|P49848|#1-216 #437-677

MAEEKKLKLSNTVLPSESMKVVAESMGIAQI QEETCQLLTDEV SYRIKEIAQDALKFMHM G K
RQKLTTSDIDYALKLNVEPLYGFHAQE FIPFRFASGGGRELYFYEEKEV DLSDIINTPLPRVPL
DVCLKAHWLSIEGCQPAIPENPPPAPKEQQKAEATEPLSAKPGQEE DGPLKGKGQGATTAD
GKGKEKKAPPLLEGAPRLKPRSIHELSVEQQLYYKEITEACVGSCEAKRAEALQSIATDPGL
YQMLPRFSTFISEGV RVNVVQNNLALLIYLMRMVKALMDNPTLYLEKYVHELIPAVMTCIVS
RQLCLRPDVNH WALR DFAARLVAQICKHFSTTNNIQS RITKFTKSWVDEKTPWITTRYGSI
AGLAELGH DVKTLILPRLQ QEGERIRSVLDGPVLSNIDRIGADHVQ SLLKHCAPVLA KL RPP
PDNQDAYRAEFGSLGPLLCSQVVKARAQAALQAQQVNRTTITQPRPTL TSQAPQPGPRT P
GLK VPGSIALPVQ TLVSARA AAPPQPSPPP TFKIVMSSSSAPSTQVLSLSTSAPGSGTTSP
VTTTVP SVQPIV KL VSTATT APPSTAPSGPGSVQ KYIVVSLP TGEKG GGPT SHPS VPPP ASSP
SPLSGSALCGGKQEAGD SPPPAPGTPKANGSQPN SGSPQPAP

>DP01506|P08263|#208-222

MAEKPKLHYFNARGMESTRWLLAAGVEFEKFIKSAEDLDKLRNDGYLMFQQVPMVEID
GMKLVQTRAILNYIAS KYNLYGKDIKERALIDMYIEGIADLGEMILLPVC PEEKDAKLALIK
EKIKNRYFPAFEKVLKSHGQDYL VGNKLSRADIHLVELLYYVEELDSSLISSFPLLKALKTRIS
NLPTVKKFLQPGSPRKPPMDEKSLEEARKIFRF

>DP00870|H0W0T5|#363-565

MARASGSERHLLIYTGGTLGMQSKGGVLVPGPGLVTLLRTLPMFHDKEFAQAQGLPDHAL

ALPPASHGPRVLYTVLECQPLLDSSDMTIDDWIRIAKIIERHYEQYQGFVVIHGTDTMASGAS
MLSFMLENLHKPVILTGAQVPIRLWNDARENLLGALLVAGQYIIPVCLMNSQLFRGNRV
TKVDSQKFEAFCSPLSPLATVGADVTIAWDLVRKVWKDPLVVHSNMEHDVALLRLYPGI
PASLVRAFLQPPLKGVVLETFGSGNGPSKPDLQELRAAAQRGLIMVNCSQCLRGSVTPGYA
TSLAGANIVSGLDMTSEAALAKLSYVLGLPELSSLERRQELLAKDLRGEMTLPTADLHQSSPPG
STLGQQVARLFSLFGCQEEDSVQDAVMPSLALALAHAGELEALQALMELGSDLRLKDSNGQ
TLLHVAARNGRGVVTMLLHRGMVDVNARDRDGLSPLLLAVQGRHRECIRLLRKAGACLSP
QDLKDAGTELCRLASRADMEGLQAWGQAGADLQQPGYDGRSALCVAEAAGNQEVLALLR
NLALVGPEVPPAI

>DP01272|Q03132|#908-922 #2641-2653

MTDSEKVAEYLRRAIDLRAARQIRELESPIAVSMACRLPGGVNTPQRLWELLREGGETL
SGFPTDRGWDLARLHHPDPDNPNTSYVDKGGFLDDAAGFDAEFFGVSPREAAAMDPPQRLL
LETSWELVENAGIDPHSLRGTTATGVFLGVAKFGYGEDTAAEADVEGYSVTGVAPAVASGRIS
YTMGLEGPSISVDTACSSLVALHLAVESLRKGESSMAVVGAAVMATPGVFVDFSRQRAL
AADGRSKAFGAGADGFGFSEGVTLLERLSEARRNGHEVLA VVRGSALNQDGASNGLSAP
SGPAQRVRIRQALES CGLEPGDVDAVEAHGTGTALGDPIEANALLTYGRDRDADRPLWLGS
VKSIGHTQAAAGVTGLLKVVLA LRNGELPATLHVEEPTPHVDWSSGVALLAGNQPWRGG
ERTRRARVSAFGISGTNAHVIVEEAPEREHRETTAHDGRPVPLVVSARTTAALRAQAAQIAEL
LERPDADLAGVGLGLATTRARHEHRAAVVASTREEAVRGLREIAAGAATADAVVEGTEVD
GRNVVFLFPQGSQWAGMGAELLSSSPVFAGKIRACDESMAPMQDWKVSDVLRQAPGAPG
LDRVDVVQPVLFAVMVSLAELWRSYGVPEAAVVGHSQGEIAAAHVAGALTLEDAAKLVVG
RSRLMRSLSGEGGMAAVALGEAAVRERLRPWQDRLSVAANGPRSVVSGEPGALRAFSED
CAAEGIRVRDIDVDYASHSPQIERVREELLETTGDIAPRPARVTFHSTVESRSMGTLEDARY
WYRNLRRETVRFADAVTRLAESGYDAFIEVSPHPVVQAVEEAVEADGAEDAVVVGSLHRD
GGDLSAFLRSMATAHVSGVDIRWDVALPGAAPFALPTYPFQRKRYWLQPAAPAAASDELAY
RVSWTPIEKPESGNLDGDWLVVTPLISPEWTEMCEAINANGRALRCEVDTSASRTEMAQA
VAQAGTGFRGVLSLSSDESACRPVPAGAVGLTLVQALGDAGVDAPVWCLTQGAVRTPA
DDDLARPAQTTAHGFAQVAGLELPGRWGGVVDLPESVDDAALRLVAVLRGGGRAEDHLA
VRDGRLHGRRVVRASLPQSGRSWTPHTVLTGAASPGDQLVRWLADRGAERLVLAGA
CPGDDLLAAVEEAGASAVVCAQDAAALREALGDEPVTALVHAGTLTNFGSISEVAPEEFAET
IAAKTALLAVLDEVLGDRAREVYCSSVAGIWGGAGMAAYAAGSAYLDALAEHHRARGR
SCTSVAWTPWALPGGAVDDGYLRERGLRLSADRAMRTWERVLAAGPVSVAVADVDWPV
LSEGFAATRPTALFAELAGRGGQAEAPDSGPTGEPAQRLAGLSPDEQQENLLELVANAAE
VLGHESAAEINVRAFSELGLDSLNAMEALRKRLSASTGLRLPASLVFDHPTVTALAQHLRAR
LVGDADQAAVRVVGAADESEPIAVIGIGCRFPGGIGSPEQLWRVLAEGANLTGFPADRGWD
IGRLYHPDPDNPNTSYVDKGGFLTDAADFDPGFFGITPREALAMDPQQQLMLETAWEAVERA
GIDPDALRGTDGVFVGNGQSYMQLAGEAERVDGYQGLGNSASVLSGRIAYTFGWEGPA
LTVDTACSSLVGIHLAMQALRRGECSLALAGGVTVMSDPYTFVDFSTQRGLASDGRCKAFS
ARADGFALSEGVAALVLEPLSRARANGHQVLAVLRGSAVNQDGASNGLAAPNGPSQERVIR
QALAASGVPAADV DVVEAHGTTELGDPIEAGALIATYGQDQRDRPLRLGSVKTNIGHTQAA
AGAAGVIKVLAMRHGMLPRSLHADELSPHIDWESGAVEVLRREEVPWPAGERPRRAVGSSF
GVSGTNAHVIVEEAPAEQEAARTERGPLPVLSGRSEAVVAAQARALAEHLRDTPELGLTDA
AWTLATGRARFDVRAAVLGDDRAVGCAELDALAEGRPSADA VAPVTSAPRKPVLFPGQG
AQWVGMARDLLESSEVFAESMSRCAEALSPHTDWKL DVVRGDGGPDHERVDVLQPVLFS
IMVSLAELWRAHGVTAAVVGHSQGEIAAAHVAGALSLEAAKVVVALRSQVLREDDQGG
MVSVGASRDELETVLARWDGRVAVA AVNGPGTSVAGPTAELDEFFAEAEAREMKPRRIAV
RYASHSPEVARIEDRLAAELGTITAVRGSVPLHSTVTGEVIDTSAMDASYWYRNLRPVLFEQ

AVRGLVEQGFDTFVEVSPHPVLLMAVEETAEHAGAEVTCVPTLRREQSGPHEFLRNLLRAHV
HGVGADLRPAVAGGRPAELPTYPFEHQRFWPRPHRPADVSALGVRGAEPPLLAADVPGH
GGAVFTGRLSTDEQPWLAEHVVGRTLVPGSVLVDLALAAGEDVGLPYLEELVLQRPLVLA
GAGALLRMSVGAPDESGRRTIDVHAAEDVADLADAQWSQHATGTLAQGVAAGPRDTEQWP
PEDAVRIPLDDHYDGLAEQGYEYGPSFQALRAAWRKDDSVYAEVSIAADEEGYAFHPVLLD
AVAQTLSLGALGEPGGGKLPFAWNTVTLHASGATSVRVVATPAGADAMALRVTDPAHGLV
ATVDSLVRSTGEKWEQPEPRGGEHELHALDWGRLAEPGSTGRVVAADASDLDAVRSGEP
EPDAVLVRYEPEGDDPRAAARHGLWAAALVRRWLEQEELPGATLVIATSGAVTVSDDDSV
PEPGAAAAMWGVIRCAQAESPDRFVLLDTDAEPGMLPAVPDNPQLALRGDDVFVPRLSPLAPS
ALTPAGTQRLVPGDGAIDSVAFEPAPDVEQPLRAGEVRVDVRATGVNFRDVLLALGMYPQ
KADMGTEAAGVVTAVGPDVDAFAPGDRVGLFQGAFAPIAVTDHRLARVPDGWSDAAA
AVPIAYTTAHYALHDLAGLRAQSVLIHAAAGGVGMAVALARRAGAEVLATAGPAKHGT
LRALGLDDEHIASSRETGFARKFRERTGGRGVDVVLNSLTGELLDESADLLAEDGVFVEMGK
TDLRDAGDFRGRYAPFDLGEAGDDRGEILREVVGLLGAGELDRLPVSWEGLSAPAALQH
MSRGRHVGKLVLTQPAPVDPDGTVLITGGTGLGRLARHLVTEHGVRHLLVSRRGADAP
GSDELRAEIEDLGASAEIAACDTADRALSALLDGLPRPLTVVVHAAGVLADGLVTSIDEPAV
EQVLRACKVDAAWNHELTANTGLSFFVLFSSAASVLAGPGQGVYAAANESLNALAALRRTR
GLPAKALGWGLWAQASEMTSGLDRIARTGVAALPTERALALFDSALRRGGEVVFPLSINRS
ALRRAEFVPEVLRGMVRAKLRAAGQAEAAGPNVVDRLAGRSESVDQVAGLAELVRSHAAAV
SGYGSADQLPERKAKFDLGSLSAAVELRNRLGTATGVRLPSTLVFDHPTPLAVAELRDRL
FAASPAVDIGDRLDELEKALEALSAEDGHDDVGQRLESLLRRWNSRRADAPSTSAISEDASD
DELFMSMLDQRFGGGEDL

>DP02234|P08476|#359-386

MPLLWLRGFLLASCWIIVRSSPTPGSEGHSAAPDCPSCALAALPKDVPNSQPEMVEAVKKHIL
NMLHLKKRPDVTQPVPKAALLNAIRKLHVGKVGNGYVEIEDDIGRRAEMNELMEQTSEIIT
FAESGTARKTLHFEISKEGSDLSVVERAEVWLFLKVKANRTRTKVTIRLFQQQKHPQGSLDT
GEEAEEVGLKGERSELLLSEKVVVDARKSTWHVFPVSSIQRLLDQGKSSLDVRIACEQCQESG
ASLVLLGKKKKKEEEGEGKKKGEGGAGADEEKEQSHRPFLMLQARQSEDHPHRRRRRG
LECDGKVNICCKQFFVSKDIGWNDWIIAPSGYHANYCEGECPHSIAGTSGSSLFHSTVINH
YRMRGHSPFANLKSCCVPTKLRPMMSLYYDDGQNIKKDIQNMIVEECGCS

>DP00096|Q9HKT1|#179-193

MEGRLLLLETPGNTRMSLAYDEAIYRSFQYGDKPILRFYRHDRSVIIGYFQVAEEEVLDYMK
KNGIMLARRYTGGAVYHDLGDLNFSVVRSSDDMDITSMFRTMNEAVVNSLRILGLDARPG
ELNDVSIPVNKKTDIMAGEKKIMGAAGAMRKGAKLWHAAMLVHTDLDMLSAVLKVPDEKF
RDKIAKSTRERVANVTDFVDVSIDEVRNALIRGFSETLHIDFREDTITEKEESLARELFDKKYST
EEWMGLLRKEVV

>DP02170|O15234|#195-215 #198-213

MADRRRQRASQDTEDEESGASGSDSGSPLRGGSAGGGSGSLPSQRGGRTGALHLR
RVESGGAKSAEESECESEDGIEGDAVLSDYESAEDSEGEEGEYSEEENSKVELKSEANDAVNS
STKEEKGEEKPDTKSTVTGERQSGDGQESTEPVENKVGKKGPKHLDDEDRKNPAYIPRKGL
FFEHDLRGQTQEEEVPKGRQRKLWKDEGRWEHDKFREDEQAPKSQELIALYGYDIRSAH
NPDDIKPRRIRKPRYGSPPQRDPNWNGERLNKSHRHQGLGGTLPRTFINRNAAGTGRMSAP
RNYSRSGGFKEGRAGFRPVEAGGQHGGRSGETVKHEISYRSRRLEQTSVRDPSPEADAPVLG
SPEKEEAASEPAAAAPDAAPPPPDRPIEKYSRARRTRTKVGDAVKLAEEVPPPPEGLIPAPP
VPETTPPTKTGTWEAPVDSSTSLEQDVAQLNIAEQNWSPGQPSFLQPRELRGMPNHIHMG
AGPPPQFNRMEEMGVQGGRAKRYSSQRQRPVPEPPAPPVHISIMEGHYYDPLQFQGPIYTHG
DSPAPLPPQGMLVQPGMNLPHPGLHPHQTPAPLPNGLYPPPVSMSPGQPPPQQLAPTYFSA

PGVMNFGNPSYPYAPGALPPPPPHLYPNTQAPSQVYGGVTYYNPAQQVQPKPSPRRTPQ
PVTIKPPPPEVVSRGSS
>DP01720|Q9NT62|#129-158
MQNVINTVKGKALEVAEYLTPVLKESKFETGVITPEEFVAAGDHLVHHCPTWQWATGEEL
KVKAYLPTGKQFLVTKNVPCYKRCKQMEYSDELEAIIEDDGDDGGWVDTYHTNGITEAV
KEITLENKDNRILQDCSALCEEEDDEGEAADMEYEESGLLETDEATLDTRKIVEACKAKT
DAGGEDAILQTRTYDLYITYDKYYQTPLWLFGYDEQRQPLTVEHMYEDISQDHVKKTIE
NHPHLP PPPMCSVHPCRHAEMKKIETVAEGGELGVHMYLLIFLKVFQAVIPTIEYDYTRH
FTM
>DP02519|Q01080|#115-415
MSVKRSVSEIEIESVQDQPSVAVGSFFKGFRAPSDDTFDLYKKKKSEKDEFVLHGENERLEYE
GYTDSSSQASNQYVVGFLNPEKKSIQLYKAPVLVSKVVKSKSNLRGPKIKSKSDTRPSALRN
ALGEAFGTKKAKKAIADLERNRIDSNDKLTDSAIIDVDSVRTASKDLPTRAQLDEITSNDRPTPL
ANIDATDVEQIYPIESIIPKKELOFIRVSSILKEADKEKKLELFPYQNNSKYVAKKLDLSLTQPSQ
MTKLQLLYLSSLGKYENRRVNNKTLLERLNSPPEILDGILSRFTVIKPGQFGRSKDRSYF
IDPQNEDKILCYILAIIMHLDNFIVEITPLAHELNKPSKVVSLFRVLGAIVKGATVAQAEAFGI
PKSTAASYKIATMKVPFKLPEMTRRGRGP
>DP01835|O43715|#54-76
MNSVGEACTDMKREYDQCFNRWFAEKFLKGDSGDPCDLFKRYQQCVQKAIKEKEIPIEGL
EFMGHGKEKPENSS
>DP01907|Q13568|#458-467
MNQSIPVAPTPRRVRKWLVAQVNQSCQYPGLQWVNGEKKLCIPWRHATRGPSQDGDN
TIFKAWAKETGKYTEGVDEADPAWKANLRCALNKSDFRLIYDGPMDPQPYKIEVCS
NGPAPTDQSPPEDYSFGAGEEEEEEEELQRMLPSLSLTEDVKWPPLQPPTLRPPLQPPTLQP
PVVLGPPAPDPSPLAPPPGNPAGFRELLSEVLEPGPLPASLPPAGEQLLPDILLSPHMLPLTDLEI
KFQYRGRPPRALTISNPHGCRFLYSQLEATQEQUELFGPISLEQVRFPSPEDIPSDKQRFYTNQL
LDVLDRLGLLQLQGQDLYAIRLCQCKVFWSGPCASAHDSCPNIQREVTKLFSLEHFLNELIL
FQKGQTNTPPPFEIFFCFGEEWPDRKPREKKLITVQVVPVAARLLLEMFSGELSWADSIRLQI
SNPDLKDRMVEQFKELHWFQSQQRLQPVAQAPPAGLGVGQGPWPMHPAGMQ
>DP01259|P41208|#1-22
MASNFKKANMASSQRKRMSPKPELTEEQKQEIREAFDLFDADGTGTIDVKEKLVAMRALG
FEPKKEEIKKmiseidKEGTGKMNFGDFLTVMQKMSEKDTKEEILKAFKLFDDETGKISFK
NLKRVAKELGENLTDEELQEMIDEADRDOGGEVSEQEFLRIMKKTSLY
>DP02167|Q8N726-1|#1-37 #1-132 #57-132
MVRRLVTLRIRRACGPPRVRVFVHIPRLTGEWAAPGAPAVALVMLLRSQRLGQQPLPR
RPGHDDGQRPSGGAAAAPRRGAQLRRPRHSHPTRARRCPGGLPGHAGGAAPGRGAAGRAR
CLGPSARGPG
>DP01977|P49736|#1-160
MAESSESFTMASSPAQRRRGNDPLTSSPGRSSRTDALTS offense SPGRDLPPFEDESEGLLGTEGPLE
EEEDGEELIGDGMERDYRAIPELDAYEAEGLALDDEVEELTASQREAAERAMRQRDREAG
RGLGRMRRGLLYDSDEEDEERPARKRRQVERATEDGEEDDEEMIESIENLEDLGKHSVREWVS
MAGPRLEIHRFKNFLRTHVD SHGHNVKERISDMCKENRESLVVNYEDLAAREHV LAYFLP
EAPAELLQIFDEAALEVVLAMYPKYDRITNHIHVRISHLPLVEELRSLRQLHNLNLIRTSGVVT
SCTGVLPQLSMVKYNCNKCNFVLGPFCQSQNQEVKPGSCPECQSAGPFVNMEETIYQNYQR
IRIQESPGKVAAGRLPRS KDAILLADLVDSCKPGDEIELTGIYHNNYDGSNTANGFPVFATVI
LANHVAKKD NVKAVGELTDEDVKMITSLSKDQQIGEKIFASIAPSIYGHEDIKRG LALALFGG
EPKNPGGKHVKVRGDINVLLCGDPTAKSQFLKYIEKVSSRAIFTTGQGASAVGLTAYVQRHP

VSREWTLLEAGALVLADRGVCLIDEFDKMNDQDRTSIHEAMEQQSISISKAGIVTSLQARCTVI
AAANPIGGRYDPSLTFSENVDLTEPIISRFIDLCVVRDTVDPVQDEMLARFVGSHVRHHPSN
KEEGLANGSAAEPMPTYGVEPLPQEVLKYIYAKERVHPKLNQMDQDKVAKMYSDLR
KESMATGSIPITVRHIESMIRMAEAHARIHLRDYVIEDDVNMAIRVMLESFIDTQKFSVMRSM
RKTFARYLSFRRDNNELLFILKQLVAEQVTYQRNRFGAQQDTIEVPEKDLVDKARQINIHL
SAFYDSELRMNKFSDLKRKMILQQF

>DP01858|Q96270|#1-169

MASHQEWSYKAGETRGKAQEKTGEAMGTMGDKTQAACKDTQETAQSAQQKAHETAQSAK
DKTSQAAQTTQERAQESKDGTGSYMSETGEAIKNKAHDAAEYTKEAEGKEKTSGILGQT
GEQVKQMAMGATDAVKHTLGLRTDEGNKEHVSSAPSTTTTRETQRK

>DP01224|O43312|#739-753

MEAVIEKECSALGGLFQTIIISDMKGSYWPWEDFINKAGKLQLSQLRTTVAAAFLDAFKVA
DMATNTRGGTREIGSALTRMCMRHSIEAKLRQFSSALIDCLINPLQEQMEEWKVANQLDK
DHKEYKKARQEIKKKSSDTLKLQKKAKKGRGDIQPQLDSALQDVNDKYLLLEETEKQAVR
KALIEERGRFCTFISMLRPVIEEISMLGEITHLQTISEDLKSLTMDPHKLPSSSEQVILDKGSD
YSWSYQTTPSSPSTTMSRKSSVCSSLNSVNSSDSRSSGSHSHSPSSHYR RSSNLAQQAPVRLS
SVSSHDSGFISQDAFQSCKSPSPMPPEAPNQLNGFSHYSLSSESHVGPTGAGLFPHCLPASRLLP
RVTSVHPDYAHYYTIGPGMFPSQIPSWKDWA KPGPYDQPLVNTLQRRKEKREPDPNGGGP
TTASGPPAAAEEAQRPRSMTVSAATRPGEEOMEACEELALALSRLQLQDTQRSSRDSLQCSSG
YSTQTTPCCSEDTIPSQVSDYDFSVSGDQEADQQEFDKSSTPRNSDISQSYRRMFQAKRPA
STAGLPTTLGPAMVTPGVATIRRTPSTKPSVRRGTIGAGPIPIKTPVIPVKTPTVPDLPGVLPAPP
DGPEERGEHSPESPVGEGPQGVTSMPSSMWSGQASVNPLPGPKPSIPEEHRQAIPSEAEDQ
EREPPSATVSPGQIPESDPADLSPRDTPQGEDMLNAIRRGVKKTTNDRSAPRFS

>DP00097|P10922|#1-30 #96-193

MTENSTSAPAAKPRAKASKKSTDHPKYSMDMIVAAIQAEKNRAGSSRQSIQKYIKSHYKVGE
NADSQIKLSIKRLVTTGVLKQTKGVGASGSFRLAKGDEPKRSVAFKKTKKEVKKVATPKAA
KPKKAASKAPSKKPATPVKKAKKKPAATPKKAKKPVVKVVKPVKASKPKAKTVKPKAK
SSAKRASKKK

>DP01286|Q7Z094|#36-46

GPSFCKADEKPCYEYHADCCNCCLSGICAPSTNWILPGCSTSSFFKI

>DP01149|Q14457|#1-150

MEGSKTSNNSTMQVSFVCQRCSQLKLDTSFKILDRTVTIQLTAPLLTTAQAKPGETQEEETN
SGEEPFIETPRQDGVSRRFIPPARMMSTESANSFTLIGEASDGGTMENLSRRLKVTGDLFDIMS
GQTVDHPLCECTDTLLDQLDTQLNVTENECQNYKRCLEILEQMNE DDSEQLQMEKELA
LEEERLIQELEDVEKNRKIVAENLEKVQAEAERLDQEEAQYQREYSEFKRQQLELDDELKSV
ENQMRYAQTQLDKLKKTNVFNFATFHWHSGQFGTINNFRGLRLPSVPVEWNEINAAGQTV
LLLHALANKMGLKFQRYRLVPYGNHSYLESLTDKSKEPLLYCSGGLRFFWDNKFDHAMVAF
LDCVQQFKEEVEKGETRFCPLPYRMDVEKGKIEDTGGSGGSYSIKTQFNSEEQWTKALKFMLT
NLKWGLAWVSSQFYNK

>DP02097|P27472|#402-413 #640-705

MSRDLQNHLLFETATEVANRVGGIYSVLKS KAPITVAQYKDHYHLIGPLNKATYQNEVDILD
WKKPEAFSDEM RPVQHALQTMESRGVHFVYGRWLIEGAPKVL FDLDSVRGYSNEWKGDL
WSLVGIPSPENDFETNDAILLGTVAWFLGEVAHLD SQHAIVAHFHEWLAGVALPLCRKRRI
DVVTIFTTHATLLGRYLCA SGSFDFYNCLESVDV DHEAGRFGIYHRYCIERAAAHSADVFTTV
SQITAFEAHLLKRKP D GILPNGLNVIKFQAFHEFQNLHALKKEKINDFVRGHFHGCFDFDLD
NTLYFFIAGRYEYKNKGADM FIEALARNYRLKVSGSKKTVVAFIVMPAKNN SFTVEALKGQ
AEVRALENTVHEVTTSIGKRIFDHAIRYPHNGLTTELPTDLGELLKSSDKVMLKRRILALRRPE

GQLPIVTHNMVDDANDLILNKIRQVQLFNSPSDRVKMIFHPEFLNANNPILGLDYDEFVRGC
HLGVFPSYYEPWGYTPAECTVMGVPSITNVSGFGAYMEDLIETNQAKDYGIYIVDRRFKAP
DESVEQLVDYMEEFVKKTRRQRINQRNTERLSLDLWKRMLGEYVKARQLALRRGYPDQ
FRELVGEELNDSNMDLAGGKKLKVARPLSVPGSPRDLRSNSTVYMTPGDLGTLQEVENNAD
DYFSLGVNPAADEDDDGPYADD

>DP00190|P38038|#52-224

MTTQVPPSALLPLNPEQLARLQAATTDLPTQLAWVSGYFWGVLNQQPAALAATPAPAAEM
PGITIISASQTGNARRVAEALRDDLLAALKLVNAGDYKFKQIASEKLLIVVTSTQGEGEPP
EEAVALHKFLFSKKAPKLENTAFAVFSLGDSSYEFFCQSGKDFDSKLAELGGERLLDRVDAD
VEYQAAASEWRARVVDAKSRAPVAAPSQSVATGAVNEIHTSPYSKDAPLVASLSVNQKITG
RNSEKDVRHIEIDLGSQGMRYQPGDALGVWYQNDPALVKEVELVELLWLKGDEPVTEGKTL
LNEALQWHFELTVNTANIVENYATLSETLLPLVGDKAKLQHYATTPIVDMVRFSPAQLD
AEALINLLRPLTPRLYSIASSQAEVENEVHTVGVVRYDVEGRARAGGASSFLADRVEEEGE
VRVFIEHNDNFRLPANPETPVIMIGPGTGIAPFRAFMQQRAADEAPGKNWLFFGNPHFTEDFL
YQVEWQRYVKDGVLTRIDLAWSRDQKEVYVQDKLREQGAELWRWINDGAHIYVCGDAN
RMAKDVEQALLEVIAEFGGMDTEAADFLSELRVERRYQRDVY

>DP00167|P10114|#32-36 #45-55

MREYKVVLGSGGVGKSALTQFVTGTFIEKYDPTIEDFYRKEIEVDSSPSVLEILDTAGTEQF
ASMRDLYIKNGQGFILVYSLVNQQSFQDIKPMRDQIIRVKRYEKVPVILVGNKVDLESEREVS
SSEGRALAEEWGCPFMETSAKSKTMVDELFAEIVRQMNYAAQPDKDDPCCSACNIQ

>DP00335|Q64364|#1-37

MGRRFLVTVRQAGRPLQERVFLVKFVRSRRPRTASCALAFVNMLLERILRRGPHRNPGP
GDDDQRSRSSSAQLRCRFELRGPHYLLPPGARRSAGRLPGHAGGAARVRGSAGCARCLGS
PAARLGPRAGTSRHRAIFAFRWVLFVFRWVVFVYRWERRPDRRA

>DP00753|C4M0U8|#1-81 #82-150

MSEQKKVLTAAEQQEYKEAFQLFDKDNDNKLTAEEELGTVMRALGANPTKQKISEIVKDYDK
DNSGKFDQETFLTMILEYQEVDESTEDIKKAFFEIDKEKNGYISASELKHVLTTLGEKLTEQE
DDLLKEIGVEEGLINVDDFVKLITSK

>DP02142|Q2TAZ0|#1244-1273

MSRWLWPWSNCVKERVCYLLHHYLGHFFQEHLSDLQSLDLYKGSQLVALRDIHLEIWSVNE
VLESMESPLELVEGFVGSIEVAVPWAALLTDHCTRVSGLQLTLQPRRGAPGAADSQSWAS
CMTTSQLAQECLRDGLPEPSEPPQPLEGLEMFAQTIETVLRRIKVTFLDTVVEHSPGDGER
GVAEVRVQRLEYCDEAVRDPSQAPPVDVHQPPAFLHKLLQLAGVRLHYEELPAQEEPPPEPP
LQIGSCSGYMELMVKLQNEAFPGPKLEVAGQLGSLHLLTPRQLQQLQELLSAVSLTDHEG
LADKLNKSRLPLGAEDLWIEQDLNQQLQAGAVAEPPLSPDPLTNPLNLDNTLFFSMAGLTS
SVASALSELSLSDVDLASSVRSDMASRRLSAQAHAGKMAPNPLDTMRPDSSLKMTLGGV
TLTLLQTSAPSSGPPDLATHFFTEFDATKDGPGSRDFHHLRPRFQRACPCSHVRLTGTAVQLS
WELRTGSRRRTSMEVFGQLEVLECLWPRGTSEPEYTEILTFPGTLGSQASARPCAHLRHT
QILRRVPKSRPRSVACHCHSELALDLANFQADVELGALDRLAALLRLATVPAEPPAGLLTEP
LPAMEQQTVFRLSAPRATLRLRFPIADLRPEPDPWAGQAVRAEQLRLELSEPQFRSELSSGPGP
PVPTHLELTCSDLHGIYEDGGKPPVCLRVSKALDPKSTGRKYFLPQVVTVNPQSSSTQWEV
APEKGEELSVESPCELREPEPSPFSSKRTMYETEEMVIPGDPEEMRTFQSRTLALSRCLEV
LPSVHIFLPSKEVYESIYNRINNDLLWEPADLLPTPDAAPQPSGFPGPMSGFWHDSFKMCKSAF
KLANCFDLTPDSDSDDEDAHHFSVGASGGPQAAAPEAPSLHLQSTFSTLTVLKGRITALCET
KDEGGKRLEAVHGEVLDMEHGTLFSVSQYCGQPGLGYFCLEAEKATLYHRAAVDDYPLPS
HLDLPSFAPPAQLAPTIYPSEEGVTERGASGRKGQQGRGPHMLSTAVRIHLDPHKVNKEFLVTL
RLHKATLRHYMALPEQSWSHSQLLEFLDVLDLDPVLGYLPPTVITILHHTHLFSCSDYRPLYLPV

RVLITAETFTLSSNIIMDTSTFLRFILDDSALYLSDKCEVETDLRRDYVCVLDVDLLELVIKT
WKGSTEGKLSQLFELRCSNNVVHSCADSCALLVNLLQYVMSTGDLHPPPRPPSPTEIAG
QKLSESPASLPSCPPVETALINQRDLADALLTERSLRELAQPSGGHLPQASPISVYLFGERSG
APPPSPPVGGPAGSLGSCSEEKEDEREEEGDGDTLDSDEF CILDAPGLGIPPRDGEPVVTQLHP
GPIVVRDGYFSRPIGSTDLLRAPAHFPVPSTRVVLREVSLVWHLYGGRDFGPHPGHRARTGLS
GPRSSPSRCSGPNRPQNSWRTQGGSGRQHHVLMIEQLSKVSFQHEVYPAEPATGPAAPSQELE
ERPLSRQVFIVQELEVDRDLASSQINKFLYLHTSERMPRRAHSNMLTIKALHVAPTTNLGGPE
CCLRVSLMPLRLNVDQDALFFLKDFDSL VAGINPVVPGETS AEARPETRAQPSSPLEGQAEG
VETTGQS EAPGGGHSPSPDQQPIYFREFRFTSEVPIWLDYHGKHVTMDQVGTFAGLLIGLAQ
LNCSELKLKRLCCRHGLLGVDKVLGYALNEWLQDIRKNQLPGLGGVGPMSVVQLFQGFR
DLLWLPIEQYRKDGRLMRGLQRGAASFGS STASAALELSNR LVQAIQATAETVYDILSPAAPV
SRSLQDKRSARRLRRGQQPADLREGVAKAYDTVREGILDAQTICDVASRGHEQKGLTGAV
GGVIRQLPPTVVKPLILATEATSSLGGMRNQIVPDAHKDHALKWRSDSAQD

>DP00280|P0C2E9|#192-215 #288-311

MIRFKKTKLIASIAMALCLFSQPVISFSKDITDKNQSIDSGISSL SYNRNEV LASNGDKIESFVPK
EGKKTGK FIVVERQKRSLLTSPV DSIIDS VNDRTYPGALQLADKA FVENRPTILMVKRKPINI
NIDLPLKGENS IKVDDPTY GKVG ADEL VSKWNE KYSSHTL PART QYSESMVYSKSQISS
ALNVNAKVLENSLGVDNAVANNEKKV MILAY KQFYTVSADLPKNPSDLFDDSVTFNDLK
QKGSNEAPPLM VS NVAY GRTIY VKLETTSSKDVQAAFKALIKNTDIKNSQQYKDIYENSSF
TA VV LGGDAQEH NKVV TKDFDEIRKVIKDNATFSTKNP AY PIS YTSVFLK DNSVAAVHNKT
YIETTSTEYSKGKINLDHSGAYVAQFEVA WDEVSYDKEGNEV LTHKTWDGNYQDKTAHYST
VIPLEANARNIRIKARECTGLAWEWWRDVISEYDVPLTNIN VSIWGTTLYPGSSITYN

>DP02077|C6ECL5|#144-161

MRKLTALFVASTLALGAANLAHAADTTAAPADAKPMMHKGKFGPHQDMMFKDLNLTD
AQKQQIREIMKGQRDQMKR PPLEERRAMHDII TSDTDFDKVKA EAQIAK MEEQRKANMLAHM
ETQN KJYNILTPEQKKQFNANFEKRLTERPAAKGKMPATAE

>DP00943|O35274|#417-494 #584-602

MMKTEPRGP GGPLRSASPHRSAYEAGIQALKPPDAPGPDEAPKA AHKKYGSNVHRIKSMFL
QM GTTGPPGEAGGASGMAEAPRASDRGVRLSLPRASSLNENVDHSALLKLGT SVSERVS RF
DSKPAPSAQPAPPHP PSRLQETRKL FERSV PAASGGDKEAVARLLRQERASLQDRKLDVV
VRFNGSTEALDKLDADA VSP TVSQLSAVFEKADSRTGLHRAPGPPRAAGAPQVNSKLVT KRS
RVFQPPP PAPSGDAATEKDRGPGGQQPPQHRVAPARPPP PREVRKIKPVEVEESGESEAES
APGEVIQAEVTVHAALENGSTATTASPAPEEPKAEAVPEEEASSSVATLERGV DNGRAPDM
APEEVDES KKEDFSEADLVDV SAY SGLGEDSGGSALEEDDEEDE DGEPPYEPESGC VIEPGL
SEEEDPAPS RKIHFSTAPIQVFSTYSNEDYDRRNEDVDPMAASA EYELEK RVERLELF PVELEK
DSEGLG IGI MGAGADMGLEKLGIFVKT VTEGGA AH RDGRIQVNDL LVEVDGT SLV GVTQS
FAASVLRNTKGRVRFMIGRER PGEQSEVAQLIQQTLEQERWQREMMEQRYAQYGEDDEETG
EYATDEDEELSPTFPGGEMAIEV FELAENEDALSPVEMEPEKLVHKF KELQIKHAVTEAEIQQ
LKRKLQSL EQEKG RWRV EKAQ LEQ SVEENKER MEKLEG YWGEA QSLC QAVDEHLRETQAQ
YQALERKYSKAKR LIKDYQQKEIEFLKKETAQRRVLEE SELARKEEMDKLLDKISELEGNLQT
LRNSNST

>DP02034|P62805|#2-25

MSG RGKGGKGLGKGGA KRHRKVL RDNIQGITKPAIR RLARRGGVKRISGLIYEETRGVLKVF
LEN VIRD AVTYTEHAKRKT VTAMD VVYALKRQGRTLYGF GG

>DP02144|P32337|#80-90

MSALPEEVNRTLLQIVQAFASPDNQIRSVAEKALSEEWITENNIEYLLTFLAEQAAFSQDTTVA
ALSAVLFRKLALKAPPSSKLMIMSKNITHIRKEVLAQIRSSLKGFLSERADSIRHKLSDAIAEC

VQDDLPAWPELLQALIESLKSGNPNFRESSFRILTTVPYLITAVDINSILPIFQSGFTASDNVKI
AAVTAFVGYFKQLPKSEWSKLGILLPSLLNSLPRFLDDGKDDALASVFESLIELVELAPKLFKD
MFDQIIQFTDMVIKNKDLEPPARTTALELLTVFSENAPQMCKSNQNYGQLVMVTLIMMTEV
SIDD-DDAAE-WIES-DDT-DDEEV-TYDHAR-QALDRVAL-KLGGEYLA-PLFQ-YLQQ-MITSTEWR
ERFAAMMALSSAAEGCADVLIGEIPKILD-MVPLINDPHPRVQ-YGCCNVLGQISTDFSPFIQRT
AHDRLPALISKLTSECTS-RVQTHAAAALVNFS-EFASKDILEPYLD-SLLTNLLVLLQSNKLYVQ
EQALTTIAFIAEAAKNFKIKYYDTLMPLLNVLKVNNKDN-SVLKGKCM-EATLIGFAVGKEK
FHEHSQELISILVALQNSDIDEDDALRSYLEQSWSRICRILGDDFVPLLIVPPL-LITAKATQDV
GLIEEEEANFQQY-PDWVVQVQGKHIAHTSVLDDKVSAMELLQSYATLLRGQFAVYVKE
VMEEIALPSLDFYLHDGVRAAGATLIPILLSCLLAATGTQNEELVLLWHKASSKLIGGLMSEP
MPEITQVYHNSLVNGIKVMGDNC-SEDQLAFTKGVSA-NLTDTYERMQDRHG-DGDEYNENI
DEEEDFTDEDLLDEINKSIAAVLKT-TNGH-YLKNLENIWP-MINTFL-LDNEPILVIFALV-VIGDLIQ
YGGEQTASMKNAFIPK-VTECLISP-DARIRQAASYIIGVCAQYAPSTYADVCIPTLD-TLVQIVDF
PGSKLEENRSSTENASA-AIAKIL-YAYNSNIPNVDTY-TANWFKTLPTITDKEASFNYQFLSQLI
ENN-SPIVCAQSNISAVVDSVIQALNERSLTEREG-QTVISSVKKLLGFLPSSDAMAIFNRYPADI
MEKVHKWFA

>DP00026|P06179|#1-65 #455-494

MAQVINTNSLSLLTQNNLNKSQSALGTAIERLSSGLRINSAKDDAAGQAIANRFTANIKGLTQ
ASRNANDGISIAQTTEGALNEINNNLQRVRELAVQSANSTSNSQSDLDSIQAEITQRLNEIDRV
GQTQFNGVKVLAQDNTLTIQVGANDGETIDIDLQIINSQTLGLDTNVQQKYKVSDTAATVT
GYADTTIALDNSTFKASATGLGGTDQKIDGDLKFDDTTGKYYAKVTVTGGTGKDGYEVSV
DKTNGEVTLAGGATSP-TGGLPATATEDVKNVQVANADLT-EAKAALTAAGVTGTASVVKM
SYTDNNNGKTIDGLAVKVGDYYSATQN-KDGSI-SINTT-KYTADDGTS-KTALNKLGGADGKT
EVV SIGGKTYAASKAEGHNFKAQPD-LAEAAATTENPLQKIDAALA-QVDTLRS-DLGAVQNR
FNSAITNLGNTVNNLTSARSRIEDSDYATEVSNMSRAQILQQAGTSVLAQANQVPQNVLSLLR
>DP02880|K9N5Q8|#366-380 #427-437 #579-589 #591-601 #699-709 #745-756 #1207-1294

MIHSVFLMFL-LPTESYDVGPDSVKSACIEVDIQQTFFDKTWPRPIDVSKADGI-IYPQGR
TY SNITITYQGLFPYQGDHGDMYVYSAGHATGTPQKLFVANYSQDVKQFANGFVRIGAAAN
STGTVIISPSTSATIRKIYPAFMLGSSVGNFSDGKMGRFFNHTLVLLPDGCGTLLRAFYCILEPR
SGNHCPAGNSYTSFATYHTPATDCSDGNYNRNASLNSFKEYFNLRNCTFMYT-NITEDEILE
WFGITQTAQGVHLFSSRYVDLYGGNMFQFATLPVYDTIKYYSIIPHSIRSIQSDRKAWAAFYV
YKLQPLTFLLDFSVDGYIIRRайдCGFNDLSQLHCSYESFDVESGVY-SFEAKPSGSVVEQAE
GVECDFSP-LLSGTPPVY-NFKRLVFTNCNYNLT-KLSSLFSVNDFTCSQISPAAIASNCYSSLILD
YFSYPLSMKSDLSVSSAGPISQFNYKQSFSNPTCLILATVPHNLTTITKPLKSYI-NKCSRFLSD
DRTEVPQLVNANQYSPCVSIVPSTVWE-DGYYRKQLSPLEG-GWLVASGSTVAMTEQLQM
GFGITVQYGTDTNSVCPKLEFANDTKIASQLGNCVEYSLYGVSGRGV-FQNCTAVGVRQQR
FYDAYQNLVGYYSDDGNYYCLRACVSVPSVIYDKE-TKTHATLFGSVACEHISSTMSQYSR
RSMLKRRDSTYGPLQTPVGCVLGLVNSSLFVEDCKLPLGQSLCALPDT-PSTLPRSVRSPGE
MRLASIAFNHPIQVDQLNSSYFKLISIPTNFSFGVTQEYIQT-TI-QKVTVDCKQYVCNGFQ
KCEQL LREYQQFC-SKINQALHG-ANLRQDDSVRNLFASVKSSQSSPIPGFGGDFNLTLEPV
SISTGSRS ARSAIEDLLFDKVTIADPGYM-QGYDDCMQQGPASARDLICAQYVAGYKVL
PPLMDVNMEA AYTSSLLGSIAGVGWTAGLSSFAAIPFAQSIFYRLNGV
GITQQVLSENQKLIANKFNQALGAM QTGF-TTNEAFHKVQDAVNNNAQALSKLAS
ELSNTFGAISASI-GDIIQRLDVLEQDAQIDRLIN GRLTTLN
AFVAQQQLVRSESAALSAQLAKDKVNECVKAQSKRS
GFCGQGTHIVSFVVNAPNG LYFMHVGYYP
SNHIEVVSAYGLCDAANPTNCIAPVNGYFI
KTNNTRIVDEWSYTGSSFYA
PEP ITSLNTKYVAPQV
TYQNTLN
PPLLG
NSTGIDFQ
DELDEFF
KVN
VSTSI
PFG
SLTQ
INT
LLDL
TYE
MLSL
QVV
KAL
NES
YIDL
KEL
GNY
TYY
NKWP
WYIWL
GFIAGL
VAL
ALCV
FFIL
CCTGCG

TNCMGKLKNRCCDRYEEYDLEPHKVHVH

>DP00172|Q16633#38-44

MLWQKPTAPEQAPAPARPYQGVRVKEPVKELLRRKRGHASSGAAPAPTAVVLPHQPLATYT
TVGPSCLDMEGSVSAVTEEAALCAGWLSQPTPATLQPLAPWTPYTEYVPHEAVSCPYSADM
YVQPVCPSYTVVGPSVLTYASPLITNVTRSSATPAVGPPLEGPEHQAPLTYFPWPQPLSTL
PTSTLQYQPPAPALPGPQFVQLPISIPEPVLQDMEDPRRAASSLTIDKLLLEEDSDAYALNHTL
SVEGF

>DP00381|P35869#545-713

MNSSSANITYASRKRRKPVQKTVKPIAEGIKSNPSKRHRDRLNTEDRLASLLPFPQDVINKL
DKLSVRLSVSYLRAKSFFDVALKSSPTERNGQDNCRAANFREGLNLQEgefllQALNGFV
LVVTTDALVFYASSTIQQDYLGFQQSDVIHQSVYELIHTEDRAEFQRQLHWALNPSQCTESGQG
IEEATGLPQTVCVYCNPDPQIPPENSPLMERCFCRLRCLLDNSSGFLAMNFQGKLKYLGQKKK
GKDGSILPPQLALFAIATPLQPPSILEIRTKNFIFRTKHKLDFTPIGCDAKGRIVLGYTEAELCTR
GSGYQFIHAADMLYCAESHIRMIKTGESGMIVFRLLTKNNRWTWVQSNARLLYKNGRPDYII
VTQRPLTDEEGTEHLRKRTKLPFMFTGEAVLYEATNPFPAIMDPLPLRTKNGTSGKDSATT
STLSKDSLNPSSLLAAMMQQDESIYLYPASSTSSTAPFENNFFNESMNECRNWQDNTAPMGN
DTILKHEQIDQPQDVNSFAGGHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMQNKEFFRNDFSG
EVDFRIDLTDEILTYVQDSLSKSPFIPSODYQQQQLSALNSSCMVQEHLHLEQQQQHHQKQVV
VEPQQQLCQKMKHMQVNGMFENWNSNQVFNCPCQQDPQQYNVFTDLHGISQEFPYKSEM
DSMPYQTQNFISCNQPVLPQHSKCTELDYPMGSFEPSPYPTTSSLQEDFVTCLQLPENQKHGLNP
QSAIITPQTCYAGAVSMYQCQPEPQHTHVQQMQYNPVLPGQQAFLNKFQNGVLANETYPael
NNINNTQTTTHLQPLHHPSEARPFPDLTSSGFL

>DP01594|Q80ZV0#103-145 #107-122 #182-202 #182-266 #283-308

MAGGRDRGDLAARQLVFLLPEHLKDASKKKKSSLLFKVLANPHSGEGATYLIDMCLQQLF
EIKVKEKHSWFINQSVQSGGLHFATPMDFLFLHYLLKAGKEGKYQPLDQVVVDDTFP
DCTLLLRFPELEKSLRHVTEEKEVNSKKYYKYSSEKTLKWLEKKVNQTVVALKANNVNVA
RVQSSAYFSGGQVSRDKEEDYVRYAHGLISDYIPKELSDDLSKFLKLEPPASLTNPPSKKL
SDEPVEAKEDYTKFNTKDLKTGKNSKMTAAQKALAKVDKSGMKSIDAFFGAKNKTGKI
>DP00877|P9WHN5#1-64

MAQEQTKRGGGGDDDDIAGSTAAGQERREKLTEETDDLDEIDDVLEENAEDFVRAYVQK
GGQ

>DP01562|Q9Z1X4#55-86 #341-353 #468-518

MRPMRIFVNDDRHVMAKHSSVYPTQEELEAVQNMVSHTERALKAVSDWIDEQEKGNSELSE
AENMDTPPDESKEGAGEQKAEHMTRTLRGVMRGLVAKGLLKGDLDDLELVLLCKEKP
TALLDKVADNLAIQLTTVTEDKYEILQSVDDAAIVIKNTKEPPLSLTIHLSPVVRREEMEKVLA
GETLSVNDPPDVLDRKQKCLAALASLRHAKWFQARANGLKSCVIVRVLRLCTRVPWGCLR
GWPLELLCEKSIGTANRPMGAGEALRRVLECLASGIVMPDGSGIYDPCEKEATDAIGHLDRQ
QREDITQSAQHALRLAAGQLHKVLGMDPLPSKMPKKPKNENPVDYTVQIPPSTTYAITPMK
RPMEEDEEEKSPSKKKKIQKKEEKADPPQAMNALMRLNQLKPGHQYKLISQTGPVHAPIFT
MSVEVDGSNFEASGPSKKTAKLHVAVKVLQDMGLPTGAEGRDSSKGEDSAEESDGKPAIVA
PPPVEAVSNPSSVFPSDATTEQGPILTKHGKNPVMELNEKRRGLKYELISETGGSHDKRFVM
EVEVDGQKFQGAGSNKKVAKAYAALAALAEKLFDTPLALEANKKRTPVVRGGPKFAAKP
HNPGFGMGGPMHNEVPPPNIRGRGRGGNIRGRGRGRGFGGANHGGGYMNAGAGYGSYGY
SSNSATAGYSQFYNSNGHSGNAGGGGGGGSSSSYSSYYQGDSYNSPVPPKHAGKKPLHG
GQQKASYSSGYQSHQQQQPYNQSQYSSYGTPQGKQKGYGHQGSYSSYNSYNSPGGGG
GSDYSYDSKFNYSGSGGRSGGNSYGSSGSSSYNTGSHGGYGTGSGSSSYQGKQGGYSSQSN
YSSPGSSQSYSGPASSYQSSQGGYSRNTEHSMNYQYR

>DP01593|P21374|#96-235 #97-235

MSRNVDKANSVLVRFQEQQAESAGGYKDYSRYQRPRNVSKVSIKEANEWKRQVSKEIKQ
KSTRIYDPSLNEMQIAELNDELNNLFKEWKRWQWHIDHTLMEKKTKRKRLEDSHVLMNSGK
LINGKRYFGRALELPREVKEWLKQSQRQNDGGSINTKCIPKDRNDFYYHGKVTAALTEFEAN
WTSILKAHYNVPVNEDEEEMSRTQEIHVPTLADMEHWLVQRRKKKLMDDELNL

>DP01328|Q9C0C7|#527-541

MKVVPPEKNAVRLWGRERGARAMGAQRLLQELVEDKTRWMKWEGKRVELPDSPRSTFLA
FSPDRTLLASTHVHNIIYITEVKTGKCVHSLIGHRRTPWCVTFHPTISGLIASGCLGEVRIWD
LHGGSESWFTDSNNAIASLAHFHTAQQLLIATANEIHFWDWSRREPFAVVKTASEMERVRLV
RFDPLGHYLLTAIVNPSNQQGDDEPEIPIDGTLSHYRQRALLSQPVVRTPLLHNFLHMLSSR
SSGIQVGEQSTVQDSAATPSPPPPPQPSSTERPRTSAYIRLRQRVSYPTAECCQHLGILCLCSRCS
GTRVPSLLPHQDSVPPASARATTPSFVQTEPFHPPEQASSTQQDQGLNRPSAFSTVQSSTA
GNTLRNLSLGPTRRSLGGPLSSHPSRYHREIAPGLTGSEWTRTVLSLNSRSEAESMPPRTSAS
SVSLLSVLRQQEGGSQASVYTSATEGRGFPAASGLATESDGNGNSSQNNSGSIRHELQCDLRRF
FLEYDRLQELDQSLSGEAPQTQQAQEMLNNNIESERPGPSHQPTPHSSENNSLSRGHLNRCR
ACHNLLTFNNDTLRWERTTPNYSSGEASSSWQVPSSESVPSSGSQLPPLERTEGQTPSSSRLE
LSSSASPQEERTVGVAFNQETGHWERIYTQSSRSGTVSQEALHQDMPEESSEEDSLRRRLLESS
LISLSRYDGAGSREHPIYPDPARLSPAAYYAQRMIQYLSRRDSIRQRSMRYQQNRLRSSTSSSS
SDNQGPSVEGTDLEFEDFEDNGDRSRHRAPRNARMSAPSGLRFVPRRFLPEYLPYAGIFHER
GQGPLATHSSVNRVLAGAVIGDGQSAVASNIANTTYRLQWWDFTKFDLPEISNASVNVLVQ
NCKIYNDASCDISADGQLAAFIPIPSSQRGFPDEGILAVYSLAPHNLGEMYTKRGPN AISVSL
SPMGRYVMVGLASRRILLHPSTEHMVAQVFRQLQQAHHGETSMRRVFNVLYPMPADQRRHV
SINSARWLPEPGLGLAYGTNKGDLVICRPEALNSGVVEYYWDQLNETVFTVHSNSRSSERPGTS
RATWRTRDMGLMNAIGLQPRNPATSVTSQGTQTLALQLQNAETQTEREVPEPGTAASGPG
EGEGSEYGASGEDALSRIQLMAEGGMTAVVQREQSTMASMGFGNNIIVSHRIHRSSQTG
TEPGAHAHTSSPQPSTS RGLLPEAGQLAERGLSPRTASWDQPGTPGREPTQPTLPSSSPVPIPVS
PSAEGPTLHCELTNNHLLDGSSRGDAAGPRGEPRNR

>DP01193|Q9H211|#420-431

MEQRRVTdffARRRPGPPIAPPKLACRTPSPARPALRAPASATSGSRKRARPPAAPGRDQAR
PPARRRLRLSVDVSSPSTPEAPDIPACPSGPQKIKKSTPAAGQPPHLTSAQDQDTISELASCLQ
RARELGARVRALKA SAQDAGESCTPEAEGRPEEPCGEKAPAYQRFHALAQPGPLGLVLPYKY
QVLAEMFRSMDTIVGMLHNRSETPTFAKVQRGVQDMMMRRFEECNVGQIKTVYPASYRFRQ
ERSVPTFKDGTRRS DYQLTIEPLLEQEADGAAPQLTASRLLQRRQIFSQKLVEHVKEHHKAFL
ASLSPAMVVPEDQLTRWHPRFNVD EVPDIEPAALPQPPATEKLT TAQEVLARARNLISPRMEK
ALSQLALRSAAPSSPGSPRPALPATPPAASPSALKGVSQDLLERIRAKEAQKQLAQMT
CPEQEQLQRLERLPELARVLSVFVUSERKPALSMEVACARMVGSCCTIMSPGEMEKHLLL
SELLPDWLSLHRIRTDYVKLDKAADLAHITARLAHQTRAEEGL

>DP00324|P09651|#1-7 #92-102 #182-196

MSKSESPKEPEQLRKLFIGGLSFETTDESLRHFEQWGTLTDCVVMRDPTKRSRGFGFTYAT
TVEEVDAAMNARPHKVDGRVVEPKRAVSREDSQRPGAHLTVKKIFVGGIKEDTEEHHLRDY
FEQYGKIEVIEIMTDRGSGKKRGFAFVTFDDHDSVDKIVI QKYHTVNGHCEVRKALKSQEM
ASASSSQGRSGSGNFGGGRGGFGGNDFGRGGNFSGRGGF GGSRGGGYGGSGDGYNG
FGNDGGYGGGGPGYSGGSRGYGS GGQGYGNQGSYGGSGSYDSYNNGGGGFGGGSGSNF
GGGGSYNDFGNYNNQSSNFGPMKGGNFGGRSSGPYGGGQYFAKPRNQGGYGGSSSSSYG
SGRRF

>DP01049|Q6QCC2|#101-137

MNRTAFCCSLTTALILTACSSGGGVAADIGAGLADALTAPLDHKDKGLQSLTLDQSVRKN

EKLKLAQGAEKTYGNGDSLNTGKLNDKVSRFDFIRQIEVDGQLITLESGEFQVYKQSHSA
LTAFQTEQIJDSEHSGKMVAKRQFRIGDIAGEHTSFDKLPEGGRATYRGTAFGSDDAGGKLT
YTIDFAAKQGNKIEHLKSPELNVDLAAADIKPDKRHAVISGSVLYNQAEGSYSLGIFGGK
AQEVAEVKTVNGIRHIGLAAKQ

>DP0117|O60566|#20-42

MAAVKKEGGALSEAMSLEGDEWELSKENVQPLRQGRIMSTLQGALAQESACNNTLQQQKR
AFEYEIRFYTGNDPLDVWDRYISWTEQNYPQGGKESNMSTLLERAVEALQGEKRYYSDPRFL
NLWLKLGLRCNEPLDMYSYLHNQGIVSLAQFYISWAEEYEARENFRKADAIFQEIQQQKAE
PLERLQSQHRQFQARVSRTQTLALEKEEEEVFESSVPQRSTLAELSKGKKTARAPIRVGGA
LKAPSQNRLQNPFPQQMQNNSRITVDENADEASTAELSKPTVQPWIAPPMPRAKENELQA
GPWNTGRSLEHRRGNTASLIAVPAVLPSFTPYVEETARQPVMTPCKIEPSINHILSTRKPGKE
EGDPLQRVQSHQQASEEKKEKMMYCKEKIYAGVGEFSFEEIRAEVFRKKLKEQREAELLTA
EKRAEMQKQIEEMEKKLKEIQTQQERTGDQQEETMPTKETTKLQIASESQKIPGMTLSSVC
QVNCCARETSLAENIWQEOPHSKGPSVPSIFDEFLLSEKKNKSPPADPPRVLAQRRPLAVLKT
SESITSNEDVSPDVCDEFTGIEPLSEDIAITGFRNVTCIPNPEDTCDFARAARFVSTPFHEIMSLK
DLPSDPERLLPEEDLDVKTSEDQQTACGTIYSQTLSIKKLSPPIEDSREATHSSGFSGSSAVAST
SSIKCLOIPEKLELTNETSENPTQSPWCSQYRRQLLKSPELSASAELCIEDRPMPKLEIEKEIEL
GNEDYCIKREYLICEDYKLFWWAPRNSAELTVIKVSSQPVWDFYINLKLKERLNEDFDHFCS
CYQYQDGCIWWHQYINCFLQDLLQHSEYITHEITVLIYNNLTIVEMLHKAIEVHGDLSPRCLI
LRNRIHDPYDCNKNQALKIVDFSYSVDLRVQLDVTLSGFRTVQILEGQKILANCSSPYQVD
LFGIADLAHLLLKEHLQVFWDGFWKLSQNISELKDGELENWKFFVRILNANDEATVSVLGE
LAAEMNGVFDTTFQSHLNKALWKGKLTSPGALLFQ

>DP01584|P19880|#300-322 #565-650

MSVSTAKRSLDVVSPGLAEFEGSKSRHDEIENEHRRGTRDGEDSEQPKKKGSKTSKKQDL
DPETKQKRTAQNRRAQRAFRERKERKMKLEKKVQSLESIQQNEVEATFLRDQLITLVNEL
KKYRPETRNDSKVLEYLARRDPNLHFSKNVNHSNSEPIDTPNDDIQENVKQKMNFTFQYPL
DNDNDNDNSKVGKQLPSPNDPSHSAPMPINQTQKQLSDATDSSATLDSLSNSNDVNNTP
NSSTSMDWLDNVIYTNRFVSGDDGSNSTKNLDNSNMFSDNFENQFDEQVSEFCSKMNQV
CGTRQCPIPKKPISALDKEVFASSILSSNSPALNTWESHNSIDNTPANVIATDATKYENSFS
GFGRLGFDMSANHYVVNDNSTGSTDSTGSTGNKNKNNNNSDVLPFISESPFDMNQVTNFF
SPGSTGIGNNAASNTNPSLLQSSKEDIPFINANLAFPDDNSTNIQLQPFSESQSQNKFDYDMFFR
DSSKEGNNLFGEFLEDDDDDKAANMSDDESSLIKNQLINEEELPKQYLQSVPGNEISQK
NGSSLQNADKINNGNDNDNDNDVVPSSKEGSSLRCSEIWDRITTHPKYSDIDVDGLCSELMAK
AKCSERGVVINADEVQLALNKHMN

>DP00042|P02315|#1-70

MPKRKSATKGDEPARRSARLSARPVPKPAAKPKAAAPKKAVKKGKAAENGDAKAEAKVQ
AAGDGAGNAK

>DP02290|Q92905|#284-295

MAASGSGMAQKTWELANNMQEAQSIDEIYKYDKKQQQEILAACPWTKDHHYFKYCKISAL
ALLKMMVMHARSGGNLEVGMGLLGKVDGETMIIMDSFALPVEGTETRVNAQAAAAYEYMAA
YIENAKQVGRLENAIGWYHSHPGYGCWLSGIDVSTQMLNQQFQEPFVAVIDPTRTISAGKV
NLGAFRTYPKGYKPPDEGPSEYQTIPLNKIEDFGVHCKQYYALEVSYFKSSLDRKLLELLWNK
YWVNTLSSSLTNADYTTGQVFDLSEKLEQSEAQLGRGSFMLGLETHDRKSEDKLAKATRD
SCKTTIEAIHGLMSQVIKDKLFNQINIS

>DP00668|P19250|#1-35

MKYRYFAKKSFLFISMLAAFKTFAFELPSVPFPAPGSDEILFVVRDTTFNTNAPVNVEVSDFW
TNRNVKRKPYKDVGQSVFTSGTKWLTSYMTVNINDKDYTMAAVSGYKHGHSAVFVKSD

QVQLQHSYDSVANFVGEDEDSIPS KMYLDETPEYFVNVEAYESGSGNILVMCISNKESFFECK
HQH

>DP01202|O55000|#309-433

MGSGPIDPKELLKGLDSFLTRDGEVKSV DGI AKIFSLMKEARKMVSRC TYLNII LQTRAPEVL
VKFIDVGGYKLLNSWLTYSKTTNNIPLLQQILLTLQHLPLTVDHLKQNNTAKLVKQLSKSSED
EELRK LASVLVSDWMA VIRQSSTQPAEKDKKRKEEGKSRTTLP ERPLTEVKAETRAEEAP
EKKKEKP KSLRTTAPSHAKFRSTGLELDTPSLVPVKNSSTVVVSDKYNLKPIPLKRQSATAA
PGDAAPP AEKKYKPLN TTPNTTKEIKV IIPPQPM EGLGFL DALNSA P VPGIK KKKKKVLSPT
AAKPS PFE GK TSTEP STAKPSSPEPA APAEPMDT DRPGT PVA VE VP ELM DAAS SEP GALDAK
PVESP GDPNQL TRKGRK RKT VTWPEEGKLREYFYFELDETERVN VN KIKDFGE AAKREILSD
RHAFETARRL SHDN MEEKV PWV C PRPLV LPSP LVIPGS NSQERYIQAEREKG ILQELFLN KESP
HEPDPEPYEPIPKL IPI LDEECAMDET PYVETLE PGGS GGSPDGAGGS KLP PV LANL MGSMGA
GKSPQGP GGGG INVQE ILTSIMGP SPNNHP SEELLK QPDY SDKL KQMLV PHG LLGPGP VANGFP
PGGP GGP KGMQ HFPP GP GPMPGP HGGPGP VGPR LLG PPPS RGGDP FW DGP GPD PMRG GP
MRGGPGPGP GPYHR GRGG RG NGNE P PPPP F RGA RG GR SG GPPNGR GGPG GGGM VGG GH
RPHEGP GGSM GS GHSHE GP GS MG S GHSHE GP GH GPG HGR HDVPS H RGHD HRG PPH
EHRGHDGHGGGGHRGHDGGHSHGGDMSNRPVCRHFMMKGNCRYENNCAFYHPGVNGPPL
P

>DP01001|B8YB65|#1-32 #83-104

MVSGM STEEEKE GTN DEEVSEEREVEETSEEFPKLSIQDIELL MKNTEIWDNLLNGKISVDEA
KRLFEDNYKDYEKRDSRRKAKKAASKKVKKT KKKEKS VEG

>DP01443|Q9UJX4|#1-24 #1-26 #168-205 #170-205 #353-413

MASVHESLYFNPMMTNGVVHANVFGIKDWVTPYKIAVLVLLNEMSRTGEGAVSLMERRRL
NQLLPLLQGPDTLSKLYKLI ESCPQLANSVQIRIKLMAEGELKDMEQFFDDLSDSFGTEPE
VHKTSV VGLFLRH MILA YSKLSFSQVF KLYTA LQQYFQN GEKKT VEDADMELTSRDEGERK
MEKEELDV SVREEVSCSGPLSQKQAEFFLSQQASLLKND ET KALTPASLQ KELNNLLKFNP D
FAEAHYLSYLNLRVQDVFSSTHSLLHYFDRLILTGAESKSNGEEGYGRSLRYAALNLAALH
CRFGHYQQAEALQEAIRIAQESNDHVCLQHCLSWLYVLGQKRS DS YVLL EHSVKKAVHFG
LPYLASLG IQSLVQQRAFAGKTANKLMDALKDSDL LHWKHSLS ELIDISIAQKTAIWRLYGRS
TMALQQAQMLLSMNSLEAVNAGVQ QNNTESFAVALCH LAELHAEQGCFAAASEV LKHLKE
RFPPNSQHAQLWMLCDQKIQFD RAMNDGKYHLADSLVTGITALNSIEGVYRKA VVLQAQNQ
MSEAHKLLQKLLVHCQKLKNT EMVISVLLSVAELYWRSSSPTIALPMLLQAL ALSKEYRLQY
LA SETVNL AFAQL LIGI PEQAL SLLHMAI EPI ADGAIL DKGRAMFLVAKCQVASAASYDQP
KKA EA LEAAIENLNEAK NYFAK VDCKERIRDV VYFQAR LYHTLGKTQERNRCAMLFRQLHQ
ELPSHG VPLINHL

>DP01035|Q39805|#1-226

MASYQKHYDDQGRKVDEYGNVEKQTDEYGNPVHAASVTYVATRTAAGGYSDDINKQHDT
TNAYGVDTGRQHSSGGYDGDTNKHGTGTTGGYND DTNRHHGTGTVY GIDTDRQQHGTG
YAGDTGRQHGNIGGPYYGTNTADTGPRSGTTGGTGYGGTGGTDYGTGGTGYGSGTGY
GVNTGGAHTEAGYRKEHRQHDQSHGDQNEKKGIMDKIKEKLPGGHSDK

>DP01516|Q06810|#194-333

MSSSKASASSLSSTATSSTSATRGSDGCVVC DSTASCPVCASGEYCVMTSLTCDKCPSTYC
AKQSDSQLSSSSSSSSNSNEKTS LIVGFTVGIVGGAM LIALVALYFINKRYWKPKRQKN
KALKLEEASQSYGN EEEYFDDDEDDDEDGGMRKDESHTLFNTSLV PPTLN VPGNRSSA
STTRTRASNILPIAYIPGVTSGLSTD LQSKL RSSSKRQNAAGDIRSHITLGSSILDGLDDE
HNQVLNKDADDNLITA RAKPKLVQIAEEESDKEI QDLDVIEE QT EADDL SHMAKSEASHGN
NDED DDEEGSFILDLEIP ESIRESTQGSRTESPFEDKFEIHDER

>DP00991|P0AAC0|#269-282

MAMYQNMLVVIDPNQDDQPALRRAVYLHQRIGGKIK AFLPIYDFS YEMTLLSPDERTAMR QGVISQRTAWIHEQAKYYLNAGVPIEIKVVWHNRPFEAIIQEVISGGHDLVLKMAHQHDRLE AVIFPTDWHLRKCPSPVWMVKDQPWPEGGKALVAVNLASEEPYHNALNEKLVKETIELA EQVNHTEVHLVGAYPVTPINIAIELPEFDPSVYNDAIRQHLLAMKALRQKFGINENMTHVEK GLPEEVIPDLAEHLQAGIVVLGTVGRTGISAFLGNTAEQVIDHLRC DLLVIKPDQYQTPVELD DEEDD

>DP01492|Q01097|#1259-1482

MKPSAECCKSPFWLVLAVLAVSGSKARSQKSAPSIGIAVILVGT SDEVAIKDAHEKDDFH HLS VVPRVELVAMNETDPKSIITRICDLMMSDRKIQGVVLADDTDQE AIAQILD FISAQTLTPILGIHG GSSMIMADKDESSMFFQFGPSIEQQASVMLNIMEEYDWYIFSIVTTYFPGYQDFVN KIRSTIEN SFVGWELEEVLLDMSLDDGDSKIQNQLKKLQSPIILLYCTKEEATYIFEVANSVGLTG YGYT WIVPSLVAGDTDTVPSEFPTGLISVS YDEWDYGLPARVRDGIAITTAASDMLSEHSFIPEPKSS CYNTHEKRIYQS NMLNRYLINVTFEGRNLSFSEDGYQMHPKLVILLNKERKWERVGKWKD KSLQMKYVWPRMCPETEEQEDDHLSIVTLEEAPVIVESVDPLSGTCMRNTVPCQKRIISEN KTDEEPGYIKKCCKGFCIDILKKISKVFTYDLYLTNGKHGK KINGTWNGMIGEVVMKRA YMAVGSLTINEERSEVVDFSVFIELTGISVMVSRNSGTVSPSAFLEPFSADVWVMMFVMLLIV SAVA VFVFEYFSPVGYNRCLADGREPGGPSFTIGKAIWLLWGLVFNNSVPVQNPKGTTSKIM VSVWAFFAVIFLASYTANLA AFMIQEYVDQVSGLSDKKFQRPNDFSPPFRFGTVPNGSTERN IRNNYAE MHAYMGKFNQRGVDDALLSLKTGKLDIFIYDAAVLNYMAGRDEGCKLVTIGSG KVFASTGYGIAIQK DSGWKRQVDLAILQLFGDGE MEELEALWLTGICHNEKNEV MSSQLDID NMAGVFYMLGAAMALSLITFICEHLYWQFRHCFMGVC SGKPGMVF SISRGYSCIHGVAIEE RQSVMNSPTATMNNTHSNILRLLRTAKNMANLSGVNGSPQSALDFIRRESSVYDISEHRRSFT HSDCKSYNNPPCEENLFSDYISEVERTFGNLQLKDSNVYQDH YHHHRPHSIGSTSSIDGLYD CDNPPFTQPRSISKKPLDIGLPSSKHSQLSDLYGKFSFKSDRYSGHDDLIRSDVSDISTHTV TY GNIEGNAAKRRKQQYKDSLKKRPASA KS RREFDEIELAYRRRPPRSPDHKRYFRDKEGLRDF YLDQFRTKENSPHWEHVDLTDIYKERSDDFKRDSVSGGPCTNRSHLKHTGDKG VVGGV PAPWEKNLTNVDWEDRSGGNFCRSCPSKLHNYSSTVAGQNSGRQACIRCEACKAGNLYDI SEDNSLQELDQPAAPVAVSSNASTKYPQSPTNSKAQKKRNKLRRQH SYDTFVDLQKEEAA LAPRSVSLDKGRMDGSPYAHMFEMPAGESSFANKS VTTAGHHHNNPGSGYMLSKSLYP DRVTQNPFIPTFGDDQCLLHGSKSYFFRQPTVAGASKTRPDFRALVTNKPVVSALHGA VPGRF QKD CIGNQSNPCVPNNKNPRAFN GSSNGHVYEKLSSIESDV

>DP01771|P78560|#95-136

MEARDKQVLRLSLRELGAEV LVEGLVLQYLYQEGILTENHIQEINAQTTGLRKTMLLDILPS RGPKAFDTFLDSLQEFPWVREKLKKAREEAMTDL PAGDRLTGIPSHILNSSPSDRQINQLAQR LGPEWPMVLSLGLSQTDIYRCKANPHNVQSQVVEAFIRWRQRFKQATFQSLHNGLRAV EVDP SLLLHM L E

>DP01057|Q42512|#41-139

MAMSFGAVLTGMASSFHSGAKQSSFGAVRVGQKTQFVVVSQRKKS LIYAAKGDGNILD L NEATKKASDFVTDKTKEALADGEKADYVVEKNSETADTLGKEAEKAAAYVEEKGKEAAN KAAEFAEGKAGEAKDATK

>DP00116|P81455|#1-49

YLD SGLGAPVPYPDPLEPKREVCELNPNCD ELADHIGFQEAYQRFYGPV

>DP01384|P0CU50|#1-227

MSGRNVESMERNEKV VVNNSGHADVKKQQQVEHTEFTHTEVKAPLIHPAPP IISTGAAGL AEEIVGQGFTASAARISGTAEVHLQPSAAMTEEARRDQERYRQE QESIAKQQEREMEKKTE AYRK TAEAEA EKIRKELEKQHARDVEFRKDLIESTIDRQKREV DLEAKMAKRELDREGQLAK

EALERSRLATNVEVNFDSAAGHTVSGGTTVSTSDKMEIKRN

>DP00071|P23441|#1-156 #161-169 #220-227

MSMSPKHTTPFSVSDILSPLEESYKKVGMEGGLGAPLAAYRQGQAAPPAAAMQQHAVGHH
GAVTAAYHMTAAGVPQLSHSAVGGYCNGNLGNMSELPPYQDTMRNSASGPGWYGANPDP
RFPAISRFMGPASGMNMSGMGLGSLGDVSKNMAPLPSAPRKRRVLFSQAQVYELERRFK
QQKYLSAPEREHLASMIHLPTQVKIWFQNHRYKMKRQAKDKAAQQQLQQDSGGGGGGGG
GAGCPQQQQAQQQSPRRVAVPVLVKDGKPCQAGAPGAASLQGHAAQQQAQQQAQAAQA
AAAAISVGSGGAGLGAHPGHQPGSAGQSPDLAHHAASPAALQGVSSLHNSGSYDYGAM
SCSTLLYGRTW

>DP01081|Q7SIG5|#348-384

QSGNPFGRTLLVNSDYSSKLDQTRQAFLSRGDQTNAAKVKYVQEKGVTFYWISNIFLLRID
VAIQNARAAKARGENPIVGLVLYNLPDRDCSAGESSGELKLSQNGLNRYNEYVNPFAQKL
KAASDVQFAVILEPDAIGNMVTGTSACCRNARGPQQAIGYAISQLQASHIHYLDVANGGW
LGWADKLEPTAQEVATILQKAGNNAKIRGFSSNVSNYPSTSNNPPYTSGSPSPDESRYATNI
ANAMRQRGLPTQFIIDQSRVALSGARSEWGQWCNVNPAGFGQPFTNTNNPNVDAIVWVKP
GGESDGQCGMGGAPAAGMWFDAYAQMLTQNAHDEIAR

>DP02033|P32504|#1-43 #97-108 #168-182

MRSSILFLKLMKIMDVQQQEAMSEDRFQELVDSLKPRTAHQYKTYTKYIQCQLNQII
PTPEDNSVNSVPYKDLPIASELIHWFLDLTITDDKPGKEKREETEDLDEEEENSFKIATLKKIIGS
LNFLSKLCKVHENPNANIDTKYLESVTKLHTHWIDSQKAITTNETNNTNTQVLCPLLVSLN
LWNPETNHLSEKFFKTCSEKLRFLVDFQLRSYLNLSFEERSKIRGSLKLGKRDRAIIYHKVT
HSAEKDTPGHHQQLALLPQDCPFCPQTTLAAYLYLRFYGIIPSVSKGDGFPNLNADENGSL
QDIPILRGKSLTTYPREETSNEYTTVFRYCHLPYKRREYFNKCNLVYPTWDEDTRFTFFNEE
NHGNWLEQPEAFAPDKIPFDKIMNFKSPYTSYSTNAKKDPFPPPDKLLVQIFPEIDEYKRH
DYEGLSQNSRDFLDLMEVLERFLSNLPWIYKFFPNHDIFQDPIFGNSDFQSYFNDKTIHSKGS
PILSFIDLPGFNKIYKNKTNFYSLLIERPSQLTFASSHNPDTPTQKQESEGPLQMSQLDTQLN
ELLKQQSFEYVQFQLTSNFQILLSVFNKIFEKLEMKKSSRGYILHQLNLKITLDERIKKSIDD
ADKFIRDNQPIKKEENIVNEDGPNTSRTKRPKQIRLLSIADSSDESTEVDNFKKDGESEDG
AYGENEDENDSEMQUEQLKSMINELINSKISTFLRDQMDQFELKINALLDKILEEKVTRIIEQKL
GSHTGKFSTLKRQPLYMTEEHNVGFDMEVPKKLRSGKYAETVKDNDDHQAMSTTASPSPE
QDQEAKSYTDEQEFMLDKSIDSIEGIILEWFTPNAKYANQCVHSMNKSGNKSWRANCEALYK
ERKSIVEFYIYLVNHESDLRYKAVDICEKLRDQNEGFSRLAKFLRKWRHDHQNSFDGLLVY
LSN

>DP00862|P49785|#32-102

MLKKQTVWLLTMLSLVVVLSVYYIMSPESKNAVQMSEKSASDSGEVATEKAPAKQDTKE
KSGTETEKGKEDGTGKTDSSADKETS A EASEKGTVVTETADDDLFETYRLDLEDARSKERE
ELNAIVSSDDATAKEKSEA YDKMTALSEVEGTEKQLETLIKTQGYEDALVNAEGDKINITVKS
DKHSKSKATAIDLVAKEIKTMKDVAVTFEPSK

>DP01424|Q2KIG3|#1-117

MKLYSLGVLVATVLFCEGEHAFAFQRGQVLSALPRTSRQVQILQNVTTTYKIVLWQPVAAEYI
VKGYEVHFFVN ASDVSNVKAHLNASRIPFRVLVENVEDLIRQQTSNDTISPRASSYYEQYHS
LNEIYSWIEVMTERYPDMVEKIHIGSSYEKYPLYVLKVSKEQRAKNAMWIDCGIHAREWIS
PAFCLWFVGSVTYYYGKEKMHTNLLKHMDFYIMPVNVDGYDYTWWKDRMWRKNRSLH
EKNACVGTDLNRFASKHWC GEGASSSSCSEIYCGTYPESEPEVKA VADFLRRNIKH KAYIS
MHSYSQKIVFPYSYSRSRSKDHEELSLVAREAVFAMENIHRNIRYTHGSGSESLYLAPGSDD
WIYDLGIKYSFTELRDKGKYGFLLPESYIRPTCSEALVAVAKIASHVVKNV

>DP01769|Q8WUG5|#1-105

MASDPIFTLAPPLHCHYGAFPPNASGWEQPPNASGVSVASAALAASAASRVATSTDPSCSGFA
PPDFNHCLKDWDYNGLPVLTNAIGQWDLVCDLGWQVILEQILFILGFASGYLFLGYPADRF
GRRGIVLLTLGLVGPGVGGAAAGSSTGVMALRFLLGFLAGVDLGVYLMRLELCDPTQRL
RVALAGELVGVGGHFLGLALVSKDWRFQLRMITAPCILFLFYGPGLFLESARWLIVKRQI
EEAQSVLRILAERNRPHGQMLGEFAQEALQDLENTCPLPATSSFSFASLNNYRNIWKNLLILGF
TNFIAHAIRHCYQPVGGGSPSDFYLCSSLASGTAALACVFLGVTDRFGRRGILLSMILTGI
ASLVLLGLWDCEHPIFPTVWAQQGNPNRDLNEAAITTSVLGLFSSQAAILSTLLAAEVIPTT
VRGRGLGLIMALGALGGLSGPAQLHMGHGAFLQHVLAACALLCILSIMLLPETKRKLLPE
VLRDGELCRRPSLLRQPPPTRCDHVPLLATPNPAL

>DP00670|Q29983|#152-161

MGLGPVFLLLADIFPFAPPAAAEPHSLRYNLTVLSWDGSVQSGFLTEVHLDGQPFLRCDRQ
KCRAKPQGQWAEDVLGNKTDRETRDLTGNGKDLRMTLAHKDKEGLHSLQEIRVCEIHE
DNSTRSSQHFYYDGEFLSQNLETKEWTMPQSSRAQTLMANVRNFLKEDAMKTTHYHAM
HADCLQELRRYLKSGVVLRRTVPPMVNVTRSEASEGNITVTCRASGFYPWNITLWRQDGVS
LSHDTQQWGDVLPDGNQTYQTWVATRICQGEEQRFTCYMEHSGNHSTHPVPSGKVLVLQSH
WQTFHVSAAAAIFVIIIFYVRCCKKTSAAEGPELVSLQVLDQHPVGTSDHRDATQLGFQP
LMSDLGSTGSTEGA

>DP00801|P61012|#1-20

MDKVQYLTRSAIRRASIEMPPQQARQNLQNLFINFCILICLLICIIVMLL

>DP00694|Q8N488|#1-228

MTMGDKKSPTPRKRQAKPADEGFWDCSVCTFRNSAEAFKCSICDVRKGTRKPRINSQLV
AQVVAQQYATPPPKKEKKEKVEKQDKEKPEKDKEISPSVTKKNTNKKTPKSDILKDPPSE
ANSIQSANATTKTSETNHTSRPRLKNVDRSTAQQLATVGNVTVIITDFKEKTRSSSTSSVT
SSAGSEQQNQSSSGSESTDKGSSRSSTPKGDMMSAVNDESF

>DP00685|Q98157|#21-44 #89-94

MDTKGILLVAVLTALLCLQSGDTL GASWHRPD KCCLGYQKRPLPVQLSSWYPTS SQLCSKPG
VIFLT KRG RQVCADSKDWVKLMQQLPV TAR

>DP00377|P45577|#130-173

MENQPKNSSKEVIAFLAERFPHCFAEGEARPLKIGIFQDLVDRVAGEMNLSKTQLRSALRL
YTSSWRYLYGVKPGATRVLDGNPCGELDEQHVEHARKQLEEA KARVQAQRAEQQAKKRE
AAATAGEKEDAPRERKPRPTPRRKEGAERK PRAQK PVEKAPKTVKAPREEQHTPVSDISA
LTVGQALKVKA GQNAM DATVLEITKDGVRVQLNSGMSLIVRAEHLVF

>DP00099|P50440|#38-63

MLRVRCRGGSRGA EAVHYIGSRLGRTLTGWVQRTFQSTQAATASSRNCAADDKATEPLP
KDCPVSSYNEWDPLEEVIVGRAENACVPPFTIEVKANTYEKYWPFYQKQGGHYFPKDHLKK
AVAEIEEMCNILKTEGTVRRPDIDWSLK YKTPDFESTGLYSAMPRDILIVVGNEIIAPMAW
RSRFFEYRAYRSIIKDYFHRGAKWTTAPKPTMADELYNQDPIHSVEDRHKLAAQGKFVTTE
FEPCFDAADFIRAGR DIFAQR SQVTNYLGIEWMRRHLAPDYRVHIISFKDPNPMHIDATFNIIG
PGIVLSNPDRPCHQIDL FK KAGWTIITPPTPIPDDHPLWMSSKWL SMNVLMLDEKRMVDAN
EVPIQKMFEKLGIITIKVNIRNANSLGGGFHCWTCDVRRGTLQSYLD

>DP00447|P12579|#1-241

MEKFAPEFHGEDANNRATKFLESIKGKFTSPKDPKKDSIISVNSTDIEVTKESPITSNSTIINPT
NETDDNAGNKP NYQRKPLV SFKEDP I P S D N P F S K L Y K E T I E T F D N N E E E S S Y E E I N D Q T N D N
ITARLDRIDEKLSEILGMLHTLVVASAGPTSARDGIRDAMVGLREEMIEKIRTEALMTNDRLE
AMARLRNEESEKMAKDT SDEVSLNPTSEKLN LLEGNDSDN DLSLED F

>DP01501|G3V7P1|#182-250

MSYGPLDMYRNPGPSGPQPRDFNSIIQTC SGN IQRISQATAQIKNLMSQLGTKQDSSKLQENL

QQFQHSTNQLAKETNELLKELGSLPLPLSASEQRQQKLQKERLMNDFSSALNNFQVVQRKVS
EKEKESIARARAGSRLSAEDRQREEQLVSDHEEWQMQSQEAAITEQDLELKERETAI
QQLeadILDVNQIFKDLAMMIHDQGLIDSIEANVESSEVHERASDQLQRAAYYQKKSRRKK
MCILVLVLSVIVTVLVVVIWVASK

>DP00849|Q9Q8E9|#1-32 #62-73

MTVIKPSSRPRPKNKNVKNTYRTSAMDLSPGSVHEGIVYFKDGIFKVRLLGYESGHECILLD
YLNRYRQDTLDRLKERLVRVGRVIKTRVVRADGLYVDLRRFF

>DP02500|Q5A3P6|#1-232 #522-944

MHKFRYSLHQHYSKRNSSDKSKDSPISQNSNEENDSTKLSSSSLQDLHDDLDIYNNTLAQ
GTNNNSVDTLDSENNQAINFKIDKPPAIHGMEPQLPVHMVSSRLSSLGNTTNETGESIAKSAP
GTPRSSHSFDFRPHPRAVTNSSLNVLLDTPNVSSEFNHLVDQTTPNESVERFDDSNNTVDNT
EEEENNDTDEIPKSETLKQNEENWEKKGAAVKTICKMDGEMKTIRRNVTDKFGKELGEGS
YSTVILATDKITGKQYAVKVLDRKRIIKEKKVKYVNIKEHALNRLSNRLGVISLYFTFQDKDS
LYFVLDYASNGELLTLIKRYNTLNEECTRHFGAQILDAIKYMHDNGVIHRDLKPENILLDDKM
RIQITDFGTARLLEKKNDEEYPVDRVRAKSFGTAEVSPILLENKYCGKPGDVWAFGCIY
QMIAGKPPFKATNEYLTTFQKITKLQFAFSAGFPTIIRDLIKKILVLQPSRRATIPEIQHYFFQSV
DFKDFDSIWLSDPPEIGPYKMTAKSMMKVPelnKAPITTVIKKVKKSTSNSNTNNVATAV
GGSSNGHKGSSPTPEKEPSPATINKSTEKVSAAASVAVLNKPATNQNSSTSEDSSKRSSNS
NETRKLSYSQQDYIPGTNLRPQISTRPSVGSYVKTPSKDRKTLTKVPSNIHQQQEKVKPKVM
EVKPATTLEAAWEYLTHPDERILRIGPVIAHKEPTEPFEKKNKASLHISPLDINKEQRSRSNTS
LLTQIVNEVNNNTSELKKVENADESLAIIEPQYNMKRSPTSDSKKSMDIERSASTSGSRISKKAI
FKKLGFSHLEKNDSEESNGPSLTEKPQTCTLVTTTGRALLFIRNDIESNYLLIAEIKLKYPFIH
FQELVISQTKFSLVPSVGVFVISSIDNSLIFEVEKFEVNQWTEALAKSKYNEIGKR

>DP00443|Q14191|#949-954 #1069-1092 #1147-1151 #1227-1235

MSEKKLETTAQQRKCPWMNVQNKRCAVEERKACVRKSVFEDDLPLEFTGSIVSYDASD
CSFLSEDISMSLSDGDVVGFDMEWPPLYNRGKLGKVALIQLCVSESKCYLFHVSSMSVFPQG
LKMLENKAVKKAGVGIEGDQWKLLRDFIKLKNFVELTDVANKKLCTETWSLNSLVKHL
LGKQLLKDKSIRCSNWSKFPLTEDQKLYAATDAYAGFIYRNLEILDDTVQRFAINKEEEILLS
DMNKQLTSISEEVMDLAKHLPHAFSKLENPRRVSILLKDISENLYSLRRMIIGSTNIETLRPSN
NLNLLSFEDSTTGGVQQKQIREHEVLIHVEDETWDPTLDHLAKHDGEDVLGNKVERKEDGFE
DGVEDNKLKENMERACLMSLDITEHELQILEQQSQEYLSDIAYKSTEHLSPNDNENDTSYVI
ESDEDLEMEMLKHLSPNDNENDTSYVIESDEDLEMEMLKSLENLNSGTVEPTHSKCLKMERN
LGLPTKEEEEDENEANEGEEDDDKDFLWPAPNEEQVTCLKMYFGHSSFKPVQWKVIHSVL
ERRDNVAVMATGYGKSLCFQYPPVYVGKIGLVISPLISLMDQVLQLKMSNIPACFLGSAQS
ENVLDIKGKYRIVYVTPEYCSGNMGLLQQLEADIGITLIAVDEAHCISEWGHDFRDSFRKL
GSLKTALPMPIVALTATASSIREDIVRCLNLRNPQITCTGFDRPNLYLEVRRKTGNILQDLQ
PFLVKTSSHWEFEGPTIIYCPSRKMTQQVTGELRKLNLSCGTYHAGMSFSTRKDIHHRFVRDEI
QCVIATIAFGMGINKADIRQVIHYGAPKDMESYYQEIGRAGRDSLQSSCHVLWAPADINLN
HLLTEIRNEKFRLYKLKMAKMEKYLHSSRCRRQIILSHFEDKQVQKAISLGIMGTEKCCDNC
RSRLDHCYSMDDSEDTSWDFGPQAFKLLSAVDILGEKFGIGLPIFLRGNSQRQLADQYRRHS
LFGTGKDQTESWWKAFSRQLITEGFLVEVSRYNKFMKICALTKGRNWHLKANTESQLLQ
ANEELCPKKLLPSSKTVSSGTKEHCYNQVVELSTEKKSNEKLYSYKPCDKISSGSNISKKS
IMVQSPEKAYSSSQPVISAQEQQETQIVLYGKLVEARQKHANKMDVPPAILATNKILVDMAKM
RPTTVENVKRIDGVSEGKAAMLAPLLEVIKHFCQTNVQTDLFSSTKQPQQEKTSLVAKNKIC
TLSQSMAITYSLFQEKKMPLKSIAESRILPLMTIGMHLSSQAVKAGCPLDLERAGLTPEVQKIA
DVIRNPPVNSDMSKISLIRMLV PENIDTYLIHMAIEILKHGPDSLQPSCDVNKRRCFPGSEEIC
SSSKRSKEEVGINTETSSAERKRRLPVWFAGSDTSKKLMDTKRGGLFS

>DP01178|Q14978|#1-699

MADAGIRRVVPSDLYPLVLGFLRDNQLSEVANKFAKATGATQQDANASSLLDIYSFWLKSA
KVERKLQANGPVAKKAKKKASSSDSEDSSSEEEEVQGPPAKKAAPAKRVLPPGKAAAK
ASESSSSEESSDDDEEDQKKQPVQKGVKPQAKAAKAPPKAKSSDSDSDSSSEDEPPKNQK
PKITPVTVAQTAKAPPKPARAAPKIAKGKAASSSSSSSSSDSEEEKAATPKTVPKKQV
VAKAPVKAATTPTRKSSSEDSSDEEEEKKPPTKAVVSKATTKPPPAAKKAESSSDSSDSEDDE
APSKPAGTTKNSSNKPAVTTKSPAVKPAAPKQPVGQKLLTRKADSSSEESSSEEKT
KKMVATTKPATAKAALSLPAKQAPQGSRDSSDSDSSSEEEEKSASVKKPQKVAGG
AAPSKPASAKKGKAESSSSSSDSSEEEELKGKGSPRPQAKANGTSALTAQNGKAKN
SEEEEEEKKAAVVVKSGSLKKRKQNEAAKEAETPQAKKIKLQTPNTPKRKKGEKRASSP
FRRVREEEIEVDSRVADNSFDAKRGAGDWGERANQVLKFTKGKSFRIHEKTKKRGSYRGG
SISVQVNSIKFDSE

>DP00229|P05455|#326-408

MAENGDNEMAALEAKICHQIEYYFGDFNLPRDKFLKEQIKLDEGWVPLEIMIKFNRLNRLT
TDFNVIVEALSKSKAELMEISEDTKIIRRSPSKPLPEVTDEYKNDVKNRSVYIKGFPTDATLDD
IKEWLEDKGQVLNIQMRTLHKAFKGSIFVFDSIESAKKFVETPGQKYKETDLLILFKDDYF
AKKNEERQNKVEAKLRAKQEAEQKLEEDAEMKSLEEKIGCLLFSGDLDQTCREDLH
ILFSNHGEIKWIDFVRGAKEGIILFKEAKEALGAKADANNGLQLRNKEVTWEVLEGEVEK
EALKKIIEDQQESLNWKWSKGRRFKGKGKGNKAAQPGSGKGKVQFQGKTKFASDDEHDE
HDENGATGPVKRAREETDKEEPASKQQKTENGAGDQ

>DP01038|Q9FUM5|#1-65

MADNKQSFQAGQAAGRRAEEKGTVLMDKVKDAATAAGASAQTAGQKITEAAGGAVNVLKE
KTGMNK

>DP00608|Q13573|#59-129

MALTSFLPAPTQLSQDQLEAEKARSQRSRQTSLVSSRREPPPYGYRKGWIPRLLEDGDGGA
FPEIHVAQYPLDMGRKKKMSNALAIQVDSEGKIKYDAIRQQSKDKVIYSKYTDLVPKEVM
NADDPDLQRPDEEAIKEITEKTRVALEKSVSQKVAAMPVRAADKLAPAQYIRYTPSQQGVA
FNSGAKQRVIRMVEMQKDPMEPFRKINKKIPRGPPSPPVMHPSRKMVTKEQQEWKIPPC
ISNWNAKGYTIPLDKRLAADGRGLQTVHINENFAKLAEALYIADRKADEVEMRAQVERK
MAQKEKEKHEEKLREMAQKARERRAGIKTHVEKEDGEARERDEIRHDRKERQHDRNLSRA
APDKRSKLQRNENRDISEVIALGVNPRTSNEVQYDQRLFQNQSKGMDSGFAGGEDEIYNVYD
QAWRGGKDMAQSIYRPSKNLDKDMYGDDLEARIKTNRFVPDKEFSGSDRRQRGREGPVQFE
EDPFGLDKFLEAKQHGGSKRPSDSSRPKEHEHEGKRRKE

>DP01356|Q49492|#116-144

MSPSTGVELYLDLLKRTVSNFYQDATHVAGLITEAAFVEARESGEDYPTVAHTMIGMKRL
NNLQHCVESALRDGVPGDVLETGVWRGGACIFARGILKAYDVRDRTVWWVADSFQGFPKITD
DDHPMDAEMNLHQYNEAVDLPTSLATVQRNFNSRYGLDDQVRLPGWFKDMLTAPFERL
AVLRMDGDSYGATMDVLTHAYPRLSPGGFAIIDYCIPACREA VHEYDRRHGISDEIVEIDRQ
GVYWRRSA

>DP00902|O32728|#1-101 #159-250

MDVDVKQGQSPIKDQEMKELIRRSQEGDQEARDEIIKNMRLVWSVVQRFLNRGYEADDLF
QIGCIGLLKSVDFDLSYDVKFSTYAVPMIIGEIQRFLRDDGTVKVSRSLKEMGNKIRKAKDE
LSKTRGRSPITIEIADHLGISPEDVVLAQEAVRPLPTSIHETVYENDGDPITLLDQIADADEASWF
DKIALKKIAEELDERERLIVYLRYYRDRQTSEVASRLGISQVQSRLEKKILQHIKDKMDG

>DP00723|Q9MAA7|#50-62

MAASDEVNLIESRTVVPPLNTWVLISNFKVAYNILRRPDGTNRHLAEYLDRKVTANANPVDG

VFSFDVLIDRRINLLSRVYRPAYADQEQQPSILDLEKPVDGDIVPVLFFHGGSAHSSANSAY
DTLCRRLVGLCKCVVSVNYRRAPENPYPCAYDDGWIALNWVNSRSWLKSKDSKVHIFLA
GDSSGGNIAHNVALRAGESGIDVLGNILLNPMFGGNERTESEKSLDGKYFVTVRDRDWYWK
AFLPEGEDREHPACNPFSRGSLEGVSFPKSLVVVAGLDLIRDWQLAYAEGLKKAGQEVL
MHLEKATVGFYLLPNNNHFHNVMDEISAFVNAEC

>DP00458|P37727|#108-208 #533-538 #602-607 #615-650

MADNLPSDFDVIVIGTGLPESIIAACRSRGQRVLHVDSRSYYGGNWASFSFSGLLSWLKEYQ
ENNDVVTENSMWQEQLNEEAIPLSSKDKTIQHVEFCYASQDLHKDVEEAGALQKNHASV
TSAQSAEAAEAAETSCPLTAVEPLSMGSCEIPAEQSQCPGPRESSPEVNDAEATGKKENSDAKS
STEEPSENVPKVQDNTETPKKNRITYSQIIKEGRRFNIDLVSQLLYSRGLLIDLLIKSNVSRYAE
FKNITRILAFREGTVEQVPCSRADVFSNKQLTMVEKRMLMKFLTFCVEYEEHPDEYRAYEGT
TFSEYLKTQKLTPNLQYFVLHSIAMTSETTSCTVDGLKATKKFLQCLGRYGNTPFLFPLYGQQ
ELPQCFCRMCAVFGGIYCLRHSVQCLVVDKESRKCKAVIDQFGQRIISKHFIEDSYLSENTCS
RVQYRQISRAVLITDGSVLKTDADQQVSILAVPAEPPGSFGVRVIELCSSTMCMKGTYLVHL
TCMSSKTAREDLERVVQKLFTPYTEIEAENEQVEKPRLLWALYFNMRDSSDISRDCYNDLPS
NVYVCSPGDSGLGNDNAVKQAETLFQQICPNEDFCPAPPNPEDIVLDGDSSQQEVPESSVTPE
TNSETPKESTVLGNPEEPSE

>DP00630|O76070|#1-127

MDVFKKGFSIAKEGVVGAVEKTKQGVTEAAEKTKEGVMYVGAKTKENVVQSNTVAEKTK
EQANAVSEAVVSSVNTVATKTVEEAENIAVTSGVVRKEDLRPSAPQQEGEASKEKEEVAEEA
QSGGD

>DP00320|P05121|#1-23 #355-370

MQMSPALTCLVGLALVFGEGSAVHHPPSYVAHLASDFGVRVFQQVAQASKDRNVVFSPY
VASVLAMLQLTTGETQQQIQAAMGFKIDKGMAPALRHYKELMPWNKDEISTTDAIFV
QRDLKLVQGFMPHFFRFLRSTVKQVDFSEVERARFIINDWVKHTKGMISNLLKGAVDQLT
RLVLVINALYFNGQWKTPFPDSSTHRRLFHKSDGSTVSPVMMMAQTNKFNYTEFTTPDGHYYDI
LELPYHGDTLSMFIAAPYEKEVPLSALTNILSAQLISHWKGNMTRLPRLLVLPKSLETEVDLR
KPLENLGMTDMFRQFQADFTSLSDQEPLHVAQALQKVIEVNESGTVASSSTAVIVSARMAP
EEIIMDRPFLFVVRHNPTGTVLFMQVMEP

>DP00032|P56206|#85-170

MPASSLDELVALCKRRGFIFQSSEIYGGLQGVYDGPLGVELKNNLKQAWWRRNVYERDD
MEGLDASVLTHRLVLHYSGHEATFADPMVDNRITKRYRLDHLLKEQPEEVLKRLYRAMEV
EEENLHALVQAMMQAPERAGGAMTAAGVLDPASGEPGDWTPPRYFNMMPKTYVGPVEDE
ASLAYLRPETAQGIFVNFKNVLDATSRKLPFGIAQIGKAFRNEITPRNFIFRVREFEQMEIEYFV
RPGEDYEWHRYWVEERLKWWQEMGLSRENLPYQQPPEELAHYAKATVDILYRFPHGLEE
LEGIANRTDFDLSHTKDQEALGITARVLRNEHSTQRLAYRDPETGKWFVVPVIEPSAGVDR
GVLALLAEAFTREELPNGEERIVLKLKPQLAPIKVAVPLVKNRPEITEYAKRLKARLLALGLG
RVLYEDTGNIGKAYRRHDEVGTPFAVTVDYDTIGQSKDGTTRLKDTVTVRDRDTMEQIRLH
VDELEGFLRERLRW

>DP00704|P24522|#1-16 #105-118

MTLEEFSAEQKTERMDKVGALEEVLSKALSQRTITVGVYEAALKLNVDPDNVVLCLLAA
DEDDDRDVALQIHFTLIQAFCCENDINILRVSNPGRLAELLLETAGPAASEGAEQPPDLHCV
LVTNPSSQWKDPALSQLICFCRESRYMDQWVPVINLPER

>DP01254|P12956|#533-609

MSGWESYYKTEGDEEAEQQEENLEASGDYKYSGRDSLFLVDASKAMFESQSEDELTPFDM
SIQCIQSVYISKISSLRDLLAVVFGTEKDKNSVNFKNIYVLQELDNPAGAKRILELDQFKGQQ
GQKRFQDMMGHGSDYSLSEVLWVCANLFSDVQFKMSHKRIMLFTNEDNPHGNDSAKASRA

RTKAGDLRDTGIFLDLMHLKKPGFDISLFYRDIISIAEDEDLRVHFEESSKLEDLLRKVRAKE
TRKRALSRLKLKLNKDIVISVGIYNLVQKALKPPPIKYRETNEPVTKTRTFNTSTGGLLPS
DTKRSQIYGSRQIILEKEETEELKFDDPGLMLMGFKPLVLLKKHHYLPSLFVYPEESLVIGS
STLFSALLIKCLEKEVAALCRYTPRRNIPPFVALVPQEEELDDQKIQVTPPGQLVFLPFADD
KRKMPFTEKIMATPEQVGKMKAIKEVLRFYRSDSFENPVLQQHFRNLEALALDLMEPEQAV
DLTPKVEAMNKRLGSLVDEFKELVYPPDYNPEGKVTKRKHNEGSGSKRPKVEYSEEELKT
HISKGTGKFTVPMLEACRAYGLSGLKKQELLEALTKHFQD

>DP01796|Q9NS91|#339-366

MDSLAEWRWPPGLAVMKTIDDLRCGICFEYFNIAMIIPQCSHNYCSLCIRKFLSYKTQCPTCC
VTVTEPDLKNNRILDELVKSLNFARNHLLQFALESPAKSPASSSKNLAVKVYTPVASRQSLK
QGSRLMDNFLIREMSGSTSELLIKENKSFKSPQKEASPAAKTKETRSVEEIAPDPSEAKRPEPPS
TSTLKQVTKVDCPVCVGNIPESHINKHLDSCLSREEKKESLRSSVHKRKPLPKTVYNLLSDRD
LKKKLKEHGLSIQGNKQQLIKRHQEJVHMNAQCDALHPKSAAEIVREIENIEKTRMRLEAS
KLNESVMVFTKDQTEKEIDEIHSKYRKHKSEFQLLVDQARKGYKKIAGMSQKTVTITKEDE
STEKLSSVCMQEDNMTSVTNHFSQSQSKLDSPEELEPDREEDSSCIDIQEVLSSSEDSCNSSSS
DIIRDLLEEEEAWEASHKNDLQDTEISPRQRTRAESAEIEPRNKRNRN

>DP02518|Q8ZRW0|#1-224

MKKRPTLLATMIASALYSHQGLAADLASQCMLGVP SYDRPLVKGD TNDLPVTINADNAKG
NYPDDAVFTGNVDIMQGNSRLQADEVQLHQKQAEQPEPVRTVDALGNVHYDDNQVILKG
PKG WANLNTKDTNVWEQDYQMVRQGRGKADLMKQRGENRYTILENGSFTCLPGSDTW
SVVGSEVIHDREEQVAEIWNARFKVGVPPIFYSPYLQLPGDKRRSGFLIPNAKYTTKNYEF
YLPYYWNIAPNMDATITPHYMHRGNIMWENEFRYLTQAGEGMELDYLPSDKVYEDDH
KEGDKHRWLFWQHSGVMDQVWRFNVDYT KVS DSSYF NDFDSKYGSSTDGYATQKFSVG
YAVQNF DATVSTKQFQVFNDQNTSSYSAEPQLDVNYYHNDLGPFDTRIYGQAVHFVNTKD
MPEATRVHLEPTINLPLSNRWGSLNTEAKLMATHYQQTNLDNSDPNNKNKLEDSVNRVM
PQFKVDGKLIFERDMAMLAPGYQTLEPRVQYLYVPYRDQSGI NYDSSLQSDYNGLFRDR
TYGGLDRIASANQVTTGVTRIYDDAVERFNVSVGQIYYFTESRTGDDNIKWENDDKTGS
VWAGDTYWRISERWGLRSGVQYDTRLDSVATSSSSLEYRRDQDRLVQLNYRYASPEYIQAT
LPSYYSTAEQYKNGINQVGAVASWIADRWSIVGAYYFTDNSSKPADQMLGLQYNSCCYAIR
VGYERKNGWDNDKQHAIYDNAIGFNIERGLSSNYGLGTQEMLRSNILPYQSSM

>DP00640|Q89933|#400-525

MATLLRSLALFKRNKDKPPITSGGGAIRGIKHIIIVPIPGDSSITRSRLLDRLVRLIGNPDVSGP
KLTGALIGILSLFVESPGQLIQRITDDPDVSIRLLEVQSDQSQSLTFA SRGTNMEDADEAQYFS
HDDPISSDQS RFGWFENKEISDIEVQDPEGFNMILGTILAQIWVLLAKAVTAPDTAADSELRR
WIKYTQQRRVVGEFRLERKWL DVVRNRIAEDLSLRRFMVALILDIKRTPGNKPRIAEMCID
TYIVEAGLASFILT KFGIETMYPALGLHEFAGELSTLES LMNL YQQMGETAPYM VILENSIQN
KFSAGSYPLLWSYAMGVGVELENSMGGNFGRSYFDPAYFRLGQEMVRRSAGKVSTLASE
LGITAEDARLVSEIAMHTTEDKISRAVGPRQAQVSFLHGDQSENELPRLGGKEDRRVKQSRGE
ARESYRETGPSRASDARA AHLPTGTPL DIDTASESSQDPQDSRRSADALLRLQAMAGISEEQG
SDTDTPIVYNDRNLLD

>DP00298|Q07817|#28-80

MSQS NREL VVDFLSYKLSQKGYSWSQFSDV EENRTEAPEGTESEMETPSAINGNPSWHLADS
PAVNGATGHSSLDAREVIPMAAVKQALREAGDEFELRYRRAFSQLTSQ LHTPGTAYQSFEQ
VVNELFRDGVNWGRIVAFFSF GGALCVESVDKEMQVLVSRIA AWMATYLN DHEPWIQENG
GWDTFVELYGNAAAESRKGQERFNRWFLTGMTVAGVLLGSLFSRK

>DP00698|O89339|#400-532

MSDIFDEAASF RSYQSKLGRDGRASAATATLTTKIRIFVPATNSPEL RWELTLFALDVIRSPSA

AESMKIGAAFTLISMYSERPGALIRSLLNDPDIEAVIIDVGSMNGIPVMERRGDKAQEEMEGL
MRILKTARESSKGKTPVDSRAYGLRITDMSTLVSavitieaqiwiliakavtapdtaeetrr
WAKYVQQKRVNPFFALTQQWLTEMRNLLSQSLSVRKFMVEILMEVKGGSAKGRAVEIISDI
GNYVEETGMAGFFATIRFLETRYPALALNEFQSDLNTIKGLMLLYREIGPRAPYMLLEESI
QTKFAPGGYPLLWSFAMGVATTIDRSMGALNINRGYLEPMYFRLGQKSARHAGGIDQNMA
NKLGLNSDQVAELAAAQETSVRQDNMQAREAKFAAGGVLVGGEQDIDEEEPIEHSG
RQSVTFKREMSMSSLADSVSSVSTSGGTRLTNSLLNRSRLAAKAIESTAQSSERNPPNN
RPQADSGRKDDQEPKPAQNDLDFVRADV

>DP01438|O14936|#335-401 #394-460

MADDVLFEDVYELCEVIGKGPFSVVRRCINRETQQFAVKIVDVAKFTSSPGLSTEDLKREA
SICHMLKHPHIVELLETYSSDGMLYMVFEMDGADLCFEIVKRADAGFVYSEAVASHYMRQI
LEALRYCHDNNIIHRDVKPHCVLLASKENSAPVKLGGFGVAIQLGESGLVAGGRVGTPHFMA
PEVVKREPYGKPVDWCGVILFILLSGCLFYGTKERLFEGIIGKYKMNPRQWSHISESAK
DLVRRMLMLDPAERITYEALNHPWLKERDRYAYKIHLPETVEQLRKFNARRKLKGAVLAA
VSSHKFNSFYGDPPEELPDFSEDPTSSGLAERAQSVDLSDLEEHALTDCSEKDLDLHSVF
QDQHLHTLLDYDKINTKSSPQIRNPPSDAVQRAKEVLEEISCYPENNDAKELKRILTQPHFM
ALLQTHDVVAHEVYDEALRVTPPPTSPYLNDSPESSANGDMDMENVTRVRLVQFQKNTDE
PMGITLKMNELNHCIVARIMHGGMIHRQGTLHGDEIREINGISVANQTVEQLQKMLREMRG
SITFKIVPSYRTQSSSCERDSPSTSRSQSPANGHSSTNSVSDLPTTQPKGRQIYVRAQFYEYDPA
KDDLIPCKEAGIRFRVGDIIQIISKDDHNWWQGKLENSKNAGTAGLIPSPELQEWRVACIAMEK
TKQEQQASCTWFGKKKQYKDKYLAKHNAVFQDQLDVTYEEVVKLPAFKRKTIVLLGAHG
VGRRIKNTLITKHPDRFAYPIPHTRPPKKDEENGKNYYFVSHDQMMQDISNNEYLEYGSH
EDAMYGTKLETIRKIHEQGLIAILDVEPQALKVLRTAEFAPFVVFIAAPTITPLNEDESLQRLO
KESDILQRTYAHYFDLTINNEIDETIRHLEEAVELVCTAPQWVPVSWVY

>DP02233|Q13547|#377-482

MAQTQGTRRKVCYYYDGDVGNNYYGQQGHPMKPHRIRMTHNLLNYGLYRKMEIYRPHKA
NAEEMTKYHSDDYIKFLSIRPDNMSEYSKQMQRNFNVGEDCPVFDGLFEFCQLSTGSVASA
VKLNKQQTIAVNWAGGLHHAKKSEASGFCYVNDIVLAILELLKYHQRVLYIDDIHHGDGV
EEAFYTTDRVMTVSFHKGYGEYFPGTGDLRIDAGKGKYYAVNYPLRDGIDDESYEAFKPVM
SKVMEMFQPSAVLQCGSDSLSGDRLGCFNLTIKGHAKCVERVKSFNPLMLGGGGYTR
NVARCWTYETAVALDTEIPNELPYNDYFEYFGPDFKLHISPSNMTNQNTNEYLEKIKQRLFEN
LRMLPHAPGVQMQAIPEDAYPEESEGEDDEDPPDKRISICSSDKRIACEEEFSDSEEEGEGGRKN
SSNFKKAKRVKTEDEKEKDPEEKKEVTEEEKTKEEKPEAKGVKEEVKLA

>DP01801|P04985|#1-747

MRSLTAAARRPEVLLLLLCILQPSQPGVPGAVPGVPGVFFPGAGLGLGVGGLPGVVKP
AKPGVGGLVPGPLGAEGSALPGAFPGGFFGAGGGAAGAAAAYKAAAKAGAAGLGVGGIGG
VGGLGVSTGAVVPQLGAGVGAGVKPGKVPGVGLPGVYPGGVLPAGARFPGIGVLPGVPTG
AGVKPKAQVGAGAFAGIPGVGPFGQQPGLPLGYPIKAPKLPAGYGLPYKTGKLPYGFPGGG
VAGSAGKAGYPTGTGVGPQAAAAAAKAAKLGAGGAGVLPGVGVGGPGIPGAPGAIPGIGG
IAGVGAPDAAAAAAAKAAKFGAAGGLPGVGVPGVGVPGVGVPGVGVPGVGVGP
GVGVPGVGVPGVGVPGVGVPGALSPAATAKAAKAAKFGARGAVGIGGIPTFGLGP
GGFPGIGDAAAAPAAAAAKAAKIGAGGVGALGGVPGAPGAIPGLPGVGGVPGVGP
AKAAAKAAQFGLPGVGVAPGVGVPGVGVPGVAPGIGLGPAGVAGVPGVGVPGVGP
KAAAKAQFRAAAGLPAGVPGVGVAGVPGVGVAGVPGVGVAGVPGVGVPGVGP
AAKFGPGGVGALGGVGDLGGAGIPGGVAGVVPAAAAAAKAAKAAQFGLGGVGGKPPKF
LGAVPGAVGLGGVSPAAAAKAAKFGAAGLGGVLGAGQPFPIGGAGGLGVGGKPPKF
ALGALGFPGGACLGKSCGRKRK

>DP01326|Q9Y4P1|#187-217 #190-216 #191-215 #384-393
MDAATLTYDTLRAEFEDFPETSEPVWILGRKYSIFTEKDEILSDVASRLWFTYRKNFPAIGGT
GPTSDTGWCMLRCQMIFAQALVCRHLGRDWRWTQRKRQPD SYFSVLNAFIDRKDSYYSI
HQIAQMGVGEGKSIGQWYGPNTVAQVLKKLA VFDTWSSLAVHIAMDNTVMEEIRRLCRTS
VPCAGATAFPADSDRHCNGFPAGAEVTNRSPWRPLVLLIPLRLGLTDINEAYVETLKHCFM
MPQSLGVIGGKPNSAHYFIGYVGEELIYLDPTH TQPAVEPTDGCFIPDESFHQCQHPPCRMSIAE
LDPSIAVGFFCKTEDDFNDWCQQVKLSSLGGALPMFELVELQPSHLACPDVLNLSLDSSDV
ERLERFFDSEDEDFEILSL
>DP00540|Q9VP8U#1-345
MSESEAETKISTEPVDNAWSMKIPAFRQEDNPNGMVEESSFATLFPKYRERYLKEVWPLVE
QCLAEHHLKAELDLMEGSMVVKTSRKWTDPYIIKARDMIKLMARSVPFEQAKRVLQDDIGC
DIKIGNLVHKKEKFVKRRQRLIGPNGATLKSIELLTDCYVLVQGNTVSALGPYKGLQQVRDI
VLETMNNVHPIYNIKALMIKRELMKDPR LANEDWSRFLPKFKNKNISKRKQPKVKKQKKEY
TPFPPSQPESKVDKQLASGEYFLNQEQQAKRNQERTEKQKEAKRQDERRNKDFVPPTEES
AASSRKKEDGSSSKVDVKALKAKLIKANKKARSS
>DP02042|Q98325|#188-241
MSDSKEVPSLPFLRHLL EELDSHEDSLLLFLCHDAAPGCTTVTQALCSLSQQRKLTLAALVEM
LYVLQRMDLLKSRFGLSKEGAEQLLGTSFLTRYKLMVCVGEELDSSELRALRLFACNLNPS
LSTALSESSRFVELVLALENGLVSPSSSVLADMLRTLRLDCQQLVEYEQQEQARYRYC
YAASPLPVRTLRRGHGASEHEQLCMPVQESSDPELLRTPVQESSSDSPEQT
>DP00944|P12736|#1-94
MADNEEDVEAEEEYTELTDISGVGPSKAESLREAGFESVEDVRGADQSALADVSGIGNALAA
RIKADVGGLEVESETAEAEVEEEGGEEAPDEDVETELQARGLTEKTPDLSDEDARLLTQRHRV
GKPQFNQRDHHKKRVSTSWRKPRGQLSKQRRGIKGKGDTVEAGFRSPTAVRGKHPSGFEE
VRVHNVDDLEGVDGDTEAVRIASKVGARKRERIEEEAEDAGIRVLNPTYVEEVSE
>DP01305|P08392|#258-286
MASENKQRPGSPGPTDGPPTPS PDRDERGALGWGAETEEGGDDPDHD PDHPHD LDDARRD
GRAPAAGTDAGEDAGDAVSPRQLALLASMVEEAVRTIPTPDPAASPPRTPAFRADDGGDEY
DDAADAAGDRAPAGREREAPLRGAYPDPTDRLSPRPPAQPPRRRRHGRWRPSASSTSSDSG
SSSSSSASSSSSSDEDEDDDGNDAA DHAREARAVGRGPSSAAPAAPGRT PPPGPPPLSEAAP
KPRAAARTPAASAGRIERRARA AVAGR D ATGRFTAGQPRR VELDADATSGAFYARYRDGY
VSGEWPWGAGPPPGRVLYGGLGDSRPGLWGAPEAEEARRFEASGAPAAVWAPELGDAAQ
QYALITRLLYTPDAEAMGWLQNPRVVPGDVALDQACFRISGAARNSSSFITGSVARAVPHLG
YAMAAGRFGWGLAHAAA AVAMSRRYDRAQKGFLTLSR RAYAPLLARENAALTGAAGSP
GAGADDEGVAAVAAA APGERA VPAGYGAAGILAALGRLSAAPASPAGGDDPDAARHADAD
DDAGRRAQGRVAVECLAACRGILEALAEFGFDLAAVPGLAGARPASPPRPEGPAGPASPP
PPHADAPRLRAWLRELRFVRDALVLMRLRGDLRVAGGSEA AVA VRAVSLVAGALGPALP
RDPLPSSAAAAA ADLLFDNQSLRPLLAAAASAPDAADALAAAASAAPREGRKRKSPGPA
RPPGGGPRPPKTKSGADAPGSDARAPL PAPAPPSTPPGPEPAPA QPAAPRAAAQARPRPV
AVSRRPAEGPDPLGGWRRQPPGPSHTAAPAAA LEAYCSPRAVAELTDHPLFPVWRP ALMF
DPRALASIAARCAGPAPAAQAACGGDDDDNPHPHGAAGGRLFGPLRASGPLRRMAAWMR
QIPDPEDVRVVVLYSPLPGEDLAGGGASGGPWEWSAERGLSCLLAALANRLCGPDTAAWA
GNWTGAPDVSALGAQGVLL STRDLA FAGA VEFLGLLASAGDRRLIVVNTVRACDWPADGP
AVSRQHAYLACELLPAVQCAVRWPAARDL RRTV LASGRVFGPGV FARVEAAHARLYPDAPP
LRLCRRGGNVRYVRTRFGDTPVPMSPREYRRAVLPALDGRAAASGTTDAMAPGAPDFCEE
EAHSHAACARWGLGAPLRPVYVALGREAVRAGPARWRGPRRDFCARALLEPDDDAPPLVL
RGDDDGPGALPPAPP GIRWASATGRSGTVLAAAGA VEVLGAEAGLATPPRREVVDWEGAW

DEDDGGAFEGDGVL
>DP00683|Q99801|#1-184
MLRVPEPRPGEAKAEGAAPPTSKPLTSFLIQDILRDGAQRQGGRTSSQRQRDPEPEPEPEG
GRSRAGAQNDQLSTGPRAAPEEAETLAETEPERHLGSYLLDSENTSGALPRLPQTPKQPQKRS
RAAFSHTQVIELERKFHSQKYLSAPERAHAKNLKTETQVKIWFQNRRYKTKRKQLSSELG
DLEKHSSLPALKEEAFSRASLVSVYNSYPYYLYCVGSWSPAFW
>DP00645|Q91ZE9|#1-185
MEPPQCVEELEDDVFQSEDGEPGTQPGGLLSADLFAQSQLDCPLSRLQLFPLTHCCGPLRPI
QEDKATQTLPASPSSQGVMLPCGVTEEPQRLFYGNAGYRLPLPASFAGSPLGEQPPEGQFLQ
HRAEVQIARKLQCIADQFHRLHTQQHQQRDRAWWQVFLQLNLALNRQENREGVGPW
>DP01050|P0A6X3|#75-102
MAKGQSLQDPFLNALRRERVPVSIYLVNGIKLQGQIESFDQFVILLKNTVSQMVYKHAISTVV
PSRPVSHHSNNAGGGTSSNYHHGSSAQNTSAQQDSEETE
>DP01109|P22626|#190-341
MEKTLETVPLERKKREKEQFRKLFIGGLSFETTEESLRNYYEQWGKLTDCVVMRDPASKRSR
GFGFVTFSMAEVDAAMAARPHSIDGRVVEPKRAVAREESGKPGAHVTVKLFVGGIKEDT
EEHHLRDYFEELYKIDTIEIITDRQSGKKRGFGFVTFFDDHDPVDKIVLQKYHTINGHNAEVRK
ALSRQEMQEVSQSSRSGRGGNFGFGDSRGGGGNFGPGPGSNFRGGSDGYGSGRGFDGYNGY
GGPGGGNFGGSPGYGGGRGGYGGGGPGYGNQGGGYGGGYDNYGGGNYGSGNYNDFGN
YNQQPSNYGPMKSGNFGGSRNMGGPYGGNYGPAGSGSGGGYGGRSRY
>DP01553|D6PZY5|#86-156
MAEVEYRCFVGGLAWATTQTLGEAFSQFGEILDSKIINDRETGRSRGFVTFKDEKAMRD
AIEGMNGQDLDGRNITVNEAQSRSGGGGGGGYRGSGGGYGGGRREGGYGGSEGNWRS
>DP01603|Q96IZ0|#59-77 #62-77 #62-81
MATGGYRTSSGLGGSTTDFLEEWAKREKMRAKQNPPGPAPPGGSSDAAGKPPAGALGTP
AAAAANELNNNLPGGAPAAPAVPGPGGVNCAVGSAMLTRAAPGPRSEDEPPAASASAAPP
PQRDEEPDGVPKGKSSGPSARKKGQIEKRKLREKRRSTGVVNIPAAECLDEYEDDEAGQ
KERKREDAITQQNTIQNEAVNLLDPGSSYLLQEPPRTVSGRYKSTTSVSEEDVSSRYSRTDRSG
FPRYNRDANVSGTLVSSSTLEKKIEDLEKEVVRERQENRLVRLMQDKEEMIGKLKEEIDL
RDLDDIEDENEQLKQENKLLKVVGQLTR
>DP02312|Q8T9B6|#19-91
MQTRLVLLLLALTPLVLAKKFKEEKPAWAKKDIRDYSEADLERLLDQWEDEEPLEDDEL
EHLRPQPKLDLSNLDKSPEDLLKVSKKGRTLMFTVSVTGNPTREESDTITKLWQTSWNNHI
QAERYMVDDNRAIFLFKDGTQAWDAKDFLIEQERCKGVTIENKEYPGVNAKKDEL
>DP00510|O60356|#1-82
MATFPATAPSQQPPGPEDEDSSLDESDLYSLAHSYLGGRKGRTKREAAANTRPSPGGH
ERKLVTKLQNSERKKRGARR
>DP01074|Q7YUB9|#1-86
MPPIATRRGQYEPVQQAKLSPDTIPLNPADKTKDPLARADSLHHHVESDSQEDDKAAEEPL
SRKRWQNRTRFRKGRRQAPYKHK
>DP00823|N1NXA6|#64-99
MTEETITIDSISNGILNNLLTTLIQDIVARETTQQQLKTRYPDLSYYFDPNGSLDINGLQKQQ
ESSQYIHCENCGRDVSANRLAAHLQRCLSRGARR
>DP01610|P47910|#69-101
MASLLLGTSMACHSVFSFSHSQSVAVGVLSSPTLSSSVSTSPALPLIYCGRGDRKTA
KGKRFNHSFGNARPKNKNKGPPKAPIFPKGDPDKED

>DP00380|P38582|#58-74
MDIKSQTLYLNLEAYKDPEVKANEFLSKLVVQCAGKLTASNSESYIEVISLLSRGISSYYLS
HKRIIPSSMLTIYTQIQKDIKNGNIDTEKLRKYEIAKGLMSVPYIYF
>DP01094|Q9BP37|#23-52 #56-88
MTYMCSILICLVLILCARGAEADDNGNYGNGMASVRTQGNTYDDLASLISYLTRHSFRRPFH
ECALCYCISITDPERQRCIDMYCSYTN
>DP01380|P0CU45|#1-227
MSGRNVESHMERNEKVVVNNSGHADVKKQQQVEHTEFTHTEVKAPLIHPAPPISTGAAGL
AEEIVGQGFTASAARISGGTAEVHLQPSAAMTEEARRDQERYRQEESIAKQQEREMEKKTE
AYRKTAEAEAEKIRKELEKQHARDVEFRKDLIESTIDRQKREVDEAKMAKRELDREGQLAK
EALERSRLATNEVNFDASAAGHTVSGGTTISSDKMEIKRN
>DP00513|Q97ZL0|#1-11
MKKWSDTEVFEMPLKRYMYARVYGLVQGVGFRKFVQIHAIRLGKGYAKNLPDGSEVVAEG
YEEALKLLERIKGQPPAAEVKVDYSFSEYKGEFEDFETY
>DP01627|P47480|#150-166
MKLYKVLNSKTTDKSLCLEVEIDPNYWQATQKKLVGEMAKSIKIKGFRPGKIPPNLASQSINK
AELMQKSAQNVMSIYESVQQEEIVASNDNVIDDYPTIDFKTITEQNCVLLFYFDLIPNFQLPD
YKKIKDLTPLKLTEAEFNNEIEKLAKTSTMVDVSDKLANGDIAIIDFTGIVDNKKLASASA
QNYELTIGSNSFIKGFFETGLIAMKVNQKKTALTFPSDYHVKEQLSKPVTFEVVLKAICKLEFT
PMDETNFKSFLPEQFQSFTSLKAFKSYFHKLMENTKQETILQENNQKIRQFLNTKLPFLPEA
LIKLEANRLLKLQQSQAEQYKIPFEKLLSASNITLTELQDRNIKEAKENVTFALVMKKIADIEKI
KVDNNKIKAEIENVIAVEYPFASDEMKKQLFFNMEQQKEFVESIIINRLTTKIVSYSTH
>DP01033|Q91006|#1-92
MSYRKELEKYRDLDEDKILGALTEEELRKLENELEELDPDNALLPAGLRQRDQTQKPPTGPF
KREELMAHLEQQAKDIKDREDLVPFTGEKRGKAWIPKQKPMMPVLESVTLEPELEEALANAS
DAELCDIAAILGMHTLMSNQYYEALGSSTIVNKEGLNSVIKPTKYKPVDEEPSTDVEETL
KRIQNNDPDLEEVNLNNIMNIPVPTLKALAEALKNTYVKKFSIVGTRSNDPVAFALAEMLK
VNNTLKSLNVESNFISGSGILALVEALQSNTSLIELRIDNQSQPLGNVEMEIANMLEKNTLL
KFGYHFTQQGPRRLRASNAMMNNDLVRKRLAELNGPIFPKCRTGV
>DP00931|Q5ZYC9|#1-27 #87-120
MGNNTDD SARNPFGYTPPRVKEIGEPDVTATLGSVYSEIISPVKDCILTVAKAVSFNPNGK
DNTDAVEVLT E NTKVERAALNQPI LTT KTERMFGAAESEKSSEPPSHDERGFKLSS
>DP01453|Q8NHZ8|#26-85
MLRRKPTRLEKLDDIEEFENIRKDLETRKKQKEDVEVVGSDGEAIGLSSDPKSREQMIND
RIGYKPKQPKPNRNSQFGSLEF
>DP00282|Q04656|#1125-1176
MDPSMGVNSVTISVEGMTCNSCWVTTIEQQIGKVNGVHHIKVSLEEKNATIYDPKLQTPKTLQ
EAIDDMGFDAVIHNPDPVLTDLFLTVTASLTLPWDHIQSTLLKTVGVTDIYQPQKRTVAV
TIIPSIVNANQIKELVPELSLDGTLEKKSGACEDHSMAQAGEVVLKMVEGMTCHSCTSTIE
GKIGKLQGVQRIVS LDNQEATIVYQPHLISVEEMKKQIEAMGFPAVKKQPKYLKGAIDVE
RLKNTPVKSSEGSQQRSPSYTNDSTATFIIDGMHCKSCVSNIESTLSALQYVSSIVSLENRSAI
VKYNASSVTPESLRKAIEAVSPGLYRV SITSEVESTNSPSSSSLQKIPNVVSQPLTQETVINID
GMTCNSCVQSIEGVISKKPGVKSIRVSLANSNGTVEYDPLLTSPETLRGAIEDMGFDATLSDTN
EPLVVIQPSSEMPLTSTNEFYTKGMPVQDKEEGKNSSKCYIQVTGMTASCVANIERNLR
REEGIYSILVALMAGKAEVRYNPAVIQPPMIAEFIRELGFGATVIENADEGDGVLEVVRGMT
CASCVHKIESSLTKHRGILYCSVALATNKAHIKYDPEIIGPRDIHTIESLGFEASLVKKDRSASH
LDHKREIRQWRRSFLVSLFFCIPVMGLMIYMMVMDHHFATLHHNQNMSKEEMINLHSSMFL

ERQILPGLSVMNLLSFLLCVPVQFFGGWYFYIQAYKALKHTANMDVLIVLATTIAFAYSLIIL
LVAMYERAKVNPIFFDTPPMLVFIALGRWLEHIAKGKTSEALAKLISLQATEATIVTLDSDN
ILLSEEQVDVELVQRGDIKVVPGGKFPVDRVIEGHSMVDESLITGEAMPVAKKPGSTVIAGS
INQNGLSLLICATHVGADTLSQIVKLVEEAQTSKAPIQQFADLKGYFVPFIVFVSIATLLVWIV
IGFLNFEIVETYFPGYNRSISRTETIIRFAFQASITVLCIACPCSLGLATPTAVMVGTVGAQNGI
LIKGGEPLEMAHKVKVVFDKTGTITHGTPVNVQVKVLTESNRISHKILAIVGTAESNSEHP
LGTAITKYCKQELDTETLGTCIDFQVVPAGCISCKVTNIEGLLHKNNWNIEDNNIKNASLVQID
ASNEQSSTSSSMIIAQISNALNAQQYKVLIGNREWMIRNGLVINNDVNDMFTEHERKGRTA
VLVAVDDELCLGLIAIAADTVKPEAELAIHILKSMGLEVVLMTGDNSTARSIASQVGITKVFAE
VLPSHKVAKVQLQEEGKRVAMVGDGINDSPALAMANVIAIGTGTDVIAIEAADVVLIRND
LLDVVASIDLRETVAKRIRINFVAFALIYNLVGIPIAAGVFMPIGVLQPWMGSAAMAASSVSVV
LSSLFLKLRYRKPTYYESYELPARSQIGQKSPSEISVHVGIDDTSRNSPKLGLLDRIVNYSRASINS
LSDKRSLSNSVVTSEPDKHSLVGDFREDDDTAL

>DP00181|P08775|#1529-1959

MHGGGPPSGDSACPLRTIKRVQFGVLSPDELKRMSTEGGIKYPETTEGGRPKLGLGGLMDPRQ
GVIERTGRCQTCAGNMTECPGHFGHIELAKPVFHGVFLVKTMKVLRCVCFFCSKLLVDSNNP
KIKDILAKSKGQPKKRLTHVYDLCKGKNICEGGEEMDNKFGVEQPEGDEDLTKEKGHGGCG
RYQPRIRRSGLEYAEWKHVNEDSQEKKILLSPERVHEIFKRISDEECFVLGMEPRYARPEWM
IVTLPVPLSVRPAVVMQGSARNQDDLTHKLADIVKINNQLRRNEQNGAAAHVIAEDVKLL
QFHVATMVDNELPGLPRAMQKSGRPLKSLKQRLKGKEGRVRGNLMGKRVDFSARTVITPDP
NLSIDQVGVPRSIAANMTFAEIVTPFNIDRLQELVRRGNSQYPGAKYIIRDNGDRIDLRFHPKPS
DLHLQTGYKVERHMCDDGDIVFNRRQPTLHKMSMMGHRVRILPWSTFRNLNSVTTPYNADFD
GDEMNLHLPQSLETRAEIQELAMVPRMIVTPQSNRPMGIVQDTLTAVRKFTKRDVFLERGE
VMNLLMFLSTWDGKVPQPAIKPRPLWTGKQIFSIIPGHINCIRTHSTHPDDEDSGPYKHISPG
DTKVVVENGELIMGILCKKSLGTAGSLSVHISYLEMGHDITRLFYSNIQTVINNWLLIEHTIGI
GDSIADSKTYQDIQNTIKKAKQDVIEVIEKAHNNELEPTPGNTLRQTFENQVNRLNDARDKT
GSSAQKSLSEYNNFKSMVVSGAKGSKINISQVIAVVGQQNVEGKRIPFGKHRTLPHFIKDDY
GPESRGFVENSYLAGLPTEFFHAMGGREGLIIDTAVKTAETGYIQRRRIKSMESVMVKYDA
TVRNSINQVVQLRYGEDGLAGESVEFQNLATLKPSNKAFFKFRFDYTNERALRRTLQEDLV
KDVLNSNAHQNELEREFERMREDREVLRVIFPTGDSKVVLPCNLLRMIWNAQKIFHINPRLPS
DLHPIKVEGVKELSKLVIVNGDDPLSRQAQENATLLFNIHLRSTLCRRMAEEFRLSGEAF
DWLLGEIESKFNFQAIHPGEMVGALAAQSLGEPATQMTLNTFHYAGVSAKNVTLGVPRLKE
LINISKPKTPSLTVFLLGQSARDAERAKDILCRLEHTTLRKVTANTAIYYDPNPQSTVVAEDQ
EWVNYYEMPFDVARISPWLLRVELDRKHMTDRKLTMEQIAEKINAQFGDDLNCFNDDN
AEKLVLRIRIMNSDENKMQEEEVVVDKMDVVFLRCIESNMLTDMLLQGIEQISKVYMHPQ
TDNKKIIITEDGEFKALQEWELETDGVSLMRVLSEKDVDPTVRTSNDIVEIFTVLGIEAVRKA
LERELYHVISFDGSYVNYRHLALLCDTMTCRGHLMAITRHGVNRQDTGPLMKCSFEETVDV
LMEAAGGESDPMKGVSENIMLQLAPAGTGCFDLLLDAEKCKYGMIEPTNIPGLGAAGPT
GMFFGSAPSPMGGISPAMTPWNQGATPAYGAWSPSVGSGMTPGAAGFSPSAASDASGFSPG
YSPAWSPTPGSPGPSSPYIPSPGGAMSPSPSYSPSPAYEPRSPGGYTPQSPSPSYSPSPSYSP
PSYSPTSPNYSPTSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSP
SPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSP
TSPSYSPSPNYSPTSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSP
SPTSPKYTPTSPSYSPSSPEYTPASPCKYSPTSPKYSPTSPKYSPTSPSYSP
VYTPTSPKYSPTSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSP
EEN

>DP00157|P0CL52|#425-513 #657-684

MVTSVRTQPPVIMPGMQTEIKTQATNLAANLSA VRESATATLSGEIKGPQLEDFPALIKQASL
DALFKCGKDAEALKEVFTNSNNVAGKKAIMEFAGLFRSALNATSDSPEAKTLLMKVGAETY
AQIIKDGLKEKSAGPWLPETKKA EAKLENLEKQLLDIKNNTGGELSKLSTNLVMQEVMPI
ASCIEHNGCTLDPLTRSNLTHLVDKAAAKAVEALDMCHQKLTQEQTGSGREARHLEMQT
LIPLLLRNVFAQIPADKLDPDKIPEPAAGPVPDGKKA EPTGINININIDSSNHSVDNSKHINNSR
SHVDNSQRHDNSNHDSRKTI DNSRTFIDNSQRNGESHSTNSTSSNVSHHSRVDSTTHQTET
AHSASTGAIDHGIAGKIDVT AHA TAEAVTNASSESKDGKVVTSEKGTTGETSFDEVGVTS
KSIIGKPVQATVHGVDNNKQQSQTAEIVNVKPLASQLAGVENVKTDTLQSDTTVITGNKAGT
TDNDNSQTDKTGFPSGLKFQKQNSFLSTVPSVTNMHSMHFDARETFLGVIRKALEPDTSTPFV
RRAFDGLRAEILPNDTIKAALKACQSDIDKHP ELKAKMETLKEVITHHPKEKLAEIALQFA
REAGLTRLKG ETDYVLSNVLDGLIGDGSWRAGPAYESYLNKPGVDRVITTVDGLHMQR
>DP01614|Q14653|#173-188

MGTPKPRILPWLVSQDLGQLEGVAWVNKS RTRF RIPWKHGLRQDAQQEDFGIFQAWAEAT
GAYVPGRDKPDLPTWKRNFRSALNRKEGLRLAEDRSKDPHD PHKIYEFVNSGVGDFSQPDTS
PDTNGGGSTS DTQEDILDELLGNMVLAPLPPGPPSLAVA PEPCPQPLRSPSLDNPTPFPNLGP
SENPLKRL VPGEWEFEVTAFYRGRQVFQQTISCPEGLRLVGSEVGDRTLPGWPVTPDPG
MSLTDRGVMSYVRHVLSCGGGLALWRAGQWLWAQRLGHCHTYWA VSEELL PNSGHGP
GEVPKDKEGGVFDLGPFIVDLITFTEGSGRSPRYALWFCVGESWPQDWPKRLVMVKVVPT
CLR ALVEMARVGGASSLENTVDLHISNSHPLSLTSDQYKAYLQDLVEGMDFQGPGES
>DP00800|Q9BJX6|#1-217 #512-523

MSVTTFCSLKKTDKCNIYISKRAFSVFLFYLFFFHFYFLCSSSFAVIIHESEKRKNIMRRKRS
ILQIFENSIKSKEGKCNFTKRYI THYYNIPLKIKKHD LPSVIKF SHKPN GKHNYVTNMITQKN
RKSFLFFFFLYNKYFFGKQE QIRK MNYHEEMN KINI KNDGNR KIYMPKNDIHEEDGDHKND
VEINQKRNEQNCKSFNDEKNENARDPNKILYLINPRGFCKGV SRAIETVEECLKLKPPIYV
KIVHNDIVCKKLEKEGAI FIEDLNDV PDGHILIYSAH GISPQIREIAKKKLIEIDATCPLVN
VYVQMKAKENYDIILIGYK NHVEVIGTYNEAPHCTHENVNDVDKLN FPLNKKLFYVTQTT
LSMDDCALIVQKLKNKFPHIETIPSGSICYATTNRQTA LN KICTKCDLTIVGSSSSNAKKLV
YSSQIRNVP AVLLNTVHDLDQQILKNVN KIAL TSAA STPEQETQKFVNLLTNPPFNYTLQNF
GAHENVPKWKLPKNFLHMIKEREK

>DP02151|Q925J9|#637-654

MKAQGETEDSERLSKMSSLERLHAKFNQNPWSETIKLVRQVMEKRVVMSSGGHQHLVSC
LETLQKALKVTSPLPAMTDRLESIARQNGLGS HLSASGTECYITS DMF YVEVQLDPAGQLCDV
KVAHHGENPVSCP E LVQQLREKNFEFSKHLKGLVNLYNLP GDNLKTKMYLALQSLEQDL
SKMAIMYW KATNAAPLDKILHGSVG YLTPRG SGHLMNMKYYASPS DLLDKTASPII LHEK
NVPRSLGMNASVTIEG TSAMYKLPIAPLIMGSHPADNKWTPSFSAVTSANSV DLPACFLKFP
QPIPVSKAFVQLQNC TGIPLFETPPTYLPLYELITQFELSKDPDPLPLNHNMRFYAALPGQQH
CYFLNKDAPL PDGQSLQGTLVSKITFQHPGRVPLILNMIRHQVAYNTLIGSCVKRTILKEDSPG
LLQFEVCPLSES RFSV SFQHPVND SLVCVVM DVQDSTHVS CKLYKGLSDA LICTDDFI AKVVQ
RCMSIPVTMRAIRRKAETIQADTPALSIAETVEDMVKKNLPPASSPGYGMTGNPMSGTTT
PTNTFPGGPITT LFNMSMSIKDRHESVGHGEDFSKVSQNPILTSLLQITGNGGSTIGSSPTPPHH
TPPPVSSMAGNTKNHPMLMNLLKDNPAQDFSTLYGSSPLERQNSSSGSPR MEMCSGSNKAK
KKKSSRVPDPK KHQTEDDFQRELFSMDVDSQNPMDVSMTADALDTPHITPAPSQCSTPPA
TYPQPVSHPQPSIQR MVRLSSSDSIGPDVT DILSDIAEEASKLPSTS DDCPPIGTPV RDSSSGHS
QSALFDSDVFTQ TNNENPYTDPADL IADAAGSPNSD SPTNHFFPDGVDFNP DLLNSQS QSGFG
EEYFDESSQSGD NDDFKGFASQALNLGMPMLGGDN GEPKFKGSSQADTVDFSIISVAGKAL
GAADLMEHHSGSQSPL TTGELGKEKTQK RVKEGNGTGASSGSGPGSDSKPGKRSRTPSNDG
KSKDKPPKRKKADTEGKSPSHSSSNRPFTPPSTGGSKSPGSSGRSQTPPGVATPPIPKITI QIPK

GTVMVGKPSSHSQYTSSGSVSSSGSKSHSHSSSSLASASTSGKVKSSKSEGSSSKLSGSM
YASQGSSGSSQSKNSQTGGKPGSSPITKHGLSSSSTKMKPQGKPSSLNPSISKPNISPSHS
RPPGGSDKLASPMKPVPGTPSSKAKSPISSGSSGHVSGTSSSGMKSSSGASSGSVSQKTPP
ASNCTPSSSFSSGSSMSSQNQHGSSKGKSPSRNKKPSLTAVIDKLKHGVVTSGPGGEDPI
DSQMGASTNNSNHPMSSKHNTSGGEFQSKEKSDKDKSKVSAASGSVDSSKKTSESKNVGST
GVAKIIISKHDGGPSIKAKVTLQKPGESGGDGLRPQIASSKNYGSPLISGSTPKHERGSPSHSK
SPAYTPQNVVDSESESGSSIAERSYQNSPSSEDGIRPLPEYSTEKHKKHKKEKKVARDKDRDKK
KSHSMKPENWSKSPISSDPTASVTNNPILSADRPSRLSPDFMIGEEDDDLMVALIGN
>DP01639|P17778|#1-33

MFINPRNVSNTFLQEPLRHSSNLTEMPVEAENVSKTEYYNAWSEWERNAPPNGEQREMA
VSRLRDCLDRQAHEELNNLGLSSLPPELPHESLVASCNSLTELPELPQLKSLLVDNNNLKA
LSDLPLLEYLGVSNQLEKLPELQNSFLKIIDVDNNSLKKLPDLPPSLEFIAAGNNQLEELPE
LQNLPLFTAIYADNNSLKKLPDLPLSLESIVAGNNILEELPELQNLPLTTIYADNNLLKTLPLD
PPSLEALNVRDNYLTDLPELPQLSTFLDVSENIFSGLSELPPNLYYLNASSNEIRSLCDLPPSLEE
LNVSNNKLIELPALPPRLERLIASFNFHLAEVPELPQNLKQLHVEYNPLREFPDIPESVEDLRMN
SERVVDPYEFAHETTDKLEDDVFE

>DP01037|Q9S446|#162-176

MKKWTNRLMTIAGVVILVAAYLFAKPHIDNYLHDKDKDEKIEQYDKNVKEQASKDKKQQ
AKPQIPKDKSKVAGYIEIPDADIKEPVYPGPATPEQLNRGVFAEENESLDDQNISIAGHTFIDR
PNYQFTNLKAACKGSMVYFKVGNETRKYKMTSIRDVKPTDVGLDEQKGKDKQLTLITCDD
YNEKTGVWEKRKIFVATEVK

>DP00719|Q13569|#1-50 #51-111 #340-410

MEAENAGSYSLQQAQAFYTFPQLMAEAPNMAVVNEQQMPEEVPAAPAQEPVQEAPKG
RKRKPRTTEPKQPVEPKVESPCKSGKSAKSKEKQEKITDTFKVKRKVDRFNGVSEAELLTK
TLPDIITFNLDIVIIGINPGLMAAYKGHHYPGPNGHFWKCLMSGLEVQLNHMDDHTLPGK
YGIGFTNMVERTTPGSKDLSSKEFREGGRILVQLQKYQPRIAVFNGKCIYEIFSKEVFGVKVK
NLEFGLQPHKIPDTETLCYVMPSSARCAQFPRAQDKVHYYIKLKDLRDLKGIERNMDVQE
VQYTFDLQLAQEDAKKMAVKEEKYDPGYEAAYGGAYGENPCSSEPCGFSSNGLIESVELRG
ESAFTGIPNGQWMTQSFTDQIPSFSNHCGTQEQQEEESHA

>DP01558|Q9XTY3|#17-211

MIGAVSLVFTVGVAAIYGLDLENAGDFVLPSGDFIDLISRDENLPLSSFGVKHISGGAGEG
EQKLLEEDNFQERQEVDVKNPQHLLFEVFDENRLTRDDFLGQDVPLSHLPTEDPTMERP
ICDQEHMFNCAEKEAQDVSESLQKILEENNMMHANTIACKFHDKRSSDEYVPRRKRSIPSSAHK
VNPyLQGEPLRSMQKKNGKHSW

>DP02292|Q96PU5|#400-480

MATGLGEPVYGLSEDEGESRILRVKVVSGIDLAKKDIFGASDPYVKLSLYVADENRELALVQ
TKTIKKTLNPWNNEFYFRVNPSNHRLFEVFDENRLTRDDFLGQDVPLSHLPTEDPTMERP
YTFKDFLLRPRSHKSRVKGFLRLKMAYMPKNGGQDEENSDQRDDMEHGWEVVDSNDASQ
HQEELEPPPPLPPGEEKVNLGRTYYVNHNNRTTQWHRPSLMDVSSESDNNIRQINQEAAHR
RFRSRRHISEDLEPEPSEGDPVPEPWETISEEVNIAGDSLGLALPPPASPGSRTSPQELSEELSR
RLQITPDSNGEQFSSLIQREPSSRLRSCSVTDAVAEQGHLPPPSAPAGRARSSTVTGGEPTPSV
AYVHTTPGLPSGWEERKDAKGRYYVNHNNRTTWRPIMQLAEDGASGSATNSNNHLIEP
QIRRPRSLSSPTVTLsapLEGAKDSPVRRAVKDTLSNPQSPQSPYNSPKPQHKVTQSFLPPGW
EMRIAPNGRPFFIDHNTKTTWEDPRLKFPVHMRSKTSNPNLGPLPPGWEERIHDGRTFYI
DHNSKITQWEDPRLQNPATGPAPVYSREFKQKYDYFRKKLKKPADIPNRFEMKLHRNNIFEE
SYRRIMSVKRPDVLKARLWIEFESEKGLDYGGWAREWFFLLSKEMFNPPYYGLFEYSATDNYT
LQINPNGLCNEDHLSYFTFIGRVAGLAFFHGKLLDGFFIRPFYKMMGLKQITLNDMESVDSE

YYNSLKWILENDPTELDLMFCIDEENFGQTYQVDLKPNGSEIMVTNENKREYIDLVIQWRFV
NRVQKQMNAFLEGFTELLPIDLIKIFDENELELLMCGLDVDVNDWRQHSIYKNGYCPNHPV
IQWFWKAVLLMDAEKRIRLLQFVTGTSRVPNGFAELYGSNGPQLFTIEQWGSPEKLPRAH
CFNRLDLPPYETFEDLREKLLMAVENAQGFEGVD
>DP01608|Q9Y6H6#1-10 #31-56
METTNGTETWYESLHAVLKALNATLHSNLLCRPGPGLGPDNQTEERRASLPGRDDNSYMYIL
FVMFLFAVTVGSLILGYTRSRRVKVDRSDPYHVIKNRVS
>DP00720|Q05344#437-518 #519-554 #625-723
MTDSLEYNDINAERGVVLCSGRLKMTEQNIIFKNTKTGKVEQISAEDIDLINSQKFVGTWGLR
VFTKGGVLHRFTGFRDSEHEKLGKFIKAAYSQEMVEKEMCVKGWNWGTARFMGSVLSFDK
ESKTIFEVPLSHVSQCVTGKNEVTLEFHQNDDAPVGLLEMRFHIPAVESAEDPVDFKHQNV
MSKASVISASGESIAIFREIQILT普GRYDIKIFSTFFQLHGKTFDYKIPMDSVLRLFMLPHKDSR
QMFFVLSLDPPIKQQQTRYHYLVLLFAPDEETTIELPFSEAEELRDKYEGKLEKEISGPVYEV
KVMKVLRKITGPGNFIGHSGTAAVGCSFKAAGLYPLERGFYIHKKPLHIRFEEISSVNFA
RSGGSTRSFDFEVTLNGTVHIFSSIEKEEYAKLFDYITQKKLHVSNMGDKSGYKDVF
DNENEPDAYLARLKAEREKEEDDDGDSDEESTDEDFKPNENESDVAAEYDSNVESDSDD
DSDASGGGGDSDGAKKKKEKKEKKEKKHKEKERTKKPSKKKDSGKPKRATTAFML
WLNDTRESIKRENPGIKVTEIAKKGEMWKELKDKSKWEDAAAKDKQRYHDEM
GGSDNEKGKSSKKRKEPSPSKKANTSGSGFKSKEYISDD
SDGDAKKKKAKSESEPEESEEDSNASDEDEEDEASD
>DP00970|P0ABD8#1-77
MDIRKIKKLI
VEESGISELEISEGEESVRISRAAPAASFPVMQQAYAAPMMQQPAQSNA
ATVPSMEAPAAA
EIISGHIVRSPMVGT
FYRTPSPDAKAFIEVGQKVNVGDTLCIVEAMKMM
NQIEADKSGTVKAI
LVESGQPVEFDEPLVVIE
>DP01426|P06400#84-93 #245-269 #346-370 #355-370 #500-511 #500-513 #577-615 #578-589 #590-635
#786-928
MPPKTPRKTA
AAAAAAEPPAPPPP
PEEDPEQDSGPEDPLVR
LEFEETE
EEDPE
DFTALCQKL
KIPDHVRERA
WLTWEKVSS
VDGV
LGGYI
QKK
KELWG
CIFIA
AVDL
DEMSFT
TELQ
KNIEIS
VHKFFNLL
KEIDT
STK
VDNAM
SRLL
KKY
DVL
FALFS
KLERT
CELI
YL
TQ
P
SS
S
STE
INS
ALV
LK
VSWITFLL
AKGEV
LQM
EDDL
VISF
QLMLC
VLDY
FI
KLS
S
P
M
L
KE
PY
KTA
VIP
ING
SP
TR
PR
RG
QNR
SARI
AK
QLE
ND
TRII
EV
LC
KE
HE
CN
IDE
V
KN
V
F
KN
F
IP
FM
NS
L
GL
V
TS
N
GL
P
EV
E
NLS
L
SKR
YEE
YL
KN
KD
L
DAR
L
FL
H
DK
TL
L
Q
T
D
S
I
D
F
S
F
I
A
E
G
N
L
T
R
E
M
I
K
H
L
E
R
C
E
H
R
I
M
E
S
L
A
W
L
S
D
S
P
L
F
D
L
I
K
Q
D
R
E
G
P
T
D
H
L
E
S
A
C
P
L
N
L
P
L
Q
N
N
H
T
A
A
D
M
Y
L
S
P
V
R
S
P
K
K
G
S
T
R
V
N
S
T
A
N
A
E
T
Q
A
T
S
A
F
Q
T
Q
K
P
L
K
S
T
L
S
L
F
Y
K
K
V
Y
R
L
L
N
T
C
E
R
L
L
S
E
H
P
E
L
E
H
I
I
W
T
L
F
Q
H
T
L
Q
N
E
Y
E
L
M
R
D
R
H
L
D
Q
I
M
M
C
S
M
Y
G
I
C
K
V
K
N
I
D
L
K
F
K
I
I
V
T
A
Y
K
D
L
P
H
A
V
Q
E
T
F
K
R
V
L
I
K
E
E
Y
D
S
I
I
V
F
Y
N
S
F
M
Q
R
L
K
T
N
I
L
Q
Y
A
S
T
R
P
P
T
L
S
P
I
P
H
I
R
P
S
P
Y
K
F
P
S
S
P
L
R
I
P
G
G
N
I
Y
I
S
P
L
K
S
P
Y
K
I
S
E
G
L
P
T
P
T
K
M
T
P
R
S
R
I
L
F
D
I
E
G
S
D
E
A
G
S
K
H
L
P
G
E
S
K
F
Q
Q
K
L
A
E
M
T
S
T
R
T
R
M
Q
K
Q
K
M
N
D
S
M
D
T
S
N
K
E
E
K
>DP01016|Q20MD5#1-21
MSLLTEVETPIRNEWGCRCNDSSDPLVVAASIIGILH
LILWILDRLFFKCIYRFFEHGLKRG
PST
EGVPESMREEYRKEQQSAVDADD
SHFV
SIEL
>DP01754|Q8BHZ5#1-157
METLKSKTKTRVLPSWMTAPVDERKV
VS
VKT
ATRK
QTA
AWA
QR
VGA
A
TR
A
P
A
T
V
Y
C
M
NEA
E
M
V
D
V
A
L
G
I
L
I
E
G
R
K
Q
E
K
P
W
E
Q
R
S
L
E
A
T
D
K
L
Q
L
S
P
P
C
S
S
P
G
S
S
E
E
D
S
R
I
S
S
L
A
P
G
L
S
P
P

RGPEASDSPCSRSPEEKEEEDALKYVREIFFS

>DP00098|Q53654|#164-173 #332-344

MNKNVLKFMVFIMLLNIITPLFNKNEAFAARDISSTNTDLTVSPSKIEDGGKTTVKMTFDDK
NGKIQNGDMIKVAWPTSGTVKIEGYSKTVPLTVKGEQVGQAVIDPDGATITFNDKVEKLSDV
SGFAEFEVQGRNLQTNTSDDKVATITSGNKSTNTVHKSEAGTSSVFYYKTGDMLPEDTH
VRWFNLINNEKSYVSVDITIKDQIQGGQLDLSTLNINVGTHSNYYSGQSAITDFEKAPEGSK
ITVDNTKNTIDVTIPQGYGSNSFSINYKTKITNEQQKEFVNNSQAWYQEHGKEEVNGKSFNH
TVHNINANAGIEGTVKGELKVLQDKDTKAPIANVFKLSSKKDSVVKDQNKEIEIITDANGI
ANIKALPSGDYILKEIEAPRPYTFDKDKEYPFTMKDTDNQGYFITTENAKIAEKTKDVSQAKV
WEQTQVKPFIYFKLYKQDDNQNTTPVDKAEIKKLEDGTTKVTWSNLPENDKNGKAIKYLV
KEVNAQGEDTTPEGYTKENGTVVTNEKPIETTSISGEKVWDDKDNQDGKRPEKVSVNLL
ANGEVKVTLVTSETNWKYEFKDLPKYDEGKIEYTVTEDHVKDYTTDINGTTITNKYTPGE
TSATVTKNWDDNNNQDGKRPEIJKVELYQDGKATGKTAILNESNNWHTHTWTGLDEAKGQ
QVKYTVEELTKVGYTTHVDNNNDMGNLIVTNKYTPETTSISGEKVWDDKDNQDGKRPEKVS
VNLLADGEVKVTLVTSETNWKYEFKDLPKYDEGKIEYTVTEDHVKDYTTDINGTTITNKY
TPGETSATVTKNWDDNNNQDGKRPEIJKVELYQDGKATGKTAILNESNNWHTHTWTGLDEK
AKGQQVKYTVEELTKVGYTTHVDNNNDMGNLIVTNKYTPETTSISGEKVWDDKDNQDGKR
PEKVSVNLLANGEVKVTLVTSETNWKYEFKDLPKYDEGKIEYTVTEDHVKDYTTDINGT
TITNKYTPGETSATVTKNWDDNNNQDGKRPEIJKVELYQDGKATGKTAILNESNNWHTWT
GLDEKAKGQQVKYTVDLTGVNGYTTVWDNNDMGNLIVTNKYTPKKPNKPIYPEPKDKTP
PTKPDHSNKVKPTPPDKPSKVDKDDQPKDNKTKPENPLKELPKTGMKIITSWITWWFIGILGL
YLILRKRFNS

>DP02508|P12537|#304-585

MMQDATDPAVRAALQSQPSGLNSTDDWRQVMRIMSLTARNPDAFRQQPQANRLSAILEA
VVPARANPTHEKVLIAVNALAENRAIRPDEAGLVYDALLQRVARYNSGNVQTNLDRLVGDV
REAVAQRERAQQQGNLGSVALNAFLSTQPANVPRGQEDYTNFVSALRLMVTEPQSEVYQ
SGPDYFFQTSRQGLQTVNLSQAFKNLQGLWGVRAPTGDRATVSSLTPNSRLLLLIAPFTDS
GSVSRTYLGHLTLREAIQQAHVDEHTFQEITSVSRALGQEDTGSLEATNYLLTNRRQKI
PSLHSLNSEEERILRYVQSVSLNMRDGVTPSVALDMTARNMEPGMYASNRPFINRLMDYL
HRAAAVNPEYFTNAILNPHWLPPPGFYTGGEVPEGNDGFLWDDIDDSVFPQPQLLELQQR
EQAEAALRKESFRRPSSLSDLGAAAPRSDASSPFPSLIGSLTSTRTRPRLLGEEYLNNSLLQP
QREKNLPPAFPNNGIESLVDKMSRWKTYAQEHDRVPGPRPTRLQRQRGLVWEDDDSA
DDSSVLDLGGSGNPFAHLRPLGRMF

>DP00107|P69924|#342-376

MAYTTFSQTKNDQLKEPMFFGQPVNVARYDQQKYDIFEKLIEKQLSFFWRPEEVDSRDRID
YQALPEHEKHIFISNLKYQTLLDSIQGRSPNVALLPLISIPELETWVETWAFSETIHSRSYTHIR
NIVNDPSVVFDDIVTNEQIKRAEGISSYYDELIEMTSYWHLLGEHTVNGKTVTSLRELK
KKLYLCMSVNALEAIRFYVSFACSFAPAERELMEGNAKIIRLIARDEALHLTGTQHMLNLLR
SGADDPEMAEIAEECKQECYDLFVQAAQQUEKDADYLFRDGSIMGLNKDILCQYVEYITNIR
MQAVGLDLPFQTRSNSPIPWINTWLVSDNVQVAPQEVEVSSYLVGQIDSEVDTDDLSNFQL
>DP00119|P10163|#17-310

MLLILLSVALLALSSAESSEDVSQEESLFLISGKPEGRRPQGGNQPQRPPPPGKPQGPPPQGG
NQSQGPPPPPGKPEGRRPQGGNQSQGPPPQPGKPERPPPQGGNQSQGPPPQPGKPERPPPQGG
HQSQGPPPTPGKPEGPPPQGGNQSQGTTPPPGKPEGRPPQGGNQSQGPPPQPGKPERPPPQGG
NQSHRPPPPPGKPERPPPQGGNQSQGPPPQPGKPEGPPPQEGNKSRSARSPPGKPQGPPQQEGN
KPQGPPPPGKPQGPPPAGGNPQQPQAPPAGKPKQGPPPQGGRPRPAQGQQPPQ

>DP02521|A5HC98|#185-270 #708-717 #876-891 #950-959 #1408-1424 #1532-1543 #1751-2263

MDYQEQQFLARINTARDACVAKDIDVDLLMARHDYFRELCKSLNIEYRNDVPFDIILDIR
PEVDPLTIDAPHITPDNYLYINNVLYIIDYKVSVSNESSVITYDKYYELTRDISDRLSIPIEIVIRI
DPVSRDLHINSDRFKELYPTIVVDINFNQFFDLKQLLYEKFGDDEEFLKVAHGDFTLTAPWC
KTGCPEFWKHPYKEFKMSMPVPERRLFEEVKFNAYESERWNTNLVKIREYTKKDSEHISK
SAKNIFLASGFYKQPNKNEISEGWTLMVERVQDQREISKSLHDQKPSIHFIWGAHNPNGNSNNA
TFKLILLSKSLQSICKISTYTEAFKSLGKMMDIGDKAIEYEFCMSLKSARSSWKQIMNKLE
PKQINNALVLWEQQFMINNDLIDKSEKLKLFKNFCGIGKHKQFKNKMLEDLEVSKPKILD
DANMYLASLTMMEQSKKILSKSNGLKPDNFILNEFGSRIKDANKETYDNMHKIFETGYWQCI
SDFSTLMKNILSVSQYNRHNTFRIAMCANNVFAIVFPSADIKKKATVVYSIIVLHKEEENIF
NPGCLHGTFKCMNGYISISRAIRLDKERCQRIVSSPGLFLTTCLLFKHDNPTLVMSDIMNFSIYT
SLSITKSVLSTEPARYMIMNSLAISSNVKDYIAEKFSPTYKTLFSVYMTRLIKNACFDAYDQR
QRVQLRDIYLSDYDITQKGIKDNRELTISIWFGSVTLKEYLTQIYLPFYFNAKGLHEKHVMV
DLAKTILEIECEQRENIKEIWSTNCTKQTVNLIKILJSLCKNLLADTSRHNNHLRNRIENRNNFRR
SITTISTFTSSKSCLKIGDFRKEKELOSVVKQKKILEVQSRKMRLANPMFVTDEQVCLEVGHCN
YEMLRNAMPNTDYISTKVFDRLYELDDKKVLTDKPVIEQIMDMMMIDHKKFYFTFFNKGQK
TSKDREIFVGEYEAKMCMYAVERIAKERCKLNPDEMISEPGDGKLKVLEQKSEQEIRFLVETT
RQKNREIDEAIEALATEGYESNLGKIEKLSLGAKGLKMEINADMSKWASAQDVFYKYFWLIA
LDPILYPQEKERILYFMCNAMDKEILPDELLFNLLDQKVAYQNDIIATMTNQLNSNTVLIKR
NWLQGNFNYTSSYVHSCAMSvyKEILKEAITLLDGSILVNSLVHSDDNQTSITIVQDKMENDK
IIDFAMKEFERACLTFGCQANMKKYVTNCIKEFVSLFNLYGEFPSIYGRFLLTSGDCAYIGP
YEDLASRISSAQTAIKHGCCPLAWVSIAISHWMTSLTYNMLPGQSNDPIDYFPAENRKDIPEL
NGVLDAPLSMISTVGLESGNLYFLIKLLSKYTPVMQKRESVNVQIAEVKNWKVEDLTDNEIFR
LKILRYLVLDADMPSDIMGETSDMRGRSILTPRKFTAGSLRKLYSFSKYQDRLSSPGGMVE
LFTYLLEKPELLVTKGEDMKDYMESVIFRYNSKRFKESLSIQNPAQLFIEQILFSHKPVIDFSGI
RDKYINLHDSRALEKEPDILGKVTFTEAYRLLMRDLSSLELTNDDIQVIYSIILNDPMMITIAN
THILSIYGSPQRMMSCSTMPEFRNLKLIHSPALVLRAYSKNNPDIQGADPTEMARDLVHL
KEFVENTNLEEKMKVRIAMNEAEKGQRDIVFELKEMTRFYQVCYEVKSTEHKIKVFILPAK
SYTTTDFCSLMQGNLIKDKEWYTVHYLKQILSGGHKAIMQHNATSEQNIAFECFKLITHFADS
FIDSLRSAFLQLIIDEFSYKDVVKVSKLYDIKNGYNRTDFIPLLFRTGDLRQADLDKYDAMKS
HERVTWNDWQTSRHLDMGSINLTITGYNRSITIIGEDNKLTYAELCLTRKTPENITISGRKLLG
SRHGLKFENMSKIQTYPGNYITYRKKDRHQFVYQIHSHESITRRNEEHMAIRTRIYNEITPVC
VVNVAEVGDQRILRSLDYLNNNDIFSLSRIKVGLDEFATIKKAHFSKMSFEGPPIKTGLLDL
TELMKSQDLLNLYDNIRNSNLISFSKLICCEGSDNINDGLEFLSDDPMNFTGEAIHSTPIFNI
YYSKRGERHMTYRNAIKLLIERETKIFEEAFTFSENGFISPENLGCLEAVVSLIKLLKTNEWSTV
IDKCIHICLIKNGMDHMYHSFDVPKCFMGNPITRDINWVMREFINSLPGTDIPPWNVMTE
KKKCIALINSKEFETORDESEFTKLMKKEGGRSNIEED

DP01013|P68927|#51-72

MYLTQEWNARQRRPRSLETVRRWVRECRIFPPPVKGREYLHESAVKVDLNRPVGTGSLK
BIRNGKAKS

≥DP00314|O91|JY5|#144-189 #238-243 #303-326

MEPAMEPETLEARINRATNPINKELDWASINGFCEQLNEDFEGPPLATRLLAHKIQSPQEWEA
IQALTVLETCKSCGKRFHDEVGKFRFLNELIKVSPKYLGSRTSEKVKNKILELLYSWTVGL
PEEVKIAEAYQMLKKQGIVKSDPKLPDDTTFPLPPPRPKNVIFEDEEKSKMLARLLKSSHPEDL
RAANKLIKEMVQEDQKRMEKISKRVNAIEEVNNNVKLLTEMVMSHSQGGAAAGSSEDLMK
ELYQRCEMRPTLFRLASDTEDEALAEILQANDNLTQVINLYKQLVRGEEVNGDATAGSI
PGSTSALLDLSGLDLPPAGTTYPAMPTRPGEQASPEQPSAVSLLDDEMLSLGLSDPTPPSGPS
LDGTGWNSFOSSDATEPPAPALAOAPSMESRPPAOTSLPASSGLDDLLGTLLOQSLPPES

QQVRWEKQQPTPRLTLRDLQNKSSCSPSSATSLHTSPEPPRPPQQPVTELASITVPL
ESIKPSNILPVTYDQHGFRILFHFARDPLPGRSMDVLVVVSVMLSTAPQIRNIVFQSAVPKVM
KVKLQPPSGTELPAFNPIVHPSAITQVLLANPKEKVRRLYKLTFTMGDQTYNEMGDVDQF
PPPETWGSL

>DP01592|Q8VHC5|#100-120

MATEHNVQLVPGSQKIPKGVVSPRSAAEGPALTRRRSKKESWHPGSQKASSGDQSSSQGSEA
SGSSKHPPRTKVGQEPPSAPARPASHRHSHRHSRSDPQQDAAQRTYGPLLNRMFGKDRELGP
EELEELQAAFEEDTDQDGYIGYRELGDCMRTLGYMPTEMELLEVSQHVKMRMGGFVDFFEE
FVELISPKLREETAHMLGVRELRIAREFDKDRDGRITVAELRQAAPALLGEPLEGTELDEM
REMIDLNGDTIDFDEFVMMMLSTG

>DP01602|Q86WV6|#344-379

MPHSSLHPSIPCPRGHGAQKAALVLLSACLVTWLGLGEPPHTLRLYLVLHLASLQLGLLLNG
VCSLAEELRHISRYRGSYWRTVRACLGCPRLRGALLLSIYFYYSLPNAVGPFTWMLALL
GLSQALNILLGLKGLAPAEISAVCEKGNFNVAHGLAWSYYIGYLRLLPELQARIRTYNQHYN
NLLRGAVSQRLYILLPLDCGVPDNLSADPNIRFLDKLPQQTGDHAGIKDRVYSNSIYELLEN
GQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLEQAKLFCRTLEDILADAPESQNNCRLIA
YQEPAADDSSFSLSQEVLRHLRQEEKEEVTGSLKTSAVPSTSTMSQEPELLISGMEKPLPLRTD
FS

>DP00356|Q99967|#220-269

MADHMMAMNHGRFPDGTNGLHHHPAHRMGMQFPSPHHHQQQQPQHAFNALMGEHIHY
GAGNMNATSGIRHAMGPGTVNGGHPPSALAPAARFNNSQFMGPPVASQGGSLPASMQLQKL
NNQYFNHHYPHNHYMPDLHPAAHQMNNTQHFRDCNPKHSGGSSTPGGSGGSSTPGGS
GSSSGGGAGSSNSGGSGSGNMPASVAHVPAAMLPNVIDTFIDEEVIMSLVIEMGLDRIKE
LPELWLGQNEFDFTDFVCKQQPSRVSC

>DP00747|P01160|#56-123

MSSFSTTIVSFLLLAFQILLGQTRANPMYNAVSNADLMDFKNLLDHLEEKMLEDEVVPPQV
LSEPNEEAGAALSPLPEVPPWTGEVSPAQRDGALGRGPWDSSDRSALLKSCLRALLTAPRSL
RRSSCFGGRMDRIGAQSGLCNSFRYRR

>DP02010|Q9NRJ3|#1-10 #1-108 #81-108

MQQRGLAIVALAVCAALHASEAILPIASSCCTEVSHHISRLLERVNMCRIQRADGCDLAAY
ILHVKRRRICVSPHNHTVKQWMKVQAAKKNGKGNVCHRKKHHGKRNSNRAHQGKHETYG
HKTPY

>DP00655|P59113|#1-11 #141-250 #653-677

MLSSGDLTSASWELVVRVDHANGEQQTEITLRVSGDLHIGGVMLKLVEQMNIAQDWSDYAL
WWEQKRCWLLKTHWTLDKCGVQADANLLFTPQHKMLRLPNAKTVRLRVFSAVVFKA
VADICKVNLIRRPEELSLKPSSDYCKKKKKKEKNSKEPVIEDILNLESSSTSSGSPVSPGLYSK
TMTPTYDPINGTPALSTMWFDSPLTEQNCVLAFSQPPPSPDVLADMFQPRSLVDKAKMN
AGWLDSSRSLMEQSIEDEQLQLRFKYYTFFDLNPKYDAVRINQLYEQARWAVLLEEIDCTE
EEMLIFAALQYHISKLSQCAIQDFATKSEVDEVEAALSSLEVTEGGKADNTLEDITDIPKLA
DYLKLFRPKKMLKACKQYWFKDTSIAYFKNKELEQGEPIEKLNLRGCEIVPDVNVSGRK
FGIKLLIPVADGMNEVYLRCDHEDQYARWMAACILASKGKTMADSSYQPEVISILSFLKMKN
RNSSPLVASSLENMDMNEPECLVSPCCAKKHKSQCLAARILEAHNVAQMPLVEAKLQFIQA
WQSLPEFGLTYYLVRFKGSKKDDILGVAYNRLIRIDAVTGIPVTTWRFANMKQWNVNWEIR
QVAIEFDQNVSIACFTCLSADCKIVHEYIGGYIFLSTRSKDQNETLDEDLFHKLTGGQD

>DP00328|Q08605|#281-348 #368-444

MSLPMNSLYSLTWGDYGTSLVSAIQLLRCHGDLVDCTLAAGGRSFPAHKIVLCAASPFLLDL
LKNTPCPKHPVVMLAGVNANDLEALLEFVYRGEVSDHAQLPSLLQAAQCLNIQGLAPQTVT

KDDYTTHSIQLQHMPQHHDQDQLIATIATAPQQTVHAQVVEDIHHQGQILQATTQTNAAGQ
QQTIVTTDAAKHDQAVIQAFPLPARKPRVKMSPTAPKISKVEGMDTIMGTPSSHGSJV
QQVLGENGAEGQLLSSSTPIIKSEGQKVETIVTMDPNMIPVTSANAATGEITPAQGATGSSGG
NTSGVLSTPKAKRAKHPPGTEKPRSRSQSEQPATCICYAVIRQRNLRRLELRHFAKPGV
KEKKTTSGKSSSGSSGSGALSSSGSVPQVQTLQHGVQVKKDPAQQQQQQQQQQ
QQQQQQQAMTVSGATGGQVQQVQQVQQQQQQQQQQQLQHHQIIDSSGNITTA
TTSAQAAAAAQQAAGQQQLVAQSDGSESGAPLSIAQVQTLQGHQIIGNLNQVNMTDFQQ
QQPQQQQQQQQQQQQQQQQQQTQQT
>DP00055|P10688#1-16 #130-202 #445-482

MDSGRDFLTGLQDDPDLQALLKGSQLLKVKSSSWRERFYKLQEDCKTIWQESRKVMRS
PESQLFSIEDIQEVRMGHRTEGLEKFARDIPEDRCFSIVFKDQRNTLDLIAPSPADAQHWVQGL
RKIIHSGSMMDQRQKLQHWHISCLRKADKNKDNKMFELKDFLKELENIQVDDGYARKIFR
ECDHSQTDSEDEEIEFYKMLTQRAEIDRAFEEAAGSAETLSVERLVTFLQHQREEEAGPA
LALSLIERYEPSETAKAQRQMTKDGFLMYLLSADGNNAFLSLAHRRVYQDMDQPLSHYLVSSSH
NTYLEDQLTGPSTEAYIRALCKGCRCLEDCWDGPNQEPIYHGYTFTSKILFCVDLRAIRD
YAFKASPYPVILSLENHCSLEQQRVMARHLRAILGPILLDQPLDGVTTSPLSPEQLKGKILLKG
KKLGGLLPAGGENGSEA TDVSDEVEAAEMEDEAVRSQVQHCKPEDKLKLVPELSDMIIYCKS
VHFGGFSSPGTSGQAFYEMASFSESRALRLLQESNGFVRHNVSCLSIYPAWGRTDSSNYSP
VEMWNGGCQIVALNFQTPGPEMDVYLGCFQDNGCGYVLKPAFLRDPNTTFNSRALTQGP
WWRPERLRVRIISGQQQLPKVNKNKNSIVDPKVIVEIHGVGRDTGSRQTA VITNNGFNPRWDM
EFEFEVTVPDALVRFMVEDYDSSSKNDFIGQSTIPWNSLKQGYRHVHLLSKNGDQHPSATLF
VKISIJD

>DP02301|Q71UI9#39-48

MAGGKAGKDGGKAKAKAVRSRQRAGLQFPVGRIHRHLKTRTSHGRVGATAAVYSAILEY
LTAEVLELAGNASKDLVKKRITPRHLQLAIRGDEELDSLIKATIAGGGVIPHIKSLIGKKGQQ
KTA

>DP01389|P84233#1-35

MARTKQTARKSTGGKAPRKQLATKAARKSAPATGGVKKPHRYRPGTVALREIRRYQKSTEL
LIRKLPFQRLVREIAQDFKTDLRFQSSAVMALQEASEAYLVGLFEDTNLCAIHKRVTIMPKDI
QLARRIRGERA

>DP00078|P01100#216-380

MMFSGFNADYEASSSRCSSASPAGDSLYYHSPADSFSMGSPVNAQDFCTDLAVSSANFIPT
VTAISTSPDLQWLVQPALVSSVAPSQTRAPHFGVPAPSAGAYSAGVVKTMTGGRAGSIGR
RGKVEQLSPEEEKRRIRRERNKMAAKCRNRRRELTDLQAETDQLEDEKSALQTEIANLL
KEKEKLEFILAHRPACKIPDDLGFPPEEMSVASLDLTGGLPEVATPESEEATLPLLNDPEPKPS
VEPVKSISSEMELKTEPFDDFLFPASSRPSGSETARSVPDMDSLGSFYAADWEPLHSGSLGMGP
MATELEPLCTPVVTCTPSCTAYTSSVFVFTYPEADSFPSCAAHRKGSSNEPSSDSLSSPTLLAL
>DP01147|Q9I322#1-81

MKIESISPVQPSQDAGAEAVGHFEGRSVTRA AVRGEDRSSVAGLARWLARNVAGDPRSEQA
LQLRADGDGTPLEARTVRRR

>DP01658|Q09882#207-241 #272-284

MALLSEELSSILPNPDFDDEEEDYVERETSHADERQIGVKFHIPPYGQRKGWFSSPEDFGDGG
AFPEIHVAQYPLDMGRKRSAKSAGNTLALQVTSSGAVDYNIAIRQGHEHGEVQASFRDLIP
LRARLGVEISLEKPSDEQKQEVANKTKLALQKILSKQIAQSQPKSAVVQQRDDPVYIRYTPS
NQMGQALSKQRIKMTAEQDPMEEPKFRHKVPRGPPSPPPVLHSPPRKVSAQEQQDWQI
PPSISNWKNPKGYTIPLDKRLAADGRGLNDVEINDGFAKFSEALYTVERQAREEVRYRAIMR
QKMAEKEKEQKEQRLFMLAQKAREDRMGRNAASSGPISHAKPRSTSVSSEERSRSRAGSFH

HSESENEDEDSEAFRRRQELRRERRRQAEKDLRLSRMGAEKRAKLAEKDRPRDVAERVALG
LSKPSMSSDTMIDSRLFNFQASGLGSGFQDEDSYNVYDKPWRAAPSSTLYRPGATLSQVDAS
AELERITSESRYDVLGNAHKFKGSDEVVESRAGPVTFEKDIADPFGVDTFLNNVSSKKT

>DP02224|P29375|#184-360

MAGVGPGGYAAEFVPPPECVPFEPSWEEFTDPLSFIGRIRPLAETGICKIRPPKDWPQPPFACE
VKSFRFTPVRVQLRNELEAMTRVRLDFLDQLAKFWELQGSTLKIPVVERKILDLYALSKIVASK
GGFEMVTKEKKWSKVGSRLGYLPGKGTGSLLKSHYERILYPYELFQSGVSLMGVQMPNLDL
KEKVEPEVLSTDQTSPEPGTRMNILPKRTRVKTQSESGDVSRNTELKKLQIFGAGPKVVGL
AMGTKDKEDEVTRRRKVTNRSDAFNMQMQRKGTLSVNFVDLYVCMFCGRGNEDKLLL
CDGCDDSYHTFCLIPPLPDVKGDWRCPKCVAEECSKPRAFGFEQAVREYTLQSFGEADN
FKSDYFNMPVHMVPTELVEKEFWRLVSSIEEDVIVEYGADISSKDFGSGFPVKDGRRKILPEEE
EYALSGWNLNNMPVLEQSVLAHINVDISGMKVPWLWVGMCFSSFCWHIEDHWSYSINYLH
WGEPKTWYGVPSHAAEQLEEVMRLEAPELFESQPDLLHQLVTIMNPNVLMEHGVPVYRTNQ
CAGEFVVTFPRAYHSGFNQGYNFAEAVNFTADWLPIGRQCVCNHYRRLRRHCVFSHEELIFK
MAADPECLDVGLAAMVCKELTMTEEETRLRESVVQMGVLMSEEEVFELVPDDERQCSACR
TTCFLSALTCSNCNPERLVCLYHPTDLCPCMOKKCLRYRPLEDPLSLLYGVKVRAQSYDTW
VSRVTEALSANFHKKDLIELRVMLEDAEDRKYPENDLFRKLRAVKEAETCASVAQLLLSK
KQKHRQSPDSGRTRTKLTVEELKAFVQQLFSLPCVISQARQVKNLLDDVEEFHERAQEAMM
DETPDSSKLQMLIDMGSSLYVELPELPLRKQELQQARWLDEVRLTLSDPQQTLDVMKKLID
SGVGLAPHAVEKAMAELQELLTVSERWEEKAKVCLQARPRHSVASLESIVNEAKNIPAFPL
NVSLKEALQKAREWTAKVEAIQSGSNYAYLEQLESLSAKGRPIPVRLEALPQVESQVAAR
AWRERTGRTFLKKNSHTLLQVLSPRTDIGVYSGKNRKKVKELIEKEKEKDLDLEPLSDLE
EGLEETRDTAMVAVFKEREQKEIEAMHSLRAANLAKMTMDRVEEVKFCICRKTASGFML
QCELCKDWFHNSCVPLPKSSSQKGSSWQAKEVKFLCPLCMRSRRPRLETILSLLVSLQKLPV
RLPEGEALQCLTERAMSWQDRARQALATDELSSALAKLSVLSQRMVEQAAREKTEKIISAEI
QKAAANPDLQGHLPFQQSAFNRRVVSSVSSSPRQTMYDDEETSDDEDIRETYGYDMKDTAS
VKSSSLEPNLFCDEEIPKSEEVVTHMWAPSFCAEHAYSSASKSCSQGSSTPRKQPRKSPLVP
RSLEPPVLELSPGAKAQLEELMMVGLLEVSLDETQHIWRILQATHPPSEDRLHIMEDDSME
EKPLVKKGKDSSEKKRKRKLEKVEQLFGEKGQSKELKKMDKPRKKLKGADKSKELNK
LAKKLAKEEERKKKEKAAAALKVELVKESTEKKREKKVLDIPSKEYDWSGAEESDDENAVCA
AQNCQRPCDKWDWVQCDGGCDEWFHQVCVGVSPEMAENEDYICINCACKQGPVSPGPAP
PPSFIMSYKLPMEDLKETS

>DP01472|Q6GX35|#726-825

MTNSISGDQPTVTTFTSSTSASGASGLGASSVTTANATVTQTANATNSAATSSIQTGETV
VNYTNASAAPTVTVSTSSSTQATATSNKTSQAVAGKITSPDTSESSSETSSSDHIPSDYEPI
TTENIYENIYESIDDSSTSGPENTSGGAAALNSLRGSSYSNYDDAAADYEPISTTENIYESIDDS
TSDPENTSGGAAALNSLRGSSYSNYDDAAADYEPISTTENIYESIDDSSTSGPENTSGGA
AALNSLRGSSYSNYDDAAADYEPISTTENIYESIDDSSTSDPENTSGGAAALNSLRGSSYSNY
DDAAADYEPISTTENIYESIDDSSTSDPENTSGGAAALNSLRGSSYSNYDDAAADYEPISTTENI
YENIYESIDGSSTDTPENTSGGAAAALNSLRGSSYTGPRNEGFGPGPEGLPDMSLPSYDPTN
KTSLLTFLSNPHVKSMLENSGHFVFIIDRSSFILVPNGNWDXQVCSIKVQNGKTEDLDIKD
LENMCAKFCTGFNKFDWDSRVEPMMSAKGVASGGNLPTVIINNKFKTCVAYGPWNS
REASSGYTPSAWRRGHQVNFGEIFEKANDFNKINWGTQAGPSSEDDGISFSNETPGAGPAAAP
SPTPSSIPVINVNVN VGGTNVNIRDNTVNTTTPTTQSTDASTDSDIDNINTNNQTDINTTD
KDSDGAGGVNGDISETESSGDDSGVSSSESDKNASVGNDGPAMKDILSAVRKHLDVVYPG
DNGGSTEGPLQANQTLGDIVQDMETTGTQETVVSPWKGSTSSTGSAGGSGSVTLLPSPPPT
PSTTTLRTGTGATTSLMMGGPIKADIITGGGGRIPGGGTLEKLLPRIAHLDISFDGQGDLVS

TEEPQLGSIVNKFRKETGSGGIVASVESAPGKPGSAQVLTGTGGDKGNLFQAAAATQALGN
VAGKVNLAIQGQKLSSLVNDDGKGSGVRDLFQAATQTTQALSSLIDTVG

>DP01730|Q7Z3C6#810-839

MAQFDTEYQRLEASYSDSPGEEDLLVHVAEGSKSPWHHIENLDLFFSRVYNLHQKNGFTCM
LIGEIFELMQFLFVVAFITFLVSCVDYDILFANKMVNHSLHPTEPVKVTLPAQVCSARI
QEENGSLITILVIAGVFVWIRLIKFIYNICCYWEIHSFYLHALRIPMSALPYCTWQEVQARIVQTQ
KEHQICIHRELTELDIYHRILRFQNYMVALVNKSLLPLRFRLPGLGEAVFFTRGLKYNFELIL
FWGPGSLFLNEWSLKAEKRGGQRLEAQRLSNRILWIGIANFLLCPLILIWIQILYAFFSYAEV
LKREPGALGARCWSLYGRCYLRHFNELEHELQSRLNRGYPASKYMCFLSPLTLAKNG
AFFAGSILAVLIALTIYDEDVLAVEHVLTVTLLGTVTCRSFIPDQHMVFCPEQLLRVILAHI
HYMPDHWQGNNAHRSQTRDEFAQLFQYKAVFILEELLSPIVTPLILIFCLRRALEIIDFFRNFTV
EVVGVGDTCSFAQMMDVRQHGHPQWLSAGQTEASVYQQAEDGKTELSMHFAITNPGWQPP
RESTAFLGFLKEQVQRDGAAASLAQGGLLPENALFTSIQLQSESEPLSLIANVAGSSCRGPP
LPRDLQGSRHRAEVASALRSFSPLQPGQAPTGRAHSTMTGSGVDARTASSGSSVWEGQLSQL
VLSEYASTEMSLHALYMHQLHKQQAQAEPERHVWHRRESDESGESAPDEGGEGARAPQSIP
RSASYPCAAPRPGAPETTALHGGFQRRYGGITDPGTVPRVPSHFSRLPLGGWAEDGQSASRHP
EPVPEEGSEDELPPQVHKV

>DP00673|P06935#1-105

MSKKPGPGPKNRAVNMLKRGMPRLSLIGLKRAMLSLIDKGKPIRFVLALLAFFRFTAIPTR
AVLDRWRGVNKQTAMKHLLSFKELGTLTSAINRRSTKQKKRGGTAGFTILLGLIACAGAVT
LSNFQGKVMMTVNATDVTDVITIPTAACGNLCIVRAMDVGYLCEDTITYECPVLAAGNDPED
IDCWCTKSSVYVRYGRCTKTRHSRRSLTVQTHGESTLANKGAWLDSTKATRYLVKTE
SWILRNPGYALVAAVIGWMLGSNTMQRVVFAILLLLVAPAYSFNCLGMSNRDFLEGVSGAT
WVDLVLEGDSCVTIMSKDKPTIDVKMMNMEAANLADVRSYCYLASVSDLSTRAACPTMGE
AHNEKRADPAFVCKQGVVDRGWGNCGLFGKGSIDTCAKFACTTKATGWIQKENIKYEVA
IFVHGPTTVESHGKIGATQAGRFSITPSAPSYTLLGEYGEVTVDCEPRSGIDTSAYYVMSVGE
KSFLVHREWFMIDLNLWPSSAGSTWRNRETLMEFEEPHATKQSVVALGSQEGALHQALAG
AIPVEFSSNTVKLTSGHLKCRVKMEKLQLKGTTYGVCASFKAFTPADTGHTVVLELQYT
GTDGPCKVPISSVASLNDLTPVGRLLTVNPFSVATANSKVLIELEPPFGDSYIVVGRGEQQIN
HHWHKSGSSIGKAFTTLRGAQRLAALGDTAWDFGSVGGVFTSVGKAIHQVFGGAFRSLFG
GMSWITQGLLGALLWMGINARDRIAMTFLAGGGVLLFLSVNVHADTGCAIDIGRQELRCG
SGVFIHNDVEAWMDRYKFYPETPQGLAKIIQKAHAEGVCGLRSVSREHQMWAIKDELNT
LLKENGVDLSVVEKQNGMYKAAPKRALATTEKLEMGWKAWGKSIIFAPELANNTFVIDGP
ETEECPTANRAWNSMEVEDFGFGLTSTRMFLRIRETNTTECDSKIIGTAVKNMVAHSDLSY
WIESGLNDTWKLERAVLGEVKSCTWPETHTLWGDGVLESIDLIPITLAGPRSNHNRRPGYKT
QNQGPWDEGRVEIDFDYCPGTTVTSCEHRGPAARTTTESGKLITDWCCRSCTLPLLRFQT
ENGCWYGMIEIRPTRHDEKTLVQSRVNAYNADMIDPFQLGLMVFLATQEVLRKRWAKISI
PAIMLALLVLVFGGITYTDVLRVILVGAFAEANSGGDVVHLALMATFKIQPVFLVASFLK
ARWTNQESILLMLAAFFQMAYYDAKNVLSWEVPDVLSVAWMILRAISFTNTSNVVVP
LLALLTPGLKCLNLDVYRILLMVGVGSLIKEKRSSAAKKKGACLICLALASTGVFNPMILAA
GLMACDPNRKRGWPATEVMTAVGLMFAIVGLAELDIDSMAIPMTIAGLMFAAFVISGKST
DMWIERTADITWESDAEITGSSERDVRLDDDGFQLMNDPGAPWKIWMLRMACLAISAYT
PWAILPSVIGFWITLQYTKRGGVLDTPSPKEYKKGDFTTGVYRIMTRGLLGSYQAGAGVM
VEGVFHTLWHTTKGAALMSGEGRLDPYWGSVKEDRLCYGGPWKLQHKWNGHDEVQMIVV
EPGKNVKNVQTKEPGVFKTPEGEIGAVTLDYPTGTSGSPIVDKNGDVIGLYGNGVIMPNGSYIS
AIVQGERMEEPAPAGFEPEMLRKKQITVLDLHPGAGKTRKILPQIIKEAINKRLRTAVLAPTRV
VAAEMSEALRGLPIRYQTSAVHREHSGNEIVDVMCHATLTHRLMSPHRVPNYNLFIMDEAHF

TDPASIAARGYIATKVELGEAAAIFMTATPPGTSDPFPESNAPISDMQTEIPDRAWNTGYEWIT
EYVGKTVWFVPSVKMGNEIALCLQRAGKKVIQLNRKSYETEYPKCKNDDWDFVITTDISEM
GANFKASRVIDSRKSVKPTIIEGDGRVILGEPSAITAASAAQRGRIGRNPSQVGDECYGGH
TNEDDSNFAHWTEARIMLDNINMPNGLVAQLYQPEREKVTMDGEYRLRGEERKNFLEFLR
TADLPVWLAYKVAAGISYHDRKWCDFGRTNTILEDNNEVEVITKLGERKILRPRWADAR
VYSDHQALKSFKDFASGKRSQIGLVEVLGRMPEHFMVKTWEALDTMYVVATAEKGGRAHR
MALEELPDALQTIVLIALLSVMSLGVFFLLMQRKGIGKIGLGGVILGAATFFCWMAEVPGTKI
AGMLLLSLLLMIVLPIPEPEKQRSQTDNQLAVFLICVLTGAVAANEMGWLDKTKNDIGSL
GHRPEARETTLGVESFLLDLRPATAWSLYAVTTAVLTPLLKHLITSODYINTSLTSINVQASALF
TLARGFPFDVGVSALLAVGCWGQVTVTVAACALLFCHYAYMVPGWQAEAMRSAQR
RTAACIMKNVVVDGIVATDPELERTPVMQKKVGQIILILVSMAAVVNPSPRTVREAGIL
TTAAAVTLWENGASSVNATTAGLCHIMRGGLSCLSIMWTLIKNMEKPGLKRGGAKGRT
LGEVWKERLNHMTKEEFTTRYKEAITEVDRSAAKHARREGNITGGHPVSRGTAKLRWLVER
RFLEPVGVKVVDLGCRGGWCYYMATQKRVQEVKGYTKGGPGHEEPQLVQSYGWNIVTMK
SGVDVFYRPSEASDTLLCDIGESSSSAEVEEHRTVRVLEMVEDWLHRGPKEFCIKVLCPYMPK
VIEKMETLQRRYGGGLIRNPLSRNSTHEMYWVSHASGNIVHSVNMTSQVLLGRMEKKTWKG
PQFEEDVNLGSGTRAVGKPLLNSDTSKIKNRIERLKKEYSSTWHQDANHPYRTWNYHGSYEV
KPTGSASSLVNGVVRLLSKPWDTITNVTTMAMTDTPFGQQRFKEKVDTKAPEPPEGVKY
VNETTNWLWAFLARDKKPRMCSCREEFIGKVNNSNAALGAMFEEQNQWKNAREAVEDPKFW
EMVDEEREAHRLGECNTCIYNMMGKREKKPGEGKAKGSRAIWFMWL GARFLEFEALGFL
NEDHWLGRKNSGGVVEGLGLQKLGYILKEVGTKPGGVYADDTAGWDTRITKADLENEAK
VLELLDGEHRRRLARSIIELTYRHKKVVKMRPAADGKTVMDVISREDQRSGQVVTVYALNTFT
NLAVQLVRMMEGEGVIGPDDVEKLGKGKGPVRTWL FENGEERLSRMA VSGDDCVVKPLD
DRFATSLHFLNAMSKVRKDIQEWPSTGWDWQQVFCSNHTELIMKDRTL VVPCRGQD
ELIGRARISPGAGWNVRDTACLAKS YAQMWLLYFRRDLRLMANAICS A VPANWVPTGRT
TWSIHAKGEWMTTEDMLAVWNRVWIEENEWMEDKTPVERWSDVPYS GKREDIWCGLIGT
RTRATWAENIH VAINQVRSVIGEEKYV DYMSSL RRYEDTIVVEDTVL

>DP01495|P08510|#513-655

MAAVAGLYGLGEDRQHRKKQQQQQQHQKEQLEQKEEQKKIAERKLQLREQQLQRNSLDGY
GSLPKLSSQDEEGGAGHGFGGGPQHFEPIPHDFCERVINVSGLRFETQLRTLNQFPDTLL
GDPARRLRYFDPLRNEYFFDRSRPSFDAILYQQQSGGRLRRPVNPLDVFSEEIKFYELGDQAI
NKFREDEGFIKEERPLPDNEKQRKVWLLFEYPESSQAARVVAIISVFVILLSIVFCLETLPEFK
HYKVFNTTNGTKIEEDEVPDITDPFFLIETLCIWFTELT VRFLACP NKLNF CRDVMNVIDIA
IIPYFITLATVVAEEEDTLNLPKAPVSPQDKSSNQAMSLAILRVIRLVRVFRIFKLSRHSKGLQIL
GRTLKASMRELGLLIFLFIGVVLFSSAVYFAEAGSENSFFKSIPDAFWAVVTMTVGYGD
MTPVGWVGKIVGSLCAIAGVLTIALPVPVIVSNFNYFYHRETDQEEMQS QNFN HVTSCP YLPG
TLGQHMKKSSLSESSSDMMDLDDGVESTPGLTETHPGRS AVAPFLGAQQQQQQPVASSLSMS
IDKQLQHPLQQLTQTQLYQQQQQQQQQNGFKQQQQQTQQQLQQQSHTINASAAAATS
GSGSSGLTMRHNNA LAVSIETDV

>DP00087|P68336|#350-394 #403-412 #413-490

MDLLVDDL FADADGVSPPPP RAGGP KNT PAAPPLY ATGRL SQAQLM PSSPP MPVPPA ALFNR
LLDDLGFSAGPALCTMLDTWNEDLFSGPTNADMYRECKFLSTLPSDVIDWGDAHVPERSPI
DIRAHGDVAFTLPA TRDELPSYYEAMAQFFRGE LRAREESY RTV LANFC SALYRYL RASVR
QLHRQAHMRGRN RDLREMLTTIADRYY RETARLARVLFLHLYLFLSREILWAAYAEQMMR
PDLFDGLCCDLESWRQLACLFQPLMFINGSLTVRGVPVEARRLRELNHIREHNLPLVRSAAA
EEPGAPL TTPPV LQGNQARSSGYFMLLIRAKLDSYSSVATSEGESVMREHAYSRGRTRNNYG
STIEGLLDLPDDDA PAEAGLVAPRMSFLSAGQRPRRLSTTAPITDV SLGDELRLDGE EVD MT

PADALDDFDLEMLGDVESPGMTHDPVSYGALDVDDFEQMFDTAMGIDDGG

>DP00770|P61328|#1-5

MAAAIASLIRQKRQARENSDRVSASKRRSSPSKDGRLCERHVLGVFSKVRFCSGRKRPVR
RRPEPQLKGIVTRLFSQQGYFLQMHPDGTIDGTDENSDYTLFNLIPGLRVVAIQGVKASLY
VAMNGEGYLSSDVFTPECKFKESVFENYYVIYSSTLYRQQESGRAWFLGLNKEGQIMKGN
RVKKTKPSSHFPKPPIEVCAMYREPSLHEIGEKQGRSRKSSGTPTMNGGKVVNQDST

>DP02160|P61328-2#145-181

MESKEPQLKGIVTRLFSQQGYFLQMHPDGTIDGTDENSDYTLFNLIPGLRVVAIQGVKASLY
YVAMNGEGYLSSDVFTPECKFKESVFENYYVIYSSTLYRQQESGRAWFLGLNKEGQIMKGN
NRVKKTKPSSHFPKPPIEVCAMYREPSLHEIGEKQGRSRKSSGTPTMNGGKVVNQDST

>DP02303|Q0JRZ9|#259-274

MVMAYFVENFWGEKNSGFDVLYHNMKHGQISTKELADFVRERATIEEAYSRSMTKLAKSAS
NYSQLGTFAPVWDVFKTSTEKLANCHLDLVRKLQELIKEVQKYGEEQVKSHKKTKEEVAGT
LEAVQTIQSITQALQSKENYNACKVEQERLKKEGATQREIEKAAVSKKATDTYKLYVEKY
ALAKADFEQKMTETAQKFQDIEETHLIHIKEIIGLSNAIKEIHLQIGQVHEEFINNMANTTVES
LIQKFAESKGTGKERPLIEFECDTASAVEGIKPRKRKTFALPGIIKKEKDAESVECPDADSLN
IPDVDEEGYSIKPETNQNDTKENHFYSSSDSDSEDEEPKKYRIEIKPMHPNNSHHTMASLDELK
VSIGNITLSPAISRHSVPQMNRNLSNEELTKSKPSAPPNEKGTSLLAWDPLFGPSLDSSSSSS
TSSSSARPTPLSVGTIVPPPRPASRPKLTSGKLSGINEIPRPFSPPVTSNTSPPPAAPLARAESSSS
ISSSASLSAANTPTVGVRGPSPVSLGNQDTLPVAVALTESVNAFKGADPTKCIVKITGDMT
MSFPSGIKVFITSNPTPAVLCFRVKNISRLEQILPNAQLVFSDPSCQDSNTKDFWMNMQAVTV
YLKKLSEQNPAASYNVDLKYQVSSNGIQSTPLNLATYWKCSASTTDLVDYKYNPEAMV
APSVLNSIQVVVPVDGGVTNMQLPPAIWNAEQMKAFWKLSSISEKSENGSGSLRAKFDSL
EGPSKPTTAVQFLSEGSTLSGVDFELVGTGYRLSLIKKRFATGRYLADC

>DP01920|P77522|#1-33 #80-156

MSRNTEATDDVKTWTGPLNYKEGFFTQLATDELAKGINEEVVRAISAKRNEPEWMLEFRL
NAYRAWLEMEEPHWLKAHYDKLNYQDYSSYAPSCGNCDDTCASEPGAVQQTGANAFLSK
EVEAAFEQLGVPVREGKEVAVDAIFDSVSVATTYREKLAEQGIIFCSFGEAIHDHPELVRKYL
GTVVPGNDNFFAALNAAVASDGTIYVPKGVRCPMELSTYFRINAETGQFERTILVADEDSY
VSYIEGCSAPRDSYQLHAAVVEVIHKNAEVKYSTVQNWFPGDNNTGGILNFVTKRALCEG
ENSKMSWTQSETGSAITWKYPSCILRGDNSIGEFYSVALTSGHQQADTGTMIHGKNTKSTII
SKGISAGHSQNSYRGLVKIMPTATNARNFTQCDMSLIGANCAGAHTFPYVECRNNSAQLEHEA
TTSRIGEDQLFYCLQRGISEEDAISMIVNGFCKDVFSELPLEFAVEAQKLLAISLEHSV

>DP01129|P12296|#23-36

MATTMEQEICAHSMTFEECPKCSALQYRNGFYLLKYDEEWYPEELLTDGEDDVFDPPDLDME
VVFETQGNSTSSDKNNSSEGNEGVIINNFYSNQYQNSIDLDSANATGSDPPKTYGQFSNLLSGA
VNAFSNMLPLLADQNTEEMENLSDRVSQDTAGNTVTNTQSTVGRLVGYGTVDGEHPASCA
DTASEKILAVERYYTFKVNDWTSTQKPFYIRIPLPHVLSGEDGGVFGATLRRHYLVKTGWR
VQVQCNASQFHAGSLLVMAPEYPTLDVFAMDNRWSKDNLPGTRTQTNRKGPFAMDHQN
FWQWTLYPHQFLNLRTNTTVLEVPYVNIAPTSSWTQHASWTLVIAVVAPlTYSTGASTSLD
ITASIQPVRPVFNGLRHEVLSRQSPIPVTIREHAGTWYSTLPDSTVPIYGKTPVAPANYMVGEY
KDFLEIAQIPTFIGNKVPNAVPIEASNTAVKTQPLAVYQVTLSCLANTFLAALSRNFAQYR
GSLVYTFVFTGTAMMKGKFLIAYTPPGAGKPTS RDQAMQATYAIWDLGLNSSYSFTVPFISPT
HFRMVGTDQANITNVDGWVTWQLTPLTYPPGCPTSAKILTMVSAGKDFSLKMPISPAPWSP
QGVENAEKGVTENTDATAFVAQPVYLPENQTKVAFFYDRSSPIGAFAVKSGSLESGFAPFS
NKACPNCSVILTPGPQFDPAYDQLRPQLTEIWGNNGNEETSEVFPLTKQDYSFCLSPFVYYK
CDLEVTLSPHTSGAHGLLVRWCPTGTPTKPTTQLHEVSSLSEGRTPQVYSAGPGTSNQISFV

VPYNSPLSVLPAVWYNGHKRFDNTGDLGIAPNSDFGTLFFAGTKPDIKFTVYLRYKNMRVFC
PRPTVFFPWPTSGDKIDMTPRAGVLMLESPNPLDVSKTYPTLHILLQFNHRGLEARIFRHGQL
WAETHAEVVLRSKTQISFLSNGSYPSMDATTPLNPWKSTYQAVLRAEPRVTMDVYHKRI
RPFRLPLVQKEWRTCEENVFGLYHVFETHYAGYFSDLLIHVDVETNPGPFTKPRQRPVQTQG
AAVSSMAQTLLPNDSLASKAMGSAFTALLDANEDAQKAMKIITLSSLDAWENVKGTLNNP
EFWKQLLSRCVQLIAGMTIAVMHPDPLTLLCLGVLTAAEITSQTSLCEEIAAKFKTIFTTPPPRF
PVISLFQQQSPLKQVNDVFSLAKNLDWAVKTVKVVWDFTWVAQEEREQTLQDQLLQRFP
HAKRISDLRNGMAAYVECKESFDFEKLYNQAVKEKRTGIAAVCEKFRQKHDHATARCEPV
VIVLRGDAGQGKSLSSQIIAQAVSKTIFGRQSVYSLPPDSDFFDGYENQFAAIMDDLGQNP
SDFTFCQMVTNLLPNMASLERKGTPFTSQLVVATTNLPEFRPTVIAHYPAVERRITFDYSV
SAGPVCSKTEAGCKVLDVERAFRPTGDAPLPCFQNNCLFLEKAGLQFRDNRNSKEILSLVDVIE
RAVTRIERKKKVLTAVQTLVAQGPVDEVSFYSVVQQLKARQEATDEQLEELQEAFARVQER
SSVFSDWMKISAMLCAATLALTQVVKMAKAVKQMVRPDLVRVQLDEQEQQGPYNETTRIKP
KTLQLLDVQGPNPTMDFEKFVAKFVTAPIGFVYPTGVSTQTCLLVKGRTLA
VNRRHMAESDW
TSIVVRGVSHTRSSVKIIAIAKAGKETDVSFIRLSSGPLFRDNTSKFKASDVLPHSSPLIGIM
VDIPMMYTGTFLKAGVSVPVETGQTFNHCHYKANTRKGWCGSAILADLGGSKKILGFHSAG
SMGVAASIISQEMIDAVVQAFEPQGALERLPDGPRIHVRKTLRPTVARQVFQPAFAPA
SKFDPRTDADVDEAFSKHTSNQETLPPVFRMVAREYANRVFALLGRDNGRLSVKQALDGL
EGMDPMKDNTSPGLPYTTLGMRRTDVVDWETATLIPFAAERLEKMN
NKFSDIVYQTFLKD
ELRPIEKVQA
AKTRIVD
VPPFEHCILGRQLLGKFASKFQTQPGLELGS
AIGCDPDVHWTA
FGV
AMQGFERVYD
V
DYSNF
DSTHS
AVF
RLLAE
EFFSE
ENGFDPL
VKD
YLES
LAISK
HAYEE
KRY
LITGL
LPSG
CAAT
SML
NTIM
NNII
RAG
LY
TN
FE
DDV
KVL
SYG
G
DLL
V
ATNY
QLN
FDRV
RTS
LA
KT
GY
K
IT
P
ANK
T
SF
PLE
ST
LED
VV
FL
KR
KF
K
EG
PL
Y
RP
VM
N
RE
A
LE
AM
LS
YY
RPG
T
L
SE
KL
TS
IT
ML
AV
HSG
K
QE
Y
D
RL
F
AP
F
REV
G
V
I
V
P
T
F
E
S
V
E
Y
R
W
R
S
L
F
W
>DP00153|P01112|#27-38 #58-67

MTEYKLVVVGAGGVGKSALTIQLIQNHFVDEYDPTIEDSYRKQVVIDGETC
LDDILD
TAGQEE
YSAMRDQYMRTGEGFLCVFAINNTKS
FEDIHQYREQIKRVKDS
DDVPMVL
VGN
KCDLAART
VESRQA
QD
LARS
Y
GIPY
I
ET
SA
K
TRQ
G
VED
AFY
TL
V
RE
IRQ
H
K
L
R
K
L
N
P
P
D
E
S
G
P
G
C
M
S
C
K
C
V
L
S
L

>DP00189|P04324|#1-15 #23-36 #42-57

MGGKWSKSSVVGWP
AVRERM
RRA
EPA
ADGV
GA
AS
RD
LE
KH
G
AIT
SS
NTA
ANNA
ACAW
LE
AQEEE
KVG
FP
VTP
QV
PL
RPM
TY
K
AA
V
D
L
S
H
FL
K
E
GG
LE
GL
I
HS
Q
RR
Q
D
I
L
D
L
W
I
Y
H
T
Q
G
Y
F
PDW
QNY
TP
PG
G
I
R
Y
P
L
T
F
G
W
C
Y
K
L
V
P
V
E
P
E
K
L
E
A
N
K
G
E
N
T
S
L
L
H
P
V
S
L
H
G
M
D
D
P
E
R
V
L
E
W
R
F
D
S
R
L
A
F
H
V
A
R
E
L
H
P
E
Y
F
K
N
C

>DP00392|Q09161|#1-26 #527-537 #671-684 #684-688

MSRRRHSDENDGGQPHKRRKTSD
ANE
TEDH
LES
ICKV
GEK
SAC
S
LE
N
LE
GL
AG
V
LE
AD
LP
NY
K
SK
I
L
R
L
L
C
T
V
A
R
L
L
P
E
K
L
T
I
Y
T
T
L
V
G
L
L
N
A
R
N
Y
N
F
G
G
E
F
V
E
A
M
I
R
Q
L
K
E
S
L
K
A
N
N
Y
N
E
A
V
Y
L
V
R
F
L
S
D
L
V
N
C
H
V
I
A
A
P
S
M
V
A
M
F
E
N
F
V
S
T
Q
E
E
D
V
P
Q
V
R
R
D
W
Y
V
Y
A
F
L
S
L
P
W
V
G
K
E
L
Y
E
K
D
A
E
M
D
R
I
F
A
N
T
E
S
Y
L
K
R
R
Q
K
T
H
V
P
M
L
Q
W
T
A
D
K
P
H
P
Q
E
Y
L
D
C
L
W
A
Q
I
Q
K
L
K
D
R
W
Q
E
R
H
I
L
R
P
Y
L
A
F
D
S
I
C
E
A
L
Q
H
N
L
P
P
T
P
P
H
T
E
D
S
V
Y
P
M
P
R
V
I
F
R
M
F
D
Y
T
D
D
P
E
G
P
V
M
P
G
H
S
V
E
R
F
V
I
E
E
N
L
H
C
I
K
S
H
W
K
E
R
K
T
C
A
A
Q
L
V
S
Y
P
G
K
N
K
I
P
L
N
Y
H
I
V
E
V
I
F
A
E
L
F
Q
L
P
A
P
H
I
D
V
M
Y
T
T
L
L
I
E
L
C
K
L
Q
P
G
S
L
P
Q
V
L
A
Q
A
T
E
M
L
Y
M
R
L
D
T
M
N
T
C
V
D
R
F
I
N
W
F
S
H
L
S
N
F
Q
F
R
W
S
W
E
D
W
S
D
C
L
S
Q
D
P
E
S
P
K
P
K
F
V
R
E
V
L
E
K
C
M
R
L
S
Y
H
Q
R
I
L
D
I
V
P
P
T
F
S
A
L
C
L
A
V
A
F
K
S
K
A
T
N
D
E
I
F
S
I
L
K
D
V
P
N
P
N
Q
D
D
D
D
E
G
F
S
F
N
P
L
K
I
E
V
F
V
Q
T
L
L
H
A
A
K
S
F
H
S
F
S
L
A
K
F
H
E
V
F
K
T
L
A
E
S
D
E
G
K
L
H
V
L
R
V
M
F
E
V
W
R
N
H
P
Q
M
I
A
V
L
V
D
K
M
I
R
T
Q
I
V
D
C
A
A
V
A
N
W
I
F
S
S
E
L
S
R
D
F
T
R
L
F
W
E
I
L
H
S
T
R
K
M
N
K
H
V
L
K
I
Q
K
E
L
E
A
K
L
A
R
Q
H
K
R
R
S
D
D
R
S
K
D
G
F
V
L
P
W
Y
K
N
C
I
E
R
L
Q
I
F

LQHHQIIQQYMTLENLLFTAELDPHILAVFQQFCALQA
>DP00872|P80428|#199-226 #328-377
MSNAALQVYGGDEVSAAVIDPGSYTTNIGYSGSDFPQSILPSVYGKYTADEGNKKIFSEQSIGI
PRKDYEKLPIIENGLVIDWDTAQEQWQWALQNELYLNSNSGIPALLTEPVWNSTENRKSLE
VLLEGMQFEACYLAPTSTCVSFAAGRPNCLVVDIGHDTCVSPIVDGMTLSKSTRRNFIAGKFI
NHLIKKALEPKIEIPLFAIKQRKPEFIKKTFDYEVDKSLYDYANRGFFQECKETLCHICPTKTL
EETKTELSSTAKRSIESPWNEEIVFDNETRYGFAEELFLPKEDDIPANWPRSNSGVVKTWRND
YVPLKRTKPSGVNKSDKKVTPTEEKEQEAVSKSTSPAANSADTPNETGKRPLEEKPPKENNE
LIGLADLVYSSIMSSDVDLRATLAHNVLTGGTSSIPGLSDRLMTELNKILPSLKFRILTTGHTI
ERQYQSWLGGSILTSLGTFHQLWVGKKEYEEVGVERLLNDRFR
>DP01928|P03254|#1-137 #191-289
MRHIICHGGVITEEMAASLLDQLIEEVLADNLPPPSHFEPPTLHELYDLDVTAPEDPNNEEAVSQ
IFPDHSVMLAVQEGIDLLTFPPAPGSPEPPHLSRQPQEQRALGPVSMPNLVPEVIDLTCHEAGF
PPSDDEDEEGEEFVLDYVEHPGHGRSCHYHRRNTGDPDIMCSLCYMTGCFVYSPVSEPE
PEPEPEPEPARPTRRPLVPAILRRPTSPSRECNSTDSCDGPNTPEIHPVVPLCPIKPVAV
RVGGRRQAVECIEDLLNESQPLDLSCKRPRP
>DP00594|P49869|#523-753
MMRDRLASLIVVKQEGGSNTSISHHQATAIKCEASLYTESSLFQEINNNCYRQNLNAPTHQQ
SHTSHLQHAQQHQTHQQHPLPPLPTLPIYPCRNLFPDGCINHLACCSSNSNSNCNSDSN
STSSSPGNSHFFANGNTCAAALTPAPPATEPRKIKPLGAGKLKVKGKTDNSDSNSNCDSRAAA
AASTSATSATSATTAAATAAAAAEAGGAASAAAAAKISQVRLTNQATTSMLLLQPNSSF
SSLSPFDNFSTQTASTTTTSASAAGHHQHHNLLHQHQHNNQQQQQQQQQQQQQQQQQQ
EHLQQHQHQQLVSPQQHQHLLKSETLLSHEEDQLISNLTDSSVVSHSELFSDLFFPSDSNN
LLSP
TTSGYPDNPAEDLTSSIENLTCLRDKRLSSIPEQQLSSEQQLCLLSRSSSDPAIALHAQ
QQQQQQQQQQQQQQHQQQQQHQQLQLISPIGGPLSCGSSLPSFQETYSLKYNSSSGSSPQQA
SSSTAAPPTDQVLTLMDEDCCPPLSGGWASAPPASQLQQLHQLSQQAQMSPN
SSNSNN
NNAGNSHNSGGNYHGFNAINASANLSPSSASSLYEYNGVSAADNFYGQQQQQQQSY
QQHNYNSHNGERYSLPTFPTISELAAATAAVEAAAAATVGGPPPVRASLPVQRTVSPAGST
AQSPKLAKITLNQRHSHAHAHALQLNSAPNSAASSPASADLQAGRLLQAPSQCAVC
GDTAA
CQHYGVRTCEGCKGFFKRTVQKGSKYVCLADKNCPVDKRRRNRCQFCRFQKCLVVG
MVKE
VVRTDSLKGRRGRLPSKPQESPSSPPISLITALVRSHVDTPDPSCLDYSHYEEQSM
SEAD
KVQQFYQLLTSSVDVIKQFAEKIPGYFDLLPEDQELLFQSASLELFV
RLAYRARIDDTKLIFC
NGTVLHRTQCLRSFGEWLNDIMEFSRSLHNLEIDISAFA
CLCALTLITERHGLREP
KKVEQLQ
MKIIGSLRDHV
TYNAEAQKKQHYFSRLLGKLPELRSLSVQGLQRIFYLKLEDLV
PAPALIENMFV
TTLPF
>DP00534|Q9LZP9|#1-131
MATIATGLNIATQRVFVTSENRPVCLAGPVHLNNSWNLGSRTNRMMKLQPIKA
APEGGISD
VVEKSIKEAQETCAGDPVSGECVAAWDEVEELSAASHARDKKADGSD
PLEEYCKDN
PET
NECRTYDN
>DP01114|P16333|#64-105
MAEEVVVVAKF
DYVAQQEQELDIKKNERLWLLDDSKSWWRVRNSMNKTGFVPSNYVERK
NSARKASIVK
NLKDTLGIGKVKRKPSV
PDSASPADD
SFVDPGERLYD
LNMPAYVK
FN
YMAE
REDELSLIK
GT
KIVME
KCS
D
GWW
RGSY
NGQV
GW
FPSN
Y
V
TE
EG
D
SPL
GD
HVG
S
L
SE
K
LAA
VV
NN
LNT
GQ
VL
HVV
QAL
Y
P
F
SS
N
DE
ELN
FE
K
GD
V
MD
V
IE
K
P
E
N
D
P
E
WW
K
CR
K
I
NG
V
G
L
Q
R
I
F
Y
L
K
L
E
D
L
V
P
A
P
A
L
I
E
N
M
F
V
T
T
L
P
F
Q
G
E
K
L
Y
L
V
K
H
L
S

>DP01705|Q07666#365-378 #379-389 #390-419

MQRDRDPAARMSRSSGRSGSMPSGAHPSVRQTPSRQPLPHRSRGGGGSRGGARASPAT
QPPPLPPSATGPDATVGGAPTPLPPSATASVKMEPENKYLPELMAEKDSLPSFTHAMQL
LTAEIEKIQKGDSKKDDENYLDLFSHKNMKLKERVLIPVKQYPKFNFVGKILGPQGNTIKRL
QEETGAKISVLGKGSMDRKAKEEELRKGGDPKYAHLNMDLHVFIEVFGPPCEAYALMAHA
MEEVKKFLVPDMMDICQEQLNGVPEPSRGGRGPVRGRGAAPPVVPRGRGVGPP
RGALVRGTPVRAITRGATVTRGVPPPPTVRGAPAPRARTAGIQRIPPLPPPAPETYEEGYDD
TYAEQSYEGYEGYYQSQGDSEYYDYGHEVQDSYEAYGQDDWNGTRPSLKAPPARPVKG
AYREHPYGRY

>DP01971|P01071|#1-181

DFVLDNEGNPLSNGGTYYLSDITAFGGIRAAPTGNERCPLTVVQSRNELDKIGTISSPFRIIF
IAEGNPLRLKFDSFAVIMLCVGIPTESVVEDLPEGPAVKIGENKDAVDGFWFRIERVSDEFN
NYKLVFCTQQAEKKCGDIGISIDHDDGTRRLVSKNPKLVVQFQKVKESL

>DP00094|P04177|#1-71

MPTPSAPSPQPKGFRRAVSEQDAKQAEAVTSPRFIGRRQSLIEDARKEREAAAAAAAVASS
EPGNPLEAVVFEERDGNAVLNLFLSLRGTKPSSLSRAVKVFETFEAKIHHLETTRPAQRPLAGSP
HLEYFVRFEVPSGDLAALLSSVRRVSDDVRSAREDKVWFPRKVSELDKCHHLVTKFDPDLD
LDHPGFSQDVYRQRRKLIAEIAFQYKHGEPIPHVEYTAEEIATWKEVYVTLKGLYATHACRE
HLEGFQLLERGYCGYREDSIPQLEDVSRLKERTGFQLRPVAGLLSARDFLASLAFRVFQCTQYI
RHASSPMHSPEPDCCCHELLGHVPMLADRTFAQFSQDIGLASLGASDEEIEKLSTVYWFTVEFG
LCKQNNGELKAYGAGLLSSYGELLHSLSEEPEVRAFDPTAAVQPYQDQTYQPVYFVSESFND
AKDKLRNYASRIQRPFNSVKFDPTYTLAIDVLDSPHTIQSLEGVQDELHTLAHALSAIS

>DP01548|Q8CJF7|#1018-2243

MQDLTAQVTS DLLHFPEVTIEALGEDEITLESVLRGKFAAGKNGLACLACGPQLEVNSLTGE
RLSAYRFSGVNEQPPVVLAVKEFSWHKRTGLLIGLEADGSVLCYDLGISRVKAVVLPGR
VTAIEPIINHGGASASTQHLHPSLRWLFGVAAVVTDVGQILLIDLCCLDDLSCSQNEVEASDLEV
ITGIPAEVPHIRERVMREGRHLCFQLVSPLGVAISTLSYINRTNQLAVGFSDGYLALWNMKSM
KREYYTQLEGGRVPVHAFAVQEPENDPRNCCYLWAVQSTQDSEGVDVLSLHLLQAFGDRKC
LASGQILYEGLYECEERYTLDLAGGTPLRGQTSNTKLLGCQSIERFPSHGDREESMREALSPD
TSVSVFTWQVNIYGGKPSVYLGFDINRWYHAQMPSLRSGESLNCSYFALWSLDSVSVR
TSPHHILDILVHERSLNRGVPPSYPPPEQFFNPSTFNFDATCLLDGVIHTCAGFQKETLTFLK
KSGPTLNEVIPDSYNRCLVAGLSPRLIDIQPSSLSQEEQLEAILSAAIQTSSLGLTGYIRTWIIE
EQPNSAANLRVLEWTWNKVVLTKEEDRLCVPLFDGSCRFDPTQTIQSIIQQCHLLSNLSTV
LSCFAMEAQGITRGLVDLSNKHMVTQLLCQYAHMVLWFCHSGLLPEGLDDALQLSRLRYN
YPVIQNYYTTSRRQKSERSPRGKWNHDCLMIDGLVSQLGDEVEKLWKRDEGGTGRYPPASIH
ALLDIYLLDNITEASKHAITIYLLDIMYSFPNKTDTPIESPTAFAISWGQVKLVQGFWLLDH
DYENGLDLLFHPTAKPASWQHSKIIAEFMSQGEHKQALRYLQTMKPTVSSNEVILHTVLL
FNRCMVEAWNLLRQNSNRVNIEELLKHAYEVQEMGLMEDLLKLPFTNTEQECLVKFLQSS
TSVENHEFLVHHLQRANYISALKLNQILKNLMSDRDPRLRERSVTRNSILDQYKILPRVQ
RKLAYERAKPYHLSTSSVFHEVSRPKPLSAFPKKAITGTVLRTSTFISNVLSKIGEVWASHEPR
NGVSLFNSPKTEQPSPVVHSFPELPEAFVGTPISNTSQRISRLLDLVVHPVPQPSQCLEFIQQS
PTRSPLCLLSSSLPLSSQFKRPHQNTSRPSELLLETPLIVKKAKSLALSATSSGFAEFTPPSILRS
GFRTPPLASPLSPGRSLTPPFRVKETRISFMEEGMNTHWTDRAFDDRNKAFVSTSFKCGL
PAETEWMKTSKDNTYFPLDVPAKGPQKVVAESLATHSRLEKLDVSKEDSTA STRSDQTSLE
YHDAPS PEDLEGAVFVSPKPASSSTELTNSTLQTERDNDKDAFKSEGAPSPVKKQIGTGAA
VEAFSELSRLDPVERAEASFAVSSVCEGETSTSNSKTSVLDGIVPIESRTSILTADHKESVANTV
ADVESSGSTSSKCPVTSERSLGQKLTNLKEDEIEAHVPKENVGLPEESPRISAAPS DTHEIHLI

GCENLEVQNSEEAKNLSFDELYPLGAEKLEYNLSTIEQQFCDLPPDKDSAECDAAEVDGELF
VAQSNFTLILEGEEGEAEASDSAAPNMLPKATKEKPVCHREPHNQERVTDLPSAVTADQESH
KVETLPYVPEPVKAIAENLLDVIKDTRSKEATPVAAGEAGDEDGAVIVSKAAHSSRLTNSTP
KTVKEPHAETVNTSQNDDMVSSRTLTRRQHALSLNVTSEQEPASAVATPKKRTRKIKETPESSE
RTCSDLKVAPENQLTAQSPAPRRGKKKDVSQGTLPSSGAVEPEPEPQGTPGRLRLRTQPPEP
AAEETPSRTKVRLLSVRKGTPRRLKKSVEENGSTEILDDLKGSEAASHDGTVTELRNANLEDT
QNMEYKQDEHSDQQLPLKRKRVREEVSVSSVTEEPKLDSSQLPLQTGLDVPATPRKRGPR
KVVPLEADGGTGKEQTSPQKKDVPVVRSTRNTPARNVSTLEKSVLVPNKEAALVVTSKRR
PTKKSAEEESSKDPSAAVSDLAGGAAHTESADRRDGAAAALTPSAQGTRTRSRTMLLTDI
SEPkteplfpppsvkvpkkskaenmeaaaqlkelvsdlssqfvvsppalrtrqkisntsksll
gelesdpkpleieqkpkrsrtvktrasrntkgsswspppveiklvsplaspvdeiktgkprkt
aeiagktlgrgrkkpssfpkqilrrkml

>DP0173|Q8AVN9|#2-12 #68-92

MADEFNGDALLDPVGKDAVNSLIRENSHIFS DTQCKVC SAVLISES QKLAHYQSRKHANKV
RRYMAINQGEDSVPACKKAAPAEISDGEDRSKCCPVCNMTFSSPVAE SHYIGKTHIKNLRL
REQGGVKEGMVNQAKKTRPTVATKSDNKMDHSdrafkfc klc hstfn nplmaeqhyagk
khkkqetktqimtiytssgqtpaqapiplnlnspmpgsgsagkgfscdkcnivlnsieqyqah
vsgakhknqlmsmtplseeghtaa vapsafasgsagkgfscdtcnivlnsieqyqahisgak
hknhlksmtplseeghtaa vapsafasgsagkgfscdtcnivlnsieqyqahisgakhnhl
msmtplseeghtaa vapsafasgsagkgfscdtcnivlnsieqyqahvsgakhknqlmsmtpl
sseeglpsavgpsafasplsaggalssggpsrgfcpsgdltkgpssfgslplgslpplypp
ahssqpyvhddtmspdgy nyfnedfe

>DP02210|Q03519|#1-129

MRLPDLRPWT SLLVDA ALLWLLQGPLGTLLPQGLPGLWLEGTLRLGGLWGLLKL RGLLGF
VGTL LPLCLATPLTVSLRALVAGASRAPPARVASAPWSWLVGYGAAGLSWSLWA VLSPP
GAQEKEQDQVN NKVLMW RLLKLSRPDL PLLVAAFFFLV LAVLGETLIPHSGR VIDILGGDF
DPHAFASAIFFMCLFSFGSSLSAGCRGGCFTYTMSRINLRIREQLFSSLLRQDLGFFQETKTGEL
NSRLSSDTLMSNWPLNANVLLRSLVKVVGLYGFMLSISPRLTLLSLLHMPFTIAAEKVYNT
RHQEVLREI QDAVARAGQVVREAVGLQTVRSFGAEEHEVCRYKEALEQCRQLYWRRDLE
RALYLLVRRV LHLGVQMMLSCGLQQMDGE LTQGSLLSFMIYQESVGSYVQTLVYIYGDM
LSNVGAAEKVFSYMDRQP NLPSPGTLAPTTLQGVVKFQDVSFA YPNR PDRP VLKG LTFTLRP
GEVTALVGPNGSGKSTVA ALLQNL YQPTGGQVLLDEKPISQYEHCYLHSQV SVGQEPVLF
GSVRNNIAYGLQS CEDDKVMAAAQAAHADDFIQEMEHGIYTDVGEKGSQ LAAGQKQRLAIA
RALVRDPRV LILDEATSALDVQCEQALQDWNSRG DRTVLVIAHRLQTVQRAHQ IVLQEGKL
QKLAQL

>DP02075|P28300|#1-168

MRFAWTVLLGPLQLCALVHCAPPAAGQQQPREPPAAPGAWRQQIQWENNGQVF SLLSLG
SQYQPQR RD PGAAVPGAANASAQQPRTPI LIRDNR TAAARTRTAGSSGVTAGR PRPTARH
WFQAGYSTS RAREAGASRAENQTAPGEVPALS NLR PPSRVDGMVGDDPYNPYKYSDDN PYY
NYYDTYERPRPGGRYRPGYGTGYFQYGLPDLVADPYYIQASTYVQKMSM YNLRC AAEENC
LASTAYRADVRDYDH RVLLRFPQRVKNQGTSDFLPSRPRY SWEWH SCHQHYHSMDEF SHY
DL LDANTQRRVAEGHKASF CLED TSCD YGHRRFACTAHTQGLSPG CYDTY GADIDCQWIDI
TDVKPGNYILKVS VNP SYL VPESD YTNNV VRCDIR YTGHAY ASGCT ISPY

>DP00550|P02628|#1-108

AKDLLKADDIKKALDAVKAEGSFNHKKFFALVGLKAMSANDVKKVFKAIDADASGFIEEEE
LKFVLKSFAADGRDLTDAETKAFLKAADKDGDGKIGIDEFETLVHEA

>DP02495|Q928V6|#133-350 #400-452

MKAIIYIRVSTQEVENYSIQAQTEKLTALCRSKDWDVYDTFIDGGYSGSNMNRPALNEMLS
KLHEIDAVVYRLDRLSRSQKDTITLIEEYFLKNNVEVSLSETLDTSSPFGRAMIGILSVFAQL
ERETIRDRMVMGKIKRIEAGLPLTTAKGRTFGYDVIDTKLYINEEEAKQLRIYDIFEEEQSITF
LQKRLKKLGFKVRTYNRYNNWLTDLYCGYVSYDKVHVKGIGHPEIISSEQFYRVQEFSRM
GKNPNMNKESASLLNLVVCSKCGLGTVHRRKDTVSRGKKYHYRYYCKTYKHTHELEKC
GNKIWRADKLEELIIDRVNNYSFASRNIDKEDELDLNEKLKIEHAKKKRLFDLYINGSYEVSE
LDSMMNDIDAQINYYEAQIEANEELKKNIQENLADLATVDFNSLEFREKQLYLKSLINKIY
IDGEQVTIEWL

>DP00043|P02929|#103-151

MTLDLPRRFWPWTLLSVCIHGAVVAGLYTSVHQVIELPAPAQPISVTMVT PADLEPPQAVQP
PPEPVVEPEPEPEPIPEPPKEAPVVIKEPKPKPKPKVKKVQECPKRDVKPVESRPASP FENT
APARL TSSTAATSKPVTVASGP RALS RNP QYPARA QAL RIEGQVKVKFDVTPDGRVDN
VQILSAKPANMFEREVKNAMRRWRYEPGKPGSGIVVNILFKINGTIEIQ

>DP00865|Q6P3W2#1-10 #77-92

MAVEQMPKKDWYSILGADPSANISDLKQKYQKLILMYHPDKQSTDVPAGTVEECVQKFIEID
QAWKILGNEETKREYDLQRCEDDLRNVGPVDAQVYLEEMSNEGDSFYLSRCRGKYSV
SKDEAAEVSLISCDTCSLIELLHYN

>DP00159|P09803|#812-884

MGARCRSFSALLLLQVSSWLCQELEPESCSPGSSEVYT FPVPERHLERGHVLGRVRFEGCT
GRPTA FFSEDSRFKVATDGTITVKRHLKLHKLETSFLVRARDSSHRELSTKVTLKSMGHHHH
RHHRDPASESNPELLMFP SVYPGLRRQKRDWVIPPICPENEKGEFPKNLVQIKSNRDKETK
VFYSITQGQADKPPGVFIIERETGWLKV TQPLDREAI AKYI LYSHAVSSNGEAVEDPMEIVIT
VTDQNDNRPEFTQEVFEGSVAEGAVPGT SVMKVSATDADDDVN TYNA AIA YTI VSDPELPH
KNMFTVNRDTGVISVLTSGLDRESYPTYTLV VQAADLQGEGLSTAKAVITVKDINDNAPVF
NPSTYQGQVPENEVNARIATLKVTDDAPNTPAWKAVYTVVNDPDQQFVVTDPTTNDGIL
KTA KGLDFEAQQYI LHV RVENE E PEGSLV PSTATV TDV DV VNE API FMPAERR VEV PEDF
GVGQEITSYTAREPDTFMDQKITYRIWRDTANWLEINPETGAIFTRAEMDREDAEHVKNSTY
VALIIATDDGSPATGTG TLLVLLDVNDNAPIPEPRNMQFCQRNPQPHIITILD PDLPPNTSPFT
AELTHGASVNWTIEYNDAAQESLILQPRKDLEIGEYKIH LKLADNQNQKDQVTTLDVHCDCE
GTVN NCMKAGIVAAGLQVPA ILGILGGI ALLLILL LLLLFLRRRTV VKEPLLP DDDTRDNVY
YYDEEGGGEEDQDFDLSQLH RGLDARPEVTRNDVAPTLMSVPQYRPRPANPDEIGNFIDENL
KAADSDPTAPPYDSSLVFDYEGSGSEAASLSSLSSES DQDQDYDYLNEWGNRFKKLADMY
GGGEDD

>DP00065|O86488|#569-1123

MLNRENKTAITRKGMVSNRLNKFSIRKYTVGTASILVGTTLIFGLGNQEAKAAESTN KELNEA
TTSASDNQSSDKVDMQQLNQEDNTKNDNQKEMVSSQNETTSNGNKLIEKESVQSTTG NKV
EVSTAKSDEQASP KSTNEDLNTKQTISNQEALQPDLQENKS VNVQPTNEENKKVDAKTEST
TLNVKSDAIKSND T LVDNNSNSNNENNADILPKSTAPKRLNTRMRIA AVQPSSTEAKNVND
LITSNTLT VVDADKNNKIVPAQDYL SLSKS QITVDDKVKSGDYFTIKYSDTVQVYGLNP EDIK
NIGDIKDPNNGETIATAKHD TANNLITYTF TDYVDRFNSVQMGIN YSIYMDADTIPVSKNDVE
FNV TIGNTT KTTANI QYPDYV VNEKNSIGAFTETVSHVGNKENPGYYKQT IYVNPSEN SLT
NAKLKVQAYHSSYPNNI GQINKDVT DIYQV PKGY TLNKG YDVNTKELTDVTNQYLQKITY
GDNNSAVIDFGNADSAYV VMVNTKFQY TNSE SPTLVQM ATLS STGNKSVSTGNALGFTNNQ
SGGAGQEYKIGNYVWEDTNKNGVQELGEKG VGNVTVF DNNTNTKVG EAVT KEDG SYL
IPNLPNGDYRVEFSNLPKG YEVTPSKQGNNEELDSNGLSSVITVNGKDNL SADLG IYKPKY NL
GDYVWEDTNKNGI QDQDEKG ISGV TVTLK DENG NVLKT VTTDADGKYKFT DLDNG NYK VE
FTTPEGYPTT VTS GSDIEKDSNGLTTGVINGADNMTLDSGFYKTPKYN LGNYV WEDTNKD

GKQDSTEKGISGVTVTLKNENGEVLQTTKTDKGKYQFTGLENTYKVEFETPSGYTPTQVG
SGTDEGIDSNGTSTTGVIKDKDNDTIDSGFYKPTYNLDYVWEDTNKNGVQDKDEKGISGVT
VTLKDENDKVLKTVDENGKYQFTDLNNGTYKVEFETPSGYTPTSVTSGNDTEKDSNGLTT
TGVIKDADNMTLDSGFYKTPKYSLGDYVWYDSNKDGKDSTEKGIKDVKVTLLNEKGEVIG
TTKTDENGKYCFDNLDSGFYKTPKAGLTQGTNTTEDDKDADGGEVDVTITDHDDFTLD
NGYYEEETSD
DSD
LLFGRRKKQNK

>DP02155|P49687|#1-124

MFNKSVNSGFTFGNQNTSTPTSTPAQPSSSLQFPQKSTGLFGNVNVNANTSTPSPSGGLFNA
SNANSISQQPANNSLFGNKPAQPSGLFGATNNNTSKSAGSLFGNNNATANSTGSTGLFSGSN
NIASSTQNGGLFGNSNNNNITSTTQNGGLFGKPTTTPAGAGGLFGNNSSTNSTTGLFGSNNTQS
STGIFGQKPGASTTGGLFGNNGASFPRSGETTGMSTNPYGINISNPMAVAADMPSRITSSLSD
VNGKSDAEPKPIENRRTYSFSSSVSGNAPLPLASQSSLVSRLSTRLKATQKSTSPNEIFSPSYSK
PWLNAGSAPLVDDFFSSKMTSLAPNENSIFPQNGFNFLSSQRADLTELRLKIDSNRSAAKK
LKLLSGTPAITKHMQDEQDSSENEPIANADSVTNIDRKENRDNNLDNTYLNGKEQSNNLNK
QDGENTLQHEKSSFGYWCSPSPEQLERLSKQLAAVSNFVIGRRGYGCITFQHDVDLTAFTK
SFREELFGKIVIFRSSKTVEVYPDEATKPMIGHGLNVPAIITLENVYPVDKTKKKPMKDTTKFA
EFQVFDRKLRSRMREMNYISYNPFGGTWTFKVNHFISIWLGVNEEADAEIDEEDDSL
LRKVRTLAQSKPSDKEVILKTDGTFGTLGKDDSIVEEKAYEPDLSADFEGLIEASPKLDVSK
DWVEQLILAGSSLRSVFATSKEFDGPCQNEIDLSECNDEIDNAKLMKERRFTASYTFAKFS
TGSMLLTKDIVGKSGVSIKRLPTELQRKFLFDDVYLDKEIEKVTIEARKSNPYPQISESSLLFKD
ALDYMECTSSDYNLWKLSSILFDPVSYPYKTDNDQVKMALLKKERHCRLTSWIVSQIGPEIEE
KIRNSSNEIEQIFLYLLLNDVVRASKLAIESTKNGHLSVLISYLGNSNDPRIRDLAELQLQKWSTG
GCSIDKNISKIYKLLSGSPFEGLFLSKELESEFSWLCLLNLTLCYGQIDEYSLES
LPYDDPIGVIFQLYAAENETEKLKEVRQRTNALDVQFCWYLIQTLRFNGTRVFSKETSDEAT
FAFAAQLEFAQLHGHSLFVSCFLNDDKAAEDETIKRLVMREITLLRASTNDHILNRLKIPSQLIF
NAQALKDRYEGNYLSEVQNLLLGSYYDLAEMAIVTSLGPRLLLSNNPVQNNELKTLREILNEF
PD SERDKWSVSINVFEVYLKLVLVDNVETQETIDSLISGMKIFYDQYKHCREVAACCNVMSQE
VSKILEKNNPSIGDSKAKLLELPLGQPEKAYLRGEFAQDLMKCTYKI

>DP02067|O74499|#1-31 #101-113

MSSLQKRPGPGNNSQPTERPRKESILDLSRYQDQRIQATFTGGRQITGILKGFDQLMNLVLDD
VEEQLRNPEDGKLTGAIRKGLVVVRGTTLVIAPMDGSEEIPNPVFVQAE

>DP00421|P07516|#1-202

MDPKDRKKIQFSVPAPPQLDPRQVEMIRRPTPAMLFRLEHSSPEEASPHQRASGEHH
LKS KRNSNPCAYTPPSLKA VQRIAESHLSISNLGENQASEEDELGELRELGPREEEEE
DEEEEDSQAEVLKGSRGSGAQKTTYGQGLEGPWERPPPLDGPQRDGSSEDQVEDPALNEPG
EEPQRPAHPEPGT

>DP02249|P38862|#618-630

MSSERVLSYAPAFKSFLDTSFFQELSRLKLDVLKLDSTCQPLTVNLDLHNIPKSADQVPLFLTN
RSFEKHNNKRTNEVPLQGSIFNFNVLDEFKNLDKQLFLHQRALECWEDEGIKDINKCVSFVI
ADLKKYRFYYWLGVPCQRPSSTVLHVRPEPSLKGFLSKCQKWF DVNYSKWCILDADDEI
VNYDKCIIRKT KVL AIRDTSTMENVPSALT K N FLS VL QYDVPDLIDFKLII RQNEG SFAL NAT
FASIDPQSSSNPDMKVSGWERNVQGKLA PRVVDLSSLLDPLKIA DQSVDLN LKLMKWRILP
DLNLDI KNTK VLL GAG TLG CYV SRALIA WGV RKITFVDNGT VSY SNP VRQ AL YNF EDC GK
PKAELAAASLKRIFPLMDATGVKLSIPMIGHKLVNEEAQHKDFDRLRALIKEHDIIFLLVDSRE

SRWLPSLLSNIENKTVINAALGFDSYLVMRHGNRDEQSSKQLGCYFCHDVVAPTDSDLRTLD
DQMCTVTRPGVAMMASSLAELMTSLLQTKYSGSETTVLGDIPHQIRGFLHNFSILKLET
PAY EHCPACSPKVIEAFTDLGWEFKALEHPLYLEEISGLSVIKQEVERLGNDVFEWEDDESDEI
A

>DP01031|Q99IB8|#2224-2317

MSTNPKPQRKTKRNTNRRPEDVKFPGGGQIVGGVYLLPRRGPRLGVRTTRKTSERSQPRGR
QPIPKDRRSTGKAWGKPGRPWPLYGNEGLGWAGWLLSPRGSRPSWGPTDPRHRSRNVGKVI
DTLTCGFADLMGYIPVVGAPLSGAARAVAHGVRVLEDGVNYATGNLPGFPFSIPLLALLSCIT
VPVSAAQVKNTSSSYMVNTDCSNDSDITWQLEAAVLHVPGCVCERVGNTSRCWVVPVSPNMA
VRQPGALTQGLRTHIDMVMSATFCASLYVGDLCGGVMLAAQVFIVSPQYHWVQECNC
YPGTITGHRMADMMMNWSPTATMILAYVMRVPEVIIDIVSGAHWGMFGLAYFSMQGA
WAKVIVILLAAGVDAGTTVGGAVARSTNVIAGVFSHGPQQNIQLINTNGSWHINRTALNC
NDSLNTGFLAALFYTNRFNSSGCPGRSLACRNIEAFRIGWGLQYEDNVTNPEDMRPYCWHY
PPKPCGVVPARSVCGPVYCFTPSPVVVGTTDRRGVPTYTWGENETDVFLLNSTRPPQGSWFG
CTWMNSTGFTKTCGAPPCRTRADFNASTDLCPTDCFRKHDPDATYIKCGSGPWLTPKCLVHY
PYRLWHYPCTVNFTIFKIRMYVGGVEHRLTAACNFTRGDRCDEDRDRSQLSPLLHSTTEWA
ILPCTYSDLPALSTGLLHLHQNIVDVQYMYGLSPAITYVVRWEVVLLFLADARVCACL
WMLILLGQAEAALEKLVVLHAASAANCHGLLYFAIFFVAAWHIRGRVVPPLTYCLTGLWPF
CLLLMALPRQAYAYDAPVHGQIGVGLLILITLFTLTPGYKTLLQCLWWLCYLLTLGEAMIQ
EWVPPMQVRGGRDGIAWAVTIFCPGVFDITKWLLALLGPAYLLRAALTHVPYFVRAHALIR
VCALVKQLAGGRYVQVALLALGRWTGTYIYDHLPMSDWAASGLRDLAVAVEPIIFSPMEK
KVIVWGAETAACGDILHGLPV SARLGQEILLGPADGYSKGWKL LAPITAYAQQTTRGLLGAI
VVSMTGRDRTEQAGEVQILSTVSQSFLGTTISGV LWTYHGAGNKTLA GLRGPVTQMYSSAE
GDLVGWPSPPGTKSLEPCCKGAVDLYLVTRNADVIPARRRGDKRGALLSPRPISTLKGSSGGP
VLCPRGHVVGLFRAAVCSRGVAKSIDFIPVETLDVTRSPTFSDNSTPPAVPQTYQVGYLHAP
TGSGKSTKPVAYAAQGYKVLVLPNSVAATLGFGAYLSKAHGINPNIRTGVRTVMTGEAITY
STYGKFLADGGCASGAYDIIICDECHA VDATSILGITVLDQAETAGVRLTVLATATPPGSVTT
PHPDIEEVGLGREGEIPFYGRAIPLSCIKGGRHLIFCHSKKKCDEAAALRGMGLNAVAYYRG
LDVSIIPAQGDVVVVATDALMTGTYGTDVDFDSVIDCNVAVTQAVDFSLDPTFTTQTVQDAVS
RSQRRGRTGRGRQGTYRYVSTGERASGMFD SVLCECYDAGAAWYDLTPAETTVRLRAYF
NTPGLPVCQDHLEFWA VFTGLTHIDAHFLSQTKQAGENFAYLVAYQATVCARAKAPPSW
DAMWKCLARKPTLAGPTPLYRLGPITNEVTLTHPGTKYIATCMQADLEVMTSTWVLAGG
VLA AVAAAYCLATGCVSIIGRLHVNQRVVVAPDKEVLYEAFDEMEECASRAALIEEGQRIAEM
LKS KIQGLLQQASKQAQDIQPAMQASWPKVEQFWARHMWNFISGIQYLAGLSTLPGNPAVA
SMMAFSAA LTSP STTILLNIMGGWL ASQIAPPAGATGFVVSGLVGA AVGSIGLGKVLVDI
LAGY GAGIS GALVAFKIMSGEKPSMEDVINLLPGILSPGALVVGVICA AILRRHVGPGEGAVQ
WMNRLIAFASRGNHVAPTHYV TESDASQRTVQLLGSLTITSLLRRLHNWITEDCIPCSGSWL
RDVWDWVCTILTDFKNWLTSKLFKPGLPFISCQKG YKGVWAGTGIMTRCPGANISGNV
RLGSMRITGPKTCMNTWQGTFPINCYTEGQCACPPTNYKTAIWRAA SEYAEV TQHGSY SY
VTGLTTDNLKIPCQLPSPEFFSWV DGVQIHFRAPTPKPFFRDEVFCVGLNSYAVGSQLPCEPE
PDADVLRSM LTDPPHITAETAARRLARGSPPSEASSSVSQLSAPSLRATCTHSNTYDVDMVD
ANLLMEGGVAQTEPESRVVLD FLEPM AEEESDLEPSI PSECMLPRSGFPRALPAWARPDYN
PLVESWRRPDYQPP TVAGCALPPP KAPTPP RRRRTVGLSE STISEALQQLAI KTFGQPPSSG
DAGSSTGAGAAE SGGPTSPGE PAPSETGSASSM PPLEGE PGD PDL ESDQV ELQPPP QGGGVAP
GSGSGSWSTCSEEDDTVCCSMSYSWTGALITPCSPEEKLPINPLSN SLRYHNK VYCTTSKS
ASQRACKVTFDRTQVLD AHYDSVLKD IKAASKV SARLLTLEEACQLTPPHSAR SKYGF GAK
EVRSLSGRAVNHIKSVWKL LEDPQTP IMAKNEVFCVDP AKG KKPARLIVY PD LGVR

VCEKMALYDITQKLQPQAVMGASYGFQYSPAQRVEYLLKAWAEKKDPMGFSYDTRCFDSTV
TERDIRTEESIYQACSLPEEARTAIHSLTERLYVGGPMFNSKGQTCGYRRCRASGVLTSMGN
TITCYVKALAACKAAGIVAPTMLVCGDDLVVISESQGTEEDERNLRAFTEAMTRYSAPPGDP
PRPEYDLELITSCSSNVSVALGPRGRYYLTRDPTPLARAATWETVRHSPINSWLGNIIQYAP
TIWVRMVLMTHFFSILMVQDTLDQNLNFEMYGSVSVNPLDLPAAIERLHGLDAFSMHTYSH
HELTRVASALRKLGAPPLRVWKSRAVARASLISRGGKAAVCGRYLFNWAVTKLKLTPLP
EARLLDLSSWFTVGAGGGDIFHSVRARPRSLLFGLLLLFVGVLFLPAR

>DP00977|Q86FP8|#20-80

MKHFVILAVVASAVVMAYPERDSAKDGNQEKERALLVKVQERYQGNQGDYDEYDQDET
TPPPDPTAQTARPRLRQNQD

>DP02487|P22473|#1-506

MSAIVGLCLLSEKVVLRSRSLTDEVSKLYKLNRGNVKEPRKYATERMSTQSKPVALQVPVSTIILDYKNEDFIKQNPTYSAMDIIGSPSNTAPQTAQSIMPLSALFNTPFIQGAFRHRISSMGPEISYLVMVIGPPSGFMDDTPNVSSAQSSVHTVSNAVDVLNDIIAINSTMAKSTKLVSASTLQAMLVNDVYDRCMDLDGILLSQALPFFRNYVNQSKGSLPPAVAACLNTPIKELFSMGSKGREPLALEFRKDNEGQCIGIVLPKGHEGDTLSSRYPAVFINESEPFSDKERSELSELKRTDSDAYEKLYSETISKHVS DGSYGNRVIISHKMSRLSNGGVKIIGRFKISDFNTVKKNLSSRSGEIDSAKEQWEALSGNGLVTDSNISMMLHDKILDITSNKPGVVLRDGNKSENIVVCFNGFPNKKHSLLQLTKNGISVVSLELTDA GILVESTGPDRVRRSPKVLANKLSSFKGRKVTLVDVN MSTEALIQLKLSTL>DP007661P0A0K9#153_196

MYVAKDI VVSL AVQVBT

MVKVAKDELVSLAYQVRIEDGVLVDESPVSAPLDYLHGHGSLISGLETALEGHEVGDKFDVA
VGANDAYGQYDENLVQRVPKDVFMGVDELQVGMRFLAETDQGPVPVEITAVEDDHVVVD
GNHMLAGQNLKFNVEVVAIREATEEELAHGHVHGAHDHHHDHDGCCGGHGHDHGHEH
GGEGCCGGKGNGGCGCH

>DP00146|P0A7T7|#1-75

MARYFRRRKFCRFTAEGVQEIDYKDIATLKNYITESGKIVPSRITGTRAKYQRQLARA
IKRAR
YLSLLPYTDRHQ

>DP00956|Q63K18|#1-7

MSNPPTPLLADYEWSGYLTGIGRAFDDGVKDLNKQLQDAQANLTKNPSDPTALANYQMIMS
EYNLYRNAQSSAVKSMKDIDSSIVSNFR

>DP01664|Q9I9C0|#25-142

MGRYRLTCWIVLLVVMWSDFSKKGKGKGGGGGNTGSNRNPNYPSPNGYPQNPQGYPRN
PSYPHNPAYPPNPAYPPNPGYPHNPSYPRNPSYPQNPGYPGGGQHYNPAGGGTNFKNQKP
WKPDKPKNMAMAGAAAAGAVVGLGGYALGSAMSGMRMNFDRPEERQWWNENSRR
YPNVQYYKEYNDRSVPEGRFVRDCLNNVTLEYKIDPNENQNVTVQEVRVMKQVIQEMCMQ
QYQQYQLASGVKLSDPSLMLIIMLVIFFVMH

>DP00009|P32774|#89-104

MAVPGYYELYRRSTIGNSLVDALDTLISDGRIEASLAMRVLETFDKVVAETLKDNQSKE
KGNLDTYGFCDVWTFIVKNCVTVEDSHRDASONGSGDSOSVISVDKLIVACNSKKSE

>DP00488|P49723|#1-51

MEAHNQFLKTFQKERHDMKEAEKDEILLMENSRRFVMFPIKYHEIWAAYKKVEASFWTAAE
IELAKDTEDFQKLTDQQKTYIGNLLALSISSDNLVNKYLIENFSAQLNPEGKSFYGFQIMME
NIYSEVYSMMVDAFFKDPKNIPLFKEIANLPEVKHKAAFIERWISNDDSLYAERLVAFAAKEG
IFQAGNYASMFWLTDKKIMPGLAMANRNICRDRGAYTDFSCLLFAHLRTKPNPKIIEKIITEA
VEIEKEYYSNSLPVEKGMDLKSIIHTYIEFVADGLLQGFGNEKYYNAVNPFEFMEDVATAGK
TTFFEKKVSDYQKASDMSKSATPSKEINFDDDF

>DP01303|O14519#1-60

MSYKPNLAHMPAAALNAAGSVHSPSTSMATSSQYRQLLSDYGPPSLGYTQGTGNSQVPQS
KYAELLAIIEELGKEIRPTYAGSKSAMERLKRGIIHARGLVRECLAETERNARS
>DP01564|Q12905|#362-390
MRGDRGRGRGGRFGSRGGPGGGFRPFVPHIPFDYLCEMAFPRVKPAPPDETSFSEALLKRNQ
DLAPNSAEQASILSLOVTKINNVIDNLIVAPGTFEVQIEVRQVGGSYKKGTMTGHNVALVVI
LKLPTLEAVAALGNKVVESLRAQDPSEVTMLTNETGFEISSLSDATVKILITVPPNLRKLDPE
LHLDIKVLQSLAAIRHARWFEEENASQSTVKVLIRLLKDLRIRFPGEPLTPWILDLLGHYAV
MNNPTRQPLALNVAYRRCLQILAAGLFLPGSVGTDPCESGNFRVHTVMTLEQQDMVCYTA
QTLVRILSHGGFRKILGQEGDASYLASEISTWDGVIVTPSEKAYEKPPEKKEGEEEEENTEEPP
QGEEEESMETQE
>DP01289|Q9KMA5|#1-36 #3-33
MSNRDLFAELSSALVEAKQHSEGKLTALKTHHVNDVGELNISPDEIVSIREQFNMSRGVFARLL
HTSSRTLENWEQGRSPNGQAVTLLKLVQRHPETLHIAEL
>DP02195|P53136|#434-463
MRLLVSCVDGSIKEVLCNIGTDTSVQSAQPFHVAPHGLAEGLKAYVDRMWVISEDEAILAR
NSGVVELVKISKHLKENEALQVDPKGESKNEKSLSDLPKFDISEFEITSSVSDLFDDAKLES
SSKSVKRTKLVDFVTLCPIKKDSSNNTVAATKSGLLHIKKGEDKKLIKLASGLKAPVEFL
QLYDLEDTDTDKYIFAYGGEENLIKVEIDSSFQSLKQIWEAKNVKNDRLLDMRVPWPMALR
FLEPSPGKTEKGKLNQFAAIWRWSHTKYSTQHGRKPFAQIDLLPNEPLSQMEVFDAGEN
VVSSLGNFQSETFNEVNITTDYKKNVFKFDGNGRMLGKVGRRDGTSSTYIHVHDGKYLLQ
GGLDRYVRFDIKTNKMLVKVYVGSRINFIVMLDDVEIEMPLSPSAKAAGKQKRKVTELEE
DADELWNKLEGKVAASKASKKSKI
>DP02513|Q05022|#1-1408
MVASTKRKRDDEFPLSREDSTKQPSTSSLVRNTEEVSPRGASALTPLELKQVANEASDVL
FGNESVKASEPASRPLKKKTTKSKDSEASSANSDEARAGLIEHVNFKTLNGSSLLGQIS
AITKQDLCITFTDGISGYVNLTHISEEFTSILEDLDMDSDTDAADEKKSKVEDAEYESSIONDDE
DEKLDKSNELPNLRRYFHIGQWLRCVICKNTSLEPKKSKKRIELTIEPSSVNIYADEDLVK
STSIQCAVKSIEDHGATLDVGLPGFTGFIACKDFGNFEKLLPGAVFLGNITKKSRSIVVNTDF
SDKKNKITQISSIDAIIPGQIVDLLCESITKNGIAGKVFGLVSGVNVSHLRTFSEEDLKHKFVIG
SSIRCRIACLENKSGDKVLILSNLPHILKLEDALRSTEGLDAFPIGYTFCESCSIKGRDSEYLYLA
LDDDRLGKVHSSRVGEIENSENLSSRVLGYSVPDDIYQLSTDPKYLKLKYLRTNDIPIGELLP
CEITSVSSSGIELKIFNGQFKASVPLHISDTRLVYPERFKIGSKVKGRVISVNSRGNVHVTLK
KSLVNIEDNELPLVSTYENAKNIKEKNEKTLATIQVFKPNGCIISFFGGLSGFLPNSEISEVFVKR
PEEHLRLGQTIVKLLVDADRRRIATCKVSNEQAAQQKDTIENIVPGRTIITVHIEKTKDS
VIVEIPDVGLRGVIYVGHLSDSRIEQNRAQLKKLRIGTELGLVIDKDTRTRVFNMSLKSSLIK
DAKKETLPLTYDDVKDLNKDVMHAYIKSISDKGLVAFNGKFIGLVLPSYAVDSRDIDISKA
FYINQSVTVYLLRTDDKNQKFLLSLKAPVKEEKKKVESNIEDPVDSSIKSWDDLSIGSIVKAK
IKSVKKNQLNVILAANLHGRVDIAEVFDTYEEITDKKQPLSNYKKDDVIKVKIIGNHDVKSHK
FLPITHKISKASVLELSMKPSELKSKEVHTSLEEINIGQELTGFVNNSGNHLWLTISPVLKAR
ISLLDLADNDSNFSENIESVFPLGSALQVKVASIDREHGFVNAIGKSHVDINMSTIKVGDELPG
RVLKIAKYVLLDGNKVTGISFITDALNDFSLTLKEAFEDKINNVIPTTVLSVDEQNKKIELSL
RPATAKTRSIKSHEDLKQGEIVDGVKVNNDKGIFVYLSRKVEAFVPVSKLSDSYLKEWKFY
KPMQYVLGKVVTCDEDSRISLTRESEINGDLKVLKTSIDIKAGDVFEGTIKSVTDFGVFKL
DNTVNVTLAHITEIADKKPEDLSALFGVGDRVKAIVLKTNPPEKKQISLSLKASHFSKEAELA
STTTTTTVDQLEKEDEDEVMADAGFNDSDSESDIGDQNTEVADRKPETSSDGLSLSAGFDW
TASILDQAQEEEESDQDQEDFTENKKHHKRRKENVQDKTIDINTRAPESVADFERLLIGNP
NSSVVWMNYMAFQLQLSEIEKARELAERALKTINFREEAEKLNWIAMI LNLENTFGTEETLEE

VFSRACQYMDSYTIHTKLLGIYEISEKFDKAAELFKATAKKFGGEKVSIVSWGDFLISHNEE
QEARTILGNALKALPKRNHIEVVRKFAQLEFAKGDPERGRSLFEGLVADAPKRIDLWNVYVD
QEVKAKDKKKVEDLFERIITKKITRKQAKFFFNKWLQFESEGDEKTIEYVKAKATEYVASHE
SQKADE

>DP01976|P35520|#1-40

MPSETPQAEGPTGCPHRSGPHSAKGSLEKSPEDKEAKEPLWIRPDAPSRCTWQLGRPASES
PHHHTAPAKSPKILPDILKKIGDTPMVRINKIGKKFGLKCELLAKCEFFNAGGSVKDRISLRMI
EDAERDGTLPKGDTIIEPTSGNTGIGLALAAAVERGYRCIIVMPEKMSSEKVDVLRALGAEIVRT
PTNARFDSPESHVGVAWRLKNEIPNSHILDQYRNASNPLAHYDTTADEILQQCDGKLDMLVA
SVGTGGTITGIARKLKEKCPGCRIIGVDPEGSILAEPEELNQTEQTTYEVEGIGYDFIPTVLDRT
VVDKWFKSNDEEAFTFARMLIAQEGLLCGGSAGSTVAVAVKAAQELQEGQRCCVILPDSVR
NYMTKFLSDRWMLQKGFLKEEDLTEKKPWVWHLRVQELGLSAPLTVLPTICGHTIEILREK
GFDQAPVVDEAGVILGMVTLGNNMLSSLLAGKVQPSDQVGKVYKQFKQIRLTDTLGRLSHIL
EMDHFALVVHEQIQYHSTGKSSQRQMVFVVTIAIDLLNFVAAQERDQK

>DP01446|Q9Y239|#111-138

MEEQGHSEMEIIPSSESHPHIQLLKSNRLLLTHIRNTQCLVDNLLKNDYFSAEAEIVCACPTQ
PDKVRKILDLVQSKGEEVSEFFLYLLQLADAYVDLRPWLLEIGFSPSLLTQSKVVVNTDPVS
RYTQQLRHHLGRDSKFVLCYAQKEELLLEEYIMDTIMELVGFSNESLGSLSNLACLLDHTTGI
LNEQGETIFILGDAGVGKSMLLQRLQSLWATGRLDAGVKFFFHFRCRMSCFKESDRLCLQD
LLFKHYCYPERDPEEVFAFLRFPHVALFTFDGLDELHSDDLRSVPDSSCPWEPAHPLVLLA
NLLSGKLLKGASKLLTARTGIEVPRQFLRKVLLRGFSPSHLRAYARRMFPERALQDRLLSQL
EANPNLCSLCVPLFCWIIFRCFQHFRAAFEGSPQLPDCTMTLTDVLLVTEVHLNRMQPSSLV
QRNTRSPVETLHAGRDTLCSLGQVAHRGMEKSLFVFTQEEVQASGLQERDMQLGFLRALPEL
GPGGDQQSYEFFHLTQAFFTAFFVLDDRVGTQELLRFFQEWMPPAGAATTSCYPFLPFQC
LQGSGPAREDLFKNKDHQFTNLFCGILLSAKQKLLRHLVPAAALRRRKALWAHLFSSLR
GYLKSLPRVQVESFNQVQAMPTFIWMLRCIYETQSQKVGQLAARGICANYKLTYCNACSA
DCSALSFVLHHFPKRLALLDNNNLNDYGVRELQPCFSRLTVLRLSVNQITDGGVKVLSEELT
KYKIVTYLGLYNNQITDVGARYVTKILDECKGLTHLKGKNKITSEGGKYLALAVKNSKSISE
VGMWGNQVGDEGAKAFAEALRNHPSLTTLASNGISTEGGKSLARALQQNTSLEILWLTQ
NELNDEVAESLAEMLKVNQTLKHLWLIQNQITAKGTAQLADALQSNTGITEICLNGNLIKPEE
AKVYEDEKRIICF

>DP00475|Q6Q547|#17-38 #42-58

MHLMYTLGPDGKRIYTLKKVTESGEITKSAHPARFSPDDKYSRQRTLKKRFLVPGQ

>DP01077|P14907|#1-607

MNFNTPQQNKTPFSFGTANNNSNTTNQNSSTGAGAFGTGQSTFGFNN SAPNNTNNANSSITP
AFGSNNTGNTAFGNSNPTSNVFGSNNSTNTFGNSAGTSLFGSSSAQQTKSNGTAGGNTFGS
SSLFNNNSTNSNTTKPAFGGLNFGGNNTPSSTGNANTSNNLFGATANANKPAFSFGATTND
DKKTEPDKPAFSFNSSVGNKTDAQAPTTGFSFGSQLGGNKT VNEAKPSSLFGSGSAGANPA
GASQPEPTTNEPAKPALSFGTATSDNKTNTTFSFGAKSDENKAGATSKPAFSFGAKPEEK
KDDNSSKPAFSFGAKSNEDKQDGTAKPAFSFGAKPAEKNNNETSKPAFSFGAKSDEKKDGA
SKPAFSFGAKPDENKASATSKPAFSFGAKPEEKDDNSSKPAFSFGAKSNE DQDGTAKPAFS
FGAKPAEKNNNETSKPAFSFGAKSDEKKDGDASKPAFSFGAKSDEKKDSDSSKPAFSFGTKS
NEKKDSGSSKPAFSFGAKPDEKKNDEVSKPAFSFGAKANEKKEDES SKA SFSGSKPTGKEEG
DGAKAAISFGAKPEEQKSSDTSKPAFTFGAQKDNEKKT EESSTGKSTADVKSSDSLKLNSKPV
ELKPVSLDNKTLDDLVTKWTNQLTESASHFEQYTKKINSWDQVLVKGGEQISQLYSDAVMA
EHSQN KIDQSLQYIERQQDELENFLDNFETKTEALLSDVVSTSSGAAANNDQKRQQAYKTA
QTLDENLNSLSSNLSSLIVEINNVSN FNKTTNIDINNEDENIQLIKILNSHFDALRS LDDNSTSL

EKQINSIKK

>DP01071|O23764|#1-422

MESQLHRPTEQEVMEGQTADHGEKKSMIAVKKEAKKLKGSIKKHGSSQDDADNDEI
NTSPAVHGAPGTSSPPPTQGGEYGLSERDVNIPHPLASTQANLDKPADVTASRELQVPPP
PETTPEVSDKLGEDLGNSAGQGVKESDVSLSLTQGLGVNYGGDDSNPLSGQEHTISDEPK
SLPGQGNDLPQSHPSSEDEPKFDANDQPQSMQDTITGKLSSVPAAIDRAAAKNVVASKL
GYGGSQAQESAADAGAAQQKKPLTETAAEYKNLVAEKLTPVYEKVAGAGSTVTSKVWGSG
GTTAGEQTQGGEGVVDGGAASNKGVFTKDYLSEKLPGDEDKALSQAIMEKLQLSKPAV
EGGAGDETKASESSPGVVGTIKGAVGSLIGGNKSSGAESAAAADEQTQALGE

>DP01543|P84634|#735-752

MRDEVDSLTLTIPSKLLGKRDREQNKCEEEKNKNKAKKQQKDPILLHTSAATHKFLPPPLTM
PYSEIGDDLRSLLDFDADVSDLHLTSSSVSSFSSSSSLFSAAGTDDPSPKMEKDRKIARRY
QVELCKKATEENVIVYLGTGCGKTHIAVMLIYELGHLVLSPKKSVCIFLAPTVLVEQQAKVI
ADSVNFKVAIHCGGKRIVKSHSEWEREIAANEVLVMTPQILLHNLQHCFIKMECISLLIFDECH
HAQQQSNHPYAEIMKVFYKSESLQRPRIFGMTASPVGKGSFQSENLSKSINSLENLLNAKVY
SVESEVQLDGFVSSPLVKVYYYRSALSDASQSTIRYENMLEDIKQRCLASLKLIDHTQTQL
LSMKRLLKRSHDNLIYTLLNLGLWGAIQAAKIQLNSDHNVQDEPVGKNPKSKICDTYLSMAA
EALSSGVAKDENASDLLSLAALKEPFLSRKLVQLIKILSVRLEPHMKCIIIFVNRIVTARTLSCI
LNNLELLRSWKSDFLVGLSSGLKSMSRRSMETILKRFQSKELNLLVATKVGEEGLDIQTCCLV
IRYDLPETVTSFIQSRRGRARMPQSEYAFLVDSGNEKEMDLIENFKVNEDRMNLEITYRSSEETC
PRLDEELYKVHETGACISGGSSISLLYKYCSRAPHDEFFQPKPEFQFPVDEFGGTICRITLPAN
APISEIESSLLPSTEAKKDACLKAVHELHNLGVNDLFLPDSKDEIEDELSDEFDFDNKGE
GCSRGLDYEMRPVLFQKWKDPSTSCVNLHSYYIMFVPHPADRIYKKFGFFMKSPPLPVEAET
MDIDLHLAHQRSVSVKIFPSGVTEFDNDEIRLAELFQEIALKVLFERGELIPDFVPLELQDSSRT
SKSTFYLLLPLCLHDGESVISVDWTIRNCLSSPIKTPSVLVEDIFPPSGSHLKLANGCWNIDD
VKNSLVFTTYSKQFYFVADICHGRNGFSPVKESTKSHVESIYKLYGVELKHPAQPLLRVKPL
CHVRNLLHNRMQTNLEPQELDEYFIEIPPELSHLKIKGLSKDIGSSLPSIMHRMENLLVAIE
LKHVLSASIPEIAEVSGHRVLEALTTEKCHERLSLERLEVLGDAFLKFAVSRHLFLHDSLDEG
ELTRRRSNVNNNSNLCRALAIKKNLQVYIRDQALDPTQFFAFGHPCRVCDEVASKEVHSLNR
DLGILESNTGEIRCSKGHHWLYKKTIADVVEALVGAFLVDSGFKGAVKFLKWIGVNVDFFESL
QVQDACIASRRYLPLTRNNLETLENQLDYKFLHKGLVQAFIHPSYNRHGGCYQRLEFLG
DAVLDYLMTSYFFTVPFKLPGQLDLRSLSVNNEALANVAVSFSLKRLFCESIYLHEVIED
YTNFLASSPLASGQSEGPRCPKVLGDLVESCLGALFLDCGFNLNVWTTMMLSFLDPVKNLSN
LQISPIKELIELCQSYKWDREISATKKDGAFTVELKVTNGCCLTVSATGRNKREGTKAAQL
MITNLKAHENITTSHPLEDVLKNGIRNEAKLIGYNEDPIDVVDLVGLDVENLNILETFGGNSER
SSSYVIRRGLPQAPSCTEDRLPQKAIKAGGSSKTAKSLLHETCVANCWKPPHFECCEECPG
HLKSFVYKVILEVEDAPNMTLEYGEARATKKGAAEHAQAAIWCLKHSGFLC

>DP00663|P81558|#1-171

ASQKRPSQRHGSKYLASASTMDHARHGLPRHRDTGIDSLGRFFGADRGAPKRGSGKDGH
AARTTHYGLPQKAQHGRPQDENPVVHFFKNIVTPRTPPPSQKGRGLSLSRFSWGAEGQKP
GFGYGGRAPDYKPAHKGLKGAQDAQGTLISKIFKLGGRDSRGSPMARR

>DP00712|Q9UGL1|#115-129 #159-165 #188-199

MEAATTLHPGPRLPLGGPGPLGEFLPPPECPVFEPSEEFADPFIFIHKIRPIAEQTGICKVR
PPPFWQPPFACDVDKLHFTPRIQRLNELEAQTRVKLNFLDQIAKYWELQGSTLKIPHVERKIL
DLFQLNKLVAEEGGFAVCKDRWTKIATKMGFAPGKAVGSHIRGHYERILNPYNLFLSGDS
LRCLQKPNLTTDKKEYKPHDIPQRQSVQPSETCPPARRAKRMRAEAMNIKIEPEETTEART
HNLRMMGCPTPKCENEKEMKSSIKQEPIERKDYIVENEKEPKRSRKKATNAVADLYVCLLC

GSGNDEDRLLLCDGCDDSYHTFCLIPPLHDVPKGDWRCPKCLAQECSPQEAFFEQARDY
TLRTFGEMADAFKSDYFNMPVHMVPTELVEKEFWRLVSTIEEDVTVEYGADIASKEFGSGFP
VRDGKIKLSPEEEYLDGWNLNMPVMEQSVLAHITADICGMKLPWLYVGMCFSSFCWHI
EDHWSYSINYLHWGEPKTWYGVPGYAAEQLENVMKKLAPELFVSQPDLLHQLVTIMNPNTL
MTHEPVYRTNQCAGEFVITFPRAYHSGFNQGFNAEAVNFCTVDWLPLGRQCVEHYRLLH
RYCVFSHDEMICKMASKADVLVVVASTVQKDMAIMIEDEKALRETRVKLGVIDSERMDFE
LLPDDERQCVKCKTCFMSAISCCKPGLLVCLHHVKELCSCPYPKYKLRYRYTLLDDLYPM
NALKLRAESYNEWALNVNEALEAKINKKSLVSFKALIEESEMKKFPNDLLRHLRLVTQDA
EKCASVAQQLLNGKRQTRYRSGGGKSQNQLTVNELRQFVTQLYALPCVLSQTPLLKDLLNR
VEDFQQHSQKLLSEETPSAAELQDLDVSFEFDVELPQLAEMRIRLEQARWLEEVQQACLDPS
SLTLDDMRRLIDLGVGLAPYSAVEKAMARLQELLTVSEHWDDKAKSLKARPRHSLNSLAT
AVKEIEEIPAYLPNGAALKDSVQRARDWLQDVGLQAGGRVPVLDTLIELVTRGRSIPVHLNS
LPRLETLVAEVQAWKECAVNTFLTENSPEISLLEVLCPRCDIGLLGLRKQRKLKEPLPNGKK
KSTKLESLSDLERALTESKETASAMATLGEARLREMEALQSLRLANEKLLSPLQVDIKICL
CQKAPAAPMIQCELCRDAFHTSCAVPSISQGLRIWLCPHCCRSEKPPLEKILPLLASLQRIRV
RLPEGDALRYMIERTVNWQHRAQQQLLSSGNLKFVQDRVGSGLLYSRWQASAGQVSDTNKV
SQPPGTTSFSLPDDWDNRTSYLHSPFSTGRSCIPLHGVSPEVNELLMEAQLLQVSLPEIQELYQ
TLLAKPSPAQQTDRSSPVRPSSEKNDCCRGKRDGINSLERKLKRRLEREGLSSERWERVKKM
RTPKKKKIKLSHPKDMNNFKLERERSYELVRSATHSLPSDTSYSEQEDSEDEDAICPAVSCL
QPEGDEVWVQCDGSCNQWFHQVCVGVSPEMAEKEDYICVRCTVKDAPSRK

>DP00041|P07746|#1-204

MGKDPRKPRGKMSSYAYFVQTRREEHKKHPEASVNFSKKCSERWKTMSAKEKGKFED
LAKLDKVRYEREMRSYIPPGEKKRKFDPNAPKRPSAFFIFCADFRPQVKGETPGLSIGDV
AKKLGEKWNNLTAEDKVPYEKKASRLKEKYEKDITAYRNKGKVPVSMPAKAAAPAKDDDD
DDDDDDDDDEDDDDDDDEDDE

>DP00465|Q57696|#22-29

MIEKLAIEIRKKIDEIDNKILKLLAERNSLAKDVAEIKNQLGIPINDPEREKIYDRIRKLCKEHN
VDENIGIKIFQILIEHNKALQKQYLEETQNKNKK

>DP00372|Q9NR00|#1-106

MKAKRSHQAVIMSTSLRVSPSIHGYYHFTASRKKAVGNIFENTDQESLERLFRNSGDKKAEER
AKIIFAIQDVEEKTRALMALKRTDKLFQFLKLRKYSIKVH

>DP00044|P02259|#1-24 #99-109

MTESLVLSPAPAKPKRVKASRRSASHPTYSEMIAAIRAEKSRRGSSRQSIQKYIKSHYKVGH
NADLQIKLSIRRLLAAGVLKQTGVGASGSFRLAKSDKRSPGKKKAVRRSTSPKKAARP
RKARSPAKPKATARKARKKSRAFPKAKKPKTVKAKSRKASKAKKVKRSKPRAKSGARK
SPKKK

>DP02528|Q80UG2|#920-1229 #1004-1229

MKAMPWNWTCLLSHLLVVGMSSTLLPRQPPQLSQKPSFVTFRGEPAEGFNHLVVDERTGHI
YLGAVNRIYKLSSDLKVLVTHQTGPDEDNPCKYPPRIVQTCNEPLASTNNVNKMILLIDYKEN
RLIACGSLYQGICKLLRLEDFKLGEPFHKKEHLSGVNESGSVFGIVSYSNFDDKLFIAITAV
DGKPEYFPTISSRKLTKNSEADGMFAYVFHDEFVASMIKIPSDFTVIPPDFDIYYVYGFSSGNF
VYFLTLQPEMVSPPGSTTKEQVYTSKLVRLCKEDTAFNSYVEVPIGCERNGVYRLLQAAYL
SKAGAVLGRTLGVRPDDLLFTVFSKGQKRMKSLDESALCIFILKQINDRIKDRLQSCYRGE
GTLDLAWLKVKDIPCSSALLTIDDNFCGLDMNAPLGVSEMVRGIPVFTEDRDRMTSVIAYVY
KNHSLAFVGTSGKLKKIRDGPKGNALQYETVQVVDSGPVLRDMAFSKDHEQLYIMSERQ
LTRVPVESCQYRSCGECLSGGDPHCGWCVLHNTCTRKERBERSREPRRFASEMKQCVRLT
VHPNNISVSQYNVLLVLETYNVPELSAGVNCTFEDLSEMDGLVIGNQIQCYSPPAAKEVPRIITE

NGDHVVQLQLSKETGMTFASTSFVFYNCSVHNSCLSCVESPYRCHWCKYRHVCTHDPT
CSFQEGRVKLPEDCPQLLRVDKILVPVEVIKPITLKAKNLPQPQSGQRGYECILNIQGIEQRVPA
LRFNSSSVQCQNTSYSEGMEINNLPVETVVWNGHFIDNPQAQNKVYLYKCGAMRESCGL
CLKADPDFECGWCQSPGQCTLRQHCPAHESRWLELSGANSKCTNPRITEIIPVTGPREGGT
TIRGENLGLEFRDIASHVKVAGVECSPLVDGYIPAEQIVCEMGEAKPSQHAGFVEICAVCRP
EFMARSSQLYYFMTLTLADLKPNRGPMGGTQVTITGTNLNAGSNVVVMFGSQPCLFHRRSP
SYIICNTTSSEEVLDMKVTQVDRARIRQDLVFQYVEDPTIVRIEPEWSIVSGNTPIAVWGTHL
DLIQNPQIRAKHGGKEHINICEVLANATEMCQAPALALGPDHQSDLTERPEEFGFILDNVQSLL
ILNKTNFTYYPNPVEAFSPSGILELKPGTPILKGKNLIPPVAGGNVKLYTVLVGEKPCTVTV
SDVQLLCESPNLIGRHVKMARVGGMEYSPGMVIAPDSPLSLPAIVSIAVAGGLIIIFIAVLLA
YKRKSRESDLTLKRLQMMDNLESRVALECKEFAELQTDIHETSDLDGAGIPFLDYRTYT
MRVLFFGIEDHPVLRDLEVPGYRQERVEKGLKLFAQLINNKVFLLSFIRTLESQRSFSMRDRG
NVASLIMTVLQSKLEYATDVLKQLLADLIDKNLESKNHPKLLRRTESVAEKMLTNWFTFLL
YKFLKECAGEPLFLCAIKQQMEKGPIADTGEARYSLSEDKLIRQQIEYKTLVLSCVSPDNV
NSPEVPVKILNCDDTITQVKEKILDAIFKNVPCSHRPKAADMDEWRQSGARMILQDEDITTKI
ENDWKRLNTVAHYQVPDGSVALVSKQVTAYNAVNNSTVSRTSASKYENMIRYTGSPDSL
SRTPMITPDLESGVWLWHVKNHEHGDQKEGDRGSKMVSEIYLTRLLATKGLQKFVDDLFE
TIFSTAHRGSALPLAIKYMFDFLDEQADKHGIIDPHVRHTWKSNCPLRFWVNMIKNPQFVF
DIHKNSITDACLSSVVAQTFMDSCSTSEHRLGKDSPSNKLLYAKDIPSYKNWVERYYSIGKMP
AISDQDMNAYLAEQSRMHMNEFTMSALSEIFS YVGKYSEEILGPLDHDDQCGKQKLAYKL
EQVITLMSLDS

>DP02158|P36161|#1-55

MSEKKVHLRLRKELSVPIAVVENESLAQLSYEEESQASLMDISMEQQQLRLHSFDNSKVFT
NNRYIVKTLQTDYSSGSNDDELNGYIDMQIGYGLVNDHKVYIWNIHSTQKDTPYITVPFR
DDNDEIAVAPRCILTFPATMDESPLALNPNDQDETGLIIKGSKAIYYEDINSINNLNFKLSEK
FSHELELPINSSGGEKCMLNCEPAGIVLSTMGRIFFITIRNSMGKPQLKLGKLLNKPFKLGI
WSKIFNTNSSVSLRNGPILKGTRLVYITTNGIFQTWQLSATNSHPTKLIDVNIYEAILSQ
DLYPFAHGLKIWDSSHPLQDESSQLFLSSIYDSSCNETYIYLSTIIFDSSNSFTFSTYRLNTFME
SITDTKFKPKIFIPQMNENANDTNEVTSILVMFPNAVITQVNSKLDSSYSMRRKWEDIVSLRND
IDIIGSGYDSKSLYVLTQMGVLQFFVKENEETNSKPEVGFKSHVDQAVFSKINANPIDFN
LPPEISLDQESIEHDLKLTSEEIFHSNGKYIPPMLNTLGQHLSVRKEFFQNFLTVAKNFNYKISP
ELKLDLIEKFEILNCCIKFNSIIRQSDVLNDIWEKTLNSYNLTQNEHLLTCKTVVINS
QFLNHVVFLFPSQNQNFKNVTNLINLCFYDGLLEEGERKITYELLEDPMEVDTSKLPWF
FDYLNCINQCFFDFTFACEEEGSLDSYKEGLLKIVKILYYQFNQFKIWINTQPVKSVNANDNFI
NINNLYDDNHLDWNHVLCKVNLKEQCIQIAEFYKDLGQVQLDQNDSTTVSLYETFFN
EFPKEFSFTLFYLIHKKLNLDLIFRFPQHQHDLIQFFQESAPKYGHVAWIQQILDGSYADAMN
TLKNITVDDSKKGESLSECELHNVAKLSSLVEKDNLINTLRKIQYNLDTIDAENKISNKLK
KGEVQICKRFKNGSIREVFNILVEELKSTTVVNLSDLVELYSMLDDEESLFIPLRLSVDGNLL
NFEVKKFLNALVWRRIVLLNASNEGDKLLQHIVKRFDEELPKNNDFPLPSVDLLCDKSLLTP
EYISETYGRFPIDQNAIREEYIYEEISQVETLNSDNSLEIKLHSTIGSVAKEKNYTINYETNTVEY
>DP00375|P50465|#215-222

MPEGPEIRRAADNLEAAIKGKPLTDVWFAPQLKPYQSQLIGQHVTHVETRGKALLTHFSND
LTLYSHNQLYGVWRVVDTGEEPQTRVRLVQLQTADKTILLYSASDIEMLTPEQLTTHPFLQ
RVPDVLDPLNTPEVVKERLLSPRFRNRQFAGLLDQAFLAGGNYLRLVEILWQVGLTGNHK
AKDLNAAQLDALAHALLEIPRFSYATRGQVDENKHHGALFRFKVFHRDGEPCERC
GSIIEKTT
LSSRPFYWCPGCQH

>DP00644|P22362|#1-23 #24-31

MQIITALVCLLAGMWPEVDVKSMQVFSRCCSFAEQEIPRLAILCYRNTSSICSNEGLIFK
LKRGKEACALDTVGVWVQRHRKMLRHCPSKRK
>DP00623|P83949|#1-216 #235-286

MNSYFEQASGFYGHPHQATGMAMGSGGHHDQTASAAAAAYRGFPLSLGMSPYANHHLQRT
TQDSPYDASITAACNKIYGDGAGAYKQDCLNIKADAVNGYKDIWNTGGSNGGGGGGGGG
GGGAGGTTGAGNANGNAANANGQNNPAGGMPVRPSACTPDSRVGGYLDGGSPVSHR
GGSAGGNVSVSGGNAGGVQSGVGVAGAGTAWNANTISGAAQTAASSLHQASNHTF
YPWMAIAGECPEDPTKSKIRSDLTQYGGISTDMGKRYSESLAGSLLPDWLTNGLRRGRQT
YTRYQTLELEKEFHTNHYLTRRRRIEMAHALCLTERQIKIWQFNRRMKLKKEIQAIELNEQE
KQAQAQKAFFFFFFAVQGGHLDQ
>DP02078|P02686-5|#1-171

MASQKRPSQRHGSKYLATASTMDDHARHGFLPRHRTDGILDSIGRFFGGDRGAPKRGSGKDHS
HPARTAHYGSLPQKSHGRKTQDENPVVHFKNIVTPRTPPPSQKGRLSLSRFSGAEGQRP
GFGYGRASDYKSAHKGFKGVDDAQTLSKIFKLGGRDSRSGPMMARR
>DP00730|P02631|#1-8 #51-62 #91-96

MSITDILSAEDIAAALQECQDPDTFEPQKFFQTSGLSKMSASQVKDIFRFIDNDQSGYLDGDEL
KYFLQKFQSDARELTESETKSLMDAADNDGDGKIGADEFQEMVHS
>DP02065|Q9Y7M4|#56-69

MESAQAVAEPPLDLVRLSLDEIVYVLRGDRELNGRLHAYDEHLMVLGDAEEIVTIFDDEET
DKDKALKTIRKHYEMLFVRGDSVILIAPPN
>DP00304|P31751|#190-201 #297-312 #441-481

MNEVSVIKEWLHKGREYIKTWRPRYFLLKSDGSFIGYKERPEAPDQTLPLNNFSVAECQL
MKTERPRPNTFIRCLQWTTVIERTFHVDSPDEREEWMRAIQMVANSLKQRAPGEDPMYK
CGSPSDSSTTEEMEVAVSKARAKVTMNDFDYLKLLKGKTFGKVILVREKATGRYYAMKILR
KEVIIAKDEVAHTVTESRVLQNTRHPFLTALKYAFQTHDRLCFVMYEANGGELFFHLSRERV
FTEERARFYGAEIVSALEYLHSRDVVYRDIKLENLMLDKDGHIKITDFGLCKEGISDGATMKT
FCGTPEYLAPEVLEDNDYGRAWDWWGLGVVMYEMMCGRLPFYNQDHERLFELILMEEIRFP
RTLSPEAKSLLAGLLKKDPKQRLGGGPSDAKEVMEHRRFLSINWQDVVQKLLPPFKPQVTS
EVDTRYFDDEFTAQSITITPPDRYDSLGLLELDQRTHTFPQFSYSASIRE
>DP00357|P62328|#1-44

MSDKPDMAEIEKFDSKLKKTETQEKNPLPSKETIEQEKGAGES
>DP00980|P36595|#60-142

MSDYEEDEAFGMDGAVMEEEVDELEMIDENGQSQQGVSHPGEPSTTVITEDVASSKTAQSG
KAVAKEDRTTPYMTKYERARILGTRALQISMNAPVLVDLEGTDPLQIAMKELAQKKIPLL
VRRYLPDGSYEDWSVAELI
>DP01503|P32867|#192-265

MSYNNPYQLETPFEESYELDEGSSAIGAEGHDFVGFMNKISQINRDLDKYDHTINQVDSLHKR
LLTEVNEEQASHLRHSLDNFVAQATDLQFKLKNEIKSAQRDGIHDTNKQAQAENSQRFLKL
IQDYRIVDSNYKEENKEQAKRQYMIQPEATEDEVEAAISDVGGQQIFSQALLNANRRGEAKT
ALAEVQARHQELLKLEKSMAELTQLFNDMEELVIEQQENVVIDKNVEDAQLDVEQGVGHT
DKAVKSARKARKNICKWLIVFAIVVVVVVVPAVKTR
>DP00876|P14340|#1-100

MNNQRKKARNTPNMLKRERNRVSTVQQLTKRFSLGMLQGRGPLKLFMALVAFLRFLTIPPT
AGILKRWGTTIKSKAINVLRGFRKEIGRMLNILNRRRTAGMIMLIPTVMAFHLLTRNGEPh
MIVSRQEKGKSLLFKTEDGVNMCTLAMADLGELEDTITYKCPFLKQNEPEDIDCWCNSTST
WVTYGTCTTGEHRREKRSVALVPHVGMGLETRTETWMSSEGAWKHAQRIETWILRHPGFT
IMAAILAYTIGTHFQRALIFILLTAVAPSMTMRCIGISNRDFVEGVSIGSWVDIVLEHGSCVT

TMAKNKPTLDFELIETEAKQPATLRKYCIEAKLTNTTDSRCPTQGEPSLNEEQDKRFVCKHS
MVDRGWGNGCGLFGKGIVTCAMFTCKKNMKGKVQOPENLEYTIVITPHSGEEHAVGNDT
GKHGKEIKITPQSSITEAELTGVTMECSPRTGLDFNEMVLLQMenKAWLVRQWFLDLP
LPWLPGADTQGSNWIQKETLVTFKNPHAKKQDVVLGSQEGAMHTALTGATEIQMSSGNLL
FTGHLKCRRLMDKLQLKGMSYSMCTGKFVKEIAETQHGTIVIRVQYEGDGSPCKIPFEIM
DLEKRHVLGLRILTVNPIVTEKDSPVNIEAEPPFGDSYIIIGVEPGQLKLNWFKKGSSIGQMIETT
MRGAKRMAILGDTAWDFGSLGGVFTSIGKALHQVFGAIYGAAFSGVSWIMKILIGVIITWIGM
NSRSTSLSVSLVGVVTLYLGVMVQADSGCVVSKNELKGCGSIFITDNVHTWTEQYKF
QPESPSKLASAIQKAHEEGICGIRSVTRLENLMWKQITPELNHILSENEVKLTIMTDIKGIMQ
AGKRSLQPQPTELKYSWKTWGAKMLSTESHNQTFLIDGPETACCPNTNRAWSLEVEDYG
FGVFTTNIWLKLREKQDVFCDSKLMSSAIDNRAVHADMGYWIESALNDTWKIEKASFIEVK
SCHWPKSHTLWSNGVLESEMIIPKNAFAGPVSQHNYRPGYHTQTAGPWHLGKLEMDFDFCEG
TTVVVTEDCGNRGPSLRTTASGKLITEWCCRSCTLPLRYRGEDGCWYGMEIRPLKEKEEN
LVNSLVTAGHQIDNFSLGVLGMALFLEEMLRTRVGTKHAILLVAVSFVTLITGNMSFRDLG
RVMVMVGATMTDDIGMGVTYLALLAAFKVRPTFAAGLLRKLTSELMMTTIGIVLLSQSTI
PETILETDALALGMMVLKMVRKMEKYQLAVTIMAILCVPAVILQNAWKVSTILAVVSVS
PLFLTSSQQKADWIPLALTIGLNPTAIFLTLSRTNKKRSPNLEAIMAVGMVSILASSLLKN
DIPMTGPLVAGGLLTVCYVLTGRSADLELERAADVWKEDQAEISGSSPILSITISEDGSMSIKN
EEEEQTLTILIRTGLLVISGLFPVSIPITAAAWYLWEVKKQRAGVLWDVPSPPPVGKAELEDGA
YRIKQKGILGYSQIGAGVYKEGTFTMWHVTRGAVLMHKGRKIEPSWADVKKDLISYGGG
WKLEGWKEGEEVQVLALEPGKNPRAVQTKPGLFKTNAGTIGAVSLDFSPGTSGSPIIDKKG
KVVGLYNGVVTRSGAYVSAIAQTEKSIEDNPEIEDIFRKRKLTIMDLHPGAGKTKRYLPAI
VREAIKRGLRTLILAPTRVVAEMEEALRGLPIRYQTPAIRAEHTGREIVDLMCHATFTMRL
SPVRVPNLYNLIIMDEAHFTDPASIAARGYISTRVEMGEAAGIFMTATPPGSRDPFPQSNAPIMD
EEREIPERSWSSGHEWVTDKGTVWFVPSIKAGNDIAACLRNGKKVQLSRKTFDSEYVK
TRTNDWDFVVTTDISEMGANFKAERVIDPRRCMKPVILTDGEERVILAGPMPVTHSSAAQRR
GRIGRNPKNENDQYIYMGEPLENDEDCAHWKEAKMLLDNINTPEGIIPSMFEPEREKVD
EYRLRGEARKTFVDLRRGDLPVWLAYRVAEAGINYADRRWCDFGIKNNQILEENVEVEIW
TKEGERKKLKPRLDAKIYSDPLALKEFKEAGRKSITLNLTGRLPTFMTQKARDALD
NLAVLHTAEAGGRAYNHALSELPETLETLLLTLATVTGGIFLFLMSGRGIGKMTLGMCCII
TASILLWYAQIQPHWIAASIILEFFLIVLLIPEPEKQRTPQDNQLTYVVIALTVAATMANEMG
FLEKTKKDLGLGSITTQQPESNILDIDLRPASAWTLYAVATTFTPMLRHSIENSSVNSLTAI
ANQATVLMGLKGWPLSKMDIGVPLLAIGCYSQNPITLTAALFLVAHYAIIGPGLQAKAT
REAQKRAAAGIMKNPTVDGITVIDLDPIYDPKFEKQLGQVMLVLCTVQVLMRTTWALC
EALTLATGPSTLWEGNPGRFWNTTIAVSMANIFRGSYLAGAGLLFSIMKNTNRRGTGNIG
ETLGEKWKSRLNALGKSEFQIYKKGSIQEVDRTLAKEGIKRGETDHAVSRGSAKLRWFVER
NMVTPEGKVVVDLGCGRGGWSYYCGGLKNVREVKGTLKGGPGHEEPIPMSYGWNLVRLQS
GVDVFFTPEKCDTLLCDIGESSPNPTVEAGRTLRLNLVENWLNNTQFCIKVLPYMP
EKMEALQRKYGGALVRNPLSRNSTHEMYWLSNASGNIVSSVNMISRMLINRFTMRHKKATY
EPDVDLGSGTRNIGIESEIPNLDIIGKRIEIKIKQEHEETSWHYDQDHPYKTWAYHGSYETKQTGS
ASSMNGNVVRLLTkpWVPMVTQMAMTDTPFGQQRKFKEVDTRTQEPKEGTKKLMKI
TAEWLWKELGKKKTPRMCTREEFRKVRSAALGAIFTDENKWKSAAREAVEDSRFWELVD
KERNLHLEGKCETCVYNNMMGKREKKLGEFGKAKGSRAIWYMWLGARFLEFEALGFLNEDH
WFSRENSLSGVGEGLHKLGYILRDVSKKEGGAMYADDTAGWDTRITLEDLKNEEMVTNH
MEGEHKKLAEAIFKLTYQNKVVRVQRPTPRGTVMIDIISRRDQRGSGQVGTYGLNTFTNMEA
QLIRQMEGEGVFKSIQHLTTEEIAVQNWLARVGRERLSRMAISGDDCVVKPLDDRFA
ALNDMGKVRKDIQQWEPSRGWNDWTQVPCSHHFHELIMKDGRVLVVPCRNQDELIGRARI

SQGAGWSLREACLGKSYAQMWSLMYFHRRDLRLAANAICSAVPSHWVPTSRTWSIHAK
HEWMTTEDMLTVWNRVWIQENPBMEDKTPVESWEEIPYLGKREDQWCGLIGLTSRATWA
KNIQTAINQVRSLIGNEEYTDYMPSMKFRKEEEEAGVLW

>DP00284|P16009|#129-179 #339-389

MEMISNNLNWFVGVEDRMDPLKLRVRRVVLHPPQRAQGDVMGIPTEKLPWMSVIQPI
TSAAMSGIGGSVTGPVEGTRVYGHFLDKWKTNGIVLGTYGGIVREKPNRLEGFSDPTGQYPR
RLGNDTNVLNQGEVGYDSSNVIQDSNLDTAINPDDRPLSEIPTDDNPMSMAEMLRDEG
LRLKVYWDTEGYPTIGIGHLIMKQPVRDMAQINKVLSKQVGREITGNPGSITMEEATTLFERD
LADMQRDIKSHSKVGPVWQAVNRSRQMALENMAFQMGVGGVAKFNTMLTAMLADWEK
AYKAGRDSLWYQQTKGRASRVTMILTGNLESYGVEVKTPARSLSAMAAATVAKSSDPADPPI
PNDSRILFKEPVSSYKGEYPYVHTMETESGHIQEFDPTGQERYRLVHPTGTYEEVSPSGRRT
RKTVDNLYDITNADGNFLVAGDKKTNVGSEIYYNMDNRLHQIDGSNTIFVRGDETKTVEG
NGTILVKGNVTIIVEGNADITVKGDATTLVEGNQNTVNGNLSWKVAGTVWDVGGDWTE
KMASMSSISSLGQYTIDGSRIDIG

>DP02510|P09327|#360-613

MTKLSAQVKGSNITTPLQIWRRIAMQMVPVPSSTFGSFFDGDCYIILAIHKTASSLSYDIHY
WIGQDSSLDEQAAIYTTQMDDFLKGRAVQHREVQNESEAFRGYFKQGLVIRKGGVASG
MKHVETNSYDVQRLLHVKGKRNVVAGEVEMSWKSFRNGDVFLDLGKLIQWNGPESTRM
ERLRGMLAKEIRDQERGGRTYGVVVDGENELASPKLMEVMNHVLGKRRELKAAPDVTVV
EPALKAALKLYHVSDEGQLVVRREVATRPLTQDLLSHEDCYILDQGGLKIFYVWKGKKANEQ
EKKGAMSHALNFIAKQYPPSTQEVQNDGAESA VFQQLFQKWTASNRTSGLGKHTVGSV
AKVEQVKFDATSMHVKPQVAQQKMQVDDGSGEVQVWRIENLELVPVDSKWLGHFYGGDC
YLLLYTYLIGEKQHYLLYVWQGSQASQDEITASAYQAVIDQKYNGEPVQIRVPMGKEPPHL
MSIFKGRMVVYQGGTSRTNNLETGPSTRLFQVQGTGANNTKAFEVPARANFLNSNDVFLK
TQSCCYLWCGKGCSGDEREMAKMVA DTISRTEKQVVVEGQEPANFWMALGGKAPYANTK
RLQEENLVITPRLFECNSKTKRFLATEIPDFNQDDLEEDDVFLDVWDQFFWIGKHANEEEK
KAAATTAAQEYLKTHPSGRDPETPIIVVKQGHEPPTFTGWFLAWDPFKWSNTKSYEDLKAELG
NSRDWSQITAEVTPKVDFVNANSNLSSGPLPIFPLEQLVNKPVEELPEGVDPSRKEEHLSED
TQAFCGMPAAFSALPRWKQQNLKEKGLF

>DP01022|Q6URW6|#1954-2000

MAAVTMSVSGRKVASRPGPVPEAAQSFLYAPRTPNVGGPGGPQVEWTARRMVWVPSLHG
FEAAALRDEGEEEAEVELAESGRRLRLPRDQIQRMNPPKFSKAEDMAELTCLNEASVLHNLR
ERYYSGLIYTYSGLCVVINPYKQLPIYTEAIVEMYRGKKRHEVPPHVYAVTEGAYRSMLQD
REDQSILCTGESGAGKTENTKKVIQYLAHVASSPKGRKEPGVPASVSTMSYGELERQLQAN
PILEAFGNAKTVKNDNSSRGKFIRINFIDIAGYIVGANIETYLLLEKSRAIRQAKDECFSHFIFYQL
LGGAGEQLKADLLLEPCSHYRFLTNGPSSSPGQEREELFQETLESLRVLGLLPEEITAMLRTVSA
VLQFGNIVLKKERNTDQATMPDNTAAQKLCCRLLGLVTDFSRALLTPRIKVGRDYVQKAQT
KEQADFALEALAKATYERLFRWLVLRLNRALDRSPRQGASFLGILDIA GFEIFQLNSFEQLCIN
YTNEKLQQLFNHTMFVLEQEEYQREGIPWTFLDFGLDQPCIDLIERPANPPGLLALLDEECW
FPKATDKSFVEKVAQEQQSHPKFQRPRNLRDQADFSVLHYAGKVDYKASEWLMKNMDPLN
DNVAALLHQSTDRLTAEIWDVEGIVGLEQVSSLGDGPPGGRRRGMRTVQQLYKESLSRL
MATLSNTNPSFVRCIVPNHEKragKLEPRLVLDQLRCNGVLEGIRICRQGFPNRLFQEFRQRY
EILTPNAIPKGFMDGKQACEKMIQALELDPNLYRVGQSKIFFRAGVLAQLEERDLKVTDIIVS
FQAAARGYLARRAFQRRQQQSQALRMQRNCAAYLKLRNWQWWRLFIKVKPLLQVTRQD
EVLQARAQELQKVQELQQQSAREVGELQGRVAQLEEERTLAEQLRAEAELCSEAEETRAR
LAARKQELELVVTELEARVGEEECSRQLQSEKKRLQQHQIQLQLESHLEAEGARQKLQLEKV
TTEAKMKKFEEDLLLLEDQNSKLSKERRLLEERLAEFSSQAAEEEKVKSLNKLRLKYEATIS

DMEDRLKKEEKG RQELEKL KRR LDGESELQEQMVEQK QRAEELLAQLRK EDELQA ALLR
AEEEGGARAQLKSLREAQAGLAEAQEDLEAERVARAKAEKQRDLGEELEALRGELEDTL
DSTNAQQELRSKREQEVTTELKA LEEESRAHEVSMQELRQRHSQALVEMAEQLEQARRKG
VWEKTRLSLEAEVSELKAELSSLQTSRQE GEQKRRLESQQLQEVQGRSSD SERARSEA EKL
QRAQAELESVSTALSEAESKAIRLGKELSSAESQLHDTQELLQEETRAKLALGSRVRALEAEA
AGLREQMEEVVARERAGRELQSTQAQLSEWRRQEEEAAVLEAGEEARRRAAREAETLTQ
RLAEKTEAVERLERARRRLQQELDDATVDLGQQKQLLSTLEKKQRKF DQLLAEEKA AVLRA
VEDRERIEAEGREREARALSLTRALEEQEAREEELERQN RALRAELEALLSSKDDVGKNVHE
LERARKAAEQAASDLRTQVTELEDELTA AEDAKLRLETVQALKAQHERDLQGRDDAGEER
RRQLAKQLRDAEVERDEERKQ RALAMAARKK LELEELKAQTS AAGQGKEEAVKQLKM
QVQM KELWREVEETRSSRDEMFTLSRENEKKLG LAEVLRLQEE LAASDRARRQAQQDRD
EMAEEVASGNLSKAATLEEKRQLEGRLSQLEEEELQQNSELLKDHYRKLVLQVESLTTEL
SAERSFSAKAESGRQQLERQIQLRARLGEEDAGARARQKMLIAALESKLAQAEQLEQESR
ERILSGKLVRRAEKRLKEVVLQVDEERRVADQVRDQLEKSNLRLKQLRQLEEAEEEASRAQ
AGR RRLQRELEDV TESAESMNREVTTLRNRLRRGPLTFTTRVQFRLEEGVASDEEEAEG
AEPGSAPGQEPEAPPATPQ

>DP00434|Q9SQZ9#2-12 #42-49 #54-59 #79-84 #95-104 #127-131

MSAESASQIPKGQV DLLFIDWSGVECLNQSSSHSLPNALKQGYREDEGLNLES DADEQLLIY
IPFNQVIK LHSFAIKGPEEEGP KTVKFFSNKEHM CFSNVNDPPSDTAELTEENLK GKP VVLKY
VKFQNVRSLTIFIEANQSGSEVT KVQKIALYGSTVET DMKGLK KIEDH

>DP00067|Q57733#1-32

MFG RD PFD S LFER MFKE FFAT PMT GTT M I QSS STGI QIS GKG FMP ISII EG DQ HIK VIA WLP GV NK
EDI ILNAVGDT L EIRAKR SPL MITE SERI YSEI PEE EY RTI KLP ATV KEEN ASAK FENG VLS VI
LPKA ESSIKKG INIE

>DP00006|P00004#1-104

MG DVEKG KK IFVQ KCAQ CHT VEKG GKHK TGP NLH GLF GRKT GQAP GFTY TDANK NGIT W
KEETLMEYLENPKYI PGTKM IFAGIKKTER EDLIA YLKKAT NE

>DP00552|P0AFX7#121-216

MQKEQLS ALMDGETLDSELLN ELAHNPEM QKT WES YHL IRDS MRG DTPEV LHF DISS RVMA
AIEE PV RQPATL IPEA QPAP HQWQ KMP FWQ KVR PWA QLT QMG VAC VSLA VIVGVQHY
NGQSET SQQPETPV FNTLPM MGKASP VSL GP SEAT ANNGQQQVQE QRRR INAM LQDY EL
QR RLHSEQLQF EQA QTQ QAAVQ VPGI QTL GTQS Q

>DP01391|P03520#1-60

MDNL TKV REYL KSYS RLDQ AVGE IDEIEA QRAE KSNYELF QED GVEE HTK PSYF QADD SDT
ESEPEI EDN QGLY A QDPE AEQ VEGFI QGPL DDY ADEEV DVVF TSDW K PPE L EDE HGK TLRLT
SPEGLS GEQK SQWL STIKA VVQSAK YWNLA ECTFE ASGE G VIM KER QITPDV YKVTP VMNTH
PSQSEA VSDV WSL SKT SMTF QPKK ASLQPLT ISL DELF SS RGE FIS VGGD GRMSH KEA ILL GLR
YKKLYNQARV KYSL

>DP00474|Q43125#1-12 #498-681

MSG SVSG CGSG GCS IVW FRR DLR VEDNP ALAA VRAG P VIAL FV WAPEEE GHY HPGRV SRW
WLKN SLAQLDSSLRSLGT CLIKRSTD SVAS LLDVV KST GAS QIFF NHLYDPLSLV RDHRA KD
VLTAQ GI A VR SFN ADLL YEPWE VTDEL GRPFSMFA AF WER CLS MPY DP ES PLL PP KKI ISGD V
SKC VADPLV FEDDSEKGS NALLA RAWSPG WSNGD KALTTF ING PLLEY SKN RR KADS ATT SF
LSPHL HFGEV SVR KVF HLV RI KQVA WANEG NEAGE EESV NLFL KSI GLRE YSRY IS FNHPY SHE
RPLL GH LKFPW A VDEN YFKAW RQG RTGYPLV DAGM RELW ATGWLH DRIR VV VSS FFVK V
LQLPWRWGMKYFWDTLLADLES DALGWQYITGTL PDSREFDRIDNPQFEGYKFD PN G EYV
RRWLPELSRLPTD WIHH PWNAPE SVLQ AAGIELGS NYPLPIV GLDEAKRLHEAL SQMW QLE

AASRAAIENGSEGLGDSAEVEEAPIEPRDITMEETEPRTRLNPNRRYEDQMVPSSITSSLIRPEE
DEESSLNLNRNSVGDRAEVPRNMVNTNQAQQRRAEPASNQVTAMIPEFNIRVAESTEDSTAE
SSSSGRERSGGIVPEWSPGYSEQFPSEENGIGGGSTTSSYLQNHHEILNWRRLSQTG

>DP01386|P0CU49|#1-238

MFLARNVSVALRSASLSPAAIPQQQHAGVAAVYAVRFASSSGSGRPADNWAESQKEKAKA
GLKDAQAEVGKVAREVKDKAAGGIEQAKDAVKQGANDLKRGSRFTENAKDDIQAKAQHA
KSDLKGAKHQAEVVENVKEAAENAWEKTVDVAENLKDVKQSPGGLADKAANAWETVK
DRAQDAASEVKHKAGDLDKAQVVIHDATTQSGDNRKQDQQQRDSQGSQSGQNSRSRN
>DP01497|Q9NK80#750-956

MMHKLKYRDKLKWLALLVLIGTCIQTGQTRDPRFYSRPGVDYHWPNPGDPDYRTYTFN
DRRYGHYQPNGYGANYPGRNPPGQYPQGMPNEDRFRDPNDPNARTQFPGVLAGWREDLQ
GKQRDRSLTLERDVFTTNYGQVQGFKVYMYDNPDPKSFYRPTYHSTVDRVMGECSVFLGIP
YALPPTFEGRFKPPRVHRGWQLQAVDFGPACPQPVRYTGATKGIMDMDEDCLYNVYSPK
TGAGVAQKYPVMVYIHGEFIRGASNLFQGHILASFYDVVVVTLNYRLGFLSTGDENS
GNYGILDQAMALRWVYDNIFFNGDRNSITLFGPGAGGASAGLLMVA
PQTRNIVRRVIAQSG
SALADWALIQDKYRAQNTSRVLGQLLGCSISSWKLVNCLRTGRSFYELGNAEFSPQVG
SFP WGPVLDHNFTLPGDDWYEGWREKDWRFLTPTLIRAGKFNRNIQYMTGVTTQEAAFFVA
QNESLSPYYELDGRFFDQKIREHVFVRYNTLPNGVYEAIKYM
TFWPDPPNNNTIIRDQYINM
LSDLYYRAPVDQMVKLMLEQKVPVYMYVLNTTVEALNLPQWRKYPHDIERYFLT
GAPFMD TEFFPKKEHLQRNMWTDNDRNMSHFFMQTYTNFARYGNPTPQQVLMHFQRAYQGEIRYL
NINTTYNSSILLNYRQTECAFWTQYLPTVIGVLVPTYPPTTEYWWEPKEPLQIAFWSMSVACF
FLIVLVVICCIMWRNAKRQSDRFYDEDVFIN
GELEPEQDTRGVDNAHMVTNHALRSRDNI
YEYRDSPSTKTLASKAHTDTTSLRSPSSLAMTQSSSQASLKG
ISLKETNGHLVKQSERAATP
RSQQNGSIAKVASPPVEEKRLLQPLSSTPVTQLQAEP
AKRVP
TAASVSGSSRSTTPVPSARSTT
THTTATLSSQPAQPRRTHLVEGVPQTSV

>DP00095|P00952#323-331

MDLLAELQWRGLVNQTTDEDGLRKLLNEERVTLYCGFDPTADSLHIGHLATLTMRFFQQA
GHRPIALVGGATGLIGDPSGKKSERTLNAKETVEAWSARIKEQLGRFLDFEADGNPAKIKNN
YDWIGPLDVITFLRDVGKHFSVNYMMAKESVQSRIETGISFTFSYMM
LQAYDFLRLYETEG CRLQIGGSDQWGNITAGLELIRKTGEARAFGLTIPLVTKADGT
KGKTESGTIWL
DKEKTSP YEFYQFWINTDDRDVIRYLKYFTFLSK
EEIEALEQEL
REAPEKRAAQKTL
AEETV
KLVHGEEA LRQAIRISEALFSGDIANL
TAAEIEQGF
KDVP
SFVHEGGDVPL
VELLVSAG
ISPSKRQAREDIQN GAIYVN
GERLQDV
GAILTA
EHRLEG
RFTV
IRRGKK
YYLIRYA

>DP01605|P19339#158-167 #201-211 #243-253

MYGNNNPGSN
NNNGYPPYGYNN
KSSGG
RGFGMSH
SLPSGMSRYAFSP
QDTEFS
FPSSSSRR
GYNDFPGCG
GGSG
NGGS
ANN
LGGGN
MCHL
PPMAS
NN
SLN
L
CGL
LS
GSG
S
DDLM
NDP
RA
SNTN
LIV
NYLP
QDM
TDRE
LY
Y
AL
FRA
IG
P
INT
CRIM
RDY
KTG
Y
SFG
YAF
V
DFT
SEM
DSQ
RA
IKV
LNG
IT
VRN
KRL
KVS
Y
ARP
GES
IK
DTN
LY
VT
NLP
RT
IT
DD
QLD
TIF
GK
Y
GS
IV
QKN
IL
RD
KL
TG
RPR
GVA
FV
RYN
K
REE
A
QE
A
IS
AL
NN
V
I
PEG
GS
QPL
SV
R
LA
EE
HG
K
AK
AA
H
F
MS
QM
GV
VP
AN
V
PPP
PPA
H
MAA
F
NM
M
H
GR
SI
K
SQ
QRF
QNS
H
PY
FDA
KK
FI

>DP01535|B6KJB6#337-542

MLQMARYTANICAVSICSLV
VVAL
SVG
IL
PTPD
WKDRV
KMGG
TES
GPF
VL
QVC
ASD
PLL
HD
PKER
ESG
SD
STR
GYH
GGSS
GGSS
RQ
GTT
VR
SD
AGL
SS
QSS
A
ST
SA
KT
SEN
HR
QGP
AFLT
SV
FR
KG
ET
PAL
DW
WP
YGT
LEG
AK
WHP
GQQ
KS
K
RSS
ATT
S
R
RQ
GASH
HS
GN
PG
QLP
AP
RG
GL
QPT
T
TLS
GT
GG
QP
RT
D
ST
DE
GA
A
AT
S
VIP
NR
SG
YP
QP
PV
PY
LI
H
PV
G
FL
SG
DY
R
SL
G
ML
LV
P
V
YT
AT
SV
QH
MV
GQ
PG
TI
PL
V
L
P
G
K
QE
PE
GL
V
ST
G
T
L
D
S
L
V
Y
E
PL
G
V
V
NL
G
TE
MP
NQ
G
STS
QSG
AV
A
SR
K
R
P
A
G
G
P
D
K
R
R
V
E
P
A
G
L
T
E
R
P
E
P
S
L
S
L
T
E
K
G
S
T
A
F
S
T
R
P
S
S
R
S
A
L
E
G

LTQETVEMLLDTPSYPISSVVSSPPPARKSSTSSSQHLEARLSQRGPPRTRPPFNPWSTKTGLL
ERRGVSELPPPLYIPRPLASGYRNPADSRKHSTVTPQTTPARKSSTSSSQHLEARLSQRGPPRT
RPPFNPWSTKTGLLERRGVSELPLRIVKPPTKGN

>DP01479|Q9UJX3|#1-35 #111-130 #111-131 #541-599

MDPGDAIALESSLRILYRLFESVLPPLPAALQSRMNVIDHVRDMAAAGLHSNVRLSSLLTM
SNNNPELFSPPKYQLLVYHADSLFHDKEYRNAVSKYTMALQQKKALSKTSKVRPSTGNSAS
TPQSQCLPSEIEVKYKMAECYTMLKQDKDAIAILDGIPSRQRTPKINMMILANLYKKAGQERPS
VTSYKEVLRQCPLALDAILGLLSLVKGAEVASMTMVIQTVNLWDLSVWIAYAFVHTG
DNSRAISTICSLEKKSSLRDNVDLLGSLADLYFRAGDNKNVLKFQAMQMDPYLIKGMVDY
GYLLAREGRLEDVENLGCRLFNISDQHAEPWVSGCHSFYSKRSRALYLGAKAIQLNSNSV
QALLKGAAALRNMGRVQEAIHFREAIRLAPCRLDCYEGLIECYLASNSIREAMVMANNVYK
TLGANAQTLTLLATVCLEDPVTQEAKTLLDKALTQRPDYIKAVVKKAELLSREQKYEDGIA
LLRNALANQSDCVLHRILGDFLVAVNEYQEAMDQYSIALSLDPNDQKSLEGMQKMEKEESP
TDATQEEDVDDMEGSCEGDLEGSDSEAAQWADQEQQWFGMQ

>DP00384|P63158|#81-90 #166-184 #185-215

MGKGDPKKPRGKMSSYAFFVQTCREEHKKHPDASVNFSFKCSERWKTMSAKEKGKFE
DMAKADKARYEREMKTYIPPKGETKKFKDPNAPKRPPSAFFLCSEYRPKIKGEHPGLSIGD
VAKKLGEMWNNTAADDKQPYEKKAALKKEYEKDIAYRAKGKPDAAKGVVKAEKSK
KKKEEEDEEDEEDEEEEEEDEEDEEEDDDDE

>DP02299|P50498|#1-270 #1-272

MKVIKTLSIINFFIFVTNIKNESKYSNTFINNAYNMSIRRSMAESKPSTGAGGSAGGSAGGSA
GGSAGGSAGGSAGSGDGNNGADAEGSSSTPATTTTKTTTTTTNDAEASTSTSSENPNHKN
AETNPKGKGEVQEPNQANKETQNNSNVQQDSQTKSNVPPTQDADTKSPTAQPEQAENSAPT
AEQTESPELQSAHENKGTQHGHHGSRNNHPQNTSDSQECTDGNKENCAGAATSLLNNSS
NIASINKFVVLISATLVLFAIFI

>DP01985|Q8TEK3|#333-416

MGEKLELRKSPVGAEAVPWPLPVYDKHHDAAHIEIIETIRWVCEEIPDLKLAMENYVLID
YDTKSFESMQRLCDKYNRAIDSIHQLWKGTQPMKLNTRPSTGLLRHILQQVYNHSVTDPEK
LNNYEPFSPEVYGETSFDLVAQMIDEIKMTDDDLFVDLGSVGQVVLQVAAATNCHHYGV
EKADIPAKYAETMDREFRKWMKWYGKKHAETYLERGDFLSEEWRERIANTSIVFNNFAFG
PEVDHQLKERFANMKEGGRIVSSKPFAPLNFRINSRNLSDIGTIMRVVELSPLKGSVWTGKP
VSYYLHTIDRTILENYFSSLKNPKLREEQEAARRQQRESKSNAATPTKGPEGKVAGPADAP
MDSGAEEEEKAGAATVKKPSPSKARKKKLNKGRKMAGRKRGRRPKMNTANPERPKKNQ
TALDALHAQTVSQTAAASSPQDAYRSPHSPFYQLPPSVQRHSPNPLLVAPTPPALQKLLESFKIQ
YLQFLAYTKTPQYKASLQELLGQEKEKNAQLGAAQQQLSHCQAQKEEIRRLFQQKLDELG
VKALTYNDLIQAQKEISAHNQQLREQSEQLEQDNRALRGQSQLLLKARCEELQLDWATLSLE
KLLKEKQALKSQISEKQRHCLELQISIVELEKSQRQQELLQLKSCVPPDDALSLHLRGKGALG
RELEPDASRLHLELDCTKFSLPHLSSMSPELSMNGQAAGYELCGVLSRPSSQNTPQYLASPL
DQEVPCTPSHVGRPRLEKLSGLAAPDYTRLSPAIVLRRHLSQDHVTVGRPAASELHSRAEH
TKENGLPYQSPSPVPGSMKLSPQDPRPLSPGALQLAGEKSSEKGLRERAYGSSGELITSPLISIPL
STVQPNKLPVSIPLASVVLPSRAERARSTPSPVLQPRDPSSTLEKQIGANAHGAGSRSLALAPA
GFSYAGSVAISGALAGSPASLTPGAEPATLDESSSGSLATVGSRSSTPQHPLLAQPRNSLPA
SPAHQLSSSPRLGGAAQGPLPEASKGDLPSDSGFSDPSEAKRIVFTITGAGSAKQSPSSKHS
PLTASARGDCVPSHGQDSRRRGRRKASAGTPSLSAVSPKRRALPSVAGLFTQPSGSPLNLN
SMVSNINQPLEITAISSPETSLKSSPVYQDHQPPVLKKERPLSQTNGAHYSPSTSDEEPGSED
EPSSARIERKIATISLESKSPPKTLENGGLAGRKPAPAGEPVNSSKWKSTFSPISDIGLAKSADS
PLQASSALSQNSLFTFRPALEEPSADAKLAAHPRKGFPGLSGADGLSPGTNPANGCTFGGL

AADLSLHSFSDGASLPHKGPEAAGLSSPLSFPSQRGKEGSDANPFLSKRQLDGLAGLKGECSR
GKEAGEGGPLCGPTDKTPLLSGKAAKARDREVDLKNGHNLFISAAAVPPGSLLSGPGLAPA
ASSAGGAASSAQTHRSLGPFPQFALGPMSLQANLGSVAGSSVLQSLFSSVPAAAGLVHV
SSAATRLTNSHAMGSFSGVAGGTVGNN
>DP00927|A0L5S6|#222-239
MSRKIRDIESKRFQNVITAIIVLNGAVLGLLTDTLSASSQNLLERVDQLCLTIFIVEISLKIYA
YGVRGFFRSGWNLDFDFVIVAIALMPAQGSLSVLRTFRVMRLVSVIPTMRRVVQGMLLALP
GVGSVAALLTVVFYIAAVMATNLYGATFPEWFGDLSKSLYTLFQVMTLESWSMGIVRPVMN
VHPNAWVFFIPFIMLTTFTVLNLFIGIIVDAMAITKEQEEEAKTGHHQEPISQTLLHLGDRLDRI
EKQLAQNNELLQRQQPKKK
>DP01191|O14140|#1-54
MSRAALPSLENLEDDDEFEDFATENWPMKDTELDTGDDTLWENNWDDEDIGDDDSVQLQ
AELKKKGVAAN
>DP00017|P49918|#1-316
MSDASLRSTSTMERLVARGTFPVLRVTSACRSLFGPVDHEELSRELQARLAELNAEDQNRWD
YDFQQDMPLRGPGRLQWTEVDSDSVPASYRETQVQGRCLLLAPRPAVAVAVAVSPPLEPAA
ESLDGLEEAPEQLPSVPVPAPASTPPPVPVLAPAPAPAPAPVAAPVAAPVAVAVLAPAPAPAP
APAPAPAPVAAPAPAPAPAPAPAPAPDAAPQESAEQGANQGQRGQEPLADQLHSGISG
RPAAGTAAASANGAAIKKLSGPLISDFFAKRKRSAPEKSSGDVPAPCPSPSAAPGVGSVEQTP
RKRLR
>DP01786|D2JX42|#1-143
MAEEKHHHHHLFHHHKEEKPAEEVIYSETAYSGGGDYASGYTETVVAESASDEYEKYKKEEK
HHKHKEHLGEMGAVAAGAFALYEKHEAKKDHDHAHKHKIEEEIAAVAVGSGGYAFHEHH
EKKDAKKEAEEASGKKHHHHLF
>DP00916|Q8GY31|#130-146
MGRSIFSFTKKKKMAMARSISYTSTQLLPLHRRPNIAIIDVRDEERNYDGHIAGSLHYASGSF
DDKISHLVQNVKDKDTLVFHCAISQVRGPTCARRLVNYLDEKKEDTGIKNIMILERGFNGWE
ASGKPVCRCAEVPCKGDC
>DP01121|Q38825|#82-94
MIGQLMNLKATELCLGLPGGAEAVEPAKSAGVSKRGFSETVDMLNLQSNKEGSVDLK
SAVPKEKTLKDPSKPPAKAQVVGWPPVRNRYRNMMTQQKTSSGAEEASSEKAGNFGGGA
AGAGLVKVSMDGAPYLKVDLKMYKSYQDLSDALAKMFSSFTMGNYGAQGMIDFMNESK
LMNLLNSSEYVPSYEDKDGDWMLVGDVPWEMFVESCKRLRIMKGSEAVGLAPRAMEKYCK
NRS
>DP02208|A0A140GKJ0|#56-88
MSWALEMADTFLDNMVRGPRTYADVRDEINKRGREDREAARTAVHDPERPLLSPGLLPEI
APNASLGVVHRRRTGGTVTDSPRNPVTR
>DP02145|P47054|#328-424 #576-601 #799-813
MKWSAIPFQTLYRSIESGEFDLDFKELVLPDLQNLNTDKLNKNNASRSQLEKGEIELSDGSTF
KVNQEFEAISLSDELNLDIVACEILSGDTTANNGKVQYFLRRQYILQIVSIVNCFHEDTE
LYQELIKNGALVSNILSAFKFIHTQLSEIKQQINKAQILENYNALFQQNIKFRRDFLLREYDILS
QILYGLVDKGAIMKNKDFILSLLHHVSELDSDNFFIYYTPAFFHLFASLRVLPDADVKLHSQ
FMKDLKDDSIYTKPVKVALIFIFFAYFIGWCKEDPKRRADTMDFKTDVDEPMTSAVELGAIEQ
ILIFAADTSIVEQDKSMELFYDIRSLLERHIPRLIPKQLDDEKIFSQTNSTYNPASATDNMSGR
GLWNPSYPGMMSTTGTARLNSMPNNVNEYSYTTIVLSDQTQEFFLSSFDDVLQTIITDCAFL
TKIKDAEEDSLLSGEDLTLDISLKADLERFLSIYFFYASRPEYSCTFWSDKESNAYGFIEWCS
RCNDNLMRSCFYLMVSSLSFGPENALNVYHYFGENSSISWKNIAQCLSDYTKKISNFNSSLHK

RQQFSETHNDIDSTAVALEEGLNEEAVIFLSSLLTLVGSVTYQVDEDVKSSLKVFSVDVLFEF
TKINTPLVGAASFVISNLVPKLESSRTKFWSFLDSLIFKDSSLNYSSESYRNAFTNVLTKEYSDV
LGFLQLFHNLISIHSRENNSEYMFVFGKLAFTPTRLGQGYRKVGWVWYFDYIFNDILAHVDQIVDI
RNKRAVQLPILKIIYTGLCSFDYSVILNSIPAAANLDALVDCENFFNYVQECPAIPIFNYIFTEKI
YKSIFNVVVDVGVDQLSIELEGGKNQAELLQAVKIINKVLDYQETYVEELFPIVKKHGKTDYF
LPKNYSLHGLRSFYDAIFFNIPLVAHLGLYVGVDDQILATNSRLAKLSERSNGSVASLSKRN
KLLTIFDSVDESARIKDAFITQLESSITDAGVLALKLELLDFLTSNLNSNYSRTMTISHLLLGFQV
SNVISLGPNLATFISSGTSLDSLISVLEASLNSITKDNIDYAPMRMLATAALEIILKLCRNPPLTSQL
LYSYLIKENFFERIMILDPPQVTRFTTWNGSPFDNSTEEKCKNFIESESVGAFLSFLAYRNYWTQ
YLGLFIHKISFGTKSEVLTYVNYLISNTMYSVRLFSFLDPLNYGNICEPKETLSIFTNVPLNLE
QVTLNKYCSGNIYDFHKMENLMRLIKRVRAESLHSNSFSLTVSKQFLKDADVECIKASHFT
NIISRNLKALENLNSVLHSWVQLVQIIVTDGKLEPSTRNSFILEVFGTIIPKISDYIEFNITFSEELVS
LAVFLFDIYNRDRKLTDKGTVGDRLYQLFKTCIQGINSPLSSVALRSDFYILANHYLSRVLSD
QVGSEKVLQDLRLGSKKLVEIIWNDVVYGEGETSRVTGILLDSLIQLANRSKENFILDSLMKT
TRLLLIIRSLKNTDALLNSTTEHINIDLLYELTAFKATVFFLIRVAETRGASALIENNLFRIIA
ELSFLKVDPDLGLDMFDEVYVQNSKFLKVNVTLDNPLLVDKDANGVSLFELIVPIFQLISAV
LVSMGSSNKA VVQTVKGLLNTYKRLVIGIFKR DLLREKEDKKNSSDPNNQLNEMVKLIVML
CTLTGYQNND

>DP02076|O69245|#1-37

MLTQTLKTQVINTQIGGKIAPPHQVSDQFGAITGHVGLVATEFSYRKDEEYGEDEPAEYVYQ
VVTGAVRSYKLLSDGRRQIGAFHLPDVFGLESGPSHRLAAEAIIDTSVRLVKRSSLEKAAGI
DVQVARKLWAMTAGELRHAEDHMLLGRKTAMERVATFLLEMDRRLAVAGMMALPMCR
RDIGDYLGLTLETVSRALSQLHTQGILGFSGARQIVLRNRQRHLNDA

>DP00947|O10609|#1-41 #72-106

MHGPRATLQEIVLHLEPQNEELDPV DLLCYEQLSESEEENDEADGVSHAQLPARRAEPQRHKIL
CVCCKCDGRIELTVESSADDLRTLQLFLSTLSFVCPCWCATNQ

>DP01574|C6KSX0#84-116 #143-157

MIKLSKKYCLGISFVLYILLSVCEGHKNLTCDFNDVYKLEFHNPQQTSVTKLCNLTPNVLEKV
TIKCGSDKLNYNLYPPTCFEEVYASRNMMHLKKIKEFVIGSSMFMRSLTPNKINEVSFRIPP
MMPEKPIYCFCEKKTTINGSNGNPSSKKDIINRGIVEIIIPSLNEKVKGCDFTTSESTIFSKGYS
INEISNKSSNNQDIVCTVKAHANDLIGFKCPSNSVEPHDCFVSAFNLSGKNENLENKLKLT
NIIMDHYNNTFYSRLPSLISDNWKFFCVCSKDNEKKLVFTVEASISSNTKLASRDNTYQDYIS
NSSFLTSSYCAFITFIITSFLSFIL

>DP00491|Q62165|#654-750

MSVDNWLLHPLWGQTFLLLSVAVAQAHWPSEPSEA VRDWKNQLEASMHSVLSDFQEAVP
TVVGIPDGTAVVGRSFRVSIPTDLIASSGEIKVSAAGKEALPSWLHWDPHSHILEGLPLDTDK
GVHYISVSAARLGANGSHVPQTSSVFSIEVYPEDHNEPQSVRAASSDPGEVVPSCAACADEPVT
VLTVIDADLTKMTPKQRIDLNNRMQSFSEVELHNMKLVPVVNNRLFMSAFMAGPGNAKK
VVENGALLSWKLGCSLNQNSVPDIRGVETPAREGAMSAQLGYPVVGWHIANKKPLPKRLR
RQIHATPTPVT AIGPPTTAIQEPPSRIVPTPTSPAIA PPTETMAPVRDPVPGKPTVIRTRGAIQ
TPTLGPIQPTRVSEAGTTVPGQIRPTLTIPGYVEPTA VITPPTTTKKPRVSTPKPATPSTDSTTT
TRRPTKKPRTPRVPRVTTKAPITRLETASPPTRIRTTSGVPRGGEPNQRPELK NHIDRVDAW
VGTYFEVKIPSDFYDNEDTTDKLKLTLKREQQLVGEKSWVQFNSNSQLMYGLPDSSHVG
KHEYFMHATDKGGLSAVDAFEIHVKRPQGDKAPARFKARLAGDPAPVVNDIHKKIALVKK
LAFAFGDRNCSSITLQNITRGSIVWE TNNTLPLEPCPKEQIIGLSRRIADENGKPRPAFSNALE
PDFKALSIAVTGGSGSCRHLQFIPVAPPSPGSSAAPATEV PDRPEKSSEDDVYLHTVIPAVVVA
AILLIAGIIAMICYRKKRKGKLTLEDQATFIKKGVPIIFADELDDSKPPPSSSMPLILQEEKAPLP

PPEYPNQSMPETPLNQDTVGEYTLRDEDPNAPPYQPPPFATMEGKGSRPKNMTPYRSPP
PYVPP

>DP01155|O66858|#1-60

MLNQRLEVRQKLNKLLLKDLELLTYQTQELEKLIHEEVVNPLIKGVFKKIPKSFEVKETV
PYQIPYTPSELELQQNIKLELEGKEQELALELLNYLNEKGFLSKSVEEISDVLRCSEELEKVR
QKVLRLPLGVCSKDVWEFLELQIEEIYPEEEEILKKALRDLKRGKKLKPEIKGKLSRLRLFPL
SSSAEKVYTFAKVDAIIEEENGEFFIYLVEDFIDIDLNEEYWELYKKSRLNLQKELKEAFERYESI
RKVLDIRRNLRKVLEKIVERQKDFLTGKGSLKPLTREVSEIGIESTLSRIVNSKYVKTPV
GTYSRRTFFVRESAEGLTQGELMKLIKEIVENEDKRKPYSDQEIANILKEKGKVARRTVAKY
REMLGIPSSRERRI

>DP00205|Q82S91|#1-117

MKTTLIKVIAASVTALFLSMQVYASGHTAHVDEAVKHAEEVAHGKEGHTDQLLEHAKESL
THAKAASEAGGNTHVGHGKHLEDAIKHGEGHVGVATKHAQEAIHLRASEHKSH

>DP00632|Q01844|#1-264

MASTDYSTSQAAAQQGYSAYTAQPTQGYAQTTQAYGQQSYGTYGQPTDVSYTQAQTTAT
YGQTAYATSYGQPPTGYYTPTAPQAYSQPVQGTYGAYDTTATVTTTQASYAAQ SAYGTQ
PAYPAYGQQPAATAPTRPQDGNKPTETSQPSSTGGYNQPSLGYGQSNYSYPQVPGSYPMQP
VTAPPSPPTSYSTSQTPTSYDQSSYSQQNTYGPSSYQQSSYQQSSYQQPPTSYPPQTGSY
SQAPSQYSQQSSSYGQQSSFRQDHSSMGVYQGESGGFSGPGENRSMSGPDNRGRGRGGFDR
GGMSRGGRRGGRRGGMGSSAGERGGFNKPGPMDEGPDLGLPPVDPDEDSDNSAIYVQGLN
DSVTLDDLADFFKQCGVVKMNRKTGQPMIHYLDKETGPKGDATVSYEDPPTAKAAVEWF
DGKDFQGSKLKVSLARKKPPMSMRGGLPPREGRGMPPPLRGPGGGPGGGPMGRMGGR
GGDRGGFPFRGPRGRSGRNPSGGNVQHRAGDWQCPNPNGCGNQNFAWRTECNQCKAPKPEG
FLPPPFPGGDRGRGGPGGMRGGRGGLMDRGPGGMFRGGRRGGDRGGFRGGRGMDRGGF
GGGRRGGPGGPGGPLMEQMGGRRGGPGKMDKGEHRQERRDRPY

>DP02124|Q03281|#99-140

MDHRNLDPKTLKVSQRLRVVENDVAFPANARKPVLVKLFEEKVRQRLQSSPEASKVRTSIQ
KVVKGAKNADRKKTLKSKKLESSSESKTVDENVTNKRKREQISTDNEAKMQIQEEKSP
KKRKKRSSKANKPPESPPQSKSDGKATSADLTSELETVEELHKKDSSDDKPRVKELPKPELP
NLKVSNEFLAQLNKEASAATENYDHISKSTDLSIRIETEEPVGPGSTGAETRNESEVMENINL
EVQPEVKEAKEELTKISETFDNQDEEDTSRLSSKKNIRSPKGRTRHFIANKTKRGIDIMKPFIAH
LFIWLWNGAIFLSIICPILFGLWYREQRIQVGCGHEKPLKSLAISAFPQTERVDSLQAYRPN
CLECPEHGCSSFMNVECEPGYEPKSSILETYGIIPFPKCYAKDESKEKEVDELVWKVNEYLKK
KNAQHECGELENFESGETETKLYDIFSHSRPSWESQREFNDHWKNVLEILKKDDIIWLPLD
FETNGKREKSKSNNTNYIYRSTSKWVTLQCHLEGDIQEYITKYGGSLFITLGVLFLIKKIQST
LDNYVQGEQIIEKLVKEAIDKLKDVKKNKGEEPFLTVQLRATLLSDIPNIKEQNNLWAQTKE
KIMKEQSENIELYLLENGEIMTCWEWKE

>DP01542|P06401|#1-566 #165-535 #165-545 #632-656

MTELKAKGPRAPHVAGGPPSPEVGSPLLCRPAAGPFPGSQTSDLPEVSAIPISLDGLLPRPCQ
GQDPSDEKTQDQQQLSDVEGAYSRAEATRGAGGSSSSPPEKDSGLLSDVLDLTLAPSGPGQSQ
PSPPACEVTSSWCLFGPELPEDPPAAPATQRVLSPLMSRSGCKVGDSGTAAAHKVLPRGLSP
ARQLLPASESPHWGAPVKPSPQAAAVEVEEEDGSESEESAGPLLKGKPRALGGAAAGGGA
AAVPPGAAAGGVALVPKEDSRFSAPRVALVEQDAPMAPGRSPLATTVMDFIHVPILPLNHAL
LAARTRQLLEDESYDGGAGAASAFAPPSSPCASSTPVAVGDFPDCAYPPDAEPKDDAYPLY
SDFQPPALKIKEEEEAEASARSRSYLVAGANPAAFPDFPLGPPPLPPRATPSRGEAAVTA
APASASVSSASSSGSTLECILYKAEGAPPQGPFAPPPCKAPGASGCLLPRDGLPSTSASAAAA
GAAPALYPALGLNGLPQLGYQAAVLKEGLPQVYPPYLNLRPDSEASQSPQYSFESLPQKICL

ICGDEASGCHYGVLCGSCKVFFKRAMEGQHNYLCAGRNDIVDKIRRKNCPACRLRKCCQ
AGMVLGGRKFKKFNKVRVVRALDAVALPQPVGVPNESQALSQRFTFSPGQDIQLIPPLINLL
MSIEPDVIYAGHDNTKPDTSSLLTSNQLGERQLLSVVWSKSLPGFRNLHIDDQITLIQYSW
MSLMVGLGWRSYKHVSGQMLYFAPDLILNEQRMKESSFYSLCLTMWQIPQEFLQVSVSE
EFLCMKVLLLLNTIPLEGLRSQTQFEEMRSSYIRELIKAIQLRQKGVVSSQRFYQLTKLDDNL
HDLVKQLHLHYCLNTFIQSRALSVFPEMMSEVIAAQLPKILAGMVKPLL FHKK
>DP00828|P13183|#36-56
MFPLAKNALSRLRVQSIQQAVARQIHQKRAPDFHDKYGNALASGATFCVAVWVYMATQI
GIEWNPSPVGRVTPKEWREQ
>DP01192|P55036|#246-256 #270-282
MVLESTMVCVDNSEYMRNGDFPTRLQAQQDAVNIVCHSKTRSNPENNVLITLANDCEVL
TTLTPDTGRILSKLHTVQPKGKITFCTGIRVAHLALKHRQGKHNKMRIIAFGSPVEDNEKDL
VKLA KRLKKEKVNVDIINFGEEEVNTEKLTA FVN TNLNGKDGTGSHLTVPPGPSLADALISSPI
LAGEGGAMLGLGASDFEEFGVDPADPELALALRVS MEEQRQRQEEARRAAAASAAEAGIA
TTGTEDSDDALLKMTISQQEFGRTGLPDLSMTEEEQIAYAMQMSLQGAEGFQAESADIDASS
AMDTSEPAKEEDDYDVMQDP EFLQSVLENLPGVDPNNEAIRNAMGSLASQATKDGGKKDKK
EEDKK
>DP00578|P0AG16|#484-505
MCGIVGIAGVMPVNQSIYDALT V LQH RG QDAAGI ITIDANNCFRLRKAN GLVSDV FEARHM Q
RLQGNMGIGHVRYPTAGSSSASEAQPFYVNSPYGITLAHNGNL TNAELRKKLFEKRRHINT
TSDSEILLNIFASELDNF RHYPLEADNIFAIAATNRLIRGAYACVAMIIGHGMVAFRDPNGIRP
LVLGKRDIDENRTEYMVAS E VALDTLGFDFLRDVAPGEAIYITEEGQLFTRQCADNPVSNPC
LF EYVVFARPDSFIDKISVYSARVNMGTKLGEKIAREWE DLDIDVVVIPETSCDIALEIARILG
KPYRQGFVKNRYVGRTFIMPGQQLRRKS VRRKLNANRAEFRDKNVLLVDD SIVRGTTSEQII E
MAREAGAKVYLASA APEIRFPNVY GIDMPSATELIAHGREVDEIRQIIGADGLIFQDLNDLID
AVRAENPDIQQFEC SVFNGVYVTKDVDQGYLDFLDTLRNDDAKAVQRQNEVENLEMHNEG
>DP02341|A0A178W0D3|#221-259
MNLFERFSRVVKS YANALISSFEDPEKILEQTVIEMNSDLTKMRQATAQV LASQKQLQN KYK
AAQQSSDDWYKRAQLALAKGDEDLAREALKRRKS FADNATALKTQLDQQKG VVDNL VSN
TRLLESKIQEAKAKKDTLLARARTAKTAT KVQEMIGTVNTSGALSAFEKMEEKVMAMESEA
DAL TQIGTDELEGKFQMLETSSVDDD LADLKKE LGSSKKGELPPGRSTVAAS TRYPFKDSEI
ENELNELRRKANDF
>DP01029|Q59472|#1-36
MNTDAIESMVRDVLSRMNSLQGEAPAAA PAAGGASRSARVSDYPLANKHPEWVKTATNKT
LDDFTLENVLSNKVTAQDMRITPETLRLQASI AKDAGRDR LAMNFERAAELTAVPDDRILEY
NALRPYRSTKEELLAIADDLESRYQAKICA AFVREAATLYVERKKLGDD
>DP01485|P40161|#43-67
MSKLFLDELPESLSRKIGTVVRVL PSSLEIFEELYKYALNENS NDRSGRHKKPRIDVSSDLLKT
DEISETNTIFKLEGVS VSLPLRKKL DVFYLSNVDGSPVITLLKGNDRELSIYQLNKNIKMASFL
PVPEKPNLIYLFMTYTSCEDNKFSEPVVMTLNKENTLNQFKNLG LLDNSVTD FEKCVEYIRKQ
AILTGFKISNPVNSTLVDTDAEKINSFHLQCHR GTKEGTLYFLPDHIIFGF KK PILLFDASDIESI
TYSSITRLTFNASLVTKDGEKYEFSMIDQTEYAKIDDYVKRKQM KDKSMSEELAKSKSKGQ
ATDGTADQPSILQEATRQM QDEKKAGVFSDD DEENDQN FEAESDL SDGSGQESSDGAEDGE
EAEEDDEE DDEEDKKGQSALNRD NSFASINGQPEQELQYKEFKEPLELEDIPIEIDNDDDEDD
EDGSGVEYD
>DP01489|Q9UBK2|#2-220
MAWDMCNQDSES VWS DIECA ALVG EDQPLCPDLP ELDL SELDVNDL DTDSFLGGLKWCSDQ

SEIISNQYNNEPSNIFEKIDEENEANLLAVLTETLDSLPVDEDGLPSFDALTDGDVTTDNEASPS
SMPDGTPPPQEAEPSLLKKLLLAPANTQLSYNECSGLSTQNHNHNRIRTNPAIVKTENSW
SNKAKSICQQQKQPQRRPCSELLKYLTNDPPHTKPTENRNSSRDKCTSKKKSHTQSQSQHLQ
AKPTTSLPLTPESPNDPKGSPFENKTIERTLSVELSGTAGLTPPTPPHKANQDNPFRASPKLK
SSCKTVVPPPSKKPRYSESSGTQGNNSTKKGPEQSELAYAQLSKSSVLTGGHEERTKRPSLRLF
GDHDYCQSINSKTEILINISQELQDSRQLENKDVSSDWQQQICSTDSDQCYLRETLEASKQVS
PCSTRKQLQDQEIRAELNKHFGHPSQAVFDDEADKTGELRDSDFSNEQFSKLPMFINGLAM
DGLFDDSEDESDKLSYPWDGTQSYSLNVSPCSSFNSPCRDSVSPPKSLFSQRPQRMRSRSRS
FSRHRSCSRSPYRSRSRSPGSRSSRSCYYYYESSHYRHRTHRNSPLYVRSRSRSPYSRRPRYDS
YEYQHERLKREEYRREYEKRESERAKQRERQRQKAIEERRVITYVGKIRPDTRTELDRFEV
FGEIEECTVNLRDDGDSYGFITYRYTCDAFAALENGYTLRRSNETDFELYFCGRKQFFKSNYA
DLDSENSDDFDPASTKSKYDSLDFDSLKEAQRSLRR

>DP00179|P01094|#1-68

MNTDQQKVSEIFQSSKEKLQGDAKVVSDAFKKMASQDKDGKTTDADESEKHNYQEYNKL
KGAGHKKE

>DP01334|B7T1D9|#215-240

MNGIRWIASYPKAGNTWLRCMLAAITGKAPQTWKDMETVSLELEGMLHLGDMPPTEPTKP
VLVKTHLKADVPVLGLYSEATAKVLVLRNPRDILLSAMRTAISRDDMESSRTFARDFIAN
EGLRMRGRRGGAGLGSWPENVRIWTESSRDRFPNADVLTMRYEDLKGDGVARFSEIVEFLDL
GDPVDIEDIRRAVAACTLERMRELEKRSQQQGQWASMTGGRGGEKHPFVGEGRYDQSLSLF
GEDIESAYQELLHGDSFAHYAKQYGYAG

>DP02516|P56287|#443-678

MPPSKGLNGKLEKPKHALQAIVLSDSYNYRFRPLTLDKPRCLLPLANTPLIEYTFFLAGV
QEYVFCCAHAGQIREYIEKSKWNLPSSPFSVNTIVSRESLSVGDALRELDISKQLITSDFILVSG
DVVSNPVLNEVLKEHRKRREDDKNAIMTMVREASFHRTRARTESSVFVIDKKTSQCVHY
QANERGKHYVSMDEPIFNEHEELEVRNDLIDCQIDICSNDVPALFTENFDYQDIRKDFVYGV
TSDLLGKKIHCHVAKENYAARVRLSLQTYDAISKDVLWRVYPVPDSNLLNQTFSYQRHQIY
KEEDVVLARSCIICKARTLIGAYTKVGDAVVANTIIGRNCTIGSNCIDSASFLEDVVIIDNCRI
GKAILANSVKIGNNCSEDGAIVAAGVIGDNTIEKNKRLTTFESHSQGTLNDPSLVGIGGRG
QEYHAEEEDSDDEGEFMEASGLIESTNELHLSDESSETSSSEEDMEFIPFSARRDSANTINSED
FDEGDFNKEAQSLERAFFEENHQDIAALELNTLMAMNANYHEVRSAIVLALLRRIMHLDV
SPKEALAKVMTRWGPLLAKLTSHEEQVDNVTLQKYCVRLSMTRHFLQLLGFYQLEIAEE
NAIQEWYSDPRSSEGELAALRDAGGKQFVDWLNTAESESESEESEEGSE

>DP00257|O31851|#35-39 #89-125 #172-177 #191-196

MHRLLLMMMLTALGVAGCGQKKPPDPPNRPVPEKKVVETSAFGHHVQLVNREGKAVGFIEIK
ESDDEGLDIHISANSLRPGASLGFIYEKGSCVRPDFESAGGPFNPLNKEHGFNNPMGHAGD
LPNLEVGADGKVDVIMNAPDTSLKKGSKLNILDEDGSAFIIHEQADDYLTPSGNSGARIVCG
ALLGNNEKQ

>DP00306|Q07108|#1-84

MSSENCFVAENSSLHPESGQENDATSPHFSTRHEGSFQVPVLCAVMNVVFITILIIALIALSVGQ
YNC PGQYTFSMS DSHVSSC SEDWVGYQRKCYFISTVKRSW TS AQNAC SE HGAT LA VID SE K
DMNFLKRYAGREEHWVGLKKEPGHPWKWSNGKEFNNWFNTGSDKCVFLKNTEVSSMEC
EKNLYWICNKPYK

>DP01076|Q02629|#1-640

MFGNNRPMFGGSNLSFGSNTSSFGQQSQPNLSFGNSNNNNSTSNNAQSGFGGFTSAAGS
NSNSLFGNNNTQNNNGAFGQSMGATQNSPFGLNSSNASNGNTFGGSSSMGSFGGNTNNAFN
NNSNSTNSPFGFNKPNTGGTLFGSQNNNSAGTSSLFGGQSTTTGTFGNTGSSFGTGLNGNGS

NIFGAGNNSQSNTTGSFLGNQQSSAFTNNQGSLFGQQSQNTNAFGNQNQLGGSSFGSKP
VGSGSLFGQSNTLGNNTNNRNGLFGQMNSSNQGSSNSGLFGQNSMNSSTQGVFGQNNQM
QINGNNNNSLFGKANTFSNSASGLFGQNNQQQSGLFGQNSQTSGSSGLFGQNNQKQPNTF
TQSNTGIGLFGQNNNQQQSTGLFGAKPAGTTGSLFPGNSSTQPNLSFGITNVPTSNTQSQQG
NSLFGATKLTNMPFGGNPTANQSGSGNSLFGTKPASTTGSFLFGNNTASTTVPSTNGLFGNNA
NNSTSTNTGLFGAKPDSQSKPALGGGLFGNSNSNSTIGQNKPVFGTTQNTGLFGATGTNS
SAVGSTGKLFQNNNTLVGTQNVPPVNNTQNALLTTAVPSLQQAPVTNEQLFSKISIPNS
ITNPVKATTSKVNADMKRNSSLTSAYRLAPKPLFAPSSNGDAKFQKWGKTLESDRGSSTSN
SITDPESSYLNNDLLFDPDRRYLKHLVIKNNKNLNVINHNDDEASKVKLVFTTESASKDDQ
ASSSIAASKLTEKAHPQTDLKDDHDESTPDPQSKSPNGSTSIPMIENEKISSKVPGLLSDVTF
FKNNYYISPSIETGNKSLIELRKINNLVIGHRNYGKVEFLEPVDLLNTPLDLCGDLVTFGPKS
CSIYENCSIKPEKGEGINVRVRTLYSCFPIDKETRKPIKNITHPLLKRSAIQLKENPVYKFESYD
PVTTGTYSYTIDHPVLT

>DP01933|P07986|#357-376

MPRTTPAPGHPARAGARTALRTTRRAATLVVGATVVLPAQAATTLEAADGAGRDFGALD
PNRLSEAQYKAIADSEFNLVVAENAMKWDATEPSQNSFSFGAGDRVASYAADTGKELYGHT
LVWHSQLPDWAKNLNGSAFESAMVNHVTKVADHFEGKVASWDVVNEAFADGDGPPQDSA
FQQKLGNGYIETAFRAARAADPTAKLCINDYNVEGINAKSNSLYDLVKDFKARGVPLDCVGF
QSHLIVGQVPGDFRQNLQRFADLGVDVRITELDIRMRTPSDATKLATQAADYKKVVQACMQ
VTRCQGVTVWGTDKYSWVPDVFPGEAALVWDASYAKKPAYAAVMEAFGASPTPTPTTP
TPTPTPTPTSGPAGCQLWGVNQWNTGFTANVTVKNTSSAPVDGWTLTFSFPSQQVQTQ
AWSSTVTQSGSAVTVRNAPWNGSIPAGGTAQFGNGSHTGTNAAPTAFLSNGTPCTVG

>DP00171|P04049|#255-260 #618-625

MEHIQGAWKTISNGFGKDAVFDGSSCISPTIVQQFGYQRRASDDGKLTDPSTSNTIRVFLPN
KQRTVNVNRNGMSLHDCLMKALKVRLQPECCAVERLLHEHKGKKARLDWNTDAASLIGE
ELQVDFLDHVPLTTHNFARKTFLKLAFCDICQKFLNGFRQCQTCGYKFHEHCSTKVPTMCVD
WSNIRQLLFPNSTIGDGPALPSLTMRMRESVSRRMPVSSQHYRSTPHAFTFNTSSPSSEGS
LSQRQRSTSTPNVHMVSTTLPVDSRMIEDAIRSHSESASPSALSSSPNNLSPGWSQPKTPVPA
QRERAPVSGTQEKNKIRPRGQRDSSYYWEIEASEVMLSTRIGSGSGTYYKGKWHGDVAVKI
LKVVDPTEQFQAFRNEAVLRKTRHVNILLFMGYMTKDNLIAVTQWCEGSSLYKHLHVQE
TKFQMFQLIDIARQTAQGMDYLHAKNIIHRDMKSNNIFLHEGLTVKIGDFGLATVKSRSWGS
QQVEQPTGSVLUWMAPEVIRMQDNPFSQSDVSYGIVLYELMTGELPYSHINNRDQIIFMV
GRGYASPDL SKYKNCPKAMKRLVADCVKVKEERPLFPQILSSIELLQHSLPKINRSASEPSL
HRAAHTEDINACTLTTSPRLPVF

>DP01253|P05386|#63-114

MASVSELACIYSALILHDDEVTVTEDKINALIKAAGVNVEFWPGLFAKALANVNIGSLICNV
GAGGPAPAAGAAPAGGPAPSTAAPAAPEEKVVEAKKEESEESDDDMGFLFD

>DP02188|P52695|#1-10

MPYLGAPMNLQEMEKN SAKAVVLLKAMANERRLQILCMLLDNELSVGELSSRLELSQSAL
SQHLAWLRRDGLVNTRKEAQTVFYTLSSTEVKAMIELLHRLYQCQANQ

>DP01486|P11912|#166-226

MPGGPGVLQALPATIFLLFLSAVYLGPGCQALWMHKVPASLMVSLGEDAHFQCPHNSSNN
ANVTWWRVLHGNYTWPPFGLPGEDPNGTLIQQNVNKSHGGIYCRVQEGNESYQQSCGTY
LVRVQPPPRPFLDMGEGTKRIITAEGIILLFCAVVPGTLLFRKRWQNEKLGLDAGDEYEDE
NLYEGLNLDDCSMYEDISRGLQGTYQDVGSNLIGDVQLEKP

>DP02001|O08807|#244-263

MEARSKLLDGTASRRWTRKLVLLPLLLFLRTESLQGLESDERFR TRENECHFYAGGQV

YPGEASRVSVADHSLHLSKAKISKPAPYWEFTAINGEFKELKLTDYRGKYLVFFFYPLDFTF
VCPTIEIIAFGDRIEFSINTEVVACSVDSQFTHLAWINTPRRQGLGPIRIPLLSDLNHQISKDY
GVYLEDSGHTLRGLFIIDDKGVLRQITLNDLPVGRSVDETLRLVQAFQYTDKHGEVCPAGWK
PGSETIIPDPAGKLKYFDKLN

>DP01732|Q06628|#268-738

MVAEEDIEKQVLQLIDSFFLKTTLLICSTESSRYQSSTENIFLFDDTWFEDHSELVSELPEIISKW
SHYDGRKELPPLVVETYLDLRQLNSSHVLVRLKDHEGHLWNVCKGTKKQEIVMERWLIEDN
SSPTFKSYSEDETVDNELSKQLVLLFRYLLTLIQQLLPTTELYQLLIKSYNGPNEGSSNPITSTGP
LVSIRTCVLGSKPILSKGRIGLSKPIINTYSNALNESNLPAHLDQKKITPVWTKFGLLRVSVSY
RRDWKFEINNTNDELSARHASVSHNSQGPQNQPEQEGQSDQDIGKRQPQFQQQQPQQQQ
QQQQQQQRHQVQTQQQRQIPDRRSLSLSPCTRANSFEPQSWQKKVYPISRVQPFKVGSIQS
QSASRNPSNSSFFNQPPVHRPSMSSNYGPQMNIETSGVSTSKYSSSGNIRRHSVKTENAE
KVSKAVKSPLOPQESQEDLMDFVKLLEEKPDLTIKKTSGNNNPPNINISDSLIRYQNLKPSNDLL
SEDLSVSLSMDPNHTYHRGRSDSHSPLPSISPSMHYGSLNSRMSQGANASHLIARGGGNSSTS
ALNSRRNSLDKSSNKQGMGSLPPIFGGESTSYHHDNKIQKYNQLGVEEDDDENDRLLNQM
GNSATKFKSSISPRSIDSISSSFIKSRIPIRQPYHYSQPTTAPFQAAQAKFHKPANKLIDNGNRSNS
NNNNHNGNDAVGVMHNDDEDQDDDLVFFMSDMNLSKEG

>DP01929|P17763|#1433-1442

MNNQRKKTGRPSFNMLKRARNRVRTSQLAKRFSKGLLSGQGPMKLVMAFIAFLRFLAIPPT
AGILARWGSFKNGAIKVLRGFKKEISNMLNIMNRRKRSVTMLLMLPTALAFHLLTRGGEP
HMIVSKQERGKSLFKTSAGVNCTLIAMDLGELCEDTMTYKCPRITETEPDDVDCWCNATE
TWVTYGTCSQTGEHRRDKRSVALAPHVGLGLETRTETWMSSEGAWKQIJKVETWALRHPG
FTVIALFLAHAIGTSITQKGIIFFMLVTPSMAMRCVGIGNRDFVEGLSGATWVDVVLEHGSC
VTTMAKDCKPTLDIELLKTEVTNPRAVLRKLCIEAKISNTTDSRCPTQGEATLVEEQDTNFVCR
RTFVDRGWNGCGLFGKGSЛИCAFKCVTKLEGKIVQYENLKYSVIVTHTGDQHQVGNE
TTEHGTATITPQAPTSEIQLTDYGAULTDCSPRTGLDFNEMVLLTMEKSWLVHKQWFLDL
PLPWTSGASTSQETWRNQDLLVTFKTAHAKKQEVVVLGSQEGAMHTALTGATEIQTSGTTI
FAGHLKCRLKMDKLTGKMSYVMCTGSFKLEKEVAETQHGTVLVQVKYEGTDAPCKIPFSS
QDEKGVQTQNGRLITANPIVTDEKPKVNEAEPFGESYIVVGAGEKALKLWFKKKGSSIGKMF
EATARGARRMAILGDTAWDFGSIGGVFTSVGKLIHQIFGTAYGVLFGWSWTMKIGIGILLTW
LGLNSRSTSLSMTCAVGMTLYLGVMQADSGCVINWKGRELKGSGIFVTNEVHTWTEQ
YKFQADSPKRLSAIGKAWEEGVCGIRSATRLENIMWKQISNELNHILLENDMKFTVVGVGDV
SGILAQGKKMIRPQPMEHKYSWKSWSWGKAKIIGADVQNTTFIIDGPNTPECPDNQRRAWNIWEV
EDYGFIFTTNIWLKLRDSYTQVCDHRLMSAAIKDSKAHADMGYWIESEKNETWKLARAS
FIEVKTCIWPKSHTLWSNGVLESEMIIPKIYGGPISQHNYRPGYFTQTAGPWHLGKLELDFDLC
EGTTVVVDEHCGNRGPSLRTTVTGKTIHEWCCRSTLPPRLFKGEDGCWYGMEIRPVKEKE
ENLVKSMVSAGSGEVDSFLGLLCISIMIEVMRSRWSRKMLMTGTLAVFLLTMQQLTWN
DLIRLCIMVGANASDKMGMGTTYLALMATFRMRPMFAVGLLFRRLTSREVLLTVGLSLVA
SVELPNSLEELGDLAMGIMMLKLLTDFQSHQLWATLLSLTFKTTFSLHYAWKTMAMILSI
VSLFPLCLSTTSQKTTWLPVLLGSLGCKPLTMFLITENKIWGRKSWPLNEGIMAVGIVSILLSS
LLKNDVPLAGPLIAGGMLIACYVISGSSADLSLEKAAEVSWEEEAEHSGASHNILVEVQDDGT
MKIKDEERDDTLTILLKATLLAISGVYPMISIPATLFVWYFWQKKQRSGVLWDTSPPEVER
AVLDDGIYRILQRGLLGRSQVGVGVFQEGVFHTMWHVTRGAVLMYQGKRLEPSWASVKKD
LISYGGGWRFQGSWNAGEEVQVIAVEPGKNPKNVQTAPGTFKTPEGEVGAIALDFKPGTSGS
PIVNREGKIVGLYGNGVVTTSGTYVSAIAQAKASQEGGPLPEIEDEVFRKRNLTIMDLHPGSGK
TTRYLPAIVREAIRNRVRTLVLAPTRVVASEMAEALKMPIRYQTTAVKSEHTGKEIVDLMC
HATFTMRLLSPVRVPNPNMIMDEAHFTDPASIAARGYISTRVGMGEAAAIFMTATPPGSVEA

FPQSNAVIQDEERDIPERSWNSGYDWITDFPGKTVWFVPSIKSGNDIANCLRNGKRVVQLSR
KTFDTEYQTKNNWDYVVTDISEMGANFRADRVIDPDRCLPKVILKDGPERVILAGPMPV
TVASAAQRGRIGRQNKEGDQYIYMGQPLNNDEDHAHTEAKMLDNINTPEGIIPALFEP
EREKSAAIIDGEYRLRGGEARKTFVELMRRGDLPVWLSYKVASEGFQYSDRRCFDGERNNQV
LEENMDVEIWTKGERKLRPRWLDARTYSDPLALREFKEFAAGRGSVSGDLILEIGKLPQHL
TQRAQNALDNLVMHNSEQGGKAYRHAMEELPDTIETMLLLALIAVLGGVTLFFLSGRGL
GKTSIGLLCVIASSALLWMASVEPHWIAASIILEFFLMVLLIPEPDRQRTPQDNQLAYVVIGLLF
MILTAANEMGLLETTKKDLGIGHAAAENHHAAAMLDVDLHPASAWTLYAVATTIITPMMR
HTIENTTANISLTIAIANQAAILMGLDKGWPISKMDIVPULLALGCYSQVNPLTLAAVFMLVA
HYAIIGPGLQAKATREAQRTAACAGIMKNPTVDGIVAIIDLPVVYDAKFEKQLGQIMLLILCTS
QILLMRTTWALCESITLATGPLTTLWEGSPGFWNTTIAVSMANIFRGSYLAGAGLAFLMKS
LGGGRRGTGAQGETLGEWKWRQLNQLSKSEFNTYKRSGIIEVDRSEAKEGLKRGEPTKHAVS
RGTAKLRWFVERNLVKPEGKVIDLGCGRGGWSYYCAGLKKTEVKGYTKGGPGHEEPIPM
ATYGWNLVKLYSGKDVFFTPEKCDTLLCDIGESSPNPTIEEGRTLRLKMVEPWLRGNQFCI
KILNPYMPSVVETLEQMQRKHGGMVRNPLSRNSTHEMYWVSCGTGNIVSAVNMTSRMILL
NRFTMAHRKPTYERDVDLGAGTRHVAVEPEVANLDIIGQRIENIKNGHKSTWHYDEDNPYK
TWAYHGSYEVKPGSASSMVNVVRLLTKPWDVIMVTQIAMTDTPFGQQRVFKEKVDR
TPKAKRGTAAQIMEVTARWLWGFLSRNKKPRICTREEFTRKVRNSAAIGAVFVDENQWNSAK
EAVEDERFWDLVHRERELHKQGKCATCVYNMMGKREKKLGEFGKAKGSRAIWYMWL GAR
FLEFEALGMNEDHWFSRENSLSCVEGEGLHKLGYILRDISKIPGGNMYADDTAGWDTRITE
DDLQNEAKITDIMEPEHALLATSIFKLTYQNKVVVRVQRPAKNGTVMDVISRRDQRGSGQVGT
YGLNTFTNMEAQLIRQMESEGIFSPSELETTPNLAERVLDWLKKHGTERLKRMAISGDDCVK
PIDDRFATALTALNDMGKVRKDIPQWEPSKGWNDWQQVPFCSHHFHQIMKDGREIVVPCR
NQDELVGRARVSQGAGWSLRETA CLGKSYAQMWQLMYFHRRDLRLAANAICSAVPDWV
PTSRTTWSIHAAHQWMTTEDMLSVNVRVIEENPMEDKTHVSSWEDVPYLGKREDRW
GSLIGLTARATWATNIQVAINQVRLIGNENYLDFTSMKRFKNESDPEGALW

>DP00130|P22531|#1-20 #48-72

MSYQQQQCKQPCQPPPVCPTPKCPEPCPPPCKPEPCPPPCKPQPCPPQQCQQKC
PKCPPKSK

>DP01203|O75807|#513-631

MAPGQAPHQATPWRDAHPFLLSPVMGLLSRAWSLRGLGLEPWLVEAVKGAALVEAGL
EGEARTPLAIPHTPWGRRPEEEAEDSGGPGEDRETLGLKTSSLPEAWGLLDDDDGMYGERE
ATSVPRGQGSQFADGQRAPLSPSLLIRTLQGSDKNPGEKAEEGVAAEEGVNKFSYPPSHRE
CCPAVEEEDEEAVKKEAHRTSTSALSPGSKPTVSCPGEEENQATEDKRTERSKGARKTS
VSPRSSGSDPRSWEYRSGEASEEKEEKAHKETGKGEAAPGPQSSAPAQRQLKSWWCQPSDE
EEGEVKALGAAEKDGEAECPPIPSSAFLKAWVYWPGEDETEEEEDEEEDEDSDGSDEEEG
EAEASSSTPATGVFLKSWVYQPGEDETEEEEDEDSDTGSaedereAETSASTPPASAFLKAW
YRPGEDTEEEDEDVDSEDKE DDSEAALGEAEDPHPSHDPDQRAHFRGWGYRPGKETEEEA
AEDWGEAEPCPFRVAIYVGKPPPWA PPRPLPLRLQRRLKRPETPTHDPDPETPLKARKVRF
SEKVTVHFLAVWAGPAQAARQGPWEQLARDRSRFARRITQAQEELSPCLTPAARARAWARL
RNPPLAPIALTQTLPSVPSSPVQTPLSQAVATPSRSSAAAAAALDLSGRRG

>DP01364|P62826|#33-44 #123-144 #170-198

MAAQGEPVQVQFKLVLVGDGGTGKTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKF
NVWDTAGQEKFGGLRDGYYIQAQCAIIMFDVTSRVTYKNVPNWHD LVRVCENIPIVLCGN
KVDIKDRKVKA KSIVFHRKKNLQYYDISAKSNYNFEKPFLWLARKLIGDPNLEFVAMPALAP
PEVVMDPALAAQYEHDLEVAQTTALPDEDDDL

>DP01817|Q15910|#181-218 #346-424 #480-514 #728-746 #730-746 #732-746 #733-746

MGQTGKKSEKGPVCWRKRVKSEYMRLRQLKFRRADEVKSMFSSNRQKILERTEILNQEWK
QRRIQPVHILTSVSSLRGTRECSVTSDDLDFPTQVIPLKTLNAVAVPIMYSWSPLQQNFMVEDE
TVLHNIPYMGDEVLDQDGTIEELIKNYDGKVHGDRECGFINDEIFVELVNALGQYNDDDD
DDGDDPEEREKQKDLEDHRDDKESRPPRKFPSDKIFEAISSMFPDKGTAEELKEKYKELTEQ
QLPGALPPECTPNIDGPNAKSVREQSLHSFHTLCRRCFKYDCFLHPFHATPNTYKRKNTET
ALDNKPCGPQCYQHLEGAKFAAALTAERIKTPPKRPGGRRGRLPNNSSRPSTPTINVLESK
DTDSDREAGTETGGENNDEEEEKKDETSSSEANSRCQTPIKMKPNIEPPENVEWSGAEASM
FRVLIGTYYDNFCAIARLIGTKTCRQVYEFRVKESSIAPAPAEDVDTPPRKKRKHRLWAH
CRKIQLKKDGSSNHVYNYQPCDHPRQCDSSCPCVIAQNFCEKFCQCSSECQNRFPGCCKA
QCNTKQCPCYLAVERCDPDLCITCGAADHWDSKNVSCKNCIQRGSKKHLLAPSDVAGW
GIFIKDPVQKNEFISEYCCEIISQDEADRRGKVDKYMCSFLFNNDVFVVDATRKGKIRFA
NHSVNPNCYAKVMMVNGDHRIGIFAKRAIQTGEELFFDYRYSQADALKYVGIEREMEIP

>DP01993|Q80VP1|#229-407

MSTSSLRRQMKNIVHNYSEAEIKVREATSNDPWGPSSLMSEIADLTYNVVAFSEIMSMIWKR
LNDHGKNWRHVYKAMTLMYEPLITGSERVSQQCKENMYAVQTLKDFQYVDRDGKDQGVN
VREKAKQLVALLRDEDRLREERAHALKTKEKLAQTATASSAAVGSGPPPEAEQAWPQSSGE
EELQLQLALAMSKEEADQPPSCGPEDDVQLQLALSLSREEHDKEERIRRGDDLRLQMAIEESK
RETGGKEESSLMDLADVFTTPAPPQASDPWGKPASVPTAVPVAAAASDPWGKPASVPPAADP
WGGAAPTPASGDPWRPAAPTGPSVDPWGKTPAPAAGEGPTPPWGSSDGGAPVSGPPSSDP
WAPAPAFSDPWGGSPAKPSSNGTAVGGFDTEPDEFSDFDRLRTALPTGSSTGELELLAGEVP
ARSPGAFDMSGVGGSLAESVGSPPPAATPTPTPPTRKTPESFLGPNAALVLDLSLVS RPGPTPP
GSKASNPFLPSGAPPTGPSVTNPFPQAPPATLTNQLRLSPVPPVPGAPPTYISPLGGGPGLPPM
MPPGPPAPNTNPFL

>DP00705|P22943|#1-7 #8-18 #19-23 #24-43 #44-73 #74-98 #99-109

MSDAGRKGFGEKASEALKPDSQKSYAEQGKEYITDKADKVAGKVQPEDNKGVFQGVHDSA
EKGKDNAEGQGESLADQARDYMGAAKSKLNDAVEYVSGRVHGEEDPTKK

>DP00605|Q24246|#109-135

MDRKAELERKKAKLAALREEKDERRREKEIKDMEEAAGRIGGGAGIDKDQRKDLDEMLSSL
GVAPVSEVLSSLSSVNSMTSDNSNTQTPDASLQATVNGQSGGKKQPLNLNVNVQATNIPPK
ETLVYTKQTQTTSTGGGNGDVL SCHSSPLSGYMEDWWRPRKAHATDYYDEYNLNPGLEWE
DEFTDDESSLQNLNGNGFTSKLPPGYLTHGLPTVKDVAPAITLEKKETEVKKEVNELSEEQK
QMIILSENQRFVVVRAGR VIERALSENVDIYTDYIGGGDSEEANDERSHARLSLNRFYDERW
SKNRCITSMDWSTHFPELVVGSYHNNEESPNEPDGVVMVWNTKFHKSTPEDVFHCQS AVM
TCFAKFNPNLILGGTYSQIVLWDNRVQKRTPIQRTPLSAAAHHTPVYCLQMVG TQNAHNV
SISSDGKLCWSLDMLSQPQDTLELQQRQSKAIAITSMAFPANEINSLVMGSEDGYVYSASRH
GLRSGVNEVYERHLGPITGISTHYNQLSPDFGHLFTSSIDWTIKLWSLKDTKPLYSFEDNSDY
VMDVAWSPVHPALFAAVDGSGRLDWNLNQDTEVPTASIVVAGAPALNRVSWTPGLHVCI
GDEAGKLYVYDVAENLAQPSRDEWSRFNTHLSEIKMNQSDEV

>DP01549|Q8WYP5|#1018-2266

MRDLRAQVTSGLLPFPEVTLQALGEDEITLESVLRGKFAAGKNGLA CLACGPQLEVVNSITGE
RLSAYRFSGVNEQPPVVLAVKEFSWQKRTGLLIGLEETEGSVLCLYDLGISKVVKA VVLPGR
VTAIEPIINHGGASASTQHLHPSLRWLFVAAVVTDVQILLV DCLDDLS CNQNEVEASDLE
VLTGIPAEVPHIRESVMRQGRHLCQLVSPTGTAVSTLSYISRTNQLAVGFSDGYLALWNMKS
MKREYYIQLESGQPVYAVTFQEPENDPRNCCYLWAVQSTQDSEG DVLSLHLLQLAFGNRK
CLASGQILYEGLEYCEERYTLDLTGGMFPLRGQTSNTKLLGCQSIEKFRSHGDREEGVNEALS
PDTSVSVFTWQVNIYGQGKPSVYGLFDINRYHAQMPDSLRSGEYLHNC SYFALWSLESV
VSRTSPHGILDILVHERSLNRGVPPSYPPPEQFFNPSTYNFDATCLNSGVVHLTCTGFQKETL

TFLKKSGPSLNEIPDGYNRCLVAGLLSPRFVDVQPSSLSQEEQLEAILSAAIQTSSLGLLTGYI
RRWITEEQPNSATNLRVLEWTWNKVVLTKEFDRLCVPLFDGSCHFMDPQTIQSQCYLLL
SNLNIVLSCFASEAREITERGLIDLDSNKFVVSHLCQYAQVVLWFSHSGLLPEGIDDSVQLSRC
YNYPVIQNYYTTSRRQKFERLSRGKWPNDCLMIDGLVSQLGERIEKLWKRDEGGTGKYPPASL
HAVLDMYLLDGVTAAKHSITIYLLDIMYSFPNKTDPIESFPTVFAISWGQVKLIQGFWLID
HNDYESGLLLFHPATAPLSWQHSKIIQAFMSQGEHRQALRYIQTMKPTVSSGNDVILHTV
LLFNRCMVEAWNFLRQHCNRNLIEELLKHMYEVQCQEMGLMEDLLKLPFTDTEQECLVKFLQ
SSASVQNHEFLLVHHLQRANYVPALKLNQTLKINVNMNDPRLRERSLARNSILDQYGKILP
RVHRKLAIERAKPYHLSTSSVFRLVSRPKPLSAVPKQVVTGTVLTRSVFINNVLSKIGEVWAS
KEPINSTTPFNSSKIEEPSPIVSLPAPELPEAFFGTPISKASQKISRLLDVVQPVPRPSQCSEFIQ
QSSMKSPYLVSRSRSLPSSSQLKGSPQAISRASELHLLETPLVVKKAKSLAMSVTSGFSEFTPQ
SILRSTLRSTPLASPSPSPGRSPQRLKETRISFVEEDVHPKWIPGAADDSKLEVFTTPKKCAVPV
ETEWLKSKDRTTSFFLNSPEKEHQEMDEGSQSLEKLDVSKGNSSVSITSDETTLEYQDAPSPE
DLEETVFTASKPKSSSTAATTNVTEQTEKDGDKDVFASAVEVTPSDLQKQMGNLEDAETKDLLV
AAEAFAELNHLSVPQGTEASLCAPSVYEGKIFTQSKKVPLDEGLTSVETYTPAIRANDNKS
ADVLGDGGNSSLTISEGPIVSERRLNQEVALNLKEDHEVEVGVLKESVDSLPEEKLPISDSDPDT
QEIHVIEQECKLEAQDSGEEARNLNFNELYPSGTLKLQYNFDTIDQQFCDLADNKDTAECIAE
VDGELFVAQSNFTLILEGEEGEVEPGDFASSDVLPCAANTATEEKLVCSGENDNHGQIANLPS
AVTSDQKSQKVDTLPYVPEPIKVAIAENLLDVIKDTRSKEITSDTMEQSIHETIPLVSQNIMCPT
KLVSAFKTAQETSTMNVSQVDDVVSSKTRTRGQRIQNVNVKSAQQEASADVATPKMP
GQSVRKKTRKAKEISEASENIYSDVRGLSQNQQIPQNSVTPRRGRRKKEVNQDILENTSSVEQ
ELQITTGRESKRLKSSQLLEPAVEETTKKEVKVSSVTKTPRRIKRSVENQESVEINDLKVSTV
TSPSRMIRKLRSTNLDASENTGNKQDDKSSDKQLRIKHVRVRGREVSPSDVREDSNLESSQL
TVQAEFDMSAIPRKGRGRPRKINPSEDVGSKAVKEERSPKKEAPSIRRSTRNTPAKSENVDV
GKPALGKSLVPNEELSMVMSSKKLTKKTESQSQKRSLSHVSEERTDEMTHKETNEQEERL
LATASFTKSSRSSRTRSSKAILLPDLEPNNEPLFSPASEVPRKAKAKKIEVPAQLKELVSDLSS
QFVISPPALRSRQKNTSNKNKLEDELKDDAQSVETLGPKAKRIRTSKTKQASKNTEKESAW
SPPPPIEIRLISPLASPADGVSKPRKTTETGTGLGRNRKKLSSYPKQILRRKML

>DP00588|P27958|#1-82

MSTNPKPQRKTKRNTNRRPQDVKFPGGGQIVGGVYLLP芮RGPRLGVRATRKTSESQPRGRR
QPIPKARRPEGRTWAQPGYPWPLYGNEGCGWAGWLLSPRGSRPSWGPTDPRRSRNLGKVI
DTLTCGFADLMGYIPLVGAPLGGALARALAHGVRVLEDGVNYATGNLPGCSFSIFLLALLSCL
TVPASAYQVRNSSGLYHVTNDCPNSSVYEAADAILHTPGCVPCVREGNASRCWVAVTPTV
ATRDGKLPTTQLRRHIDLLVGSATLCSALYVGDLCSVFLVQLFTSPRHWTQDCNCISIY
PGHITGHRMAWNMMMNWSPTAALVVAQLLRIPTQAIMDMIAGAHGVLAGIKYFSMVGNW
AKLVVLLFAGVDAETHVTGGNAGRRTAGLVGLTPGAKQNIQLINTNGSWHINSTALNC
NESLNTGWLALFYQHKFNSSGCPERLASCRRLTDFAQGWGPISYANGSGLDERPYCWHYPP
RPCGIVPAKSVCGPVCFPSVVGTTDRSGAPTYSWGANDTDVFVLNNTRPLGNWFGCT
WMNSTGFTKVCAPPVCIGVGNNTLLCPDCFRKYPEATYSRCGSGPRITPRCMVDYPYRL
WHYPCTINYTIKFVRMYVGGVEHRLEAACNWTRGERCDLEDRDRSELSPLLSTTQWQVLP
CSFTTLPALSTGLIHLHQNIVDVQYLYVGSSIASWAIKWEYVLLFLLADARVCSCLWMM
LLISQAEAALENLVLNAASLAGTHGLVSFLVFFCFAWYLKGRWVPGAVYALYGMWPLLL
LLALPQRAYALDTEVAASCAGGVVLVGLMALTLSPYYKRYISWCWWLQYFLTRVEAQLHV
WVPPNVRGGRDAVILLTCVVHPALVFDITKLLAIFGPLWILQASLLKVPYFVRVQGLLRIC
ALARKIAGGHYVQMAIILGALTGTCVYNHLAPLRDWAHNGLRDLAVAVEPVVFSRMETKL
ITWGADTAACGDIINGLPVSARRGQEILLGPADGMVSKGWRLAPITAYAQQTRGLLGCIITS
LTGRDKNQVEGEVQIVSTATQTFLATCINGVCWTYHGAGTRTIASPKGVIQTYTNVDQDL

VGWPAPQGSRSLTPCTCGSSDLYLVTRHADVIPVRRRGDSRGSSLSPRISYLGSSGGPLLCPTGHAVGLFRAAVCTRGVAKAVDFIPVENLETTMRSPVFTDNSSPPAVPQSFQVAHLHAPTGS GKSTKVPAAAYAAKGYKVLVLPNSVAATLGFGAYMSKAHGVDPNIRTGVRTITGSPITYSTY GKFLADAGCSGGAYDIIICDECHSTDATSISIGTVLDQAETAGARLVVLATATPPGSVTVSHP NIEEVALSTTGEIPFYGKAIPLEVIKGGRHIFCHSKKKCDELAALKVALGINAVAYYRGLDVS VIPTSGDVVVVSTDALMTGFTGDFDSVIDCNTCVQTVDLSLDPFTIETTLQPDAVSRTQRR GRTGRGKPGIYRFVAPGERPSGMFDSSVLCCECYDAGCAWYELTPAETTVRLRAYMNTPGLP VCQDHLLGFWEGVFTGLTHIDAHFLSQTKQSGENFPYLVAYQATVCARAQAPPSSWDQMRKC LIRLKPTLHGPTPLLYRLGAVQNEVTLTHPIKYIMTCMSADLEVVTSTWLVGGVLAALAA YCLSTGCVVIVGRIVLSGKPAIIDPREVLYQEFDEMEECSQHLPYIEQGMMLAEQFKQKALGL LQTASRHAEVITPAVQTNWQKLEVFWAKHMWNFISGIQYLAGLSTLPGNPAIASLMAFTA AV TSPLTTGQTLLFNILGGWVAAQLAAPGAATAFGAGLAGAALDSVGLGKVLVDILAGYGAG VAGALVAFKIMSGEVPSLEDLVNLLPAILSPGALAVGVVFASILRRRVGPGEHAVQWMNR LI AFASRGNHVSPTHYVPESDAAARVTAILSSLTVTQLLRRRHQWISSECTTPCSGSWLRDIW DW ICEVLSDFKTWLKAKLMPQLPGIPFVSCQRGYRGVWRGDGIMHTRCHCGAEITGHVKNGTM RIVGPRCKNMWSGTFFINAYTTGPCTPLPAPNYKFALWRVSAEYVEIRRVDHFHYVSGMT TDNLKCPCQIPSPEFFTTELGVRLHRFAPPCKPLLREEVSFRVGLHEYPVGSQLPCEPEPDVA V LTSMLTDPSHITAEAAGRRLARGSPPSMASSASQLSAPSLKATCTANHDSPDAELIEANLL W RQEMGGNITRVESENKVVILDSFDPLVAEEDEREVSVPAEILRKSRRFAPALPVWARPDYNPL LVETWKKPDYEPPVVGCPPLPPRSPPVPPPRKKRTVVLTESTLPTALAELATKSGSSSTSGIT GDNTTSSEAPSGCPPSDVYESYSSMPPLEGEPGDPPDSLGSWSTVSSGADTEDVVCCSMSY SWTGALVTPCAAEEQKLPIINALSNSLLRHHLVYSTTSRSACQRKKKVTFDRLQVLD SHYQD VLKEVKAASKVKANLLSVEEACSLAPPHSAKSKFGYGAKDVRCHAR KAVAHI NSVWKDL LEDSVTPIDTTIMAKNEVFCVQPEKGGRKPARIIVFPDLGVRVCEKMALYDVVSKLPLAVMG SSYGFQYSPGQRVEFLVQAWKS KTPMGLSYDTRCFDSTVTESDIRTEAIYQCCDLDPQAR VAIKSLTERLYVGGPLTNSRGENCGYRRCRASRVLTSCGNTLTRYIKARAACRAAGLQDCT MLVCGDDLVVICESAGVQEDAASLRAFTEAMTRYSAPPGDPPQPEYDLELITSCSSNVSAH DGAGKRVYYLTRDPTTPLARA A伟 TARHTPVNSWLGNIIMFAPTLWARMILMTHFFSVLIAR DQLEQALNCEIYGACYSIEPLDLPIIQLRHGLSAFSLHSYSPGEINRVAACLRKLGVPLRAW RHRAWSVRARLLARGGKAAICGKYLNFNAVRTKLKLTPITAAGRLLSGWFTAGYSGGDIY HSVSHARPRWFWFCLLLAAGVGIYLLPNR

>DP00207|P21513#498-1061

MKRMLINATQQEELRVALVDGQRLYDLDIESPGHEQKKANIYKGKITRIEPSLEAAFVDYGA
ERHGLPLKEIAREYFPANSAHGRPNIKDVLREGQEIVQIDKEERGNKGAALTFISLAGSY
LVLMPNNPRAGGISRRIEGDDRTELKEALASLELPEGMGLIVRTAGVGKSAEALQWDLDFR
KHWEAIKKAESRPAPFLIHQESNVIVRAFRDYLQDIGEILIDNPKVLELARQHIAALGRP
SSKIKLYTGEIPLFSHYQIESQIESAFQREVRPLSGGSIVIDSTEALTAIDINSARATRG
FNTNLEAADEIARQLRLRDLGGLIVIDFIDMTPVRHQRAVENRLREAVRQDRARIQISHIS
LLEMSRQRLLSPSLGESSHVCPRCSGTGTVRDNESSLSSILRLIEEEALKENTQEVA
SYLLNEKRSAVNIAETRQDGVRVCIVPNDQMETHYHVLVRVKGEETPTLSYMLPKLHEEAM
ALPSEEEFAERKRPEQPALATFAMPDVPPAPTPAEPAAVVA
PAPKAAPATPAAPA
QPGPLL
FFGALKALFSGGEETKPTEQPAPKAEAKPERQQDRRKPRQNNRRDRNERRDTRSERTEGSDN
REENRRNRRQAQQQTAETRESRQQAEVTEKARTADEQQAPR
RERSRRRNDDKRQAQQ
EA
ALNVEEQSVQETEQEERVRPVQPRRKQRQLNQKVRYEQSVA
EEAVVAPVEETVAAEPIVQ
EAPAPRTELVKVPLPVVAQTAPEQQEENNADNRDNGGMP
RRSPRHLRVSGQR
RRRYRD
ERYPTQSPMPLTVACASPELASGKVWIRYP
IVRPQDVQVEEQRE
QEEVHVQPMVTEVPAAA
IEPVVSAPVVEEVAGVVEAPVQVAEPQPEV
VETTHPEVIAAAVTEQPV
QVITESDVAVA
AQEVAE

QAEPVVEPQEETADIEVVETAEVVAEPEVVAQPAAPVVAEVAEVEVAAVEPEVTVEH
NHATAPMTRAPAPEYVPEAPRHSWDQRPTAFEGKGAAGGHTATHHASAAPARPQPVE
>DP01132|Q12778|#242-266

MAEAPQVVEIDPDFEPLPRRSCTWPLRPEFSQSNSATSSPAPSGSAAANPDAAAGLPSASAA
AVSADFMNSNLSEESEDFPQAPGSVAAAVAAAAAAATGGLCDFQGPEAGCLHPAPPQPP
PPGPLSQHPPVPPAAAGPLAGQPRKSSSRNAWGNLSYADLITKAIESSAEKRLTLSQIYEW
MVKSVPYFKDKGDSNSSAGWKNISRHNLSHSKFIRVQNEGTGKSSWWMLNPEGGKSGKSP
RRRAASMDNNSKFAKRSRSAAKKKASLQSGQEGAGDSPGSQFSKWPASPGSHSNDDFDNWS
TFRPRTSSNASTISGRSPIMTEQDDLGEVDHSMVYPPSAAKMASTLPSLSEISNPENMENLL
DNLNLLSSPTSLTVSTQSSPGTMMQQTPCYSFAPPNTSLNSPSPNYQKYTYGQSSMSPLPQMPI
QLQDNKSSYGGMSQYNCAPGLLKEELTSDSPPHNDIMTPVDPGVAQPNRSVLGQNVMGMGP
NSVMSTYGSQASHNKMMNPSSHTPGHAQQTSAVNGRPLHTVSTMMPHTSGMNRLTQVKT
PVQVPLPHPMQMSALGGYSSVSSCNGYGRMGLLHQEKLPSDLGMFIERLDCDMESIIRNDL
MDGDTLDNFNDNVLPNQSFPHSVKTTTHSWVSG

>DP01164|Q13625|#693-918

MMPMFLLTVYLSNNEQHFTEVPVTPETICRDVVDLCKEPGESDCHLAEVWCGSERPVADNER
MFDVLQRFGSQRNEVRFLRHERPPGRDIVSGPRSQDPSLKRNGVKVPGEYRRKENGVNSPR
MDLT LAELQEMASRQQQIEAQQQLLATKEQRLKFLKQQDQRQQQVAEQEKLKRLKEIAE
NQEAKLKKVRAKGHEQKRLSNGKLVEEIEQMNNLFQQKQRELVLA VSKVEELTRQLEML
KNGRIDSHHDNQSAVAELDRLYKELQLRNKLNQEQAQLQQRECLNKRNSEVA VMDKRV
NELRDRWKKAALQQKENLPVSSDGNLPQQAASAPSRAAVGPIIQSSTMPRMPSPRELLV
KPALPDGLSVIQASEGPMKIQTLPNMRSGAASQTKGSKIHPVGPDWSPSNADLFPSQGSASVP
QSTGNALDQVDDGEVPLREKEKKVRPFSMFDAVDQSNAPPFGTLRKRNQSSEDI LRDAQVAN
KNVAKVPPPVPDKPKQINLPYFGQTNQPPSDIKPDGSSQLSTVPSMGT KPKPAGQQPRVLL
SPSIPSVGQDQTLSPGSKQESPPAAAVRPFTPQPSKDTLLPPFRKPQTVAASSIYSMYTQQQAP
GKNFQQAVQSALT KTHTRGPFSSVYGKPVIAAAQNQQQH PENIYSNSQGKPGSPEPETEPVS
SVQENHENERIPRPLSPTKLLPFLSVPYRNQSDADLEALRKKL SNAPRPLKKRSSITEPEGPNGP
NIQKLLYQRTTIAAMETISVPSYPSKSASVTASSESPVEIQNPYLHVEPEKEVVSLVPELSPED
VGNASTENSDMPAPSPGLDYEP EGVPD NSPNLQNNPEEPNPEAPHVLDVYLEYPPYPPPPYP
SGEPEGPGEDSVSMR PPEITGQVSLPPGKRTNLRKTG SERIAHGMRVKFNFNPLALLLDSSLEG
DLVQRIIYEVDDPSLPNDEGITALHNAVCA GHTEIVKFLVQFGVNVAADSDGW TPLHCAAS
CNNVQVCKFLVESGAAVFAMTYSDMQTAADKCEEMEEGYTQCSQFLYGVQEKGIMNKG
VIYALWDYEPQNDDELMKEGDCMTIIHREDEDEIEWWWARLNDKEGYVPRNLLGLYPRIK
PRQRSLA

>DP01531|O75554|#276-376

MADYWKSQPKKFCDYCKCWIADNRPSVEFHERGKNHKENVAKRISEIKQKSLDKAKEEEKA
SKEFAAMEAAALKAYQEDLKRLGLESEILEPSITPVSTIPPTSTSQQKEKKEKKRKKDPSK
GRWVEGITSEGYHYYDLISGASQWEKPEGFQGDLKKTAVKTVWVEGLSEDGF TYNTET
GESRWEKPDFFIPTSDLPSSKVNENSLGTLDESKSSDHSDSDGEQEAEEGGVSTETEKP KIK
FKEKNKNSDGGSDPETQKEKSIQKQNSLGSNEEKSKTLKKSNPYGEWQEIKQEVEVESHEEVDL
ELPSTENEYVSTSEADGGEPKVVFKEKTVTSLGVMADGVAPVFKRRTENGKSRNLRQRG
DDQ

>DP01804|P53999|#1-60

MPKSKELVSSSSGSDS DSEVDKKLKRKKQVAPEKPVKKQKTGETSRALSSKQSSSRDDN
MFQIGKMRYVSVRDFKGKVLIDIREYWMDPEGEMKPGKG ISLNPEQWSQLKEQISDIDDAV
RKL

>DP01517|Q06710|#1-27 #62-86 #135-146

MPHNSIRSGHGLNQLGGAFVNGRPLPEVVRQRIVDLAHQGVRPCDISRQLRVSHGCVSKIL
GRYYETGSIRPGVIGGSKPKVATPKVVEKIGDYKRQNPTMFAWEIRDRLAEGVCDNDTVPS
VSSINRIIRTKVQQPNLPMDCSVAKSLSPGHTLIPSSAVTPPESPQSDSLGSTYSINGLLGIAQ
PGSDKRKMDSDQDSCRLSIDSQSSSSGPRKHLRTDAFSQHHLEPLECPFERQHYPEAYASPS
HTKGEQGLYPLPLLNSTLDDGKATLTPSNTPLGRNLSTHQTYPVVADPHSPFAIKQETPEVSSS
SSTPSSLSSSAFLDLQQVGSGVPPFNAFPHAASVYQFTGQALLSGREMVGPTLPGYPPIPTS
GQGSYASSAIAGMVAGSEYSGNAYGHTPYSSYSEAWRFPNSSLSSPYYYYSSTSAPPTTA
TAFDHL

>DP00516|P60472|#72-83 #239-253

MMLSATQPLSEKLPAPHCRHVAIMDGNGRWAKKQGKIRAFGHKAGAKSVRAVSFAANN
GIEALTLYAFSSENWNRPQAQEVSALMELFWALDSEVKSLHRHNVRLLIIGDTSRFNSRLQER
IRKSEALTAGNTGLTNIAANYGGRWDIVQGVRQLAEKVQQGNLQPDQIDEEMLNQHVCMH
ELAPVDLVIRTGGEHRISNFLWQIAYAELYFTDVLWPDFDEQDFEGALNAFANERRFGGTE
PGDETA

>DP01449|Q15637|#1-25 #69-95

MATGANATPLDFPSKKRKRSRWNQDTMEQKTVIPGMPTVIPPGLTREQERA YIVQLQIEDLT
RKLRTGDLGIPPNPEDRSPSPEPIYNSEGKRLNTREFTRKKLEERHNLITEMVALNPDKPP
ADYKPPATRVSDKVMIPQDEYPEINFVGLLIGPRGNTLKNIKECNAKIMIRGKGSVKEGVG
RKDGQMLPGEDEPLHALVTANTMENVKKAVEQIRNILKQGIETPEDQNDLRKMQLRELARL
NGTLREDDNRILRPWQSSETRSITNTVCTKCGGAGHIASDCKFQRPGDPQSAQDKARMDE
YLSLMAELGEAPVPASVGSTSGPATPLASAPRPAAPANNPPPSLMSTTSRPPWMNSGPSE
SRPYHGMHGGPGGGPGGGPHSFPHPLPSLTGGHGGHPMQHNPNGPPPPWMQPPPPPMNQGP
HPPGHHGPPPMDQYLGSTPGVSGVYRLHQKGKMMPPPMGMMPPPPPSGQPPPPPSGPLP
PWQQQQQQPPPPSSMASSTPLPWQQNTTTTSAGTGSIPPWQQQAAAASPGAPQM
QGNPTMVPPLPGVQPPLPPGAPPAPPNGSAGMMYAPPAPPMDPSNFVTMMGMGVAG
MPPFGMPPAPPPPPQN

>DP00725|P41851|#44-85

MKELLAPVQAWWRSVTPREQKVMVMGALTVALIAIAYWGIWQPLSERTAQAQARLQTEKQ
LLSWVSENANDIVLRAQGGSDAPSDQPLNQVITNSTRQFNIELIRVQPRGEMMQVWIQPLF
SQLVSWIAYLQERQGVSDAIDIDRGKVNGVVEVKRLQLKRGG

>DP00846|O60888|#45-60 #170-179

MSGGRAPAVLLGGVASLLSFVWMPALLPVASRLLLPRVLLTMASGSPPTCPSPASDSGSG
YVPGSVSAAFVTCNEKVAKEIARAVVEKRALACVNLIQITSIYEWKGKIEEDSEVLMMIKT
QSSLVPALTDFVRSVHPYEVAEVIALPVEQGNFPYLQWVRQVTESVSDSITVLP

>DP00754|Q70Q12|#62-94

MLGAATGLMVLVAVTQGVWAMDPEGPDNDERFTYDYYRLRVVGLIVAACL VIGIIILLAG
KCRCKFNQNKRTRSNSGTATAQHLLQPGEATEC

>DP01484|P04626|#988-1255

MELAALCRWGLLALLPPGAASTQVCTGTDMLRHPASPEHLDMLRHYQGCQVVQGNL
ELTYLPTNASLFLQDIQEYQGYVILAHNQVRQVPLQRLRIVRGTQLFEDNYALAVLDNGDPL
NNTPVTGASPGLRELQLRSLTEILKGGLIQRNPQLCYQDTILWKDIFHKNQQLALTIDTN
RSRACHPCSPMCKGSRCWGESSEDCQLTRVCAGGCARCKGPLPTDCCHEQCAAGCTGPK
HSDCLACLFNHSGICELHCPALVTYNTDTFESMPNPEGRTFGASCVTACPYNYLSTDVGSC
TLVCPLHNQEVTaedGTQRCEKCSKPCARVCYGLGMEHLREVRAVTSANIQEFA GCKKIFGS
LAFLPESFDGDPASNTAPLQPEQLQVFETLEEITGYLYISAWPDSLDSVFQNLQVIRGRILHN
GAYSLTLQGLGISWLGLRSLRELGSGLALIHHTLCFVHTVPWDQLFRNPHQALLHTANRP
EDECVGEGLACHQLCARGHCWGPPTQCVNC SQFLRGQECVECRVLQGLPREYVNARHCL

PCHPECQPQNGSVTCFGPEADQCVACAHYKDPPFCVARPSGVKPDLSSYMPIWKFPDEEGAC
QPCPINCTHSCVDLDDKGCPAEQRASPLTSIISAVVGILLVVVLGVVFILIKRRQQKIRKYTM
RRLLQETELVEPLTPSGAMPNQAQMRLKETELRKVKVLGSAFGTVYKGIWIPDGENVKIPV
AIKVLRENTSPKANKEILDEAYVMAGVGSPYVSRLLGICLTSTVQLTQLMPYGCLLDHVRE
NRGRGLGSQDLLNWCMQIAKGMSYLEDVRLVHRDLAARNVLVKSPNVKITDFGLARLLDID
ETEYHADGGKVPIKWMALESILRRRFTHQSDVWSYGVTVWELMTFGAKPYDGIPAREIPDLL
EKGERLPQPPICTIDVYMIMVKCWMIDSECRPRFRELVSEFSRMARDPQRFVVIQNEDLGPAS
PLDSTFYRSLLLEDDDMGDLVDAEELYVPQQGFFCPDPAPGAGGMVHHRHRSSTRSGGGDL
TLGLEPSEEAPRSPLAPSEGAGSDVFDGDLGMGAAKGLQLPTHDPSPQRYSEDPTVPLPSE
TDGYVAPLTCSQPPEYVNQPDVRPQPPSPREGPLPAARPAGATLERPKTLSPGKNGVVKDVF
AFGGAIVENPEYLTPQGGAAPQPHPPAFSPAfdNLYYWDQDPERGAPPSTFKGPTAENPEY
LG LD V PV

>DP01322|Q01924|#396-591

MNNKMFLNKEAGFLAHTKRKRRFAVTLVGVFFMLLASAGAIGFGQVAYAADEKTVPHRVS
QNPEFPWYGYDFYKGPYTRYHNLQLNLNGSKTYQAYCFNLKRFEPKKEGSYFPNWyKRWD
GSEETFVKYADNPRKDNESSRVIDVELEKNILRVLYNGYPNNNGNGIMEGLEPLNAILVTQNAV
WYYSDNSSIFNTDNFFTTEAKDLNIKPEQLSLMRVALKKLIDPKLSEESLKPVFSTRLNIFESQ
DKLYQNLLSAEFVPENPPKGETPEHGPKTPLEDGTPipeGPQRPNESLEPTLPPVMDGQEVP
EVPSesLEPALPPLMPELDGQEVP E VPSESLEPALPPLMPELDGQEVP E KPSV DLP IED P R Y E FN
NKDQSPLAGESGETEYITEVYGNQNPVDIDKKLPNETGFSGNMVETEDTKEPGVLMGGQSE
SVEFTKDTQTMSGQTTPVQVETEDTKEPGVLMGGQSESVEFTKDTQTMSGQTA SQVETED
TKEPGVLMGGQSESVEFTKDTQTMSGQTTPVQVETEDTKEPGVLMGGQSESVEFTKDTQTG
MSGFSETVTIVEDTRPKLVFHFDNNEPKVEENREKPTKNITPILPATGDIENVLAFLGILJLSVP
IFSLLKKQTKQ

>DP01648|P84022|#1-10 #133-144 #176-211

MSSILPFTPPIVKRLLGWKKGEQNGQEEKWCEKAVKSLVKKLKKTGQLDELEKAITTQNVNT
KCITIPRSLDGRLQVSHRKGLPHVIYCRLWRWPDLHSHHELRAMELCEFANMKDEVCVNP
YHYQRVETPVLPVLVPRHTEIPAEPPLDDYSHSIPENTNFPIAGIEPQSNIPETPPPGYLSEDGE
TSDHQMNHSMDAGSPNLSNPMSPAHNLLDQPVTYCEPAFWCSISYYELNQRVGETFHAS
QPSMTVDGFTDPSNSERFCLGLLSNVNRNAAVELTRRHIGRGRVLYYIGGEVFAECLSDSAIF
VQSPNCNQRYGWHPATVCKIPPGCNLKIFNNQEFAALLAQSVNQGFEAVYQLTRMCTIRMSF
VKGWGAEYRRQTVTSTPCWIELHLNGPLQWLKDVKLTQMGSPSIRCSSVS

>DP00033|P10912|#270-620

MDLWQLLTLALAGSSDAFGSEATAILSRAPWSLQSVNPGLKTNSSKEPKFTKCRSPERET
FSCHWTDEVHHGTKNLGIQLFYTRRNTQEWTEWKECPDYVSAGENSCYFNSSFTSIWIPY
CIKLTNGGTVDEKCFSVDEIVQPDPPIALNWTLLNVSLTGHADIQVRWEAPRNADIQKGWM
VLEYELQYKEVNETWKMMDPILTTSPVYSLKVDKEYEVVRSKQRNSGNYGEFSEVLYV
TLPQMSQFTCEEDFYFPWLIIIFGIFGLTVMLFVFLFSKQQRIKMLILPPVPVPKIKGIDPDLLK
EGKLEEVTILAIHDSYKPEFHSDDSWVEFIELDIDEPEDEKTEESDTRLLSSDHEKSHSNLGV
KDGDSGRTSCCEPDILETDFNANDIHEGTSEVAQPQRLKGEADLLCLDQKNQNNSPYHDACP
ATQQPSVIQAEKNKPQPLTEGAESTHQAAHIQLSNPSSLNIDFYAQVSDITPAGSVVLSPGQ
KNKAGMSQCDMHPEMVSLCQENFLMDNAYFCEADAKK CIPVAPHIKVESHIQPSLNQEDIYI
TTESLTTAACRPGTGEHVPGSEMPVDPYTSIHIVQSPQGLILNATALPLPDKEFLSSCGYVSTD
QLNKIMP

>DP00352|O33599|#26-44 #147-182

MKKLTAAAIATMGFATFTMAHQADAATTNTQQAHTQMSTQSQDVSYGTYYTIDSNGDYH
HTPDGNWNQAMFDNKEYSYTFVDAQGHTHYFYNCYPKNANANGSGQTYVNPATAGDNN

YTASQSQQHINQYGYQSVGPDASYSHSNNNQAYNSHDNGKVNYPNGTSNQNGGSASK
ATASGHAKDASWLTSLRKQLQPYGQYHGGGAHYGVSYAMPENSPVSLTDGTVVQAGWSN
YGGGNQVTIKEANSNNYQWYMHNNRLTVSAGDKVKAGDQIAYSGSTGNSTAPHVFQRMS
GGIGNQYAVDPTSYLQSR

>DP00091|P27088#1-84 #181-265

MEPEPEPEQEANKEEKILSAAVRAKIERNRQRALMLRQARLACRPYPTGEGISTVKAPPKVI
DSGGFFFIEEEEAEQHVENVVRQPGVLECDYLICEECGKDFMDSYLSNHFDLAVCDSCRD
AEEKHKLIRTEAKQEYLLKDCDIDKREPVLKFILKKNPHTHWGDMKLYLKAQVIKRSLEV
WGSEEALEEAKEVRKDNRDKMKQKKFDKKVKELRRTVRSSLWKKEASGHQHEYGPEEHVE
EDSYKKTCITCGYEMNYEKM

>DP01113|D0PV95#1-168

MESNQSNNGGSGNAALNRGGRYVPPHLRGDGAAAAASAGGDDRRGGAGGGGYRRGGG
NSGGGGGGYDRGYNDNRDDRNRRGGSGGYGRDRNYEDRGYNGGGGGNRYNNNRG
GGGGGYNRQDRGDGGSSNFSRGGYNRDEGSDNRSGRSYNNDRDNGDGQNTRWNNL
DAPPSRGTSKWENRGARDERIEQELFSGQLSGINFQYEEIPVEATGDDVPQPISLFSDSLH
WIEENIKTAGYDRPTPVQKYSIPALQGGRDLMSCAQTGSGKTAFLVPLVNAILQDGPDAVH
RSVTSSGRKKQYPSALVLSPTRELSQLQFNESRKFAVRTPITSALLYGGRENYKDQIHKLRLG
CHILIATPGRLIDVMDQGLIGMEGCRYVLDEADRMLDMGFEPQIRQIVECNRMPSTEERITA
MFSATFPKEIQLLAQDFLKENEVFLAVGRVGSTSENIMQKIVVWEDEKRSYLMDDATGD
SSLTLVFVETKRGASDLAYYLNQRQNYEVVTIHGDLKQFEREKHLDLFRTGTAPILVATAAA
RGLDIPNVKHVINYDLPDVDEYVHRIGRTGRVGNVGLATSFFNDKNRNIARELMDLIVEAN
QELPDWLEGMSGDMRSGGYRGRGGNGQRFGRDHRYQGGSGNGGGNGGGGF
GGQRSGGGGGFQSGGGGRQQQQQRAQPQQDWWS

>DP01986|Q9ZLR7#1-20

MELGNKNIKPGRKRVAVDELKRNFVTFYLSKEEHDVRLRADEEVESVNSFVKRHILKTIY
KKGTNQDSSINCDSRSSL

>DP00455|P84092#130-158 #223-239

MIIGGLFIYNHKGEVLISRVRDDIGRNAVDAFRVNVIHARQQVRSPTNIARTSFFHVKR
WLAATVKQNVNAAMVFEFLYKMCVDVMAAYFGKISEENIKNNFVLIYELLDEILD
TGALKTFITQQGIKSQHQTKEEQSQITSQVTGQIGWRREGIKYRRNELFLDV
LESVNLLMSPQ GQVLSAHVSGRVVMKSYLSGMPECKFGMNDKIVIEKQGKT
ADETSKSGKQSIAIDDCTFHQ CVRLSKFDERSISFIPP
GEFELMRYRTTDIILPFRVPLREVGRTKLEVKKVVIKSNFKPSLL
AQKIEVRIPTPLNTSGVQVICMKGAKYKASENAIVWKIKRMAGM
KESQISAEIELLPTNDKK KWARPPISMNF
EVFAPSGLKVRYLKVFEPKLNYS
DHDIKVVRYIGRS
GIYETRC

>DP01498|O70480#47-117

MPPKFKRHLNDDDVTGVS
KSERRNLLEDDSD
EEEDFFL
RGPSGPRFGPRNDKIKHV
QNVDE
VIDVMQENITK
VIERGERL
DELQDK
SESLDN
ATAFS
NRSK
QLRRQM
WWRGCK
KAIM
MALAA
A
ILL
L
M
II
L
I
V
V
KFRT

>DP02118|P19836#1-75 #217-272 #296-312 #311-367

MDAQSSAKVNSRKRKEVPGPNGATEEDGIPS
KVQRCAVGLRQ
PAPFS
DEIEVDFSK
PYV
RV
TMEEACRGTPC
ERPV
YADGIF
DLFHS
GHARAL
MQAK
NL
FPNT
YL
IV
GVCS
DEL
THNF
KG
TVM
NENERY
DAV
QHCRY
DEV
VRN
AP
WT
L
TPE
FLA
EHR
IDF
VA
HDD
D
PY
SS
AG
S
DD
V
Y
K
HI
KEAGMF
APT
QRT
EG
IST
SDI
ITR
V
D
Y
ARR
NL
L
Q
RG
Y
TA
KEL
N
V
S
REF
IG
SF
LEM
FG
PEG
ALK
HML
KEG
K
GR
M
L
Q
A
I
SP
K
Q
SP
SS
P
THER
SP
PS
F
R
W
P
F
SG
KT
SP
SS
P
A
LS
R
CK
A
V
TCD
I
SE
DE
ED

>DP00020|P11938#1-123 #210-359 #481-511 #564-570 #578-585 #594-674

MSSPDDFETAPA
EYV
DAL
DPS
MV
V
V
DS
G
S
AA
V
T
A
P
S
D
S
A
A
E
V
K
A
N
Q
N
E
E
N
T
G
A
T
A
E
T
S
E
K

VDQTEVEKKDDDTTEGVTTT PSIADTAATANIASTSGASVTEPTTDDTAADEKKEQVSG
PPLSNMKFYLN RDADAHDLSN DIDLQLARLIRANGGEVLD SKPRESKENVFIVSPYNHTNLPTV
TPTYIKACCQSNSLLNMENLV PYDNFREV VDSRLQEESHSNGV DNSNSDN KDSIRPKTEII
STNTNGATEDSTSEKVMVDAEQQARLQEQAQLRQHVS STASITSGGHNDL VQIEQPQKDTS
NNNN SNVN DEDNDLLT QDNNPQTADEGNASFQAQRSMISRGALPSHNKASFTDEEDEFILDV
VRKNPRTTHTLYDEISHYVPNHTGNSIRHRFRV YLSKRLEYVYEVDFGKLVR DDDGNLI
TKVLPPSIKRKFSADEDYTLAIAVKKQFYRDLFQIDPDTGRSLITDEDPTAIARRNMTMDPN
HVPGSEPNFAAYRTQSRRGPIAREFFKHFAEEHAHTENAWRDRFRKFLAYGIDDYISYYEA
EKAQNREPEPMKNLTNRPKRPGVPTPGNYNSAAKRARNYSSQRNVQPTANAASANAAAAA
AAAASNSYAIPENELLDEDTMNFISSLKNDLSNISNSLPFEYPHEIAEAIRSDSNEDIYDNIDPD
TISFPPKIATTDLFPLFFFHFGSTRQFM DKLHEVISGDYEPSQA EKLVQDLCDET GIRKNFSTSIL
TCLSGDLMVFPRYFLNMFKDNVNPPP NVPGI WTHDDD ELSK SNDQE QIRKL VKKHGTGRME
MRKRFFEKDLL

>DP0057|P3990|#110-116 #146-157 #176-180 #230-236

MKFLLILLQATASGALPLNSSTSLEKNNVLFGERYLEKFYGLEINKLPVTKMYSGNLMKE
KIQEMQHQHFLGLKVTGQLDTSTLEMMHAPRCGV PDVHHFREMPGGPVWRKHYITYRINNYTP
DMNREDVDYAIRKA FQVWSNVTPLKFSKINTGMADILVV FARGAHGDFHAFDGKGGILAHA
FGPGSGIGGDAHFDEDEFWTT HSGGTNLFLTAVHEIGHSLGLGHSSDPKAVMFPTYKYVDINT
FRLSADDIRGIQSLYGDPKENQRLPNPDNSEPALCDPNLSFDAVTTVGNKIFFKDRFFWLKV
ERPKTSVNLISL WPTLPSGIEAAYEIEARNQVFLFKDDKYWLISNLRPEPNYPKSJHSFGFPNF
VKKIDA AVFNPRFYRTYFFVDNQYWRYDERRQMMDPGYPKLITKNFQGIGPKIDAVFYSKN
KYYYFFQGSNQFEYDFLLQ RITKTLKSNSWFGC

>DP01842|P05106|#737-762 #741-788

MRARPRPRPLWATV LAL GALAGVG VGGP NICTRGVSSC QQCLAVSPMC AWCSDE ALPLGS
PRCDLK ENLLKDNCAP ESIEFPVSEARVLED RPLSDKGSGDSSQVTQVSPQRIALRLRPDDSKN
FSIQVRQVEDYPV D IYLM DLSYSMKDDLWSIQNLG TKLATQMRKLT S NL RIGFGAFV DKPV
SPYMYISPPEALENPCYDMKTTCLPMFGYKHVLTLDQVTRFNEEVKKQSVSRN RD APEGGF
DAIMQATVCDEKIGWRNDASHLLVFTTD AKTHIALDGRLAGIVQPN DGQCHVGSDN HYSAS
TTMDYPSLGLMTEKLSQKNINLIFAVTENVNLYQNYSEI PGTVGVLSMDSSNV LQLIVDA
YGKIRSKVELEVRDLPEELSLSFNATCLNNEVIPGLKSCMGLKIGDTVFSIEAKVRGCPQEKE
KSFTIKPVGFKDSLIVQVT FDCDACQQAEPNSHRCNNNGTFECGV CRCGPWLGSQCEC
SEEDYRPSQQDECSPREGQPVCSRGECLGQCVC HSSDFGKITGKYCECDDFSCVRYKGEM
CSHGQCGSCGDCLCDSDWTGYYCNCTRT DCMSSNLLCSGRGKCECGSCVCI QPGSYGD
TCEKCPTCPDACTFKKEC VECKKFDRGA LH DENTCNRYCRDEIESVKELKDTGKD AVNCTY
KNEDDCVVRFQYYEDSSGKSILYVVEEPECPKGPDILV VLLSVMGA ILLIGLA ALLIWKL LITI
HDRKEFAK FEEERARAKW DTANN PLYKEATSTFTNITYRGT

>DP01459|P41352|#427-443

MREIVHIQGGQCGNQIGAKFW E VISDEH GIDPT GTYHGDSDLQLERINVYYNEATGGRYVPR
AILMDLEPGTMDS VRAGPFGQLFRPDNFVFGQTGAGNNWAKGHYTEGAELIDS VLDVVRKE
AEGCDCLQGFQITHSLGGGTGSGMGTLI SKVREEYDRIMETFSV VPSPK VSDTV VEPYNAT
LSVHQL VENADEC MVIDNEALYDICFR TLKLT TPTYGDLNHLV SAAMSGVTCCLRF PGQLNS
DLRK LAVNLIPFPR LHFFMIGFAPL TSRSQYRALT VPELTQ QMFDAKNMMCAADPRHGRY
LTASALFRGRM STKEVDEQMLNVQNKNSSYFVEWIPNNIKSSICDIPP KGLKMAVTFGNSTA
IQEMFKRVAE QFTAMFRRKAFLHWYTGE GMDEM EFTEAESNMNDLVSEYQQYQDATAEEE
GEFEEEEGEN

>DP00767|P27782|#302-319 #361-370

MPQLSGGGGGGDPELCATDEMIPFKDEGDPQKEKIFAEISHPEEEGDLADI KSSLVNESEIIPAS

NGHEVVRQAPSSQE PYHDKAREHPDEGKHPDGGLYNKGPSYSSYSGYIMMPNMNSDPYMS
NGSLSPPIPRTSNKVPVVQPSHAVHPLTPLITYSDEHFSPGSHPSHIPSDVNSKQGMSRHPPAPEI
PTFYPLSPGGVGQITPPIGWQGQPVYPITGGFRQPYPSSLGDTSMSRFSHHMIPGPPGPHTTG
PHPAIVTPQVKQEHPHTDSDLMHVKPQHEQRKEQEPKRPHIKKPLNAFMLYMKEMRANVVA
ECTLKESAAINQILGRRWHALSREEQAKYYELARKERQLHMQLYPGWSARDNYGKKKKRK
REKLQESTSGTGPRMTAAI

>DP01785|Q87P35|#1-125

MVNINTSHMQSQLTSHLATQNQADDKEIRAHNGKDIFVKEGAPKNKSVSARISHQNKAD
IVVNLLTKQGIPKDVKQMLQNVLNGENKLTGNLKNLERLSSGPSSHWPAAQTDTSKTS
KASSSVALINEHKDNLQKLGDFACTDLNTFGQKGSQFYETKGAPRLKALYANQARIAQDQR
ATMSASAQAAAQRGNAPQLSTLQNIAKYVQNAKAGCCTTFAFAAAAEMIQGMSGTPENQP
KVEVVAFKKGHSGTHLYVLVGRQEGLDKDPSTWNKDVKIVDPWAASAFGATMFGDAQRP
PVSNMFPPTEVIFDSHKLG

>DP01844|Q92540|#111-143

MSLQSAQYLRQAEVLKADM TD SKLGP AEVWTSRQALQDLYQKMLVT DLEYALDKKVEQD
LWNHAFKNQITTLQGQAKNRANPNRSEVQANLSLFLEAASGFYTQLLQELCTVFNVDLPCR V
KSSQLGIISNKQTHTSAIVKPQSSCSYICQHCLVHLGDIARYRNQTSQAESYYRHAAQLVPSN
GQPYNQLAILASSKGDHLTIFYYCRSIAVKFPFPAASTNLQKALSKALESRDEVTKWGVSDF
FIKAFIKFHGHVYLSKSLEKLSPLREKLEEQFKRLLFQKAFNSSQLVHVTVINLFQLHHLRDFS
NETEQHTYSQDEQLCWTQLLALFMSFLGILCKCPLQNESQEESYNAYPLPAVKVSMDWLRLR
PRVFQEAVVDERQYIWPWLISLLNSFHPHEEDLSSISATPLPEEFELQGFLALRPSFRNLDFSKG
HQGITGDKEGQQRRIRQQRLISIGKWIADNQPRLIQCENEVGKLLFITEIPELILEDPSEAKENLI
LQETSVIESLAADGSPGLKSVLSTS RNLNNCDTGEKPVVTOKENIKTREVNRDQGRSFPPKEV
RRDYSKGITVTKNDGKKDNNKRKTETKKCTLEKLQETGKQNVAVQVKSQTELRKTPVSEAR
KTPVTQPTPQASNSQFIPIHPGAFFPLPSRPGFPPTYVIPPPVAFSMGSGYTFAGVSPGTFL
QPTAHSPAGNQVQAGKQSHIPYSQQRPSGP GPMNQGPQQSQPSQQPLTSLPAQPTAQSTS SQL
QVQALTQQQQSPTKAVPALGKSPPHSGFQQYQQADASKQLWNPPQVQGPLGKIMPVKQPY
YLQTQDPIKLFEPSLQPPVMQQQPLEKKMKPFPMEPYHN PSEVKVPEFYWDSSYSMADNRS
VMAQQANIDRRGKRSPGVFRPEQDPVPRMPFEKSLLEKPSELMSHSSSFLSTGFSLNQERYP
NNSMFNEVYGKNLTSSSKAELSPSMAPQETS L YSLFEGTPWSPSLPASSDHSTPASQSPHSSNP
SSLPSPPTHNHNSVPFSNFGPIGTPDNDRRTADRWTDKPAMGGFGIDYLSATSSSESSWH
QASTPSGTWTGHGPSMEDSSAVLMESLKIWS SMMHPGSALEQLLMQQKQKQQRGQGT
MNPPH

>DP00090|Q14722|#1-62

MLAARTGAAGSQISEENTKLRRQSGFSVAGKDKSPKKASENAKDSSLSPSGESQLRARQLAL
LREVEMNWYLKLCDSLSEHTVCTTGMPhRLGKSGLRVSCGLGTWVTFGGQISDEVAER
LMTIAYESGVNLFTADEVYAAKGAEVILGSIKKKGWRSSLVITTKLYWGGKAETERGLSR
KHII EGLKGSLQRQLQEYVDVVFANRPDSNTPMEEIVRAMTHVINQGMAMYWGTSRWSAME
IMEAYSVARQFMIPPVCEQAELYHLFQREKVEVQLPELYHKIGVGAMTWSPLACGIISGKYG
NGVPESSRASLKCYQWLKERIVSEEGRKQQNKLKDLSPIAERLGCTLPQLAVA WCLRNEGVS
SVLLGSSTPEOLIENLGAIJOVLPKMTSHVVNEIDNILRNKPYSKKDYRS

>DP01581|Q8NQJ3|#1-40

MSDNNGTPEPVETTSVFRADLLKEMESSTGTAPASTGAENLPAGSALLVVKRGPAGARFL
LDQPTTAGRHPESDFLDDVTVSRRHAEFRINEGEFEVVDVGSLNGTYVNREPRNAQVMQT
GDEIOIGKERLVFLAGPAE

>DP01654|P36578|#46-63 #80-114 #301-320 #369-427

MACARPLISVYSEKGESSGKNVTLPAVFKAPIRPDIVNFVHTNLRKNNROPYAVSELAGHOTS

AESWGTGRAVARIPRVRGGGTHRSGQGAFGNMCRGGRMFAPTKTWRRWHRRVNTTQKRY
AICSALAASALPALVMSKGHRIEEVPELPLVVEDKVEGYKKTKEAVLLLKKLAWNDIKKVY
ASQRMRAGKGKMRNRRRIQRRGPCIYEDNGIKAFRNIPGITLLNVSKLNILKLAPGGHVGR
FCIWTESAFRKLDELYGTWRKAASLKSNYNLPMHKMINTDLISRILKSPEIQRALRAPRKKIHR
RVLKKNPLKNLRIMLKLNPYAKTMRRTILRQARNHKLVDKAAAAAAALQAQSDEKAAV
AGKKPVVGKKGKKAAGVKKQKPLVGKAAATKKPAPEKKPAEKPKTTEEKPKAA

>DP00631|P38634|#1-90

MTPSTPPRSRGTRYLAQPSGNTSSSALMQGQKTPQKPSQNLVPVTPSTTSFKNAPLLAPPNS
NMGMTSPFNGLTLSPQRSPFPKSSVKRTLQFESHDNGTVREEQEPLGRVNRLFPTQQNVDDID
AAEEEEGEVLLPPSRPTSARQLHLSLERDEFDQTHRKKIJDVPGTPSDKVITFELAKNWNN
SPKNDARSQESEDEEDIINPVRVGKNPFADELVTQEIRNERKRAMLRENPDIEDVITYVNKK
GEVVEKRRLTDEEKRKFKPALKFQSRDQEHEH

>DP01122|Q27934|#107-130

MSTNQQQANPSAAVAAPAASSEYLKRTCLICGCHTNQTINIYEPRSGPNIVQLIQAKFKFQPL
NEDKFLCFSCNNWLINWHSILQAVNSNEAESQSQSPPSHMGNSVLQQERTKLRPVAMVRPTVR
VQPQSQPQLQPQVPINPTPAPIVYSKRRASRRSASVSRMSRVLRQCCVESLRRSPKKRNQQSV
FVCLRPQGQKRSNAICKVECVAPRRKVERLVKDVAATATPTPVNLNTQSTPTYQRFPQPSVD
GKVVAMFRRRLGTTLSREEPAAAYSAESNPACSKLPQIMSPLKEAPRWTRDLDDEILLEFDTAI
SEVLPTARYQVTHEENKENQQAQEMELELEEEEVDGRAELEVQEAEPQSHHKQGN
SHQNSHQASIQLAGLRLPMGLSISL V

>DP01106|P16471|#236-598

MKENVASATVFLLLFLNTCLLNGQLPPGKPEIFKCRSPNKEFTFCWWRPGTDGLLPTNYSLT
YHREGETLMHECPDYITGGPNSCHFGKQYTSMWRTYIMMVNATNQMGSFSDELYVDVTYI
VQPDPPLEAVEVKQPEDRKPYLWIKWSPPTLIDLKTGWFTLLYEIRLKPEKAAWEIHFAGQ
QTEFKILSLHPGQKYLVQVRCKPDHGYSWAWSATFIQIPSDFTMDTTVWISAVLSAVICL
IIVWAVALKGYSMVTICFPPVPGPKIKGFDAHLLEKGKSEELL SALGCQDFPPTSDYEDLLVEY
LEVDDSEDQHLMHSVHSKEHPSQGMKPTYLDPDTDSRGSCDPSLLSEKCEEPQANPSTFYDP
EVIEKPENPETTHTWDPQCISMEGKIPYFHAGGSKCSTWPLPQPSQHNPRSSYHNITDVCELAV
GPAGAPATLLNEAGKDALKSSQTIKSREEGKATQQREVESFHSETDQDTPWLLPQEKTPEGSA
KPLDYVEIHKVNKGALSLLPKQRENSGKPKPGTPENNKEYAKVSGVMDNNILVLVPDPH
AKNVACFEESAKEAPPSLEQNQAEKALANFTATSSKCRQLGGLDYLDPACFTHSFH

>DP01703|Q99741|#70-90

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQTVTCSPRVKALPLSPRKRLGDD
NLCNTPHLPPCSPPKQGKENGPPHSHTLKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVR
KSQEITTNSEQRCPLKKESACVRLFQEGTCYQQAKLVLNTAVPDRLPAREREMDVIRNFLRE
HICGKKAGSLYLSGAPGTGKTACLRILQDLKKELGKFTIMLNCMSLRTAQAVFPAIAQEIC
QEEVSRPAGKDMMRKLEKHMTAEKGPMIVLVLDEMDQLDSKGQDVLYTLFEWPWLNSHL
VLIGIANTLDDTDRILPRLQAREKCKPQLLNFPYTRNQIVTILQDRLNQVSRDQVLDNAAVQF
CARKVSAVSGDVRKALDVCRRRAIEIVESDVKSQTLKPLSECKSPSEPLIPKRVGLIHSQVISEV
DGNRMTLSQEGAQDSFPLQQKILVCSMLLIRQLKIKEVTLGKLYEAYSVKCRKQQVAVDQ
SECLSLSGLEARGLGLKRNKETRLTKVFFKIEKEIEHALDKALIGNILATGLP

>DP00299|P0AE70|#16-28 #53-61

MVSRYVPDMGDLIWVDFDPTKGSEQAGHRPAVVLSPFMYNNKTGMCLCVPCCTTQSKGYPFE
VVLSGQERDGVALADQVKSIAWRARGATKKGTVAPEELQLIKAKINVLIG

>DP02488|O28769|#1-233

MKLTPQIVLIVVVASLVPVLGTYIAGMTSSAEEAKQGVTTVSQEYLTKAGEEEAVRMKAQ
DLALAVQTYIEAKMKLENKTMLTTFDLIQDPKFRSLGAQRWGAKEYTWVGAGNKVAGRDX

AVILTHPAFTGQYEKYLGVDVAMLRWNETMPELYNLLLKITENPEAPKPVCGYYHWDDPET
PEKEEIPKYLCHYPTTIKVYDPISKQLWVVGTSAYIDGYFQYLTQNPANPAENIASEISKV
EGAIQQVYYALGIAAAIAIVFIVLAVFTTSTITRPIELSNTADKIAEGNLEAEVPHQNRADEIG
ILAKSIERLRRSLKVAMESLEEALK

>DP00549|O00488|#1-35 #36-77 #78-116

MGRSRRTGAHRAHSLARQMKAKRRRPDLDEIHREL RPQGSARPQDPNAEFDPDLPGGGLH
RCLACARYFIDSTNLKTHFRSKDHKKRLKQLSVEPYSQEEAERAAGMGSYVPPRRLAVPTEV
STEVPEDMTST

>DP02192|O00571|#1-167

MSHVAVENALGLDQQFAGLDLNSSDNQSGGSTASKGRYIPPHLRNREATKGFYDKDSSGWS
SSKDKDAYSSFGSRSDSRGKSSFFSDRGSGSRGRFDDRGRSDYDGIGSRGDRSGFGKFERGGN
SRWCDKSDEDDWSKPLPPSERLEQELFSGGNTGINFEKYDDIPVEATGNNCPPHIESFSDVEM
GEIIMGNIELTRYTRPTPVQKHAIIKEKRDLMACAQTSGKTAFLPILSQIYSDGPGEALR
AMKENGRYGRRKQYPISLVAPTRELAVQIYEEARKFSYRSVRPCVVYGGADIGQQIRDLE
RGCHLLVATPGLRVDMMERGKIGLDFCKYVLDEADRMLDMGFEPQIRRIVEQDTMPPKGV
RHTMMFSATFPKEIQMLARDFLDEYIFLAVGRVGSTSENITQKVVVVEESDKRSFLDLLNAT
GKDSLTLVFVETKKGADSLEDFLYHEGYACTSIHGDRSQRDREEALHQFRSGKSPILVATAVA
ARGLDISNVKHVINFDLPSDIEYVHRIGRTGRVGNGLATSFFNERNINITKDLLDLLVEAKQ
EVPSWLENMAYEHHYKGSSRGRSKSSRFSGFGARDYRQSSGASSSFSSRASSSRGGGGH
GSSRGFGGGYGGFYNSDGYGGNYNSQGVDWGNG

>DP02525|P9WGI1|#1-224

MAATKASTATDEPVKRTATKSPAASASGAKTGAKRTAAKSASGSPPAKRATKPAARSVKPA
SAPQDTTSTIPKRKTRAAKSAAKAPSARGHATKPRAPKDAQHEATDPEDALDSVEELD
AEPDLDVEPGEDLDLDAADLNLDLEDDVAPDADDLDSGDEDHEDLEAAVAPGQTA
DDDEEIAEPTEKDKASGDFVWDEDESEALRQARKDAELTASADSVRAYLKQIGKVALLNAE
EEVELAKRIEAGLYATQLMTEL SERGEKLPAAQRRDMMWICRDGDRAKNHLEANLRLVVS
LA KRYTGRGMAFLDLIQEGNLGLIRAVEKFDTGYKFSTYATWWIRQA ITRAMADQARTIR
IPVHMVEVINKLGRIQRELLQDLGREPTPEELAKEMDTPEKVLEIQQYAREPISLDQTIGDEGD
SQLGDFIEDSEAVVAVDAVSFTLLQDQLQSVDLTL SEREAGVVRGLTDGQPRTLDEIGQV
YGVTRERIRQIESKTM SKLRHPSRSQVLRDYLD

>DP01463|Q9UHB7|#1-900

MNREDRNVLRMKERERRNQEIQQGEDAFPPSSPLFAEPYKVTSKEDKLSSRIQSMLGNYDEM
KDFIGDRSIPKLVAPIPKTVPPSADEKSNPFFEQRHGGSHQSSKWTPVGPAPSTSQSQKRSSG
LQSGHSSQRTSAGSSGTNSSGQRHDRESYNNSSRKKQHGSEHSKSRSSSPGKPQAVSS
LNSSHSRSHGNDHHSKEHQRSKSPRDPDANWDSPSRVPFSSQHSTQSFPPSLMSKNSMLQK
PTAYVRPMQGQESMEPKLSSEHYSSQSHGNSMTELKPSSKAHLTKLIPSQPLDASASGDVSC
VDEILKEMTHSWPPP LTAIHPCKTEPSKFPFTKESQQSNFGTGEQKRYNPSKTNGHQSKS
MLKDDLKLSSSEDSDGEQDCDKTMRSTPGNSEPSSHSEGADNSRDDS SHGSESSSGSD
SESESSSDSEANEPSQSASPEPEPPTNWKQLDNWLNVNPKVSPASSVDSNIPSSQGYKKE
GREQGTGNSYTDTSGPKETSSATPGRDSKTIQKGSESGRGRQKSPAQSDSTTQRRTVGKKQPK
KAEKAAAEEPRGGLKIESETPVDLASSMPSSRHKAATKGSRKPNIKKESKSSPRTAEKKYK
STSKSSQKSREIIETDTSSSDSDESELPPSSQTPKYPESNRTPVKPSSVEEEDSFRQRMFSPME
EKELLSPLSEPDDRYPLIVKIDLNLTRIPGKPYKETEPPKGEKKNVPEKHTREAQKQASEKVS
NKGKRKHKNEDDNRASESKKPKTEDKNSAGHKPSSNRESSKQSAAKEKDLLPSPAGPVPSKD
PKTEHGSRKRTISQSSLKSSNSNKETSGSSKNSSSTSKQKKTEGKTSSSKEVKEAPSSSN
CPPSAPTL DSSKPRRTKLVFDDRNYSADHYLQEAKKLKHNA DALSDRFEKAVYYLDAVVSFI
ECGNALEKNAQESKSPFP MYSETVDLIK YTMKLKNYLAPDATAADKRLTVLCLRCESLLYLR

LFKLKKENALKYSKTLTEHLKNSYNNSQAPSPGLGSKAVGMPSPVSPKLSPGNSGNYSSGASS
ASASGSSVTIPQKIHQMAASYVQVTSNFLYATEIWDQAEQLSKEQKEFFAELDKVMGPLIFNA
SIMTDLVRYTRQGLHWLRQDAKLIS

>DP01807|P49005|#42-53 #102-122

MFSEQAAQRAHTLLSPPSANNATFARVPVATYTNSSQPFRLGERSFSRQYAHYATRLIQMRP
FLENRAQQHWGSGVGVKLCELQPEEKCCVVGTLFKAMPLQPSILREVSEEHNLLPQPPRSK
YIHPDDELVLEDELQRRIKLGKGTIDVSKLVTGTVLAVFGSVRDDGKFLVEDYCFADLAPQKPAP
PLDTDRFVLLVSGLGLGGGGESLLGTQLLVDTGQLGDEGEQCSAAHVSRVILAGNLLSH
STQSRDSINKAKYLTKTQAASVEAVKMLDEILLQLSASVPDVMPGEFDPTNYTLPQQPLH
PCMFPALATAYSTLQLVTNPYQATIDGVRFLGTSGQNVSDIFRYSSMEDHLEILEWTLRVRHISP
TAPDTLGCYPFYKTDPFIFPECPhVYFCGNTPSGSKIIRGPEDQTULLTVPDFSATQTACLVN
LRSLACQPISFSGFGAEDDDDGLGLGP

>DP02194|P68466|#83-94 #116-128 #118-127

MATKLDYEDA VFYFVDDD KICSRDSIIDLIDEYITWRNHVIVFNKDITSCGRLYKELMKFDDV
AIRYYGIDKINEIVEAMSEGDHYINF KVHDQESLFATIGICAKITEHWGYKKISESRFQSLGNI
TDLMTDDNINILILFLEKKLN

>DP00661|Q9CX60|#1-105

MSVYFPIHCSDYL RSAEMTEVMMNAPS MEEIGLSPRKDG LSYQIFPDPSDFDRCCKLKDR LPS
IVVEPTEGEVESGELRWPPEEFLVQEDEQDNCEETTNEKKDQ

>DP00783|P10279|#23-121 #219-230

MVKSHIGSWILVLFVAMWSDVGLCKRPKG GG WNTGGS RYPGQGSPGNRYPPQGGGW
GQPHGGGWGQPHGGWGQPHGGWGQPHGGWGQPHGGGWGQGGTHGQWNKPSKPK
TNMKHVAGAAAAGAVVGGLGGYMLGSAMSRPLIHF GSDYEDRYYRENMHRYPNQVYYRP
VDQYSNQNNFVHDCVNITVKEHTVTTTKGENFTETDIKMMERVVEQMCITQYQRESQAYY
QRGASVILFSSPPVILLISFLIFLIVG

>DP02227|Q02821|#510-530

MDNGTDSSTS KFVPEYRRTNFKNKGRFSADELRRRRTDQQVELRKAKRDEALAKRRNFIPPT
DGADSDEEDESSVSADQQFYSQLQQELPQM TQQLNSDDMQUEQLSATVKFRQILSREHRPPID
VVIQAGVVPR LVEFMRENQPEMLQLEAAWALTNIASG TS AQTKV VVDADA VPLFIQLLYTGS
VEVKEQAIWALGNVAGDSTDYRDYVLQCN AMEPIGLFNSNKPSLIRTATWTLSNLCRGKKP
QPDWSVVSQALPTLA KLIYSMDTETLVDACWAISYLS DGPQEA IQAVIDV RIPKRL VELLSHE
STLVQTPALRAVGNIVTGNDLQTQV VINA GVLPA RL LSSPKENIKKEACWTISNITAGNTE
QIQAVIDANLIPPLVKLLEVAEYKTKEACWAISNASSGLQRPDIIRYL VSQGCIKPLCDLLEI
ADNRIIEVTLD ALENILKMG EADKEAR GLNINENAD FIEKAGGMEK IFNCQQNENDKIYEKAY
KIIETYFGEEDAVDETMAPQNAGNTFGFGSNVNQQFN FN

>DP01312|Q9UMX1|#279-360

MAELRPSGAPGPTAPPAPGPTAPP AFASLFP PGLHAIYGE CRR LYPDQPNPLQVTAIVKYWL G
GPDP LDYVSMYRN VGS PSANIPEHWHYISFG LSDL YGDN RVHEFTG TDGPSFGFELTF RLKR
ETGESAPPTWPAELMQGLARYVFQSENTFC SGD HVS WHS PLDN SSES RIQHMLL TEDPQM QPV
QTPFGVVTFLQIVGVCTEELHS AQWNGQG IELLRTVPIAGGPWLITDM RR GETIFEIDPHLQ
ERVDKG IETDGSNLSGVSAKCAW DLSRPP EDDED SRSI CIGTQ PRR LSGKDTEQIRETLR RGL
EINSKPVLPPINPQRQNGLAHDRA PSRK DSLES DSSTA IIPHELIRTRQLESVHLKF NQES GALIP
LCLRG RLLHGRHFTYKSITG DMAITF VSTG VEGA FATEEHPY AAH GPWLQILL TEEF VEKM LE
DLED L TSPEEF KLPKEY SWPEKKLKV SILPDV VFDSPLH

>DP00974|P42866|#1-51 #361-398

MDSSAGPGNISDCSDPLAPASCSPAPGSWLNLSHV DGNQSDPCGP NRTGLGGSHSLCP QTGSP
SMVTAITIMALYSIVCVVGLFGNFLVMYVIVRYTKMKTATNIYI FNLA LADALATSTLPFQSV

NYLMGTWPFGNILCKIVISIDYYNMFTSIFTLCTMSVDRYIAVCHPVKALDFRTPRNAKIVNV
CNWILSSAIGLPVMFMATTKYRQGSIDCTLTFSHPTWYWEWENLLKICVFIFAFIMPVLIITVCYG
LMILRLKSVRMLSGSKEKDRNLRRITRMVLVVAVFIVCWTPIHIYVIKALITIPETTFQTVSW
HFCIALGYTNNSCLNPVLYAFLDENFKRCFREFCIPTSSTIEQQNSARIQNTREHPSTANTVDRT
NHQLENLEAETAPLP

>DP01944|P31324|#1-103 #394-416

MSIEIPAGLTELLQGFTVEVLRHQPADLLEFALQHFTRLQQENERKGAARFGHEGRTWGDAG
AAAGGGIPSKGVNFAEPMRSDENSEEEEEAAEAGAFNAPVINRFTRRASVCAEAYNPDEEE
DDAESRIIHPKTDDQRNRQLQEACKDILLFKNLDPEQMSQVLDAMFEKLVKEGEHVIDQGDDG
DNFYVIDRGTFDIYVKCDGVGRGVNYDNRGSFGEALMYNTPRAATITATSPGALWGLDR
VTFRRIVKNNNAKKRKMYESFIESLPFLSLEVSERLKVVVDVIGTKVYNDGEQIIAQGDLADSF
FIVESGEVKITMKRKGKSEVEENGAVEIARCFRGQYFGEALVTNKPRAASAHAIGTVKCLA
MDVQAFAERLLGPCMEIMKRNIATYEEQLVALFGTNMDIVEPTA

>DP00518|O54918|#1-113

MAKQPSDVSSCDREGGQLQPAERPPQLRPGAPTSQTEPQGNPDGEGRCPHGPQGPLAPP
ASPGPFATRSPPLFIVRRSSLLSRSSSGYFSFDTDRSPAPMSCDKSTQTPSPPCQAFNHYLSAMA
SIRQSQEEPEDLRPEIRIAQELRRIGDEFNETYTRRVFANDYREAEDHPQMVLQLLRFIFRLVW
RRH

>DP01250|P02283|#2-27

MPPKTSGKAAKKAGKAQKNITKTDKKKKRKRESYAIYIYKVLKQVHPDTGISSKAMSIMNS
FVNDIFERIAAEASRLAHYNKRSTITSREIQTAVRLLLPGELAKHAVSEGTKAVTKYTSSK

>DP01990|P36894|#24-54 #104-120

MPQLIYIYIRLLGAYLFIIISRVQGQNLDMSLHGTGMKSDSDQKKSENGVTLAPEDTLPLKCYC
SGHCPDDAINNTCITNGHCFIAIIEDDQGETTLASGCMKYEGSDFQCKDSPKAQLRRTIECCRT
NLCNQYLQPTLPPVIGPFDGSIRWLVLISMCIAMIIFSSCFCYKHYCKSISSRRRYNRD
LEQDEAFIPVGESLKDLIDQSQSSGSGSGLPLVQRTIAKQIQMVRQVGKGRYGEVWMGKWR
GEKVAVKVFFTTEEASWFRETEIYQTVMRHENILGIAADIKGTGSWTQLYLITDYHENGL
YDFLKCATLDTRALLKLAYSAACGLCHLHTEIYGTQGKPAIAHRDLKSKNLIKNGSCCIAD
LGLAVKFNSDTNEVDVPLNTRVGTKRYMAPEVLDSELKNHFQPYIMADIYSFGLIWE MAR
RCITGGIVEEYQLPYNMVPSDPSYEDMREVVCVKRLRPIVSNRWNSDECLRAVLKLMSEC
WAHPASRLTALRIKKTLAKMVESQDVKI

>DP00084|P61244|#2-110

MSDNDDIEVESDEEQPRFQSAADKRAHHNALERKRRDHKDSFHSLRDSVPSLQGEKASRAQI
LDKATEYIYQYMRKRNHTHQDIDDLKRQNALLEQQVRALEKARSSAQLQTNPSSDNSLYT
NAKGSTISAFDGGSDSSSEPEEPQSRKKLRMEAS

>DP01053|Q6IBA2|#1-60

MPKSKELVSSSSGSDSEVDKKLKRKKQVAPEKPVKKQKTGETSRALSSKQSSSRDDN
MFQIGKMRYVSVRDFKGKVLIDIREYWMDPEGEMKGRKGISLNPEQWSQLKEQISDIDDAV
RKL

>DP00717|P35521|#75-85 #93-115

MSFLKSFPSSPGSAEGLRQQPETEAVLNGKGLGTGTLYIAESRLSWLDGSGLGFSLLEYPTISLH
AVSRDLNAYPREHLYVMVNAKFGGEESKESVAEEEDSDDVPIAEFRVPSDKSALEAMFTA
MCECQALHPDPEDEDSDDYDGEYDVEAHEQGQGDIPTFYTYEEGLSHLTAEQATLERLEG
MLSQSVSSQYNMAGVRTEDSTRDYEDGMEVDTPTVAGQFEDADVHD

>DP02122|Q02199|#121-154

MFGLNKASSTPAGGLFGQASGASTGNANTGFSFGGTQTGQNTGPSTGGLFGAKPAGSTGGLG
ASFGQQQQSQTNAFGGSATTGGGLFGNKPNNNTANTGGGLFGANSNSNSGSLFGSNNAQTS

RGLFGNNNTNNINNSSSGMNNASAGLFGSKPAGGTSLFGNTSTSSAPAQNQGMFGAKPAGTS
LFGNNAGNTTGGGLFGSKPTGATSLFGSSNNNNNNNSNNIMSASGGLFGNQQQLQQQP
QMQCALQNLSQLPITPMTRISELPQIRQEIEQLDQYIQLKQVQISHHLKADTIDHDELIDSIPRD
VAYLLKSESATSQYLKQDLKKISSFKSLIDEDELLDTQTFSVLLQQLTPGSKISSNDLDKFFQK
KIHYEKKLEDYCRILSDIETAVNGIDTDLFGAPNNPNSTAITALGSSEAENLLQLKTGLAAI
VSTVIEEFTLFMDIAERIAVLHQKTTLASLSI

>DP02251|P68363|#416-447

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHV
PRAVFVDLEPTVIDERTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIDLVLDRIRKLA
DQCTGLQGFLVFHSFGGGTGSFTSLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSIL
THTTLEHSDCAFMDNEAIYDICRRNLDIERPTYTNLNRLISQIVSSITASLRFDGALNVDLTE
FQTNLVPYPRHFPLATYAPVISAEKAYHEQLSVAEITNACFE PANQMVKCDPRHGKYMACC
LLYRGDVVPKDVAIAITKRSIQFVWCPTGFKGINYQPPTVVPGGLAKVQRAVCML
SNTTAIAEAWARLDHKFDLAMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVG
DSVEGECEESEEY

>DP01871|P68246|#137-181

MSDEEKKRRAATARRQHLKSAMILQALAVTEIEKEAAAKEVEKQNYLAEHCPLSLPGSMQEL
QELCKKLHAKIDSVDEERYDTEVKLQKTNKELEDLSQKLFDLRGKFKRPLRRVRMSADAM
LRALLGSKHKVNMDLRANLKQVKKEDTEKEKDLRDVGDRKNIEEKSGMEGRKKMFEAG
ES

>DP01180|Q8RY59|#468-509 #568-589

MEAKIVKVLDSRCEDFGKKRKRAASYAAYVTGVSCAKLQNVPPPNCQCQIPDKRRRLEG
ENKLSAYENRSGKALVRYYTYFKKTGIAKRVMMYENGEWNDLPEHVICAIQNELEEKSAIE
FKLCGHFSILDFLHMQRLDMETGAKTPLAWIDNAGKCFPEIYESDERTNYCHHKCVEDPKQ
NAPHDIKLREIDVNGGETPRLNLEECSDESGDNMDDVPLAQRSSNEHYDEATEDCSRKL
EAAVSKWDETDAIVVSGAKLTGSEVLDKDAVKKMFAVGTASLGHVPVLDVGRFSSEIAEAR
LALFQKQVEITKKHRGDANVRYAWLPAKREVLSAVMMQGLVGGAFIRKSIYGVGIHLTA
DCPYFSARYCDVDENGVRYMVLCRVIMGNMELLRGDKAQFFSGGEYDNGVDDIESPKNYI
VWNINMNTHIFPEFVVRFKLSNLPNAEGNLIARDNSGVTLEGPKDLPPQLESNQGARGSGSA
NSVGSSTRPKSPWMPFPTLFAAISHKVAENDMLLINADYQQLRDKKMTRAEFVRKLRVIWG
DDLLRSTITTLQNQPKSKEIPGSIRDHEEGAGGL

>DP00393|P52298|#1-21 #22-37 #121-156

MSGGLLKALRSDSYVELSQYRDQHFRGDNEEQEKLLKKSTLYVGNLSFYTTTEEQIYELFSKS
GDIKKIIMGLDKMKKTACGFCFVEYYSRADAENAMRYINGTRLDDRIIRTDWDAGFKEGRQ
YGRGRSGGQVRDEYRQDYDAGRGGYKGKLAQNQ

>DP01852|P04480|#1-172 #21-107

MPGFNYGGKGDGTVWSSERSGSPEPGGGSHGNSSGGHDRGDSSNVGNESVTVMKPGDSYNT
PWGKVIINAAGQPTMNGTVMTADNSSMVPYGRGFTRVLNSLVNNPVSPAGQNGGKSPVQTA
VENYLMVQSGNLPPGYWLSNGKVMTEVREERTSGGGGKNGNERTWTVKVPREVPLTASY
NEGMRIRQEAADRARAEEANARALAEARAIASGKSKAEFDAGKRVEAAQAAINTAQLNVN
NLSGAVSAANQVITQKQAEAMPLKNELAANQRVQETLKFINDPIRSRIHFNMRSGLIRAQHN
VDTKQNEINAAVANRDALNSQLSQANNILQNARNEKSAADAALSAATAQRLQAEAALRAA
AEAAEKARQRQAEAAERQRQAMEVAEKAKDERELLEKTSELIAGMGDKIGEHLGDKYKAIA
KDIADNIKNFQGKTIRSFDDAMASLNKITANPAMKINKADRDALVNAWKHVDAQDMANKL
GNLSKAFKVADVVMKVEKREKSIEGYETGNWGPLMLEVESWVLSGIASSVALGIFSATLGA
YALSLGVPAIAAVGIAGILLA AVVGALIDDKFADALNNEIIRPAH

>DP00707|Q9UER7|#347-420

MATANSIIVLDDDEDEAAQPGPSHPLPNAASPGAEAPSSEPHARGSSSSGGKKCYKLEN
EKLFEELCKMQTADHPEVVPFLYNRQQRAHSFLASAECNILSRVLSRARSRAKLYVY
INELCTVLKAHSAKKLNAPAATTNEPSGNPPTHSLDPTNAENTASQSPRTGSRRQIQ
RLEQLLALYVAEIRRLQEKEELDLSELDDPSAYLQEARLKRKLIRLFGRLCCELKDSSLTGRVI
EQRIPYRGTRYPEVNRRIERLINKPGPDTPDYGDVLRAVEKAARHSLGLPRQQLQLMAQD
AFRDVGIRLQERRHLDLIYNFGCHLTDDYRPGVDPALSDPVLARRLRENRSLAMSRLDEVISK
YAMLQDKSEEGERKRRARLQGTSSHSADTPEASLDSGEPSGMASQGCPASRAETDDED
DEESDEEEEEEEEEEATDSEEEEDLEQMSEQEDEEDEEEAAAGKDGDKSPMSSLQI
SNEKNLEPGKQISRSSGEQQNKGRIVSPSLLSEEPLAPSSIDAESNGEQPEELTLEEESPVSQLE
LEIEALPLDTPSSVETDISSRKQSEEPFTVLENGAGMVSSTSFGGVSPHNWGDSGPPCKKS
RKEKKQTGSGPLGNSYVERQRSVHEKNGKICTLPSSPLASLAPVADSSTRVDSPSHGLVT
SSLCPSPARLSQTSPHSQPPRPGTCKTSVATQCDPEEIIVLSDSD

>DP00999|P03315|#119-260

MNYIPTQTFYGRRWRPRAARPWPLQATPVAPVPDFQAQQMQQLISAVNALTMRQNAIAP
ARPPKPKKKKTTKPKPKTQPCKINGKTQQQKKDKQADKKKKPGKRERMCMIENDCIFE
VKHEGVTVGYACLVGDKVMKPAHVKGVIDNADLAFLFKKSSKYDLECAQIPVHMRSDAS
KYTHEKPEGHYNWHGAQYSGGRFTIPTGAGKPGDSGRPIFDNKGRVVAIVLGANECSR
TALSVVTWNKDMVTRTPEGSEEWASPLITAMCVLANATFPCFQPPCPCCYENNAEATLR
MLEDNVDRPGYYDLLQAALTCRNGTRHRRSVSQHFNVYKATRPIYACDCGAGHSCHSPV
AIEAVRSEATDGMKIQFSAQIGIDKSDNHDYTKIRYADGHAIENA VRSSLKVATSGDCFVHG
TMGHFILAKCPPGEFLQVSIQDTRNAVACRIQYHHDQPVGREGFTIRPHYGKEIPCTTYQQT
TAETVEEIDMHMPDPDRTLLSQSGNVKITVGGKKVKYNCTGTGNVGTNSDMTINTCL
IEQCHVSVTDHKWQFNSPFVPRADEPARKGVHIFPLDNITCRVPMAREPTVIHGKREVT
HLHPDHPTLFSYRTLGEDPQYHEEWVTAAVERTIPVVDGMHEYHWGNNDPVRQLWSQLTTEG
KPHGWPHQIVQYYGLYPAATVSAVVGMSLLALISIFASCYMLVAARSKCLPYALTPGAAV
PWTLGILCCAPRAHAASVAETMAYLWDQNQALFWLEFAAPVACILIITYCLRNVLCCKSLS
FLVLLSLGATARAYEHSTVMPNVGFVKAHIERPGYSPLTLQMQVETSLEPTLNLEYITCE
YKTVVPSPVVKCCGASECSTKEKPDYQCKVYTGVYPFMWGGAYCFCDSENTQLSEAYVDRS
DVCRHDHASAYKAHTASLAKVRVMYGNVNQTVDVYVNGDHAVTIGGTQFIFGPLSSAWT
PFDNKIVVYKDEVFNQDFPPYGSQPGRGFDIQSRTVESNDLYANTALKLARPSGMVHVPY
TQTPSGFKYWLKEKGTLNTKAPFGCQIKTNPVRAMCAVGNIPVSMNLPDSAFTIVEAPTI
IDLTCVATCTHSSDFGGVLTLYKTNKNGDCSVHSNVATLQEATAKVTAGKVTLFHST
ASASPSFVVSLCSARATCSASCEPPKDHVPPAASHSNVFPDMSGTALS WVQKISGGLGAF
IGAILV VVTCIGLRR

>DP00680|P82409|#29-34

SGSDGGVCPKILKKCRRDCPGACICRGNGYCG

>DP01283|Q9Y3E7|#184-199

MGLFGKTQEKP KELVNEWSLKIRKEMRVVDRQIRD IQREEEKV KR SVKDAAKKGQKDVC
VLAKE MIRSKAVSKLYASKAHMNSVLMGMKNQLAVLRAVAGSLQKSTEVMKAMQSLVKIP
EIQATMREL SKEMMKAGII EEMLEDTFESMDDQEE MEEAEEMEIDRILFEITAGALGKAPSKV
TDALPEPEPPGAMAASEDEEEEEEALEAMQSRLATLRS

>DP00856|Q980M2|#68-79 #136-165

MQANSEEYCELCGS QIRGKG ITVSYEGSIITVCNSCYDRIRKHAVIVKADSKKSETRK
PKMENAELEIVTDYYKIIKTAREQLGISQQQLAQKLKVSENIVKRFESGKLKPTISQARQLEKI
LGIKLVTPLE NEESEKEFDDTGLTLGDV VNIKEGKK

>DP01999|Q8K4J6|#67-98 #111-142 #155-186

MTLLEPEMLMAVQSVLQLKLQRRRTREELVSQGIMPLKSPA AFHEQRRSLERARTEDYLK

RKIRSRPERAELVRMHILEETSAEPSLQAKQLKLKRARLADDLNEKIAQRPGPMELVEKNILP
VESSLKEAIIVGVQVNPKVADSSSFEDSSDALSPSEQASHESQGSVPSPLESRVSDPLPSATSIS
PTQVLSQLPMAPDGETLFLAEQPLPPAPLLPPSLANGSIVPTAKPAPTLIKQSQPKSASEKSQ
RSKKAKELKPVKVKKLYHQYIPPDKQDKGAPAMDSSYAKILQQQQLFLQLQILNQQQQQQ
QQQHYNQAILPAPPKPSAETPGSSAPTPSRSLSTSSSPSSGTPGPSGLARQSSTALAACKPGALP
ANLDDMKVAELKQELKLRSLPVSGTKTELIERLRAYQDQVSPAPGAPKAPATTSVLSKAGEV
VVAFPAALLSTGSALVTAGLAPAEMVVATVTSNGMVKFGSTGSTPPVSPTPSERSLLSTGDEN
STPGDAFGEMVTSPLTQLTLQASPLQIVKEEGARAASCCCLSPGARAELEGLDKDQMLQEKDK
QIEELTRMLQQKQQQLVELLRLQLEQQKRAQQPAPASSPVKRESGFSSCQLSCQPQGSAHAFGS
GLVVPTTNHDTQAPAPESPVVKQEAGPPEPD LAPSSQLLGSQGTSLKRVSPPTLVTDST
GTHLILTVTNSADGPGLPAGSPQQPLSQPGSPAPGPPAQMDLEHPPQPFFATPTSLKKEPPG
YEETVTQQPKQQENGSSSQHMDDLFDILIQSGEISADFKEPPSLPGKEKSPPAAAAYGPPLTPQ
PSPLSELPQAAPPGSPTLPGRLED FLESSTGLPLLTSGHEGPEPLSLIDDLSQMLSSAILDHP
PSPMDTSELHFAPERSSGMGLDLAVGHLDSDMWLELSSGGPVLSLAPLSTAAPSLFSMDFLDG
HDLQLHWDSCL

>DP02514|P36594|#1498-1752

MSGIQFSPSSVPLRVEEVQFGILSPEEIRSMSVAKIEFPETMDESGQRPRVGGLLDPLRLGTIDR
QFKCQTCGETMADCPGHFGHIELAKPVFHIGFLSKIKKILECVWCNGKLKIDSSNPKFNDTQ
RYRDPKNRLNAVVNVCKTKMCDTGLSAGSDNFDSLNSPSANMGHGGCGAAQPTIRKDGLR
LWGSWKRGKDESDLPEKRLLSPLLEVHTIFTHISSEDLAHLGLNEQYARPDWMIITVLPPPSV
RPSISVDGTSRGEDDLTHKLSDIKANANVRCEQEGAPAHIVSEYEQLQFHVATYMDNEIA
GQPQALQKSGRPLKSIRARLKGKEGRRLRGNLMGKRVDFSARTVITGDPNLSDLGVPRSIAK
TLTYPETVTPYNIYQLQELVRNGPDEHPGAKYIIRDGERIDLRYHKRAGDIPLRYGWRVERH
IRDGDVVIFNRQPSLHKMSMMGHRIRVMPYSTFRNLNSVTSPYNADFDEMNMHVPQSEE
TRAEIQEITMVKQIVSPQSNKPVMGIVQDTLAGVRKFSLRDNFLTRNAVMNIMLWVPDWG
ILPPPVLKPKVLWTGKQILSLIIPKGINLIRDQQKQLSNPTDSGMLIENGEEIYGVDKKTVGA
SQGLVHTIWKEKGPEICKGFFNGIQRVVNYWLLHNGFSIGIGDTIADADTMKEVTRTVKEA
RRQVAECIQDAQHNRLKPEPGMTLRESFEAKVSRILNQARDNAGRSAEHSLKDSNNVKQMV
AAGSKGSFINISQMSACVGQQIVEKRIPIFGKYRTLPHFPKDDDSPESRGFIENSYLRGLTPQE
FFFHAMAGREGLIDTAVKTAETGYIQRRLVKAMEDVMVRYDGTVRNAMGDIQFAYGEDGL
DATLVEYQVFDSLRLSTKQFEKKYRIDLMEDRSLSLYMENSIENDSSVQDLLDEEYTQLVAD
RELLCKFIFPKGDARWPLPVNVQRIIQNALQIFHLEAKKPTDLLPSDIINGLNELIAKLTIFRGSD
RITRDVQNNATLLFQILLRSKFAVKRVIMEYRLNKVAFEWIMGEVEARFQQAVVSPGEMVGT
LAAQSIGEPATQMLNTFHYAGVSSKNVTLGVPRLKEILNVAKNIKTPSLTIYLMPWIAANMD
LAKNVQTQIEHTTLSTVTSATEIHYPDPQDTVIEEDKDFVEAFFAIPDEEVEENLYKQSPWLL
RLELDRAKMLDKKLSMSDVAGKIAESFERDLFTIWSEDNADKLIIRCRIRDDRKAEDDDNM
IEEDVFLKTIEGHMLESISLRGVPNITRVYMMEHKIVRQIEDGTFERADEWVLETDGINLTEAM
TVEGVDATRTYSNSFVEILQILGIEATRSALLKELRNVIEFDGSYVNYRHALLCDVMTSRGH
LMAITRGINRAETGALMRCSEETVEILMDAAASGEKDDCKGISENIMLGPLAPMTGAFDI
YLDQDMLMNYSLGTAVPTLAGSGMGTSQLPEGAGTPYERSPMVDSGFVGSPDAAFSPLVQ
GGSEGREGFGDYGLLGAASPYKGVQSPGTYSTPFSAMSPGYGLTSPSYSPSSPGYSTSPAYMP
SSPSYSPTSPSYSPSPTSPSYSPSPTSPSYSATSPSYSPSPTSPSYSPSPTSPSYSPSPTSPSY
PTSPSYSPSPTSPSYSPSPTSPSYSPSPTSPSYSPSPTSPSYSPSPTSPSYSPSPTSPSY
PTSPSYSPSPTSPSYSPSPTSPSYSPSPTSPSYSPSPTSPSYSPSPTSPSYSPSPTSPSY

>DP00677|P12810|#1-42

MSIVRRSNVFDPFADLWADPFDTFRSIVPAISGGSSETAAFANARVDWKETPEAHVFKVDLPG
VKKEEVKVEVEDGNVLVSGERSREKEDKNDKWHRVERSSGKFVRRFLPEDIKVEEVKA

GLENGVLTVPKAEVKKPEVKAIIEISG
>DP01407|O61667|#93-106
MLMLTFASTSSDLLPMSNVFDVQSSVFYNEKNMFYSSSQDFSSCEDSSQFADDGFFDDSEISS
IGYEIGSKLAAMCDDFDAQMMSYSAHASDRSLFHRLLDFFAF
>DP01005|Q8PMB6|#15-33 #70-82 #99-131
MRNLLVAAVALSTAGCGIYKQPIYQGNLIKQNAVEQLQVGQSKQQVSALLGTPSIPDPFHA
QRWDYTSTQRVDRLARTEIKNFTVFFENEQVVRWEGDYFPSQDEQLAKAAPKQFGRNLARD
KKKQRGR
>DP00191|P00747|#275-364
MEHKEVVLLLLFLKSGQGEPLDDYVNTQGASLFSVTKKQLGAGSIEECAKCEEDEEFTCR
AFQYHSKEQQCVIMAENRKSSIIIRMRDVVLFEKKVYLSECKTNGKNYRGTMSKTNGITC
QKWSSTSPhRPRFSPATHPSEGLEENYCRNPNDPQGPWCYTTDPEKRYDYCDILECEEEM
HCSGENYDGKISKTMMSGLECQAWDSQSPHAHYIPSFKPNKLKNYCRNPDRERPWCFIT
DPNKRWELCDIPRCTTPPPSSGPTYQCLKGTGENYRGNVAVTSGHTCQHWSAQTPHTHNRT
PENFPCNLDENYCRNPDGKRAPWCHTNSQVRWEYCKIPSCDSSPVSTEQLAPTAPELTPV
VQDCYHGDGQSRYRGSSTTTGKKCQSWSSMTPHRHQKTPENYPNAGLTNYCRNPDADK
GPWCFTTDPSVRWEYCNLKKCSGTEASVVAAPPVVLLPDVETPSEEDCMFGNGKGYRGKRA
TTVTGTPCQDWAAQEPRHSIFTPETNPRAGLEKNYCRNPDGDVGGPWCYTTNPRKLYDYC
DVPQCAAPSFDGKPKQVEPKKCPGRVGGCAHPHSWPQVSLTRFGMHFCGGTLISPEW
VLTAAHCLEKSPRSSLVILGAHQEVNLEPHVQEIEVSRLFEPTRKDIALKLSSPAVITDK
VIPACLPSPNYVVADRTECFITGWGETQGTFGAGLLKEAQLPVIENKVCNRYEFLNGRVQSTE
LCAGHLAGGTDSCQGDGGPLVCFEKDKYILQGVTSWGLCARPNKPGVYRVSRFTWIE
GVMRNN
>DP01834|Q6F3E8|#147-156
MLKNIVLLAAGLSPAVLAKPKWSPLFEEATNALEARSGGHQTAVPKVKQGLGGDFEEIP
SDEIIKRALEDRSGGHQTAVPKISKQGLGGDFEEIPSDEIIERALEARSDGHQTAVPKMSKQGL
GGDIEEPSDEIIERALEARSGGHQTAVPKMSKQGLGGDSEEIPSNEIIERALEARSGGHETAVP
KMSKQGLGGDFEEIPSDEIIERALQARG
>DP01667|Q548Y4|#426-490
MDDLFPLIFPSEPAQASGPYVEIIEQPKQRGMFRYKCEGRSAGSIPGERSTDTKTHPTIKING
YTGPGTVRISLVTKDPPHRPHFELVGKDCRDGYYEADLCPDRSIHSFQNLGIQCVKKRDLEQ
AISQRIQTNNNPFHVPIEEEQRGDYDLNAVRLCFQVTVRDPAGRPLLTPVLSHIPFDNRAPNTA
ELKICRVNRNSGSCLLGDEIFLLCDKVQKEDIEVYFTGPGWEARGSFSQADVHRQVAIVFRTP
PYADPSLQAPVRVSMQLRRPSDRELSEPMEFQYLPDTDDRHRIEKRKRTYETFKSIMKKSPF
NGPTEPRPPTRRIAVPTRNSTVPKPAPQPYTFPASLSTINFDEFSPMLLPSGQISNQALALAPSS
APVLAQTMVPSSAMVPLAQPPAPAPVLTGPPQSLsapVPKSTQAGEGTLSEALLHLQFDADE
DLGALLGNSTDGPVFTDLASVDNSEFQQLLNQGVMSHSTAEPMLMEYPEAITRLVTGSQRP
PDPAPTPLGTSGLPNGLGEDFSSIADMDFSALLSQISS
>DP01093|B7T1D7|#37-43 #127-137 #216-250
MNGIRWIASYPKAGNTWVRCMLAAYITGKAPQVWNDIDAESLTLEAMLRFGDLPPAEPMEP
VLVKTHLKADVPVGLYGEATAKVLVLRNPRDMILLSSMRMASISRDDVEKS RDFARKFIA
NEGLGWNALGAGGGVGLGSWPENVRSWTESSSDRFPNADVLTMRYEDLKGDGVARFSEIVE
FLDLGGPVDIEDIRRAVAASTLERMRELEKRSEQQGGGSPIRHGDARMMKGGPGGARPQFVG
EGRYDQSLSLGEDIESDYQELLHGDSGFALYAKQYGYAG
>DP00811|Q9V452|#1-28 #101-140
MGEPRSQPPVERPPTAETFLPLSRVRTIMKSSMDTGLITNEVLFMTKCTELFVRHLAGAAYT
EEFGQRGEALKYEHLSQVVNKKNLEFLQIVPQKIRVHQFQEMRLNRSAGSDDDDDDDD

DDDDDEEESESESDE

>DP00853|P00127|#1-72

MGMLEVGEYWEQLKITVVPVAAAEDDDNEQHEEKAAECEEKEENGDEDEDEDEDEDD
DDDDDEEEEEEVTDQLEDLREHFKNTEEGKALVHYEECAERVKIQQQPGYADLEHKE
DCVEEFFHLQHYLDTATAPRLFDKLK

>DP00808|P24937|#1-51 #158-250

MEDINFASLAPRHGSRPFMGNWQDIGTSNMSGAFSWGLWSGIKNFGSTVKNYGSKAWNS
STGQMLRDKLKEQNFFQQKVVDGLASGISGVVDSLQAVQNKKINSKLDPRPPVEEPPAVETV
SPEGRGEKRPRPDREETLVTQIDEPPSYEEALKQGLPTTRPIAPMATGVLGQHTPVTLDDPPA
DTQQKPVLPGPTAVVTRPSRASLRRAASGPRSLRPVASGNWQSTLNSIVGLGVQLSKRRRC
F

>DP01325|O43236-6|#248-274

MIKRFLEDTTDDGELSKFKVDFSGNASCHPPEAKTWASRPQVPEPRPQAPDLYDDDLEFRPPS
RPQSSDNQQYFCAPAPLSSARPRSPWGKLPYDSSEDDKEYVGATLPNQVHRKSVKKGFD
FTLMVAGESGLGKSTLVNSLFLTDLYRDRKLLGAERIMQTVEITKHAVDIEKGVRRLRTIV
DTPGFGDAVNNTECWKPVAEYIDQQFEQYFRDESGLNRKNIQDNRVHCCLYFISPFGHGYGP
SLRLLAPPGAVKGTQEHQGQGCH

>DP01066|Q9NQI0-2|#1-204

MGDEDWEAEINPHMSSYVPIFEKDRYSGENGDNFNRTPASSSEMDDGPSRRDHFMKSGFASG
RNFGNRDAGECNKRDNTSTMGGFGVGKSFGNRGFSNSRFEDGDSSGFWRRESSNDCEDNPTR
NRGFSKRGGYRDGNNSEASGPYRRGGRSFRGCRGGFGLGSPNNLDPDECMQRTGGLFGS
RRPVLSGTNGDTSQRSGSGSERGGYKGLNEEVITGSGKNSWKSEAEGGESEDTQGPKVTYI
PPPPPDEDEDSIFAHYQTGINFDKYDTILVEVSGHDAPPAILTFEEANLCQTLNNNIKAGYTKL
TPVQKYSIPIILAGRDLMACAQTSKGKTAFLPILAHHMHGDITASRFKELQEPECIIVAPTR
LVNQIYLEARKFSFGTCVRAVVIYGGTQLGHSIRQIVQGCNILCATPGRIMDIIGKEKIGLKQI
KYLVLDEADRMLDMGFGPEMKKLISCPGMPSKERQRTLMFSATFPEEIQLAAEFLKSNYLF
VAVGQVGGACRDVQQTVLQVGQFSKREKLVEILRNIGDERTMVFVETKKADFIATFLCQE
KISTTSIHGDREQREREQALGDFRGKCPVLVATSVAARGLDIENVQHVINFDPSTIDEYVHR
IGRTGRCGNTGRAISFFDLESNDHLAQPLVKVLTDAQQDVPAWLEEIAFSTYIPGFSGSTRGN
VFASVDRKGKSTLNTAGFSSSQAPNPVDDESWD

>DP00709|Q9Y3M2|#1-63 #102-126

MPFFGNTFSPKKTPPRKSASLSNLHSldrSTREVELGLEYSPTMNLAGQSLKFENGQWIAET
GVSGGVDRREVQRLRRRNQQLEEEENNLLRLKVDILLMLSESTAESHLMEKELDELISRKR
K

>DP01476|Q02413|#774-1049

MDWSFFRVVAMLIFLVVVEVNSEFRIQVRDYNTKNGTIKWHISIRRQKREWIKFAAACREGE
DNSKRNPIAKIHSDCAAQQVTYRISGVGIDQPPYGFVINQKTGEINITSIVDREVTFFIIYCR
ALNSMGQDLERPLELRVRVLDINDNPPVFSMATFORMQIEENSANTLVMILNATDAEPNML
NSKIAFKIIRQEPMSPMFIIINRNTGEIRTMNNFLDREQYGQYALAVRGSDRDGGADGMSAEC
ECNIKILDVNDNIPYMEQSSYTIEIQENTLNSNLLEIRVIDLDEEFSANWMAVFFISGNENWF
EIMNERTNVGILKVVKPLDYEAQMQLQLSIGVRNKAEFHHSIMSQYKLKASAISVTVLNIE
GPVFRPGSKTYVVTGNMGSNDKVGDFVATDLDGRPSTTVRYVMGNNPADLLAVDSRTGK
LTLKNKVTKEQYNMLGGKYQGTILSIDDNLQRTCTGTININIQSFGNDDRTNTEPNTKITTNTG
RQUESTSSTNYDTSTTSTDSSQVSYSEPGNGAKDLLSDNVHFGPAGIGLLIMGFLVGLVPFLMI
CCDCGGAPRSAAGFEPVPECSDGAIHSWAVEGPQPEPRDITTVIPQIPPDNANIIECIDNSGVYT
NEYGGREMQDLGGGERMTGFELTEGVKTSGMPEICQEYSGTLRRNSMRECREGLNMNFM
ESYFCQKAYAYADEDEGRPSNDCLLIYDIEVGSPAGSVGCCSFIGEDLDDSLDTLGPKFKK

LADISLGKESYPDLDPSWPPQSTEPVCLPQETEPVVS GHPPISPHFGTTVISESTYPSGPGVLHP
KPILDPLGYGNVTVTESYTTSDLKPSVHVHDNRPASNVVTERVVGPISGADLHGMLEMPD
LRDGSNVIVTERVIAPSSLPTSLTIHHPRESSNVVTERVIQPTSGMIGSLSMHPELANAHNVI
VTERVSGAGVTGISGTTGIGSSGLVGTSMGAGSGALSGAGISGGGIGLSSLGGTASIGH
MRSSSDHHFNQTIGSASPSTARSRITKYSTVQYSK

>DP02191|P51965|#1-40

MSDDDSRASTSSSSSSNNQQTEKETNTPKKESKVSMSKNSKLLSTSAKRIQKELADITLDPP
PNCSAGPKGDNIYEWRSTILGPPGSVYEGGVFFLDITFTPEYPFKPPKVTFRTRIYHCNINSQGV
ICLDILKDNWSPALTISKVLLSICSLLTDCNPADPLVGSIATQYMTNRAEHDRMARQWTKRYA
T

>DP00965|P0C6L3|#1-195

MSRPEGRKNRGGREEVLEQWVSGRKKLEELERDLRKVKKKIKKLEDEHPWLGNIKGILGKK
DKDGEGAPPAKRARTDQMEVDGPRKRPSRGFTDKERQDHRRRKALENKRKQLSAGGKN
LSKEEEELRRLTEEDERRERRIAGPQVGGVNPLEGGTRGAPGGGFVPSMQGVPEPFRTGE
GLDIRGSQGFP

>DP00806|A1B8N7|#116-188

MTVANSASISADIAGRYAQALFDLVRDGGIDALSSQIDDLASAYDASQDLRDLTLSPLYDRQ
QQEAAVGALSERMGLSAELANTLRLARNRRLFTLPQFVAKLRLNIADAKGEVTADVSAQ
ALTDEQKARLADTLAAKSGKTVKLNARVDESLIGGMIVKLGSQMIDSSIRSKLASLQNAMKE
VG

>DP02313|Q8IG33|#18-88

MKWRTVFIFLLAAHIGLANVKQKKKDLSYTDAELEKLYEEWEENDEDELEDEKPEHKRK
PPQLDLESMKAKAKDPEDLLMMSKKGQTLMLFVGVVDPSPQRSDIRPFTEKWTQIWSQL
YNNHVDLQVFVIDDNRAIFMFKNGEQAFEAKFLLQEFVSEVTIEGQSFDPACKFKTGKK
EL

>DP00029|Q07731|#77-112

MKLWDVVAVCLVLLHTASA FPLPAGKRLLEAPAEDHSLGHRRVPFALTSDSNMPEDYPDQF
DDVMDFIQATIKRLKRSPDKQAAALPRRERNRQAAAASPENSRGKRRGQRGKNRCVLT
IHLNTDLGLGYETKEELIFRYCSGCEAAETMYDKILKNLSRSRRLTSDKVGQACCRPVAFD
DDLSFLDDSLVYHILRKHSAKRCGCI

>DP00791|P9WHJ5|#1-26 #69-79

MADRVLRGSRLGAWSYETDRNHDLAPRQIARYRTDNGEEFEVPFADDAEIPGTWLRCNGME
GTIIEGDLPEPKVKPPRTHWDMILLERRSIEELEELLKERLELIRSRRRG

>DP01137|Q6FI81|#173-266

MADFGISAGQFVAVVWDKSSPVEALKGLVDKLQALTGNEGRVSVENIKQLLQSAHKESSFDI
ILSGLVPGSTTLHSAEILAEIARILRPGGCLFLKEPVETAVDNNSKVKTASKLCSALTSGLVEV
KELQREPLTPEEVQSVREHLGHESDNLLFVQITGKKPNFEVGSSRQLKLSITKKSSPSVKPAVD
PAAAKLWTLSANDMEDDSMDLIDSDELLPEDLKKPDPA SLRAASC GEGKKRKACKNCTCG
LAEELEKEKSREQMSSQPKSACGN CYLGDAFRCASC PYLGMPAFKPG EKVLLSDSNLHDA

>DP00311|P24071|#217-229

MDPKQTLLCLVLCGLQRIQAQEGDFMPFISAKSSPVIPLDGSVKIQCQAIREAYLTQLMIK
NSTYREIGRRLKFWNETDPEFVIDHMDANKAGR YQCQYRIGHYRFRYSDTLELVVTGLYKGPK
FLSADRGLVLM PGENISLTCSAHI PFD RFLAKEGELSLPQHQSGEHPANFSLGPVDLNVSGI
YRCYGWYNRSPYLWSFPSNALELVVTDISIHQDYTTQNLIRMAVAGLVLVALLAILVENWHS
HTALNKEASADVAEPSWSQQMCQPLTFARTPSVCK

>DP00251|O88339|#144-575

MSTSSLRQMKNIVHNYSEAEIKVREATSNDPWGPSSSLMSEIADLTYNVVAFSEIMSMIWKR

LNDHGKNWRHVYKAMTLMEYLIKTGSERVSQQCKENMYAVQTLKDFQYVDRDGKDQGVN
VREKAKQLVALLRDEDRLREERAHALKTKEKLAQTATASSAAVGSGPPPEAQAWPQSSGE
EELQLQLALAMSKEEADQPPSCGPEDDVQLQLALSLSREEHDKEIRRGDDLRLQMAIEESK
RETGGKEESSLMDLADVFTTPAPPQASDPWGGPASVPTAVPVAAAASDPWGAPAVPPAADP
WGGAAPTPASGDPWRPAAPTGPSVDPWGTPAPAAGEGPTSDPWGSADGGAPVSGPPSSDP
WAPAPAFSDPWGGSPAQPSSNGTAVGGFDTEPDEFSDFDRLRTALPTSGSSTGELELLAGEVP
ARSPGAFDMSGVGGSLAESVGSPPPAATPTPTPPTRKTPESFLGPNAALVDLDSLVRPGPTPP
GAKASNPNFLPSGAPATGPSVTNPQAPPATLTNQLRLSPVPPVPGAPPTYISPLGGPGLPP
MMPPGPPPAPNTNPFL

>DP00162|O75324|#1-9 #34-59 #80-88

MSIMDHSPPTGVVTIVILIAIAALGALILGCWCYLRLQRISQSEDEESIVGDGETKEPFLLVQY
SAKGPCVERKAALKMTPNGPEVHG

>DP00219|O60927|#1-126

MAEAGAGLSETVTETTVTVEPENRSLTIKLRKRKPEKKVEWTSDTVNEHMGRSSKCCC
IYEKPRAFGESSTESDEEEEKGCGHTCVRGHRKGRRRATLGPTPTPPQPPDPSQPPPQPMQH
>DP00379|P22868|#99-107 #131-146 #163-172

MQRVHTITAVTEDGESLRFECRSDEDVITAALRQNIFLMSSCREGGCATCKALCSEGDYDLK
GCSVQALPPEEEEGLVLLCRTYPKTDLEIELPYTHCRISFGEVGSFEAEVVGLNWVSSNTVQF
LLQKRPDECNGRNGVKFEPGQFMIDLTIPTGTDVRSYSPANLPNPEGRLEFLIRVLPEGRFSDYLR
NDARVGQVLSVKGPLGVFGKERGMAPRYFVAGGTGLAPVSMVRQMWEWTAPNETRIYF
GVNTEPELFYIDEKSLERSMRNLTVKACVWHPSGDWEQEKGSPIDALREDLESSDANPDIYL
CGPPGMIDAACELVSRGIPGEQVFFEKFLPSGAA

>DP01883|P02655|#40-65

MGTRLLPALFLVLLVLGFEVQGTQQPQQDEMPSPFLTQVKESLSSYWESAKTAQONLYEKT
YLPAVDEKLRLDLYSKSTAAMSTYTGIFTDQVLSVLKGEE

>DP02408|Q9P2K3-3|#1-272 #406-553

MPGMMEKGPELLGKNRSANGSAKSPAGGGGSGASSTNGGLHYSEPESGCSSDDEHDVGMR
VGAEYQARIPEFDPGATKYTDKDNGMLVWSPYHSIPDAKLDEYIAIAKEKHGYNVEQALG
MLFWHKHNIKEKSLADLPNFTPDEWTVEDKVLFEQAFSFHGKSFHRIQQMLPDKTIASLVKY
YYSWKKTRSRTSLMDRQARKLANRHQNQGDSDDDVEETHPMMDGNDSYDPKKEAKKEGNT
EQPVQTSKIGLGRREYQLQHRHHSQRSKCRPPKGMLTQEDVVAVSCSPNAANTILRQLDM
ELISLKRQVQNAKQVNSALKQKMEGGIEEFKPPESNQKINARWTTEEQLLAQGVRKYGKDF
QAIADVIGNKTVGQVKNNFVNYYRRRFNLEEVHQEWAEQGTQASNGDASTLGEETKSASNV
PSGKSTDEEEEAQTPQAPRTLGPSPAPSSTPTPTAPIATLNQPPPLRPTLPAAPALHRQPPPLQ
QQARFIQPRPTLNQPPPPLIRPANSMPPLRNPRPVLSVGGQQPPSLIGIQTDSQSSLH

>DP01662|P55957|#1-12 #43-78

MDCEVNNGSSLRDECITNLLVFGFLQSCSDNSFRRELDALGHHELPVLAQWEGYDELQTDGN
RSSHSRLGRIEADSESEQEDIIRNIARHLAQVGDSMRSIPPGLVNGLALQLRNTSRSEEDRNRD
LATALEQLLQAYPRDMEKEKTMVLALLLAKKVASHTPSLLRDVFHTTVNFINQLRKYVRS
LARNGMD

>DP00919|C6KEI3|#1-75 #152-180

MGGKWSKSSIVGWPRAIRERLRAQPAERRAQPAAEGVGAASQDLGRHGALTSSNTDTN
ADEEEEVGFVPRPQVPLRPMTYKGAVDLSFFLKEKGGLEGLVYSQKRKEILDLWVYHTQGY
FPDWQCYTPGPVRYPLTFGWCFLVVPDGEVEEATEGENNCLLHPICQHGMDDDHREVL
KWKFDSHLAHTHMARELHPEFYKNC

>DP00156|P54725|#79-160 #201-231 #283-316

MAVTITLKTLCQQQTFKIRMEPDETAKVKEKIEAEKGRDAFPVAGQKLIYAGKILSDDVPIRD

YRIDEKNFVVVMVTKTAGQGTSAPPEASPTAAPESSTSFPAPTSGMSHPPAAREDKSPSEE
SAPTTSPESVGSVPSSGSSGREEDAASLTVGSEYETMLTEIMSMGYERERVVAALRASYNN
PHRAVEYLLTGIPGSPEPEHGSVQESQVSEQPATEAAGENPLEFLRDQPQFQNMQRQVIQQNPA
LLPALLQQLGQENPQLLQQISRHQEQFIQMLNEPPGELADISDVEGEVGAIGEEAPQMNYIQV
TPQEKEAIERLKALGFPESLVIQAYFACEKNENLAANFLSQNFDE

>DP00930|P80723|#1-227

MGGKLSKKKGYNVNDEKAKEDKKAEGAATEEEGTPKESEPQAAAEPAAKEGKEKPDQ
DAEGKAEEKEGEKDAAAACEAPKAEPKTEGAAEAKAEPKCAPEQEQAAPGPAAGGEAPK
AAEAAAAPAESAAPAAGEEPSKEEGEPKKTEAPAAPAAQETKSDGAPASDSKPGSSEAAPSS
KETPAATEAPSSTPKAQGPAAASAEPKPVEAPAANSQDTVTVKE

>DP01700|P02549|#1-20

MEQFPKETVVESSGPVKLETAEEIQERRQEVTRYQSFKERVAERGQKLEDSYHLQVFKRDA
DDLGKWIMEKVNLTDKSYEDPTNIQGKYQKHQSLEAEVQTKSRLMSELEKTRERFTMGHS
AHEETKAHIEELRHLWDLLLETLEKGDQLLRALKFQQYVQECADILEWIGDKEAIATSVELG
EDWERTEVLHKKFEDFQVELVAKEGRVVEVNQYANECAEENHPDLPLIQSKQNEVNAWE
RLRGLALQRQKALSNAANLQRFKRDVTEAIQWIKEKEPVLTSEDYGKDLVASEGLFHSHKGL
ERNLAVMSDKVKELCAKAELTLSHPSDAPQIQEMKEDLVSSWEHIRALATSRYEKLQATY
WYHRFSSDFDELSGWMNEKTAAINADELPTDVAGGEVLLDRHQHKHEIDSYDDRFQSADE
TGQDLVANHEASDEVREKMEILDNNWTALLEWLDERHRQYEQCLDFHLFYRDSEQVDSW
MSRQEAFLENDLGNSLGSAEALLQKHEDFEEAFTAQEEKIITVDKTATKLIGDDHYDSENICK
AIRDGLLARRDALREKAATRRRLKESLLLQKLYEDSDLKNWINKKKLADDEDYKDIQN
LKSRVQKQQVFEKELAVNKTQLENIQKTGQEMIEGGHYASDNVTTRLSEVASLWEELLEATK
QKGTQLHEANQQLQFENNAEDLQRWLEDVEWQVTSEDYGKGLAEVQNRRLKHGLLEAVA
ARQDQVDILTDLAAYFEEIGHPDSKDIRARQESLVCRFEALKEPLATRKKLDDLLHLQLICR
DTEDEEAWIQEDEPSATSTYLGKDLIASKKLNRHVILENIASHEPRIQEITERGNKMVEEGH
FAAEDVASRVKSLNQNMECSRARAARRQNDLEANVQFQQYLADLHEATWIREKEPIVDNT
NYGADEEAAGALLKKHEAFLDLNSFGDSMKALRNQANACQQQAAAPVEGVAGEQRVMA
LYDFQARSPREVTMKKGDVLTLLSSINKDWKVEAADHQGIVPAVYVRRLAHDEFPMPLPQR
RREEPGNITQRQEIQENQYRSLLDRAEERRRLQRYNEFLLAYEAGDMLEWIQEKKARENTG
VELDDVWELQKKFDEFQKDLNTNEPRLRDINKVADDLFEGLLTPEGQAIRQELNSRWGSQLQ
RLADEQRQLLGSAAHAVEVFHREADDTKEQIEKKCQALSAADPGSDLFSVQALQRRHEGFERD
LVPLGDKVTLGETAERLSESHDATEDLQRQKMEMLNEAWEDLQGRTKDRKESLNEAQKFYL
FLSKARDLQNWISSIGGMVSSQELAEDLTGIEILLERHQEHRADMEAEPFTAQALEDFSAELID
SGHHASPEIEKKLQAVKLERDDLEKAWEKRKKILDQCLEARLQMFQGNCDQVESWMVAREN
RSDDKSSLDSLEALMKRDDLDKAITAEGKITDLEHFAESLIADEHYAKEEIA
TRLQRVLDWKALKAQLIDERTKLGDYANLKQFYRDLEELEWI
SEMPLTACDESYKD
ATNIQRKYLHQ
TFAHEVDGRSEQVHGVINLGNSLIECSACDGNEEAMKEQLEQLKEHW
DHLLERTNDKGKKL
NEASRQQRNTSIRDfefwlseaetllamkdqardlasagnlkkhql
leremlaredalk
dlntlaedllssgtfnvdqivkkdnvnkrflnvqelaahhekl
keayalfqffqldde
eswieeklirvssqdygrdlqgvqnllkkhkrlegelvahepa
iqnvldmaeklkdk
dlaavrgdc
gdtlaatqsllmkhealendfavhetrqv
nvc
aqgedilnkvlqeesqnkeissk
iealnek
tpslakaiaawklqleddyafqefnw
kadvveawiadketsktngngadlgdf
ltllak
qdtdaslfqfqr
qlpeitdlkdk
lisaqh
nqskaierryaallkr
weqlle
asavhrqkll
ekqlplqkaedlf
v
vefa
h
kasalnn
wcekm
een
nlsep
vhcv
slne
irqlq
kd
h
edflaslar
aqadfk
clle
ldqqik
algp
sspy
twlt
ve
vlert
wkhs
diie
re
q
elq
kee
arqv
knfe
mcqe
feqn
ast
flq
wile
tray
fldgs
llket
gtles
q
lean
krk
q
kei
qam
krql
tkiv
ndl

GDNLEDALILDYKYSTIGLAQQWDQLYQLGLRMQHNLEQQIQAKDIKGVSEETLKEFSTIYKH
FDENLTGRLTHKEFRSCLRGLNYYLPMVEEDEHEPKFEKFLDAVDPGRKGYVSLEDYTAFLI
DKESENIKSSDEIENAFQALAEGKSYITKEDMKQALTPEQVSFCATHMQYMDPRGRSHLSG
YDYVGFTNSYFGN
>DP00966|P09415|#1-23
MITKVDRNAVRKKRHARIRKKIFGTTERPRLSVFRSNKHIYAQIIDDTSATIVSASTLDKEFG
LDSTNNIEAAKKVGELVAKRALEKGKQVVFDRGGYLYHGRVKALADAAREAGLEF
>DP00137|P01050|#50-65
VVTIDCTESGQNLCNLCEGSNVCGQGNKCILGSDGEKNQCVTGEGTKPQSHNDGDFEEIPEE
YLQ
>DP01128|O43806|#25-93
MSNVRVSNGSPSLERMDARQAEHPKPSACRNLFGPVDHEELTRDLEKHC RD MEEASQRKWN
FDFQNHKP LEKYEWQEVEKGSLPEFYRPPRPGACKVPAQESQDGSGSRPAAPLIGAPA
NSEDTHLVDPKTDP SDSQTGLAEQCAGIRKRPATD
>DP01141|P70604|#396-424 #436-487
MSSCRYNGGVMRPLSNLSSRRNLHEMDSEAQPLQPPASVVG GGGGASSPSAAAAASSSAPE
IVVSKPEHNNNSNNLALYGTGGGSTGGGGGGGGSGHSSGTSSKKNQNIGYKLG
HRRALFEKRKRLSDYALIFGMFGIVVMVIETELSWGAYDKASLYSLAKCLISLSTIILLGLIIV
YHAREIQLFMVDNGADDWRIAMTYERIFFICLEILVCAIHPIPGNYTFTWTARLAFSYAPSTTT
ADVDIILSIPMFLRLYLIARVMLHSKLFDTASSRSIGALNKINFNTRFVMKTLMTICPGTVLLV
FSISLWIIIAAWTVRACERYHDQQDVTSNFLGAMWLISITFLSIGYGDMVPNTYCGKGVCLLTG
IMGAGCTALVVAVVARKLELTKAEKHVHFMMDTQLTKRVKNAANVLRETWLIVKNTKL
VKKIDHAKVRKHQRKFLQAIHQRLRSVKMEQRKLNDQANTLVDLAKTQNIMYDMISDLNERS
EDFEKRIVTLETKLETLIGSIHALPGLISQTIRQQQRDFIETQMENYDKHVTYNAERSRSSRRR
RSSSTAPPTSSESS
>DP01969|P27058|#1-200
MGTPSYDIKNKGDDMQEEPVKLHHEKGDEKEKIIKEKETPSQDINNKDTISSYVLRDDTQEI
PKMEHEEGGYVKEKIVEKETISQYIICKIEGDDDAQEKLKVEYEEEYEKEKIVEKETPSQDINN
KGDDAQEKPKVEHEEGDDKETPSQDIKMEGEGALEITKVVCEKIIVREDLAVQSKPPSKRDP
PKMQTDNNKL
>DP01677|P06454|#1-111
MSDAAVDTSSEITT KDLKEKKEV VEEAENG DAPANGNAENE ENGE QEA DNEV DEEEE EGG
EEEEEEEGDGEEDGDEDEEAESATGKRAAEDDED D DVDTK KQKT DEDD
>DP00654|Q9ZPI5|#71-82 #576-596
MDSRTKGKTVMEVGGDGVA VITLINPPVNSLSFDVLYNLKSNYEEALSRNDVKAIVITGAKG
RFSGFDISGFGE MQKGNVKEPKAGYISIDIITDLLEAARKPSVAAIDGLALGGGLEAMACH
ARISAPAAQLGLPELQLGVIPFGGGTQLPRLVGLTKALEMILTSKPVKAEEGHSLGLIDAVVP
PAELVTTARRWALDIVGRRKPWVSSVSKTDKLPLGEAREILTFAKAQTLKRAPNMKHPLMC
LDAIEVGIVSGP RAGLEKEAEVASQVVKLD TKG LIHVFFSQR GTAKVPGVTD RGLVPRKIKK
VAIIGGGLMGSGIATALILSNYPVILKEVNEKFLEAGIGRVKANLQSRVRKGSMSQEKF EKTM
SLLKGSLDY YESFRDVDMVIEAVIENISLKQQIFADLEK YCPQHC ILAS NTSTIDL NKGERTKSQ
DRIVGAHFFSPAHI MPLLEIVRTNHTSAQVIVD LLDVGKKIKKTPV VGNCTGF AVN RMFFPY
TQAAMFLVECGADPYLIDRAISKFGMPGPRLCDLVFGVIA TATQFIENFSERTYKSMII P
LMQEDKRAGEATRKGFYLYDDKRKAKPDPELKKYIEKARSISGVKLDPKLANLSEKDIIEMT
FFPVVNEACRVFAEGIAVKAADLDIAGIMGMGFPPYRGGIMFWAD SIGSKYIYSRLDEWSKA
YGEFFKPCAFLAERGSKGVLLSAPVKQASSRL
>DP02015|P52272|#41-70

MAAGVEAAAEEVAATEIKMEEESAGPVPSNGAPGPKGEGERPAQNEKRKEKNIKRGGNRF
EPYANPTKRYRAFITNIPFDVKWQLSKDLVKEVGEVTYVELLMDAEGKSRGCAVVEFKME
ESMKKAAEVLNKHSLSGRPLKVKEPDGEHARRAMQKVMATTGGMGMGPGGPMITIPPSI
LNNPNIPNEIIHALQAGRGLGVFVANLDYKVGKKLKEVFSMAGVVVRADILEDKDGS
RIGTVTFEQSIEAVQAISMFNGQLLDRPMHVKMDERALPKGDFPVERPQQLPHGLGGIMG
LGPGGQPIDANHLNKIGMGNIGPAGMGMEGIGFGINKMGGMEGPGFGGMENMGRFGSGM
NMGRINEILSNALKRGEIIAKQGGGGGGSVPGIERMGPIDRLGGAGMERMGAGLGHMD
RVGSEIERMGLVMDRMGSVERMGSGIERMGPLDHHMASSIERMGQTMERIGSGVERMGA
GMGFLERMAAPIDRVGGTIERMGSVERMGPAPIERMGLSMERMVPAGMGAGLERMGPV
MDRMATGLERMGANNLERMGLERMGANSLERMGLERMGANSLERMGPAMGPALGAGIER
MGLAMGGGGASFDRAIEMERGNFGGSFAGSFAGGGHAPGVARKACQIFVRNLPDFTW
KMLDKFNECGHVLYADIKMENGKSKCGVVKFESPEVAERACRMMNGMKLSGREIDVRI
DRNA

>DP01508|Q15418|#683-735 #712-727

MPLAQLKEPWPLMELVPLDPENGQTSGEEAGLQPSKDEGVLEISITHHVKAGSEKADPSHFE
LLKVLGQGSFGKVFLVRKVTRPDSGHLYAMKVLKKATLKVRDRVRTKMERDILADVNHFP
VVKLHYAFQTEGKLYLILDFLRGDLFTRLSKEVMFTEDVKFYLAELALGLDHLHSLGIYR
DLKPENILLDEEGHIKLTDFGLSKEAIDHEKKAYSFCGTVEYMAPEVVNRQGHSHSADWWSY
GVLMFEMLTGSLPFQGKDRKETMTLILKAKLGMQPFLSTEAQSLRALFKRNPANRLGSGPD
GAEEIKRHVFYSTIDWNKLYRREIKPPFKPAAVQPDFTYFDTEFTSRTPKDSPGIPPSAGAHQ
LFRGFSFVATGLMEDDGKPRAPQAPLHSVVQQLHGKNLVFSDGYVVKETIGVGSYSECKRC
VHKATNMNEYAVKVIDKSKRDPSEEIEILLRYGQHPNIITLKDVYDDGKHVYLVTELMRGGEL
LDKILRQKFFSEREASFVLTIGKTVEYLHSQGVVHRDLKPSNILYVDESGNPECLRICDFGFA
KQLRAENGLLMTPCYTANFVAPEVLKRQGYDEGCDIWSLGILLYTMLAGYTPFANGPSDTPE
EILTRIGSGKFTLSGGNWNTVSETAKDLVSKMLHVDPHQRLTAKQVLQHPWVTQKDKLPQS
QLSHQDLQLVKGAMAATYSALNSKPTPQLKPIESSILAQRRLVRKLPSTTL

>DP01009|P97303|#331-520

MSVDEKPGSPMYVYESTVHCANILLGLNDQRKKDILCDVTLIVERKEFRAHRAVLAACSEYF
WQALVGQTKDDLVVSLPPEVTARGFGPLLQFAYTAKLLLSRENIREVIRCAEFLRMHNLEDS
CFSFLQTQLLNREDGLFVCRKDSACQRPQEDHGN SAGEEEEEETMDSETARMACATDQML
PDPISEATAIPVAEKEEALLPESEVPTDTKENSEKGALTQYPRYKKYQLACTKNVYSAPSHG
TSGFASTFSEDSPGNSLKPGLPMQIKSEPPSEETEEESITLCLSGDETDIRPGDVEMDRKQP
SPAFTPSTPTGAACLDRSRVSSPSCRLSLFGITKGVESTGLPSTSQQPLVRSSACPFNKGISQG
DLKTDYTPLAGNYGQPHVGQKDVSNFAMGSPLRGPGPETLCKQEGLRRSVIFSASACDQP
NTPVHSYSAVSNLKDLSEPVPKSLWVGAGQSLPSSQAYSHGLMADHLPGRIRPNTSCPVPI
KVCPRSPPLETRRTSSCSSSYAEDGSGGSPCSPLCEFSSSPCSQGARFLATEHQEPGLMG
DGMYNQVRPQIKCEQSYGTNSSDEGSFSEADSESCPVQDRGQEVKLPFPVDQITDLPRNDFQ
MMIKMHKLTSEQLEFIHDIRR SKNRIAQRCRKRKLD CIQNLECEIRKLVCEKEKLLSERNH
LKACMGEELDNFSCLSQEVCRDIQSPEQIQLHRYCPVLIPMDLPGASVNPPVGVEQSLAPSP
CAVGGSVPCCLEPGAAPPGLPWVPSNTSENCTSGRRLEGSDPGTFSERGPPLEARSQSVTVDF
CQEMTEKCTTDEQPRKDYA

>DP00468|P25963|#1-66 #276-317

MFQAAERPQEWA MEGPRDGLKKERLLDDRHDG LDSMKDEEYEQMVKELQEIRLEPQEVP
RGSEPWKQQLTEDGDSFLHLAIHEEKALTMEVIRQVKGD LAFLNFQNNLQQTPLHLAVITNQ
PEIAEALLGAGCDPELRDFRGNTPLHLACEQGCLASVGVL TQSCTTPHLHSILKATNYNGHTC
LHLASIHYLGIVELLVSLGADVNAQEPCNGRTALHLAVDLQNPDLVSSLKCGADVNRVTY
QGYSPYQLTWGRPSTRIQQQLGQLTLENLQMLPESEDEESYDTESEFTEFTEDELPYDDCVFG

GQRLTL

>DP00435|Q01853|#1-15 #469-482 #610-615 #703-726 #736-806

MASGADSKGDDLSTAILKQKNRPNRLIVDEAINEDNSVVSLSQPKMDELQLFRGDTVLLKGK
KRREAVCIVLSDDTCSDEKIRMNRVVRNNLRVRLGDVISIQPCPDVKYGRHVLPIDDTVEGI
TGNLFEVYLKPYFLEAYRPIRKGDIFLVRGGMRAVEFKVVEDPSPYCIVAPDTVIHCEGEPIK
REDEEESLNEVGYDDIGGCRKQLAQIKEMVELPLRHPALFKAIGVKPPRGILLYGPPGTGKTLI
ARAVANETGAFFFLINGPEIMSKLAGESESNLRKAFFEEAKNAPAIIFIDELDAIAPKREKTHGE
VERRIVSQLLTMDGLKQRAHVIVMAATNRPNSIDPALRRFGRFDREVDIGIPDATGRLEILQI
HTKNMKLADDVDLEQVANETHGHVGADLAALCSEAALQAIRKKMDLIDLEDETIDAEMVN
SLAVTMDDFRWALSQSNSPALRETVEVPQVTWEDIGGLEDKRELQELVQYPVEHPDKFL
KFGMTPSKGVLFYGPGCGKTLAKIANECQANFISIKGPELLTMWFGSEANVREIFDKAR
QAAPCVLFFDELDIAKARGGNIDGGGAADRVINQILTEMDMGSTMKNVFIIGATNRPDIIDP
AILRPGRLDQLIYIPLPDEKSRAVILKANLRKSPVAKDVDLEFLAKMTNGFSGADLTERICQRAC
KLAIRESIEIRRERERQTNP SAMEVEEDDPVPEIRRDFEEAMRFARRSVSDNDIRKYEMFA
QLQQSRGFGSFRFPSGNQGGAGPSQGSQGGTGGSVYTEDNDDLYG

>DP01048|Q39532|#224-276

MEHVISMEEILGPFWDLPPSPPPLPPEQQPLVTDGSVVIDGVVTQGGGDGECCGDMMGQNT
TEWTFERLLEEEILINKTTLVTNSSCSTLNIDPVVEVDQGTMASGAWSAVGDPMEYNAILKRK
LEVDLVAFKMRASSVVNSERSQDSNNHNGGSKNVQNKLNGEDPINNHAQNVDLRVRLA
TSSSRDPSPSDEDMDGEVEILGFKMPTTEERVRKRKESNRESARRSRYRKAHLKELEDQVEQ
LKAENSCLLRLAALNQKYNEANVDNRVLRADMETLRAVKVMGEDSLKRMEMSSLPPSM
PIPALPSSDASVPIQDDIINYFSTTPAADEDAPVDNNFSIIMPMADPLQLVQAEDQPTMGAME
LIQKTMGAMPTSPGSALQESQLLGLPDETINMDMY

>DP00385|P49841|#1-34 #120-126 #285-299 #387-420

MSGPRRTSFAESCKPVQQPSAFGSMKVS RDKGSKVTTVVATPGQGPDRPQEVSYTDTKVI
GNNSFGVYQAKLCDGELVAIKVQLQDKRFKNRELQIMRKLDHCNIVRLRYFFYSSGEKKD
EVYLNVLVDYVPETVYRVARHYSRAKQTLVPIYVKLYMYQLFRSLAYIHSFGICHARDIKPQL
LLDPDTAVLKLCDFGSAKQLVRGEPNVSYICSRYYRAPELIFGATDYTSIDVWSAGCVLAEL
LLGQPIFPGDSGVSQLVEIIKVLTGPTTREQIREMNPNTFEKFQPKIAHPWTKVFRPRTPPEAIA
LCSRLLEYTPTARLTPLEACAHSSFDELRDPNVKLPNGRDTPALFNFTTQELSSNPPLATILIPP
HARIQAAASTPTNATAASDANTGDRGQTNNAAASASASNST

>DP00885|Q9DDG2|#20-36 #76-83 #129-147

MRSLF SIALVLVVVSMITVEASMKKKEKGKEPKADAECSEWQYGKCVPNSGDCGNGIREAT
CNEQTKKTKCKVPCNWKKDFGADCKYKFGRAECDTTGTRSRSGTLKALFNAECQTTIK
VSKPCTPKTPKPKGEGKKKGKGKEN

>DP01282|Q16576|#90-110 #409-425

MASKEMFEDTVEERVINEEYKIWKKNTPFLYDLVMTHALQWPSLTQWLPEVTKPEGKDYA
LHWLVLGHTSDEQNHVVARVHIPNDDAQFDASHCDSDKGEFGFGSVTGKIECEIKINHE
GEVNRARYMPQNPQHIAKTPSSDVLVDYTKHPAKPDPSGECNPDLRLGHQKEGYGLSWN
SNLSGHLLSASDDHTVCLWDINAGPKEGKIVDAKAIFTGHSAVVEDVAWHLLHESLFGSVAD
DQKLMIWDRSNTTSKPSHLVDAHTAEVNCLSFNPYSEFILATGSADKTVLWDLRNLKL
HTFESHKDEIFQVHWSPHNETILASSGTDRLNVWDL SKIGEEQSAEDAEDGPPELLFIHGGBT
AKISDFSWNPNEPWVICSSEDNIMQIWQMAENIYND EESDVTTSELEGQGS

>DP00396|O74718|#196-214 #280-307 #325-335

MASNQPNNGEQDEQLAKQTSKSMSAKPTFTPKAAPFIPSFQRPGFVPVNNIAGGYPYAQY
TGQGQNSNSPHPTKSYQQYYQKPTGNTVDEDKSRVPDFSKKSFVPPKPAIPKGKVLSLGGN
TSAPKSTKPIISLGGTAKPTTKPAAPAAQSKTETPAPKVTSESTKKETAAPPPQETPTKSADA

ELAKTPSAPAAALKKAAEAAEPATVTE DATDLQNEVDQELLKDMYGKEHVNIVFIGHVDAG
KSTLGGNILFLTGMVDKRTMEKIEREAKEAGKESWYLSWALDSTSEEREKGKTVEGRAYF
ETEHRRFSLLDAPGHKGYVTNMINGASQADIGVLVISARRGEFEAGFERGGQTREHAVLART
QGINHLVVVINKMDEPSVQWSEERYKECVDKLSMFLRRVAGYNKTDVKYMPVSAYTGQN
VKDRVDSVCPWYQGPSLEYLDMSMTHLERKVNAPFIMPIASKYKDLGITLEGKIEAGSIKKN
SNVLVMPINQTLLEVTAIYDEADEEISSICGDQVRLVRGDDSDVQTGYVLTSTKNPVHATTR
FIAQIAILELPSILTTGYSVMHIHTAVEEVSAKLLHKLDKTNRKSKKPPMFATKGMKIIAELE
TQTPVCMERFEDYQYMGRFTLRDQGTTAVGKVVKILD

>DP00697|Q9IK92|#400-532

MSDIFEAAASFRSYQSCLGRDGRASAATATLTKIRIFVPATNSPELRWELTLFALDVIRSPSA
AESMKVGAFTLISMYSERPGALIRSLNDPDI EAVIDVGSMVNGIPVMERRGDKAQEEMEG
LMRILKTARDSSKGKTPFVDSRAYGLRITDMSTLVSAVITIEAQIWILIAKAVTAPDTAEESETR
RWAKYVQQKRVNPFFALTQQWLTEMRNLLSQSLSVRKFMVEILIEVKKGGSAKGRAVEIISD
IGNYVEETGMAGFFATIRFGLERTRYPALALNEFQSDLNTIKSLMLLYREIGPRAPYMVLEESI
QTKFAPGGYPLLWSFAMGVATTIDRSMGALNINRGYLEPMYFRLGQKSARHAGGIDQNMA
NRLGLSSDQVAELAAAVQETSAGRQESNVQAREAKFAAGGVLIGGSDQDIDEGEEPIEQSGR
QSVTFKREMSISSLANSVPSSVSTSGTRLTNSLLNRSRLAAKAKEAASSNATDDPAISNR
TQGESEKKNNQDLKPAQNDLDFVRADV

>DP01287|Q9VZU1|#241-388

MHSEKHTPDIRELMPVREHRCERCP SLVFGNL SHYQLHLRRRHQEVI PPSVIGPIVAFHCPVEK
CIYHVATKGARSFTSLRLLRQHYQKSHLDKNYKCLACGGKFL QHHLEKHQCSKHKCPVCE
LTYNSKAGLRTHMRRKNHLVHESDKVPIPLATWKRLNPQPIPVSADSLTAHSLKTGSDLH
PSEYYINNLPSNLAGVTELYAEIPNPEANMPSTLELDTNLPAAEELCFLPIMDVSYALEMSS
QKLDMETQTEEDDLNEIRNEVLA PLLRDIETQTPDTRGDIGTMTDDFPEEQEPVAVGSHFHAY
SETEPMFDLQTSAHMYTQTCDDLFEELGLSHIQTQTHWPDGLYNTQHTQTCDEIMDELFPDN
FQSTCTQTRWLD

>DP00509|P30273|#40-60

MIPAVVLLLLLVEQAA ALGE PQLCYILDAILFLY GIVL TLLY CRLKI QVRKAAITSYEKSDGV
YTGLSTRNQETYETLKHEKPPQ

>DP01945|A0A2K8FR49|#1-172

MASHGQSYRAGEATGRAEEKADQMMGKTRGATEAMKNKAQQAKDKTMETAQAAKEKTS
EKAYEAKDKTSNMAQSAKGQAQSKDQTGSFASDKAQAQAKDKAYQAAQATKEKASDMTE
YAKETAEGKEKTGGILQRTGEQVKSMAQGAADAVKNTFGMGEPEEDDPIKTT RP

>DP00803|P22179|#1-58

MASLATLAAVQPTTLKGLAGSSIAGTKLHIKPARQSFKLNNVRSGAIVAKYGD KSVYFDLED I
ANTTGQWDVYGS DAPSPYNSLQSKFFETFAAPFTKRG LLLKFLILGGGSL TYVSANAPQDVL
PITRGPPQPKLGPRGKI

>DP01335|O94907|#250-260

MMALGAAGATRVFVAMVAA ALGGHPLLGV SATLNSV LNSNAIKNLPPPLGGAAGHPGSAV
SAAPGILYPGGN KYQTIDNYQPYPCA EDEECGTDEYCASPTRGGDAGVQICLACRKRRKRCM
RHAMCCPGNYCKNGICVSSDQNHFRGEIEETITESFGNDHSTLDGYSRRTLSSKMYHTKGQE
GSVCLRSSDCASGLCCARHFWSKICKPVLKEGQVCTK HRRKGSHGLEIFQRCYC GEGLSCRIQ
KDHHQASNSSRLHTCQRH

>DP01487|P40259|#181-229

MARLALSPVPSHWMVALLLL SAEPV PAARSED RYRNP KGSACSRIWQSPRFIARKRGFTVK
MH CYMNSASGNVSWLWKQEMDENPQQLKLEKGRMEESQNESLATLTIQGIRFEDNGIYFCQ
QKCNNTSEVYQCGTEL RVMGFSTLAQLKQRNTLKDG IIMI QTLLIILFIIVPIFLLDKDDSKA

GMEEDHTYEGLDIDQTATYEDIVTLRTGEVKWSVGEHPGQE

>DP01126|O43561|#28-233

MEEAILVPCVLGLLLLPIALMLALCVHCHRLPGSYDSTSSDSLYPRGIQFKRPHTVAPWPPA
YPPVTSYPPLSQPDLLPIPRSPQPLGGSHRTPSSRRSDGANSVASYENEGASGIRGAQAGWG
VWGPSWTRLTPVSLPPEPACEADADEDEDDYHNPGYLVLPDSTPATSTAAPSAPALSTPGIRD
SAFSMESIDDYVNVPESGESAEASLDGSREYVNVSQELHPGAAKTEPAALSSQEAAEVEEEGA
PDYENLQELN

>DP00182|P03087|#1-13 #96-106 #344-362

MAPTKRKGSCKGAAPKKPKEPVQVPKLVIKGGIEVLGVKTGVDSFTEVECFLNPQMGNPDEH
QKGLSKSLAAEKQFTDDSPDKEQLPCYSVARILPNINEDLTCGNILMWEAVTVKTEIGVTA
MLNLHSGTQKTHENGAGKPIQGSNFHFFAVGGEPLELQGVLANYRTKYPATVTPKNATVD
SQQMNTDHKAVALDKDNAYPVECWPDPDSKNENTRYFGTYTGENVPPVLHITNTATTVLLD
EQVGVLCKADSLYVSADVDCGLFTNTSGTQQWKGLPRYFKITLRKRSVKNPYPISFLSDLIN
RRTQRVDGQPMIGMSSQVEEVRYVEDTEELPGDPDMIRYIDEFGQTTTRMQ

>DP00100|P0A6H5|#175-209

MSEMTPREIVSELDKHIIGQDNAKRSVAIALRNRWRRMQLNEELRHEVTPKNILMIGPTGVGK
TEIARRLAKLANAPFIKVEATKFTEVGYVGKEVDSIIRDLTAAVKMVRVQAIEKNRYRAEEL
AEERILDVLIPPAKNNWGGQTEQQQEPAARQAFRKKLREGQLDDKEIEIDLAAAPMGVEIMA
PPGMEEMTSQLQSMFQNLGGQKQKARKLKIKDAMKLIEEEAAKLVNPEELQDAIDAVEQ
HGIVFIDEIDKICKRGESSGPDVSVREGVQRDLLPLVEGCTVSTKHGMVKTDHILFIASGAFQIA
KPSDLIPELQGRLPIRVELQALTTSFERILTEPNASITVQYKALMATEGVNIEFTDSGIKRIA
AWQVNESTENIGARRLHTVLERLMEEISYDASLSGQNITIDADYVSKHLDALVADEDLSRFI
L

>DP01400|P45985|#1-86 #49-62

MAAPSPSGGGGGGGGGSGTPGPVGSPAPGHPAVSSMQGKRKALKLNFANPPFKSTARFTLN
PNPTGVQNPHIERLRTHSIESSGKLKISPEQHWDFTAEDLKDGEIGRGAUGSVNKMVHKPSG
QIMAVKRIRSTVDEKEQKQLMDLDVVMRSSDCPYIVQFYGALFREGDCWCIMELMSTSFD
KFYKYVYSVLDDVIPEEILGKITLATVKALNHLKENLKIIHRDIKPSNILLDRSGNIKLCDFGISG
QLVDSIAKTRDAGCRPYMAPERIDPSASRQGYDVRSDVWSLGITLYELATGRFPYPKWNSVF
DQLTQVVKGDPPQLSNSEEREFSASFINFVNLCLTKDESKRPKYKELLKHPFILMYEERA
ACYVCKILDQMPATPSSPMYVD

>DP01255|P13010|#546-565

MVRSGNKAAVVLCMDVGFTMSNSIPGIESPFEQAKKVITMFVQRQVFAENKDEIALVFGTD
GTDNPLSGGDQYQNITVHRHMLPDFDLLEDIESKIQPGSQADFLDALIVSMDVIQHETIGK
KFEKRHIEIFTDLSSRFSKSQQLDIIIHSLKKCDISLQFFLPFSLGKEDGSGDRGDGPRLGGHGPS
FPLKGITEQQKEGLEIVKVMVISLEGEDGLDEIYSFSESLRKLCVFKKIERHSIHWPCLRTIGSN
LSIRIAAYKSILQERVKKTWTVDAKTLKKEDIQKETVYCLNDDDETEVLKEDIIQGFRYGS
VPFSKVDEEQMKYKSEGKCFVLCFKSSQVQRRFFMGNQVLKVFAARDDEAAVALSSL
HALDDDMVAIVRYAYDKRANPQVGVAFFPHKHYECLVYVQLPFMEDLRQYMFSSLKNS
KKYAPTEAQLNAVDALIDMSLAKKDEKTDTLEDFPTTICKPNNPRFQRLFQCLLHRALHPREP
LPPIQQHIWNMLNPPAEVTTKSQIPLSKIKTLFPLIEAKKKDQVTAQEIFQDNHEDGPTAKKL
TEQGGAHFSVSSLAEGSVTSVGSVNPARENFRVLVKQKKASFEEASNQLINHIEQFLDTNETPY
FMKSIDCIRAFREEAIKSEEQRFNFLKALQEKEIKQLNHFWIEIVVQDGITLITKEEASGSSV
TAAEAKKFLAPDKPSGDTAAVFEEGGDVDDLLDMI

>DP01638|P32776|#64-84

MSHSGAAIFEKVSGIIAINEDVSPAELTWRSTDGDKVHTVVLSTIDKLQATPASSEKMLRLIG
KVDESKKRKDNEGNEVVPKPQRHMFSFNNRTVMDNIKMTLQQIISRYKDADIYEKRRREES

AQHTETPMSSSVTAGTPTPHLDTPQLNNAGPLINTAKLDDSLSKELLTNLKLQQSLLKGNK
VLMKVFQETVINAGLPPSEFWSTRIPLLRAFALSTSQKVGPYNVLSTIKPVASSENKVNVNLSR
EKILNIFENYPIVKAYTDNVPKNFKEPEFWARFFSSKLFRKLRGEKIMQNDRGDVIIDRYLTL
DQEFDRKDDDMLLHPVKKIIDLGNIQDDPVVRGNRPDFTMQPGVDINGNSDGTVDILKGM
NRLSEKMIMALKNEYSRNLQNKSNTNDEEDEDNDERNELKIDDLNESYKTNYAIHLKRNA
HEKTTDNDAKSSADSINKADLKVSNNQMLQQSLVMNDLINKLDLNQVVPNEVSNKINKR
VITAIIKINAKQAKHNNVNSALGSFVDNTSQANELEVKSTLPIDLLESCRMLHTTCCEFLKFYI
HFQSGEQKQASTVKKLYNHLKDCIEKLNELFQDVNGGESMSNTCTAYLKPVLNSITLATH
KYDEYFNEYNNNSN

>DP0257|P04050|#1446-1733 #1456-1733 #1549-1716

MVGQQYSSAPLRTVKEVQFGLFSPEEVRAISVAKIRFPETMDETQTRAKIGGLNDPRLGSIDR
NLKCQTCQEGMNECPGHFGHIDLAKPVFHVGFIAKIKKVCCECMCHCGKLLDEHNELMRQ
ALAIKDSKKRFAAIWTLCKTKMVCTDVPSEDDPTQLVSRGGCGNTQPTIRKDGLKLVGSWK
KDRATGDADEPELRLVLSSTEILNIFKHISVKDFTSLGFNEVFSRPEWMILTCLPVPPPPVRPSISF
NESQRGEDEDLTFKLADILKANISLETLEHNGAPHHAIEEAESLLQFHVATYMDNDIAGQPQAL
QKSGRPVKSIRARLKGKEGRIRGNLMGKRVDFSARTVISGDPNLELDQVGVPKSIAKTTYPE
VVTPYNIDRLTQLVRNGPNEHPGAKYVIRDGDRIDLRYSKRAGDIQLQYGWVVERHIMDND
PVLFNRQPSLHKMSMAHRVKVIPYSTFRNLNSVTSPYNADFDGDEMNLHVPQSEETRAELS
QLCAVPLQIVSPQSNKPCMGIVQDTLCGIRKLTLDRTFIELDQVNLMLYWVPDWDGVIPTPAII
KPKPLWSGKQILSVAIPNGIHLQRFDEGTTLLSPKDNGMLIIDGQIIFGVVEKKTVGSSNGGLIH
VVTREKGQVCAKLEFGNIQKVVFNWLLHNGFSTGIGDTIADGPTMREITETIAEAKKVLVDVT
KEAQANLLTAHGMLTRESFEDNVVRLNEARDKAGRLAEVNLKDLNNVKQMVMAKGSKG
SFINIAQMSACVGQQSVEGKRIAFCGFVDRTLPHFSKDDYSPESKGFVENSYLRGLTPQEFFFHA
MGGREGLIDTAVKTAETGYIQRRLVKALEDIMVHYDNTTRNSLGNVIQFYGEDGMDAAHIE
KQSLDTIGGSAAFEKRYRVDLLNTDHTLDPSSLSEGSEILGDLKLQVLLDEEYKQLVKDRKF
LREVFDGEANWPLPVNIRRIQNAQQTFHIDHTKPSDLTIKDIVLGVKDLQENLLVLRGKNEI
IQNAQRDAVTLFCCLLRSRLATRRVLQEYRLTKQAFDWVLSNIEAQFLRSVHPGEMGVLA
AQSIGEPATQMTLNTFHAGVASKVTVPSLKEILNVAKNMKTPSLTVYLEPGHAADSEQ
AKLIRSAIEHTTLKSVTIASEIYYDPDPRSTVIPHEDEEIQLHFSLLDEEAEQSFDDQQSPWLRL
DRAAMNDKDLTMGQVGERIKQTFKNDLFVIWSEDNDEKLIIRCVRVRPKSLDAETEAEEEDH
MLKKIENTMLENITLRGVENIERVMMKYDRKVPSPTEYVKEPEWVLETGVNLSEVMTV
PGIDPTRIYTNSFIDIMEVGLIEAGRAALYKEVYNVIASDGSYVNYRHALLVDVMTTQGGLT
SVTRHGFNRSNTGALMRCSEETVEILFEAGASAELDDCRGVSENVILGQMAPIGTGAFDVM
DEESLVKYMPEQKITEIEDQDGGVTPYSNESGLVNADLDVKDELMFSPVDSGSNDAMAG
GFTAYGGADYGEATSPFGAYGEAPTSPFGVSSPGFSPTSPYSPTSPYSPTSPYSPSPTSPYSP
PTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSP
PTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSPTSPYSP
SPGSPAYSPKQDEQKHNEENENS

>DP01256|Q32ZE1|#1417-1470 #1499-1520

MKNPKEEIRRIRIVNMLKRGVARVNPLGGLKRLPAGLLLGHGPIRMVLAILAFLRFTAIPSLG
LINRWGSGVKKEAMEIJKFKKDLAAMLRIINARKERKRRGADTSIGIIGLLTTAMAAEITRR
GSAYYMYLDRSDAGKAISFATTGKVNKCHVQIMDLGHMCDATMSYECMLDEGVEPDDVD
CWCNTTSTWVYGTCHKKGEARRSRAVTPLSHSTRKLQTRSQTWLESREYTKHLIKVEN
WIFRNPGFALVAVIAWLLGSSTSQKVYLVMILLIAPAYSIRCIGVSNRDFVEGMSGGTWVD
VVLEHGGCVTVMAQDKPTVDIELVTTTVSNMAEVRSYCYEASISDMAASDSRCPTQGEAYLD
KQSDTQYVCKRTLVDRGWGNGCGLFGKGLVTCAKFTCSKKMTGKSIQOPENLEYRIMLSVH
GSQHSGMIGYETDEDRAKVEVTPNSPRAEATLGGFGSLGLDCEPRTGLDFSDLYYLTMNNKH

WLVHKWFHDIPLPWHAGADTGTGHWNNEALVEFKDAHAKRQTVVVLGSQEAVHTAL
AGALEAEMDGAKGRLSGHLKCRKMDKLRKGVSYSLCTAAFTFTKVPATELHGTVTVEV
QYAGTDGPCKIPVQMAVDMQTLTPVGRILITANPVTESTENSKMMLELDPPFGDSYIVIGVGD
KKITHHWHRSGSTIGKAFETVRGAKRMAVLGDTAWDFGSVGGVFNLSLGKGIHQIFGAASF
SLFGGMSWFSQLIGTLLVWLGLNTKNGSISLTCLALGGVMIFLSTAVSADVGCSDFSKKET
RCGTGVFIYNDVEAWRDRYKYHPDSPRRLAAAVKQAWEEGICGISSVSRMENIMWKSVEGE
LNAILEENGVQLTVVVGSKNPMWRGPQRCPVNVNLPHGWKAWGKSYFVRAAKTNNSFV
VDGDTLKECPLERHRAWNSFLVEDHGFGVFHTSVWLKVREDYSLECDPAVIGTAVKGREAAH
SDLGYWIESEKNDTWRLKRAHЛИEMKTCEWPKSHTLWTDGVEESDLIIPKSLAGPLSHHNTR
EGYRTQVKGPWHSEELEIRFECPGTKVYVEETCGTRGPSLRSTTASGRVIEWCCRECTMPP
LSFRAKDGCWYGMEIRPRKEPESNLVRSMVTAGSTDHMDHFSLGVLVILLMVQEGLKKRMT
TKIIMSTSMAVLVVMILGGFSMSDLAKLVLMGATFAEMNTGGDVAHLALVAAFKVRPALL
VSFIFRANWTPRESMILLALASCLLQTAISALEGDLMVINGFALAWLAIRAMAVPRTDNIALPI
LAALTPLARGTLLVAWRAGLATCGGIMLLSKGKGSKVKNLPFVMALGLTAVRVVDPINVV
GLLLLTRSGKRSWPPSEVLTAVGLICALAGGFAKADIEMAGPMAAVGLLIVSYVVSGKSVD
YIERAGDITWEKDAEVGTGNSPRLDVALDESGDFSLVEEDGPPMREIIILKVVLMACGMNPIAIP
FAAGAWYVYVKTGKRGALWDVPAPKEVKKGETTDGVYRVMTRRLLGSTQVGVGVMQEG
VFHTMWHTVKGAALRSGEGRLDPYWGDVKQDLVSYCGPWKLDAAWDGLSEVQLLAVPPG
ERARNIQTLPGIFKTKDGDIGAVALIDYPAGTSGSPILDKGCRVIGLYGNGVVIKNGSYVSAITQ
GKREEETPVECFEPSPMLKKKQLTVLDLHPGAGKTRRVLPPEIVREAIIKKRLRTVILAPTRVVA
EMEEALRGLPVRYMTTAVNVTHSGTEIVDLMCHATFTSRLQPIRVPNPNLNIMDEAHFTDP
SSIAARGYISTRVEMGEAAAIFMTATPPGTRDAFPDSNSPIMDTEVEVPERAWSSGFDWVTDH
SGKTVWFVPSVRNGNEIAACLTKAGKRVQLSRKTTFETEFQKTKNQEWFVITTDISEMGANF
KADRVIDSRRCLKPVILDGERVILAGPMPVTHASAAQRGRIGRNPNCPGDEYMYGGGCAET
DEGHAWHLEARMLLDNIYLQDGLIASLYRPEADKVAIAIEGEFCLRTEQRKTFVELMKRGDLP
VWLAYQVASAGITYTDRRWCDFGTTNTIMEDSPVPAEVWTKYGEKRLKPRWMDARVCS
DHAALKSFKEFAAGKRGAAALGVMEALGTLPGHMTERFQEADNLAVLMRAETGSRPYKAA
AAQLPETLETIMLLGLLGTVSLGIFTVLMRNKGIGKMGFMVTLGASAFLMWLSEIEPARIA
CVLIVVFLLVVLIPEPEKQRSPQDNQMAIIIMVAVGLLGLITANELGWLERTKNDIAHLMGR
REEGATMGFSMDIDLRSAWAIYAALTTLITPAVQHAVTSYNNSLMMATQAGVLFGM
GKGMPFMHGDGLGVPLMMGCSQLTPLTLIVAIILLVAHYMLIPGLQAAAARAQQKRTAA
GIMKNPVVDGIVTDIDTMIDPQVEKKMGQVLLIAVAISSAVLLRTAWGWGEAGALITAAT
STLWEGSPNKYWNSSTATSLCNIFRGSYLAGASLIYT VTRNAGLVKRRGGGTGETLGEKWKA
RLNQMSALEFYSYKKSGITEVCREEARRALKDGVATGGHAVSRGSAKIRWLEERGYLQPYG
KVDLGLGRGGWSYYAATIRKVQEVRGTYKGGPGHEEPMVLQSYGWNIVRLKSGVDVFH
MAAEPCDTLLCDIGESSSSPEVEETRTLRLVLSMVGDWLEKRPGAFCIKVLCPYTSTMMETME
RLQRRHGGGLVRVPLCRNSTHEMYWVSGAKSNIIKSVSTTSQLLGRMDGPRRPVKYEEDV
NLGSGTRAVASCAEAPNMKIIGRRIERIRNEHAETWFLDENHPYRTWAYHGSYEAPTQGSAS
SLVNGVVRLLSKPWDVVTGVTGIAMTDTPYQQQRFKEKVDTRVPDPQEGTRQVMNIVSS
WLWKELGKRKRPRVCTKEEFINKVRSNAALGAIFEEEKEWKTAVEAVNDPRFWALVDRERE
HHLRGECHSCVYNMMGKREKKQGEFGAKGSRAIWYMWLGARFLFEALGFLNEDHWMG
RENSGGGVEGLGLQRLGYILEEMNRAPGGKMYADDTAGWDTRISKFDLENEALITNQMEEG
HRTLALAVIKYTYQNKVVKVLRPAEGGKTVMDIISRQDQRGSGQVVTYALNTFTNLVQLIR
NMEAEEVLEMQDLWLLRKPEKVTWLQSNQWDRLKRMAVSGDDCVVKPIDDRAHALRF
LNDMGKVRKDTQEWPSTGWSNWEVPCSHFNKLYLKDGRIIVVPCRHQDELIGRARVS
PGAGWSIRETACLAKSYAQMWQLLYFHRRDLRLMANAICSAVPVDWVPTGRTTWSIHKG
EWMTTEDMLMVNRVWIEENDHMEDKTPVTWTIDPYLGKREDLWCGSLIGHRPTTWA

ENIKDTVNMVRRIIGDEEKYMDYLSTQVRYLGEEGSTPGVL

>DP01647|P51449|#479-518 #500-518

MDRAPQRQHRSRELLAAKKTHTSQIEVIPCKICGDKSSGIHYGVITCEGCKGFFRRSQRCNA
AYSCTRQQNCIPDRTSRNRCQHCRLQKCLALGMSRDAVKFGRMSKKQRDSLHAEVQKQLQ
QRQQQQEPVVKTPPAGAQGADTLTYTLGLPDQLPLGSSPDLPPEASACPPGLKASGSGPS
YSNNLAKAGLNGASCHLEYSPERGKAEGRESFYSTGSQLTPDRCGLRFEEHRHPGLGELGQG
PDSYGSPSFRSTPEAPYASLTEIEHLVQSVCKSYRETCQLRLEDLLRQRSNIFSREEVTGYQRKS
MWEMWERCAHHLTEAIQYVVEFAKRLSGFMELCQNDQIVLLKAGAMEVVLVRMCRAYNA
DNRTVFFEGKYGGMELFRALGCSELISSIFDFSHSLSAHFSEDEIALYTALVLINAHRPGLQEKF
RKVEQLQYNLELAFHHLCKTHRQSILAKLPPKGKLRSLCSQHVERLQIFQHLHPIVVQAAPF
PLYKELFSTETESPVGLSK

>DP00450|P80457|#166-191 #532-536

MTADELVFFVNGKKVVEKNADPETTLLAYLRRKLGRLGKCGEGGCGACTVMLSXYDR
LQDKIHFSAACLAPICTLHHVAVTTVEGIGSTKTRLHPVQERIAKSHGSQCGCTPGIVMSM
YTLLRNQPEPTVEEIEDAFQGNLCRCTGYRPILQGFRTFAKNGGCCGGNNPNCCMNQKKD
HTVTLSPLNFNPEEFMPLDPTQEPIFPPELLRLKDVPPKQLRFEGERVWIQASTLKELLDKA
QHPEAKLVVGNTIEIGIEMFKFNQLFPMIICPAWIPELNAVEHGPEGISFGAACALSSVEKTLLE
AVAKLPTQKTEVFRGVLEQLRWFAFKQVKSVASLGGNIITASPISDLNPVFMASGTKLTIVSR
GTRRTVPMDDHTFFPSYRKTLGPEEILLSIEIPYSREDEFFSAFKQASRREDDIAKVTGMRVLF
QPGSMQVKELALCYGGMADRTISALKTTQKQLSKFWNEKLLQDVCAGLAEEELSLSPDAPGG
MIEFRRTLTLSSFFFKFYLTVLKKLGKDSKDKCGKLDPTYTSATLLFQKDPPANIQLFQEVPNG
QSKEDTVGRPLPHLAAAMQASGEAVYCDDIPRYENELFLRLVTSTRAHAKIKSIDVSEAQKVP
GFVCFLSADDIPGSNETGLFNDETVFAKDTVTCVGHIIGAVVADTPEHAERAAHVVKVTYED
LPAIITIEDAIKNNSFYGSELKIEKGDLLKGSEADNVVSGELYIGGQDHFYLETHCTIAIPKGE
EGEMELFVSTQNAMKTQSFVAKMLGVPVNRLVRVCRMGGFGGKETRSTLVSVALA
YKTGHPVRCMLDRNEDMLITGGRHPFLARYKVGFMKTGTIVALEVDHYSAGNSRDLHSI
MERALFHMDNCYKIPNIRGTGRLCKTNLSSNTAFRGFGPQALFIAENWMSEVAUTCGLPAE
EVRWKNMYKEGDLTHFNQRLEGFSVPRCWDECLKSSQYYARKSEVDKFNKENCWKRGGLC
IIPTKFGISFTVPFLNQAGALIHVTDGSVLVSHGGTEMGQGLHTKMQVASKALKIPISKIYIS
ETSTNTVPNSSPTAASVSTDIYQGQAVYEACQTILKRLEPFKKNPDGSWEDWVMAAYQDRVS
LSTTGFYRTPNLGYSFETNSGNAFYFTYGVACSEVEIDCLTGDHKNLRTDIVMDVGSSLNPA
IDIGQVEGAFVQQLGLFTLEELHYSPEGSLHTRGPSTYKIPAFGSIPTEFRVSLRDCPNKKAIY
ASKAVGEPLFLGASVFFAIKDAIRAARAQHTNNNTKELFRLDSPATPEKIRNACVDKFTTLC
VTGAPGNCKPWSLRV

>DP02143|O67086|#1-59

MRVKGPSSRRKKKILKLAKGYRGQRSRSYRRAKEAVMRALYYQYDRKLRKREFRRLWI
ARINAAVRAYGLNYSTFINGLKKAGIELDRKILADMARDPQAFEQVNVKVKEALQVQ

>DP01052|Q8MWS6|#283-343

MLDSLYGDLPPSKDEGCPPKPTSLGSLYDDDDPTDTSSSSASSSSSSSSALFASSWTAER
LQMLTPAVVRKQTLKSASGLGAASSQTAGQASSSKPPLDVAAVAAAASAAAAAAVAQLKA
VKSEAFGDRARSFLGRGEREKAALGASDEAASAPGVAGGVKRDESEKGESLRALGRLGVE
TAEGRGHQGGDKETESSGFVSIGQMDEYDPGTPNDYSAIYREKIRKQQREELERLQQEL
DKQRRDRELPGSGSSLSGVAFGDSPSTPSPPAAPPAPPVLPsyIDPAKKSFAARMMEKMGWK
HGEGLGVNKQGITAPLVAKKTAMSSGVIVQGAEVVQAAQVWAQFNRPTRVLLLNMVG
RGEVDEDLKEETEEEAAKFGNLLQVKIVEAAEAPDDEAVRIFCEYERKEEATRAFMTMNGRV
FGGRTVKGRFYCEERWGKDDLMPNPEEEADKPLD

>DP00729|P00974|#14-38

MKMSRLCLSVALLVLLGTLAASTPGCDTSNQAKAQRPDFCLEPPYTGPCKARIIRYFYNKA
GLCQTFVYGGCRAKRNNFKSAEDCMRTCGGAIGPWENL

>DP00245|P00514|#91-112

MASGTTASEEERSLRECELYVQKHNIQALLKDSIVQLCTARPERPMAFLREYFEKLEKEEAQ
IQNLQKAGSRADSREDEISPPPPNPVVKGRRRGAISAEVYTEEDAASYVRKVIPKDYKTMAA
LAKAIEKNVLFSHLDNERSDIFDAMFPVSIAGETVIQQGDEGDNFYVIDQGEMDVVNNE
WATSVGEGBSFGEALIYGTPRAATVAKTNVKLWGIDRDSYRRILMGSTLRKRKMYEEFLS
KVSILESLDKWERLTVADALEPVQFEDGQKIVVQGEPEGDEFFIILEGSAAVLQRRSENEEFVEV
GRLGPSDYFGEIALLMNRPRAATVVARGPLKCVKLDRPRFERVLGPCSDILKRNIQQYNSFVS
LSV

>DP00836|P01139|#19-128

MSMLFYTLITAFLIGVQAEPYTDNSVPEGDSVPEAHWTKLQHSLDTALRRARSAPTAIAARV
TGQTRNITVDPRLFKKRRLHSRVLFSTQPPPTSSDTLDLFQAHGTIPFNTHRSKRSSTHPVF
HMGEFSVCDSVSVWVGDKTTATDIKGKEVTVAEVNINNSVFRQYFFETKCRASNPVESGCR
GIDSKHWNSYCTTHTFKALTDEKQAAWRFIRIDTACVCVLSRKATRRG

>DP01139|A0A0G2JXC5|#85-116 #129-160 #173-204

MGGVITKAKVDFSSVCLPPSVIAVNGLDGGAGENDEEPVLLSLAAPSPQSEA VANELOQE
LSLQPELTGLHPGRNPNLPLSERKNVLQLKLQQRRTREELVSQGIMPLKSPAAFHEQRSSL
ERARTEDYLKRKIRSRPERSELVRMHILEETS AEPSLQAKQLKRALADDNEKIAQRPGP
MELVEKNILPVESSLKEALIVGQVNYPKVADSSFD ESSDALSPEQASHESQGSVPSPLESR
ASDLLPSATSISPTQVLSQLPMAPDPGETLFLAEQPPLPPPPLLPPSLTSGSIVPTAKPAPLIKQS
QPKSASEKSQRSKKAKELKPKVKKLYHQYIPPDQKQDKGAPAMDSSYAKILQQQLFLQL
QILNQQQQQQQQHQNYQAILPAPPKPSGETPGSSAPTPSRSLSTSSSSSGTPGPGGLARQNS
TALAGKPGALPANLDDMKVAELKQELKLRSLPVSGTKTELIERLRAYQDQVSPAPGAPKAPA
TTSVLSKAGEVVVAFPAALLSTGSALVTAGLAPAEMVVATVTSNGMVKFGSTGSTPPVSPTP
SERSLLSTGDENSTPGDAFGEMVTSLTQLTLQASPLQIVKEEGARAASCLSPGARAEGLEL
DKDQMLQEKDQIEELTRMLQQKQLVELLRLQLEQQKRAQQPAPASSPVKRESSFSSCQLS
CQPQGAARAFGPLVVPTTNHGDAQAPAPESP PVVVKQEAGPPEPD LAPASQLLGSQGTSF
LKKVSPPTLVTDSTGTHLILT VTNKSADGPLT GSPQQPLSQPGSAPGPPAQMDLEHPPQPS
FATPTSLLKKEPPGYEETVTQQPKQQENGSSSQHMDDLFDILIQS GEISADFKEPPSLPGKEKSP
PAEAYGPPLTPQPSPLSELPQAAPPGSPTLPGRLED FLESSTGLPLLTSGHEGPEPLSLIDDLS
QMLSSAILDHPPSPMDTSELHFAPEPSSGMGLD LAVGHLDSDWLELSSGPVLSAPLSTT
APSLFSMDFLDGHDQLHLWDSC L

>DP02325|O60200|#67-81

MGNIMSASFAPECTDLKTYDSCFNEWYSEKFLKGKS VENECSKQWYAYTTCVNAALVKQ
GIKP ALDEAREEAPFENGKLKEVDK

>DP00085|Q04206|#428-551

MDELFLIFPAEPAQASGPYVEIIEQPKQRGMFRYKCEGRSAGSIPGERSTD TTKTHPTIKING
YTGP GTVRISLVTKDPPHRPHFELVGKDCRDGFYEAECPDCIHSFQNLGIQCVKKRDLEQ
AISQRIQTNNNPFQVPIEEQRGDYDLNAVRLCFQVTVRDPG RPLRLLPPVLSHPIFDNRAPNTA
ELKICRVNRNSGSC LGGDEIFLLCDKVQKEDIEVYFTGPWEARGFSQADVHRQVAIVFRTP
PYADPSLQAPVRVSMQLRRPSDREL SEPMEFQYLPDTDDR HRIE EKRKRTYETFKSIMKKSPF
SGPTDPRPPRRIAVPSRSSASVPKAPQPYPFTSSLSTINYDEFPTMVFPSGQISQASALAPAPP
QVLPQAPAPAPAPAMVSALA QAPAPVPVLA PGPPQA VAPPAPKPTQAGEGTLSE ALLQLQFD
DEDLGALLGNSTDPAVFTDLASVDNSEFQQLNQGIPVAPHTEPMLMEYPEAITRLVTGAQ
RPPDPAPAPLGAPGLPNLLSGDED FSSIADMDFSALLSQISS

>DP01135|P40019|#1-153

MSDEAKEKRELESQKESSHNKSEKSVEPKPKRRRRNYDDYDAEVAKEETKAKNGLTKSEN
NGTVEDSESMDDAKLDALMGNEGEEEEEDDLAEIDTSNIITSGRRTRGKVIDYKKTAEELDK
KEPSTGSKDDVGYGEKEEDDEDEEDDDFKE

>DP02489|Q9YIJ1|#1-208

MSFVDHPPDWLEVGEGLREFLGLEAGPPKPKNQQHQDQARGLVLPGYNLPGPGNGLDRG
EPVNRADEVAREHDISYNEQLEAGDNPYLKYNHADADEFQEKLADDTSFGGNLGKAVFQAKK
RVLEPFGLVEEGAKTAPTGKRIDDHFHKRKKARTEEDSKPSTSSDAEAGPSGSQQLQIPAQPAS
SLGADTMSAGGGGPLGDNNQGADGVGNASGDWHCDSTWMGDRVVTKSTRTWVLPSYNN
HQYREIKSGSVDGSNANAYFGYSTPWGYFDNFNRFHWSPRDWQRLLINNYWGFRPRSLRVK
IFNIQVKEVTVQDSTTIANNLTSTVQFTDDYQLPVVNGTEGCLPAFPQVFTLPQYGY
ATLNRDNTENPTERSSFCLEYFPSKMLRTGNNFEFTYNFEEVPFHSSFAPSQNLFKLANPLVD
QYLYRFVSTNNTGGVQFNKNLAGRYANTYKNWFPGPMGRQGWNLGSGVNRAVSAFATT
NRMELEGASYQVPPQPNGMTNNLQGSNTYALENTMIFNSQPANPGTTATYLEGNMLITSESE
TQPVNRVAYNVGGQMATNQNSTTAPATGTYNLQEIVPGSVWMERDVYLQGPIWAKIPETG
AHFHPSPAMGGFLKHPPPMLIKNTPVPGNITSFSDDVPVSSFITQYSTGQVTVEMEWELKKE
NSKRWNPEIQYTNNYNDPQFVDFAPDSTGEYRTTRPIGTRYLTRPL

>DP01635|A0A0H2ZP82|#40-50

MKINKKYLGSVAVLALSVCSYELGRHQAGQVKESNRVSYIDGDQAGQKAENLTPDEVSK
REGINAEQIVIKITDQGYVTSHGDHYHYYNGKVPYDAIISEELLMKDPNYQLKDSIVNEIKG
GYVIKVDGKYYVYLKDAAHADNIRTKEEIKRQKQERSHNHSRADNAVAARAQGRYTTD
DGYIFNASDIIEDTGDAYIVPHGDHYHYIPKSDLSASELAAAQAYWNGKQGSRPSSSSHHNAN
PAQPRLSENHNLTVTPTYHQNQGENISSLLRELAYAKPLSERHVESDGLIFDPAQITSRTANGVA
VPHGDHYHFIPYSQLSPLEEKLARIPLRYRSNHWVPPDSRPEQSPSQSTPEPSPSPQAPNPQPA
PSNPIDEKLVKEAVRKVGDGYVFEENGVPRYIPAKDSAETAAGIDSKLAKQESLHKLGAK
KTDLPSSDREFYNKAYDLLARIHQDLNDKGRQVDFEALDNLLERLKDVSSDKVKLVDDILA
FLAPIRHPERLGKPNQAQITYTDDEIQVAKLAGKYTEDGYIFDPRDITSDEGDAYVTPHMTHS
HWIKKDSLSEAERAQAAQAYAKEKGLTPPSTDHQDSGNTEAKGAEAIYNRVKAACKVPLDRM
PYNLQYTVEVKNGSLIIPHEDHYHNIKFEWFDEGLYEAPKGYSLEDLLATVKYYVEHPNERP
HSDNGFGNASDHVQRNKNGQADTNQTEKPNEEKPKPEEDKEHDEVSEPTHPESDEKEN
HVGLNPSADNLYKPSTDTEETEEEAEDEAEIPQVEHSVINAIAEAEALLEKVTDSSIRQN
AVETLTGLKSSLGGTKDNNTISAEVDSLALLKESQPTPIQ

>DP00376|Q9H2S9|#523-529

MHTPPALP RRFQGGGRVRTPGSHRGKDNLERDPSGGCVPDFLPQAQDSNHFIMESLFCESS
GDSSLEKEFLGAPVGPSVTPNSQHSSPSRSLSANSIKVEMYSDEESSRLGPDERLLEKDDSVI
VEDSLSEPLGYCDGSGPEPHSPGGIRLPNGKLKCDVCGMVICGPNVLMVHRSHTGERPFHC
NQCGASFTQKGNNLRHIKLHSGEKPKFCFCNYACRRRALTGHLRTHSVSSPTVGKPYKCN
YCRGSYKQQSTLEEHKERCHNYLQLSTEAQALAGQPGDEIRDLEMVPDSMLHSSSERPTFID
RLANSLTKRKRSTPQKFVGEKQMRFLSDLPYDVNSGGYEKDVELVAHHSLEPGFGSSLAFV
GAEHLRPLRLPPTNCISELTPVISSVYTQMQLPGRLELPGSREAGEGPEDLADGGPLLYRPRG
PLTDPGASPSNGCQDSTDTESNHEDRVAGVVSLPQGPPPQPPPTIVVGRHSPAYAKEDPKPQE
GLLRGTPGPSKEVLRVVGESGEPVKAFKCEHCRILFLDHVMFTIIMGCHGFRDPFECNICGYH
SQDRYEFSSHIVRGEHKVG

>DP01987|Q14493|#200-224

MACRPRSPPRHQSRCGDASPPSPARWSLGRKRRADGRRWRPEDAEEAEHGAERRPESFTT
PEGPKPRSRCSDWASAVEEDEMTRVNKEMARYKRKLLINDFGRERKSSSGSSDSKESMSTV
PADFETDESVLMRRQKQINYGKNTIAYDRYIKEVPRHLRQPGIHPKTPNFKKYSRRSWDQQI
KLWKVALHFWDPPAEEGCDLQEIHVDLESAESSEPTSSQDDFDVYSGPTKVRHMDSQV

EDEFDLEACLTERPLRDFSAMS
>DP02017|A0A0H3LBR3|#81-99
MSFVITNPEALTVAAATEVRRIRDRAIQSDAQVAPMTAVRPPAADLVSEKAATFLVEYARKY
RQTIAAAAVVLEFAHALTTGADKYATAEADNIKTF
>DP00173|O00273|#1-116
MEVTGDAGVPESGEIRTLKPCLLRRNYSREQHGVAASCLEDLRSKACDILAIKSLOPVTLV
AEDGTIVDDDDYFLCLPSNTKFVALASNEKWAYNNSDGGTAWISQESFDVDETDSGAGLK
KNVARQLKEDLSSIIILSEEDLQMLVDAPCSDLAQELRQSCATVQLQHQLQQVLDQREEVR
QSKQLLQLYLQALEKEGSSL SKQEESKAAFGEEVDAVDTGISRETSSDVALASHIHLTALREKQ
APELSLSSQDLELVTKEDPKALAVALNWDLIKKTETVQEACERELALRLQQTQLHSLRSISAS
KASPPGDLQNPKRARQDPT
>DP00790|P08245|#1-31
MSDSNSRLVYSTETGRIDEPKAAPVRPKGDGVVRIQRQTSRKKGKVCLITGVVLDDAELTK
LAAELKKCGCGGAVKDGVIEIQGDKRDLLKSLLEAKGMKVLAGG
>DP01120|P24864|#360-373
MPRRERRERDAKERDTMKEDGGAEFSARSRKANVTVFLQDPDEEMAKIDRTARDQCGSQ
WDNNAVCADPCSLIPTPDKEDDDRVYPNSTCKPRIAPSRSGPLPVLSWANREEWKIMLNKE
KTYLRDQHFLEQHPPLLQPKMRAILLDWLMEVCEVYKLHRETFYLAQDFFDRYMATQENV
KTLLQLIGISSLFIAKLEEYPPKLHQFAYVTDGACSGDEILTTELMMKALKWRLSPLTIVS
WLNVYMQVAYLNDLHEVLLPQYQQIFIQIAELLDLCVLDVDCLEFPYGILAASALYHFSS
LMQKVSGYQWCDIENCVKWMVPAMVIRETGSSKLKHFRGVADEDAHNIQTHRDSLDD
KARAKKAMLSEQNRASPLPSGLLTPPQSGKKQSSGPEMA
>DP01578|P41969|#320-429
MDPSVTLWQFLLQLLREQGNNGHIISWTSRDGEFKLVDAEEVARLWGLRKNKTNMNYDKLS
RALRYYYDKNIIRKVSGQKFVYKFVSYPEVAGCSTEDCPPQPEVSVTAIA MAPATVHAGPG
DTATGKPGTPKGAGMTGQGGLARSSRNEYMRSGLYSTFTIQLQPQPPRASVLPNTTP
AGVPAPASGRSTSPNPLEACLEEEEAGPLQVILTPPEAPNQKSEELSLDPSFGHPQPPEVKVE
GPKEELEAARAGGFSEAVKAEPEVSASEGGLARLPAILTENTAQVCGLSTSTTEITQPQKGRK
PRDLELPLSPSLLGGQGPERTPGSGTSSGLQAPGPALTPSLLPTHTLTPVLLTPSSLPPSIHF
LSPPIAPRSPA KLSFQFPSSGSAQVHIPSISVDGLSTPVVLSPGPQKP
>DP01739|P9WNR7|#456-478
MGLRLTTKVQVSGWRFLRRLEHAI VRRDTRMFDDPLQFYRSIALGIVVAVLILAGAALLA
YFKPQGKLGGSLSFTDRATNQLYVLLSGQLHPVYNLTSARLVLGNPANPATVKSSELSKLM
GQTVGIPGAPYATPVSAGSTSIWLCDTVADSTSPVQTA VIAMPLEIDASIDPLQSHEAVL
VSYQGETWIVTTKGRHAIDLTDALTSSMGIPVTARPTISEGMFNALPDMGPWQLPPAAG
APNSLGLPDDL VIGSVFQIHTDKGPQYYVLPDGIAQVNATTAAALRATQAHGLVAPPAMVP
SLVVRIAERVYVPSPLPDEPLKIVSRPQDPALCWSWQRSA GDQSPQSTVLSGRHLPISPSAMNM
GIKQIHGTATVYLDGGKFVALQSPDPRYTESMYYIDPQGVRYGVPNAETAKSLGLSSPQNA
WEIVRLLVDGPVLSKDAALLEHDTLPADPSRKVPAGASGAP
>DP00365|P53041|#19-147
MAMAEGERTECAEPPRDEPPADGALKRAEELKTQANDYFKAKDYENAIFYSQAIELNPSNA
IYYGNRSLAYL RTECYGYALGDATAI ELDKKYIKGYYRRAASN MALGKFRAALRDYETVV
KVKPHDKDAKMKYQECNKIVKQKA FERAIA GDEHKRSVVDSDL DIESMTIEDEYSGPKLEDGK
VTISFMKELM QWYKDQKKLHRKCAYQILVQVKEVLSKLSTL VETTLKETEKITVCGDTHGQF
YDLLNIFELNGLPSETNPYIFNGDFVDRGSFSVEVILTLFGKLLYPDHFHLLRGNHETDNMNQ
IYGFEGEVKAKYTAQMYELFSEVFEWPLAQCINGKVLIMHGGLFSEDGVTLDDIRKIERNRQ
PPDSGPMCDLLWSDPQPQNRSISKGVSCQFGPDVTKA FLEENNLDYIIRSHEVKAEGYEVA

HGGRCVTVFSAPNYCDQMGNKASYIHLQGSDLRPQFHQFTAVPHPNVKPMAYANTLLQLG
MM

>DP01327|Q8IV16|#21-54

MKALGAVLLALLCGRPGRGQTQQEEEEDEDHGPDYDEEDEDEVEEEETNRLPGGRSRV
LLRCYCKSLPRDERCNLTQNCSHQCTTIAHGNTEGLLTHSTWCTDCQPIKTVEGT
QVTMTCCQSSLNVPPWQSSRVQDPTGKGAGGPRGSSETVGAALLNLLAGLGAMGARRP
>DP00521|O95997|#1-202

MATLIYVDKENGEPEGTRVVAKDGLKLGSGPSIKALDGRSQVSTPRFGKTFDAPPALPKATRK
ALGTVNRATEKSVKTKGPLKQKQPSFSAKKMTEKTVKAKSSVPASDDAYPEIEKFFPNPLDF
ESFDLPEEHQIAHLPLSGVPLMILDEERELEKLFLQLGPPSPVKMPSPWESNLLQSPSSILSTLD
VELPPVCCDIDI

>DP02009|O75683|#1-182

MASLLAKDAYLQSLAKKICSHSAPEQQARTRAGKTQGSETAGPPKKRKKKTQKKFRKREEK
AAEHKAOKSLGEKSPAASGARRPEAAKEEAWASSSAGNPADGLATEPESVFALDVLRQRLLH
EKIQEARQGSAKELSPAALEKRRRKQERDRKKRKELRAKEKARKAEEATEAQEVVEA
TPEGACTEPREPPGLIFNKVEVSEDEPASKAQRKKEKRQRVKGNLTPLGRNYRQLLERLQAR
QSRDELRGQDEGKAQELEAKMKWTNLLYKAEGVKIRDDERLLQEAALKRKEKRRAQRQRR
WEKRTAGVVEKMQQQRQDRRRQNLRRKKAARAERRLLRARKKGRILPQDLERAGLV
>DP00993|Q9I332|#1-253

MLKLNADVDTAPLVSSDTLAPLPLRAQQIAFEQALPAHRPPAPRPFDKGDETTEAAATADAP
TSTPLADQPAAPAADRPTIRQPPMPVAADATPTPTPTPTPTPTPTPTVSPSGSVARQA
PAVSARVAASTQAREPASVSAPPDEPPLVPVSSHQPQAGRTHERPQPGPGFAKTAEVAPT
AQASVQASPPAPTAGGEGRGEERRQPGETDPSALPDDQAPVPLPAMQTPGDRLLARLLASS
GSRPLPLADLARLLDAVQGRIQVASAAESHAARLQVRLPQLGAVEVQVLHGHGQLQIEISASP
GSLALLQQARGELLERLQLRHPEQPVQLTFNQQQDSGQRSRQRRYLHEEWQAE
>DP01405|Q5V913|#1-70

MSNMIDGINTGTIDKAPEEITSGTGTTRPIRPATLAPPSNKRTRNPSPERATTISEADVGRKT
QKKQTPTIEKKSVDYNMVVKLGEFYNNQMMVKAGLNDMDERNLNIQNAHAVERILLAATDDKK
TEFQKKKNARDVKEGKEEIDHNKTGGTFYKMVRDDKTIYFSPIRVTFLKEEVKTMYKTTMGS
DGFSLNHIQMHSQMNDVCFQRSKALKRVLGDSLSTFAGSTLPRRSGATGVAIKGGTLV
AEAIRFIGRAMADRGLLDIKAKTAYEKILLNLKNKCSAPQQKALVDQVIGSRNPGIADIEDL
TLLARSMVVVRPSVASKVVLPISYAKIPQLGFNVEEYSMVGYEAMALYNMATPVSILRVD
DAKDKSQLFFMSCFGAAYEDRVLSLATGTEFKPRSALKCKGFHVPAKEQVEGMGAALMSI
KLQFWAPMTRSGNEVGGDGGSQISCSPVFAVERPIALSKQAVRRMLSMNIEGRDADVKG
NLLKMMNDSMAKKTNNAFIGKKMFQISDKNKTNPVEIPIKTIPNFFFGRDTAEDYDDLDY
>DP00034|P03661|#67-90

MKKLLFAIPLVVPFYSHSAETVESCLAKPHTENSFTNVWKDDKTLDRYANYEGCLWNATGV
VVCTGDETQCYGTWVPIGLAIPENEgggSEgggSEgggSEgggTKPPEYGDTPIPGYTYINPL
DGTYPGTEQNPANPNPSLEESQPLNTMFQNNRFRNRQGALTIVTGTVTQGTDPVKTYQQY
TPVSSKAMYDAYWNGKFRDCAFHSGFNEDPFVCEYQQQSSDLPQPPVNAGGGGGGGGG
EGGGSEgggSEgggSEgggSGGGSGDFDYEKMANANKGAMTENADENALQSDAKGKL
DSVATDYGAAIDFIGDVSGLANGNGATGDFAGSNQMAQVGDGDNPLMNFRQYLPSP
QSVECRPYVFGAGKPYEFSIDCDKINLFRGVFAFLYYVATFMYVFSTFANILRNKES
>DP01649|P0C1H4|#1-35

MPEPAKSAPAPKKGSKKAVTKTQKKGDKRRKSRKESYSIYVYKVLKVHPDTGISSKAMGI
MNSFVNDIFERIAGEASRLAHYNKRSTITSREIQTAVRLLLPGELAKHAVSEGTKAVTKYTSSK
>DP00076|P06786|#1-6 #258-274 #408-420 #484-488 #526-530 #631-681 #1070-1202 #1203-1428

MSTEPVSASDKYQKISQLEHILKRPDTYIGSVETQEQLQWIYDEETDCMIEKNVTIVPGLFKIF
DEILVNAADNKVRDPSMKRIDVNIAHEEHTIEVKNDGKGIPIEHNKENIYIPEMIFGHLLTSSN
YDDDEKKVTGGRNGYGAKLCNIFSTEFILETADLNVGQKVQKWENNMSICHPPKITSYKKG
PSYTKVTFKPDLTRFGMKELDNDILGVMRRVYDINGSVRDINVYLNGKSLKIRNFKNYVEL
YLKSLEKKRQLDNGEDGAAKSDIPTILYERINRWEVAFAVSDISFQQISFVNSIAATTMGGTHV
NYITDQIVKKISEILKKKKKSVKSFQIKNNMFIFINCLENPAFTSQTKEQLTTRVKDFGSRCEI
PLEYINKIMKTDLATRMFEIADANEENALKSDGTRKSRTNYPKLEDANKAGTKEGYKCTL
VLTEGDSALSLAVAGLA VVGRDY YGCYPLRGKMLNVREASADQILKNAEIQAIIKIMGLQH
RKKYEDTKSLRYGHLIMMTDQDHGSHIKGLIINFLESSFPGLDIQGFLLEFITPIKVSITKPT
KNTIAFYNMMPDYEKWREEESHKFTWKQKYYKGLGTLAQEVREYFSNLDRLKIFHSLQGN
DKDYIDLAFSKKKADDREKEWLRQYEPGTVDPTLKEIPISDFINKELILFSLADNIRSI
PKVLPNNGAEGIGTGWSTYIPPFNPLEIKNIRHLMNDEELEQMHPWFRGWGTGIEEIEPLRYRMY
GRIEQIGDNVLEITELPARTWTSTIKEYLLLGLSGNDKIKPWIKDMEEQHDDNIKF
IUTLSPEEMAKTRKIGFYERFKLISPISLMNMVA
FDPHGKIKKYN
SVNEILSEFYYVRLEYYQKRKDHSER
LQWEVEKYSFQVKFIKMIIEKELTVTNKPRNAIIQELENLGFP
RFNKEGKP
YYGSPNDEIAEQI
NDVKGATSDEEDEESSHEDTEN
VINGPEELYGT
YEYLLGMRIWSLT
KERYQKLLKQ
QEKE
ET
ELENLLKLSAKDI
WNTDLKA
FEVGYQEFLQRDA
EARGGNVP
NKGSKTKGKG
KRKL
VDD
ED
YDPSKKNKK
STAR
GKK
IK
LED
KN
FER
IL
LE
QK
L
VTK
SKAP
T
K
KE
K
TP
S
V
SET
K
TEE
EE
ENA
PSST
SSS
IFDI
KK
DED
K
DE
G
EL
SK
IS
NK
F
KK
I
ST
I
FD
K
MG
S
T
AT
SK
K
NT
PE
Q
DD
V
AT
KK
N
Q
TT
A
K
T
A
V
K
P
K
L
A
K
P
V
R
K
Q
Q
K
V
V
E
L
S
G
E
D
L
E
I
L
S
Y
T
D
R
E
D
S
N
K
D
E
D
D
A
I
P
Q
R
S
R
Q
R
S
R
A
A
S
V
P
K
K
S
Y
V
E
T
L
E
L
S
D
D
S
F
I
E
D
D
E
E
E
N
Q
G
S
D
V
F
N
E
E
D
3

>DP00429|P32170|#49-63

MTTQLEQAWELAKQRFAAVGIDVEEALRQLDRPVSMHCWQGDDVSGFENPEGSLTGGIQA
TGNPGKARNASELRADLEQAMRLIPGPKRLNLHAIYLES
DTPVSRDQIKPEHFKNW
VEWAK
ANQLGLDFNPSCFSHPLSADGFTL
SHADDSIRQFWIDHCKASRRVSAYFGEQLGTP
SVMNIWI
PDGMKDITVDR
LAPRQRLA
ALDEV
ISEKLN
PAHH
IDA
VES
KLF
GIG
AES
Y
TVG
S
NEF
YM
G
AT
SRQ
TAL
C
L
D
A
G
H
F
H
P
T
E
V
I
S
D
K
I
A
M
L
Y
Y
P
Q
L
L
H
V
S
R
P
V
R
W
D
S
H
V
V
L
L
D
E
T
Q
A
I
A
S
E
I
V
R
H
D
L
F
D
R
V
H
I
G
L
D
F
D
A
S
I
N
R
I
A
A
W
V
I
G
T
R
N
M
K
K
A
L
L
R
A
P
E
L
T
A
L
E
P
T
A
E
L
R
K
L
E
A
A
G
D
Y
T
A
R
L
A
L
E
E
Q
K
S
L
P
W
Q
A
V
W
E
M
Y
C
Q
R
H
D
T
P
A
G
S
E
W
L
E
S
V
R
A
Y
E
K
I
L
S
R
R
G

>DP00904|Q58876|#104-213

MRVEYSKDLIRKGISTISQLKAKIRVEKDDKKISYKDAKPGKIDVNEFKKAIYLLIEADDFLY
KKAPKHELNEEEAKEFCKLI
IKCQEHLNKILANFGF
EFEKEIDE
GALYIVSNKKLFKKLN
K
PNLKVVCTEGMLDIEDMRAIGVPEKALEGLKKV
EIARKN
VERFIE
KYKPEK
IFVV
VEDDKD
ELLYLRA
KNLYNA
EKL
DA
EILD

>DP01027|Q4DRC4|#210-241

MFIRLFA
REEEG
EGK
ICH
MPRE
YFA
EAK
IL
F
EEE
IR
TRI
KE
V
A
K
R
I
ADD
Y
KG
K
G
L
R
P
Y
V
N
P
L
V
L
I
S
V
L
K
G
S
M
F
T
A
D
L
C
R
A
L
C
D
F
N
P
V
R
M
E
F
I
C
V
S
S
Y
G
E
I
P
F
G
V
T
N
G
P
R
Y
C
Y
V
L
Y
N
G
T
A
L
K
Y
L
G
T
L
P
P
S
V
K
E
I
A
I
S
K
W
G
H
F
Y
I
N
G
N
F
Y
P
V
S
S
E
V
G
S
V
N
K
S
V
V
L
L
P
S
F
L
T
H
T
I
V
N
I
T
I
G
L
G
M
K
R

>DP02507|Q84852|#17-299

MKKLFVVLVVM
MPIYGD
KFPTS
VVS
N
CTD
QC
ASY
V
AN
V
FT
T
Q
PG
GF
IP
S
DF
SF
NN
WF
L
TN
SS
TLV
SG
K
L
V
T
K
Q
P
L
L
V
N
C
L
W
P
V
P
S
F
E
E
A
A
S
T
F
C
F
E
G
A
F
D
Q
C
N
G
A
V
L
N
N
T
D
V
I
R
F
N
L
N
F
T
T
N
V
Q
S
G
K
G
A
T
V
F
S
L
N
T
T
G
V
T
L
E
I
S
C
Y
N
D
T
V
S
D
S
F
S
S
Y
G
E
I
P
F
G
V
T
N
G
P
R
Y
C
Y
V
L
Y
N
G
T
A
L
K
Y
L
G
T
L
P
P
S
V
K
E
I
A
I
S
K
W
G
H
F
Y
I
N
G
N
F
Y
P
V
S
S
E
V
G
S
V
N
K
S
V
V
L
L
P
S
F
L
T
H
T
I
V
N
I
T
I
G
L
G
M
K
R

SGYGQPIASTLSNITLPMQDNNTDVYCVRSQFSVYVHSTCKSALWDNVFKRNCTDVLDAT
AVIKTGTCPFSFDKLNLYTFNKFCLSLSPVGANCKFDVAARTRTNEQVVRSLYVIYEEGDSI
VGVPNSDGLHDLSDLHLDCTDYNIYGRGVGIIRQTNRTLLSGLYYTSLGDLLGFKNVSD
GVIYSVTCDVSAQAAVIDGTIVGAITSINSELLGLTHWTITPNFYYYYSIYNYTNDKTRGTPIDS
NDVGCEPVITYSNIGVCKNGALVFINVTHSDGDVQPISGNVTIPTNFTISVQVEYIQVYTPVS
IDCSRYVCNGNPRCNKLLTQYVSACQTIEQALAMGARLENMEVDSMLFVSENAKLASVEA
FNSSETLDPIYTQWPNIIGFWLEGLKYILPSDNSKRKYRSAIEDLLFSKVVTGLGTVDEDYKR
CTGGYDIADLVCAQYYNGIMVLPGVANADKMTMYTASLAGGITLGAFGGGAVSIPFAVAVQ
ARLNVALQTDVLNKNQQILASAQNQAIGNITQSFGVKNDIAHQTSRGLTTAKALAKVQDV
VNTQQRALRHTVQLQNNFQAISSISSDIYNRLDELSADAQVDRLITGRLTALNAFVSQTLTR
QAEVRASRQLAKDKVNECVRQSQRFGFCGNGTHFLSLANAAPNGMIFFHTVLLPTAYETVT
AWSGICALDGDRTFGLVVKDVQLTLFRNLDDKFYLTPRTMYQPRVATSSDFVQIEGCDVLV
NTTVDLPSIIPDYIDINQTVQDILENFRPNWTVPELTLDVFNATYLNLTGEIDDLEFRSEKLHN
TTVELAILIDNINNNTLVNLEWLNRITYVKWPWYVWLILLGLVVIICIPLLLFCCTGCCGICIG
CLGSCCHSIFSRRQFENYEPIEKVHVH

>DP01557|P27682|#25-210

MTSRMAILSGLFWLLLEWNPAFAYSPRTPDRVSETDIQRLLHGVMЕQLGIARPRVEYPAHQ
AMNLVGPQSIEGGAHEGLQHLGPGFGNIPNIVAEALTGDNIPKDFSEDQGYPDPPNPCLGKTAD
DGCLENAPDTAEFSREFQLDQHLDPEHDYPGLGWNKKLLYEKMKGQRRKRRSVNPYL
QGKRLDNVVAKKSVPHFSEEKEPE

>DP00809|P80870|#81-130

MAAKFEVGSVTGKVTGLQAYGAFVALDEETQGLVHISEVTHGFVKDINEHLSVGDEVQVK
VЛАВДЕЕKGKISLSIRATQAAPEKKESKPRKPAAQVSEEASTPQGFNTLKDKLEEWIEMSNR
KDLIKK

>DP00286|Q32NN2|#184-189 #203-215

MVGEMETKEPKPKPTPDYLMQLMNDKKLMSSLNPFCGIFTHLERLLDEEISRVRKDMYNDTM
NSSSNEKRTSELPDGIGPIVQLQEKL YVPVKEYPDFNFVGRILGPRGLTAKQLEAETGCKIMVR
GKGSMRDKKKEEQNRGKPNWEHLNEDLHVLITVEDAQNRAELKLKRAVEEVKKLLVPAAE
GEDSLKKMQLMELAILNGTYRDANLKSPALAFSLAATGQAPRIITGPAPVSPAALRTPTAG
HTLMPLIRQIQTAVMPNGTPHPTATLMQQAPEGGLIYTPYEYPYTLAPATSILEYPIEASGVLG
AVATKVRHRDMRVHPYQRIVTADRAATGN

>DP01088|Q9XES8|#1-89

MAKSKEDITYATSQARLSEDEAVRVAYEHGSPLEGGKIADSQPVDLFSSAHNMPKSGQTTMD
SNTSDSQMQRDTQEGBSKEFTTGAPG

>DP00756|Q04884|#18-52 #75-114 #145-188

ASEDGGRGPYVQADLAYAYEHITHDYPEPTAPNKNISTVSDYFRNIRTRSVHPRSVGYDF
GGWRIAADYARYRKWNNNKYSVNENVRIRKENGIRIDRKTEENQENGTFHAVSSLGLSAIYD
FQINDKFKPYIGARVAYGHVRHSIDSTKKTIEVTTVPSNAPNGAVTTYNTDPKTQNDYQNSI
RRVGLGVIAGVGFITPKLTL DAGYRYHNWGRLENTRFKTHEASLGVRYRF

>DP02324|P53865|#572-581

MTDFDLMNFPFHERLDSPVSENGEIKDGEPIPQNWLNEHVGSILPLFVNPDVINCNFSNA
RDSYEENKSPSMQMYARNTSYQESPGLQERPKNEKD SPIGTDVHKDVPNFIHSTPREN
SSKHFRANEQASAQPTDEHTSPDISIEDCNGAKIFLQNSLSKEDFRMLENVILGYQKKVIELG
RDNLRQEERANSLQKELEAATKSNDKTLDNKKKIEEQTVLIENLTKDLSLNKEMLEKANDTI
QTKHTALLSLTDSLRKAELFEIPIGILFFDLYDSEENSSKLDHILQEKPNIKGFLCASQQEELS
ISQRFKNAKAEADLRNELENKIEIQTMRKNNTLIGTNKTL SKQNKILCDKFDKLTIDEKEI
LKGCEEIKIKLERLNERLGSWEKSKEKYETSLKDKEKMLADAEEKKTNTLSKELDNLRSRFG

NLEGNTSERITIKNILQSRPDISAEENFLMVEQIDSANLTLQNTVKEIVLAVGIPYPKLRKIP
LLAIKLKYENIMLSNFAQLRHRQVYSQEMNLKKFTDQAYYDFMSTRMDSIDHHLERCLDH
LYDHILEKMVK

>DP00978|P35961|#33-498

MRATEIRKNYQHLWKGTLGGMLMICSAAEQLWVTVYYGPVWKEATTLFCASDAKAY
DTEVHNWATHACVPTDPNPQEVKLENVTENFMWKNNMVEQMHEIDIISLWDQSLKPCVK
LTPLCVTLNCTDLRNATNTSSSWETMEKGEIKNCNFNITTSIRDKVQKEYALFYNLDVVPID
NASYRLISCNTSVITQACPKVSFEPPIHYCAPAGFAILKNDKFNGTGPCTNVQCTHGIR
PVVSTQLLNGSLAEEEIVRSENFTNNAKTIIVQLNESVVINCTRPNNTRKSINIGPGRALYT
TGEIIGDIRQAHCNLSKTQWENTLEQIAIKLKEQFGNNKTIIFNPSSGGDPEIVTHSFNCGGEFF
YCNSTQLFTWNDRKLNNTGRNITLPCRIKQIINMWQEVGKAMYAPPIRGQIRCSSNITGLLT
RDGGKDTNGTEIFRPGGDMRDNRSELYKYKVVKIEPLGVAPTKAKRRVVQREKRAVGL
GALFLGFLGAAGSTMGAASITLTQARQLLSIVQQQNLLRAIEAQQHLLQLTVWGIKQLQ
ARVLAVERYLRDQQLLGIWCGSGKLICTTVPWNTWSNDSLNEIWDNMTWMKWEREIDN
YTHIIYSLIEQSQNQQEKNEQELLADKWAWSLWNWFDTKWLWYIKIFIMIVGLIGRIVFVV
LSIVNVRQRQGYSPLSFQTHLPAQRGPDRPDGIEEEGGERDRDRSGPLVDGFLAIIWVDLRSCL
FSYHRLRDLLIVTRIVELLGRRGWGVLYWWNLLQYWIQELKNSAVSLLNATAIAVAEGT
DRVIEILQRAFRAVLHIPVRIRQGLERALL

>DP02294|P63165|#1-18 #2-18

MSDQEAKPSTEGLDKKEGEYIKLKVGQDSSEIHFKVKMTTHLKKLKESYCQRQGVPMNSL
RFLFEGQRIADNHTPKELGMEEEDVIEVYQEQTGGHSTV

>DP00656|P07674|#1-64 #117-137 #252-294

MTAAQAKTTKNTAAAQEAAGAAQPSGLGLDSIGDLSSLDAPAASQGGSGPIELDDLID
EDPHQPRTAQNPGFSPESIAEIGATIKERGVKSPISVRENQECPGRYIINHGARRYRGSKWAGK
KSIPAFIDNDYNEADQVIENLQRNELTPREIADFIGRELAKGKKGDIAKEIGKSPAFIGQHVTL
LDLPEKIADAFNTGRVDRVTVVNEVTAFFKRPREEVEAWLDDDTQEITRTGVKLREFLDEK
GRDPNTVDAFNQQTDAERDAEAGDGQDGEDGDQDGKDAKEGKAEPDPDKLKKAIQVE
HDERPARLILNRRPPAEGYAWLKYEADDGQEFEANLADVKLVALIEG

>DP00108|P07598|#398-421

MSRTVMERIEYEMHTPDPKADPDKLHFVQIDEAKCIGCDTCSCQYCPAAIFGEMGEPHSIPHIE
ACINCGQCLTHCPENAIYEAQSWVPEVEKKLDGKVCIAMPAPAVRYALGDAFGMPVGSV
TTGKMLAALQKLGFAHCWDTEFTADVTIWEEGSEFVERLTKSDMPLPQFTSCCPGWQKYA
ETYYPELLPHFSTCKSPIGMNGALAKTYGAERMKYDPKQVYTVSIMPCIAKYEGLRPELKSS
GMRDIDATLTRELAYMIKKAGIDFAKLPDGKRDLSLMGESTGGATIFGVTGGVMEAALRFAY
EAVTGKKPDSWDFKAVRGLDGIKEATNVGGTDVKVAVVHGAKRFKQVCDDVKAGKSPY
HFIEYMACPGGCVCGGGQPVMGVLEAMDRTTTRLYAGLKKRLAMASANKA

>DP00037|Q9Y9L0|#2-8 #197-250

MPGSIPLIGERFPEMEVTTDHGVIKLPDHYSQGKWFVLFSPADFTPVCTTEFVSFARRYEDF
QRLGVDLIGLSVDSVFSHIKWKEWIERHIGVRIPFPIADPQGTVARRLGLHAESATHTVRGV
FIVDARGVIRTMLYYPMEGLRVDEILRIVKALKLGDSLKRAVPADWPNNEIIGEGLIVPPPTT
EDQARARMESGQYRCLDWWFCWDTPASRDDVEEARRYLRRRAEKPAKLLYEEARTHHLH

>DP00987|A0A0H3CFC9|#1-22 #56-61

MIEHVPMEDKRKGAAALDEARLRQQAIGVLRQMFDEVVNEPVPDEFIALRKAEERPAGGE
>DP00186|Q95V77|#1-143

MSSQQNQRQGEQQEQGYMEAACEKVVNAWESTKETLSSTAQAAAEEKTAEFRDSAGETIR
DLTGQAQEKGQEFKERAGEKAEEETKQRAGEKMDETKQRAGEMRENAGQKMEYKQQGKG
KAEELRDTAAEKLHQAGEKVKGRD

>DP00997|P0A4T9|#164-253

MSYSVGQVAGFAGVTVRTLHHYDDIGLLVPSERSHAGHRRYSDADLDRLQQILFYRELGFL
DEVAALLDDPAADPRAHLRRQHELLSARIGKLQKMAAAVEQAMEARSMGINLTPEEKFEVF
GDFDPDQYEEEVRERWGNTDAYRQSKEKTASYTKEDWQRIQDEADELTRRFVALMDAGEP
ADSEGAMDAEHRQGIARNHYDCGYEMHTCLGEMYVSDERFTRNIDAAKPGLAAYMRD
AILANAVRHTP

>DP01306|Q03518|#61-172

MAELLASAGSACSWDFFPRAPPSFPPAASRGGLGGTRSFRPHRGAESPRPGDRDGVRVPMA
SSRCRAPRGCRCLPGASLAWLGTVLLLLADWVLLRTALPRIFSLVPTALPLRVWAVGLSR
WAVLWLGAACVLRATVGSKSENAGAQGWLAALKPLAAALGLALPGLALFRELISWGAPGS
ADSTRLLHWGSHPTAFVVSYAAALPAAALWHKLGLSWVPGGQGGSGNPVRRLLGCLGSET
RRLSLFLVVLVLSLGEAMAIPFFTGR LTDWILQDGSADTFTRNLTLMSILTIAASAVLEFGDGIY
NNTMGHVHSHLQGEVFGAVLRQETEFFQQNQTGNIMSRVTEDTSTLSDLSENLSFLWYLV
RGLCLLGIMLWGSVSLTMVTLITLPLLFLPKVKVGKWYQLLEVQVRESLAKSSQVAIEALSA
MPTVRSFANESEAQKFREKLQEIKTLNQKEAVAYAVNSWTTISGMLLKVGILYIGGQLVT
SGAVSSGNLVTFLYQMQFTQADEVLLSIYPRVQKAVGSSEKIFEYLDRTPRCPSPGLLTPLHL
EGLVQFQDVFSAYPNRPDVVLQGLTFTLRPGEVTALVGPNGSGKSTVAALLQNLYQPTGGQ
LLLGDGKPLPQYEHRYLHRQVAAVGQEPQVGRSLQENIAYGLTQKPTMEEITAAAVKSGAHS
FISGLPQGYDTEVDEAGSQLSGGQRQAVALARALIRKPCVLILDDATSALDANSQLVEQULLY
ESPERYSRSVLLITQHLSLVEQADHILFLEGGAIREGGTHQQLMEKKGCYWAMVQAPADAPE

>DP00733|P07602|#93-137 #321-326 #330-378 #385-391

MYALFLLASLLGAALAGPVGLKECTRGSAVWCQNVKTASDCAVKHCLQTVWNKPTVKS
LPCDICKDVVTAAGDMLKDNAMEEILVYLEKTCWDLPKPNMSASCKEIVDSYLPVILDIIKG
EMSRPGEVCSALNLCESLQKHLAELNHQKLESNKIPELDMTEVVAPFMANIPLLYPQDGP
RSKPQPKDNGDVCQDCIQMVTDIQTAVRTNSTFVQALVEHVKECDRLPGPMADICKNYISQ
YSEIAIQMMMHMQPKEICALVGFCDVKEMPMQTLVPAKVASKNVIAPALELVEPIKKHEVPA
KSDVYCEVCEFLVKEVTKLIDNNKTEKEILDAFDKMC SKLPKSLSEECQEVDTYGSSILSILL
EEVSPVELVCSMLHLCGTRLPALTVHVTQPKDGGFCEVCKKLGYLDRNLEKNSTKQEILAA
LEKGCSFLPDYPQKQCDQFVAEYEPVIEILVEVMDFS VCLKIGACPSAHKPLLGEKCIWGP
SYWCQNTETAACQCAVEHCKRHWWN

>DP00353|P23202|#1-90 #273-294

MMNNNGNQVSNLNSNALRQVNIGNRNSNTTDQSNINFEFSTGVNNNNNNSSSSNNNVQNN
NSGRNGSQNNNDNENNINKNTLEQHRQQQQAFSDMSHVEYSRITKFFQEQLLEGYTFLFSHRSAP
NGFKVAIVLSELGFHYNTIFLDNLGEHRAPEFVSVNPNARVPA LIDHGMDNLSIWE SGAILLH
LVNKYYKETGNPLLWSDDLADQS QINA WLFFQTSGHAPMIGQALHF RYFHSQKIASAVERYT
DEVRRVYGVVEMALAERREALV MELDTENAAAYSAGTPMSQSRFFDYPVWLVGDKLTIA
DLAFVPWNNVVDRIGINIKIEFPEVYKWTKHMMRRPAVIKALRGE

>DP01108|Q13148|#266-414

MSEYIRVTEDEDEPIEIPSEDDGTVLLSTVTAQFPGACGLRYRNPVSQCMRGVRLVEGILHA
PDAGWGNLVVVNYPKDNKRKMDET DASSAVKV KRAVQKTSIDLIVLGLPWKTTEQDLKEY
FSTFGEVLMVQVKKDLKTGHSKGFGFVRFTEYETQVKVMSQRHMIDGRWCDCKL PNSKQS
QDEPLRSRKVFVGRCTEDMTEDELREFFSQYGDVMDVFIPKPFRAFVTFADDQIAQSLCGE
DLIIGGISVHSNAEPKHNSNRQLERSGRFGGNPGFGNQGGFGNSRGGGAGLGNNQGSNMG
GGMNFGAFSINPAMMAAAQAAQALQSSWGMGMLASQQNQSGPSGNNQNQGNMREPNQA
FGSGNNSYSGNSNSGAAIGWGSASNAGSGSGFNGGF GSSMDSKSSGWGM

>DP00008|Q64693|#1-256

MLWQKSTAPEQAPAPPRPYQGVRVKEPVKELLRRKRGHTSVGAAGPPTAVVLPHQPLATYS

TVGPSCLDMEVSASTVTEEGTLAGWLSQAPATLQPLAPWTPYTEYSHEAVSCPYSTDMY
VQPVCPSYTIVVGPSVLTYASPLITNVTPRSTATPAVGPQLEGPEHQAPLTYFPWPQPLSTLP
TSSLQYQPPAPTLSGPQFVQLPISIPEPVQLQMDDPRAISSLTIDKLLEEESENTYELNHTLSV
EGF

>DP02477|Q01970|#471-572 #883-933 #882-1234 #934-1192

MAGAQPGVHALQLEPPTVVELRRGSKFIKWDEETSSRNLTLLRVDPNGFFLYWTGPNEV
DTLDISSERTDRTGRYARLPKDPKIREVLGFGPDARLEEKLMVVSGPDPVNTVFLNFMAVQ
DDTAKVWSEELFKLAMNILAQNASRNTFLRKAYTKLKLQVNQDGRIPVKNILKMFSAKKR
VETALESGLKFNRSESIRPDEFSLEIFERFLNKLCRDPIDKILLEIGAKGKPYLTLEQLMDFIN
QKQRDPRLNEVLYPPLRPSQARLLIEKYEPNQQFLERDQMSMEGFSRYLGGEENGILPLEALD
LSTDMDTQPLSAYFINSSHNTYLTAGQLAGTSSVEMYRQALLWGCRCEVLDVWKGRPPEEEPF
ITHGFTMTTEVPLRDVLEAIAETAFKTPSPVILSFENHVDSAKQQAKMAEYCRSIFGDALLIE
PLDKYPLAPGVPLPSPQDLMGRILVKNKKRHRPSAGGPDSAGRKRPLEQSNSALSESSAATEP
SSPQLGSPSSDSCPGLSNGEVGLEKPSLEPKSLGDEGLNRGPYVLGPADREDEEEDEEEEQ
TDPKKPTTDEGTASSEVNATEEMSTLVNYIEPVKFKSFEAARKRNKCFEMSSFVETKAMEQL
TKSPMEFVEYNKQQLSRIYPKGTRVDSSNYMPQLFWNVGCQLVALNFQTLVDAMQLNAGV
FEYNGRSGYLLKPEFMRRPDKSFDFTEVIVDGIVANALRVKVISQFLSDRKVGIVYEVDMF
GLPVDRRKYRRTSQGNSFNPVWDEEPDFPKVVLPTLASRLIAAFEEGGKFVGHRLPVAI
RSGYHYVCLRNEANQPLCLPALLIYTEASDYIPDDHQDYAEALINPIKHVSLMDQRARQLAA
LIGESEAQAGQETCQDTQSQQQLGSQPSSNPTSPLDASPRRPGPTTSPASTSLSSPGQRDDLIA
SILSEVAPTPLDELRGHKALVKLRSRQERDLRELRKHHQRKAVTLTRRLDGLAQAQAEGR
RLRPGALGGAADVDTKEGEDEAKRYQEFAQRQVQSLLELREAQVDAEAQRRLEHLRQALQ
RLREVVLDANTTQFKRLKEMNEREKKEQKILDRKRHNSISEAKMRDKHKKEAELTEINRRH
ITESVNSIRRLEAQKQRHDRLVAGQQQLQLAEEEPKLLAQLAQECQEQRARLPQEIRRSL
LGEMPEGLGDPGVACASNGHAPGSSGHLGADSESEQEENTQL

>DP01504|P39926|#196-269

MSNANPYENNPNYAENYEMQEDLNNAPTGHSDGSSDFVAFMNKINSINANLSRYENIINQID
AQHKDLLTQVSEEQEMELRRSLDDYISQATDLQYQLKADIKAQRDGLHDSNKQAQAENC
QKFLKLIQDYRIIDSNYKEESKEQAKRQYTIQPEATDEEVEAINDVNGQQIFSQALLNANRR
GEAKTALAEVQARHQELLKLEKTMAELTQLFNDMEELVIEQQENVVIDKNVEDAQDVEQ
GVGHTNKAJKSARKKNCIRCLIICFIIFAIVVVVVVPSVVERK

>DP02328|P53779|#206-231

MSLHFLLYYCSEPTLDVKIAFCQGFDKVQDVSYIAKHYNMSKVDNQFYSVEVG DSTFTVLK
RYQNLKPIGSGAQGIVCAAYDAVLDRNAIKKLSRPFQNQTHAKRAYREL VLMKCVNHKNII
SLLNVFTPQKTLEEFQDVYLVMEMLDANLCQVIQMELDHERMSYLLYQMLCGIKHLHSAGII
HRDLKPSNIVVKS DCTLKILDGLARTAGTSFMMTPYVYRAPEVILGMGYKENVDIWS
VGCIMGEMVRHKILFPGRDYIDQWNKVIEQLGTPCPFMKKLQPTVRNYVENRPKYAGLTFP
KLFPDSLFPADSEHNKLKASQARDLLSKMLVIDPAKRISVDDALQHPYINVWYDPAEVEAPP
QIYDKQLDEREHTIEEWKELIYKEVMNSEEKTNGVVKGQPSPSGAAVNSSESLPSSSVNDIS
SMSTDQTLASDTDSSLEASAGPLGCCR

>DP01601|P26599|#143-184 #411-458

MDGIVPDIAVGKRGDELSTCVTNGPFIMSSNSASAANGNDKFKGDSRSAGVPSRVIHIR
KLPIDVTEGEVISLGLPFGKVTNLLMLKGKNQAFIEMNTEEAANTMVNEYTSVTPVLRGQPIY
IQFSNHKELKTDSSPNQARAQAALQAVNSVQSGNLAASAAA VDAGMAMAGQSPVLRIV
ENLFYPVTLVHQIFS KFGTVLKIITFTKNNQFQALLQYADPVAQHAKLSDLGQNIYNACC
TLRIDFSKLTSNVKYNNDKSRDYTRPDLPNGDSQPSLDQTMAAFLGSLVPNVHGALAPLAIP
SAAAAAAAAGRIAIPGLAGAGNSVLLVSNLNPERVTPQSLFILFGVYGDVQRVKILFNKKENA

LVQMDGNQAQLAMSHLNGHKLHGKPIRITLSKHQNVLREGQEDQGLTKDYGNsplHRF
KKPGSKNFQNIFPPSATLHLSNIPPSVSEEDLKVLFSSNGGVVKGFQKDRKMALIQMGSV
EEAVQALIDLHNHDLGENHHLRVFSKSTI

>DP00323|O75469|#130-141 #178-197

MEVRPKESWNHADFVHCEDTESVPKGPSVNADEEVGGPQICRCVCGDKATGYHFNVMTCEG
CKGFFRRAMKRNARLRCFRKGACEITRKTRRQCACRLRKCLEGMKEMIMSDEAVEER
RALIKRKKSERTGTQPLGVQGLTEEQRMMIRELMDAQMKTFDTTFSFKNFRLPGVLSSGCE
LPESLQAPSREEAAKWSQVRKDLCSLKVSLQLRGEDGSVWNYKPPADSGGKEIFSLPHMAD
MSTYMFKGIIISFAKVISYFRDLPIEDQISLLKGAAFELCQLRFNTVFAETGTWECCRRLSYCLE
DTAGGFQQLLEPMLKFHYMLKKLQLHEEYVLMQAISLFSPDRPGVLQHRVVVDQLQEFAI
TLKSYIECNRPQPAHRFLFLKIMAMLTELRSINAQHTQRLRIQDIHPFATPLMQELFGITGS
>DP00912|Q8N4Q1|#107-142

MSYCRQEKGKDRIFVTKEDHETPSSAELVADDPNPDYEEHGLILPNGNINWCPCCLGGMASGP
CGEQFKSAFSCFHysteeikgsdcvdqframqecmqkypdlypqebedeeerekkpaeqae
ETAPIEATATKEEGSS

>DP01770|P50402|#1-187

MDNYADLSDELTLLRRYNIPHGPVVGSTRRLYEKKIFEYETQRRRLSPPSSAASSYSFSDL
NSTRGDADMYDLPKKEDALLYQSKGYNDDYYEESYFTTRTYGEPEAGPSRAVRQSVTSFPD
ADAFHQVHDDDLLSSEECKDRERPMYGRDSAYQSITHYRPVSASRSSLDLSYYPTSSSTS
FMSSSSSSSWLTRRAIRPENRAPGAGLGQDRQVPLWGQLLFLVFVIVLFFIYHFMQAEEGN
PF

>DP02100|P60604|#95-109

MAGTALKRLMAEYKQLTLNPPEGIVAGPMNEENFFEWEALIMGPEDTCFEFGVFPAILSPLD
YPLSPPKMRFTCEMFHPNIYPDGRVCISILHAPGDDPMGYESSAERWSPVQSVEKILLVVSM
LAEPNDESGANVDASKMWRDDREQFYKIAKQIVQKSLGL

>DP00070|P37840|#1-140

MDVFMKGLSKAKEGVAAAEEKTKQGVAEAAGKTKEGVLYVGSKTKEGVVHGvatvaeKT
KEQVTNVGGAVENTGVTAVAQKTVEGAGSIAATGFVKKDQLGKNEEGAPQEGILEDMPVD
PDNEYAYEMPSEEGYQDYEPEA

>DP00308|P06132|#1-10

MEANGLGPQGFPELKNDTFLRAAWGEETDYTPVWCMRQAGRYLPEFRETRAQDFFSTCRS
PEACCELTLQPLRRFPLDAAIIFSDILVVPQALGMEVTMVPKGPSFPEPLREEQDLERLRDPE
VVASELGYVFQAITLTRQRLAGRPLIGFAGAPWTLMTYMVEGGGSTMAQAKRWLYQRP
QASHQLRLITDALVPYLVGQVAGAQLQLFESHAGHGLGPQLFNKFALPYIRDVAKQVKA
RLREAGLAPVPMIIFAKDGHFALEELAQAGYEVVGLDWTVAPKKARECVGKTVTLQGNLDP
CALYASEEEIGQLVKQMLDDFGPHRYIANLGHGLYPDMPEHVGAFAVHKHSRLLRQN
>DP01316|P25916|#106-240

MHRTTRIKITELNPHLMCVLCGGYFIDATTIIECLHSFCKTCIVRYLETSKYCPICDVQVHKTRP
LLNIRSDKTLQDIVYKLVPGLFKNEMKRRDFYAAHPSADAANGSNEDRGEVADEEKRIITD
DEIISLSIEFFDQSRLDRKVKEKPKEEVNDKRYLRCPAAMTVMHLRKFLRSKMDIPNTFQID
VMYEEEPLKDYYTLMDIAYIYTWRNRGPLPLKYVRVRTCKRMKMSHQRDGLTNAGELESDS
GSDKANSAGGPSTSSCLPSPSTPVQSPHPQFPHISSTMNGTSNSPSANHQSSFASRPRKSSLN
GSSATSSG

>DP00152|Q13426|#76-81 #178-202 #203-265

MERKISRIHLVSEPSITHFLQVSWEKTLESGFVITLTDGHSAWTGTVSESEISQEADDMAMEKG
KYVGELRKALLSGAGPADVYTFNFSKESCYFFFKEKNLKDVSFRLSFNLEKVENPAEVIRELI
CYCLDTIAENQAKNEHLQKENERLLRDWNDVQGRFEKCVSAKEALETDLYKRFILVLNEKK

TKIRSLHNKLLNAAQEREKDIKQEGETAICSEMTADRDPVYDESTDEESENQTDLSGLASAAV
SKDDSISSLDVTDIAPSRRQRMRNLGTEPKMAPQENQLQEKENSRPDSSLPETSKKEHIS
AENMSLELRNNSPEDLFDEI

>DP01774|O54928|#175-244

MDKVGKMWNLKYRCQNLFSHEGGSRNENVEMNPNCPSVKEKSISLGEAAPQQESSPLRE
NVALQLGLSPSKTFSRNNQNCAAEIPQVVEISIEKDSDSGATPGTRLARRDSYSRHAPWGKK
KHSCSTKTQSSLTEKKFGRTRSGLQRRERRYGVSSMQDMDSVSSRAVGSRSLRQLQDTVG
LCFPMLRTYSKQSKPLFSNKRKIHLSELMLEKCPFPAGSDLAQWKHLIKQHTAVSPHSTFFDT
FDPSLVSTEDEEDRLRERRRLSIEEGVDPPPNAQIHTFEATAQVNPLYKLGPKLAPGMTEISGD
GSAIPQTNCDSEEDSTTLCQLSRRQKQRQVSGD SHAHVSRQGA WKVHTQIDYIHCLVPDLLQI
TGNPCYWGVMDRYEA E ALLEGKPEGTFL RD SAQEDYL FS VSF RRY NRSL HARI EQWNHNF
SFDAHDPCVFHSSTVTGLLEHYKDPSSCMFFEPLLTISLNRTFPFLQYICRAVICRCTTYDGID
GLPLPSMLQDFLKEYHYKQKVRVRWLEREPVKAK

>DP00225|Q05140|#328-896

MSGQTLDRIA A A Q Y S V T G S A V A R A V C K A T T H E V M G P K K K H L D Y L I Q A T N E T N V N I P Q M A D
TLFERATNSSWWVFKALVTTHLMVHGNERFIQYLASRNTLFNLSNFLDKSGSHGYDMSTF
IRRYSRYLNEKA FSYRQMAFD FARVKKGADGV M RTMVPEKLLKSMPILQGQIDALLEFDVH
PNELTNGVINA AFMLFKDLIKLFAC YNDGVINLLEKFFEMKGQCKDALEIYKRLFTRMTR
VSEFLKVADEVGIDKG DIPDLTQAPSSL METLEQH LNTLEGKKPGNNEGSGAPSPLSKSSPATT
VTSPNSTPAKTI DTSPPV DIFATASAA APVSSAKPSSD LQLQPDFSGARAGAA APVPPPTGGA
TAWG DLLGEDSLA ALSS VPSEAPISDPFAPEPSPTTTEPASASASATTAVTAATTEVDLFGD
AFAASPGEAPAASEGATAPATPAPVAA ALDACS GNDPFA PSEGS AEAAP ELDLFAMKPPETSA
PVVTPTASTAPPV ATAPSPAPTA VAATAATT AAAA ATT TATSAAA ATT AA APPALDIFGD
LFDSAPEVAAASKPDVAPSIDLFGTDAFSSPRGASPVPESLTADLLSGSGFHCAEDDRHVPL
FFTAVDAFAAPSPASTASPAKA ESSG VIDLG DAFGSSA SETQPAPQAVSSSASADLLAGFGG
SFMAPSTTPVTPAQNNLLQPNFEA FGTT P STSSSSFDPSG D LLMPTMAPSGQPA VSMVPPS
PAMSASKGLGSDL DSSLASLVGNL GIS GTTSKKGDLQWNAGEKKLTGGANWQPKVTPATWS
AGVPPQGTVPPTSSVPPGAGAPSVGQPGAGYGMPPAGTGMTMMPQQPVMFAQPM MRPPFG
AAAVPGTQLSPSPTPATQSPKKPPAKDPLADLNKDFL

>DP00835|Q03337|#1-54 #104-164

MSQR II QPSASD QQF PGK SDG Y EY TV GP K QAIT SEASTT YIPS RIYSE SLL FKR QEA LSAMA FL
FQEMISQLHRTCKTAGDFETKLSDYGHNI GIRL LE LLNFRASVSPSSL PRASAFLSQNESSSKL
NASNSPGMLANSSTATSASANERLQEKQTESLSNYITKMRRDLKILDILQFIHGT LWSYLFN
HVSDDLVKSSERDNEYMIVDNFPTLTQFIPGENVSCEYFVCGI KGFL FNAGFPCGVTAHRMP
QGGHSQRTVYLIQFDRQVLDREGLRFG

>DP01268|Q9H816|#314-335

MNGVLIPHTPIAVDFWSLRRAGTARLFFL SHMHSDHTVGLSSTWARPLYCSPITA HLLHRHLQ
VSKQWIQALEVGESHVPL DEIGQETMTVTLLDANHCPGSV MFLFEGYFGTILYTGDFRYTPS
MLKEPAL TLGKQIHTLYLDNTNCNPALV LPSRQEA AHQIVQLRKHPQHNI KIGLYSLGKESLL
EQLALEF QT W VV LSPR RL ELV Q L L G L A D VFT VEE KAGRI H A V D H M E I C H S N M L R W N Q T H P T I
AILPTSRKI HSSHPDIHVIPYSDHSSYSELRAFVAALKPCQVPIVSRRPCGGFQDSLSPRISVPLI
PDSVQQYMSSSSRKPSLLWLLERRLKRPTQGVVFESPEESADQSQADRDSKKAKKEKLSPW
PADLEKQPSHHPLRIKKQLFPDLYSKEWNKAVPFCESQKRV TMLTAPLGF SVHLRSTDEEFIS
QKTREEIGLGSPLVPMGDDDGGPEATGNQSAWMGHGSPLSHSSKGTPLLATEFRGLALKYLL
TPVNFFQAGYSSRRFDQQVEKYHKPC

>DP00933|G1K3N3|#1-44

GSSGSSGNVDSNQNKA SMLQARLNDEAGGTRLLRVHESDTEERGFLEKAAVKKMAKAIM

ADPNKADEVYKKWADKGYLTQMSNFLKSCTAGKYDRVYNGYVIHLDY

>DP01413|P31016|#569-579

MDCLCIVTTKRYQDEDTPPLEHSPAHLPNQANSPPVIVNTDTLEAPGYELQVNNGTEGEME
YEEITLERGNGLGFSIAGGTNDPHIGDDPSIFITKIIPGGAAAQDGRLRVNDSILFVNEVDVRE
VTHSAAVEALKEAGSIVRLYVMRRKPPAEKVMEIKLIKGPGLGFSIAGGVGNQHIPGDNSIY
VTKIIEGGAAHKDGRLQIGDKILAVNSVGLEDVMHEDAVAALKNTYDVVYLKVAKPSNAYL
SDSYAPPDITTSYSQHLDNEISHSSYLGTDYPTAMTPSPRYSPVAKDLLGEEDIPREPRRI
HRGSTGLGFNIVVGGEDGEGIFISFILAGGPADLSGELRKGDQILSVNGVDLRNASHEQAAIALK
NAGQTVTIIAQYKPEEYSRFEAKIHDLREQLMNSSLGSGTASLRSNPKRGFYIRALFDYDKTK
DCGFLSQALSFRFGDVLHVIDAGDEEWQARRVHSSETDDIGFIPSKRRVERREWSRLKAK
DWGSSSGSQGREDSVLSYETVTQMEVHYARPIILGPTKDRANDLLSEFPDKFGSCVPHTTR
PKREYEIDGRDYHFVSSREKMEKDIQAHKFIEAGQYNSHLYGTSVQSREVAEQGKHCILDV
SANAVRRLQAAHLHPIAIFIRPRSLENVLEINKRITEEQARKAFDRATKLEQEFTECFSAIVEGD
SFEEIYHKVKRVIEDLSGPYIWVPARERL

>DP00910|P41567|#1-28

MSAIQNLHSFDPFADASKGDDLLPAGTEDYIHIRIQQRNGRKTLLTVQGIADDYDKKKLVKAF
KKKFACNGTVIEHPEYGEVIQLQGDQRKNICQFLVEIGLAKDDQLKVHGF

>DP01154|P19594|#22-64

MTKFTILLISLLFCIAHTCSASKWQHQJDSCRKQLQGVNLTPCEKHIMEKIQGRGDDDDDD
DDNHILRTMRGRINYIRRNEGKDEDEEEGHMQKCCTEMSELSPKCQCKALQKIMENQSEE
LEEKQKKMEKELINLATMCRFGPMIQCDLSSDD

>DP01622|Q06609|#1-15 #86-114 #270-287

MAMQMQUEANADTSVEESFGQPQISRLEQCGINANDVKKLEEAGFHTVEAVAYAPKKELIN
IKGISEAKADKILAEEAKLVPMGFTTATEFHQRSEIIQITTGSKELDKLLQGGIETGSITEMFG
EFRTGKTQICHTLAUTCQLPIDRGGGEGKAMYIDTEGTFRPERLLAVAERYGLGSDVLDNV
AYARAFNTDHQTQLYQASAMMVESRYALLIVDSATALYRTDYSRGELSARQMHLARFLR
MLLRLADEFGVAVVITNQVVAQVDGAAMFAADPKPIGGNIAHASTRLYLRKGRGETRIC
KIYDSPCLPEAEAMFAINADGVGDAKD

>DP00985|Q87WW0|#217-305

MVDKLTHLKQLEAESIHIIREVAAEFDNPVMLYSIGKDSAVMLHLARKAFFPGKLPFPVMHV
DTRWFQEMYRFRDQMVEEMGLDLITHINPDGVAQGINPFTHGSAKHTDIMKTEGLKQALD
KHGFDAAFGGARRDEEKSRAKERVYSFRDSKHRWDPKNQRPELWNVYNGNVNKGESIRVF
PLSNWTELDIWIQYIYLEGIPIVPLYFAAERDVIEKNGTLIMIDDERILEHLTDEEKSIVKKVR
FRTLCYPLTGAVESEATSLTDIIQEMLLRTSERQGRVIDHDGAGSMEEKKRQGYF

>DP00539|P51608|#1-75 #165-330 #335-486

MVAGMLGLREEKSEDQDLQGLDKPLFKKKVKDKKEEGKHEPVQPSAHSAEPAEAG
KAETSEGSGSAPAVPEASASPQQRRIIRDGRPMYDDPTLPEGWTRKLKQRKSGRSAGKYDV
YLINPQGKAFRSKVELIAYFEKVGDTSLDPNDFDFTVTGRGSPSRREQKPKPKSPKAPGTG
RGRGRPKGSCTRPAATSEGVQVKRVLEKSPGKLLVKMPFQTSPGGKAEGGGATTSTQVM
VIKRGRKRKAEADPQAIPKKRGRKPGSVVAAAAAEAKKAVKESSIRSVQETVLPIKKRKT
RETVSIEVKEVVKPLLVTLGEKGSKGLKTCSPGRKSKESSPKGRSSSASSPPKKEHHHHH
HSESPKAPVPLLPPLPPPPEPESESSEDPTSPPEPQDLSSVCKEEKMPPRGGSLESDGCPKEPAKT
QPAVATAATAAEKYKHRGEGERKDIVSSSMRPNREEPVDSRTPVTERVS

>DP02291|P04486|#412-490 #456-490

MDLLVDELFADMADGASPPPPRAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALF
NRLLDDLGFSAGPALCTMLDTWNEDLFSALPTNADLYRECKFLSTLPSDVVEWDAYVPER
AQIDIRAHGDVAFPTLPATRDGLGLYYEALSRFFHAELRAREESYRTVLANFC SALYRLRAS

VRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQ
MMRPDLFDCLCCDLESWRQLAGLFQPDMVNGALTURGVPIEARRLRELNHIREHNLPLVR
SAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKLDSYSSFTSPSEAVMREHAYSRARTKN
NYGSTIEGLLDLPPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSGLDELHLDGEDVAM
AHADALDDFDLMLGDGDSPGPFGTSDAPYGA
LDMADFEFEQMFTDALGIDEYGG
>DP01868|P35247|#199-225

MLLFLLSALVLLTQPLGYLEAEMKTYSHRTMPACTLVMCSSVESGLPGRDGRDGREGPRGE
KGDPGLPGAAGQAGMPGQAGPVGPKGDNGSVGEPGPKGDTGPSGPPGVPGPAGREGPL
GKQGNIGPQGKPGPKGEAGPKGEVGAPGMQGSAGARGLAGPKGERGVPGERGVPGNTGAA
GSAGAMGPQGSPGARGPPGLKGDKGIPGDKGAKGESGLPDVASLRQQVEALQQVQHLQA
AFSQYKKVELFPNGQSVGEKIFKTAGFVKPFTEAQLLCTQAGGQLASPRSAE
NAALQQLVV
AKNEAAFLSMTDSKTEGKFTYPTGESLVYSNWAPGEPNDDGGSEDCVEIFTNGKWNDRACG
EKRLVVCEF

>DP01513|P53378|#439-473

MGGEIITLQAGQCGNHVGKFLWSQLAKEHAIGTDGLSQLPDSSTERDDDTKPFFRENSRNKFT
PRAIMMDSEPSVIADVENTFRGFFDPRNTWVASDGASAGNSWANGYDIGTRNQDDILNKIDK
EIDSTDNFEGFQLLHSVAGGTGSGLGSNLLEALCDRYPKKILTTYSVFPARSSEVVVQSYNTIL
ALRRLIEDSDATVVFDNASLLNISGKVFRNPNI
DLQHTNQLISTI
ISSVTNSIRFPSYMYSSMSSI
YSTLIPSPELHFLSPSFTPFTSDYIHDDIAHKGHSSYDVMLDLDPSNSLVSTAMNNPTYFNVY
NTIIGNVEPRQISRAMTKLQQRICKFPSWSSSAMHVNI
GRRSPYPLQPNENEVSGMMLSNMST
VVNVFENACNTFDKVFAKGAFLN
NYNVGDLFQSMQNVQDEFAESREV
VQSLMEDYVAAEQ
DSYLDLVVDDENMVGELEEDLDADGDHKLV

>DP00031|P13255|#1-5 #27-36 #226-233

MVDSVYRTRSLGVAE
GIPDQYADGEAARVWQLYIGDTRSRTAEYKA
WLGLLRQHGCHR
VLDVACGTGVDSIMLVEEGFSVTSVDASDKMLKYALKERWNRRKE
PAFDKWVIEANWLT
LDKDVPAGDGFDAVICL
GNSFA
HLPDSKG
DQSEHRLALKNI
ASMVRPG
G
LLVIDHRNYDYIL
STGCAPP
GKNI
YYKSDLT
KDITTSVLT
VNNKAHM
VTLDYTVQ
VPGAGR
D
GAPGFSK
FRLSYY
PHCLASFTEL
VQEAFGGRC
QHSV
LGDF
KPYRPG
QAYV
PCYFI
HVLKKTG

>DP02262|P42226|#783-814 #790-799

MSLWGLVSKM
P
EKV
QR
LYVDFP
QH
RLHLLGD
W
LESQ
P
WEFL
VG
SDA
FCC
NL
ASALL
SDTV
QHLQ
ASV
GEQ
GEG
STIL
QH
IST
LE
SIY
QR
DPL
KL
V
AT
FR
Q
IL
Q
GE
KK
A
V
ME
Q
FR
H
LP
MP
F
HW
K
QE
EL
KF
KT
GL
RRL
QH
RV
GE
I
H
L
R
E
AL
Q
K
G
A
E
A
Q
V
S
L
H
S
L
I
E
T
P
A
N
G
T
P
S
E
L
A
P
L
Q
R
C
E
S
L
V
D
I
Y
S
Q
L
Q
E
V
G
A
A
G
G
E
L
E
P
K
T
R
A
S
L
T
G
R
L
D
E
V
L
R
T
L
V
T
S
C
F
L
V
E
K
Q
P
P
Q
V
L
K
T
Q
T
K
F
Q
A
G
V
R
F
L
L
G
R
F
L
G
A
P
A
K
P
P
L
V
R
A
E
R
V
P
W
E
K
M
C
E
T
L
N
L
K
F
M
A
E
V
G
T
N
R
G
L
P
E
H
F
L
F
L
A
Q
K
I
F
N
D
N
S
L
S
M
E
A
F
Q
H
R
S
V
W
S
Q
F
N
K
E
I
L
L
G
R
G
F
T
W
Q
W
F
D
G
V
L
D
L
T
K
R
C
L
R
S
Y
W
S
D
R
L
I
I
G
F
I
S
K
Q
Y
V
T
S
L
L
N
E
P
D
G
T
F
L
L
R
F
S
D
S
E
I
G
G
I
T
A
H
V
R
Q
D
G
S
P
Q
I
E
N
I
Q
P
F
S
A
K
D
L
S
I
R
S
L
G
D
R
I
R
D
L
A
Q
L
K
N
L
Y
P
K
P
K
D
E
A
F
R
S
H
Y
K
P
E
Q
M
G
K
D
G
R
G
Y
V
P
A
T
I
K
M
T
V
E
R
D
Q
P
L
P
T
E
L
Q
M
P
M
T
V
P
S
Y
D
L
G
M
A
P
D
S
S
M
S
Q
L
G
P
D
M
V
P
Q
V
P
P
H
S
I
P
P
Y
Q
G
L
S
P
E
E
V
N
V
L
S
A
F
Q
E
P
H
L
Q
M
P
P
S
L
G
Q
M
S
L
P
F
D
Q
P
H
P
Q
G
L
L
P
C
Q
P
Q
E
H
A
V
S
S
P
D
P
L
L
C
S
D
V
T
M
V
E
D
S
C
L
S
Q
P
V
T
A
F
P
Q
G
T
W
I
G
E
D
I
F
P
P
L
P
T
E
Q
D
L
T
K
L
L
E
G
Q
G
E
S
G
G
G
S
L
G
A
Q
P
L
L
Q
P
S
H
Y
G
Q
S
G
I
S
M
H
M
D
L
R
A
N
P
S
W

>DP00749|Q9TY14|#1-378

PTVERSTRMGNPWKA
FMEKYDIERTHSSGV
RVDLGEDAE
VENAKY
RIPAGRC
PVFGKGIVIE
NSDVSFL
RPVATGD
QKLKD
GGFA
FPNANDH
ISP
MT
LANLK
ERY
KD
N
V
EM
MK
L
N
D
I
A
L
CR
TH
A
ASF
V
M
A
G
D
Q
N
S
S
Y
R
H
P
A
V
Y
D
E
K
E
K
T
C
H
M
L
Y
L
S
A
Q
E
N
M
G
P
R
Y
C
S
P
D
A
Q
N
R
D
A
V
F
C
F
K
P
D
K

NESFENLVYLSKNVRNDWDKKCPRKNLGNAKGLWVDGNCEEIPYVKEVEAEDLRECNIV
FGASASDQPTQYEEEMTDYQKIQQQFRQNREMIAFLPVGAFNSDNFKSKGRGFNWANF
DSVKKCYIFNTKPTCLINDKNFIATTALSHPQEVDLEFPCSIYKDEIEREIKKQSRNMNLYSV
DGERIVLPRIFISNDKESIKCPCEPERISNSTCNFYVCNCVEKRAEIKENNQVVIKEEFRNYYEN
GEEKSNKQMLL

>DP01241|P19634|#680-815

MVLRSGICGLSPHRIFPSLLVVVALVGLPVLRSHGLQLSPTASTIRSEPPRERSIGDVTTAPPE
VTPESRPVNHSVTDHGMKPRKAFTPVLGIDYTHVRTPFEISLWILLACLMKIGFHVPITISSIVPE
SCLLIVVGLVGGLIKGVGETPPFLQSDVFFLFLPPIILDAGYFLPLRQFTENLTGTLIFAVVGT
LWNAAFLGGGLMYAVCLVGGEQINNIGLLDNLLFGSIISAVDPVAVLAVFEEIHINELLHILVFG
ESLLNDAVTVVLYHLFEEFANYEHVGIVDIFLGFLSFVVALGGVLGVVYGVIAAFTSRFTS
HIRVIEPLFVFLYSYMAYLSAELFHLSGIMALIASGVVVMRPYVEANISHKSHTTIKYFLKMWSS
VSETLIFIFLGVSTVAGSHHWNTFVISTLLFCIARVLGVLGLTWFINKFRIVKLTPKDQFIIA
YGLLRGAIAFSLGYLLDKKHFPMCDFLTAITVIFFTVFVQGMTIRPLVDLLAVKKKQETKRS
INEEIHTQFLDHLTGIEDICGHYGHHHWKDKLNRFNKKVKKCLIAGERSKEPQLIAFYHKM
EMKQAIELVESGGMGKIPSAVSTVSMQNIHPKSLPSEGILPALSKDKEEIRKILRNNLQKTRQ
RLRSYNRHTLVADPYEEAWNQMILLRRQKARQLEQKINNYLTVAHKLDSPTMSRARIGSDP
LAYEPKEDLPVITIDPASPQSPESVDLVNEELKGKVGLSRDPAKVAEEDEDDDGGIMMRSSKE
TSSPGTDDVFTPAPSDSPSSQRICLSDPGPHPEPGEPEFFPKGQ

>DP01124|Q9Y261|#240-258

MLGAVKMEGHEPSDWSSYYAEPEGYSSVSNMNAGLMNGMNTYMSMSAAAMGSGSGNM
SAGSMNMSSYVGAGMSPSLAGMSPGAGAMAGMGGSAGAAGVAGMGP HLSPLSPLGGQA
AGAMGGLAPYANMNSMSPMYGQAGLSRARDPKTYRRSYTHAKPPYSYISLITMAIQQSPNK
MLTLSEIYQWIMDLFPFYRQNQQRWQNSIRHLSFNDCLVKVPRSPDKPGKGSFWTLHPDSG
NMFENGCYLRRQKRFKCEKQLALKEAAGAAGSGKAAAGAQASQAQLGEAAGPASETPAG
TESPHSSASPCQEHHKRGGLGELKGTAAALSPPEPAPSPGQQQQAAHLLGPPHPGLPPEAH
LKPEHHYAFNHPFSINNLMSEQQHHHHQPHKMDLKAYEQVMHYPGYGSPMPGSLA
MGPVTNKTGLDASPLAADTSYYQGVYSRPMNNS

>DP00345|P16535|#884-953

MGTRLTLSNGLKNTLTATKGLHKAGQSLTQAGSSLKTGAKKIILYIPQNYQYDTEQGNGL
QDLVKAEEELGIEVQREERNNIATAQTSLGTIQTAIMTERGIVLsapQIDKLLQTKAGQALG
SAESIVQNANKAKTVLSGIQSILGSVLAGMDLDEALQNNSNQHALAKAGLELTNSLIENIANS
VKTLDEFGEQISQFGSKLQNIKGLGTLGDKLNIGGLDKAGLGLDVISGLLSGATAALVLADK
NASTAKVGAGFELANQVGNITKAVSSYILAQRVAAGLSSTGPVAALIASTVSLAISPLAFA
GIADKFNHAKSLESYAERFKKLYDGDNLAAEYQRGTGTIDASVTAINTELAAIAGGSAAA
AGSVIASPIALLVSGITGVISTILQYSKQAMFEHVANKIHNKIVEWEKNNHGKNFENGYDAR
YLANLQDNMKFLNLNKEQSERVIAITQQQWDNNIGDLAGISRLGEKVLSGKAYVDAFEE
GKHIKADKLVQLDSANGIIDVSNSGAKTQHILFRTPLLPGTEHRERVQTGKYEYITKLNINR
VDSWKITDGAASSTFDLTVVQRIGIELDNAGNTKTETKIIAKLGEGDDNVFGSGTTEID
GGEFYDRVHYSRGNYGALTIDATKETEQGSYTVNRFVETGKALHEVTSTHTALVGNREEKIE
YRHSNNQHHAGYYTKDTLKAVEEEIGTSHNDIFKGSKFNDAFNGGDGVDTIDGNDGNDRLFG
GKGDDILDGGNGDDFIDGGKGNDLLHGGKGDDIFVHRKGDGNDIITDSGNDKLSFSDSNLK
DLTFEKVKHNLVITNSKKEKVTIQNWREADFAKEVPNYKATKDEKIEEIIQNGERITSKQV
DDLIAKGNGKITQDELSKVVDNYELLKHSKNVTNSLDKLISSVSAFTSSNDSRNVLVAPTSML
DQSLSSLQFARAA

>DP02295|Q05471|#599-627 #605-614

MTTSRKSHAKDKKAGGEQDLADLKFRYDLLTNELFHLREFVSLVDYDPTHFNDSESFQKFLR

ETHLSLEERGEKFTDDVAKKGTNGDLTRRRRNLTSTVVSSETTNEKKGDIELKLESIAPLVR
NKCEELKYKLSDHSNRKSIVPQKRPIQHLKKREAALKFKSERKENPLPLHEHIAEERYDHIA
KVEEPSEAFTIKCPSDDSSFENTSEHYSDNFYFTTSSEEEDIKKRGRKKKPRIKLVHPPKQ
TITNPLHVVKPGYESLHEYIASFKSLEDDLTLEEYNKYIDEQRRLSLRKKGIELGALKYDKE
DSLQPITSKEIKTIITYKPDPISYFYKQQDLQIHTDHLINQGIHMSKLFRSSTKARIARAKKVSQ
MIEQHFHKHAGAEERKAKEEERHKKSLARFAVQAVKKRWNMMAEKAYRILRKDEEEQLKRIE
GKQHLSKMLEKSTQLLEAQLNQVNDGRSSTPSSDSNDVLSESDDMDDELSTSSDEEVD
ADVGLENSPASTEATPTDESNLNLIQLKEKYGHFNGSSTVYDSRNKDEKFPTLDKHESSSSESSV
MTGEESSIYSSSENESQNENDRESDDKTPSVGLSALFGKGEESDGDLDDSEDFTVNSSSVE
GEELEKDQVDNSAATFERAGDFVHTQNENRDDIKDVEEDAETKVQEEQLSVVDVPVPSLLR
GNLRTYQKQGLNWLASLYNNHTNGILAEMGLGKTIQTISLLAYLACEKENWGPHLIVVPTS
VLLNWEMEFKRFAPGFVKLTYYGSPQQRKEKRKGWNKPDAFHVCIVSYQLVVQDQHSFKR
KRWQYMLDEAHNIKNFRSTRWQALLNFNTQRRLLTGTPLQNNLAELWSLLYFLMPQTVI
DGKKVSGFADLDAFQQWFGRPVDKIETGQNFQDKETKKTVAKLHQVLRPYLLRRLKADV
EKQMPAKYEHIVYCKLSKRQRFLYDDFMSRAQTAKTLASGNFMSIVNCLMQLRKVCNHPNL
FEVRILTSFVLEHCVASDYKDVERTLLKLFKKNNQVNRVDLDFLNLVFTLNDKDLTSYHAE
EISKLTCVKNFVEEVNKLRETNKQLQEEFGEASFNFQDANQYFKYSNKQKLEGTVDMLNFL
KMVNKLRCDRPFIGKNLIDLLTKDRRVKYDKSSIIDNELIKPLQTRVLDNRKIIDTFAVLTPS
AVSLDMRKLALGLNDDSSVGENTRLKVMQNCFEVSNPLHQLQTKLTIAPDKSLLQYDCGK
LQKLAILLQQLKDNGHRALIFTQMTKVLDVLEQFLNYHGYLYMRLDGATKIEDRQILTERFN
TDSRITVFISSRSGGLGINTGADTVIFYDSDWNPAMDQCQDRCHRIGQTRDVHIYRFVSE
HTIESNILKKANQKRQLDNVVIQEGDFTTDYFSKLSVRDLLGSEL PENASGGDKPLIADADVA
AKDPRQLERLLAAQAEDEDDVKAANLAMREVEIDNDDFDESTEKKAANEEEENHAELDEYEG
TAHVDEYMIIRFIANGYYY

>DP00210|P62993|#28-34 #153-159

MEAIAKYDFKATADDELSFKRGDIKVLNEECQDQNWyKAELNGKDGIPKNYIEMKPHPWF
FGKIPRAKAEEMSKQRHDGAFLIRESESAPGDFSLSVKFGNDVQHFKVLRDGAGKYFLWV
KFNSLNELVDYHRSTSRSRNQQIFLRDIEQVPQQPTYVQALFDQEDGELGFRRGDFIHVM
DNSDPNWWKGACHGQTGMFPRNYVTPVNRNV

>DP00063|P49799|#1-50 #179-205

MCKGLAGLPASCLRSAKDMKHRLGFLLQKSDSCEHSSHSKKDKVVTQCRVSQEEVKKWA
ESLENLINHECGLAAFKAFLKSEYSEENIDFWISCEEYKKIKSPSKLSPKAKKIYNEFISVQATK
EVNLDSTREETSRSNMLEPTITCFDEAQKKIFNLMEKDSYRRFLKSRFYLDLTPSSCGAEKQ
KGAKSSADCTSLVPQCA

>DP01162|Q96SD1|#480-575

MSSFEGQMAEYPTISIDRFDRENLRARAYFLSHCHDKHMKGRLAPTLKRRLECSLKVLYCS
PVTKELLTSPKYRFWKRIISIEIETPTQISLVDEASGEKEEIVVTLPAHCPGSVMFLFQGN
NGTVLYTGDFRLAQGEAARMELLHSGGRVKDIQSVYLDTTFCDFRQYQIPSREECLSGVLEV
RSWITRSPYHVVWLNCKAAYGYEYLFTNLSSEELGVQVHNKLMFRNMPEILHHLTTDRNT
QIHACRHPKAEEYFQWSKLPKGITSRNRIPLHIISIKPSTMWFGERSRKTNVIVRTGESSYRACF
SFHSSYSEIKDFLSYLCPVNAYPNVIPVGTTMDKVVIELKPLCRSSQSTEPKYKPLGKLKRART
VHRDSEEEDDYLFDLPLIPLRHKVYPYRPEVFHPEVFSMTAVSEKQPEKLRQTPGCCRAECMQS
SRFTNFVDCCEESNSEEEVGIPASLQGDLGGSVLHLQKADGDVWPQWEVFFKRNDEITDESLN
FPSSTVAGGSQSPKLFSDSDGESTHISQNSSQSTHITEQGSQGWDSQSDTVLLSSQERNSGDIT
SLDKADYRPTIKENIPASLMEQNVICPKDTYSDLKSRDKDVTIVPSTGEPTTLSSETHIPEEKSL
LNLSTNADSQSSDFEVVPSTPEAELPKREHLQLYEKLATGESIAVKKRKCSLLDT

>DP01837|P37330#300-310

MSQTITQSRLRIDANFKRFVDEEVLPGTGLDAAAFWRNFDEIVHDLAPENRQLLAERDRIQAA
LDEWHRSNPGPVKDKAAKSFLRELGYLVQPENTERVTETTGIDSEITSQAGPQLVVPAMNAR
YALNAANARWGSLYDALYGSDIIPQEGAMVSGYDPQRGEQVIAWVRFLDESLPLENSYQ
DVVAFKVVDKQLRIQLKNGKETTLRTPAQFVGYRGAAAAPTICLLKNNGLHIELQIDANGRI
GKDDPAHINDVIVEAAISTILDCEDSVAAVDAEDKILLYRNLLGLMQGTLQEKMENGRQIV
RKLNDDRHYTAADGSEISLHGRSLLFIRNVGHLMTIPVIWDSEGNEIPEGILDGVMTGAIALYD
LKVKQKNSRTGSYIVKPKMHGPQEFAFANKLFRIETMLGMAPNTLKGIMDEERRTSNL
RSCIAQARNRVAFINTGFLDRTGDEMHSVMEAGPMLRKNQMKTSPWIKEYERNVNLGLFC
GLRGKAQIGKGMWAMPDLMADMYSQKGDQLRAGANTAWVPSPTAATLHALHYHQTNVQ
SVQANIAQTEFNAEFEPLLDLLTIPVAENANWSAQEIQQELDNNVQGILGYVVRWVEQGIG
CSKVPDIHNVALMEDRATLRISSQHIANWLHGILTKEVQASLENMAKVVDQQNAGDPAY
RPMAGNFANSCAFKAASDLIFLGVKQPNGYTEPLLHAWRLREKESH

>DP01300|Q9SLJ2|#1-98

MAGLINKIGDALHIGGNKEGEHKKEEEHKHVDEHKSGEHKEGIVDKIKDKIHGGEGKSHD
GEGKSHDGEKKKKDKKEKKHHDDGHHSSSSDSDSD

>DP00194|P0AFZ3|#111-165

MDLSQLTPRRPYLLRAFYEWLLDNQLTPHLVVDTVLPGVQVPMEYARDGQIVLNIAPRAVG
NLELANDEVRFNARFGGIPRQVSPLAVALAIYARENGAGTMFEPEAAYDEDTSIMNDEEAS
ADNETVMSVIDGDKPDHDDDTHPDDEPPQPRGGPALARVVK

>DP01772|Q07912|#448-489

MQPEEGTGWLLELLSEVQLQQYFLRLRDDLNVRTLSHFeyVKNEDLEKIGMGRPGQRRLWE
AVKRRKALCKRKSWMSKVFSGKRLEAEFPFPHHSQSTFRKTSPAPGGPAGEGPLQLSTCLIGEK
DLRLLEKLDGSFGVVRGEWDAPSGKTVSAVKCLKPDVLSQPEAMDDFIREVNAMHSLD
HRNLIRLYGVVLTPPMKMVTTELAPLGSLDRLRKHQGHFLLGTLRYAVQVAEGMGYLESK
RFIHRDLAARNLLLATRDLVKIGDFGLMRALPQNDDHYVMQEHRKVPFAWCAPESLKTRTF
SHASDTWMFGVTLWEMFTYQGEPWIGLNGSQLHKBIDKEGERLPRPEDCPQDIYNVMVQCW
AHKPEDRPTFVALRDFLLEAQPTDMRALQDFEEPDKLHIQMNDVITVIEGRAENYWWRGQN
TRTLCVGPFPNVVTSVAGLSAQDISQPLQNSFIHTGHGDSDPHCWGFPDRIDEYLGNPMID
PPDLSVELSTSRRPQHLLGGVKKPTYDPVSEDQDPLSSDFKRLGLRKPGPRLWLAKPSARV
PGTKASRGSGAEVTLIDFGEEPVVPALRPCAPSLAQLAMDACSLDETPPQSPTRALPRPLHPT
PVVDWDARPLPPPAYDDVAQDEDDFEICSIINSTLVAGVPAGPSQGQTNYAFVPEQARPPPP
LEDNLFLLPPQGGGKPPSSAQTAEIFQALQQECMRQLQAPAGSPAPSPSPGGDDKPQVPPRVPPIP
PRPTRPHVQLSPAPPGEETSQWPGPASPPRPPREPLSPQGSRTPSPLVPPGSSPLPPRLSSPG
KTMPTTQSFAASDPKYATPQVIQAPGPRAGPCILPIVRDGKKVSSTHYLLPERPSYLERYQRFL
REAQSPEEPTPLPVPLLPPPSTPAPAAPTATVRMPQAALDPKANFSTNNNSNPGARPPPRAT
ARLPQRGCPGDPGEAGRPAKDIQAMAMVHGVTTECQAALQCHGWSVQRAAQYLKVEQLFG
LGLRPRGECHKVLEMFDWNLEQAGCHLLGSWGPAAHHKR

>DP01315|Q9QWH1|#1-79

MENELPVHTSNRASVTTNTSGTNSSSGCISSGGGGSGGRPTAPQISVYSGIPDRQTVQVIQ
QALHRQPSTAQYLQQMYAAQQQHMLQTAALQQQHLSAQSLAAVQQASLVANRQG
STPGSSVSSQAPAQSSSLNLAASPAAAQLINRAQSVNSAAASGLAQQAVLLGNTSSPALTASQ
AQMYLRAQMLIFTPTATVATVQPELCTGSPARPPTPAQVQNLTQRTQQTPAAAASGPPTQPV
LPSLALKPTPSSSQPLPAPPQGRTMAQGSPAGAKPSGTDNAPETLKAGDGNCNMEGRPGPGR
AVPAVATHPLIAPAYAHLQSHQLLPQPPAKHPQPQFVAQQQPQPPRPAQVQSQPQLASVSPS
LALQSSPEDHALPLGSVTQALPLQCSTTHVHKGNSQQCHLPTLDTGSQNGHPEGGSHPPQRR
FQHTSAVILQVQPASPVTQQCAPDDWKEVVPAEKSVVARPGPSHQQAIIIPAIPGGLPGPKS

PNIQQCPAHTGQGIVHALTDLSSPGMTSGNGNSASSIAGTAPQNGENKPPQAIVKPQILTHVI
EGFVIQEAGEPFPVGRSSLVGNLKKYAQGFLPEKPPQDHTTTDSEMEEPYLQESKEEGT
PLKLKCELCGRVDFAYKFKRSKRFCSMACAKRNVGCTKRVGLFHSDRSKLQAGTTTHR
RRASKASLPTLTKDTKKQPSGTVPPLSVTAALQLAHSQEDSSRCSDNSSYEPLSPISASSSTSRR
RQGQRDLDPDMHMRDLVGVGHFLPSEPTKWNVEDVYEFIRSLPGCQEIAEEFRAQEIDGQ
ALLLLKEDHLMSAMNIKLGPAKLYARISMLKDS

>DP00051|P07805|#1-35 #158-165 #298-310 #412-423

MDIVVNDLSCRFLEGFNTRDALCKISMNTCDLEGDPFFVADLGDIVRKHETWKKCLPRVTP
FYAVKCNDWRVLGTLAALGTGFDCASNTEIQRVRIGVPPEKIYANPCKQISHIRYARDSG
VDVMTFDCVDELEKVAKTHPKAKMVLRISTDSSLARCRSLVKFGAKVEDCRFILEQAKKLNI
DVTGVSFHVGSGSTDASTFAQAISDSRFVFDMGTELGFNMHILDIGGGFPGTRDAPLKFEI
GVINNALEKHFPDLKLTIVAEPGRYYVASAFTLAVNVIACKVTPGVQTDVGAHAESNAQSF
MYYVNDGVYGSFNCLYDHAVVRPLPQREPIPNEKLYPSSVWGPTCDGLDQIVERYYLPEMQ
VGEWLLFEDMGAYTVVGTSSFNGFQSPTIYYVVSGLPDHVVRELKSQKS

>DP02490|D1A4G7|#200-413

MSTVLVRRKERRQPPQMPRGEILLESPPPEVVTNSFQNVLMLPMAAGSAAMVFTFLNHR
NTLQLVAGGMFALSMFGMMFGQLSQSGERKTKLNSARRDYLRYLGQVRQRVRKAAKQQ
REALEWNNPAPGRLWSMVMSPRLWERRSSDADFAQVRIGAGPQRLAVQLIPPETKPVEDLEP
MSAGALRRFLRAHSTVPDLPVAISLRSFARILPDGDPKAVYGMVRALIMQLAAFHSPDDVRIT
VCASRERMPQWQWMKWLPHSLHPTEYDAAGQVRLLHSLVELESMLGPEIKDRGMFGASR
APAEPFHLVIVDGGQASYDSQIASDGIDGVCVIDLTGSVAETNEATMLRLRVTPERVYVVKR
DRAGKEVLSSVGRPDQASIAEAEALARQLAPFRRTSAADEPEEDVLSANMTLTSLLHIDNPYNL
DPAVLWRPRPQRNRRLRVPIGLDADGRPLELDIKESAQGGMGPGLCIGATGSGKSELLRTLVL
ALAMTHSPEVLFNLVDFKGATFLGMEGLRHVSIIITNLEELPLVDRMYDALHGEMVRR
QEHLRHSGNYASLRDYEKARMEGAPLPPMPTLFIVLDEFSELLSAKPDFAELFVMIGRLGRSL
GVHLLASQRLEEGKLRGLDTHLSYRIGLRTFSAMESRVVLGVPDAYELPPSPGNGYLKFATE
PLVRFKAAYVSGPVDEEPQTRSEGPQIVRQLPYLTDYIRPQVVEQPQPEQRAEENKSSESLF
VVVRQLAGHGPEPHQIWLPPLDVPPTLDELLPPLSPSAAHGYTADGWEWRGRLHAVVGLVD
RPFDQRDPRYWLDSGGAGHVGVAGGPQTGKSTMRLTITSALLHTPQEVFYCLDFGGG
TLAGLAELPHVGSVATRLDADRIRRTVAEVSALEQREQEFTERGIDSMATYRRLRATGEYA
GDGFDVFLVVDNWLTLRQDYEAELEDSTQLAARGLGYGIHVVLSSNKWSEFRTSIRDLLGT
KLELRLGDPYESEVDRKKAANVPENRPGRLTRDGYHFLTALPRIDGDTSAETLTEGIATTVK
TIREAWHGPTAPPVRMLPNVLPAAQLPSAAESGTRIPIGIDEDSLSPVYLDFTDPHFLVFGDT
ECGKSNLLRLITAGIERYTPQQARLIFIDYSRSLLDVATTEHQIGYAASSTAASSLVRDIKGAM
EARLPPPDLTPEQLRSRSWWTGAEFLVVDDYEMVATSDNPLRPLAELLPQARDIGLHLIIAR
SMGGAGRALYEPIIQRKEMASPGLVMSGNKDEGILLGNVKPHKLPQGRGYFVERRSGTRLIQ
TAYRES

>DP00796|P15382|#24-45 #72-91 #107-129

MILSNTTAVTPFLTKLWQETVQQGGNMSGLARRSPRSSDGKLEALYVLMVLGFFFTLGIM
LSYIRSKKLEHSNDPFNVYIESDAWQEKDKEYQARVLESYRSCYVVENHLAIEQPNTHLPET
KPSP

>DP01855|Q9NQC3-1|#1-1016 #1055-1187

MEDLDQSPLVSSSDSPPRPQPAFKYQFVREPEDEEEEEEEEEEDEDLEELEVLERKPAAGLS
AAPVPTAPAAGAPLMDFGNDFVPPAPRGPLPAAPPVAPERQPSWDPSPVSSTVPAPSPLSAAA
VSPSKLPEDDEPPARPPPPPASVSPQAEPVWTPPAPAPAAPPSTPAAPKRRGSSGSVDETLFAL
PAASEPVRSSAENMDLKEQPGNTISAGQEDFPSVLLETAASLPLSPLSAASFKEHEYLGNLST
VLPTEGTLQENVSEASKEVSEAKTLLIDRDLTEFSELEYSEMGSFSVSPKAESAVIVANPRE

EIIVKNKDEEELVSNNILHNQQLPTALTKLVKEDDEVSSAKDSFNEKRVAVEAPMREY
ADFKPFERVWEVKDSKEDSDMLAAGGKIESNLESKVDKKCFADSLEQTNHEKDSESSNDDTS
FPSTPEGIKDRSGAYITCAPFNPAATESIATNIFPLLGDPTESENKTDEKKIEEKKAQIVTEKNTST
KTSNPFLVAAQDSETDYVTTDNLTKVTEEVANMPEGLTPDLVQEACESELNEVTGTKIAYE
TKMDLVQTSEVMQESLYPAAQLCPSFEESEATPSPVLPDIVMEAPLNSAVPSAGASVIQPSSSP
LEASSVNYESIKHEPENPPPYEEAMSVSLKKVSGIKEEIKEPENINAALQETEAPYISIACDLIKE
TKLSAEPAPDFSDYSEMAKVEQPVPDHSELVEDSSPDSEPVDLFSDDSIPDVPKQDETVMVLV
KESLTETSFESMIEYENKEKLSALPPEGGKPYLESFKLSLDNTKDTLLPDEVSTLSKKEKIPLQ
MEELSTAVSNNDLFISKEAQIRETETFSDSSPIEIIDFPTLISSKTDTSKLAHEYTDLEVSHKS
EIANAPDGAGSLPCTELPHDLSLKNIQPKVEEKISFSDDFSKNGSATSKVLLLPPDV SALATQA
EIESIVKPKVLVKEAEKKLPSDTEKEDRSPSAIFSAELSCTS VV DLL YWRDIKKTGVVFGASLF
LLSLSTVFSIVSVTAYIALALLSVTISFRYKGVIQAIQKSDEGHPFRAYLESEVAISEELVQKYS
NSALGHVNCTIKELRRRLFLVDDLVDLSKFAVLMWVFTYVGALFNGLTL LALISLFSVPVIYE
RHQAQIDHYLGLANKNVKDAMAKIQAKIPGLKRKAE

>DP00036|P22121|#260-273

MGHNDSVETMDEISNPNNILLPHDGTGLDATGISGSQEYGMVDVLNPDSLKDDSNVDEPLIE
DIVNPSLDPEGVVSAEPSNEVGTPLLQQPISLDHVITRASPAGGVYSIGNSSTSSAAKLSGDLT
NATDPPLLNAHGQHGPSSSQSHSNGYHKQGQSQQPLLSLNKRKLLAKAHVDKHHSKKKLS
TTRARPAFVNKLWSMVNDKSNEKFHWTSGESIVVPNRERFVQEVLPKYFKHSNFASFVRQ
LNMYGWHKVQDVKGSGMSLNNDSRWEFENENFKRGKEYLLENIVRQKSNTNILGGTTNAE
VDIHILLNELETVKYNQLAIAEDLKRTKDNEMLWKENMMARERHQSQQQVLEKLLRFLSSV
FGPNSAKTIGNGFQPDLIHELSDMQVNHMSNNNHNNTGNINPNAYHNETDDPMANVFGPLTP
TDQGKVPLQDYKLRPRLLKNRSMSSSSSNLNQRQSPQNIRVGQSPPPQQQQQQQQQQQP
QGQQFSYPIQGGNQMMNQLGSPIGTQVGSPVGSQYGNQYGNQYSNQFGNQLQQQTSRPALH
HGSNGEIRELTPSIVSSDSPDPAFFQDLQNNIDKQEESIQEIQDWITKLNPGPGEDGNTPIFPELN
MPSYFANTGGSGQSEQPSDYGDSQIEELRNSRLHEPDRSFEEKNNQKRRRAA

>DP02109|O94316|#1-60

MMEEDLYDEFGNYIGPENEEDEEELFPQAPSPTIAQVPSFEEVIPDEELEDVERAEMALSHLE
PQNAVVLHEDKQYYPSEEVYGSNDIMVQEQTQPLSQPIIEPIRHKRIAETTNVPDTVYKK
EFLGLLTGTDVRSFIVAGHLHHGKSALLLVYYTHPDTKPKRRSLRYTDTHYLERERV
MSIKSTPLTLAVSDMKGKTFAQCIDTPGHVDFVDEAAPMAISDGVVLVVDVIEGVMINTT
RIIKHAILHDMPIVLNKVRDLILELRLPPNAYHKLRHVIDEVNDNICQISKDLKYRVSPEL
GNVCFASCSDLGYCFTLSSFAKLYIDRHGGIDVDFSRLWGDIFYFDKSTRKFAKQSLDGSGVR
SFVHFILEPLYKLHTLTISDEAEKLKKHLSSFQIYLKPDKDYLDPKPLLQLICASFFGFPVGTVN
AVTRHIPSPRENAARKASQSYIGPINSSIGKAILEMSREESAPLVMHVTLYNTVDANNFYAFA
RVYSGQVKKGQKVVLGENSLEDEEDMVVAHIAEICVPCARYRLHVDGAVAGMLVLLGG
VDNSISKTATIVSDNLKDDPYIFRPIAHMSESVFKVAVEPHNPSELPKLLDGLRKTNKSYPLSIT
KVEESGEHTIFGTGEMYMDCLLYDLRTLYSEIEIRVSDPVARFCETAVDTSSIKCFSDTPNKKN
RITMVVEPLEKGISNDIENGKVNINWPQKRISFFQKNYDWDLLASRSIWAFGPDDRGTNILR
DDTLSTDVDKNVLSVKEYIKQGFQWGTRGPLCDETIRNVNFRLLMDVVLAPEQIYRGGGQI
IPTARRVCYSSFLTASPRLMEPVYMEVHAPADSLPIIYDLLTRRRGHVLQDIPRPGSPLYLVR
ALIPVIDSCGFETDLRVHTQGQAMCQMVFDHWQVPGDPLDKSIKPITLEPARGSDLARDFLI
KTRRRKGLVEDVSTTRYFDQEMIDLKEAGVVLSL

>DP01290|Q9KMA6|#53-63

MKSVFVESTIFEKYRDEYLSDEEYRLFQAELMLNPKLGDIQGTGGLRKIRVASKGKGKRGG
SRIYYFLDEKRRFYLLTIYGKNEMSDLNANQRKQLMAFMEAWRNEQS

>DP00288|Q06253|#41-73

MQSINFRTARGNLSEVLLNVEAGEEVEITRRGREPAVIVSKATFEAYKKAALDAEFASLFDTL
DSTNKELVNR

>DP01967|P0CF51|#102-112

DKQLDADVSPKPTIFLPSIAETKLQAGTYLCLEKFFPDVIKIHWQEKKNTILGSQEGNTMK
TNNDTYSKFSWLTVPKEKSLDKEHRCIVRHENNKGVDQEIIFPPIKTDVITMDPKDNCSKDAN
DTLLQLTNTSAYYMYLLLLKSVVYFAITCCLRRTAFCNCNGEKS

>DP01284|P24928|#1773-1970

MHGGGPPSGDSACPLRTIKRVQFGVLSPDELKRMSVTEGGIKYPETTEGGRPKLGGLMDPRQ
GVIERTGRCQTCAGNMTECPGHFGHIELAKPVFHGVFLVKTMVKLRCVCFFCSKLLVDSNNP
KIKDILAKSKGQPKKRLTHVYDLCKGKNICEGGEEMDNKFGVEQPEGDEDLTKEKGHGGCG
RYQPRIRSGLEYAEWKHVNEQSKEKKILLSPERVHEIFKRISDEECFVLGMEPRYARPEWM
IVTVLPVPLSVRPAVVMQGSARNQDDLTHKLADIVKINNQLRRNEQNAGAAAHVIAEDVKLL
QFHVATMVDNELPLPRAMQKSGRPLKSLKQRLKGKEGRVRGNLMGKRVDFSARTVITPDP
NLSIDQVGVPRSIAANMTFAEIVTPFNIDRLQELVRRGNSQYPGAKYIIRDNGDRIDLRFHPKPS
DLHLQTGYKVERHMCDDGDIVFNRRQPTLHKMSMMGHRVRILPWSTFRNLNSVTTPYNADFD
GDEMNLHLPQSLETRAIEIQELAMVPRMIVTPQSNRPMGIVQDTLTAVRKFTKRDVFLERGE
VMNLLMFLSTWDGKVQPAILKPRPLWTGKQIFSIIPGHINCIRTHSTHPDDEDSGPYKHISPG
DTKVVVENGELIMGILCKKSLGTTSAGSLVHISYLEMGHDITRLFYSNIQTVINNWLLIEHTIGI
GDSIADSKTYQDIQNTIKKAKQDVIEVIEKAHNNELEPTPGNTLRQTFENQVNRLNDARDKT
GSSAQKSLSEYNNFKSMVVSGAKGSKINISQVIAVVGQQNVEGKRIPFGFKHRTLPHFIKDDY
GPESRGFVENSYLAGLPTEFFHAMGGREGLIIDTAVKTAETGYIQRRRIKSMESVMVKYDA
TVRNSINQVVQLRYGEDGLAGESVEFQNLATLKPSNKAFFEKFRFDYTNERALRRTLQEDLV
KDVLNSNAHQNELEREFERMREDREVLRVIFPTGDSKVVLPCNLLRMIWNAQKIFHINPRLPS
DLHPIKVVEGVKELSKKLIVNGDDPLSRQAQENATLLFNIHLRSTLCRRMAEEFRLSGEAF
DWLLGEIESKFNFNQAIAHPGEMVGALAAQSLGEPATQMTLNTFHYAGVSAKNVTLGVPRLKE
LINISKPKTPSLTVFLLGQSARDAERAKDILCRLEHTTLRKVTANTAIYYDPNPQSTVVAEDQ
EWVNYYEMPFDVARISPWLLRVELDRKHMTDRKLTMEQIAEKINAQFGDDLNCFNDDN
AEKLVLRIRIMNSDENKMQEEEVVVDKMDVVFLRCIESNMLTDMLTQGIEQISKVYMHPQ
TDNKKKIIITEDGEFKALQEWELETDGVSMLRVLSEKDVDVPRRTSNDIVEIFTVLGIEAVRKA
LERELYHVISFDGSYVNYRHLALLCDTMTCRGHLMAITRGVNRQDTGPLMKCSFEETVDV
LMEAAGGESDPMKGVSENIMLQLAPAGTGFCDLLLDAEKCKYGMIEPTNIPGLGAAGPT
GMFFGSAPSPMGGISPAMTPWNQGATPAYGAWSPSVGSGMTPGAAGFSPSAASDASGFSPG
YSPAWSPTPGSPGPSPSPYIPSPGGAMSPSPYSPSPAYEPRSPGGYTPQSPSPYSPSPYSP
PSYSPSPNYSPTSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPNYSPTSPNYPPTSPSYSP
SPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSP
TSPSYSPSPNYPPTSPNYSPTSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSP
SPASPKYTPTSPSYSPSSPEYTPTSPKYSPTSPKYSPTSPKYSPTSPKYSPTSPKYSPTSP
VYTPTSPKYSPTSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSPSPSYSP
EEN

>DP00103|P09372|#1-32 #108-115

MSSKEQKTPEGQAPEEIIMDQHEEIEAVEPEASAEQVDPRDEK VANLEAQLAEAQTRERDGIL
RVKAEMENRRRTLEDIEKAHKFALEKFINELLPVIDSLDRALEVADKANPDMSAMVEGIELT
LKSMLDVVRKFGVEVIAETNVPLDPNVHQAIAMVESDDVAPGNVLGIMQKGYTLNGRTIRA
AMVTVAKAKA

>DP01740|P68688|#44-59

MQTVIFGRSGCPYCVRAKDLAELSNERDDFQYQYVDIRAE GITKEDLQQKAGKPVETVPQI
FVDQQHIGGYTDFAAWVKENLDA

>DP00118|P05059|#1-449

MRSAAVLALLCAGQVIALPVNSPMNKGDTEVMKCIVEVISDTLSKPSPMPVSKECFETLRG
DERILSILRHQNLLKELQDLALQGAKERTHQQKKHSSYEDELSEVLEKPNNDQAEPKEVTEEV
SKDAAEKRDDFKEVEKSDEDSDGDRPQASPGLGPGBKVEEDNQAPGEEEAPSNAHPLASLP
SPKYPGPQAKEDSEGPSQGPASREKGLSAEQGRQTEREEEEEKWEAEAREKAVPPEEESPPTA
AFKPPPSLGNKETQRAAPGWPDGAGKMGAEEAKPPEGKGEWAHSRQEEEMARAPQVLF
RGGKSGEPEQEEQLSKEWEDAKRWSKMDQLAKELTAEKRLEGEEEEEDPDRSMRLSFRAR
GYGFRGPGQLLRRGWRPNSREDSVEAGLPLQVRGYPEEKKEEGSANRRPEDQELESLSAIE
AELEKVAHQLEELRRG

>DP01167|P02730|#1-54

MEELQDDYEDMMEENLEQEELYEDPDIPEQSMEPAAHDEATATDYHTTSHPGTHKVYVEL
QELVMDEKNQELRWMEAARWVQLEENLGENGAWGRPHLSHLTFWSLLELRVFTKGTVLL
DLQETSLAGVANQLLDRFIFEDQIRPQDREELLRALLKHSHAGELEALGGVKPAVLTRSGDP
SQPLLPQHSSLETQLFCEQGDGGTEGHSPSGILEKIPPSEATLVLVGRADFLEQPVLGFVRLQ
EAAELEAVERLPVPIRFLFVLLGPEAPHIDYTQLGRAAATLMSERVFRIDAYMAQSRGSELLHSL
EGFLDCSLVLPPTDAPSEQALLSLVPVQRELLRRRYQSSPAKPDSFYKGDLNNGPDDPLQQ
TGQLFGGLVRDIRRRYPYYLSDITDAFSPQVLAAVIFIYFAALSPAIFTGGLGEKTRNQMGVS
ELLISTAVQGILFALLGAQPLL VVGFSGPLLVFEEAFFSF CETNGLEYIVGRVWIGFWLILLVVL
VVAFEGSFLVRFISRTQEIFSFLISLIFIYETFSKLKIFQDHPLQKTYNYNVLMVPKPKQGPLPN
TALLSLVLMAGTFFFAMMLRKFKNSSYFPGKLRRVIGDFGPVISILIMVLVDFFIQDTYTQKLS
VPDGFKVNSSSARGWVIHPLGLRSEFPIWMMFASALPALLVFILIFLESQITTLIVSKPERKMVK
GSGFHLDLLL VVGMGGVAALFGMPWLSATTVRSVTHANALTVMGKASTPGAAAQIQEVKE
QRISGLLVAVLVGLSILMPEIPLSRIPLAVLFGIFLYMGVTSLSGIQLFDRILLFKPPKYHPDVY
VKRVKTWRMHLFTGIQIICLAVLWVVKSTPASLALPFVLIITVPLRRVLLPLIFRNVELQCLDA
DDAKATFDEEEGRDEYDEVAMPV

>DP00774|P40719|#35-158 #386-417

MKFTQRQLSLRVRLTLIFLILASVTWLLSSFVAWKQTTDNVDELFDTQLMLFAKRLSTLDLNEI
NAADRMAQTPNRLKHGVDDALTFAIFTHDGRMVLDGDNGEDIPYSYQREGFADGQLV
GEDDPWRFWVMTSPDGKYRIVVGQEWEYREDMALAIVAGQLIPWLVALPIMLIIMMVLLGR
ELAPLNKLALALMRDPDSEKPLNATGVPSEVRPLVESLNQLFARTHAMMVRERRFTSDAA
HELRSPLTALKVQTEVAQLSDDDPQARKKALLQLHSGIDRATRVLVDQLLTSRLDSLNLQD
VAEIPLEDLLQSSVMDIYHTAQQAIDVRLTLNAHSIKRTGQPLLSLLVRNLLDNAVRYSPO
GSVVDVTLNADNFIVRDNGPGVTPEALARIGERFYRPPGQTATGSGLGLSIVQRIAKLHGGMNV
EFGNAEOGGFEAKVSW

>DP00492|P10275|#142-485 #654-670 #844-849

MEVQLGLGRVYPRPPSKTYRGAFQNLFQSREVIQNPGPRHPEAASAAPPGASLLLQQQQ
QQQQQQQQQQQQQQQQETSPRQQQQQGEDGSPQAHRRGPTGYVLDEEQQPSQPQSA
LECHPERGCVPEGAAVAAASKGLPQQLPAPPDEDDSAAPSTLSSCSDLKDILS
EASTMQLLQQQQQEAVSEGSSSGRAREAAGAPTSSKDNYLGGTSTISDNAKELKAVSVMG
LGVEALEHLSPGEQLRGDCMYAPLLGVPPAVRPTPCAPLAECKGSLLDDSAKGSTEDTAEYS
PFKGGYTKGLEGESLGCGSAAAGSSGTLEPSTLSLYKSGALDEAAAYQSRDYYNFPLALA
GPPPPPPPHPHARIKLENPLDYGSAWAAAAAQCRYGDLASLHGAGAAGPGSGSPSAAASSS
WHTLFTAEEGQLYGPCGG
ESDFTAPDVWYPGGMVSVPYPSPTCVKSEMPWMDSYSGPYGDMRLETARDHVLPIDYYF
PPQKTCLICGDEASGCHYGALTGSCKVFFKRAAEGKQKYLCA SRNDCTIDKFRRNCPSCR
LRKCYEAGMTLGARKLKLGNLKLQEEGEASSTTSPEETTQKLTVSHIEGYECQPIFLNVLE
AIEPGVVCAGHDNNQPDFAALLSSLNELGERQLVHVVWKAKALPGFRNLHVDDQMAVIQY

SWMGLMVFAMGWRSAFTNVNSRMLYFAPDLVFNEYRMHKSRMYSQCVMRHLSQEFGWL
QITPQEFLCMKALLFSIIPVDGLKNQKFFDELRMNYIKELDRIACKRKNPTCSRRFYQLTKL
LDSVQPIARELHQFTFDLLIKSHMVSVDPEMMAEIISVQVPKILSGKVKPIYFHTQ

>DP01775|P53632##1-160 #128-160 #482-584

MGAKSVTASSKKIKNRHNGVKKSKIKKVRKPQKSISLNDENEVEILPSRNEQETNKLKD
HVTADGILVLEHKSDDDDEGFVDYDHFDNPTDIPSTTEESKTPSLAVHGDEKDLANNDFISL
SASSEDEQAEQEEEREKQELEIKKEQKEILNTDYPWILNHDHSKQKEISDWLTFEIKDFVAYI
SPSREEIEIRNQTISTIREAVKQLWPDADLHVFGSYSTDLYLPGSDIDCVVTSELGGKESRNLL
YSLASHLKKKNLATEVEVVAKARVPIIKFVEPHSGIHIDVSFERTNGIEAAKLIREWLDTPGL
RELVLIVKQFLHARRLNNVHTGGGGFSIICLVSFLHMHPRTNEIDPKDNLGVLLIEFFELY
GKNFGYDDVALGSSDGYPVYFPKSTWSAIQPIKNPFLAIQDPGDESNNISRGSFNIRDICKAF
AGAFDLLTNRCFELHSATFKDRLGKSILGNVIKYRGKARDFKDERGLVLNKAIIENENYHKKR
SRIIHDEDFAEDTVTSTATATTDDDYEITNPPAKKAKIEEKPESEPAKRNSGETYITVSSEDDD
EDGYNPYTL

>DP00992|P27356|#1-35 #127-138

MSSAHNAYNAGIMQKTGKAFADEFFAEEENQVVHESNAVVLVLMKSDEIDAIIEDIVLKGKA
KNPSIVVEDKAGFWWIKAADGAIEIDAAEAGELLGKPF SVYDLLINVSSTVGRAYTLGTKFTITS
ELMGLDRALTDI

>DP02506|Q8A6W3|#1-235

MPGIMKNKKLLCSVCFCAFMSALWGQNITVKGNVTSKTDGQPIIGASVVEATTNGTITDF
DGNFTLSVPVNSTLKITYIGYKPVTVKAAAVNLLEEDTQMDEVVVTGYTTQRKADLTGA
VSVVKVDEIQKQGENNPVKALQGRVPGMNITADGNPGSATVRIRGIGTLNNNDPLIIDGVP
TKAGMHENGNDIESIQVLKDAASASIYGSRAANGVIIITKQGKKQIKINFDAVSASMYQS
KMNVNLNTEQYGRAMWQAYVNDGENPNGNALGYAYNWGYNADGNPVLYGMTLSKYLDISK
NTMPVADTDWFDEITRTGVIQQYNLSVNGSEKGSSFFSLGYYKNLGVIKDTDFDRFSARMN
SDYKLIDDLTIGQHFTLNRTSEVQAPGGIETALDIPSAPIPVYASDG SWGGPVGGWPDRRNPR
AVLEYNKDNRTYWRFMDAYVNLT PFKGFNL RSTFGLDYANKQARYFTYPYQEGTQTN
GKSAVEAKQEHWTKWMWNIA TYQLEV GKHRGDVMIGMELNREDDSHFSGYKEDFSILT
DYMWDAGSGTAQAYGAGEGYSLSFFGKMN SYADRYLLSLT LRRDGSSRGK NHRY AT
FPSVSLGWRITQENFMKELTWLDDLKL RASWGQTGNQEISNLARYTIYAPNYGTTDSFGGQS
YGTAYDITGSNGGVLPNGFKRNQIGNDNIKWETTQTNVGIDSLFKQSLYGSLEYYYKKA
TDILTEMAGVGVLGEGGSRWINSGAMKNQGFEFLGYRNKTAFLTYDLNGNISTYRNEILE
LPETVAANGKFGNGVKS VVGHTYGAQVGYIADGIFKSQDEVN HATQEGA AVGRIRYRDI
DHNGVIDERDQNWIYDPTPSFSYGLNIYLEYKNFDLTMFWQGVQGV DIISDVKKSD FWSAS
NVGFLNKGTRLLNAWSPTPN SDIPALTRSDTNNEQRVSTYF VENG SFLKLRNIQLGYTVPAV
ISKKMRMDRLRFYCSAQNLLTI SKNFTGEDPENPNFSYPIP VNITFGLNIGF

>DP00646|Q01231|#251-355

MGDWSFLGEFLEEVHKHSTVIGKVWLTVLFIRMLVLGTA AESSWGDEQADFRC DTI QPGCQ
NVCYDQAFISHIRYWLQIIFVSTPSLVYMGHAMHTVRMQUEKQKLRDAEKAKEAHRTGAY
EYPVAEKAELSCWKEVDGKIVLQGTLLNTYVCTILIRTTMEVA FIVGQYLLYGI FLDTLHVCR
RSPCPHPVNCYVSRPTEK NVFIVFMMAVAGLSLFLS LAELYHL GWKKIRQ RFGK SRQGV D KH
QLPGPPTSLVQSLTPPPDFNQCLKNSSGEKF SDFSNNMGSRKNP DALATGEV PNQE QIP GEGF
IHMHYSQKPEYASGASAGHRLPQGYHSDK RRLSKASSKARSDDLSV

>DP01466|A4L7I2|#1658-1856

MDSVYV DIDADS AFLK ALQRAYPMFEVEPRQV TSNDHANARAF SHLA IKLIEQEIDPD STI LD
GSAPARRMMSDR KYHC VCPM RSAEDPERL ANYARKL ASAAG KV LDRN ISG KIGDLQAVMA
VPDTETPTFCLHTDVSCRQRADVAIYQDVYAVHAPTS LYHQA IKG VRVAYWVGFD TTPF MY

NAMAGAYPSYSTNWADEQVLKAKNIGLCSTDTEGRRGKLSIMRGKKLKPCDRVLFSVGST
LYPESRTLLKSWHLPVFHLKGKLSFTCRCDTVSCEGYVVKRITMSPGLYGKTTGYAVTHH
ADGFLMCKTTDTVDGERVSFSVCTYVPATICDQMTGILATEVTPEDAQKLLVGLNQRIVVNG
RTQRNTNTMKNYLLPVVAQAFSKWAKECRKDMEDEKLLGVRERTLTCCCLWAFKKQKTHT
VYKR PDTQS IQKVQA EFD SFV VPG LWS G SIPL RTRIK WLLR KVP KTD LIP YSG N A QEA QDA
EKEAEEEREAEELTHEALPPLQAAQEDVQVEIDVEQLEDRA GAGIIETPRGAIKVTAQLTDHV
GEYLVLSPQTVLRSQKLSLIHALAEQVKTCTHSGRAGRYAVEAYDGRVLVPSGYAISPEDFQS
LSESATMVYNEREFVNRLHHIAMHPALNTDEESYELVRAERTEHEYVYDVDQRRCCKE
EAAGLVLVGDLTNPPYHEFAYEGLKIRPACPYKIAVIGVFGVPGSGKSIIKLNVTRQDLVTSG
KKENCQEISTDVMRQRGLEISARTVDSLLLNGCNRPDVLYVDEAFACHSGTLLALIALVRPR
QKVVLCGDPKQCGFFNMQMVKVNYNHNICTQVYHKSISRRCTLPVTAIVSSLHYEGKMRTT
NEYNMPIVVDTTGSTKPDPGLVLTFCRGWVKQLQIDYRGHEVMTAAASQGLTRKGVYAV
RQKV NEN PLY ASTSEHVNVLTRTEGKLVWKTLS GDPWI KTLQNPPKG NFKA TIKEWEVEH
ASIMAGICSHQVTDFQNKANVCWAKSLVPILETAGIKLNDRQWSQIIQAFKEDKAYSPEVA
LNEICTRMYGVLDLDSLFSKPLVSYYADNHWDNRPGGKMFGNPEAASILERKYPFTKGK
WNINKQICVTTRRIEDFNPTTNIIPVNRLPHSLVAEHRPVKGERMEWL VN KING HHVLLVSG
YNLALPTKRVTVAPLGVRGADYT NLELGLPATLGRYDLVVINIHTPFRIHHYQQCVDHA
MKLQMLGGDSLRLKPGSLLIRAYGYADRTSERVICVLGRKF RSSRALKPPCVTSNTEMFFL
FSNF DNGRRNFTTHVMNNQLNAAFVGQATRAGCAPSYRVKRM DIAKNDEECVNAANPRG
LPGDG VCKAVYKKWPESFKNSATPGTAKTVMCGTYPVIHAVGP NFS NYSESEGDR EAAA
YREVAKEVTRLGVNSVAIPLLSTGVYSGGKDRLTQLSNHLFTAMDSTDADVVIYCRDKEWE
KKISEAIQMRTQVELLDEHISIDCDVIRVHPDSSLAGRKGYSTTEGALYSLEGTRFHQTAVD
MAEIYTMWPKQTEANEQVCLYALGESIESIRQKCPVDDADASSPPKTVPLCRYAMTPERVT
RLRMNHVTNIIVCSSFPLPKYKIEGVQKVCSKVMLFDHNVPSRVSPREYRSSQESVQEVT
TSLTHSQFDLSADGETLPVPSLDADAPALEPALDDGAVHTLPTIIGNLA AVSDWMSTPV
APP RRRRGRNLTVTCDERGNITPMASVRFFRAELCPAVQETAETRDTAISLQAPPSTTMELS
HPPISFGAPSETFPITFGDFDEGEIESLSSELLTFGDFLPGEVDDLTDSDWSTCPDTDDELXLD
AGGYIFSSDTGPGHLQQKSVRQSVPVNTLEEVHEEKCYPPKLDELKEQLLKKLQESASMA
NRSRYQSRKVENMKATIIQRLKRGCKLYLMAETPKVPTYRTIYPA PVY SPPINVRLSNPESAV
AACNEFLARNYPTVSSYQITDEYDAYLDMWDGSECLDRATFNPSKLRSY PKQHAYHAPSIRS
AVPSPFQNTLQNVLAATKRNCNTQMRELPTLDSA VFNVECFKKFACNREYWEFAASPIR
ITTENLTTYVTKLKGPKAAALFAKTHNLLPLQDVPMDRFTVDMKRDVKVTPGTKHTEERPK
VQVIQAAEPLATA YLCGIHRELVRRLNAVLLPNVHTLFDMAEDFDAIIAAHF KPGDAVLETD
IASFDKSQDDSLALTALM LLED LGVDHSLLD LIEAAFGEISSCHLPTGTRFKFGAMMKG MFL
TLFVN TLLNITIASRVLEDRLTKSACA FIGDDN IIHG VVS DELMA ARCATWMNMEV KIIDAV
VSQKAPYFCGGFILHDTVTGTACRVADPLKRLFKLGKPLA AGDEQDED RRR ALADEVIRWQ
RTGLIDELEKAVYSRYEVQGISVAVMSMATFASSRSNFEKLRGPV ITLYGGPK

>DP01196|P48439|#23-215

MNWLFVSLVF CGVSTHPALAMSSNRLKLANKSPKKIPLKDSSFENILAPPHENAYIVALF
TATAPEIGCSLCLELESEYDTIVASWFDDHPDAKSSNSDTSIFFTKVNLEDPSKTI PKA FQFFQL
NNVPR LFIFKPNPSILDHSVISISTDTGSERMKQIIQAIKQFSQVNDFLSLHLPMDWTPIITSTIITF
ITVLLFKKQSKLMFSI I SRII WATL STFFI IC MISAYMFNQIRNTQLAGVGP KGEV MYFLPNEFQ
HQFAIETQVMVLIYGT LAALVVVLVKGIQFLRSHLYPETKKAYFIDAILASF CALFIYVFFAAL
TTVFTIKSPAYPFPLLRLSAPFK

>DP01023|Q01101|#1-20

MPRGFLVKRSK KSTPV SYR VRGG EDG DR ALL SPSCGGAR AEPPAPSPV PGPL PPPPAERAH
AALAA ALACAPGPQPPPQGPRAAHFGNPEAHPAPL YSPTRPV SREHEKHKYFERSFNLGSPV

SAESFPTPAALLGGGGGGASGAGGGTGGDPLLFAPAELKMGTAFSAGAEAARGPGPGPP
LPPAAALRPPGKRPPPTAAEPPAKAVKAPGAKPKAIRKLHFEDEVTTSPVGLKIKEGPVE
APRGRAGGAARPLGEFICQLCKEEYADPFALAQHKCSRIVRVEYRCPEAKVFSCPANLASH
RRWHKPRPAPAAARAPEPEAAARAEAREAPGGSDRDTPSPGGVSESGSEDGLYECHHCAK
KFRRQAYLRKHLLAHHQALQAKGAPLAPPADLLALYPGPDEKAPQEAAGDGEAGAGVLGLS
ASAECHLCVCGESFASKGAQERHLRLHAAQVFPCYCPATFYSSPGLTRHINKCHPSENQR
VILLQVPVRPAC

>DP01171|P42768|#201-268

MSGGPMGGRPGGRGAPAVQQNIPSTLLQDHENQRLFEMLGRKCLTLATAVVQLYLALPPGA
EHWTKEHCGAVCFVKDNPQKSÝFIRLYGLQAGRLLWEQELYSQLVYSTPTPFFHTFAGDDC
QAGLNFADEDEAQAFRALVQEKIQKRNRQSGDRRQLPPPPTPANEERRGLPPLHPGGD
QGGPPVGPLSLGLATVDIQNPDITSSRYRGLPAPGPSPADKKRSGKKISKADIGAPSGFKHVS
HVGWDPQNGFDVNLDPLRSLSRAGISEAQLTDAETSKLHYDFIEDQGGLEAVRQEMRRQ
EPLPPPPPSRGGNQLPRPIVGGNKGSGPLPPVPLGIAPPPTPRGPPPPGRGGPPPPPATG
RSGPLPPPPGAGGPPMPPPPPPSSGNGPAPPPLPPALVPAGGLAPGGGRGALLDQIRQG
IQLNKTPGAPESSALQPPPQSSEGLVGALMHVMQKRSRAIHSSDEGEDQAGDEDEDDEWDD

>DP02484|P0AD27|#1-244

MVTHRQRYREKVSMQVSWGHWFALFNILLSLVIGSRYLFIADWPTTLAGRIYSYVSIIGHFSF
LVFATYLLILFPLTFIVGSQRLMRFLSVILATAGMTLLIDSEVFTRFHLHLNPIVWQLVINPDE
NEMARDWQLMFISVPVILLLELVFATWSWQKLRSLTRRRRFARPLAFLIAFIASHVVIWA
DANFYRPITMQRANPLSYPMTARRFLEKHGLDAQEYQRRLIEQGNPDAVSQYPLSELRY
RDMGTQNVLLITVDGLNYSRFEKQMPALAGFAEQNISFTRHMSSGNTTDNGIFGLFYGISPS
YMDGILSTRTPAALITALNQQGYQLGLFSSDGFTSPLYRQALLSDFSMPSVRTQSDEQTATQW
INWLGRYAQEDNRWFWSVFSFNGTNIDDSNQQAFARKYSRAAGNVDDQINRVLNALRDSGK
LDNTVVIITAGRGIPLSEEETFDWSHGHQLQVPLIHWPGTPAQRINALTDHTDLMTLMQRL
LHVSTPASEYSQGQDLPNPQRRHYWVTAADNDTLAITPKKTLVNNNGKYRTYNLRGERV
KDEKPQLSLLQVLTDEKRFIAN

>DP00344|P62152|#77-83

MADQLTEEQIAEFLKEAFSLFDKDGDGTITTKELTVMRSLGQNPTAEELQDMINEVDADGNG
TIDFPEFLTMMARKMKDTDSEEEIREAFRVFDKDNGNFISAAELRHVMTNLGEKLTDEEVDE
MIREADIDGDGQVNYEEFVTMMTSK

>DP02068|O14352|#1-11 #72-91

MLPLTLLNATQGRPILVELKNGETFNGHLENCDNYMNLTREVIRTMMPDGDKFFRLPECYIRG
NNIKYLRIQDEVLSQVAKQQAQRENRGSRFRGRGQRGRGNYGHTAPNRRGRGRGGHM

>DP01794|Q99ML1|#128-161

MARARQEGSSPEPVEGLARDSPRFPLGRLMPSAVCSCLCEPGLPAAPAAPALLPAAYLCAPT
APPAVTAALGGPRWPGGHRSRPRGPRPDGPQPSLSPAQQHLESPVPSAPEALAGGPTQAAPG
VRVEEEWAREIGAQLRRMADDLNAQYERRQEEQHRHRPSPWRVMYNFLMGLLPLPRDP
GAPEMEPN

>DP01206|Q15797|#217-267

MNVTSLFSFTSPAVKRLLGWKQGDDEEKWAEKAVDALVKKKKKGAMEELEKALSCPGQ
PSNCVTIPRSLDGRLQVSHRKGLPHVITYCRVWRWPDLQSHHELKPLECCEFPFGSKQKEVCIN
PYHYKRVESPVLPPVLVPRHSEYNPQHSLLAQFRNLGQNEPHMLNATFPDSFQQPNSHPFPH
SPNSSYPNSPGSSSSTYPHSPTSSDPGSPFQMPADTPPPAYLPPEDPMTQDGSPQMDTNMMAPP
LPSEINRGDVQAVAYEEPKHWCISIVYYELNNRVGEAFHASSTSVLVDGFTDPSNNKNRFCLG
LLSNVNRNSTIENTRRHIGKGVHLYYVGGEVAECLSDSSIFVQSRNCNYHGFHPTTVCKIP
SGCSLKIFNNQEFAQLLAQSVNHGFETVYELTKMCTIRMSFVKWGAEYHRQDVSTPCWIE

IHLHGPLQWLDKVLTQMGSHPNPISSVS

>DP00741|P03040|#62-66

MEQRITLKDYAMRGQTAKDLGVYQSAINKAIAGRKIFLTINADGSVYAEVKPFPSNK
KTIA

>DP02051|P14335|#23-40

MSKKPGPGKSRANMLKRGMPRVSLTGLKRAMLSIDGRGPTRFVLALLAFFRFTAIAPT
RAVLDWRNSVNQQTAMKHLLSFKKELGTLTSAINRRSSKQKKRGKGTCIAFMIGLIAGVGAV
TLSNFQGKVMMTNATVDIITIPPAAGKNLCIVRAMDVGHMCDDITYECPVLSAGNDPE
DIDCWCTKLAVYVRYGRCTKTRHSRRSRLTVQTHGESTLSNKKGAWMDSTKATTRYLVKT
ESWILRNPGYALVAAVIGWMLGSNTMQRVVFAVLLLVAAPAYSFNCLGMSNRDFLEGVSGA
TWVDLVLEGDCVTIMSKDKPTIDVKMMNMEAANLAEVRSYCYLATVSELSTKAACPTMG
EAHNDKRADPSFVCKQGVVDRGWNGCGLFGKSIDTCAKFACSTKATGRTILKENIKYEV
AIFVHGPTTVEHGNYFTQTGAAQAGRFSITPAAPSYTTLKGEYGEVTVDCEPRSGIDTSAYY
VMTVGTKTFLVHREWFMDLNLPWSSAESNVWRNRETLMEFEPEHATKQSVIALGSQEGALH
QALAGAIPVEFSSNTVKLTSGHLKCRVKMEKLQLKGTTYGVCASKAFRFLGTPADTGHTVVL
ELQYTGTGDPCKIPISSVASNLDLTPVGRVLTVNPVSVSTANAKVIELEPPFGDSYIVVGRG
EQQINHHWHKSGSSIGKAFTATLKGAAQRLAALGDTAWDFGSVGGVFTSVGKAVHQVFGGAF
RSLFGGMSWITQGLLGALLWMGINARDRSIALTFLAVGGVLLFLSVNVHADTGCAIDISRQE
LRCGSGVFIHNDVEAWIDRYKYYPETPQGLAKIIQKAHKEGVCGLRSVSRLEHQMWAEAVKD
ELNTLLKENGVDLSIVVEQEGMYKSAPRLLTATTEKLEIGWKAWGKSILFAPELANNTFVID
GPETKECPTQNRAWNNLEVEDFGFGLTSTRMFLRVRESNTTECDSKIIGTAVKNNLAIHSDL
YWIESRFNDTWKLERAVLGEVKSCWTPEHTLWGDGVLESIDLIPITLAGPRSNHNRRPGYKT
QSQGPWDEGRVEIDFDYCPGTVLSESCGHGRPATRTTESGKLITDWCCRSCTLPLRYQT
DNGCWYGMEIRPQRHDEKTLVQSQVNAYNADMIDPFQLGLLVVFLATQEVLRKRWTA
MPAILIALLVLFGGITYTDVLRYVILVGAFAAESNSGGDVVHLALMATFKIQPVFMVASFLK
ARWTNQENILLMLAAFFQMAYYDARQILLWEMPDVNLSLAVAWMILRAITFTTSNVVVP
LLALLTPGLRCLNLDVYRILLMVIGSLIREKRSAAKKKGASLLCLALASTGFFNPMILAA
GLVACDPNRKRGWPATEVMTAVGLMFAIVGGLAELDIDSMAIPMTIAGLMFAAFVISGKSTD
MWIERTADISWEGDAEITGSSERDVRLDDGNGQLMNDPGAPWKIWMLRMACLAISAYTP
WAILPSVVGFWITLQYTKRGGVLDTPSPKEYKRGDTTGVYRIMTRGLLGSYQAGAGVMV
EGVFHTLWHTTKGAALMSGEGRLDPYWGSVKEDRLCYGGPWKLQHKWNGQDEVQMIVVE
PGKNVKNVQTKPGVFKTPEGEIGAVTLDFTGTSGSPIVDKNGDVIGLYGNGVIMPNGSYISAI
VQGERMDEPVPAGFEPEMLRKKQITVLDLHPGAGKTRRILPQIIKEAINRRLRTAVLAPTRVV
AAEMAELRGLPIRYQTSAVAREHNGNEIVDVMCHATLTHRLMSPHRVPNYNLFVMDEAHF
TDPASIAARGYISTRVELGEAAAIFMTATPPGTSDPFPESNAPISDLQTEIPDRAWNSGYEWITE
YIGKTVWFVPSVKMGNEIALCLQRAGKKVQLNRKYETEYPKCKNDDWDFVTTDISEMG
ANFKASRVIDSRKSVKPTIITEGEGRVILGEPESAVTAASAAQRGRGRTGRNPSQAGDECYGGH
TNEDDSNCAHWTEARIMLDNINMPNGLIAQFYQPEREKVYTMGEYRLRGEERKNFLELLRT
ADLPVWLAYKVAAGVSYHDRRWCDFGPRNTILEDNEVEVITKLGERKILRPRWIDARV
YSDHQALKSFKDFASGKRSQIGFIEVLGKMPEHFMGKTWEALDTMYVVATAEKGGRAHRM
ALEELPDALQTIALIALLSVMTMGVFFLLMQRKGIGKIGLGGVVLGAATFFCWMAEVPGTKI
AGMLLSLLMIVLPIEPEKQRSQTDNQLAVFLICVLTGAVAANEMGWLDKTKSDISGLFG
QRIETKENFSIGEFLLDLPATAWSLYAVTTAVLPLLKHLITSODYITTSLSINVQASALFTLA
RGFPFDVGVSALLAAGCWGQVTLTVTSATLLFCHYAYMVPGWQAEAMRSAQRRTAA
GIMKNAVVDGIVATDVPPELERTTPIMQKKVGQVMLILVSLAALVNVPSVKTREAGILITAA
AVTLWENGASSVWNATTAGLCHIMRGGWLSCLSITWTLVKNMEKPGLKRGGAKGRTLGE
VWKERLNQMTKEEFIRYRKEAITEVDRSAAKHARKERNITGGHPVSRGTAKLRWLVERRFLE

PVGKVIDLGCGRGGWCYYMATQKRVQEVRGYTKGGPGHEEPQLVQS YGWNI VTMKGVD
VFYRPSECCDTLLCDIGESSSSAEVEEHTLRVLEMVEDWLHRGPKEFCVKVLCPYMPKVIEK
MELLQRRYGGGLVRNPLSRNSTHEMYWVS RASGNV VHSVNMTSQVLLGRMEKKTWKGPQ
YEEDVNLGS GTRAVGKPLLNSDTSKIKNRIERLREYSSTWHHDENHPYRTWNYHGSYEVKP
TGSASSLVNGVVRLLSKPWDTITNVTTMAMTDTPFGQQRVKEKVDTKAPEPPEGV KYVL
NETTNWLWAFLAREKRPRMCSREEFIRKVNSNAALGAMFEEQNQWRSAREA VEDPKFWEM
VDEERE AHLRGECHTCIYNMMGKREKKPGEFGKAKGSRAIWFMLGARFLEFEALGFLNED
HWLGRKNSGGV EGLQLGYILREVGTRPGGRIYADDTAGWDTRITRADLENEAKVLEL
LDGEHRLARAIIELTYRHKVVKVMRPAADGRTVMDVISREDQRGSGQVVTYALNTFTNLA
VQLVRMMEGEVGIVGPDDVEKLTKGKGPKV RTWLSENGEERLSRMAVSGDDCVVKPLDDRF
ATSLHFLNAMSKVRKDIQEWPSTG WYDWQQVPCFSNHTELIMKDGR TLVTPCRGQDELV
GRARISPGAGWNVRDTACLA KSYAQMWLLL FHRDRLRLMANAICSAPVNWVPTGRTTW
SIHAGGEWMTTEDMLEVWNRVWIEENEWMEDKTPVEKWS DVPYSGKREDIWC GSLIGTRA
RATWAENIQVAINQVR SIIGDEKYVDYMSSLKRYED TTLVEDT VL

>DP00537|O43236|#1-119

MDRSLGWQGNSVPEDRTEAGIKRFLED TDDGELSKFKDFSGNASCHPPEAKTWASRPQVP
EPRPQAPDLYDDDLEFRPPSRPQSSDNQQYFCAPAPLSPSARPRSPWGKLDPYDSSEDDKEYV
GFATLPNQVHRKSVKKGFDFTLMVAGESGLGKSTLVNSLFLTDLYRDRKLLGAERIMQTVE
ITKHAVIDIEEKGVRLRLTIVDTPGFGDAVNNTECWKPVAEYIDQQFEQYFRDESGLNRKNIQD
NRVHCCLYFISPFGHGLRPLDVEFMKALHQ RVNIVPILAKADLT PPEVDHKKRKIREEIEHFG
IKIYQFPDCSD EDFKLQDQALKESIPFAVIGSNTVVEARGRRVRGRLYPWGIVEVENPGH
CDFV KLRTMLVRTHMQDLKDVTRETHYENYRAQC IQSMTRLVVKERNRNKL TRESGTDFPI
PAVPPGTDPETEK LIREKDEELRRM QEM LH KIQKQM KEN Y

>DP01330|P32639|#1-112 #193-257 #394-419

MTEHETKDKAKKIREIYR DEMSN KVLKVDKRFMNTSQNPQRDAEISQPKSMS GRISAKDM
GQGLCNNINKGLKENDVAVEKTGKSASLKKIQQHNTILNSSSDFLHYYPKDPSNVETYEQIL
QWVTEVLGNDIPHDLIIGTADIFIRQLKENEENEDG NIEERKEKIQHELG INIDSLKF NELVKLM
KNITDYETHPDNSNKQAVAILADDEKSDEEEVTEM SNNANVLGGEINDNEDDDEYDYNDV
EVNSKKKNKRALPNIENDI I KLSDSKTSNIESVPIYSIDEFFLQRKLRSELGYKDT SVI QDLSEKI
LNDIETLEHNPVALEQKLV DLLKFENISLAEFILKRN STIFWGIRLAKSTENEIPN LIEKM VAKG
LNDLVEQYKFRETTHSKRELD SGDDQPQSSEAKRTKFSNPAIPP VIDLEKIKFDESSKLM TVTK
VSLPEGSFKRVKPQYDEIHIPAPSKPV DYLKEITS LPDWCQEAFPSSETTSNPIQSKV F HAA F
EGDSNMLICAPTGS GKT NI ALLTVLK AL SHY NP KTKL NL SA F KIVYI APL KALV QEQVREF
QRRLAFLGIKVAELTGDSRLSRKQIDETQVLVSTPEKWDITTRNSNNLA IVELVRLLI IDEI HLL
HDDRGPVLESIVARTFWASKYQYEYPRIIGLSATLP NYEDVGRFLRVPKEGLFYFDSSFRPCPL
SQQFCGIKERN SLKKLAMNDAC YEVKLESINEGNQII VHSRKETSRTATWLKNKFAEENI
THKLTKNDAGSKQILKTEAANVLDPSLRKLIESGIGTHHAGL TRSDRSLSEDLFADG LLQVL
CTATLAWGVNLP AHTVIKG TDV YSPEKGSWEQLSPQDV LQMLGRAGR PRYDTFGEIIIDQ
SNVQYYLSVNLNQQLPIESQFVSKLVDNLNAEV VAGNI CRND AVNW LAY TYLYVRMLASPM
LYKVPDISSDGQLKKFRESLVHSALCILKEQELVLYDAENDVIEATD LGNIA SSFYIN HASMDV
YNRELDEHTT QIDLFRIFSMSEEFKYVSVRYE EKRELKQLLEKAPIPIREDIDDPLAKVN VLLQS
YFSQLK FEGFALNSDIVFIHQ NAGRLL RAMFEICLKRGWGH PTRM LLNLCKSATT KMWPTNC
PLRQFKTCPVEVIKR LEASTV PWGDYLQLET PAEVGRAIRSEK YGKQVYD LKRFPKMSVTC
NAQPITRSVMRFNIEIIADWIWDMNVHGSLEPFLML EDTDGDSI LYDVL FITPDIVGHEFTL
SFTYELKQHNQNNLPPNFFTLISENWWHSEFEIPV SFNGFKLPKKF PPPT PLL ENISISTSELGN
DDFSEVFEFKTFN KIQS QVFESLYNSND SVFGSGKGTGKTAMAELALLNHWRQNKGRAVYI
NPSGEKIDFLLSDWNKRF SHLAGGK IINKLGNDPSLNKLLAKSHVLLATPVQFELLSRRWRQ

RKNIQSLELMYDDAHEISQGVYGAJVETLISRMIATQLEKKIRFVCLSNCNCLANARDGEWA
GMTKSNIYNFSPSERIEPLEINIQSFKDVEHISFNFSMLQMAFEASAAAAGNRNSSVFLPSRKD
CMEVASAFMKFSKAIEWDMLNVEEQIVPYIEKLTDGHLRAPLKGVGILYKGMASNDERIV
KRLYEYGAVSVLLISKDCSAFACTDEVIILGTNLYDGAEHKYMPYTINELLEMVGGLASGND
SMAGKVLILTSHNMKAYKKFLIEPLPTESYLQYIIHDTLNNEIANSIQSQQDCVDWFTYSYF
YRRIHVNPSYYGVRDTSFPHGISVFLSNLVETCLNDLVESSFIEIDDTEAEVTAEVNGGDDEATE
IISTLSNGLIASHYGVSSFTIQSFVSSLSNTSTLNMLYVLSTAVEFESVPLRKGDALLVKLSK
RLPLRFPEHTSSGSVSFKVFLLQAYFSRLELPVDFQNDLKILEKVVPLINVVDILSANGYL
NATTAMDLAQMLIQGVWDVDNPLRQIPHFNKILEKCKEINVETVYDIMALEDEERDEILTLT
DSQLAQVAAFVNYPNVELTYSLNNSDSLISGVKQKITIQLTRDVEPENLQVTSEKYPFDKLE
SWWLVLGEVSKKELYAIKKVTLNKETQQYELEFDPTSGKHNLTIWCVCDSYLDADKELSFE
INVK

>DP00101|P12493|#449-462 #468-481 #494-500

MGARASVLSGGELDKWEKIRLRPGKKQYKLKHIVWASRELERFAVNPGLETSEGCRQILG
QLQPSLQTGSEELRSLYNTIAVLYCVHQIRDVKDTKEALDKIEEQNKSKKAQQAAADTG
NSQVSQNPYIVQNLQGQMVMQHQAISPTLNAWVKVVEEKAFSPEVPMFSALSEGATPQDLNT
MLNTVGGHQAAMQMLKETINEEEAEWDRLHPVHAGPIAPGQMREPRGSDIAGTTSTLQEIQI
GWMTHNPPIPVGEIYKRWIILGLNIVRMYSPTSILDIRQGPKEFRDYVDRFYKTLRAEQASQ
EVKNWMTETLLVQNANPDCKTILKALGPAGTLEEMMTACQGVGGPGHKARVLAEMSQVT
NPATIMIQKGNFRNQRKTVKCFNCGKEGHIAKNCRAPRKKGCGWKGKEGHQMKDCTERQA
NFLGKIWPSHKGRPGNFLQSRPEPTAPPEESFRFGEETTPSQKQEPIDKELYPLASLRLFGSD
PSSQ

>DP02483|Q8ZRP0|#1-426

MAMKKLLIASLLFSSATVYGAEGFVVKDIHFEGLQRVAVGAALLSMPVRTGDTVNDEDISNT
IRALFATGNFEDVRVLRDGNTLLVQVKERPTIASITFSGNKSVKDDMLKQNLEASGVRVGESL
DRTTLSDIEKLEDFYYSVGKYSASVKAVVTPLPRNRVDLKVQEGVSAKIQQINIVGNHAF
STEELISHFQLRDEVWWNVVGDRKYQKQLAGDLETLRSYYLDRGYARFNIDSTQVSLTPD
KKGIYITVNITEGDQYKLSGVQVSGNLAGHSAEIENLTKIEPGELYNGTKVTKMEDDIKKLLG
RGYAYAPRVSQPEINDADKTVKLRVNDAGNRFYVRKIRFEGNDTSKDSVLRREMRQMEG
AWLGSDLVDQGKERLNRLGFFETVDTDTQRVPGSPDQVDVYKVKERNTGSNFNGIGYGET
SGVSFQAGVQQDNWLGTGYSVGINGTKNDYQTYSELSVTNPYFTVDGVSLGGRIFYNDFQA
DDADLSDYTNKSYGTDVTLGFPINEYNTLRAGLGYVHNKLSNMQPQIAMDRYLESMGQSAD
TSSFAADDFTFNYGWTYNKLDRGYFPTDGSRVNLTGKVTIPGSDNEYVKVSLDTATYVPIDN
DHKWVVLGRTRWGYGDGLGGKEMPFYENFYAGGSSTVRGFQSNTIGPKAVYKNGAHTSW
DDNDDYEDCTQESGCKSDDAVGGNAMAVASLEFITPTPFISEKYANSVRTSFFWDMGTW
TNWDPSSAPSDVDPYSDPGNIRMSAGIALQWMSPLGPLVFSYAQPFKKYDGDKAEQFQFNIG
KTW

>DP01848|P05107|#735-769

MLGLRPLLALVGLLSLCVLSQECTFKVSSCRECIESPGCTWCQKLNFTGPGDPDSIRCD
TRPQLLMRGCAADDIMDPTSLAETQEDHNGGQKQLSPQKVTLYLRPGQAAAFNVTFRRAKG
YPIDLYYLMDLSYSMLDDLNVKLGDLRALNEITESGRIGFSVDKTVLPFVNTHPDKL
RNPCNKEKECQPPFAFRHVLKLTNNSNQFQTEVGKQLISGNLDAPEGGLDAMMQVAACPE
EIGWRNVTRLLVATDDGFHAGDGKLGAILTPNDGRCHLEDNLYKRSNEFDYPSVGQLAH
KLAENNIQPIAVTSRMVKTYEKLTEIPKSAVGELSEDSSNVVQLIKNAYNKLSSRVFLDHNA
LPDTLKVTYDSFCNSGVTHRNPQRGDCDGVQINVPITFQVKVTATECIQEASFVIRALGFTDIV
TVQVLPQCECRCDQSRDRSLCHGKGFLEGICRCDTGYIGKNECQTQGRSSQLELEGSCRK
DNNSIICSGLGDCVCGQCLCHTSVPGKLIYGQYCECDTINCERYNGQVCGGPGRGLCFCGK

CRCHPGFEGSACQCERTTEGCLNPRRVECSGRGRCRCNVCECHSGYQLPLCQECPGCPSPCG
KYISCAECLKFEKGPGKNCSAACPGLQLSNNPVKGRTCKERDSEGCWVAYTLEQQDGMDR
YLIYVDESRECAGPNIAIVGGTVAGIVLIGILLVIWKALIHLSDLREYRRFEKEKLKSQWN
NDNPLFKSATTTVMNPKFAES

>DP01127|Q8VHK2|#603-1430

MGKEQELVQAVKAEDVGTAQRLLQRPRPGAKLLGSTKKINVNFQDPDGFSALHHAALNG
NTELISLLEAQAQAAVDIKDNKGMRPLHYAAWQGRKEPMKLVLKAGSAVNPSDEGHIPHLH
AAQHGHYDVSEMLLHQSNPCIVDNGKTPLDLACEGRGVVQLLSSNMCAALLEPRPG
DTTDPNGTSPLHLAAKNGHIDIIRLLQAGIDINRQTKSGTALHEALCGKTEVVRLLDGIN
AQVRNTYSQTALDIVHQFTTSQASKEIKQLLREASAALQVRATKDYCNYDLTSNVKAGDI
ITVLEQHPDGRWKGCIHDNRTGNDRVGYFPSSLGEAIVKRAGSRTGSEPSPPQGGSLGPSAP
PEEIWVLRKPFAGGDRSGSLSVAGGRSTGGHALHAGAEVKLLATVLSQKSVESSPGDSP
VKPPEGSSGAARSQPPAAHAGQVYGEQPPKKLESSSASEGKSAEAVSQWLATFQLQLYAPNF
TSAGYDLPTISRMTPEDLTAGVTKGHRKKITAEISGLNIPDCLPEHKPANLAVWLSMIGLAQ
YYKVLVDNGYEIDFITDITWEDLQEIGITKLGHQKKLMLAVRKLAELQKAESKYEGGPLR
RKAPQSLEMMIAESPSSPAAECQSPKMTTFQDSELSGELQAALSGPAEAGAAAAEKSSNH
LPATPRRTSRQESSLSGRARHMSSQELLGDGPQGPSPMSRSQEYLLDEGPAPGTPPKEVRSS
RHGHHSVKRASVPPVPGKPRQVLPSGVSHFTPPQTPTKAQPGSPQALGGPHGPATAVKPTPQL
LPPTDRPMSPRSLPQSPTHRGFAYVLPQPVEGEAGPPAPGPVPPPVAAPVTLCLPPEADVEPR
RPKKRAHSNRYAASDSEPERDELLVPAAGPYATVQRRVGRSHSVRAPAGTDKNVNRSQS
FAVRPRKKGPPPPPKRSSSAMASANLADEPSPDVETEDGRLGVRAQRRAASLAGSVDTGS
AGSVKSIAAMLELSSIGGGRAIRRPPGEHPTPRPASPDGRVATVLASVHKAEAIGPDGEVV
NRRRTLSGPVTLATARRGPGEPAEQSHFMEDGTAQRQLRGPAKGEAGVEGPPLARVEASA
TLKRRIRAKQSQQENVKFILTESDTVKRRPKAKEPDIGPEPPPLSVYQNGTATIRRPASEQA
GPPELPPPPPAEPPPTDMLPLPLPQDGSAKPKVPPSPKPLAQPKVSKIQGSPTPASKVPL
PGPGSPEVKRAHGTPPPVSPKPPPPTAPKPAKALAGLQSSSATPSPVPSPARQPPAALIKPASS
PPSQSASPAKPPSPGAPALQVPTKPPRAAASVVGPPVASDCASPGDSARQKLEETSACLAAA
LQAVEEKIRQEDGQGPRPSSIEEKSTGSILEDIGSMFDDLADQLDAMLE

>DP01760|P37173|#38-48

MGRGLLRLWPLHIVLWTRIASTIPPVHQKVSVNNDMIVTDNNNGAVKFPQLCKFCDFRFSTCD
NQKSCMSNCITSICEKPQEVCAVWRKNDENITLETVC HDPKLPYHDFILEDAASPKCIMKE
KKKPGETFFMCSSDECNDNIIFSEEYNTSNPDLLVIFQVTGISLLPLGVAISVIIIFCYRVN
RQQKLSSTWETGKTRKLMFSEHCAIILEDQRSDISSTCANNINHNTELLPIELDTLVGKGRFA
EVYKAKLKQNTSEQFETVAVKIFPYEEYASWKTEKDIFSDINLKHENILQFLTAERKTELGK
QYWЛИAFHAKGNLQEYLTRVISWEDLRKLGSSLARGIAHLHSDHTPCGRPMPIVHRDLK
SSNILVKNDLTCCLCDFGSLRLDPTLSVDDLANSQVGVTARYMAPEVLESRMNLENVESFK
QTDVYSMALVLWEMTSRCNAVGEVKDYEPFGSKVREHPCVESMKDNVLDRGRPEIPSFW
LNHQGIQMVCETLTECWHDPEARLTAQVAERFSELEHLDRLSGRSCSEEKIPEDGSLNTTK
>DP00669|P81019|#26-96

MAPLVGLFLIWAGASVFQLHPVNGGDIPDPGSKPTPPGMADELPTETYDLPPEIYTTTFLPRT
IYPQEEMPYDDKPFPSLLSKANDLNAVFEGPACAFPFTYKGKKYYMCTRNSVLLWCSDLTE
YQGNWKFCTERDEPECVFPFIYRKKSYESCTRVHSFFWRRWCSLTSNYDRDKAWKYC

>DP00088|P0ABI8|#1-51 #521-552 #553-663

MFGKLSLDAVPFHEPIVMVTIAGIILGLALVGLITYFGKWTYLWKEWLTSDHKRLGIMYII
VAIVMLLRGFADAIMMRSQQALASAGEAGFLPPHYDQIFTAHGVIMIFFVAMPFVIGLMNL
VVPLQIGARDVAFPFLNNLSFWFTVVGVLVNVSLGVGEFAQTGWLAYPPLSGIEYSPGVGV
DYWIWSLQLSGIGTTLGINFFVILKMRAPGMTMFKMPVFTWASLCANVLIIASFPILTVTVA

LLTLDRLGLGTHFFTNDMGGNMMMYINLIWAWGHPEVYILILPVFGVFSEIAATFSRKRLF
TSLVWATVCITVLSFIVWLHHFTMGAGANVNAGGIFTMIIAIPTGVKIFNWLFTMYQGRIVF
HSAMLWTIGFIVTFSVGGMTGVLLAVPGADFVLHNSLFLIAHFHNVIIGGVFGCFAGMTYW
WPKAFCGFKLNETWGKRAFWFWIIGFFVAFMPYALGFAGMTRRLSQQIDPQFHMLMIAAS
GAVLIALGILCLVIQMYVSIRDRDQNRLTGDPWGGRTEWATSSPPPFYNFAVVPHVHERD
AFWEMKEKGEAYKKPDHYEEIHMPKNSGAGIVIAAFSTIFGFAMIWHIWWLAIVGAGMIIT
WIVKSFDEDVDYYVPVAEIEKLENQHFDEITKAGLKNGN
>DP02079|E1BSW7|#107-139
MEAAGGEQRELLIQRRLRAAVHYTTGCLCQDVaedKGVLFSKQTVAAlSEITFRQCENFARDL
EMFARHAKRSTITSEDVKLLARRNSNSLLKYITQKSDELASSNMEQKEKKKKSSAAKGRKTE
ENETPVESEDSNMA
>DP00658|P42758|#1-193
MNSHQNQTGVQKKGITEKIMEKLPGHHGPTNTGVVHEKKGMTEKVMEQLPGHHGATGTG
GVHHEKKGMTEKVMEQLPGHHGSHQTGNTTYGTTNTGGVHHEKKSUTEKVMEKLPGHH
GSHQTGNTAYGTNTNVVHEKKGIAEKIKEQLPGHHGTHKTGTTSYGNTGVVHENKST
MDKIKEKLPGGHH
>DP01607|P29539|#1773-1856
MSKDFSDKKKHTIDRIDQHILRRSQHDNYSNGSSPMKTNLPPPSPQAHMHIQSDSLSPTPKRR
KLASSDCENKQFDLSAINKNLYPEDTGSRLMQSLPELASNSDNVSPVTKSVA
FSDRIESSPIY
RIPGSSPKPSKPGKSILRNRLPSVRTVSDLSYNKLQYTQHKLHNGNIFTSPYKETRVNPRAL
EYWVSGEIHGLVDNESVSEFKEIIEGGLGILRQESEDYVARRFEVYATFNNIIPILTTKNVNEVD
QKFNLIVNIESIEICIPHQLQIAQDTLSSSEKKNPVFIRLYVQIVRFFSAIMSNFKIVKWLT
KRPLLVNKLVIVRWTGALRNENSNKIIITAQVSFLRDEKFGTFFLSNEEIKPIISTFTE
IMEINSHNLIYEKLLIRGFLSKYPKLMETVTSWLPGEVLPRIIGDEIYSMKILITSIV
VLLLELLKKCLDFVDEHERIYQCIMLSPVCETIPEKFLSKLPLNSYDSANLDKVTIGH
LLTQQIKNYIVVKNNDNKIAMDLWLSMTGLYD
SGKRVYDLTSESNKVWFDLNNLCFINNHPKTRLMSIKV
WRIITYCICTKISQKNQEGNKSLLRTPFQM
TLPYVNDPSAREGIYHLLGVVYTAFTSNK
NLSTDMFELFWDHЛИTPIYEDYV
FKYDSIHLQNVLFTVLHLLIGGKNADVALERKYKKH
IHPMSVIASEGV
V
KLKD
ISSL
PPQIIKREYDKIMKVV
FQAVEVAISNV
LAHDL
ILTSK
HLPEDR
KDQTH
LESF
SSL
LKVT
QN
NK
DTP
IFR
DFFG
AVT
SSF
VYT
FLDL
FLR
KND
SSL
VNF
NIQ
ISK
VG
ISQ
GN
MT
LDL
LKV
R
KAR
NET
SEFL
IIEK
FLE
LDD
KK
TEV
YA
QN
WVG
STL
PPN
IS
F
RF
Q
SL
A
N
V
K
P
N
E
N
I
F
L
D
L
C
LK
LS
FP
V
N
L
T
L
H
V
S
M
W
S
N
N
F
I
Y
F
I
Q
S
Y
V
S
K
N
E
N
K
L
N
V
D
L
I
T
L
L
K
T
S
L
P
G
N
P
E
L
F
G
L
P
F
R
R
N
K
F
M
D
I
L
E
Y
C
I
H
S
N
P
N
L
N
S
I
P
D
L
N
S
D
L
L
K
L
L
P
R
S
R
A
S
Y
F
A
A
N
I
K
L
F
K
C
S
E
Q
L
T
V
R
W
L
K
G
Q
Q
Q
L
E
Q
N
F
S
E
I
E
V
L
K
A
V
T
N
R
S
I
K
T
N
P
D
H
N
V
V
N
S
D
N
P
L
K
R
P
S
K
E
P
T
S
E
N
K
R
S
K
G
H
E
T
M
V
D
V
L
V
S
E
E
Q
A
V
S
P
S
S
D
V
I
C
T
N
I
K
S
I
A
E
E
S
L
A
R
N
S
I
K
V
E
T
N
C
E
N
S
L
N
V
T
L
D
L
D
Q
Q
T
I
T
K
E
D
G
K
G
Q
V
E
H
V
Q
R
Q
E
N
Q
E
S
M
N
K
I
N
K
S
F
T
Q
D
N
I
A
Q
Y
K
S
V
K
A
R
P
N
N
E
G
E
N
N
D
Y
A
C
N
V
E
Q
A
S
P
V
R
N
E
V
P
G
D
G
I
Q
P
S
G
T
I
L
L
N
S
S
K
Q
T
E
K
S
V
K
D
L
R
S
D
E
D
E
H
G
T
V
A
Q
E
K
H
Q
V
G
A
I
N
S
R
K
N
N
D
R
M
D
S
T
P
I
Q
G
T
E
E
E
S
R
E
V
V
M
T
E
E
G
I
N
V
R
L
E
D
S
G
T
C
E
L
N
K
N
L
K
G
P
L
K
G
D
K
D
A
N
I
D
D
F
V
P
V
E
E
N
V
R
D
E
G
F
L
K
S
M
E
H
A
V
S
K
E
T
G
L
E
E
Q
P
E
V
A
D
I
S
V
L
P
E
I
R
I
P
I
F
N
S
L
K
M
Q
G
S
K
S
Q
I
K
E
K
L
K
K
R
L
Q
R
N
E
L
M
P
P
D
S
P
P
R
M
T
E
N
T
N
I
A
Q
N
G
L
D
T
V
P
K
T
I
G
G
K
E
K
H
E
I
Q
L
G
Q
A
H
T
E
A
D
G
E
P
L
G
G
D
G
N
E
A
T
S
R
E
A
T
P
S
L
K
V
H
F
F
S
K
K
S
R
R
L
V
A
R
L
R
G
F
T
P
G
D
L
N
G
I
S
V
E
E
R
R
N
L
R
I
E
L
L
D
F
M
M
R
L
E
Y
Y
S
N
R
D
N
M
N

>DP02215|Q93P54|#414-427 #431-444

MKPIVTAVVTSTLSNVLSAEIKNVL MIGDGMGPQQVGLLETYANQAPNSIYKGKNTAIYQL
AQEGVIGSSLTHPEDAIVVDSACSATMLATGIYSSEVIGIDSQGNHVETVLEKAKKAGKATG
LVSDTRLTHATPASFAAHQPHRSLENQIASDMLATGADVMLSGGLRHWPKSTNDKGETYK
QLEKL TQGDVYLKS KRKDDRNLLTEAEKDGYQLAFNRNMDDAKGDKLLGLFAYSGMDD
GIAYSNKKSGERTQPSLKEMTQKALNILSKDEDGF FLMVEGGQIDWAGHSNDAGTMLHEL
LKFDEAIQT VYEWA KDRE DTIV I VTAD HETGSFGFSYSSNDLPKPQKRSGEAFADRDYAPNFN
FGAFDILDGLYNQKQSYYGMISEFQKLDKSLQTPEKLA EIVNKNSEFPITA EQAKNV LASKPN
PYRLAQHKYLSAEEVPAINDFDAFFPYNDRGNLLAREQATGQNIVWGTGTHHTPVNVFAW
GPAEKILPVSKIMHHSELGEYIKQQVN

>DP01853|Q9NQC3-2#1-200 #336-368

MEDLDQSPLVSSSDSPPRPQPAFKYQFVREPEDEEEEEEEDEDEDLEELEVLERKPAAGLS
AAPVPTAPAAGAPLMDFGNDFVPPAPRGPLPAAPPVAPERQPSWDPSPVSSTVPAPSPLSAAA
VSPSKLPEDDEPPARPPPPPASVSPQAEPVWTPPAPAPAAPPSTPAAPKRRGSSGSVVVDLLY
WRDIKKTGVVFGASLFLLSLTVFSIVSVTAYIALALLSVTISFRIYKGVIQAIQKSDEGHPFRA
YLESEVAISEELVQKYSNSALGHVNCTIKELRRFLVDDLVDLSKFAVLMWVFTYVGALFNG
LTLLILALISLFSVPVIYERHQAQIDHYLGLANKNVKDAMAKIQAKIPGLKRKAE

>DP00322|P11309#14-31

MPHEPHEPLTPPFSALPDPAGAPSRRQRQLSSDPSAFRASRSHSRNATRSHSHSHSPRH
SLRHSPGSGSCGSSSGHRPCADILEVGMLLSKINSLAHLRAAPCNDLHATKLAPGKEKEPLES
QYQVGPLLGS GGFGSVYSGIRVSDNL PVAIKHVEKDRISDWGELPNGTRVPMEVVLLKKVSS
GFSGVIRLLDWFERPD SFVLILERPEPVQDLDFITERGALQEELARSFFWQVLEAVRHCHNC
VLHRDIKDENILIDLNRGELKLIDFGSGALLKDTVYTDFDGTRVYSPPEWIRYHRYHGRSAAV
WSLGILLYDMVC GDIPFEHDEEIRGQVFFRQRVSSECQHLIRWCLALR PSDRPTFEEIQNHPW
MQDVLLPQETAEIHLHSLSPGSK

>DP00858|A8AZZ3#24-44 #116-134 #146-195

MKKVLLSSVVALTLFAAAAPVSADEATDAARNNDGAYYLQTQFTNADKVNEYLAQHDGE
IRAEAAADPAVVAAKAALDAVEGGSHNYGEVKAAYEA FNNAFNAVRNKYVQQFQATYN
NATEQE GKTYI QGETPEQANARYLK RVA GANNQNPAAEDKGATTPASKEAKKSEAAAKN
AGKAAGKALPKTS AVK

>DP00861|Q9L9I0#123-151

MKRN NKSAI ALIALS LLALSS GAAFAGH HWGN NDGMW QQGG SPLITTEQQATAQKIYDDYY
TQ TSAL RQQL ISK RYE YN ALLTASS PDTAKINA VAKEME SLG QKL DE QRV KRD VAMA QAGIP
RGAGM GYGG CGGY GGGY HRGG GHMG MG NW

>DP00487|P09938#1-41 #91-99 #264-274

MPKETPSKAAADALSDLEIKDKS NLNKELET LREENRVKSDMLKEKL SKDAENH KAYLKSH
QVHRHKLKEMEKEPLL NEDKERTVLFPIKYHEIWQAYKRAEASFWTAAEIDL SKDIHDWNN
RMNENERFFISRVLAFFAASDGIVNENL VENFSTEVQIPEAKSFYGFQIMIENIHSETYSLLIDTY
IKDPKESEFLFNAIHTIPEIGEKA EWL RIQDADALFGERL VAFASIEGVFFSGSFASIFWLKK
RGMM PGLTFSN ELCRDEGLHTDFACLLFAHLKNKPDPAIVEKIVTEAVEIEQRYFL DALPVA
LLGMNADLMNQYVEFVADRL VAFGNKYYKVENPFD MENISLAGKTNFFEK RVSDYQK
AGVMSKSTKQEAGAFTFNE DF

>DP00895|P03421#1-102

MEKFAPEFHGEDANNRATKFLESIKGKFTSPKDPKKKDSIISVNSIDIEVTKES PITSNSTIINPTN
ETDDTAGNKP NYQRKPLVSFKEDPTSDNPF SKLYKETIETFDNNEESSSYEEINDQTNDNI
TARLDRI DEKLSEILGMLHTLVVASAGPTSARDGIRDAMIGLREEMIEKIRTEALMTNDRLEA
MARLRNEESEKMAKDT SDEVSLNPTSEKLN LLEGND SDN DLSLED F

>DP02149|Q24570#1-15
MAIAYFIPDQAQLLARSYQQNGQQTAAASPRTTATAAAAPSQQQQSQQQQQRHHQQQRP
QFRANISVPLGSQQGSMTMSEFGCWDLAQIFCYALRIYSYSSSRQPTVIQISFEISSGGQNN
DEDDVTDATSKEN

>DP01519|A0A060ZAA1|#50-106
MGKSKEKGSSLGAISKHLKVPCCSVQIIVRKYKHHGTTQPSYRSGRRRLSPRDERTLVRKV
QINPRTTAKDLVKMLEETGTKSISTVKRVLYRHNLKRSARKPLQNRHKKARLQFATAH
GDKDRTFLEKCFVL

>DP01051|Q7LKB1|#1-253
MSDSNQGNQQNYQQYSQNGNQQQGNRYQGYQAYNAQAQPAGGYYQNYQGYSGYQQ
GGYQQYNPDAGYQQQYNPQGGYQQYNPQGGYQQQFNQGGRGNYKNFNYNNNLQGYQA
GFQPQSQGMSLNDFKQKQQKAAPPKKTLKLVSSSGIKLANATKKVDTKPAESDKKEEEKS
AETKEPTKEPTKVEEPVKKEEKPVQTEEKTEKSELPKVEDLKISESTHNTNNANVTSADALI
KEQEEEVDDEVVNDMFGGKDHVSLIFMGHVDAGKSTMGGNLLYLTGSVDKRTIEKYEREA
KDAGRQGWYLSWVMDTNKEERNDGKTIeveGKAYFETEKRRYTILDAPGHKMYVSEMIGGA
SQADVGVLVISARKGEYETGFERGGQTREHALLAKTQGVNKMVVVNKMDDPTVWSKER
YDQCVSNVSNFLRAIGYNIKTDVFMPVSGYSGANLKDHDVDPKECPWYTGPLLEYLDTMN
HVDRHINAPFMLPIAAKMKDLGTIVEGKIESGHIKKGQSTLLMPNKTAVEIQNIYNETENEVD
MAMCQEJVKLRIKGVEEEDISPGFVLTSPKNPIKSVTKFVAQIAIVELKIIAGFSCVMHVHT
AIEEVHIVKLLHKLEKGTRKSKPPAFAKGMKVIAVLETEAPVCVETYQDYPQLGRFTLR
DQGTITIAIGKIVKIAE

>DP02073|P33411|#198-217
MDLDLASILKGEISKKKKELANSKGVQPPCTEKFQPHESANIDETPRQVEQUESTDEENLSDNQ
SDDIRTTISKLENRPERIQAIAQDKTISVIIDPSQIGSTECKPLLSMKCNLYIHEILSRWKASLEA
YHPELFLEDTKKALFPLLLQLRRNQLAPDLLISLATVLYHLQQPKEINLAVQSYMKLSIGNVAW
PIGVTSGIHARSAHSKIQGGRNAANIMIDERTRLWITSIKRLITFEEWYTSNHDSL

>DP01890|Q07930#1-51 #1-61 #22-42 #112-121
MFHRRKRPyNTRNYGHDDKKFKSQYIDIMPDFSPSGLLELESNNKEGIALKHVEPQDAISPDN
YMDMLGLEARDRTMYELVIYRKNDKDKGPWKRYDLNGRSCYLVGRELGHSLTDLDDRTE
IVVADIGIPEETSSKQHCVIQFRNVRGILKCYVMDLDSSNGTCLNNVIPGARYIELRSGDVLT
LSEFEEDNDYELIFMV

>DP02515|Q13740#246-583
MESKGASSCRLLFCLLISATVFRPLGLWYTVNSAYGDTIIIPCRLDVPQNLMGKWKYEKPDG
SPVFIAFRSSTKKSQYDDVPEYKDRNLSENYTLSISNARISDEKRFVCMLVTEDNVFEAPTI
VKVFKQPSKPEIVSKALFLETEQLKKLGDCISEDSYPDGNITWYRNGKVLHPLEGAVVIIFKKE
MDPVTQLYTMTSTLEYKTTKADIQMPFTCSVTYYGPSGQKTIHSEQAVFDIYYPTEQVTIQL
PPKNAIKEGDNTLKCLGNGNPPPEEFLYLPQPEGIRSSNTYTLTDVRRNATGDYKCSLIDK
KSMIASTAITVHYLDLSNPSGEVTRQIGDALPVSCSISASRNATVWMKDNIRLSSPSFSSL
HYQDAGNYVCETALQEVEGLKKRESLTLIVEGKPQIKMTKTDPSGLSCTIICHVEGFPKPAI
QWTITGSGSVINQTEESPYINGRYYSKIIISPEENVTLCTAENQLERTVNSLNVAISIPEHDEA
DEISDENREKVNDQAKLIVGIVVGLLAALVAGVWLYMKSKTASKHVNKDGNMEEN
KKLEENNHHKTEA

>DP00285|P10388#147-440
MAKRLVLFVAVVVALVALTVAEGEASEQLQCERELQELQERELKACQQVMDQQLRDISPEC
HPVVVSPVAGQYEQQIVVPPKGGSFYPGETTPPQQLQQRIFWGIPALLKRYYPSVTCPQQVSY
YPGQASPQRPGQQPGQQPGQQGYYPTSPQQPGWQQPEQQPQRYYPTSPQQSGQLQQPAQG
QQPGQQGQQPGQQPGQGYYPTSSQLQPGQLQQPAQGQQGQQPGQAQQGQQPGQQPG

QGQQGGQQPGQQPGQQGQQQLGQQGQQYPTSLQQSGQGPYPTSLQQLGQQGQSG
YYPTSPQQPGQQPGQLQQPAQQPGQQPGQQPGQQPGQQPGQQPGQQPGYYP
TSPQQSGQQPGYYPQTSSQQPTQSQQPGQQGQQVQGQQAQQPGQQPGQQPGYYP
TSPQQSGQQPGYYLTSQQSGQQPGQLQQSAQQKGQQPGQQPGQQPGQQPGQG
QQGQQPGQQPGYYPSTSPQQSGQQPGQWQQPGQQPGYYPSTSPLQPGQQPGYDPTSPQ
QPGQQPGQLQQPAQQGQQQQLAQQGQQQPAQVQQGQRPAQGQQPGQQPGQGQQ
LGQQGQQPGQQPAQGQQQPGQQPGQQPGQQPGQQPGQQPGQGQQPGQGQWP
YYPTSPQESGQQPGQWQQPGQGYYLTSPQLSGQQRPGQWLQPGQQGYYPTSPQQPGQGQQL
QQSGQQGHWYYPTSPQLSGQQRPGQWLQPGQQGYYPTSPQQPGQGQQL
GQQGYYPTSLQQTGQQSGQQGQQGYYSSYHVSVEHQAASLKVAKAQQLAAQLPAMCRLE
GGDALSASQ

>DP01309|P50750|#87-98

MAKQYDSVECPFCDEVSKYEKLAKIGQGTGEVFKARHRKTGQKVALKKVLMENEKEGFPI
TALREIKILQLLKHENVVNLIEICRTKASPYNRCKGSIYLVFDFCEHDLAGLLSNVLVKFTLSEI
KRVMQMLLNGLYYIHRNKLHARDMKAANVLITRDGVKLADFGALARAFSLAKNSQPNRYTN
RVVTLWYRPPELLGERDYGPPIDLWGAGCIMAEMWTRSPIMQGNTEHQQLALISQLCGSITP
EVWPNVNDNYELYEKLELVKGQKRKVDRLKAYVRDPYALLDIDKLLVLDPAQRIDSDDALN
HdffwSDPMPSDLKGMLSTHTSMFEYLAPPRRKGSQITQQSTNQSRNPATTNQTEFERVF
>DP00868|Q9NHC3|#102-117

MTTNGFDPFEWRSFYFPGMSREEAHKLLGEPVQSIGTFLMRDSSRPGEYSLTVREADEGNAV
CHYLIERGEPKEDGTAAAGVKIANQSFDPDIPALLNHFKMRVLTEASLLAAYKKPIIEVVVGTF
KFTGERETDLPFEQGERLEILSKTNQDWWEARNALGTTGLVPANYVQIQMEFHNDRTSKGAS
QSSIGSSGGAAERFSSASTSSDNIELQPRLPAKAKVTFDRVPNAVDPTQLRVKKGQTVLVTQK
MSNGMYKAELDGQIGSVPHTYLRTAVSE

>DP01671|P71590|#1-32

MGSQKRLVQRVERKLEQTVGDAFARIFGGSIVPQEVEALLRREAADGIQSLQGNRLLAPNEYI
ITLGVHDFEKLGADPELKSTGFARDLADYIQEQQWQTYGDVVVRFEQSSNLHTGQFRARGTV
NPDVETHPPVIDCARPQSNHAFGAEPGVAPMSDNSSYRGGQQGQGRPDEYYDDRYARPQEDP
RGGPDPQGGSDPRGGYPPETGGYPPQPGYPRPRHPDQGDYPEQIGYPDQGGYPEQRGYPEQR
GYPDQRGYQDQGRGYPDQGQGGYPPPQEQRPPVSPGAAGYGAPGYDQGYRQSGGYGPSP
GGGQPGYGGYGEYGRGPARHEEGSYVPSGPPPEQRPAYPDQGGYDQGYQQGATTYGRQ
DYGGGADYTRYTESPRVPGYAPQGGGYAEPAGRDYDYGQSGAPDYQPAPGGYSGYQGG
YGSAGTSVTLQDDSGRTYQLREGSNIIGRGQDAQFRLPDTGVSRRHLEIRWDGQVALLAD
LNSTNGTTVNNAPVQEWAQQLADGDVIRLGHSEIIVRMH

>DP02005|P47710|#1-185

MRLLLITCLVAVALARPPLRYPERLQNPSSESSEPILESREEYMNGMNRQRNLREKQTDEI
KDTRNESTQNCVVAEPEKMESSISSSEEMSLSKCAEFQCRLENEYNQLQLQAAHAQEIQIRR
NENSHVQVPFQQLNQLAAQPYAVWYYPQIMQYVPFPPFSDISNPTAHENYEKNNVMLQW
>DP01130|P49757|#68-78

MNKLQRQSFRRKDKDVYVPEASRPHQWQTDEEGVRTGKCSFPVKYLGHVEVDESRGMHICED
AVKRLKAERKFFKGFFGKTGKAVKAVLWVSADGLRVDEKTSDLIVDQTIKVSFCAPDR
NFDRAFSYICRDGTRRWICHCFMAVKDTGERLSHVGCAFAACLERKQKREKECGVTATF
DASRTTFTREGSFRVTTATEQAEREEMKQMQDAKKAEVDKIVVGSSVAPGNTAPSPSSPTSP
TSDATTSLMNNPHAIPIRRAPIEQLARQGSFRGFPALSQKMSPFKRQLSLRINELPSTMQRKT
DFPIKNAVPEVEGEAESISSLCSQITNAFSTPEDFSSAPMTKPVTVVAPQSPTFQANGTDSAFH
VLAKPAHTALAPVAMPVRETNPWAHAPDAANKEIAATCSGETEWGQSSGAASPGLFQAGHRR
TPSEADRWLLEEVSKSVRAQQPQASAAPLQVLPQPPPPTAISQPASPFQGNAFLTSQPVPGVV

PALQPAFVPAQSYPVANGMPYPAPNVPVVGTPSQMVANVFGTAGHPQAAHPHQSPSLVRQ
QTFPHYEASSATTSPFFKPPAQHLNGSAAFNGVDDGRLASADRHTEVPTGCPVDPFEAQWA
ALENSKSKQRTNPSPTNPFSSDLQKTFEIEL

>DP01616|P10104|#372-484

MTDIVLNDLPFDGPPAEGQSRISWIKNGEEILGADTQYGSEGSMDRPTSVLRNVEVLDKNI
GILKTSLETANSIDIETIQGILDVSGDIEALAQIGINKKDISDLKTLTSEHTEILNGTNNTVDSILA
DIGPFNAEANSVYRTIRNDLLWIKRELGQYTGQDINGLPVVGPNSSGMKHRIINNTDVITSQGI
RLSELETKFIESDVGSLTIEVGNLREELGPKPPFSQNVSRLNEIDTKQTTVESDISAIKTSIGY
PGNNSIITSVNTNTDNIASINLELNQSGGIKQRLTVIETSIGSDDIPSSIKGQIKDNTTSIESLNGIV
GENTSSGLRANWSWLNQIVGTDSSGGQPSPGSLLNRVSTIETSVGLNAVQNLQVEIGNNS
AGIKGQVVALNTLVNGTNPNGSTVEERGLTNSIKANETNIASVTQEVTAKGNISSLQGDVQ
ALQEAGYIPEAPRDGQAYVRKDGEWVFLSTFLSPA

>DP00155|P32851|#2-31

MKDRTQELRTAKDSDDDDVTVTVDRDRMDEFFEQVEEIRGFIDKIAENVEEVKRKHSAIL
ASPNPDEKTKEELEELMSDIKKTANKVRSKLSIEQSIEQEEGLRSSADLRIRKTQHSTLSRK
FVEVMSEYNATQSDYRERCKGRIQRQLEITGRTTSEELEDMLESGNPAIFASGIIMDSSISKQ
ALSEIETRHSEIIKLENSIRELHDMFMDMAMLVESQGEMIDRIEYNVEHAVDYVERAVSDTKK
AVKYQSKARRKKMIIICCVILGIIASTIGGIFG

>DP00175|Q9NQB0|#1-56

MPQLNGGGDDLGANDELISFKDEGEQEEKSSENSSAERDLADVKSSLVNESETNQNSSSDSE
AERRPPPRSESFRDKSRESLEEAARKRDGGFLKGPPYGPFIIMPDLTSPYLPNGSLSPARTL
HFQSGSTHYSAYKTIEHQIAVQYLQMKWPLLDVQAGSLQSRQALKDARSPSPAHIIVSNKVPV
VQHPHHVHPLTPLITYSNEHFTPQNPQPHLPADVDPKTGIPRPPHPPDISPYYPLSPGTVGQIPH
LGWLVPQQQPVYPITTGGFRHPYPTALTVNAMSRFPPHMVPPHTLHTGIPHPAIVPTV
KQESSQSDVGSLHSSKHQDSKKEEKKPHIKKPLNAFMLYMKEMRAKVVAECTLKESAAI
NQILGRRWHALSREEQAKYYELARKERQLHMQLYPGWSARDNYGKKKKRKRDKQPGTNE
HSECFLNPCLSLPPITDLSAPKKCRAFGLDQQNNWCPCRRKKCVRYIQGEGSCLSPPSSD
GSLLDSPPPSPNLLGSPPRDAKSQTEQTQPLSLKPDPLAHLSSMMPPPALLAEATHKASAL
CPNGALDLPPAALQAPSSIAQPSTSSLHSHSSLAGTQPQPLSLVTKSLE

>DP00277|Q12287|#1-27

MTETDKKQEKENHAECEDKPCKCCVCKPEKEERDTCLFNGQDSEKCKEFIEKYKECMKGYGF
FEVPSAN

>DP01943|Q9NRY2|#1-62

MAANSSGQGFQNKNRVAILEDLDEKRKLLMQNQSSTNHPGASIALSRPSLNKDFRDHAEQ
QHIAAQKAAQALQAHAAHSSGYFITQDSAFCNLILPVPLRDPE

>DP02877|Q9BIM8|#1-342 #377-402

VAGTQYRLPSGKCPVFGKIIIENSNTTFLKPVATGNQDLKDGGFAFPPTNPLISPMTLNGMR
DFYKNNEYVKNLDETLCSRHAGNMNPNDKNSNYKYPAVYDYNDKKCHILYIAAQENNG
PRYCNKDQSKRNSMFCFRPAKDKLFENYTLSKNVVDNWEVCPRKNLENAKFGLWVDGN
CEDIPHVNefsANDFECNKLVFELSASDQPKQYEQHLDYEKIKEGFKNKNASMIKSAFLPT
GAFKADRYKSHGKGYNWGNYNRETQKCEIFNVKPTCLINSSYIATTALSHPIEVEHNFPCSL
YKDEIKKEIERESKRIKLNDNDDEGNKKIIAPRIFISDDKDSLKCPCDPEMVSNSTCRFFVCKCV
ERRAEVTSNNEVVVKEEYKDEYADIPEH

>DP00834|P69428|#21-89

MGGISIWQLIIVIVVLLFGTKKLGSIGSDLGASIKGFKKAMSDDEPKQDKTSQDADFTAKTI
ADKQADTNQEQAQKTEDAKRHDKEQV

>DP01429|Q09427|#747-770 #928-1000 #1319-1343

MPLAFCGTENHSAAYRVDQGVLNNGCFVDALNVVPHVFLFITFPILFIGWGSQSSKVHIHSTWLHFGHNLRWILTFLFVLCVIAEGILSDGVTESRHLHYMPAGMAFMAITSVVYYHN
IETSNFPKLLIALLIYWTLAFITKTIFVKFYDHAIGFSQLRFCLTGLLVLYGMLLLVEVNIRV
RRYIFFKTPREVKPPEDLQDLGVRFQPFVNLLSKGTYWWMNAFIKTAHKKPIDLRAIAKLPI
AMRALTNYQRCLCVAFDAQARKDTQSPQGARAIWRALCHAFGRRLILSSTFRILADLLGFAGP
LCIFGIVDHLGKENHVFQPKTQFLGVYFVSSQEFLGNAYVLAFLVLLFLALLLQRTFLQASYYVA
IETGINLRGAIQTAKIYNKIMHMSTSNSMGEMTAGQICNLVAIDTNQLMWFFLCPNLWTMP
VQIIVGVILLYYLGVASALIGAAVILLAPVQYFVATKLSQAQRTTLEHSNERLKQTNEMLRG
KLLKLYAWESIFCSRVEVTRRKEMTSLRAFAVYTSISIFMNTAIPIAAVLITFVGHSVFFKESDL
SPSVAFASLSLFHILVTPLFLSSVVRSTVKALVSVQKLSEFLSSAEIREEQCAPREPAPQGQAG
KYQAVPLKVVNRKRPAREEVRDLLGPLQRLAPSMDGDADNFVQIIGGFTWTPDGPTLSNI
TIRIPRGQLTMIVGQVGCGKSSLLATLGEMQKVSGAVFWNSNLPDSEGEDPSSPERETAAGS
DIRSRGPVAYASQKPWLLNATVEENITFESPENKQRYKMVIEACSLQPDDILPHGDQTQIGER
GINLSGGQRQRISVARALYQQTNVVFLDDPFSALDVHLSDHLMQAGILELLRDDKRTVVLVT
HKLQYLPADWIIAMKDGTIQREGLKDFQRSECQLFEHWKTLMNQRDQELEKETVMERKA
SEPSQGLPRAMSSRDGLLDEEEEEEEAEESEEDDNLSSVLHQRAKIPWRACTKYLSSAGILL
SLLVFSQLLKHMLVAIDYWLAWTDSALVSPAARNCSLSQECLDQSVDYAMVFTLLCSL
GIVLCLVTSVTVWTGLKVAKRLHRSLLNRILAPMRFFETPLGSILNRFSSDCNTIDQHIPST
LECLSRSTLLCVSALTVISYVTPVFLVALLPLAVVCYFIQKYFRVASRDLQQLDDTQLPLVSH
FAETVEGLTTIRAFRYEARFQQKLLEYTDSNNIASLFTAANRWLEVCMYEIGACVVLIAAAT
SISNSLHRELSAGLVGLGLTYALMVSNYLNWMVRNLADMEIQLGAVKRIHALLKTEAESYE
GLLAPSLIPKNWPQDGKIQIQNLSVRYDSSLKPVLKHVNTLISPQKIGICGRTGSGKSSFLAF
FRMVDMFEGRIIDGIDIAKPLHTLRSRLSIIQLDPVLFSGTIRFNLDPEKKCSDSTLWEALEIA
QLKLVVKALPGGLDAIITEGGENFSQGQRQLFCLARAFVRKTSIFIMDEATASIDMATENILQK
VVMTAFADRTVVTIAHRVHTILSADLVMVLKRGAIREFDKPETLLSQKDSVFASFVRADK
>DP02256|P26554|#141-151
MFEDKRERPRTLHELCEALNVSMHNIQVVCVYCKELCRADVNVAFTEIKIVYRDNNPYA
VCKQCLLFYSKIREYRRYSRSVYGTITLEAITKKSLYDLSIRCHRCQRPLGPEEKQKLVDEKKR
FHEIAGRWTGQCANCWQRTRQRNETQV
>DP02478|Q6SJQ7|#132-330
MHLSLLVPFLFWITGCCTAEDPVTGPEEVSGQE QgsLTVCQCRYTSGWKDYKKYWCQGV PQR
SCKTLVETDASEQLVKKNRVSIRDNQRDFIFTVTMEDLRMSDAGIYWC GITKGGLDP MFKV
VNIGPAIQVPITVPTMPPITSTTIFTVTTVKETSMFPTLTSYYSDNGHGGGDGGEDGVGD
GFLDLSVLLPVISA VLLLLVASLFAWRMVRQKKAAGPPSEQAQ SLEG DLYADLSLKQP
RTSPGSSWKKGSSMSSSGKDHQEEVEYVTMAPFPREEVSYA ALTLAGLGQEP TYGNTGCPIT
HVPR TGLEEETTEYSSIRRPLPAAMP
>DP01841|P08514|#989-1039 #997-1008
MARALCPLQALWLLEWVLLLGPACA APPAWALNLDVQLTFYAGPNGSQFGSLDFHKDSH
GRVAIVVGAPRTLGPSEQETGGVFLCPWRAEGGQCP SLLFDL RDET NVGSQL QTFKARQG
LGASVVSWSDVIVACAPWQHWNVLEKTEEAEKTPVGSCFLAQ PESGRRAEYSPCRGNTLSRI
YVENDFSWDKRYCEAGFSSVVTQAGELV LGAPG GYYFLGLLAQAPVADIFSSYRPGILLWHV
SSQSLSF DSSNPEYFDGYWGYSVAVGEFDGDLNTTEYVGAPTWSWTLGAVEI L DSYYQRL
HRLRGEQMASYFGHSVAVTDVNGDGRHDLLVGAPLYMESRADRKLAEVGRVYFLQPRGP
HALGAPSLLTGTQLYGRFGSAIAPLGDL RDGYNDIAVAAPYGGPSGRGQVLVFLGQSEG
RSRPSQVLDSPFPTGSAFGFSLRGAVIDDDNGYPDLIVGAYGANQVAVYRAQPVVKASVQL
VQDSLNP AVKSCVLPQT KTPVSCF NIQMCVGATGHNIPQKLSLNAELQLDRQKPRQGRV
LGSQQAGTTLNLDLGGKHSPICHTTMAFLRDEADFRDKLSPIVLSNVSLP
TEAGMAPAVVL

HGDTHVQEQTIVLDCGEDDVCVPQLQLTASVTGSPLLVGADNVLELQMDAANEGEGAYEA
ELAVHLPQGAHYMRALSNEGFERLICNQKKEVENTRVVLCELGNPMMKNAQIGIAMLVSVG
NLEEAGESVSFQLQIRSKNSQNPNISKIVLLDVPVRAEAQVELRGNSFPASLVAAEGEREQN
SLDSWGPKVEHTYELHNNGPGTVNGLHLSIHLPGQSQPSDLYILDIQPQGGLQCFPQPPVNP
LKVDWGLPIPSPSPIHPAHHKRDRRQIFLPEEQPSRLQDPVLVSCDSAPCTVVQCDLQEMAR
GQRAMVTVLAFLWLPSLYQRPLDQFVLQSHAWFNVSSLPVAVPPLSLPRGEAQVWTQLLRA
LEERAIPIWVVLGVGLGLLLTLVLAMWKVGFFKRNRPLEEDDEEGE

>DP00662|Q8LBP4|#339-462

MARVLVSSPSSFFGSPLIKPSSLRHSGVGGGTAQFLPYRSNNNKLFTTSTTVRFLSNEIPPFH
GLDSSVDIGAIFTRAESLLYTIAADA AVGADSVTTDSSAVQKSGGWFGFISDAMELVLKILK
DGLSAVHVPYAYGFAIILITIVKAATYPLTKQQVESTLAMQNLQPKIKAIQQRYAGNQERIQL
ETSRLYKQAGVNPLAGCLPTLATIPVWIGLYQALSNVANEGLTEGFFWIPSLGGPTSIAARQS
GSGISWLFPFDGHPLGWWYDTVAYLVLVPLLIASQYVSMEIMKPPQTDPAQKNTLLVFKF
LPLMIGYFALSVPGLSIYWLTNNVLSTAQQVYLRKLGGAKPNMDENASKIISAGRKRSAQ
PDDAGERFRQLKEQEKRSKKNKAVAKDTVELVEESQSEEEGSDDEEEEAREGALASSTTSK
PLPEVGQRRSKRSKRKRTV

>DP02094|P49427|#101-115 #183-236

MARPLVPSSQKALLLELKGLQEEPVEGFRVTLVDEGDLYNWEVAIFGPPNTYYEGGYFKARL
KFPIDYPYSPPAFRFLTKMWHPNIYETGDVCISILHPPVDDPQSGELPSERWNPTQNVRTILL
ISLLNEPNTFSANVDASVMYRKWKEKGKDREYTDIIRKQVLGTVDAERDGVKVPTTAE
YCVKTAKAPAPDEGSDLFYDDYYEDGEVEEEEADSCFGDDEDDSGTEES

>DP01571|Q88QP8|#40-62

MAKEKFDRSLPHNVGTIGHVDHGKTTAALTRVCSEVFSAIVEFDKIDSAPEEKARGITI
NTAHVEYNSTIRHYAHVDCPGHADYVKNMITGAAQMDGAILVCSAADGPMPQTREHILLSR
QVGVPYIVVFLNKADLVDDAELLELVEMEVRDLLSTYDFPGDDTPIIIGSARMALEGKDDNE
MGTTAVKKLVETLDSYIPEPVRAIDQPFLMPIEDVFSISGRGTVVTGRIERGIVRVQDPLEIVGL
RDTTTTCTGVEMFRKLLDEGRAGENCGVLLRGTKRDDVERGQVLVKPGSVKPHTKFTAEV
YVLSKEEGGRHTPFFKGYRPQFYFRTTDVTGNCELPEGVEMVMPGDNIQMTVTLIKTIAMED
GLRFAIREGGRTVAGVVAKIIIE

>DP01742|Q8NM20|#52-89

MPTKTYSEEFKRDAVALYENSDGASLQQIANDLGINRVTLNWIICKYGSNHNVQGTPSAAV
SEAEQIRQLKKENALQRARTRHPAESC

>DP01059|Q71FK2|#1-10

MPDTTPVAATSSAPPTAKDAGAKAPSDFSNTAPSLSDLKKVYVSTVTSVATPAEIEALGK
IFTAMGLAANETGPAMWDLARAYADVQSSKSAQLIGATPSNPALSRRALAQAQFDRINITPRQF
CMYFAKVWVNILLDSNIPPANWAKLGYQEDTKFAAFDFFDGVTPNPASLQPADGLIRQPNEKE
LAAHSVAKYGALARQKISTGNYITTLGEVTRGHMGGANTMYAIDAPPEL

>DP00690|Q91WR5|#1-6 #222-226

MNSKCHCVILNDGNFIPVLFGTALPLECPSKAKELTKIAIDAGFHFDASVYNTEDHVGE
AIRSKIADGTVRREDIFYTSKVWCTSLSHPELVRASLERSLQKLQFDYVDLYLIHYPMALKPGE
ENFPVDEHGKLIFDRVDLCATWEAMEKCKDAGLTKSIGVSNFNYRQLEMILNKPGLKYKPVC
NQVECHPYLNQMQLLDFCKSKDIVLVAYGVLGTQRYGGWVDQNSPVLLDEPVLGSMACKY
NRTPALIALRYQLQRGIVVLNTSLKEERIENMQVFEQLSSEDMVLDGLNRNMRYIPAAIF
KGHPNWPFLDEY

>DP00315|O43464|#134-138 #282-290 #344-358

MAAPRAGRAGWSLRAWRALGGIRWGRRLTPDLRALLSGTSDPRARVTYGTPSLWARL
SVGVTEPRACTSGTPGPRAQLTAVPDTRTREASENSGTRSRAWLAVALGAGGAVALLLLW

GGGRGPPAVLAAVPSPPPASPRSQYNFIADVVEKTAPAVVYIEILDRHPFLGREVPISNGSGFV
VAADGLIVTNAHVADRRRVVRLLSGDTYEAVVTAVDPVADIATLRIQTKEPLPTLPLGRS
ADVRQGEFVVAMGSPFALQNTITSGIVSSAQRPARDLGLPQTNEVYIQTDAIDFGNSGGPLV
NLDGEVIGVNTMKVTAGISFAIPSDRLREFLHRGEKKNSSGISGSQRYYIGVMMLTLSPSILA
ELQLREPSFPDVQHGVLIHKGPAHRAGLRPGDVILAIGEQMVQNAEDVYEAVRTQSQLA
VQIRRGRETLTLYVTPEVTE

>DP01799|P49790|#1313-1390

MASGAGGVGGGGGGKIRTRRCHQGPIKYQQGRQQHQGILSRVTESVKNIVPGWLQRYFNK
NEDVCSCSTDTEVPRWPENKEDHLVYADEESSNITDGRITPEPAVSNTEEPSTTSTASNYPDV
LTRPSLHRSHLNFSMLES PALHCQPSTSSAFPIGSSGFSLVKEIKDSTSQHDDDNISTSGFSSRA
SDKDITVSKNTSLPPLWSPEAERSHLSQHTATSSKKPAFNLSAFGTLSPSLGNSSILKTSQLD
SPFYPGKTYGGAAAARQSKLRNTPYQAPVRRQMKAQLSAQS YGVTSSSTARILQSLEK
MSSPLADAKRIPSISSPLNSPLDRSGIDITDFQAKREKVDSQYPPVQLMTPKPVSIATNRSY
FKPSLTPSGEFRKTNQRIDNKCSTGYEKNMTPGQNREQRESGFSYPNFSLPAANGLSSGVGGG
GGKMRERTRFVASKPLEEEMEVPVLPKISLPI TSSSLPTNFSSPEITTSPSPINSSQALTNKV
QMTSPSSTGSPMFKFSSPIVKSTEANVLPPSIGFTFSVPVAKTAELGSSSSTLEPIISSSAHHVTT
VNSTNCKKTPPEDCEGPFRPAEILKEGSVLDILKSPGFASP KIDS VAAQPTATSPVVYTRPAISS
FSSSGIGFGESELKAGSSWQCDTCLLQNKVTDNKCIA CQAALKSPRDTAKQTGIETPNKSGKTT
LSASGTGFDKFKPVIGTWDCDTCLVQNPKPEAKCVACETPKPGTCVKR ALTVVSESAET
MTASSSSCTVTTGTLGFDKFKRP IGSWECSVCCVSNNAE DNKCVSCMSEKPGSSVPASSST
VPVSLPSGGSLGLEKFKPEGSWDCELCLVQNKA DSTKCLACESAKPGTKSGFKGFDTSSSS
NSAASSSFKFGVSSSSGP SQTLTSTGNFKFGDQGGFKIGVSSDGSINPMSEGFKFSKPIGDFK
FGVSESKPEEVKKDKSN DNFKFG LSSGLSNPVSLTPFQFGVSNLGQEEKEELPKSSSAGFSF
GTGVINSTPAPANTIVTSENKSSFNLGTIETKSASVAPFTCKTSEAKKEEMPATKGGFSFGNVE
PASLPSASVFLGRTEEKQQEPVTSTSLVFGKKADNEEPKCQPVFSFGNSEQTKDENS SKSTFS
FSMTKPSEKESEQPAKATFAFGAQ TADQGA AKPVFSFLNNSSSS STPAT SAGGGIFGSST
SSNPPVATVFGQSSNPVSSSAFGNTAESSTS QSL FSQDSKLATT SSTGTA VTPVFGPGASS
NNTTSGFGF GATTSSSAGSSFVFGTGPSAPSASPAFGANQPTFGQS QGASQP NPPGFGSISS
STALFPTGSQAPPTFGTVSSSQPPVFGQQPSQSAFGSGTTPNSSA FQFGS TTNFNFTNNPS
GVFTFGANSSTPAASAQPSGS GGFP FNQSPA AFTVG SNGKNV FSSSGTS FSGRK IKTAVRRK
>DP02027|P17405|#49-85 #170-197

MPRYGASLRQSCPRSGREQGQDGTAGAPGLLWMGLVLALALALALALALSDSRVLWAPAE
AHPLSPQGHPARLHRIVPRLRDVFGWGNLTCPICKGLFTA INLGLKKEPNVARGSVAIKLCN
LLKIAPP AVCQSI VHLFEDDMVEWRRSVLSPSEACGLLL GSTCGHWDFI SWNISLPTVPKPP
PKPPSPPAPGAPVSRILFLTDLHWHDHDYLEG TDPCADPLCCRRGSGLPPASRPGAGYWG EYS
KCDLPLRTLESLLSGLGPAGPFDMVYWTGDIPAH DVWHQTRDQLRALTTVTA LVRKFLGP
VPVYPAVGNHESTPVNSF PPPFIEGNHSSRWLYEAMAKAWE PWLPAEALRTL RIGGFYALSP
YPGLRLISLMNFCREN FWLLINSTDPAGQLQWL VGE LQAAEDRGDKVHIIGHIPP GHCLKS
WSWNYYRIVARYENTLAAQFFGHTVDEFEVFYDEETLSRPLAVAFLAPSATTYIGLNP GYR
VYQIDGNYSGSSHVLDHETYILNL TQANIPGAIPH WQLLYRARETYGLPNTLPTAWHNLVY
RMRGDMQLFQTFWFLYHKGHPPSEPCGTPCRLATLCAQLSARADSPALCRHLM PDGL PEA
QSLWPRPLFC

>DP02000|O14745|#242-358

MSADAAAGAPLPRLC CLEKGPN YGFHLHGEKGKLGQYIRLVEPGSPA EKAGL LAGDRL VE
VNGENVEKETHQQVVS RIRAALNAV RLLVVD PETDEQLQKLGVQVREELLRAQEAPGQAE P
PAAA EVQGAGNENE PREADKSHPEQREL RPLCTMKGPSGYGFNLHS DKSKPGQFIR SVDP
DSPAEASGLRAQDRIVEVNGVCMEGKQHGDVVS AIRAGGDET KLLVVD RETDEFFKKCRVIP

SQEHLNGLPVPFTNGEIQKENSREALAEAALESPPALVRSASSDTSEELNSQDSPPQDSTA
PSSTSSSDPILDNFNISLAMAKERAHQKRSSKRAPQMDWSKKNELFSNL

>DP01070|P42568|#490-568

MASSCAVQVKLELGHRAQVRKKPTVEGFTHDMVFVRGPEHSNIQHFVEKVVFLHESFPR
PKRVCKDPPYKVEESGYAGFILPIEVYFKNKEEPRKVRFDYDLFLHLEGHPVNHLCEKLTF
NNPTEDFRRKLLKAGGDPNRSIHTSSSSSSSSSSSSSSSSSSSSSSSSSSSSSF
SKPHKLMKEHKEPKDSREHKSASFKEPSRDHNKSSKESPKENKPLKEEKIVPKMAFKEP
KPMSPKPDNSLLITSGQDKKAPSQRPPISDSEELSACKRKSSSEALFKSFSSAPPLITCSA
DKKQIKDKSHVKMGKVKIESETSEKKKSTLPPFDDIVDPNDSDVEENISSKSDSEQPSPASSSSS
SSSFTPSQTRQQGPLRSIMKDLHSDDNEESDEVEDNDNDSEMERPVNRGGSRSSRVSLSDG
SDSESSSASSPLHHEPPPPLLKTNNNQILEVKSPIKQSKSDKQIKNGECDKAYLDELVELHRRRL
MTLRERHILQQIVNLIEETGHFHITNTTFDFDLCSDLKTTVRKLQSYLETSGTS

>DP01499|Q9JI51|#115-192

MSADFEQYEQDFAVLTAEITSKISRVPRLPPDEKKQMVA
NVEKQLEEARELLEQMDLEVREIP
PQSRGMYSNRMRSYKQEMGKLETDFKRSRIA
YDEVNELLGDAGNSSENQLIKLREERAHL
LDNTERLERSSRRLEAGYQIAVETEQIGQEMLENLSHDRERIQRARERLRET
DANLGKSSRILT
GMLRRIQNRILLVILGIIVVITLTAITFFVRGH

>DP02207|P02808|#20-62

MKFLVFAFILALMVSMIGADSSEEKFLLRIGRFGYGYGPYQP
VPEQPLYPQPYQPQYQQYTF
>DP01471|P36118|#1-322

MAIKKRNKIRLPSGSPEEVGIDGSAHKPMQQIKPLVSNDSEDDNDICVLQPIKKV
PKRDIT
FDGEQAIKEDNSHYEDLYHSKKNTNASTRNKDDL
LILNME^DLMEGNHLLSDSSEAGSSSEG
EHISSIPTRG^EIAKLKAQKSLSRKISESDV
TERDYV
KLLSEDKREIMETIRLNGGLKR
NNEK
EITNFSDDEM^DMQGFQDEM^DALTDNQIAIQKDSRK
II
EKAINEVPYRT
NEEWETQLLSKG
NINKS
NEKIITPLVLF
PDDDES
GNSIERINEMVSKICLQRKKV
EMRLQALEKT
KIDLEKS
KASLINKLI
GN

>DP00884|P50106|#1-16 #49-79 #101-137

MMKGSRRTGNNATTLNTPVVIHATQLPQHVSTDEVLQFLESFIDEKENIIDSTMNTISGNA
ADADAAA
VANTSLNIDTNLSSSIQLKRIQRDFKGLPPAQDFSA
APIQVSTTEKKETSIGVSAT
GGKKT
TA
FADE

>DP00389|P09983|#962-1023

MPTITAAQIKSTLQSAKQSAANKLHSAGQSTKDALKKAAE
QTRNAGNR
LILLIPKDYKGQGS
SLNDLV
RTADELGIEVQYDEKNGTAITKQVFGTA
EKLIGLTERGV
TIFAPQLDK
LHQKYQKAG
NKLGGSAENIGDNLGKAGSVL
STFQNFLGT
ALSSMK
KIDE
LIK
KKQKSGGN
VSS
SELAK
ASIELIN
QLVDTA
ASLNN
VNSFS
SQLN
KLG
SVLS
NTK
HLNG
VGN
KLQ
LPN
LDN
IGAGL
DTV
SGIL
SAIS
ASFILSN
ADADT
GT
KAA
AG
VEL
TTK
VLGN
VGK
GIS
QY
II
AQRA
QGL
STS
AAA
AGL
IAS
VVT
L
AISPL
SFL
SIAD
KF
KRANK
IEE
YSQR
FK
KLGY
DGD
SLL
AAF
HKET
GAID
ASL
TRIST
V
LAS
VSSG
ISAA
ATT
SLV
GAP
V
ALV
GAV
T
GI
IS
GILE
ASK
QAM
FEH
V
ASK
MADV
IA
WEK
KH
G
KNY
FEN
GYD
ARHA
AFLED
NF
KIL
SQ
YN
KEY
S
VER
SV
LIT
T
QQH
W
DTL
IG
E
AG
V
TR
NG
DK
T
LS
G
K
SY
ID
YYEE
GKR
LEKK
P
DEF
Q
KQV
FD
PL
KGN
ID
L
SD
SKS
S
T
LL
K
F
V
T
PL
T
PG
GEE
IR
ERR
R
QSG
K
YE
Y
IT
ELL
V
KG
VD
K
WT
V
KG
V
QD
KG
S
V
D
Y
S
N
L
I
Q
H
A
S
V
G
N
Q
Y
R
E
I
R
I
E
H
L
G
D
G
D
D
K
V
F
L
S
A
G
S
A
NIY
AG
KG
HD
V
YY
D
KT
D
G
Y
L
T
I
D
G
T
K
A
T
E
A
G
N
Y
T
V
T
R
V
L
G
G
D
V
K
V
L
Q
E
V
V
K
E
Q
E
V
S
V
G
K
RTE
KT
TQ
YR
SY
E
F
T
H
I
N
G
K
N
L
T
E
D
N
L
Y
S
V
E
E
L
I
G
T
T
R
A
D
K
F
F
G
S
K
F
A
D
I
F
H
G
A
D
G
D
D
H
I
E
G
N
D
R
L
Y
G
D
K
G
N
D
T
L
S
G
G
N
D
D
Q
L
Y
G
G
D
G
N
D
K
L
I
G
G
A
G
N
Y
L
N
G
G
D
D
E
L
Q
V
Q
G
N
S
L
A
K
N
V
L
S
G
G
K
N
D
K
L
Y
G
S
E
G
A
D
L
L
D
G
G
E
G
N
D
L
L
K
G
G
Y
G
N
D
I
Y
R
Y
L
S
G
Y
G
H
I
I
D
D
G
G
K
D
D
K
L
S
A
G
T
P
D
S
L
K
A
L
E
Y
Q
Q
S
N
N
K
A
S
Y
V
Y
G
N
D
A
L
Y
G
S
Q
G
N
L
N
P
L
I
N
E
I
S
K
I
I
S
A
A
G
N
F
D
V
K
E
E
R
A
A
A

SLLQLSGNASDFSYGRNSITLTASA
>DP00722|P0AGE2#113-178
MASRGVNKVILVGNLGQDPEVRYMPNGAVANITLATSESWRDKATGEMKEQTEWHRVVL
FGKLAEVASEYLRKGSVYIEGQLRTRKWTDQSGQDRYTTEVVNVGGTMQMLGGRQGGG
APAGGNIGGGQPQGGWGQPQQPQGGNQFSGGAQSRPQQSAPAAPSNEPPMDFDDDIPIF
>DP01884|Q9UKT5|#242-271
MAGSEPRSGTNSPPPPFDWGRLEAAILSGWKTFWQSVSKERVARTTSREEVDEAASLTRLP
IDVQLYILSFLSPHDLCQLGSTNHYWNETHVNETVRDPILWRYFLLRDLPSWSSVDWKS LPDLEILKK
PISEVTDGAFFDYMAVYRMCCPYTRRASKSSRPMYGAVTSFLHSLIQNEPRFAMFGPGLEEL
NTSLVLSMSSEELCPTAGLPQRQIDGIGSGVNFQLNNQHKFNILILYSTRKERDRAREEHTS
AVNKMFSRHNEGDDQQGSRYSVTPQIQKVCVVVDGFIYVANAEEAHKRHEWQDEFSHIMAMT
DPAFGSSGRPLLVLSCISQGDVKRMPCFYLAHELHLNLLNHPWLVQDTEAETLTGFLNGIEWI
LEEVESKRAR
>DP00600|P60723#41-103
MELVLKDAQSALTSETTGRDFNEALVHQVVVAYAAGARQGTRAQKTRAEV TGSGKKPW
RQKGTGRARSGSIKSPIWRSGGVTFAARPQDHSQLVKKMYRGALKSILSELVRQDRLIVVE
KFSVEAPKTKLLAQKLKDMAEDVLIITGELDENLFLAARNLHKVDVRDATGIDPVSLIAFDK
VVMTADAVKQVEEMLA
>DP00027|P26477#1-40 #41-97
MSIDRTSPLKPVSTVQTRETS DTPVQKTRQE KTS AATSASVTLSDAQAKLMQPGVSDINMER
VEALKTAIRNGELKMDTGKIADSLIREAQSYLQSK
>DP00438|Q05158#68-117 #175-194
MPNWGGGNKCGACGRTVYHAEEVQCDGRSFHRCFLCMVCRKNLDSTTVAIHDAEVYCKS
CYGKKYGPKGYYGQGAGTLNMDRGERLGIKPESSPSHRPTNPNTSKFAQKFGGAEKCSR
CGDSVYAAEKVIGAGKPWHKNCRCAKCGKSLESTTLTEKEGEIYCKGCYAKNFGPKGFGY
GQGAGALVHAQ
>DP00133|P03422#1-300 #358-375
MAEEQARHVNGLE CIRALKAEPIGLAIEEAMA AWSEISDNPGQERATCREEKAGSSGLSKP
CLSAIGSTEGGAPRIRGQGPGESDDDAETLGIPPRNLQASSTGLQCYYVYDHSGEA VKG IQDA
DSIMVQSGLDGDSL SGGDNESEN D VD IGE PD TEG YAITDRGSAPI MGFRASDVETAEGGEI
HELLRLQSRGNNF PKLGKTLNVPPPDPGRASTSGTPIKKGTERRLASFGTEIASLLGGATQC
ARKSPSEPGPGAPAGNVPECVSNAALI QEWT PES GTT IS PRSQ NNEEGGDYYDEL FSDVQDI
KTALAKIHEDNQKII SKLES LLLL KGEVESIKKQINRQNISISTLEGHLS SIMIAIPGLGKD PNDPT
ADVEINPDLKPIIGRDSGRALAEV LKKPVASRQLQGMTNGRTSSRGQLKEFQLKPIGKKMSS
AVGFVPDTGPASRSVIRSIIKSSRLEEDRKRYLMTLDDIKGANDLAKFHQMLMKIIMK
>DP00871|A4ZNR2#1-121
MDPNTVSSFQDILLRMSKMQL ESS EDLNGMITQFESLKL YRDSLGEAVMRMGDLHSLQNRN
EKWREQLGQK FEEIRWLIEEVHKLKITENSFEQITFMQALHLLVEQEIRTFSFQLI
>DP01310|Q8WUP2#1-85 #5-19
MASKPEKRVASSV FITLAPP RRDVA VAE EVRQAVCEARR GRPWEAPAPMKTPEAGL AGRSP
WTTPGRAAATVPAAPMQLFNGGCP PPPVLDGEDVLPDLDL LPPPPP VLLPSEE APAPM
GASLIADLEQLHLSPPPPPQAPAEGPSVQPGPLRPMEELPPP PAEPVEKGASTDICA FCHKTV
SPREL AVEAMKRQYHAQCFTCRT CRRQLAGQSFYQKDGRPLCEPCYQDTLERCGKC GEVVR
DHIIRALGQAFHPSCFTCVTCARCIGDES FALGSQNEVYCLDDFYRKFAPVCSICENPII PRDGK
DAFKIECMGRNFHEN CYRCEDC RILLSVEPTDQGCYPLNNH LFCKPCHV KRSAAGCC
>DP01669|Q26680#206-218
MGCSASKDTTNSKDGAA SKGGKD GTTADR KVA WERIRCAIP RDKDAE SKSRRIEL FKQFD T

NGTGKLGREVLDGCYGILKLDEFTHLPDIVQRAFDKAKDLGNKVKGVGEEDLVEFLEFRL
MLCYIYDIFELTVMFDTMDKDGSLLLELQEKEALPKLKEWGVDIRATTVFNEIDTNGSGV
VTFDEFSCWAVTKKLQVCGDPGEENGANEGRN
>DP00531|Q08655|#1-115
MEEEKHHHHHLFHDKAEEGPVDYEKEIKHHKHLEQIGKLGTVAAAGAYALHEKHEAKKD
PEHAHKHKIEEEIAAAAAGAGGFAFHEHHEKKDAKKEEKKLRGDTTISSKLLF
>DP01494|Q9VMA3|#340-361
MQMAEAEQENGAGALKIATNAGATDRPAHQQLPLPVEDQQDEVLTPEAKGKFYPPPPPPT
PVQAPLATKATALNASQEHDDEANSEKWEDPCAPPPLPTSAFLATGLGYLKLPFKLK
DALEKAITKLEANKRTLKASPESSRSIKKNVVALEMPRRSNPETIGDGSMLASTSTAVMLQ
TKKPAVIVEMERRCKIINLLAKQNQILESISGEAIPMHGSKHLHEDEGLTLQVLSARASTPYT
QPSSMLSCTAVCDLEHDSPRKQVASKEAVPEQSSQVQQKRPPSTGIHKPGSLRAPKAVRPT
TAPVVSSKPVKSYTRSRLMDIRNGMFNALMRSKESFVMPRIATCDDIELEGRLRMMNIWRT
SDGTRFRTRSTTANLMNNNNNECMPAFFKNKNKPNLISDESIQSQQPPQTEFQDPAIVN
QRRIGSGRLNHSKWGYNDEDYHSYHNGKSQHMEEVNSKNSKNMTVLQFFDNGEISSQPQRR
PNTPVMGMSINRSENDTLHSNESSEDLSRANENYVKRVMMSGFLVVSKPKSRDVEDRHRRY
RNQNEEPEWFSCGPTSRLDTIELCFGDEDEEKMLKEGNKNHGLGETERETSKQKMDHKYKW
THAEPMGRSKYMPKHDTNNNHNVENMNNVMATEHQHQKEEKRPGSGRSFQFDKFNQSQQ
NYESSSYVNHQQQPTQPQQMQQSNTNTNSKFMSFFANEGNSSSSLNEFFKQAINQGHG
NNPEQPKSLGHIGQMPSVDQLEAKWRRNSLNNVGETANKQTDFQKLIGSLSSAKPQSQAV
GYDAISNFIMQQQQYQQQQQQKQHIIQQQQQHTAFLSQLKAILGRADTQLLLRLTKGEIS
KHGLLVQLANPRLTDMRDREAITAVLQFTNTQQQQQQHKKQQLDMLSSTVIASQLQNLHNLAI
VQQTLAARQQPQHNPQTQAPHQLSQEDLQAHANVIMRNAVMKRKIEEQTSKLINGGAKHQA
QQQYLNRGQQRQARPDANSALLHALISGGNNHASGYPMNGQPQKIHHSNLRFGDNQNFQ
SFESNQPHFATQYKQQYQQSQQQHQQPQLNSLHQNNAGAVNSFNKAQMQAQSAISMLP
NSGDEFH
>DP01502|P33328|#1-91
MSSSVPYDPYVPPEESNSGANPNSQNKTAA LRQEIDDTVGIMRDNINKVAERGERLTSIEDKA
DNLAISAQGFKRGANVRKQMWWKDLKMRMCLFLVVIILLVVIIVPIVVF
>DP00929|P04608|#1-86
MEPVDPRLPWKHPGSQPKTACTNCYCKCCFHCQVCFITKALGISYGRKKRRQRRRAHQN
SQTHQASLSKQPTSQPRGDPTGPKE
>DP00822|Q885L4|#21-35 #100-130
MLVISNNVHLPDAEIELTAIRAGQAGGQNVNKVSSAMHLRFIDINASSLPPFYKERLLALNDSR
ITSDGVIVLKAQQYRTQEQRADALLRLSELIVNAAKVEKKRRPTRPLGSKTRRLESKSKRG
SIKAGRGVDF
>DP01747|P48788|#97-182 #98-182
MGDEEKRNRAITARRQHLKSVMLQIAATELEKEESRREAECQNYLAEHCPLLIPGSMSEVQ
ELCKQLHAKIDAEEEKYDMEVRVQKTSKELEDMNQKLFDLRGKFKRPLRRVRMSADAM
LKALLGSKHKVCMIDLRLANKQVKKEDTEKERDLRDVGDRKNIEEKSGMEGRKKMFESES
>DP01541|Q9DBZ9|#1-267
MAEPLLRKTFSLRGREKLPRKKSEAKDRGHPAQRSEPKPPEPEPRVLEGSQAGAEVPPSPET
PRSPTRGAYLQSLEPSSRRWVLLGGAKPPEEISLGPRTSSGE PAGEIWYNPIPEEDPRPPAPEPL
GSQLASSEPEGPNIQGAAPTSPPKTTSRTKSPGPARRLSMKMKLPELRRRLSLRSTRTGRDRE
RTAPAGSVISRYRLDSSVTPGQASVAGGSRSRGYLSGDSPERPGGPPSPTAFRPYEVGPS
ARTPPAALWGRSLSLHYGLGLRPSPGATPRDLCCLLQVDVARARTGPLRSGPDFLRLDHT
FHLELEAARLLRALVLAWDPGVRRHPCAQGTVLLPTIFRCQAAQQLAVRLEPQGFLYAKLT

LSEQQEAPATAEPRVGLPLQLLVEREQSPGVPLIIRKCVGQIECRGLRVVGLYRLCGSAAV
KKELRDAFEQDSAACVCLSEDVYPDINVITGILKDYLRELPTPLITQPLYQVVLEAMAQGHPSR
ASLGPEGTRGLLRCLPDVERATLTLLDHRLVSSFHNRMTPQNXAFCGPVLLPARQTPS
RPRLRSSGPVGTVSAVDFKRHIEVLHYLLQSWPDTRRPSDTPDGAVAPYLRPKRQPLHLPLAG
PEVVTRPRGRGGPESPPSNRYAGDWSVCGGDLLPCGRDFLSGPDYDHVTGSDSEEDDETGE
PRGTTDFEDEFDAPFNPHLNLKDFDALILDLERELSKQINVCL

>DP01025|P02619|#1-107

SFAGLKADVAALAAACSAADSFKHKEFFAKVGLASKSLDDVKKAFYVIDQDKSGFIEEDEL
KLFLQNFSPSARALTDAETKAFLADGDKDGDGMIGVDEFAAMIKA

>DP00462|P11157|#1-64 #353-390

MLSVRTPLATIADQQQLQLSPLKRTLADKENTPPTLSSTRVLASKAARRIFQDSAELSKAPT
NPSVEDEPLLRENPRRFVFPIEYHDIWQMYKKAEASFWTAAEEVDLSKDIQHWEALKPDERH
FISHVLAFFAASDGIVNENLVERFSQEVTARCFYGFQIAMENIHSEMSYSLIDTYIKDPKE
REYLFNAIETMPCVKKKADWALRWIGDKEATYGERVVAFAAVEGIGFFSGSFASIFWLKKRGL
MPGLTFSNELISRDEGLHCDFACLMFKHLVHKPAEQRVREIITNAVRIEQEFLTEALPVKLIGM
NCTLMKQYIEFVADRLMLELGFNKIFRVENPFDFMENISLEGKTNFFEKRVGHEYQRMGVMSN
STENSFTLDADF

>DP02117|A0A045GWT8|#1-50 #21-59

MAQEQTKGRRGGGGDDDDIAGSTAAGQERREKLTEETDDLDEIDDVLEENAEDFVRAYVQK
GGQ

>DP02069|P38919|#1-20 #1-21

MATTATMATSGSARKRLKEEDMTKVEFETSEEVDVTPTFDLGLREDLLRGYIAYGFEKPS
AIQQRAIKQIIKGRDVIAQSQSGTGKTATFSISVLQCLDIQVRETQALILAPRELAVQIQKGLL
ALGDYMNQVCHACIGGTNVGEDIRKLDYQHVAGTPGRVFDMIRRSLRTRAIKMLVLDE
ADEMLNKGFKEQIYDVYRYLPPATQVVLISATLPHEILEMTNKFMTDPIRILVKRDELTLEGIK
QFFVAVEREEWKFDLCDLYDTLTITQAVIFCNTKRKVDSLTKMREANFTVSSMHGDMPQ
KERESIMKEFRSGASRVLISTDVWARGLDVPQVSLIINYDLPNNRELYIHRIGRSGRYGRKGV
AINFKNDDDIRLRDIEQYYSTQIDEMPMNVADLI

>DP00140|P0A7L8|#1-85

MAHKKAGGSTRNGRDSEAKRLGVKRGGESVLAGSIIVRQRGTFHAGANVGCGRDHTLFA
KADGKVVKFEVKGPKNRKFISIEAE

>DP01111|Q13501|#341-386

MASLTVKAYLLGKEDAAREIRRSFCCSPEPEAEAAAGPGPCERLLSRVAALFPALRPGGF
QAHYRDEDGDLVAFSSDEELTMAMSYVKDDIFRIYIKEKKECRDHRPPCAQEAPRNMVHP
NVICDCNGPVVGTRYKCSVCPDYDLCSCVCEGKGLHRGHTKLAFPSFGHLSEGFSHSRWLR
KVKHGHFGWPGWEMGPPGNWSPRPRAGEARPGPTAESASGPSEDPSVNFLKNVGESVAAA
LSPLGIEVDIDVEHGGKRSRLTPVSPESSSTEKSSSQSSCCSDPSKPGGNVEGATQSLAEQM
RKIALESEGRPEEQMESDNCSSGGDDDWTHLSSKEVDPSTGELQLQMPSEGPSSLPSQEGP
TGLKEAALYPHLPPEADPRLIESLSQMLSMGSDEGGWLTRLQTKNYDIGAALDTIQYSKHP
PPL

>DP01762|P03714|#1-24 #46-62

MADFNLFDAAIARADETIRGYMGTSATITSGEQSGAVIRGVFDDPENISYAGQGVRVEGSSP
SLFVRTDEVRQLRRGDTLTIGEENFWVDRVSPDDGGSchlWLGRGVPPAVNRRR

>DP01881|P0C077|#85-95

MAYFLDFDERALKEWRKLGSTVREQLKKLVEVLESPRIEANKLRGMPDCYKIKLSSSGYRL
VYQVIDEKVVVFVISVGKRERSEVYSEAVKRIL

>DP01151|P03259|#1-266

MRTEMPLVLSYQEADDILEHLVDNFFNEVPSDDLYVPSLYELYDLDVESAGEDNNNEQAV
NEFPESLILAASEGLFLPEPPVLSVCEIGGECMPQLHPEDMDLLCYEMGFPCSDSEDEQDE
NGMAHVSASAAAAADREREERQLDHPELPGHNCKSCEHHRNSTGNTDLMCSLCYLRAYN
MFIYSPVSDNEPEPNSTLDGDERPSPPKLGSAVPEGVIKPVPQRVTGRRCAVESILDLIQEEER
EQTVPVDSLVRKRPRCN

>DP00512|P56210|#59-63 #76-91

MKLQIPAGKANPAPPVGPAQAGVNIMAFCKEFNARTADQAGLIIPVEITVFEDRSFTFITKT
PPAAVLLKKAAGIESGSGEPNRNKVATIKRDKVREIAELKMPDLNAASIEAAMRMIEGTARS
MGIVVED

>DP01661|P70444|#41-81

MDSEVNGSGLGAEHITDLLVFGFLQSSGCTRQELEVGLGRELPVQAYWEADLEDELQTDGSQ
ASRSFNQGRIEPDSESQEEIHNIARHQAQIGDEMHDHNIQPTLVRQLAAQFMNGSLSEEDKRNC
LAKALDEVKTAFPRDMENDKAMLIMTMLLAKKVASHAPSLLRDVFHTTVNFINQNLFSYVR
NLVRNEMD

>DP02475|Q86UE8|#191-391

MMEELHSLDPRRQELLEARFTGVGVSKGPLNSESSNQSLCSVGSLSDKEVETPEKKQNDQRN
RKRKAEPYETSQGKGTPRGHKISDYFEFAGGSAPGTSPGRSVPPVARSSPQHSLSNPLPRRVEQ
PLYGLDGSAAKEATEEQLPTLMSVMLAKPRLDTEQLAQRGAGLCFTVSAQQQNPSSTGS
GNTEHSCSSQKQISIQHRQTQSDLTIEKISALENSKNSDLEKKEGRIDLRLRANCDLRRQIDEQ
QKMLEYKERLNRCVTMSKKLLIEKSQKEMACRDKSMQDRLRLGHFTTVRGASFTEQW
TDGYAFQNLIKQQERINSQREEIERQRKMLAKRKPAMGQAPPATNEQKQRKSKTNGAENET
PSSGNTELKDTPALGAHSSLRLTAEYHEQEEIFKRLGLHKKEEAEIQAELERLERVRNLHI
RELKRIHNEDNSQFKDHPTLNDRYLLLHLLGRGGFSEVYKAFDLTEQRYVAVKIHQLNKNW
RDEKKENYHKHACREYRIHKELDHPRIVKLYDYFSLDTDSCFTVLEYCEGNDLDFYLKQHKL
MSEKEARSIIMQIVNALKYLNEIKPPIHYDLKPGNILLVNGTACGEIKITDFGLSKIMDDDSYN
SVDGMELTSQGAGTYWYLPPECFVGKEPPKISNKVDVWSVGVIFYQCLYGRKPFGNQSQ
QDILQENTILKATEVQFPPKPVVTPEAKAFIRRCLAYRKEDRIDVQQLACDPYLLPHIRKSVST
SSPAGAAIASTSGASNNSSSN

>DP00081|P51123|#11-77

MEMESDNSDDEGSIGNGLDTGILFGNIDSEGRLLQDDDGEGRRGGTFDAELRENIGSLSKLG
LDSMLLEVIDLKEAEPPSDDEEEEDARPSAVSASEGMSAFDALKAGVKREDGAVKAQDDAID
YSDITELSEDCPRTPPEETSTYDDLEDAIPASKVEAKLTKDDKELMPPSAPMRSGGGIEEP
AKSNDASSPSDDSKSTDSDKADRKLDTPLADILPSKYQNVDVRELFPDFRPKVLRFSRLFGP
GKPTSLPQIWRHVRKRRKRNQSRDQKTTNTGSDSPSDTEEPRKRGFSLHYAAEPTPAECM
SDDEDKLLGDFNSEDVRPEGPDNGENSDQPKVADWRFGPAQIWYDMLEVPDFSGEGFNYGF
TKKAATSSQPQLKDERRVKSPEDDVEDPSIADDALMVSQQLHWEDDVWDGNDIKAKVLQ
KLN SKTNAAGWLPSSGSRTAGAFSQPGKPSMPVGSGSSKQGSGASSKKAQQNAQAKPAEAP
DDTWYSLFPVENEELIYYKWEDEVIWDAQQVSKVPKPKVLTLPNDENIILGIPDDIDPSKINK
STGPPP KIKIPHVKKS KILLGKAGVINV LAEDTPPPP KSPDRDP FNISND TYYTPKTEPTLRL
KVGGNLIQHSTPVVELRAPFVPTHMGPMLRAFHRRPLKKYSHGPMAQSIPHPVPLLKTIAK
KAKQREVERIASGGDVFFMRNPEDLSGRGD DIVLA EFC EEEHPL INQV GMCS KIKN YYKRK
AEKDSGPQDFVYGEVAFAHTSPFLGILHPGQC IQAIENN MYRAPIY PHK MAH NDFL VIRTRNN
YWI RVNSI YTVG QECPL YEV PGPN SKRANN FTRD FLQV FIY RLF FWK S RDN P RR IRM DDI KQA
FPAHSESSIRKRLKQCADF KRTGM DS NWW VIKPEFR LPSEE EIR AMV S PEQCCAYFSMIAAEQ
RLKDAGYGEKFLFAPQEDDDEEAQLKLDDEV KVAPW NTTRAYIQAMRGKCLLQLSGPADPT
GC GEGFSYRV VP NKPT QTKEE QES QPKRS VT GTDAD LRLPLQRA KELL RQFKV PEEE IKKLS
RWE VIDVV RTLSTEKA KAGE EGMDKFSRGNRF SIAEH QERYKEEC QRI FDLQ NRVL ASSEVLS

TDEAESSASEESDLEELGKNLENMLSNNKKTSTQLSREREELERQELLRQLDEEHGGPSGSAGA
KGAKGKDDPGQQMLATNNQGRILRITRTFRGNDGKEYTRVETVRRQVIDAYIKIRTTKDEQ
FIKFATLDEQQKEEMKREKRRIQEQLRIKRNQERERLAQLAQNLQPGGMPTSLGDPKS
SGGHSHKERDSGYKEVSPSRKKFKLPDLKLKGACGVGHMRTNKACPLYSGMQSSLSQS
NPSLADDFDEQSEKEMTMDDDDLNVNDGTKVTLSSKILKRHGGDDGKRRSGSSGFTLKVP
RDAMGKKRVRGGDLHCDYLQRHNKTANRRRTDPVVVLSSILEIHNELRSMPDVSPFLFPV
SAKKVPDYYRVVTKPMQLQTMRREYIRQRRYTSREMFLEDLKQIVDNSLIYNGPQSAYTLAAQ
RMFSSCFELAEREDKLMRLEKAINPLLDDDDQVALSFIFDKLHSQIKQLPESWPFLKPVNKK
QVKDYYTVIKRPMLETIGKNEAHRYHSRAEYLADIELIATNCEQYNGSDTRYTKFSKKILE
YAQTQIEFSEHCGQLENNIAKTQERARENAPEFDEAWGNDDYNFDRGSRASSPGDDYIDVE
GHGGHASSNSNIHRSMAEAGSSHATAVRKPAPPGEVKRGRGRPRKQRDPVEEVKSQNP
VKRGRGRPRKDSLNASMSHTQAYFLDEDLQCSTDDEDDEEEEDFQEVSEDENNAASILDQGE
RINAPADAMDMFDPKNIKTEIDLEAHQMAEPIGEDDSQQVAEAMVQLSGVGYYYAQQQQ
DESMVDVDPNYDPSDFLAMHKQRQLGEPSSLQGAFTNFLSHEQDDNGPYNPAEASTSAASGA
DLGMDASMAMQMAPEMPVNTMNNMGIDDDLDISESDEEDDSRVRIKKEVFFDDGDYALQ
HQQMGQAASQSQIYMDSSNEPTLDYQQPPQLDFQQVQEMEQLQHQVMPPMQSEQLQQQ
QTPQGDNDYAWTF

>DP02504|P35828|#1-256

MAYTTAQLVTAYTNANLGKAPDAATTLDAYATQTGTGLSDAAALTNTLKVNSTTAV
AIQTYQFFTGVAPSAGLDLVDSNTNTNDLN DAYSKFAQENRFINFINSLATGAGAGATAF
AAAYTGVSYAQTVATAYDKIIGNAVATAAGVDVAAAVALSRQANIDYLTAFVRANTPFTA
AADIDLAVKAALIGTILNAATVSGIGGYATATAAMINDLSGALSTDNAAGVNLTAYPSSG
VSGSTLSLTGDTLTGTANNDFVAGEVAGAATLTVGDTLSGGAGTDVLNWVQAAVTAL
PTGVTISGIETMNVTSGAAITLNTSSGVTGLTALNTNTSGAAQTVTAGAGQNLTTAAQAA
NNVAVDGGANVTFASTGVTSGTTVGANSASGTVSVSVANSSTTTGAIAVTGGTAVTVA
QTAGNAVNTTLTQADVTVTGNSSTTAVTVQTAAATAGATVAGRNGAVTITDSAAASATT
AGKIATVTLGSFGAATIDSSALTVNLSGTGTSLGIRGALTATPTANTLTNVNGLTTGAI
DSEAAADDGFTTINIAGSTASSTIASLVAADATTNLISGDARVTITSHTAAALTGITVNSVGA
TLGAELATGLVFTGGAGADSILLGATTKAIVMGAGDDTVVSSATLGAGGSVNGGDGTDL
VANVNGSSFSADPAFFGGFETLRVAGAAAQGSHNANGFTALQLGATAGATTFTNVAVNVGLT
VLAAPTGTTVTLANATGTSDFVNLTSSAALAAGTVLAGVETVRIAATDTNTTAHVDTL
TLQATSAKSIVVTGNAGLNLTNTGNTAVTSFDASAVTGTGSAVTFVSANTVGEVVTIRGGA
GADSLTGSATANDTIIGGAGADTLVYTGGDTFTGGTGADIFDINAIGTSTAFVTTDAAVGD
KLDLVGISTNGAIADGAFGAATLGAATLAQYLDAAAAGDGSGTSVAKWFQFGGDTYVV
VDSSAGATFVSGADAVIKLTGLVLTTSAFATEVLTIA

>DP01440|P44228|#12-28 #54-84 #

MDKTCVVVQNRIKEGYRRAGFSFHLGDNLSAAVSESSQLAQLKADPRLVVQITETGSQEGGE
GLSKEPAGSDEQKQLRADPPSTDNTFTVEQLKAQLTERGITFKQSATKAELIALFAPADGEK
SEA

>DP01870|P84040|#22-102

MTGRGKGGKGLGKGGAKHRKVLRDNIQGITKPAIRRLARRGGVKRISGLIYEETRGVLKVF
LENVIRDAVTYTEHAKRKTVTAMDVVYALKRQGRTLYGFGG

>DP00259|P00703|#45-50 #70-74 #101-107

MRSLLILVLCFLPLAALGKVYGRCELAAAMKRLGLDNYRGYSLGNWVCAAKFESNFNTHAT
NRNTDGSTDYGILQINSRWWCNDGRTPGSKNLCNIPCSALLSSDITASVNCACKIASGGNGM
NAWVAWRNRCKGTDVHAWIRGCRL

>DP02269|Q9Y6K9|#1-43

MNRHLWKSQLCEMVPSGGPAADQDVLGEESPLGKPAMLHLPSEQGAPETLQRCLEENQEL
RDAIRQSNQILRERCEELLHFQASQREEKEFLMCKFQEARKLVERLGLEKDLKRQKEQALRE
VEHLKRCQQQMAEDKASVKAQVTSLLGELQESQRSLEATKECQALEGRARAASEQARQLE
SEREALQQQHSVQVDQLRMQGQSVEALRMERQAASEEKRKLAQLQVAYHQLFQEYDNHI
KSSVVGSERKRGMQLEDLKQQLQQAEALVAKQEVIDKLKEAEQHKIVMETVPLKAQAD
IYKADFQAERQAREKLAEKHELLQEQLQREYSKLKASCQESARIEDMRKRHVEVSQAPL
PPAPAYLSSPLALPSQRSPPEPPDFCCPKCQYQAPDMTLQIHVMECIE

>DP00166|P19429|#136-149 #192-210

MADGSSDAAREPRPAPAPIRRSSNYRAYATEPHAKKSKISASRKQLQLKLLLQIAKQELER
EAEERRGEKGRALSTRCQPLEAGLGFAELQDLCRQLHARVDKVDEERYDIEAKVTKNITEIA
DLTQKIFDLRGKFKRPTLRRVRISADAMMQALLGARAKESLDLRAHLKQVKKEDTEKENRE
VGDWRKNIDALSGMEGRKKKFES

>DP00151|P02547|#444-549

MSSFYSEPYYSTSYKRRYVETPRVHISSVRSGYSTARSAYSSYAPVSSSLVRRSYSSSSGLM
PSLENLDLSQVAIASNDLKSIRTQEKAQLQDLNDRFASFIERVHELEQQNKVLEAQLLVLRQK
HSEPSRFRALYEQEIRDLRLAAEDATNEKQALQGEREGLEETLRNLQARYEEVLSREDAEGR
LMEARKGADEAALARAELEKRIDSLMDEIAFLKKVHEEEIAELQAOQIQQYAQISVEMDVSSKPD
LSAALKDIRAQYEKLAAKNMQNAEEWFKSRTVTLESAAKNTDAVRAAKDEVSESRRLLKA
KTLEIEACRGMNEALEKQLQELEDQNADISAMQDTINKLENELRTKSEMARYLKEYQDLL
NVKMAVDIEIAAYRKLLGEETRLSFTSVGSLTTGYSQSSQVFGRSAYGGLQTSSYLMSTRSF
PSYYTSHVQEEQIEVEETIEAAKAEAKDEPPSEGEAEEEGKEKEEEAEAEAEAEAEQEEEEE
AAEKEESEEAKEEEQGEETKEAEEEEEEKKDEGAGEEQATKKKD

>DP00624|P35638|#116-168

MAAESLPFSFGTLSSWELEAWYEDLQEVLSSEDNGTYVSPPGNEEEESKIFTTLDPASLAWL
TEEEPEPAEVTSQSHPSPDSSQSSLAQEEEEEDQGRTRKRKQSGHSPARAGKQRMKEKEQE
NERKVAQLAEENERLKQEIERLTREVEATRRALIDRMVNHLQA

>DP02226|P24385|#1-24

MEHQLLCEVETIRRAYPDANLLNDRVLRAMLKAETCAPSVSYFKCVQKEVLPMSRKIVAT
WMLEVCEEQKCEEEVFPLAMNYLDRFLSLEPVKKSRLQLLGATCMFVASKMKETIPLTAEKL
CIYTDNSIRPEELLQMELLVNKLKWNLAMTPHDFIEHFLSKMPEAENKQIIRKHAQTFVA
LCATDVKFISNPPSMVAAGSVVAAVQGLNLRSPNNFLSYRLTRFLSRVIKCDPDCRACQE
IEALLESSLRQAQQNMDPKAAEEEEEEEVDLACTPTDVRVDI

>DP00111|P27577|#29-49 #244-301

MKAAVDLKPTLTIKTEKVVDLELFPSPDMECADVPLLTSSKEMMSQALKATFSGFTKEQQRL
GIPKDPRQWTETHVRDWVMWAVNEFLKGVDFQKFCMSGAALCALGKECFLEAPDFVGDI
LWEHLEILQKEDVKPYQVNGANPTYPECYTSDFYFISYGIEHAQCVPPSEFSEPSFITESYQTLH
PISSEELLSKYENDYPSVILQDPLQTDLQTDYFAIKQEVLTPDNMCLGRASRGKLGQQDSFE
SVESYDSCDRLTQSWSSQSSFNSLQRVPSYDSFDYEDYPAALPNHKPKGTFKDYVRDRADLN
KDKPVIPAAALAGYTGSQPIQLWQFLLELLTDKSCQSFISWTGDGWEFKLSDPDEVARRWGK
RKNPKMNYEKLSRGLYYYYDKNIIHKTAGKRYVYRFVCDLQSLLGYTPEELHAMLDVKPD
AD

>DP00750|Q38151|#68-126

MIEKDVVQILKAVSEFYPGRFQPDDLKGTVKAWHRVLAEYELEEMNNLTDYAKVNKFPP
VSDLKAQSEQRDRFIPSYEETQRILKEQAEAAAARNDPLQAAQEEENMRKIREMLGINRG
AR

>DP02481|P46674|#1-142 #720-805 #551-1301

MNTSFSGVPSTNFNFFKGHGNNNTSANSTVNNNSNFLNSNETKPSKNVFMVHSTSQKKSQ

QPLQNLSHSPSYTENKPDKKKYMINDAKTIQLVGPLISSPDNLGFQKRSHKARELPRFLINQE
PQLEKRAFVQDPWDKANQEKMISLEESIDDLNELYETLKKMRNTERSIMEEKGLVDKADSAK
DLYDAIVFQGTCLDMCPTFERSRRNVEYTYSYEKNPNDKKASRTKALKVFARPAAAAAP
PLPSDVRPPHILVKLDYIVDNLLTTLPESEGFLWDRMRSSIRQDFTYQNYSGPEAVDCNERIVR
IHLLILHIMVKSNEFSLQQELEQLHKSLLTSEIYDDVRSSGGTCPNEAEFRAYALLSKIRDHQ
YDENIQRLPKHIFQDKLVQMALCFRRVISNSAYTERGFVKTENCLNFYARFFQLMQSPSLPLL
MGFFLQMHLTDIFYALRALSHTLNKKHKPIPFIYLENMLLFNNRQEIIFCNYYSIEIINGDAA
DLKTLQHYSHKLSETQPLKKTYLTCLERRLQKTTYKGLINGGEDNLASSVYVKDPKKDRIPSI
ADQSFLMENFQNNYNEKLNQNSSVKPQINTSPKRVATRPNHFPFSQESKQLPQISQSHTLSTNP
LLTPQVHGDLSEQKQQQIKTVTDGGSPFVFDQSAQNSTVEASKAHMISTTSNGAYDEKLSSE
QEEMRKKEEQRIEEKTQLKKQENADKQVITEQIANDLVKEVVNSSVISIVKREFSEANYRK
DFIDTMRELYDAFLHERLYLIYMDSRAELKRNSTLKKFFEKWQASYSQAKKNRILEEKKR
EEIKLVSHQLGVPGFKKSTCLFRTPYKGNGNVSSFMLSSSDKNLIFSPVNDEFNKFATHLTISK
LWRPLEMQSIYYDNLTKKFPSNLT PANLFYAKDWTSLSNRWILSKFNLQTAQDSKKFSNNII
SSRIICIDDEYEPSDFSDLQLLIFNTGVTNPDFDLEMKLKDDGEELIKLITGISLNTNICFSLLIY
WESAENTLSESTIKHLLKLNRSKNYSSVIERIDLMLTEESPHKLEDKLSEISHSYVYKLTER
GKYDKTQRKRSLAGIHSRSTSQLQTTKDIDQKMKMKEKENKYQQQIGERNTYAHLESHID
ASPRSKKRKLPILLSTSHSSQFKTPLASRLNTSGSSTSPLPSHLAMKFRKNSRVTSLHTVLPVS
TPSHSNIPAAASFSGNNTTDIQSQQLIENQKSTS VYLNNSERILGNQEICQTPINPVTPLVDGA
DQGKEDIPDSILELKILDSVKKKVNN

>DP01337|Q96B02#136-145
MASMQKRLQKELLALQNDPPPGMTLNEKSVQNSITQWIVDMEGAPGTLYEGERKFQLFKFSS
RYPFDSPQVMFTGENIPVPHVYSNGHICLSILTEDWSPALSQSVCLSIISMLSSCKEKRPPD
NSFYVRTCNKNPKKTKWYHDDTC

>DP01782|Q53GG5|#107-273
MPQTIVLPGPAPWGFRLLSGGIDFNQPLVITRITPGSKAAAANLCPGDVILAIDGFGTESMTHAD
AQDRIKAAAHQQLCLKIDRGETHLWSPQVSEDGKAHPFKINLESEPQDGNYFEHKHNIRPKPFV
IPGRSSGCSTPSGIDCGSGRSTPSSVSTVSTICPGDLKVAAKLAPNIPLEMELPGVKIVHAQFNT
PMQLYSDDNIMETLQGQVSTALGETPLMSEPTASVPPESDVYRMLHDRNEPTQPRQSGSFR
VLQGMVDDGSDDRPAAGTRSVRAPVTKVHGGSGGAQRMPLCDKGSGIVGAVVKARDKYR
HPECFVCADCNLNLKQKGYFFIEGELYCETHARARTKPPEGYDTVTLYPKA

>DP01434|P31431#171-198
MAPARLFALLFFVGGVAESIRETEVIDPQDLLEGRYFSGALPDEDVVPGQESDDFELSGS
GDLDDLEDSMIGPEVVHPLVPLDNHIPERAGSGSQVTEPKKLEENEVIPKRISPVEESEDVSN
KVSMSSTVQGSNIFERTEVLAALIVGGIVGILFAVFLILLMYRMKKDEGSYDLGKKPIYKK
APTNEFYA

>DP01133|Q00987-11|#216-302
MVRSRQMCNTNMSVPTDGAVTTSQIPASEQETLVRPKPLLKLLKSVGAQKDTYTMKEVLF
YLGQYIMTKRLYDEKQQHIVYCSNDLLGDLFGVPSFSVKEHRKIYTMIRNLVVVNQQESSD
SGTSVSENRCHEGGSDQKDLVQELQEEKPSSHLVSRPSTSSRRRAISETEENSDELSGERQR
KRHKSDSISLSFDESLALCVIREICCERSSSSESTGTPSNPDLDAGVSEHSGDWLDQDSVSDQFS
VEFEVESLDSEDYSLSEEGQELSDEDDEVYQVTVYQAGESDTDSFEEDPEISLADYWKCCTSCN
EMNPPLPSHCNRCWALRENWLPEDKGKDGEISEKAKLENSTQAEEGFDPDCCKTIVNDSR
ESCVEENDDKITQASQSQESEDYSQPSTSSIIYSSQEDVKEFEREETQDKEESVESSLPLNAIEP
CVICOGRPKNGCIVHGTGHLMACFTCAKKLKKRNKPCPVCROPIOMIVLTYFP

>DP01788|P98177|#82-91 #86-96 #182-204

MDPGNNENSATEAAAIIIDLDPDFEPOSRRPSCTWPLPRPEIANOPSEPPVEPDLGKVTHTGRSS

EPILLPSRLPEPAGGPQPGILGAVTGRKGGSRRNAWGNQSYAELISQAIESAPEKRLTLAQIYE
WMVRTVPYFKDKGDSNSSAGWKNSIRHNLSLHSKFVHNEATGKSSWWMLNPEGGKSGK
APRRRAASMDSSKLLRGRSKAPKKPSVLPAPPEGATPTSPVGHFAKWSGPCSRNREEAD
MWTTFRPRSSNASSVSTRLSPLRPESEVLAEEIPASVSSYAGGVPPTLNEGLELLDGLNLTSS
HSLLSRSGLGSFLQHPGVTGPLHTYSSLFSPAEGPLSAGEGCFSSSQALEALLTSDETPPPAD
VLMTQVDPILSQAPTLLLGGPSSSKLATGVGLCPKPLEAPGPSSLVPTLSMIAPPPVMASAPI
PKALGTPVLTTPTEAASQDRMPQDLDLDMYMEMLECDMDNIISDLMDEGEGLDFNFEPDP
>DP00228|P07293|#724-760

MEPSSPQDEGLRKKQPKPLPEVLPRTTALFCLTLQNPLRKACISIVEWKPFTIILLTIFANC
VALAVYLPMPEDDNNSLNLGLEKLEYFFLTVFSIEAMKIIAYGFLFHQDAYLRSGWNVLDI
IVFLGVFTAILEQVNVIQSNTAPMSKGAGLDVKALRAFRVLRPLRLVSGVPSLQVVVLNSIFKA
MLPLFHIALLVLFMVIYIAIGLELFKGKMHCTCYIGTDIVATVENEKPSPCARTGSGRPCIN
GSECRRGGWPGPNGITHFDNFGFSMLTVQCITMEGWTDVLYWVNDAAIGNEWPWYFVTLI
LLGSFFILNLVLGVLSGEFTKEREKAKSRGTQKLREKQQLEEDLRGYMSWITQGEVMDVED
LREGKLSLEEGGSDTESLYIEEGLNKIIQFIRHWRQWNRVFRWKCHDLVKSRVFYWLVILI
LNTLSIASEHHNQPLWLTHLQDIANRVLLSLFTIEMLLKMYGLGLRQYFMSIFNRDCFVVCS
GILELLLVEGAMTPLGISVLCIRLLRLFKITKYWTSLSNLVASLLNSIRSIASLLLLLFLIIIFA
LLGMQLFGGGRYDFEDTEVRRSNFDNFPQALISVFQVLTGEDWNSVMYNGIMAYGGPSYPGV
LVCYFIILFVCGNYILLNVFLAIAVDNLAEAESLTSQAKAKAERKRKMSRGLPDKTEEKS
VMAKKLEQKPKGEIPTTAKLKVDDEFESNVNEVKDPYPSADFGDDEDEPEIPVSPRRPLA
ELQLKEKAVPIPEASSFFIFSPTNKVRVLCHRIVNATWFTNFILLFILLSSAALAAEDPIRAESVR
NQILGYFDIAFTSVFTVEIVLKMTTYGAFLHKGSFCRNYFNILDLLVVAVSLISMLESSTISVV
KILRVLVLRPLRAINRAKGLKHVVQCVFAIRTIGNIVLVTLLQFMFACIGVQLFKGKFFSC
NDLSKMTEECRGYYYVYKDGDTQMELRPRQWIHNDHFDNVLSAMMSLFTVSTFEGWP
QLLYRAIDSNEEDMGPVYNNRVEAMAIFIYIIIAFFMMNIFVGFIITFQEGETEYKNCELD
KNQRQCVQYALKARPLRCYIPKNPYQYQWVYVVTSSYFEYLMFALIMLNTICLGMQHYHQ
EEMNHISDILNVAFTIIFTLEMILKLLAFKARGYFGDPWNVDFLIVIGSIIDVILSEIDTFLASSG
GLYCLGGGCGNVDPDESARISSAFFRLFRVMRLIKLLSRAEGVRTLLWTFIKSFQALPYVALLI
VMLFFIYAVIGMQMFGKIALVDGTQINRNNNQTFPQAVLLFRCATGEAWQEILLACSYGK
LCDPESDYAPGEETYCGTNFAYYFISFYMLCAFLIINLFVAVIMDNFDYLTRDWSILGPHHL
DEFKAIWAEYDPEAKGRIKHLDVVTLLRIQPPLGFGKFCPHRVACKRLVGMNMPLNSDGT
TFNATLFALVRTALKIKTEGNFEQANEELRAIJKIWKRTSMKLLDQVPIPPGDETVGKFYA
TFLIQEHFRKFMKRQEYYGYRPKKDTVQIAGLRTIEEAAPEIIRRRTISGDLTAEEELERAM
EAAMEERIFRRTGGLFGQVDTFLERTNSLPPVMANQRPLQFAIEEMEELESPVLEDFPQDAR
TNPLARANTNNANANVAGNSNHSNNQMFSSVHCERFPGEAETPAAGRGA
LSHSHRALGP
HSKPCAGKLNQQLVQPGMPINQAPPAPCQQPSTDPPERGQRRSLTGS
LQDEAPQRRSEGST
PRRPAPATALLI
QEALVRGGLDL
TAA
DAGFVTAT
SQL
ADACQ
MEPEEV
EVAATE
LLKARES
VQGMASVPGSL
SRRSSL
GSLDQV
QGSQET
LIPPRP
>DP00880|O04311|#145-152

MAQKVEAGGGAGGASWDDGVHDGVRKVHVGQGQDGVS
INVVYAKDSQDV
EGGEHGKK
TLLGFETFEVDADDYIVAVQV
TYDNVFGQ
DSIITSITFNTFK
GKTSP
PYGETQ
KKFVL
DK
NGGKL
VG
FHGR
AGEALY
ALGAY
FATT
TTPV
TPAK
KLSA
IGG
DEGT
AW
DDGAY
DGV
KKV
YV
GQQ
QDG
ISAV
KFE
YN
GA
EN
IV
G
GE
HG
K
PT
LLG
FEE
FE
ID
Y
P
SE
Y
IT
A
VE
G
TY
DK
IF
G
SD
GL
IIT
MLRF
K
TN
Q
TS
AP
F
GLE
AG
TAF
EL
KE
EGH
K
IV
GF
HG
K
ASE
LL
HQ
FG
V
H
M
PL
TN
>DP02261|P13848|#79-97 #83-98

MPLKPEEH
DILN
KLLD
PELA
QSER
TEAL
QLRV
NYGS
FVSE
YNDL
TKS
HEK
LAA
E
K
DD
LIVS
NSKL
FRQIGL
TDK
QEED
HKK
ADI
SET
TIT
IED
LEAK

>DP00321|Q9UM07|#33-38 #55-65 #129-135 #158-171 #219-223 #313-319 #338-348 #371-387 #396-402
#516-521 #633-644

MAQGTLIRVTPEQPTHAVCVLGTLTQLDICSSAPEDCTSFSINASPGVVVDIAHGPAAKKSTG
SSTWPLDPGVETLTMKVASGSTGDQKVQISYYGPKTPPVKALLYLTGVEISLCADITRTGKV
KPTRAVKDQRTWTWGPCGQGAILLVNCDRDNLESSAMDCEDEVLDSEDLQDMSLMTLST
KTPKDFFTNHTLVHVARSEMDKVRVFQATRGKLSSKCSVVLGPKWPSPHYLMVPGGKHNM
DFYVEALAFPDTDFPGLITLTISLLDTSNLELPTEAVVFQDSVVFRVAPWIMTPNTQPPQEYAC
SIFENEDFLKSVTTLAMKAKCKLTICPEEENMDDQWMQDEMEIGYIQAPHKTLPPVFDSPRN
RGLKEFPIKRVMPGDPFGYVTRGPQTGGISGLDSFGNLEVSPPVTVRGKEYPLGRILFGDSCYPS
NDSRQMHQALQDFLSAQVQAPVKLYSDWLSVGHVDEFLSFVPAPDRKGFRLLASPRSCY
KLFQEQQNEGHEALLFEGIKKKQQKIKNLSNKTREHNSFVERCIDWNRELLKRELGLAE
SDIIDIPQLFKLKEFSKAEAFFPNMVNMLVLGKHLGIPKPGPVGINGRCCLEEKVCSLLEPLGLQ
CTFINDDFTYHIRHGEVHCGTNVRRKPFKWWNMVP

>DP01551|Q99523|#97-108

MERPWGAADGLSRWPHGLLLLLQLLPPSTLSQDRLDAPPAAPLPRWSGPIGVSWGLRA
AAAGGAFPRGGRWRSAPEGDEECGRVRDFVAKLANNTHQHFDDLRSVSLWVG DSTG
VILVLTTFHVPLVIMTFGQSCLYRSEDYGKNFKDITDLINNTFIRTEFGMAIGPENSGKVVLTA
EVSGGSRGGRIFRSSDFAKNFVQTDPFHPLTQMMYSPQNSDYLLALSTENGLWVSKNFGGK
WEEIHKAVALAKWGSNDNTIFFTTYANGSCKADLGAEELWRTSDLGKSFKTIGVKIYSFGLGG
RFLFASVMADKDTTRRIHVSTDQGDTWSMAQLPSVGQEKFYSILAANDDMVFMHVDEPGDT
GFGTIFTSDDRGIVYSKSLDRHLYTTGGETDFTNVTSLRGVYITSVLSEDNSIQTMITFDQGG
RWTHLRKPENSECDATAKNKNECSLHIHASYSISQKLNVPMAPLSEPNAGVIAHGSVGDAI
SVMVPDVYISDDGGYSWTKMLEGPHYYTILDGGIVIAIEHSSRPINVFKFSTDEGQCWQTYTF
TRDPIYFTGLASEPGARSMNISIWGFTESFLTSQWVSYTIDFKDILERNCEEKDYTIWLAHSTD
EDYEDGCILGYKEQFLRLRKSSVCQNGRDYVVTQPSICLCSLEDFLCDFGYYRPENDSKC
QPELKGDLEFCYLGYREEHLLTNGYRKIPGDKCQGGVNPVREVKDLKKKCTSNFLSPEKQNS
KSNSVPIILAIVGMLVTVVAGVLIVKKYVCGRFLVHRYSVLQQHAEANGVDGVDALDTAS
HTNKSGYHDDSDDELLE

>DP00069|P63027|#27-31 #40-67

MSATAATAPPAAPAGEEGGPPAPPPNLTSNRLQQTQAQVDEVVDIMRVNVDKVLERDQKLS
ELDDRADALQAGASQFETSAAKLKRKYWWKNLKMMIILGVICAIILIIIVYFST

>DP00807|Q84ZX5|#81-132

MAKCSYVFCAVLLIFIVAIGEMEAAGSKLCEKTSKTYSGKCDNKKCDKKCIEWEKAQHGAC
HKREAGKESCFCYFDCSKSPPGATPAPPAGAPPAAGGSPSPADGGSPPPPADGGSPVDGG
SPPPPSTH

>DP00303|P02185|#1-153

MVLSEGEWQLVLHWAKVEADVAGHGQDILIRLFKSHPETLEKFDRFKHLKTEAEMKASED
LKKHGVTVLTALGAILKKKGHHEAELKPLAQSHATKHKIPIKYLEFISEAIIHVLHSRHPGDFG
ADAQGAMNKALELFRKDIAAKYKELGYQG

>DP01427|Q01094|#200-301

MALAGAPAGGPCAPALEALLGAGALRLLDSSQIVIISAAQDASAPPAPTGPAAAPAAGPCDPDL
LLFATPQAPRPTPSAPRPALGRPPVKRRLDLETDHQYLAESSGPARGRHPGKGVKSPGEKS
RYETSLNLTTRKFLELLSHSADGVVDLNWAAEVLKVKQRRIYDITNVLEGIQLIAKKSKNHIQ
WLGSHTTVGVGGRLEGLTQLRQLQESEQQLDHLMNICTQLRLLSEDTDSQRLAYVTCQD
LRSIADPAEQMVMVIKAPPETQLQAVDSSENFQISLKSQGPIDVFLCPEETVGGISPGKTPSQE
VTSEEENRATDSATIVSPPPSSPSSLTDPSQSLLEQEPLLSRMGSLRAPVDEDRLSPLVAA
DSLLEHVREDFSGLLPEEFISLSPPHEALDYHFGLEEGEGIRDLFDCDFGDLTPLDF

>DP00926|Q9BQB4|#25-79 #110-133 #169-213

MQLPLALCLVCLLVHTAFRVVEGQGWQAFKNDATEIIPERGEYPEPPPELENNKTMNRAENG
GRPPHHPFETKDVSEYSCRELHFTRYVTDGPCRSAKPVTELVCSGQCGPARLLPNAIGRGKW
WRPSGPDFRCIPDRYRAQRVQLLCPGGEAPRARKVRLVASCKCKRLTRFHQNQSELKDFGTEA
ARPQKGRKPRPRARSAKANQAELENAY

>DP01433|P04052|#1657-1739

MSTPTDSKAPLRQVKRVQFGILSPDEIRRMSVTEGGVQFAETMEGGRPKLGGMDPRQGVID
RTSRCQTCAGNMTECPGHFGHIDLAKPVFHIGFITKTIKILRCVCFYCSKMLVSPHNPKIKEIV
MKSRGQPRKRQAYVYDLCKGKTICEGGEDMDLTKENQQPDPNKKPGHGGCGHYQPSIRRTG
LDLTAEWKHQNEDSQEKKIVVSAERVWEILKHITDEECFILGMDPKYARPDWMIVTLPVPP
LAVRPAVVMFGAAKNQDDLTHKLSDIKANNELRKNEASGAAAHVIQENIKMLQFHVATLV
DNDMPGMPRAMQKSGKPLKAIKARLKGKEGRIRGNLMGKRVDFSARTVTPDPNLRIDQVG
VPRSIAQNLTFPELVTPFNIDRMQELVRRGNSQYPGAKYIVRDNGERIDLRFHPKSSDLHLQC
GYKVERHRLRDDDLVIFNRQPTLHKMSMMGHRVKVLPWSTFRMNLSTSPYNADFDGDEMN
LHVPQSMETRAEVENIHIPRQIITPQANKPVMGIVQDTLTAVRKMTKRDVFITREQVMNLLM
FLPTWDAKMPQPCILKPRPLWTGKQIFSIIIPGNVNMRTHSTHPDEEDEGPYKWISPGDTKV
MVEHGELIMGILCKKSLGTSAGSLHICFLEGHDIAGRFYGNIQTVINNWLLFEGHSIGIGDTI
ADPQTYNEIQQAIIKKAKDDVINVQKAHNMELEPTPGNTLRQTFENKVNRLNDARDKTGGS
AKKSLTEYNNLKAMVVSGSKGSNINISQVIACVGQQNVEGKRIPYGFRKRTLPHFIKDDYGPE
SRGFVENSYLAGLTPSEFYFHAMGGREGLIDTAVKTAETGYIQRRLIKAMESVMVNVDGTVR
NSVGQLIQLRYGEDGLCGLVEFQNMPTVKLSNKSFEKRFKFDWSNERLMKKVFTDDVIKE
MTDSSEAIQELEAEWDRLVSDRDSLRLQIFPNGESKVVLPCNLQRMWIWNVQKIFHINKRLPTDL
SPIRVIKGVKTLLERCVITGNDRISKQANENATLLFQCLIRSTLCTKYVSEFRLSTEAFEWLV
GEIETRFQQAQANPGEMVGALAAQSLGEPATQM TLNTFHAGVSSKNVTLGVPRLKEIINISK
KPKAPSLTVFLTGGALARDAEKAKNVLCRLEHTTLRKVTANTAIYYDPDPQRTVISEDQEFVN
VYYEMPFDPTRISPWLRIELDRKRM TDKKLTMEQIAEKINVFGEDLNCIFNDDNADKLV
LRIRIMNNEENKFQDEDEAVDKMEDDMFLRCIEANMLSMDTLQGIEAIGKVMHLPQTDSK
KRIVITETGEFKAIGEWLLETDGTSMMKVL SERDVDPIRTSSNDICEIFQVLGIEAVRKSVEKE
MNAVLFYGLYVNYRHALLCDVMTAKGHLMAIRHGINRQDTGALMRCSEETVDVLM
AAAHAETDPMRGVSENIIMGQLPKMGTGCFDLLLDAEKCRFGIEIPNTLGNNSMLGGAAMFIG
GGSTPSMTPMTPWANCNTPRYFSPPGHVSAMTPGGPSFSPSAASDASGMSPSWSPAHPGSSP
SSPGPSMSPYFPASPSPVSPSYSPPTSPNYTASSPGGASPNSPSSPNYSPTSPLYASPRYASTTPNF
NPQSTGYSPSSSGYSPTSPVYSPTVQFQSSPSFAGSGSNIYSPGNAYSPSSSNYSPNSPSYSPPTSP
SYSPSSPSYSPTSPCYSPTSPSYSPPTSPNYTPVTPSYSPTSPNYSASPQYSPASPAYSQTVKYSP
TSPTYSPPSPSYDGSPGSPQYTPGSPQYSPASPQKYSPTSPLYSPSSPQHSPSNQYSPTGSTYSATS
PRYSPNMSIYSPSSTKYSPTSPYTPTARNYSPTSPMYSPTAPSHYSPTSPAYSPSSPTFEESED

>DP00420|Q96T21|#1-600 #776-854

MASEGPREPESEGIKLSADVKPVPRFAGLNVAWLESSEACVFSSAATYYPFVQEPPVTEQKI
YTEDMAFGASTFPPQYLSSIEITLHPYAYSPYTL DSTDQNVYSPGSQYLYNQPSCYRGFQTVKH
RNENTCPLPQEMKALFKKKTYDEKKTYDQQKFDSERADGTISSEIKSARGSHHLSIYAENSLK
SDGYHKRTDRKSRIIAKNVSTSKPEFEFTLDFPELQGAENNMSIEIQKQPKWGPVHSVSTD
LREVVKPAAVLSKGEIVVKNNPNEVTANAATNSPSCTREL SWTPMGYVVRQTLSTELSAAP
KNVTSMINLKTIASSADPKNVSIPSSEALSSDPSYNKEHIIHPTQSKASQGSDLEQNEASRK
NKKKKEKSTSKYEVLTQVEPPRIEDAEEFPNLAVASERRDRIETPKFQSKQQPQDNFKNNVKK
SQLPVQLDLGGLTALEKKQHSQHAKQSSKPVVSVGAVPVL SKECASGERGRRMSQMKT
HNPLDSSAPLMKKGKQREIPKAKKPTSLKKIILKERQERKQRLQENA VSPAFTSDDTQDGESG
GDDQFPEQAE SGPEGMDELISTPSVEDKSEEPPGT ELQRDTEASHLAPNHTTFPKIHSRRFRD

YCSQMLSKEVDACVTDLLKELVRFQDRMYQKDPVKAKTKRRLVLGLREVLKHLKLKKLKC
VIISPNCIKEIQSKGGLDDTLHTIIDYACEQNIPFVFALNRKALGRSLNKAVPVSVVGIFSYDGA
QDQFHKMVELTVAARQAYKTMLENVQQELVGEPRPQAPPSLPTQGPSCPAEDGPPALKEKE
EPHYIEIWKKHLEAYSGCTLEELESLEASTSQMMNLNL

>DP00913|A0A0J9X1Q5|#746-764

MKFGFIAHPTSLGLKRYVKMLDLLQRNSTEQHSGYTRELWERQNLVPFMNFARITSATGATC
EGVIKYMPPLVADEMLADARGIAARVVQGIEELAGDGAELVGLGGFTSIVGRRGEATAEKSPV
PVTSGNSLTTYAGYKALMQISWLEIRPEEEPVAVGYPGSICLALSRLLLAHGFSLHLLHRAG
NHDRSELLSHLPEEYHSRVTLTSDPEDLYPRCKLFAAAATSAGGVIDPARLQPGSIFIDVALPRDI
ASETRPARDDILIIDGGCVTATDAVKLGGESLNVTIKQQLNGCMAETIVLALENRRENFSLGR
YLAPEKVLEIGEIAERHGFFAYPLASYGERIDRQSVTNLKRYYHDIYAGESADAALPASRLA
FIDAVIAQTpareDTLDYHQQINPMMDFLKLQRCNVFRSAAGTQLYDDAGEAFLDMVA
GYGCLNLGHNPQPVNVNAALKNYLDAQGPNIQYISIPEQTAKLAEVLCRALPGNMGRVFFSNS
GTEAVEAAMKIAKASTGKPGIAYLRNSYHGKTLGALSITGRDKHRRYFTPLLDAMVEVPFGD
LAALREALNREDVGALMIEPIQGEVVHIPPAGYLQAVQQLCRETGVLLMVDEVQTGLGRT
GKLFACEWDGIEPDVLMMSKSLSGGLIPIGATLCRADLWQKAYGTADRFLVHSSTYGGGNLA
SVVALSALREILAQDLVGHAEGRMGAYFKQALSEIAARYPFVSEVRGRGLMLGIQFDQAFTGA
VNASAREFATRLPGDWHTTWKFLPDPVQAHLRAAMDRMEQALGEMFCMKFVTKLCQDHKI
LTFITANSSTVIRIOPPLIISKAEIDRFVGAFA TVCEELSTFLD

>DP01395|Q8B0H3|#1-60

MDNLTKVREHLKSYSRLDQAVGEIDEIEAQREEKSNEYELFQEDGSEEHTKPSYFQAADDSDT
ESEPEIEDNQGLFPDLEAEPVEGFQEPPLDYADEEVDIVFTSDWKQPELESNEHGKILRLAL
PEGLSGEQKSQWLTIKAVVQSAKYWNLAECTFEASGEVIMKERQMTPDVYKVTPVMNTH
PSQSEAVLDIWSLSKTSMTFQPKKASLQPLTISLEELFSSRGEFISVGGNGRMSHKDAILLGLR
YKKLYNQARVKYFL

>DP00220|P17810|#283-345

ALLKVKFDQKKRVKLAQGLWLMNWFSVLAGIIIFGLGLFLKIELRKRSVMNNSEHFVPPNS
LIGVGVLSCVFNSLAGKICYDALDPAKYAKWPWLKPYLAFCVLFNVVLFLVALCCFLLRGS
LESTLAHGLKNGMFKYRDTDTGRCFMKTIDMLQIEFKCCGNGFRDWFEIQWISNRYLDF
SSKEVKDRIKSNDGRYLVDGVPFSCCNPNSPRPCIQYQLTNNSAHYSYDHQTEELNLWLRG
CRAALLSYYSNLMNTTGAVTLLVWLFEVTITVGLRYLHTALEGMANPEDPECESEGWLLEKS
VPETWKAFLSVKKGKGNQVEAEGEDAGQAPAAG

>DP00969|Q02548|#1-30 #76-92

MDLEKNYPTPRTSRTGHGGVNQLGGVFVNGRPLPDVVRQRIVELAHQGVRPCDISRQLRVSH
GCVSKILGRYYETGSIKPGVIGGSKPKVATPKVVEKIAEYKRQNPTMFAWEIRDRLLAERVCD
NDTVPSVSSINRIIRTKVQQPPNQPVPASSHSIVSTGSVTQVSSVSTDAGSSYSISGILGITPSA
DTNKRKRDEGIQESPVPNGHSLPGRDFLRKQMRGDLFTQQQLEVLDRVFERQHYSIDFTTTEP
IKPEQTTEYSAMASLAGGLDDMKANLASPTPADIGSSVPGPQSYPIVTGRDLASTLPGYPPH
VPPAGQGSYSAPTLGMVPGSEFSGSPYSHPQYSSYNSWRFPNPGLLGSPYYYSAARGAA
PPAAATAYDRH

>DP02386|Q9NYB9|#156-513

MAELQMLLEEIPGGRRALFDSYTNLERVADYCENNYIQSADKQRALEETKAYTTQSLASVA
YLIINTLANNVLQMLDIQASQLRRMESSINHISQTVDIHKEKVARREIGILTTNKNTSRTHKIIAP
ANLERPVRYIRKPIDYTILDDIGHGVKWLLRFKVSTQNMKMGGLPRTTPPTQKPPSPMSGKG
TLGRHSPYRTLEPVRRPPVVPNDYVPSPTRNMAPSQSPVRTASVNQRNRTYSSSGSSGGSHPS
SRSSSRENSGSGSGVGPIAVPTPSPPSVFPAPAGSAGTPPLPATASAPAPLVPATVPSSTAPNA
AAGGAPNLADGFTSPTPPVVSSTPPTGHPVQFYSMNRPASRHTPPTIGGSLPYRRPPSITSQTL

QNQMNGGPFYSQNPVSDTPPPPPPVEEPVFDESPPPPPEDYEEEAAVVEYSDPYAEEDPPW
APRSYLEKVVAIYDYTKDKEDELSFQEGAIYVIKKNDDGWYEGVMNGVTGLFPGNYVESIM
HYSE

>DP01420|Q16543|#1-26 #343-378

MVDYSVWDHIEVSDDDETHPNIDTASLFRWRHQARVERMEQFQKEKEELDRGCRECKRKV
AECQRKLKELEVAEGGKAELRLQAEAQQLRKEERSWEQKLEEMRKKEKSMPWNVDTLSK
DGFSKSMVNTKPEKTEEDSEEVREQHKTFVEKYEKQIKHFGMLRRWDSQKYLSDNVHLV
CEETANYLVIWCIDLEVEEKCALMEQVAHQTIQMFILELAWSLKVDPRAFRQFFTAKTAD
RQYMEGFNDELEAFKERVRGRAKLRICKAMKEYEEEERKRLGPGGLDPVEVYESLPEELQK
CFDVKDQVMLQDAISKMDPTDAKYHMQRCDISGLWVPNSKASEAKEGEAGPGDPLLEAVP
KTGDEKDVS

>DP00463|Q9Z0U4#17-98

MLLLLLVPLFLRPLGAGGAQTPNATSEGCQIIHPPWEGGIRYRGLTRDQVKAINFLPVDEIEY
VCRGEREVVGPKVRKCLANGSWTDMTPSRCVRICSKSYLTLENGKVFLTGGDLPALDGar
VEFRCDPDFHLVGSSRSVCQGQWSTPKPHCQVNRTPHSERRAVYIGALFPMSGGWPGGQA
CQPAVEMALEDVNSRRDILPDYELKLIHHDSKCDPGQATKYLYELLYNDPIKIIILMPGCSVST
LVAEAARMWNLIVLSYGSSSPALSNRQRFPTFRTHPSATLHNPTRVKLFKGWKKIATIQQ
TTEVFTSTLDDLEERVKEAGIEITFRQSFSDPAVPVKNLKRQDARIIVGLFYETEARKFCEV
YKERLFGKKYVWFLIGWYADNWFKTYDPSINCTVEEMTEAVEGHITTEIVMLNPANTRSISN
MTSQEFVEKLTKLKRHPEETGGFQEAPLAYDAIWALALALNKTSGGGGRSGVRLEDFNYN
NQTITDQIYRAMNSSSFEGVSGHVVFADASGRMAWTLIEQLQGGSYKKIGYYDSTKDDLSWS
KTDKWIGGSPPADQTLVIKTRFLSQKLFISVSLSLGIVLAVVCLSFNIYNSHVRYIQNSQPN
LNNLTAVGCSLALA AVFPLGLDGYHIGRSQFPFVCQARLWLLGLGFSLGYSMFTKIWWVH
TVFTKKEEKKEWRKTLEPWKLATVGLLVGMDVLTIAWQIVDPLHRTIETFAKEEPKEDID
VSILPQLEHCSSKKMNTWLGEWSFAVSSDVQRRATVGGDSPICVWPAPESIFYGYKGLLL
GIFLAYETKSVSTEKINDHRAVGMAIYNVAVLCLITAPVTMILSSQDAAFAFASLAIVFSSYIT
LVVLFVPMRRLITRGEWQSETQDMKTGSTNNNEEKSRLLEKENRELEKIIAEKEERVSE
LRHQLQSRQQQLRSRRHPPTPPDPSGGLPRGPSEPPDRLSCDGSRVHLLYK

>DP01299|Q96273|#1-97

MQSAKEKISDMASTAKEKNIGGAKAQGHAEKTMARTKKEKKLAQEREKSKEAQAKADLH
QSKEAHAADAQVHGHHLPGHSTYPTATGANYPGGQI

>DP01665|Q5S1W7|#1-69

KKSGGGKSKTGGWNTGSNRNPYPGGPGNTGGSWGQQPYNPSCGYNKQWKPPKSNTNMK
SVAIGAAAGAIGGYMLGNAVGRMSYQFNPMESRYNDYYNQMPNRVYRPMYRGEYV
EDRFVRDCYNMSVTEYIICKPAEGKNNSELNQLDTTVKSQIIREMCITEYRRGS

>DP01344|Q13469|#131-294

MNAPERQPQPDGGDAPGHEPGGSPQDELDIFSLFDYEYLNPNEEPMNAHKVASPPSGPAYPDD
VLDYGLKPYSPLASLSGEPPGRFGEPRDRVGPQKFLSAAKPAGASGLSPRIEITPSHELIQAVGPL
RMRDAGLVEQPPLAGVAASPRFTLPVPGFEGYREPLCLSPASSGSSASFISDTFSPYTSPCVSP
NNGGPDDLCPQFNIPAHYSPRTSPIMSPRTSLAEDSCLGRHSPVPRPASRSSSPGAKRRHSCA
EALVALPPGASPQRSRSPSPQSSHVAPQDHGSPAGYPPVAGSAVIMDALSLATDSPCGIPPK
MWKTSPDPSPVSAAPSKAGLPRHIYPAVEFLGPCEQGERNSAPESILLVPPTWPKPLVPAIPIC
SIPVTASLPPLEWPLSSQSGSYELRIEVQPKPHRAHYETEGSRGAVKAPTGGHPVVQLHGYM
ENKPLGLQIFIGTADERILKPHAFYQVHRITGKTVTTSYEKIVGNTKVLEIPLEPKNNMRATID
CAGILKLRNADIELRKGETDGRKNTRVRLVFRVHIPESSGRIVSLQTASNPIECSQRSAHELP
VERQDTDSCLVYGGQQMILTGQNFTSESKVVTEKTTDGQQIWEMEATVDKDKSQPNMLFV
EIPEYRNKHIRTPVKVNFYVINGKRKRSQPQHFTYHPVPAIKTEPTDEYDPTLICSPHTGGLGS

QPYYQPQHPMVAESPCLVATMAPCQQFRTGLSSPDARYQQQNPAAVLYQRSKSLSPSLLGYQ
QPALMAAPLSLADAHRSQLVHAGSQGQSSALLHPSPTNQQASPVIHYSPTNQQLRCGSHQE
QHIMYCENFAPGTTRPGPPPVSQQQRLSPGSYPTVIQQQNATSQRAAKNGPPSDQKEVLPAG
VTIKQEQLDQTYLDDVNEIIRKEFGPARNQT

>DP01534|Q07889|#1141-1300

MQAQQLPYEFFSEENAPKWRGLLVPALKVQGQVHPTLESNDDALQYVEELILQLLNMLCQ
AQPRSASDVEERVQKSFPHPIDKWAIAADAQSAIEKRKRRNPLSLPVEKIHPPLLKEVLGYKIDHQ
VSVYIVAVLEYISADILKLGVNYVRNIRHYEITKQDIKVAMCADKVLMDMFHQDVEDINILSL
TDEEPSTSGEQTYYDLVKAFMAEIRQYIRELNLIKVREPFVSN SKLFSANDVENIFS RIVDIHE
LSVKLLGHIEDTVEMTDEGSPHPLVGSCFEDLAELA FDPYESYARDILRPGFHDRFLSQLSKP
GAALYLQSIGEGFKEAVQYVLPRL LAPVYHCLHYFELLQLEEKSEDQEDKECLKQAITALL
NVQSGMEKICSKSLAKRRLSESACRFYSQQMKKGQLAIKKMNEIQKNIDGWEGKDIGQCCNE
FIMEGTLTRVGAKHERHIFLFDGLMICCKSNHGQPRLPGASNAEYRLKEKFFMRKVQINDKD
DTNEYKHAFEIILKDENS VIFSAKSAE EKNNWMAALISLQYRSTLERMLDVTMLQEEKEEQM
RLPSADVYRFAEPDSEENIIFEENMQPKAGIPIIKAGTVIKLIERLTYHMYADPNFVRTFLTTYR
SFCKPQELLSLIERFEIPEPEPTEADRIAIENGDQPLSAELKRFRKEYIQPVQLRVNVCRHWVE
HHFYDFERDAYLLQRMEEFIGTVRGKAMKKWVESITKIIQRKKIARDNGPGHNITFQSSPPTV
EWHISRPGHETFDLLTLHPIEIARQLTLES LYRAVQPSLVGSVWT KEDKEINSPNLLKMIR
HTTNLTWFEKCIVETENLEERVERAVVSRIIEILQVFQELNNFNGVLEVVSAMNSP VYRLDHTF
EQIPSQRKKILEAHELSEDH YKKYLA KLRSINPPCVFFGIYLTNILKTEEGNPEV LKRHGKEL
INFSKRRKVAEITGEIQQYQNQPYCLR VESDIKRF ENLNPMGNSMEKEFTDYL FNKSLEIEPR
NPKPLPRFPKKSYPLKSPG VRPSNPRPGTMRHPTPLQ QEPRKISYSRIPESETESTASAPNSPR
TPLTPPPASGASSTTDVC SVFDSDHSSPFHSSNDTVFIQVTLPHG PRSASVSSISLT KGTDEV PVP
PPVPPRRRPESA PAESSPSKIMSKHLDSPPAIPPRQPTS KAYSPRYSISDR TSISDPPESPPLPPRE
PVRTPDV FSSPLHLQPPP GLKKSDHGN AFFPNSPSPFTPPPQTPSP HGTRRHLPSPLT QEV
LHSIAGPPVPPRQSTS QHIPKLPPKT YKREHTHPSMHRDGPPLEAHSS

>DP00291|Q9QXT8|#65-256

MQRTKEAVKASDG NLLGD PGRIP LSKRESIKWQRPRFTRQALMR CCLIKWILSSAAPQGSDSS
DSELELSTVRHQPEGLDQLQA QT KFTKKE LQSLYRGFKNECPTGLVDED TFKLIYSQFPQGD
ATTYAHFLN AFDADGN GAIHFEDFVVGLSILLRGTVHEKLWAFNL YDINKDG CITKEEML
AIMKSIYDMMGRHTY PILREDAPLEHVERFFQKMDRNQDG VVTIDE FLET CQKDENIMNSMQ
LFENVI

>DP00307|P51946|#1-10 #288-323

MYHNSSQKRHWTFSEEQLARL RADANRKFRCKA VANGKVL PNDPV FLEPHEEMTLCKYYE
KRLLEFC SVFKPAM PRSVVG TACMYFKRFYLN NSVMEYHPRIIMLTCAFLACKVDEFNVSSP
QFVG NLR EPLGQ EKALEQ ILEYELL LIQQLNFH LIVHNPYR PFEGLIDL KTRYPILE NPEILRK
TADDFLN RIAL TDAYLL YTPS QIAL TAIL S ASRAGIT M ESYLS E SMLKEN RTCLS QLL DIMKS
MRNLVKKYEPPRSEEVAVLKQKLERCHSAELALNVITKKRKGYEDDDYVSKSKHEEEEWT
DDDL VESL

>DP02004|Q92793|#674-1080 #1852-2057

MAENLLDGPPNPKRAKLSSPGFSANDSTDFGSLFDLENDLPDEI PNGGELG LLSGNL VPDA
ASKHKQLSELLRGGSGSSINPGIGNV SASSPVQQGLGGQAQGQPN SANMASLSAMGKSPLSQ
GDSSAPSLPKQA ASTSGPTPAASQALNPQ A QKQVGLATSSPAT SQTGP GICM NAFNQTHPGL
LNSNSGHSLINQASQGQAQVMNGSLGAAGRGRGAGMPYPTPAMQGASSV LAETLTQVSPQ
MTGHAGLNTAQAGGMAKMGITGNTSPFGQFSQAGGQPMGATGVNPQLASKQSMVNSLPT
FPTDIKNTSVTNPMSQM QT S VGI VPTQ A IATGPTADPEK RKLIQQQLVLL HAHK CQRREQ
ANGEVRACSLPHCRTMKNV L NHMTHCQAGKACQVAHCASSRQIISHWKNC TRHDCP VCLPL

KNASDKRNQQTILGSPASGIQNTIGSGTQQNATSLNPNPIDPSSMQRAYAALGLPYMNQP
QTQLQPQVPGQQPAQPQTHQQMRTLNPGLNNPMNIPAGGITTDQQPPNLISESALPTSLGATN
PLMNDGSNSGNIGTLSTIPTAAPPSTGVRKGWHEHTQDLRSHLVHKLVQAIFPTPDPAALK
DRRMENLVAYAKKVEGDMYESANSRDEYYHLLAEKIYKIQKELEEKRRSRHLHQGILGNQP
ALPAPGAQPPVIPQAQPVRPPNGPLSVNRMQVSQGMNSNPMSLGNVQLPQAPMGPRAAS
PMNHHSVQMNSMGSVPGMAISPSRMPQPPNMMGAHTNNMMAQAPAQSQFLPQNQFPSSGA
MSVGMGQPPAQTVSQGVQVPGAAALPNPLNMLGPQASQLPCPPVTQSPHLHPTPPPASTAAGMP
SLQHTTPPGMTTPQPAAPTQPSTPVSSSGQTPTPGSVPSATQTQSTPTVQAAAQAQVTPQHQ
TPVQPPSVATPQSSQQQPTPVHAQPPGTPLSQAAASIDNRVPTPSSVASAETNSQQPGPDVPL
EMKTETQAEDTEPDPGESKGEPRSEMMEEDLQGASQVKEETDIAEQKSEPMEVDEKKPEVK
VEVKEEEEESNSNTASQSTS P S Q R K K I F K P E E L R Q A L M P T L E A L Y R Q D P E S L P F R Q P V D P Q L L
GIPDYFDIVKNPMDLSTIKRKLDTGQYQEWPQYVDDVWLMFNNAWLYNRKTTSRVYKFCSK
LAEVFEQEIDPVMQSLGYCCGRKYEFSPQTLCCYGKQLCTIPRDAAYYSYQNRYHFCEKCF
EIQGENVTLGDDPSQPQTTISKDQFEKKNDLDPFVDCKECRKMHQICVLHYDIWPSG
FVCDNCLKKTGRPRKENKFSAKRLQTTRLGNHLEDRVNKFLRRQNHPAGEVFVRVVAASS
KTVEVKPGMKSRFVDSGEMSESFPYRTKALFAFEEIDGVDVCFGMHVQEYGSDCPPPNTTR
VYISYLDIHFPRCLRTAVYHEILIGYLEVKKLGVTGHIWACPPSEGDDYIFHCHPPDQK
IPKPKRQLQEWEYKKMLDKAFAAERIHDXDIFKQATEDRLTSAKELPYFEGDFWPNVLEESIKE
LEQEEEERKKEESTAASETTEGSQGDSKNAKKNNKTNKNKSSISRANKKPSMPNVSNDL
SQKLYATMEKHKEVFFVIIHLHAGPVINTLPIVDPDPLLSCDMGRDAFLT LARDKHWEFSS
LRRSKWSTLCMLVELHTQGQDRFVYTCNECKHHVETRWHCTVCEDYDLCINCYNTKSHAH
KMVKWGLGLDDEGSSQGEPSKSPQESRRLSIQRCIQLVHACQCRNANCSPSCQKMKRVV
QHTKGCKRKTNNGCPVCKQLIALCCYHAKHCQENKCPVFCNIKHKLRRQQQIQHRLQQAQ
LMRRRMATMNTNVPQQLPSPTSAPPGPTQQPSTPQTPQPPAQPQPSPVSMSPAGFPSVAR
TQPPTTVSTGKPTSQVAPPQAQPPAAVEAARQIEREAAQQQHLYRVNNINNSMPPGRTGMG
TPGSQMAPVSLNVPRPNQVSGPVMPSMPPGQWQQAPLPQQQPMGLPRPVISMQAQAAVAG
PRMPSVQPPRSISPSALQDLLRTLKSPSSPQQQQVNLKSNPQLMAAFIKQRTAKYVANQP
GMQPQPGLQSQPGMQPQPGMHQQQPSLQNLNAMQAGVPRPGVPPQQQAMGGLNPQQQALNI
MNPGHNPNMASMNPQYREMLRRQLLQQQQQQQQQQQQQQGSAGMAGGMAGHGQ
FQQPQPGGGYPPAMQQQQRMQQHLPLQGSSMGQMAAQMGLGQMGQPLGADSTPNIQQ
ALQQRILQQQQMKQQIGSPGQPNPMSPQQHMLSGQPQASHLPGQQIATLSNQVRSPAPVQS
PRPQSQPHSSPSPRIQPQSPHHVSPQTGSPHPGLAVTMASSIDQGHGNPEQSAMPLQLNTP
SRSALSSELSLVGDTTGDTLEKFVEGL

>DP01737|P9WKX3#1-35 #14-35 #160-174

MVIGLSTGSDDDDVEVIGGVDPRLIAVQENDSDESSLTDLVEQPAKVMRIGTMKQLLEEVRA
APLDEASRNRLRDIHATSIRELEDGLAPELREELDRLTLPFNEDA VPSDAELRIAQAQLVGWLE
GLFHGIQTALFAQQMAARAQLQQMRQGALPPGVGKSGQHGHGTGQYL

>DP01931|Q2YHF0#1475-1492 #1644-1654

MNQRKKVARPPNMLKRERNRSTPQGLVKRFSTGLFSGKGPLRMVLAFITFLRVLSIPPTAG
ILKRWGQLKKNAIKILTGFKEIGRMLNILNGRKRTITLLCLIPTVMAFHLSTRDGEPLMIV
AKHERGRPLLFKTTEGINKCTLIAMDLGEMCEDTVTYKCPLL VNTEPEDIDCWCNLTSAWVM
YGTCTSGERRREKRSVALTPHSGMLETRAETWMSEGAWKHAQRVESWILRNPGFALLA
GFMAYMIGQTGIQRTVFFILMLVAPS YGMRCVG VGNRDFVEG VSGG AWV DLV LEH GGC
TTMAQGKPTLDFELIKTTAKEV ALLRTYCIEASISNITTATRCPTQGEPYLKEEQDQQYICRRD
MVDRGWNGCGLFGKGGVVTCAKFSCSGKITGNLVQIENLEYTVVVT VHNGDTHAVGNDT
SNHGVTTATPRSPSVEVKLPDYGETLDCEPRSGIDFNEMILMKMKTWTLVHKQWFLDLP
LPWTAGADTLEVHNHKERMVTFKVPHAKRQDVTVLGSQEGAMHSALAGATEVDSGDGN

HMFAHLKCKVRMEKLRIKGMSYTMCSGKFSIDKEMAETQHGTTVVVKVYEGTGAPCKVPI
EIRDVNKEKVVGRIISSTPFAENTNSVTNIELEPPFGDSYIVIGVGDALTSHWFRKGSSIGKMF
ESTYRGAKRMAILGETAWDFGSVGGLLTSLGKAHVHQVFGSVYTTMFGGVSMVRILIGLLV
LWIGTNSRNTSMAMSCIAVGGITLFLGFTVHADMCAVWSGKELKCGSGIFVIDNVHTWTE
QYKFQPESPARLASAILNAHKDGVCIGIRSTRLENVWMWKQITNELNYVLWEGGHDLTVVAG
DVKGVLSKGKRALAPPVNDLKYSWKTWGKAKIFTPETRNSTFLVDGPDTSECPNERRAWN
LEVEDYGFGMFTTNIWMKFREGSSEVCDHRLMSAAIKDQKAHVADMGYWIESSKNQTWQIE
KASLIEVKTCLWPKTHTLWSNGVLESQMLIPKAYAGPISQHNYRQGYATQTVGPWHLGKLEI
DFGECPGTTVTIQEDCDHRGDSLRTTASGKLTQWCCRSCMPPLRFLGEDGCWYGMEIRP
LNEKEENMVKSQVSAGQGTSETFSMGLLCLTFVEECLRRVTRKHMILVVVTLCAIILGG
TWMDLLRALIMLGDMSGRMGGQIHLAIMAVFKMSPGYVLGIFLRKLTRETALMVGAM
TTVLSIPHDLMEFIDGISLGLILLKMVTHFDNTQVGLTALSFTIKSTMPLVMAWR
TIMAVLFV
VTIPLCRTSCLQKQSHWVEITALILGAQALPVYLMKGASKRSWPLNEGIMAVGLV
GSALLKNDVPLAGPMVAGGLLAAYVMSGSSADLSLEKAANVQWDEMADITGSSPIEV
KQDEDGSFSIRDVEETNMITLVKLALITVSGLYPLAIPVMTLWYMWQVKTQRSGALWDV
PSPAAAQKATLTEGVYRIMQRGLFGKTQVGVG
IHMEGVFHTMWVHVTRGSVICHESGRLEPSWA
DVRNDMISYGGWRLGDKWDKEEDVQVLAIEPGKNPKHVQTKPGLFKLTGEIGAVTLD
FKPGTSGSPIINRKGVIGLYGNGVVTKSGDYVS
AITQAERIGEPDYEVDEDIFRKKR
LTIMDLHP
GAGKTKRILPSIVREALKRR
LTLAPTRV
VAAEMEEALRGL
PIRYQTPAVK
SEHTGREIV
DL
MCHATFTTRLLSSTRVP
V
PNYNLIVMDEAHFTDPSSVAARGYISTR
V
EMGEAAA
IFMTATPPGTT
DPFPQSNSPIEDIEREIPERSWNTGFDW
ITDYQGKTVWFVPSIKA
GNDIANCLR
SGKKVIQLS
RKT
FDTEYP
K
T
L
TD
WDFV
V
TT
D
ISE
M
GAN
F
AGR
V
ID
P
R
R
C
L
K
P
V
I
L
T
D
G
P
E
R
V
I
L
A
G
P
I
V
T
P
A
S
A
A
Q
R
R
G
I
R
N
P
A
Q
E
D
D
Q
Y
V
F
S
G
D
P
L
R
N
D
E
D
H
A
H
W
T
E
A
K
M
L
D
N
I
Y
T
P
E
G
I
I
P
T
L
F
G
P
E
R
K
T
Q
A
I
D
G
F
R
L
R
G
E
Q
R
K
T
F
V
E
L
M
R
R
G
D
L
P
V
W
L
S
Y
K
V
A
S
A
G
I
S
Y
K
D
R
E
W
C
F
T
G
E
R
N
N
Q
I
L
E
E
N
M
G
L
I
E
K
T
D
F
G
F
Y
Q
A
K
T
E
T
T
I
L
D
V
D
L
R
P
A
S
A
W
T
L
Y
A
V
A
T
T
I
L
T
P
M
L
R
H
T
I
E
N
T
S
A
N
L
S
L
A
A
I
A
N
Q
A
A
V
L
M
G
L
K
G
W
P
L
H
R
M
D
L
G
V
P
L
L
A
M
G
C
Y
S
Q
V
N
P
T
T
L
A
S
L
V
M
L
L
V
H
Y
A
I
I
G
P
G
L
Q
A
K
A
T
R
E
A
Q
K
R
T
A
A
G
I
M
K
N
P
T
V
D
G
I
T
V
I
D
L
E
P
I
S
Y
D
P
K
F
E
K
Q
L
G
Q
V
M
L
L
V
C
A
G
Q
L
L
M
R
T
T
W
A
F
C
E
V
L
T
L
A
T
G
P
I
L
T
W
E
G
N
P
G
F
W
N
T
T
I
A
V
S
T
A
N
I
F
R
G
S
Y
L
A
G
A
G
L
A
F
S
L
I
K
N
A
Q
T
P
R
R
G
T
G
T
G
E
K
W
K
R
Q
L
N
S
L
D
R
K
E
F
E
E
Y
K
R
S
G
I
L
E
V
D
R
T
E
A
K
S
A
L
K
D
G
S
K
I
K
Y
A
V
S
R
G
T
S
K
I
R
W
I
V
E
R
G
M
V
K
P
K
G
K
V
V
D
L
G
C
R
G
G
W
S
Y
Y
M
A
T
L
K
N
V
T
E
V
K
G
Y
T
K
G
G
P
G
H
E
E
P
I
P
M
A
T
Y
G
W
N
L
V
K
L
H
S
G
V
D
F
Y
K
P
T
E
Q
V
D
T
L
C
I
G
E
S
S
N
P
T
I
E
E
G
R
T
L
R
V
L
K
M
V
E
P
W
L
S
S
K
P
E
F
C
I
K
V
L
N
P
Y
M
P
T
V
I
E
E
L
K
L
Q
R
K
H
G
G
S
L
V
R
C
P
L
S
R
N
S
T
H
E
M
Y
W
V
S
G
V
S
G
N
I
V
S
S
V
N
T
T
S
K
M
L
L
N
R
F
T
R
H
R
K
P
T
Y
E
K
D
A
D
L
G
A
G
T
R
S
V
S
T
E
K
P
D
M
T
I
I
G
R
R
L
Q
R
L
Q
E
E
H
K
E
T
W
H
Y
D
H
E
N
P
Y
R
T
W
A
Y
H
G
S
Y
E
A
P
S
T
G
S
A
S
S
M
V
N
G
V
V
K
L
L
T
K
P
W
D
V
V
P
M
V
T
Q
L
A
M
T
D
T
P
F
G
Q
Q
R
V
F
K
E
K
V
D
T
R
T
P
Q
P
K
G
T
R
V
V
M
T
T
A
N
W
L
W
A
L
L
G
R
K
K
N
P
R
L
C
T
R
E
F
I
S
K
V
R
S
N
A
I
G
A
V
F
Q
E
E
Q
G
W
T
S
A
S
E
A
V
N
D
S
R
F
W
E
L
V
D
K
E
R
A
L
H
Q
E
G
K
C
E
S
C
V
Y
N
M
M
G
K
R
E
K
K
L
G
E
F
G
R
A
K
G
S
R
A
I
W
Y
M
W
L
G
A
R
F
L
E
A
L
G
F
L
N
E
D
H
W
F
G
R
E
N
S
W
G
V
E
G
E
G
L
H
R
L
G
Y
I
L
E
D
I
D
K
K
D
G
D
L
I
Y
A
D
D
T
A
G
W
D
T
R
I
T
E
D
D
L
L
N
E
E
L
I
T
E
Q
M
A
P
H
H
K
I
L
A
K
A
I
F
K
L
T
Y
Q
N
K
V
V
K
L
R
P
K
G
A
V
M
D
I
I
S
R
K
D
Q
R
G
S
G
Q
V
G
T
Y
G
L
N
T
F
T
N
M
E
V
Q
L
I
R
Q
M
E
A
G
V
I
T
R
D
D
H
N
P
K
G
L
K
E
R
V
E
K
W
L
K
E
C
G
V
D
R
L
K
R
M
A
I
S
G
D
D
C
V
V
K
P
L
D
E
R
F
S
T
S
L
L
N
D
M
G
K
V
R
K
D
I
P
Q
W
E
P
S
K
G
W
K
N
W
Q
E
V
P
F
C
S
H
H
F
K
I
F
M
K
D
G
R
S
L
V
V
P
C
R
N
Q
D
E
L
I
G
R
A
R
I
S
Q
G
A
G
W
S
L
R
E
T
A
C
L
G
K
A
Y
A
Q
M
W
S
L
M
Y
F
H
R
R
D
L
R
L
A
S
M
A
I
C
S
A
V
P
T
E
W
F
P
T
S
R
T
T
W
S
I
H
A
H
H
Q
W
M
T
T
E
D
M
L
K
V
W
N
R
V
W
I
E
D
N
P
N
M
I
D
K
T
P
V
H
S
W
E
D
I
P
Y
L
G
K
R
E
D
L
W
C
G
S
L
I
G
L
S
S
R
A
T
W
A
K
N
I
Q
T
A
I
T
Q
V
R
N
L
I
G
K
E
E
Y
V
D
Y
M
P
V
M
K
R
Y
S
A
H
F
E
S
E
G
V
L
>DP01045|Q7DB66#60-85

MKKHINKLFLAAICLTVACKEQLYTGLTEKEANQMALLSNDNVSKEMDKSGNMTLSV
EKEDFVRAITILNNNGFPKKKFADIEVIFPPSQLVASPSQENAKINYLKEQDIERLLSKIPVIDC
SVSLNVNNNESQPSSAAVLVISSPEVNAPSVIQIKNLVKNSVDDLKLENISVVIKSSGQDG
>DP00154|P29353|#127-151 #286-291 #302-319
MDLLPPPKPKYNPLRNESLSSLEEGASGSTPPEELPSPSASSLGPILPLPGDDSTTLCFFPRMS
NLRLANPAGGRPGSKGEPEGRAADDGEGIVGAAMPDSGPLPLLQDMNKLSGGGRRTRVEGG
QLGGEWTRHGSFVNKPTRGWLHPNDKVMGPGVSYLVRYMGCVEVLQSMRALDFNRTQ
VTRE AISLVCEAVPGAKGATRRRKPCSRPLSSILGRSNLK FAGMPITLT VSTSSLNLMAADCK
QIANHHMQSISFASGGDPDTAEYVAYVKDPVNQRACHILECPEGLA QD VISTIGQAFELRF
KQYLRNPPKLVTPHDRMAGFDGSAWDEEEEPPDHQYYNDFPGKEPPLGGVVDMRLREGA
APGAARPTAPNAQT PSHLGATLPVGQPVGGDPEVRKQM PPPPCPGREL FDDPSYVNVQNL
KARQAVGGAGPPNP AING SAPRDLFDMKPFEDALRVPPP PQSVSMAEQLRGEWFHGKL
EEAELLQ LNGDFLV REST TPGQYVLTGLQSGQPKHLLVDPEGVV RTKDHRFESVSHL
MDNHLP IISAGSELCLQQPVERKL
>DP00028|Q13541|#1-55 #79-83 #84-118
MSGGSSCSQTPSRAIPATRRVVLGDGVQLPPGDYSTTPGGTLFSTTPGGTRIIYDRKFLMECRN
SPVTKTTPRDLPTIPGVTSPSSDEPPMEASQSHLRNSPEDKRAGGEESQFEMDI
>DP01791|A0ZWU1|#158-251
MNSLQKGSYKVIPGSSFSKNSNGLSIKYNFIPESVDPSSRRGVLEKAQEAYRLRPSTFDDDRP
HIFEGSCQRARNVDCVLFNAKTKFTLEHIDEIARLNALRNPKVSKTVPSNAITQSDNSQISES
KSTSQA VTTNSTRRKEKELEASKDGKIKPSSNTRYPAISSKGPI TDTNDEPDMEV
MELDDFAKELELGFDQEFNSIDDPSTVSQTA KPI SLRGLSSQERDYASSAQAEGISSASEDED
>DP01163|O14974|#1-40
MKMADAKQKRNEQLKRWIGSETDLEPPVVKRQTKVKFDDGAVFLAACSSGDTDEVKLL
HRGADINYANVDGLTALHQACIDDNVDMVKFL VENGANINQPDNEGWIPLHAAASCYLDI
AEFLIGQGAHV GAVNSEGDTPLDIAEEA MEELLQN EVNRQGV DIAARKEE RIMLDARQ
WLNSGHINDVRHAKSGGTALHVA AKGYTEVLKLLIQAGYDVNIKDYDGWTPLHAAHW
GKEEACRILVDNLCDMEMVNKGQTA FDVADE DILGYLEELQKKQNLHSEKRD
KKSPLIES TANMDNNQSQKTFKNKETLIIPEKNASRIESLEQEV DEEE EGKKDESSCS
SEEDE EDDSE SE AETDKTKPLASVTNANT SSTS QAAPVAVTTPTVSSGQATPTSPIKK
FPTTATKISPKEEERKDES PATWRLGLRKTGSY GALAEITASKEGQKEKD
TAGVTRSASSPRLSSLDNKEKEKDSKGTRL AYVAPTI PRR LASTSDIEE
KENRDSSSLRTSSYTRRK WEDDLKKNSSVNEG STYHKCSFGRR QDDLISSVP
STTPTVTSAGLQKSLLSSTTTKITTGSSAGTQSSTS
NRLWAEDSTEKEK DSVPTAVTIPVAPTVNAAASTT
LTTTAGTVSSTTEVRERRSYLTPV
DEESESQRKARS R QARQSSRSTQGVTL
DQLQEAEKTIGRSRSTRTREQENEKEKE
KQDKEKQEEKKESETSR EDEYKQKYSRTYDETYQ
RYPVSTSSSTPSSLSTMSSLYASSQLRPN
SLVGITSAYSRGIT KENEREGE
KREEKEGEDKSQPKSIRERRRPREK
RSTGVFWTQDS
DENEQEQQSDTEEGSN KKETQ
TDSISRYETSS
TSA GDRYDS
LLGRSGSY
SYLEERKP
YSSRLEK
DDSTDFKK
LYEQILAE NEKLKA
QLHDTNM
ELTDLK
LQLEKAT
QRQERF
ADRSL
LEMEK
RERRA
LERRI
SEMEE
ELKM LPDL
KADN
QRLKD
ENGAL
IRVIS
KLSK
>DP00342|P09883|#1-83
MSGGDGRGHNTGAHSTSGNINGGPTGIGVSGGASDGWSSENNPWGGSGSGIH
WGGS RGNGGGNGNSGGSGTGGNLSAVA
AAPVAFGFPA
LSTPGAGGLAVS
ISAS
ELSA
AAIAG
IIAKLK KVNL
KFTPGV
WLSS
LIPSE
IAK
DDP
NMMS
KIV
TSL
PADD
ITES
PV
SSL
PLD
KAT
VN
NV
RV
VD DV
KDER
QNIS
VVG
VPMS
VPV
DAK
PTER
PGV
FTAS
IPG
APV
LNIS
VND
STPA
V
QTL
SPG
V
TN
NTDK
DVR
PAG
FTQ
GGN
TRDA
VIR
FPK
DSGH
NAV
Y
V
SV
SDV
LSPD
QVK
QRQ
DEEN
RRQQ
EW
DATH
PVE
AAERN
YER
ARA
ELN
QAN
EDVAR
NQER
QAK
AVQ
VYNS
RK
SEL
DA
ANK
TL
ADA
IA

EIKQFNRFADPMAGGHRMWQMAGLKAQRAQTDVNNKQAAFDAAAKEKSDADAALSA
QERRKQKENKEKDAKDCLDKESKRNPKGATGKGPKGDKWLDDAGKDSGAPIPDRIADK
LRDKEFKSFDDFRKAVVEEVSKDPELSKNLPSNKSSVSKGYSFTPKNQQVGGRKVYELHH
DKPISQGGEVYDMDNIRVTTPKRHIDIHRGK

>DP01511|P32917#147-238

MMETPTDNIVSPFHNGSSTQYSGTLSRTPNQIELEKPSTLSPLSRGKKWTEKLARFQRSSAK
KKRFSPSPISSTSFSFSPKSRTVTSSNSGNEDGNLMNTPSTVSTDYLPQHPhRTSSLPRPNSNL
HASNSNLSRANEPPRAENLSDNIPPKVAPFGYPIQRTSIKKSFLNASCLCDEPISNRRKGEKIIE
LACGHLSHQECLIISFGTTSKADVRALFPCTKCKKDNTKAVQCIPENDELKDILISDFLIHKIP
DSELSITPQSFRFPPYSPLLPPFGLSYTPVERQTISQAPSLNPNLILAAPPKERNQIPQKKSNYTF
LHSPLGHRRIPSGANSILADTSVALSANDSISAVSNVRACKDETKTTLPLLRSYFIQILLNNFQ
EELQDW RIDGDYGLRLVDKLMISKDGQRYIQCWCFLFEDAFVIAEV DNDVDVLEIRLKNE
VFTPIANLRMTTLEASVLKCTLNKQHCADLSLDYIVQNINSDESTTVQKWISGILNQDFVFNE
DNITSTLPIIKNFSKDVGNGRHETSTFLGLINPNKVVVEGNVHDNDTVIIRRGTLSGECS
RQSTVDSIQSVLTTIISILKREKPDNLAIILQIDFTKLKEEDSLIVVYNSKALTIFARLQFCF
VDRNNYVLDYGSVLHKIDSLSISNLKSKSSSTQFSPIWLKNTLYPENIHEHLGIVAVSNMME
AKKSILFQDYRCFTSFGRRRPNELKIKVGYLNVDYSDKIDELVEASSWTFVLETLCYSFGLSFD
EHDDDDEEDNDDSTDNE LDNSSGSLSDAESTTIHIDSPFDNENATANMVNDRNLLTEGEHS
NIENLETVASSVQPALIPNIRFLSHSEEETNENENENDMPVLLSDMDKGIDGITRSSFSSLIE
SGNNNCPLHMDYI

>DP00334|Q00987#1-24

MCNTNMSVPTDGA VTTSQIPASEQETLVRPKPLLLKLLKSVG A QKDTYTMKEVLFYLQYIM
TKRLYDEKQQHIVYCSNDLLGDLFGVPSFVKEHRKIYTMYRNLVVVNQQESSDSGTSVSEN
RCHLEGGSDQKDLVQELQEEKPSSHLSVPSTSSRRAISETEENSDELSGERQRKRHKSDSI
SLSFDESALCVIREICCERSSSESTGTPSNPDLDAGVSEHSGDWLDQDSVSDQFSVEFEVESL
DSEDYSLSEEGQELSDEDDEVYQTVYQAGESD TD SFEEDPEISLAD YWKCTSCNEMNPLPS
HCNR CWALRENWL PEDKGDKKG EISEKAKLENSTQAEEGF DVPDC KKTIVNDSRESCVEEN
DDKITQASQSQESEDYSQPSTSSIIYSSQEDVKEFEREETQDKEESVESSLPLNAIEPCVICQGR
PKNGCIVHGKTGHL MACFTCAKKKKRNKPCVCRQPIQMIVLTYFP

>DP00169|P32882#432-445

MREIVHIQAGQCGNQIGAKFWEVISDEHIDPTGSYHGDSLQLERINVYYNEATGNKYVPR
AILVDLEPGTMDSVRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKES
ESCDCLQGFQLTHSLGGGTGSGMGTLLISKIREEYPDRIMNTFSVMPSPKVSDTVVEPYNATL
SVHQLVENTDETYCIDNEALYDICRTLKLTTPTYGDLNHLVSATMSGVTTCLRFPQLNADL
RKLAVNMVPFPRLHFFMPGFAPLTSRGSQQRALTVP ELTQQMFDSKNMMAACDPRHGRYL
TVAAIFRGRMSMKEVDEQMLNVQNKNSSYFVEWIPNNVKTAVCDIPRGLKMSATFIGNSTA
IQELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATADEQG
EFEEECEEDEA

>DP01670|Q9I1X7#1-31

MPSSKPLAEYARKRDFRQTPEPSGRKPRKDSTGLLRYCVQKHADASRLHYDFRLELDGTLKSW
AVPKGPCLDPAVKRLAVQVEDHPLDYADFE GSIPQGHYAGDVIVWDRAWTPLDDPREGL
EKGHLSFALDGEKLSGRWHLIRTNLRGKQS QWFLVKAKDGEARS LDRFDVLKERPD SVLSER
TLLPRHGEATPAARPARRGKSGGKTPMPEWIAPELASLVEQPPRGEWAYELKLDGYRLMS
RIEDGHVRLTRNGHDWTERLPHLEKALAGLGLQRSWLDGELVVLDEEGRPDFQALQNAFE
EGRGENILYVLF DLPYHEGEDLRDVALEERRARLEALLEGRDEDPLRFSATLAEDPR DLLASA
CKLGLEGVIGKRLGSAYRSRRSNDWIKLK CLRQEFIVGYTEPKGSRRHIGALLGLYSPDE
ERRLRYAGKVGSGFTAASLKKV RERLEPLAVRSSPLAKVPPARETGSVQWVRPQQQLCEVSYA

QMTRGGIIRQAVFHGLREDKPAREVTGERPAGPPPLRGARKASAGASRAATAGVRISHPQR LI
DPSIQASKLELAEFHARYADLLLRLRERPVSLVRGPDGIGGELFFKHAARLKIPGIVQLDPA
LDPGHPPPLLQIRSAEALVGAQMGSIEFHTWNASLANLERPDRFVLDDPDALPWKRMLEA
TQLSLTLLDELGLRAFLKTSGKGGMHLLVPLERRHGDEVKDFQAISQHLARLMPERFSAV
SGPRNRVGKIFVDYLRNSRGASTVAAYSVRAREGLPVSPVFREELDLQGANQWNLRSLPQ
RLDELAGDDPWADYAGTRQRISAAMRRQLGRG

>DP00180|P19972|#29-42 #208-222

MRKETLIGLAFITANVIAWSLRWRMQKSTTIAAIAGCSAATFGGLAGGIVGCIAAGILAILQG
FEVNWHNGGGGDRSNPVKRSSDSFSIVNHNGEKVDSYAHLPVGKVGKVIIDNIELSAIRYAN
NHTSLGYHFTSDSGPAARGEATTIWVGVADEAIDKGTSPSKNDLQNMSDLAKNGFKGHQG
VACSTVKDGNKDVMIKFSLAGGSNDPGGSPCSDD

>DP01590|Q92945|#130-218

MSDYSTGGPPPGPPPAGGGGGAGGGAGGGGGPAGDRGGGGPGGGGGAGGSPQP
PGGGGGIRKDAFADA VQRARQIAKIGGDAATTVNNSTPDFGFGQKRQLEDGDQPE SKKL
ASQGDSISSQLGPIHPPRTSMTEYRVPDGMVGLIIGRGEQINKIQQDSGCKVQISPDSGGLP
ERSVSLTGAPESVQKAKMMLDDIVSRGRGGPPGFHDNANGQNGTVQEIMIPAGKAGL VI
GKGGETIKQLQERAGVKMILIQDGSQNTVDKPLRIIGDPYKVQQACEMVMDILRERDQGGF
GDRNEYGSRIGGGIDVPVPRHSVGVVIGRSGEMIKKIQNDAGVRIQFKQDDGTGPEKIAHIMG
PPDRCEHAARIINDLLQSLRSGPPGPGMPGMPGGRGRGRGQGNWGPPGEMTSIPTHKCG
LVIGRGENVKAINQQTGA FVEISRQLPPNGDPNFKLIIRGSPQQIDHAKQ LIEEKIEGPLCPV
GPGPGPGPAGPMGP FNQGPNGPPGAPP HAGGPPHQYPPQGWGNTYPQWQPPAPHPSK
AAAAAAADPNAAWAAYYSHYYQQPPGPVPGPAPAPA APPAQGEPPQPPPTGQSDYTKAWE EY
YKKIGQQPQQPGAPPQ QDYT KAWEE YYKKQAQVATGGGPAPP GSQPDY SAAWA EYYRQQ
AAYYGQTPGPQGPQPPPTQQGQQQAQ

>DP02134|P0ABS5|#1-12

MAGRIPRVFINDLLARTDIVDLIDARVKLKKQGKNFHACCPFHNEKTPSFTVN GEKQFYHCFG
CGAHGNAIDFLMNYDKLEFVETVEELAAMHNLEV PFEAGSGPSQIERHQRQTL YQLMDGLN
TFYQQSQLQQPVATSARQYLEKRG LSHEVIARFAIGFAPPGWDNVLKRG FGNPENRQSLIDAG
MLVTNDQGRSYDRFRERVMFPIRDKRG RVIGFGGRVLGNDTPKYLNSPETDIFHKG RQLYGL
YE AQQDNAEPNRL LVVEGYMDVVALA QYGINYAVASLGTTADHIQLLFRATNNVICCYD
GDRAGRDAAWRALETALPYMTDGRQLRFMFLPDGEDPDTLVRKEGKEAFEARMEQAMPLS
AFLFNSLMPQVDLSTPDGRARLSTLALPLISQVPGETL RIYL RQELGNKLGI LDDS QLERLMPK
AAESGVSRPVPQLKRTTMRILIGLLVQNPELATL VPPL ENLDENKLPGLGLFREL VNTCLSQPG
LTGQ LLEHYRGTNNAATLEKLSMWDDIADKNIAEQFTDSL NHMFDSLLELRQEE LIARER
THGLSNEERLELWTLNQELAKK

>DP00339|P16442|#179-194

MAEV LRTL A GPKK CHALRPMILFLIMLVL VLFGYGVLS PRSLMPGS LERGFCMAVREP DHLQ
RVSLPRMVYPQPKVLTPCRKDVLVVTPWL APIVWE GTFNIDILNEQFRLQNTTIGLTVFAIKK
YVAFLKLFLETAEKHFMVGHRVHYYVFTDQPAVPRVTLGTGRQLSVLEV RAYKRWQDV S
MRRMEMISDFCERRFLSEVDYLVCVDVDM EFRDHVGVEILTPLFGTLHPGFYGS SREAFTYE
RRPQSQAYIPKDEGDFY LGGFFGGSVQE VQRLTRACHQAMMVDQANGIEAVWHDESHLN
KYLLRHKPTKVL SPEYLWDQQLLGWP AVLRKLRFTAVPKNHQAVRNP

>DP01524|Q9UM11|#1-41 #68-87 #109-124 #133-145

MDQDYERRLLRQIVI QNENTMPRVTEM RRTLTPASSPVSSPSKHGDRFIPS RAGANWSVN FHR
INENEKSPSQRKAKDAT SDNGKD GLAYSALLKNELLGAGIEKVQDPQTEDRRLQPSTPEKK
GLFTYSLSTKRSSPDDGNDVSPYSLSPVSNKSQKLLRSPRKPTRKISKIPFKVLD APELQDDFYL
NLVDWSSLNVLSVGLGTCVYLWSACTSQVTRLC DLSVEGDSVTSGW SERGNL VAVGTHK

GFVQIWDAAGKKLSMLEGHTARVGALAWNAEQLSSGSRDRMILQRDIRTPPLQSERRLQG
HRQEVCGLKWSTDHQLLASGGNDNKLIVWNHSSLSPVQQYTEHLAAVKAIAWSPHQHGLL
ASGGGTADRCIRFWNTLTGQPLQCIDTGSVCNLAWSKHANELVSTHGYSQNQILVWKYPS
LTQVAKLTGHSYRVLYLAMSPDGEAIVTGAGDETLRFWNVFSKTRSTKVKWESVSVLNLFT
RIR

>DP00193|P02754|#1-178

MKCLLLALALTCAQALIVTQTMGLDIQKVAGTWYSLAMAASDISLLDAQSAPLRVYVEE
LKPTPEGDLEILLQKWENGECAQKKIIAEKTIPAVFKIDALNENKVLVLDTDYKKYLLFCME
NSAEPEQSLACQCLVRTPEVDDEALEKFDKALKALPMHIRLSFNPTQLEEQCHI

>DP01859|Q5NJL5|#1-358

MAAMFTTRNAIFRFSKSFPNVPSLSPKPSRVFVASASHQSDWRNAADGKRNSMDWAYNS
TSKARQDAEIADRERKTLNGDVDSEDVKQYVRDAKERTKEAANRAAENADSAGVKSRDY
AYDAKEKTKDAANRAAENVESAGEKAKDYAYDAKERTKDAANRAAENAESVGEKARDYA
YDAKERTKEAAQNAGETAKDYAYGAKERTKEAAESAGGTARDYAYDATDKTKEAVGTV
DKTKEGAKKTAEMTKEGAEKTAETTGEVAGAATEALKSAGEMAKRTAQGAWETAKDATQ
KIKETVVGKDDDDNDRGGVGAVVDEYDVELKRKGYGESKGYDMSKGYGENKGYDQNRY
Y

>DP01651|Q96T88|#165-181 #286-301 #490-501 #646-678

MWIQVRTMDGRQTHTVDSLRLTKVEELRRKIQELFHVEPGLQRLFYRGKQMEDGHTLFDY
EVRLNDTIQLLVRQLVLPHSTKERDSELSDTSGCCLGQSESDDKSSTHGEAAAETDSRPADE
DMWDETELGLYKVNEYVDARDTNMGAWFEAQVVRVTRKAPSDEPCSSTSRALEEDVIY
HVKYDDYPENGVVQMNSRDVRARARTIWKWDLEVQVVMLYNPDPNPKERGFYWDAEIS
RKRETRTARELYANVVLGDDSLNDCRIIFVDEVFKIERPGEGSPMVNDNPMRRKSGPSCKHCK
DDVNRLCRVCACHLCGGRQDPDKQLMCDECDMAFIYCLDPLSSVPSEDEWCPECRNDA
SEVVLAGERLRESKKAKMASATSSQRDWGKGMACVGRTECTIVPSNHYGPIPPIPVGTM
WRFRVQVSESGVHRPHVAGIHGRSNDGAYSLVLAGGYEDDVHDHGNFTYTGSGGRDLNSGN
KRTAEQSCDQKLNTNRALALNCAPINDQEGAEAKDWRSGKPVRVVRNVGGKNSKYAP
AEGNRYDGIYKVVKYWPEKGKSGFLVWRYLLRRDDDEPGPWTKEGKDRIKKLGLTMQYPE
GYLEALANREREKENSKREEEEQEGGFASPRTGKGKWRKSAGGGPSRAGSPRRTSKKTK
VEPYSLTAQQSSIREDKSNAKLWNEVLASLKDRPASGSPFQLFLSKVEETFQCICCQELVFRP
ITTCQHNVKDCLDRSFRAQVFSCPACRYDLGRSYAMQVNQPLQTVLNQLFPGYGNR
>DP00135|P10961|#1-167

MNNAANTGTTNESNVSDAPRIEPLPSLNDDIEKILQPNDIFTTDRTDASTTSSTAIEDIINPSLD
PQSAASPVSSFFHDSRKSTSTHLVRRGTPLGIYQTNLYGHNSRENTPNSTLSSKLLAHPP
VPYGQNPDLQHavyRAQPSSGTNAQPRQTTRRYQSHKSRAFVNKLWSMLNDDSNTKLI
QWAEDGKSIVTNREEFVHQILPKYFKHSNFASFVRQLNMYGWHKVQDVKSGSIQSSDDK
WQFENENFIRGREDLLEKIIRKQGSSNNHNSPSGNGNPANGSNIPLDNAAGSNNNNISSNS
FFNNGHLLQGKTLRLMNEANLGDKNDVTAILGELEQIKYNQIAISKDLLLINKDNELLWQEN
MMARERHRTQQALEKMFRLTSIVPHLDPMIMDGLGDPKVNEKLSANNIGLNRDNTG
TIDELKSNDSFINDDRNSFTNATTNARNNMSPNDDNSIDTASTNTNRKKNIDENIKNNNDII
NDIIFNTNLANNLSNYNSNNNAGSPIRKYKQRYLLKNRANSSTSSENPSLTFDIESNNDRKISE
IPFDDEEEETDFRPFTSRDPNNQTSENTFDPNRFTMLSDDDKKDSHTNDNKHNESDLFWDN
VHRNIDEQDARLQNLENMVHILSPGYPNKSNNKTSSTNTNSMESAVNVNSPGFNLQDYLT
GESNSPNSVHSVPSNGSGSTPLMPNDNDTEHASTSVNQGENGSGLTPFLTVDHDHTLNDNNNTS
EGSTRVSPDIKFSAVENTKVDNLPSFNDHSYSTQADTAPENAKKRFVEEIPPEPAIVEIQDPTEY
NDHRLPKRAKK

>DP02340|A0A0H2W778|#21-112 #110-215

MRYNRNHMLTLMFSLLIFDAYANEPKVCFYMDDDYNGESLCAAQGNSVASIPDKWNDRISSI
SIPHGLVVTVYEDVDFLGASRSFEADVDLVSVDKDLIYLNDNISAFKIKKAVCFYGESNFTGDS
LCLSSGEQFDLYRGNYPERKQSHLVNPLNDEVYSIKIPGMQTTVYEDDDYNGKYFVLTEDY
TPDDLLIIRMNNKISSMRVSQDEDIFCDRFCSIKKSIKFKIQKSFGSYWIDPRIKYRDILLDFQLS
DTDDYSIKFFDEGLIKVKNYKLFFFNEKHGEGLFNLSDKSSNLSFLLRFNGFFFQIQFVES
LNNEIVYSSPLIGTLFDDANSVDIFDINVDANSPIVIDKMVLTVGKEHNRAERSTLGLATCW
AIPILSIYNYIVQGHCNQADKFVHNAADFFGSPADKILQIFGSSLPLPPKNSNETLDDESALINF
MSDVKGTLTYITTNMGEHALTVPATLACKASMREKILPHLRNRRDLAPGCIDWTLSILTDFT
LLFGASIEYWNSKNFGRVIENIVREGEIGSAADVDTASRLIESVQAHVAEATEVADIHLKTA
FDFSQSLSYVSYVRHTEEEVVSPQSAQALPLGRYELALVDYHFETVPRIRQDGRWVERPDLFH
DIEVISGVPEETDASRQVLLPIIAWQHSYSQQELLFHASDILPESSLARYEIEPLLEASRLTSEV
AISWLRTSRDDFVYVVVRLEGEVISLTMAVDININDVGAGSLTNPDYVITPNAEGAVRGAG
TAAIRALADHFKRKGKISLVSSVISQPSAIVKKKVGFRFIEEL

>DP00329|P02666#1-224

MKVILACLVALALAREEELNVPGEIVESLSSSEESITRINKKIEKFQSEEQQQTEDELQDKIH
PFAQTSQLVYPFPGPPIPNSLPQNIPPLTQTPVVVPPFLQPEVMGVSKVKEAMAPKHKEMPFPK
YPVEPFTESQSLTLTDVENLHLPLPLLQSWMHQPHQLPPTVMFPPQSVLSQLSKVLPVPQK
AVPYPQRDMPIQAFLLYQEPVLGPVRGPFPPIV

>DP01054|Q76LA1|#1-67

MMCGAPSATQPATAETQHIADQVRSQLEEKENKKPFVKAWSFKSQVVAAGTNYFIKVHVGD
EDFVHLRVFQSLPHENKPLTLSNYQTNKAKHDELYF

>DP01324|Q9HCJ0|#1385-1398

MATGSAQGNFTGHTKKTNGNNGTNGALVQSPSNQSAALGAGGANSNGSAARVWGVATGSSS
GLAHCSVGGDGKMDTMIGDGRSQNCWGASNAGINLNLPNANPAAPVVLGHEGTVAT
GNPSSICSPVSAIGQNMGNQNGNPTGTLGAWGNLLPQESTEPQTSTSQNVSFSAQPNLNTDG
PNNTNPMNSSPNIAMQTNGLPGMAVGMAIIPPHLQGLPGANGSSVSQVSGGSAEGIS
NSVWGLSPGNPATGNSNSGFSQNGDVTNSALSAKQNGSSAVQKEGSGNAWDSGPPAGP
GILAAGRSGSGNNVGNIHSGAWGHPSRSTSNGVNGEWGPQHNSNDINGKGSTGWESPS
VTSQNPVQPGGEHMNSWAKAASSGTTASEGSSDGSQHNNEGSTGREGTGEGRRTDKGIIDQ
GHIQLPRNLDLPRVLSNTGWQTPVKQNTAWEFEESPRSERKNDNGTEAWGCAATQASNSG
GKNDGSIMNSTNTSSVSGWVNAPPAAVPANTGWGDSNNKAPSGPGVWGDSISSTAVSTAAA
AKSGHAWSGAANQEDKSPTWGEPPKPKSQHWGDGQRSNPAWSAGGGDWADSSVLGHLG
DGKKNGSGWDADSNRSGSGWNDTRSGNSGWGNSTNTKANPGTNWGETLKPGPQQNWAS
KPQDNVSNWGAASVKQTGTGWIGGPVPVKQKDSSEATGWEEPSPPSIRRKMEIDDGTS
WGDPSNYNNKTVNMWDRNNPVIQSSTTNTTTTNTTSNTTHRVEPPPQAGTQLNRSP
LGPGRKVSSGWGEMPNVHSKTENSWGEPPSTLVNDNTAAWGKPPSSGSGWGDHPAEPPV
AFGRAGAPVAASALCKPASKSMQEGWGSGGDEMNLSTSQWEDEEGDVWNNAASQESTSSC
SSWGNAPKKGLQKGKMTSGKQDEAWIMSLIKQLTDMGFPREPAEEALKSNNMNLQAMS
ALLEKKVDVDKRLGLVTDHNGMAAKPLGCRPPISKESSVDRPTFLDKDGLLVEEPTSPFLPS
PSLKLPLSHALPSQALGGIASGLGMQNLNSSRQIPSGNLGMFGNSGAAQARTMQQPPQPPVQ
PLNSSQPSLRAQVPQFLSPQVQAQLQFAAKNIGLPALLTSPINPQHMMLNQLYQLQAYQ
RLQIQQQMLQAQRNVSGSMRQQEQQVARTITNLQQQIQQHQRQLAQALLVKQPPPPPPPHL
SLHPSAGKSAMDSFPSHPQTPGLPDLQTKEQQSSPNTFAPYPLAGLNPNNMVNSMDMTGGLS
VKDPSQSQRSLPQWTHPNMSMDNLPASAASPLEQNPSKHGAIPGGLSIGPPGKSSIDDSYGRYD
QNSESPASPPVAVPHWSRAKSDSDKISNGSSINWPPEFHPGVPWKGLQNIIDPNDPDVTPGS
VPTGPTINTTIQDVNRYLLKSGGKLSDIKSTWSSGPTHTQASLSHELWKVPRNSTAPTRPPG
LTNPKPSSTWGASPLGWTSSYSSGSAWSTDTSGRTSSWVLRLNLTQIDGSTLRTLCLQHGPLI

TFHLNLTQGNNAVRYSSKEEAAKAQKSLHMCVLGNTTILAEGAGEEEVNRFLAQGQALPPTS
SWQSSSASSQPRLSAAGSSHGLVRSDAGHWNAPCLGGKGSSELLWGGVPQYSSSLWGPPSA
DDSRVIGSPTPLTLLPGDLLSGESL

>DP00309|P00533|#964-976

MRPSGTAGAALLALLAALCPASRALEEKVCQGTSNKLTQLGTFEDHFLSLQRMFNCEVV
LGNLEITYVQRNYDLSFLKTIQEVAHYVLIANTVERIPLLENLQIIRGNMYYENSYALAVLSNY
DANKTGLKELPMRNLQEILHGAVRFSNNPALCNVESIQWRDIVSSDFLSNMSMDFQNHLGSC
QKCDPSCPNCWGAGEENCQKLTQIICAQQCSGRGKSPSDCCNQCAAGCTGPRESDCL
VCRKFRDEATCKDCPPLMLYNPTTYQMDVNPEGKYSFGATCVKKCPRNYVVTDHGSCVR
ACGADSYEMEEDGVRKCKKCEGPCRKVCNGIGIGEFKDSL SINATNIKHFKNCTSISGDLHILP
VAFRGDSFTHTPPLDPQELDILKTVEITGFLLIQAWPENRTDLHAFENLEIIRGRTKQHGQFSL
AVVSLNITSGLRLSLKEISDGDVIISGNKNLCYANTINWKLFGTSGQTKIISNRGENSKAT
GQVCHALCSPEGCWGPEPRDCVSCRNVSRGRECVDKCNLLEGEPEFVENSECIQCHPECLP
QAMNITCTGRGPDCIQCAYIDGPHCVKTCPAGVMGENNTLVWKYADAGHVCHLCHPNC
TYGCTGPGLLEGCPNTNGPKIPSIATGMVGALLLVVALGIGLFMRRRHIVRKRTLRLQERE
LVEPLTPSGEAPNQALLRILKETEFKKIKVLGSGAFGTVYKGLWIPEGEKVKIPVAIKELREAT
SPKANKEILDEAYVMASVDNPHVCRLLGICLTSTVQLITQLMPFGCLLDYVREHKDNIGSQYL
LNWCVQIAKGMYLEDERRLVHRDLAARNVLVKTPQHVKITDFGLAKLLGAEEKEYHAEGG
KVPIKWMALESILHRIYTHQSDVWSYGVTVWELMTFGSKPYDGIPASEISSILEKGERLPQPP
CTIDVYMIMVKCWMIDADSRPKFRELIIEFSKMARDPQRYLVIQGDERMHLPSPTDNSFYRAL
MDEEDMDDVVADEYLIPQQGFFSSPSTSRTPLLSSLATSNNSTVACIDRNGLQSCPIKEDSF
LQRYSSDPTGALTEDSIDDTFLPVPEYINQSVPKRPAGSVQNPVYHNQPLNPAPS RDPHYQDP
HSTAVGNPEYLNTVQPTCVNSTFDSPAHWAKGSHQISLDNPDYQQDFFPKAKEAKPNGIFKGS
TAENAEYLRVAPQSSEFIGA

>DP00716|P02545|#386-664

METPSQRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSL ETENAGLRLRIT
ESEEVVSREVSGIKAAYEAELGDARKTLDSVAKERARLQLELSKVREEFKELKARNTKKEGD
LIAAQARLKDEALLNSKEAALSTALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEM
LRRVDAENRLQTMKEELDFQKNIYSEELRET KRRHETRLVEIDNGKQREFESRLADALQELR
AQHEDQVEQYKKELEKTYSAKLDNARQSAERNSNLVGAHEELQQSRIRIDSLSAQLSQLQK
QLAAKEAKLRDLED SLARERDTSRLLAEKEREMAEMRARMQQQLDEYQELLDIKLALDME
IHAYRKLLEGEERLRLSPSPTSQRSRGRASSHSSQTQGGGSVTKRKLESTESRSSFSQHART
SGRVAEEVDEEGKFVRLR NKS NEDQSMGNWQIKRQNGDDPLLYRFPPKFTLKAGQVVTI
WAAGAGATHSPPTDLVWKAQNTWCGNSLRTALINSTGEEVAMRKL VRSVT VVEDDED
GDDLLHHHHGSHCSSSGDPAEYNLRSRTVLCGTCGQPADKASASGSGAQVGGPISSGSSASS
VTVTRSYRSVGGSGGSFGDNLVTRSYLLGNSSPRTQSPQNCSIM

>DP02311|Q7DD77|#20-69 #20-84 #69-84 #164-181

MKHYALLISFLALSACSQGSEDLNEWMAQTRREAKAEIIPFQAPTLVAPVYSPPLTGPNAF
DFRRMETDKKGENAPDTKRIKETLEKFSLENMRYVGILKSGQKVSGFIEAEGYVYTVGVGNY
LGQNYGRIESITDDSIVLNELIEDSTGNWVSRKAELLNNSSDKNTEQAAAPAAEQN

>DP01182|P22216|#1-14 #165-190 #344-356

MENITQPTQQSTQATQRFLIEKFSQEIQGENIVCRVICTTGQPIRDL SADISQLKEKRSIKKV
WTGGRNPACDYHLGNISRLSNKHFQILLGEDGNLLNDISTNGTWLNGQKVEKNSNQLLSQG
DEITVGVGVESDILSLVIFINDKFQCLEQNKVDRIRS NLKNTSKIAPGLTSSTASSMVANKT
GIFKDFSIIDEVVGQGAFATVKKAIERTTGKTFAVKIISKRKVIGNMDGVTRELEV LQKLNHPR
IVRLKGFYEDTESYYMVMEFVSGGDLMDFVAAHGA VGEDAGREISRQILT AIKYIHS MGISH
RDLKP DNILIEQDDPVLVKITDFGLAKVQGN GSF MKTFCGTLAYVAPEVIRGKD TSVSPDEYE

ERNEYSSLVDMWSMGCLVYVILTGHLPFGSTQDQLYKQIGRGSYHEGPLKDFRISEEARDFI
DSLLQVDPNNRSTAALKALNHPWIJKMSPLGSQSYYGDFSQISLSQSLQQKLLENMDDAQYEJV
KAQRKLQMEQQLQEQQDQEDQDGKIQGFKIPAHIPIRTQPKSIEAETREQKLLHSNTENVK
SSKKKGNGRFLTLKPLPDSIIQESLEIQQGVNPFFIGRSQDCNCKIEDNRLSRVHCFIFKRRHAV
GKSMYESPAQGLDDIWYCHTGTNSYLNRRMIQGTFKLLQDGDEIKIWDKNNKFVIGFKV
EINDTTGLFNEGLGMLQEQRVVLKQTAEKDLVKKLTQMMAAQRANQPSASSSMSAKKPP
VSDTNNGNNSVLNDLVEISPINANTGNILKRIHSVSLSQSVIDPSKKVKRAKLDQTSKGPENL
QFS

>DP02496|P56926|#633-852

MGAFGWEQDRGAPSGRSPRILTRMTDAPRPTAGADAPARPPAAPLVAPNFITEIIERDLEAG
KYPRVVTRFPDPGSAHLGHVFASLLDFNTARQYGGQFNLRMDDTNPELARQEYVDSIAD
DLKWLGDWGEHFYYASDYFDRYYAYAEQLIRQGDAYVESVSPEELSRLRGNAATTPGTPSP
YRDRSVEENLDLLRRMKAGEFADGEHVLRAKIDLTAPENMKLRDPVLYRIVNKPHFRTSDEW
HIYPAYDFEHPLQDAIEGVTHSMCSLEFVDNRAIYDWLMEKLNFDPMPHQYEFGRRGLEYTIT
SKRKLRELVQAGRSGWDDPRMPTLRAQRRLGVTPEAVRAFAAQIGVSRTNRTVDIAVYEN
AVRDDLNRAPRVMALDPVKVTLTNLDGEKTLSPYWPHDVVRDSDPGLVGMPGGGRVA
PEEAIRDVPLTREL YIERDDFSPAPPKGFKRLTPGGTVRLRGAGIIRADDFTDEAGQVTHIRA
TLLGEDAKAAGVIHWVSAERALPAEFRLYDRLFRVPHPGENADVEDDSAGPAEHEAEPGA
GQETAPVSQGFMRYLTPDSLRLRGYVEPSVAGDPADTRYQFERQGYFWRDPELERVDSR
EDALVFGRIITLKDTWGKQGGGTQQKAEGKKRPSTKGRGPDEVRGEGSSPAKAHAPKAQPL
TPEQDAEFTRLLGLGASEGDARTIARDPALLAFVGGAAPGDTFAQVASWTVNELVAGLRAG
EVKVRAADLAPlAEGVASGQLSARIAREALARAASGDAPLIIEREGLNAGLSAEALQQVV
AQVIAANPDKAEEAYRGGKTALLGFFTGQVMRATAGKADPQALA AALKDALA

>DP02086|Q9JPP1|#133-274

MFERSVIAMACIFALSACGGGGGGSPDVKSADTLSKPAAPVVAEKETEVKEDAPQAGSQGQ
GAPSTQGSQDMAAVSAENTGNGAATTDKPKNEDEGPQNMDLQNSAESANQTGNNQPADS
SDSAPASNAPANGGSNFRVDSLNGVLIDGPSQNLTHCKGDSCNGDNLLDEAPSKSEFE
NLNESERIEKYKDGKSDKFTNLVATAVQANGTNKYVIYKDKSASSSFARFRSARSRRSLP
AEMPLIPVNQADTLIVDGEAVSLTGHSNIFAPEGNYRYLTYGAEKLPGGSYALRVQGEPAK
GEMLAGTAVYNGEVLFHTENGRPYPTRGRFAAKVDFGSKSVDGIIDSGDDLHMGTKQFKA
AIDGNGFKGWTENGGDVSGRFYGPAGEEVAGKYSYRPTDAEKGGFGVAGKKEQD

>DP00132|P07221|#1-395

MNAADRMGARVALLLLVLGSPQSGVHGEGLDFPEYDGVDRVINVNAKNYKNVFKKYEV
LALLYHEPPEDDKASQRQFEMEELILEAAQVLEDKGVGFLVDSEKDAAVAKKGLTEEDS
IYVFKEDDEVIEYDGEFSADTLVEFLLDVLEDPVELIGERELQAFENIEDEIKLIGYFKNDSEH
YKAFKEAAEEFHPYIPFFATFDISKVAKKLTKLNEIDFYEAFCMEEPVTIPDKPNSEEIVNFVEE
HRRSTLRKLKPESMYETWEDDMDGIGHIVAFAAEADPDGYEFLEILKSVAQDNTDNPDLSSIWI
DPDDFPPLLVPYWEKTFDIDLSAPQIGVVNVTDADSVWMEMDDEEDLPSAEELEDWLEDVLE
GEINTEDDDDEDDDDDDDD

>DP00963|P0DJ89|#280-288 #293-307 #308-314

MINVSSLFPTVNRNITAVYKKSSFSVSPQKITLNPVKISSPFSPSSSSISATTLFRAPNAHSASFH
RQSTAESSLHQQLPNVRQRLIQHLAEHGIKPARSMAEHIPPAPNWPAPPPPQNEQRPLPDV
AQRLVQHLAEHGIQPARNMAEHIPPAPNWPAPPPPQNEQRPLPDVAQRLMQHLAEHGIQPARNMAEHIPPAPNWP
APTPPVQNEQRPLPDVAQRLMQHLAEHGIQPARNMAEHIPPAPNWPAPTPPVQNEQRPLPD
VAQRLMQHLAEHGINTSKRS

>DP00122|P15146|#1-467

MADERKDEGKAPHWTASLTEAAAHPHSPEMKDQGGSGEGLRSANGFPYREEEGAFGEH
GSQGTYSDTKENGINGELTSADRETAEEVSARIVQVVTAEAVAVLKGEQEKEAQHKDQPAA
LPLAAEETVNLPPSPPPSPASEQTAALEEDLLTASKMEFPEQQKLPSFAEPLDKEETEFKMQS
KPGEDFEHAALVPQPDTSKTPQDKDPQDMEGEKSPASPFAQTFTGNLEDIKQITEPSITVPSI
GLSAEPLAPKDQKDWFIEMPVESKKDEWGLAAPISPGPLTPMREKDVLIEDIPRWEKGQFDSP
MPSPFHGGSFTLPLDTVKEVTEGSQPFAPVFFQSDDKMSLQDTSGSATSKESSKDEEPQKD
KADKVADVPVSEATTVLGDVHSPAVEGFVGENISGEEKGTTDQEKKETSTPSVQEPTLTETEP
QTKELETSKVSIEETVAKEEESLKLKDDKAGVIQTSTEQSFSKEDQKGQEQTIEALKQDSFPISL
EQAVTDAAMATKLEKVTSEPEAVSEKREIQGLFEEDIADKSLEGAGSATVAEVEMPFYED
KSGMSKYFETSALKEDVTRSTGLGSDYYELSDSRGNAQESLDTVSPKNQQDEKELLAKASQP
SPPAHEAGYSTLAQSYTDHPSELPEPSSPQERMFTIDPKVYGEKRDLSKNKDLTLSRLG
LGGRSAIEQRSMSINLPMSCLDIALGFNFGRGHDLSPASDILTNTSGSMDEGDDYLPPPTPA
VEKIPCFPIESKEEDEKTEQAKVTGGQTQVETSSESPFAKEYYKNGTVMAPDLPMLDLAG
TRSRLASVSADADEVARRKSVPEAVVAESSTGLPPVADDSQPVKPDSQLEDMGYCVFNKYTV
PLPSPVQDSENLSGESGSFYEGTDDKVRRLATDLSLIEVKLAAAGRVDKDEFTAEEKEASPPSS
ADKSGLSREFDQDRKANDKLDVTLEKSEEHVDSKEHAKESEEVGDKVELFLGVTYEQTSA
KELITTKEAPERAEKGSSVPEVAEVETTKADQGLDVAAKKDDQSPLDIKVSDFGQMASG
MSVDAGKIELKFEVDQQLTLSSEAPQETDSFMGIESSHVKDGAJKVSETEVKEVAKPDLVH
QEAVDKEESYESSGEHESLTMESLKPDEGKKETSPETSLIQDEVALKLSVEIPCPPPSEADSSI
DEKAEVQMFQLPKEESTETPDIAIPSDVTQPQPEAVVSEPAEVRGEEEIAEAEYDKLLFR
SDTLQITDLLVPGSREEFVETCPGEHKGVVESVVTIEDDFITVVQTTDEGELGSHSVRAAPV
QPEERRPYPHDEELEVLMAAEAQAEPKDGPSPDAPATPEKEEVPFSEYKTETYDDYKDETTID
DSIMDADSLWVDTQDDDRSILTEQLETIPKEERAKEEARRPSLEKHRKEKFKTGRGRISTPER
REVAKKEPSTVSRDEVRRKKAVYKKAELAKESEVQAHSPSRKLILKPAIKYTRPTHLSVCVR
KITATSGESAQAPSAFKQAKDKVTDGITKSPEKRSSLPRPSSILPPRRGVSGDREENSFLNSSI
SSARRTRSEPIRAGKSGTSTPTPGSTAIPGTPPSYSSRTPGTPGTPSYRTPGTPKSGILVPS
EKKVAIIRPPKSPATPKQLRLINQLPDLKNVKSIGSTDNIYQPKGGQVRILNKKMDFSKV
QSRCGSKDNIKHSAGGNVQIVTKKIDLSHVTSKCGSLKNIRHRPGGGRVKIESVKLDKEKA
QAKVGSLDNAHHVPGGNVIDSQKLNREHAKARVDHGAEITQSPSRSSVASPRLSNVSS
SGSINLLESPQLATLAEDVTAALAKQGL

>DP01165|Q9HAN9|#109-146

MENSEKTEVVLLACGSNPITNMHLRFELAKDYMNGTGRYTVVKGIISPVGDAYKKGLIP
AYHRVIMAELATKNSKWVEVDTWESLQKEWKTLLKVLRRHQEKLEASDCDHQQNSPTLER
PGRKRWTETQDSSQKKSLEPKTKAVPKVKLLCGADLLESFAVPNLWKSEDITQIVANYGLI
CVTRAGNDAQKFIYESDVLWKHRSNIHVVNEWIANDISSTKIRRALRRGQSIRYLVPDFLVQEY
IEKHNLYSSESEDRNAGVILAPLQRNTAEAKT

>DP01631|P07276|#642-760

MGVHSFWDIAGPTARPVRLESLEDKRAMVDASIWIYQFLKAVRDQEGNAVKNSHITGFFRRI
CKLLYFGIRPVFDGGVPVLKRETIRQRKERRQGKRESAKSTARLQLQNGSNDNVKN
STPSSGSSVQIFKPQDEWDLPDIPGFKYDKEDARVNSNKTFEKLMNSINGDGEDIDLDTINPA
SAEFEELPKATQYLILSSLRLKSRLRMGYSKEQLETIFPNMSMDSRFQIDMVKRRNFFTQKLIN
TTGFQDGGASKLNEEVINRISGQKSKEYKLTKTNNGWILGLGANDGSDAQKAIVIDDKDAGA
LVKQLDSNAEDGDVLRWDDLEDNSLKIVRHESNATTAPQKRSNRSEDEGCDSDECEWEEV
ELPKNVKFVEDFLSLKAARLPYMGQSQLNNAGSKSFLDKRHDQASPSKTTPTMRISRISVEDDD
EDYLKQIEEIEMMEAQLSKMEKKPEADDKSKIAPVTSKGTEARPPIVQYGLLGAQPDSDKQ
PYHVTNLNSKSESVIKRTSKTVLSEFRPPSQQEDKGAILTEGEQNLNFISHKIPQFDNNENSLL
FQKNTESNVSQEATKEKSPIPEMPSWFSSTASQQLYNPYNTTFV ред. KNRNEQESGAETTN

KGSSYELLTGLNATEILERESEKESSNDENKDDLEVLSEELFEDVPTKSQISKEAEDNDSRKV
ESINKEHRKPLIFDYDFSEDEEDNIVENMIKEQEEFDTFKNTTLSTAERNVAENAFAVEDELFE
QQMOKDKRDSDEVTMDMIKEVQUELLSRFGIPIYITAPMEAECQAELLQLNLVDGIITDDSDVFL
FGGTKIYKNMFHEKNYVEFYDAESILKLLGLDRKNMIELAQLLGSYTNGLKGMPVSSIEVI
AEFGNLKNFKDWYNNNGQFDKRQETENKEFDLKKLVNNEIILDDDFPSVMVYDAYMRPE
VDHDTTPFWVGVPDMLRSFMKTQLGPHEKSDEILIPRDNKRKKKGKQKRINEFFPR
EYISGDKKLNTSKRISTATGKLKKRKM

>DP00530|P12950|#1-168

MEYGQQGQRGHGRTHVDQYGNPVGGEHGTGGMRHGTGTTGGMQLGEHGGAGMGG
GQFQPARSEEHKTGGILHRSGSSSSSEDDGMGGRRKKGIKEKIKEKLPGGHKDDQHATATT
GGAYGQQGHTGSAYGQQGHTGGAYATGTEGTGEKKGIMDKIKEKLPGQH

>DP01293|Q13542|#1-120

MSSSAGSGHQPSQSRAIPTRTVAISDAALPHDYCTTPGGTLFSTTPGGTRIIYDRKFLLDRRN
SPMAQTTPCHLPNIPGVTPGTLEDVKVEVNNLNNLNHDKHAVGDDAQFEMDI

>DP02502|A0R1T8|#1-238

MPHGVVVDVPELITVARGGSMRAVGRLLTVESDRRGEVLAALGPATPRVIGVTGPPGAGKST
TVGAMVGAYRERGLRVAVLAVDPSSPYSGGALLGDRIRMAAHINDPVLIRSMAARGHLGG
LAAA VPAIRLLAALS YDLIVLETVGVGQSEIEIAAIADPTVVLNPAGDAVQAAKAGVLEV
ADLVVNVKADRDGADQTVRDLRAETDVPVLKLVAAQGDGLHELIEAIEAHQRADTPERRRA
RARSQILSLAQTLLRNHADLDRLSAAVADGSSDAYTAAERLFAGSVD

>DP01075|P20676|#300-1076

MSSNTSSVMSSPRVEKRSFSSTLKSFFTNPNKRPSSKKVFSSNLSYANHLEESDVEDTLHVN
KRKRVSGTSQHSDSLTQNNNNAPIIIYGTENTERPPLLPIQRLRLLREKQRVRNMRELGLIQ
STEPSITSSVILGSQSKSDEEGSYLCTSSTPSPIKNGCTRQLAGKSGEDTNVGLPILKSLKNRS
NRKRFHSQSKGTWVWSANFEYDLSEYDAIQKKDNKDKEGNAGGDQKTSENRRNIKSSISNGNL
ATGPILTSEIEDLRADINSNRLSNPKNLLLKGPA STVAKTAPIQESFV PNSERSGTP TLKKNIE
PKKDKESIVLPTVGFDFIKDNETPSKKTSPKATSSAGAVFKSSVEMGKTDKSTKTAEAPL S FN
FSQKANKTKAVDNTVPSTTLNFNGKSDTVTSASQPFKFGKTSEKSENHTESDAPPKSTAPIFS
FGKQEENGDEGDDENEPEKRKRLPVSEDTNTKPLDFGKTGDQKETKKGESEKDASGKPSFV
FGASDKQAEGTPLFTFGKKADVTSNIDSSAQFTFGKAATAKEHTHKPSETPATIVKKPTFTFGQ
STSENKISEGSAKPTFSKSEEERKSSPISNEAKPSFSFGKPVDVQAPTDDKTLKPTFSFTEP
AQKDSSVVSEPKKPSFTFASSKTSQPKPLFSFGKSDAAKEPPGSNTSFSFTKPPANETDKRPTPP
SFTFGGSTTNTTTSTKPSFSFGAPESMKSTASTAAANTEKLSNGFSFTKFNHNKEKSNSPTS
FFDGSASSTPIPVLGKPTDATGNTTSKAFSGTANTNGTNASANSTSFSFNAPA TGN GTTTTS
NTSGTNIAGTFNVGKPDQSIASGNTNGAGSAFGSSSGTAATGAASNQSSFNFGNNNGAGGLNP
FTSATSS TNANAGLFNKPPSTNAQNVNVPASFNTGNNSTPGGSVFNMGNTNANTV FAGS
NNQPHQSQTFSFTNNSFTPSTVPNINFGLNGGITNTATNALRPSDIFGANAASGSNSNVNPS
SIFGGAGGVPTTSFGQPQSAPNQMGMTNNGMSMGGV MANRKIARMRHSKR

>DP00990|P12355|#1-77

MSFTIPTNLYKPLATKP KHLSSSFAPRSKIVCQQENDQQQPKKLELA KVGANAAAALALSSV
LLSSWSVAPDAAMADIAGLTPCKESKQFAKREKQALKLQASLKLYADD SAPALA IKATME
KTKKRFDNYGKYGLLCGSDGLPHLIVSGDQRHWGEFITPGILFLYIAGWIGWVGRSYLIAIRD
EKKPTQKEIIDVPLASSLLFRGFSWPVAAYRELLNGELVDNNF

>DP01978|Q02554|#351-368

MARTKSRKRSGNQNKNASVNNKA EIAAMIDARRLEQKKKGVTNSKGKTNKVVDAKLE
KEFKDVLQRFQVQENDTPKEITKDEKNNHVIVEKNPVMNRKHTAEDELE DTPSDGIEE HLS
ARKRRKTEKPSLSQLKSQVYPQIIEWYDCDARYPGLLASIKCTKNVIPVPSHWQSKKEYLSG

RSLLGKRPFELPDIIKKTNEQMRSTLPQSGLDGQDEKSLKEASRARVQPKMGALLDYKKLHDVFFKIGANWKPDHLLCFGDVYYENRNLFEETNWKRMVDHKRPGRIQELRAIMNLPEGQLPPWCMKMKDIDLPTGYPPDLKIAGLNWDITNLKGDVYGKIPNHSRSKKQGRNYFGALISFETPEFENSKEDTQANAENGRQDDKIDDEVEHKLDHFQEDISEVTSAAEKLERNEESEKQLYTVLK

>DP01641|Q07955|#107-120 #196-215 #196-248 #200-219

MSGGGVIRGPAGNNDCRIYVGNLPPDIRTKDIEDVFYKYGAIRDIDLKNRRGGPPFAFVEFEDPRDAEDAVYGRDGYDYDGYRLRVEFPRSGRGTGRGGGGGGAPRGRYGPSSRRSENRVVVSGLPPSGSWQDLKDHMREAGDVCYADVYRDGTGVVEFVRKEDMTYAVRKLDNTKFRESHETAYIRVKVDGPRSPSYGRSRSRSRSRSRSNSRSYSRSPRSRGSPRYSPRHSRSRST

>DP01333|O00522|#118-128

MGNPENIEDAYVAIRPKNTASLNSREYRAKSYEILLHEVPIEGQKKKRKKVLLETKLQGNSEITQGILDYVVETTKPISPANQGIRGKRVVLMKKFPLDGEKMGREASLFIVPSVVKDNTKYTYTPGCPIFYCLQDIMRVCSESSTHFATLTARMLIALDKWLDERHAQSHFIPALFRPSPLERIKTNVINPAYATESGQTENSLHMGYSALEIKSKMLALEKADTCIYNPLFGSDLQYTNRVDKVVINPYFGLGAPDYSKIQPKQEKWQRSMSSVTEDKERQWVDDFPLHRSACEGDSSELLSRLLSERFSVNQLSDHWAPIHYACWYVGKVEATRILLEKGKCNPNLLNGQLSSPLHFAAGGGHAEIVQILLNHETDRHITDQQGRSPNICEENQNNWEEAKLLKEAINKPYEKVRIYRMDGSYRSVELKHGNNTTVQQIMEGMRLSQETQQYFTIWICSENLSQLKPYHKPLQHVWRDWEILAE TNLDPQRETPQLFLRRDVRLPLEVEKQIEDPLAILLFDEARYNLLKGFYTAPDAKLITLASLLLQIVYGNYE SKKHKGFLNEENLKSIVPTKLKSKAPHWTNRILHEYKNLSTSEGVSKEMHHLQRMFLQNCWEIPTYGAAFFTQGIFTKASPSNHKVIPVYVGVNICKLHLLNMETKALLSLKYGCFMWQLGDTDTCFQIHSMENKMSFIVHTKQAGLVVKLLMKLNGQLMPTERNS

>DP02061|P70447|#1-31 #49-75

MFVKSETLELKEEEVMLLGASPASATLTPMSSSADEEEDEELRRPGSARGQRGAEEAQGVQGSPASGAGGCRPGRLGLMHECKRRPSRSRAVSRGAKTAETVQRIKKTRRLKANNRERNRMHNLNAALDALREVLPTFPEDAALKIETLRFAHNYIWALTETLRLADHCAGAGGLQGALFTEAVLLSPGAALGASGDSPSSWSCTNSPASSNSTSPYSCTLSPASPGSDVDYWQPPPPEKHYAPHPLARDCI

>DP01351|P12302|#171-188

MASTACFLHHAAISSPAAGRSAACQRYQAVSIKPQIVCKAQKQDDNEANVLSGVSRRLALTVLIGAAAVGSKVSPADAAYGEAANVFGKPKKNTEFMPYNGDFKLLVPSKWNPSKEKEFPGQVLRYEDNFDATSNLSVLVQPTDKKSITDFGSPEDFLSQVDYLLGKQAYFGKTSEGGFDGVVASANVLESSTPVVDGKQYYAITVLTRTADGDEGGKHQVIAATVKDGKLYICKAQAGDKRWFKGAKKFVESATSSFSVA

>DP00519|P25054|#1362-1745

MAAASYDQLLKQVEALKMENSNLRQELEDNSNHLTKLETEASNMKEVLKQLQGSIEDEAMASSGQIDLLERLKELNLDSSNFPGVKLRSKMSLRSYGSREGSVSSRSGECPVPMGSFPRRGFVNGSRESTGYLEELEKERSLLLADLDKEEKEKDWWYAAQLQNLTKRIDSLPLTENFSLQTDMDTRQLEYEARQIRVAMEEQLGTCQDMEKRAQRRIARIQQIEKDILRIRQLLQSQATEAERSSQNKHETGSHDAERQNEGQGVGEINMATSGNGQGSTTRMDHETASVLSSTSAPRRLTSHLGTKVEMVYSSLMSLGHDKDDMSRTLLAMSSSQDSCISMRSQSGCLPLLIQLLHGNDKDSVLLGNSRGSKEARARASAALHNIIHSQPDDKGRREIRVLHLLQEIRAYCETCWEWQEAHEPGMDQDKNPMPAPVEHQICPAVCVLMKLSFDEEHRHAMNELGGLQAIABELLQVDCEMYGLTNDHYSITLRRYAGMALTNLTFGDVANKATLCSMKGCMRALVAQLKSESEDLQQVIASVLRNLSWRADVNSKKTLREVGSVKALMECALEVKKESTLKSVLSALWNLSAHCTENKADICAVDGALAFLVG

TLTYRSQTNTLAIIESGGILRNVSSLIATNEDHRQILRENNCLQTLQHLKSHSLTIVSNACGT
LWNLSARNPKDQEALWDMGAVSMLKNLHISHKMIAAMGSAAALRNLMANRPACYKDANI
MSPGSSLPSLHVRKQKALEAELDAQHLSETFDNIDNLSPKASHRSKQRHKQSLYGDYVFDTN
RHDDNRSDNFNTGNMTVLPYLNTVLPSSSSRGSDLSSRSEKDRSLERERGIGLGNYHPAT
ENPGTSSKRGLQISTTAQIAKVMEEVSAIHTSQEDRSGSTTELHCVTDERNALRRSSAAHT
HSNTYNFTKSENSRTCSMPYAKLEYKRSSNDSLNSVSSSDGYGKRGQMCKPSIESYSEDDESK
FCSYGQYPADLAHKIHSANHMDDNDGELDTPINYSLKYSDEQLNSGRQSPSQNERWARPWH
IEDEIKQSEQRQSRNQSTTYPVYTESTDDKHLKFQPHFGQQECVSPYRSGANGSETNRVGSN
HGINQNVSQSLCQEDDYEDDKPTNYSERYSEEQHEEEERTNYSIKYNEEKRVHDQPIDYSL
KYATDIPSSQKQSFSFSKSSGQSSKTEHMSSSENTSTPSSNAKRQNQLHPSSAQSRSGQPQK
AATCKVSSINQETIQTYCVEDTPICFSRCSSLSSAEDIEGCNQTTQEADSANTLQIAEIKEKI
GTRSAEDPVSEVPASQHPRTKSSRLQGSSLSESARHKADEFSSGAKSPSKSGAQTPKSPPEH
YVQETPLMFSRCTSVSSLDSFESRSIASSVQSEPCSGMVSGIISPSDLPDSPGQTMPSSRSKTTPP
PPQTAQTKREVPKNKAPTAEKRESGPQAAVNAAVQRVQVLPADTLHFATESTPDGFSCS
SSLSALSLDEPFIQKDVELRIMPPVQENDNGNETESEQPKESNENQEKEAKTIDSEKDLLDDS
DDDDIEILEECIISAMPTKSSRKAKKPAQTASKLPPPVARAKPSQLPVYKLLPSQNRLQPQKHVS
FTP GDDMPRVYCVEGTPINFSTATSLSDLTIESPPNELAAGEGVRRGAQSGEFEEKRDTIPTTEGR
STDEAQGGKTSSVTIPELDDNKAEEGDILAECINSAMPKGKSHKPFVKKIMDQVQQASASSS
APNKNQLDGKKKPTSPVKPIPNTEYRTRVRKNADSKNNLNAERVFSDNKDSKKQNLKNN
SKVNDKLPNNEDRVRGSAFDSPHHYTPIEGTPYCFSRNDSLSSLDFFDDDVDSLREKAELR
KAKENKESEAKVTSHTELTSNQQSANKTQAIAKQPINRGQPKPILQKQSTFPQSSKDIPDRGA
ATDEKLQNFAIENTPVCFSHNSSLSSLDIDQENNKENEPIKEEPPDSQGEPSKPQASGYAP
KSFHVEDTPVCFSRNSSLSSLDSEDDLLQECISSAMPKKKPSRLKGDNKEHSPRNMGGILG
EDLTLDLKDQRPDSEHGLSPDSENFDWKAIQEGANSIVSSLHQAAAACLSRQASSDSDSILS
LKSGISLGSPFHLPDQEEKFTSNKGPRILKPGEKSTLETKKIESEKGKGGKVYKSLITGK
VRSNSEISGQMKQPLQANMPSISRGRTMIHIPGVRNSSSTSPVSKKGPLKTPASKSPSEGQTA
TTSPRGAKPSVKSELSPVARQTSQIGGSSKAPSRSRSGSDTPSRPAQQPLSRPIQSPGRNSISPGR
NGISPPNKLSQLPRTSSPASTKSSSGKGMSYTSPGRQMSQQNLTKQTGLSKNASSIPRSESAS
KGLNQMNNGNGANKVELSRMSSTKSSGESDRSERPVLVRQSTFIKEAPSRTLRRKLEESAS
FESLSPSSRPASPTRSQAQTPVLPSPSLPDMSLSTHSSVQAGGWRKLPPNLSPTEYNDGRPAKR
HDIARSHSESPSRPINRSGTWKREHSKHSSLPRVSTWRRTGSSSILSASSESSEAKSEDEK
HVNSISGTQSKENQVSAKGTWRKIKENEFSPTNSTSQTVSSGATNGAESKTLIYQMAPAVSK
TEDVWVRIEDCPINNPRSGRSPGTNTPPVIDSVESEKANPNIKDSKDNQAKQNVNGSVPMRTV
GLENRLNSFIQVDAPDQKGTEIKPGQNNPVPVSETNESSIVERTPFSSSSSKHSSPSGTVAARV
TPFNYNPSPRKSSADSTSARPSQIPTPVNNNTKKRDSKTDSTESSGTQSPKRHSGSYLVTSV
>DP01538|P04147|#419-502

MADITDKTAEQLENLNIQDDQKQAATGSESQSVENSSASLYVGDLPESVSEAHLYDIFSPIGSV
SSIRVCRDIAITKTS LGYAYVNFDHEAGRKAIEQLNYTPIKGRLCRIMWSQRDPSLRKKGSgn
IFIKNLHPIDDNKALYDTSVFGDILSSKIATDENGSKGFGFVHFEEEGAKEAIDALNGMll
NGQEIVYAPHLSRKERDSQLEETKAHYTNLYVKNINSETTDEQFQELFAKFGPIVSASLEKDA
DGKLKGFGFVNYEKHEDA VAKEALNDSELNGEKL YVGRAQKKNERMHVLKKQYEAYRL
EKMAKYQGVNLVKNLDDSVDDEKLEEFAPYGTITSAKVMRTENGSKGFGFVCFSTPEEA
TKAITEKNQQIVAGKPLYVIAQRKDVRSQLAQQIQRNQMRYQQATAAAAAAAAGMPG
QFMPPMFYGVMPPRGVFPNGPNPQQMNPMMGMPKNGMPPQFRNGPVYGVPPQGGFPRNAN
DNNQFYQQKQRQALGEQLYKKVSAKTSNEEAAGKITGMILDLPQEVFPLLESDELFEQHYK
EASAAYESFKKEEQQQTEQA

>DP01189|P53874|#1-359 #730-792

MTTQESIKPLVDRILSNPLQFNAAMISNKSNNNTSAAPENSSYIVIGKQHNNNSNSTAIAATA
ESKQIKENNLDPRPNGKKTNTVKMSMAEALLYTSKNDKDAADATGAKKSAELSTELSTEPPS
SSSEDDKVGKEEEEGERIFHEARDYVEPRKASLKERDNADKGDEDIGEDIGEDIGEDIG
EDIGENLGSPLATIDDSSNEKEKRKELSTSISDDEIEDDEDEDDMDYDSSAMEKELPEEEE
NDSSKISEGEKSLYQDLMENSTVEVNRYEPVNNTKENGNRNPKGEEEEEEELKHKRSI
TPPVITISNLNFYQFNENINDRGSLNSTRIVKNWGDKFTNLKPRGLLNHGVTCYTNAAVQAM
LHIPSIQHYLFIDLGMKYDSTISKNSVSYTLAETSKKMWLPSKNPRKNVSASYINPKHLISRL
DDINCMMSEWQQEDSHEYFMSLMSRLQEDSVPKGHLIESIYDIFGGLLKQIVTCKSCGSISK
TEQPFYDLSLHLKGKKLDPNSLSSDSINGTSATTSTTSNAATKPSLSSSSVNLNNNGSPFA
AASDLSSANRRFSIEKSIKDFFNPELIKVDKEQKGYVCEKCHKTNAVKHSSILRAPETLLVHL
KKFRFNGTSSSKMKQAVSYPMFLDLTEYCESKELPVKYQLLSVVHEGRSLSSGHYIAHCKQ
PDGSWATYDDEYINIISERDVLKEPNAYYLLYTRLTPKSVPLPLAKSAMATGNVTSKSKQEQA
VNEPNRNLKINSKKNNRKWKKNKKRKFTK

>DP01598|Q9BRG1|#133-145

MAMSFEWPWQYRFPPFTLQPNVDTRQKQLAAWCSLVLSFCRLHKQSSMTVMEAQESPLFN
NVKLQRKLPVESIQIVLEELRKGNLEWLDKSFKSSFLIMWRRPEEWGKLIYWVWSRSGQNN
VFTLYELTNGEDTEDEEFHGLDEATLLRALQALQQEHKAEIITVSDGRGVKFF

>DP01878|Q9UPR3|#924-946

MSQGPPTGESSEPEAKVLHTKRLYRAVVEAVHRLDLILCNKTAYQEVFKPENISLRNKLRELC
VKLMFLHPDYGRKAELLWRKVYYEVIQLIKTNKHHRSSTLECAVRTHLVAGIGFYQHL
LLYIQSHYQLELQCCIDWTHVTDPPLIGCKKPVSASGKEMDWAQMACHRCLVYLGDLRSYQN
ELAGVDTELLAERFYYQALSVAPQIGMPFNQLGTLAGSKYYNEAMCYLRCIQSEVSFEGA
YGNLKRLYDKAAKMYHQLKKCTRKLSPGKKRCKDIKRLVNFMLQSLQPKSSVDSSEL
TSLCQSVLEDFNLCLFYLPSSPNLSASEDEEYESGYAFLPDLLIFQMVIICLMCVHSLERAGS
KQYSAIAAFTLALFSHLVNHVNIRLQAELEEGENPVPAFQSDGTDEPESKEPVEKEEEDPEPP
PVTPQVGEGRKSRKFSRLSCLRRRRHPPKGVDSDLSEGFESEDSSHDSARASEGSDSGSDKSL
EGGGTAFDAETDSEMNSQESRSDLEDMEEEGRSPTEPPRSEAPDSLNGPLGPSEASIAS
NLQAMSTQMFQTKRCFRLAPTFSNLLLQPTTNPTSASHRPCVNGDVDKPSEPAEEGSESEG
SESSGRSCRNERSIQEKLQVLMAEGLLPAVKVFLDWLRTNPDLIIVCAQSSQLWNRLSVLLN
LLPAAGELQESGLALCPVEQDLLEGCELPDLPSSLLLPEMDALRNLPPLRAAHRRNFDTDRP
LLSTLEESVVRICCIIRSFHFIARLQGSILQFNPEVGIFVSIAQSEQESLLQQAQAFRMAQEEA
RRNRLMRDMAQLRLQLEVSQLEGLSQQPKAQSAMSPYLVPDTQALCHLPVIRQLATSGRFI
VIIPRTVIDGLDLLKKEHPGARDGIRYLEAEFKKGNYIRCQKEVGKSFERHKLKRQDADAW
TLYKILDSCQLTLAQGAGEEDPSGMVTIITGLPLDNPSVLSGPMQAALQAAHASVDIKNV
DFYKQWKEIG

>DP00363|Q16222|#454-470

MNINDLKLTLSKAGQEHLLRFWNEEEAQVELYAELQAMNFEELNFFFQKAIEGFNQSSHQ
KNVDARMEPVPREVLGSATRDQDQLQWESEGLFQISQNKVAVLLLAGGQGTRLGVAYPK
GMYDVGLPSRKTLCQIQAERILKLQQVAEKYYGNKCIIPWYIMTSGRTMESTKEFFTGHKYFG
LKKENVIFFQQGMLPAMSFDGKIILEEKNKVSMAPDGNGGLYRALAAQNIVEDMEQRGIWSI
HVYCDNILVKVADPRFIGFCIQKGADCGAKVVEKTNPTEPGVVCRVDGVYQVVEYSEISL
ATAQKRSSDGRLFNAGNIANHFTVPFLRDVVNVYEPQLQHHVAQKKIPYVDTQGQLIKPD
KPNGIKMEKFVDFIFQFAKKFVVYEVLRDEFSPKNAQSQNGKDNPPTARHALMSLHHCW
VLNAGGHFIDENGSRLPAPIRSATNGKSETITADVHNLDANDVPIQCEISPLISYAGEGLES
YVADKEFHAPIIIDENGVHELVKNGI

>DP00292|P0C5S4|#17-25 #86-92

MNTDVLNQQKIEELSAEIGSDNVPVLLDIFLGEDSYIGTLTELQGSEQLLYLKEISHALKSSA

ASFGADRLCERAIAIDKKAKANQLQEQQMETSEMLALLHITRDAYRSWTN

>DP01937|Q9EPH0|#564-636

MDHAEEENEIPAETQKYLVERPIFSPVQLQERLHVVKDKVTDSIGDKLKQAFTCTPKKVRNIYMF
FLPITKWLPAYKFKEYVLGDLVSGISTGVQLPQGLAFAMLAAVPPVFGLYSSFYPVIMYcff
GTSRHISIGPFAVISLMIGGVAVRLVPDDIVPGGVNATNGTEARDALRVKVAMSVTLLSGIIQ
FCLGVCRFGFAIYLTEPLVRGFTTAAAVHVFITSMLKYLFGVTKRYSGIFSVVYSTAVLQ
NVKNLNVCNCSLGVGLMVFGLLLGGKEFNERFKEKLPAPIPLEFFAVVMGTGISAGFNLHESYSV
DVVGTLPLGLLPPANPDTSFLHVVDAIAIAIVGFSVTISMAKTANKHGYQVDGNQELIAL
GICNSIGSLFQTFSISCSLSRSLVQEGTGGKTQLAGCLSMILLVILATGFLFESLPQAVLSAIVI
VNLKGFMQMFSQDLPFFWRTSKEILTIWLTTFVSSLFLGLDYGLITAVIALLTVIYRTQSPSYTV
LGQLPDTDVYIDIDAYEEVKEIPGIKIFQINAPIYYANSDLYSSALKRTGVNPALIMGARRKA
MRKYAKEVGNANIANATVVKVDAEVGENATKPEEEDDEVKFPPIVKTFPEELQRFLPQG
ENIHTVILDFTQVNFMDSVGVKTLAGIVKEYGDVGIYVLAGCSAQVVNDLTSNRFFENPAL
KELLFHSIHDAVLGSQVREAMAEQETTVLPPQEDMEPNATPTTPEA

>DP00651|P03355|#207-216

MGQTVTTPLSLTLGHWKDVERIAHNQSVDVKRRWVTFCSAEWPTFNVGWPRDGTFNRDLITQVKIKVFSPGP
HGHPDQVPIVTWEALAFDPPPWWKPFVHPKPPPLPPSAPSLPLEPPRSTPPRSSLYPALTPSLGAKPKP
QVLSDDGGPLIDLTTEDPPPYRDPRPPPSDRDGNGGEATPAGEAPD
PSPMASRLRGRREPPVADSTSQA
FPLRAGGNGQLQYWPFSSDLYNWKNNNPSFEDPGKL
TALIESVLI
THQPTWDDCQQLGTLTGEEKQRVLLEARKAVRGDDGRPTQLPNEVDAAFPL
ERPDWDYTTQAGRNLVHYRQLLLAGLQNAGRSPTNLAKVKGITQGP
NESPSAFLERLKEA
YRRYTPYDPEDPGQETNVSMSFIWQSA
PDIGRKLERLE
DLKNKTLGDLVREA
EKIFNKRETPE
EREERIRRETEEKEERRTEDEQKE
KERDRRRREMSKLLATVVSGQKQDRQGGERRRSQ
LD
RDQCAYC
KEKGHWAKDCPKKPRGPRGPRP
QTSLLTLDGGGQ
QEPPPEPRITLKVG
GQPV
FLVDTGAQHSVLTQ
NPGPLSDKSAWVQGATGGKRYRWT
DRKVHLATGKVTHSFLHVPDC
PYPLLGR
DL
LTLK
KAQIHF
EGSGAQVMGPM
GQPLQV
LT
LNI
DE
HRL
HET
SK
EPDV
SLG
STW
LSDFPQA
WAETGGMGLA
VRQ
AP
LI
PLK
AT
ST
P
V
SI
K
Q
Y
P
MS
QE
AR
LG
I
K
PH
I
Q
R
L
D
Q
G
I
L
V
P
C
Q
S
P
W
N
T
P
L
L
P
V
K
K
P
G
T
N
D
Y
R
P
V
Q
D
L
R
E
V
N
K
R
V
E
D
I
H
P
T
V
P
N
P
Y
N
L
S
G
L
P
P
S
H
Q
W
Y
T
V
L
D
L
K
D
A
F
C
L
R
L
H
P
T
S
Q
P
L
F
A
E
W
R
D
P
E
M
G
I
S
G
Q
L
T
W
T
R
L
P
Q
G
F
K
N
S
P
T
L
F
D
E
A
L
H
R
D
L
A
F
R
I
Q
H
P
D
L
I
L
L
Q
Y
V
D
D
L
L
A
A
T
S
E
L
D
C
Q
Q
G
T
R
A
L
L
Q
T
L
G
N
L
G
Y
R
A
S
A
K
K
A
Q
I
C
Q
K
Q
V
K
Y
L
G
Y
L
L
K
E
G
R
W
L
T
E
A
R
K
E
T
V
M
G
Q
P
T
K
P
R
Q
L
R
E
F
L
G
T
A
G
F
C
R
L
W
I
P
G
F
A
E
M
A
A
P
L
Y
P
L
T
K
G
T
L
F
N
W
G
P
D
Q
Q
K
A
Y
Q
E
I
K
Q
A
L
L
T
A
P
A
L
G
L
P
D
L
T
K
P
F
E
L
F
D
E
K
Q
G
Y
A
K
G
V
L
T
Q
K
L
G
P
W
R
R
P
V
A
Y
L
S
K
V
A
A
G
W
P
P
C
L
R
M
V
A
A
I
A
V
L
T
K
D
A
G
K
L
T
M
G
Q
P
L
V
I
A
P
H
A
V
E
A
L
V
K
Q
P
P
D
R
W
L
S
N
A
R
M
T
H
Y
Q
A
L
L
D
T
R
V
Q
F
G
P
V
V
A
L
N
P
A
T
L
L
P
P
E
E
G
L
Q
H
N
C
L
D
I
L
A
E
A
H
G
T
R
P
D
L
T
D
Q
P
L
P
D
A
D
H
T
W
Y
T
D
G
S
S
L
L
Q
E
G
Q
R
K
A
G
A
A
V
T
T
E
V
I
W
A
K
P
A
G
T
S
A
Q
R
A
E
L
I
A
L
T
Q
A
L
K
M
A
E
G
K
K
L
N
V
Y
T
D
S
R
Y
A
F
A
T
A
H
I
G
E
I
Y
R
R
G
L
L
T
S
E
G
K
E
I
K
N
K
D
E
I
L
A
L
L
K
A
L
F
L
P
K
R
L
S
I
I
H
C
P
G
H
Q
K
G
H
S
A
E
R
G
N
R
M
A
D
Q
A
A
R
K
K
A
A
I
T
E
P
D
T
S
T
L
I
E
N
S
S
P
Y
T
S
E
H
F
H
Y
T
V
T
D
I
K
D
L
T
K
L
G
A
I
Y
D
K
T
K
K
Y
W
V
Y
Q
G
K
P
V
M
P
D
Q
F
T
F
E
L
L
D
F
L
H
Q
L
T
H
L
S
F
S
K
M
K
A
L
L
R
S
H
S
P
Y
Y
M
L
N
R
D
R
T
L
K
N
I
T
E
C
K
A
C
A
Q
V
N
A
S
K
A
V
Q
G
T
R
V
R
G
H
R
P
G
T
H
W
E
I
D
F
T
E
I
K
P
G
L
Y
G
Y
K
Y
L
L
F
I
D
T
F
S
G
W
I
E
A
F
P
T
K
K
E
T
A
V
V
T
K
K
L
L
E
E
I
F
P
R
F
G
M
P
Q
V
L
G
T
D
N
G
P
A
F
V
S
K
V
S
Q
T
V
A
D
L
L
G
I
D
W
K
L
H
C
A
Y
R
P
Q
S
S
G
Q
V
E
R
M
T
R
I
K
E
T
L
K
L
T
A
G
S
R
D
W
V
L
L
P
L
A
Y
R
A
R
N
T
P
G
H
G
L
T
P
Y
E
I
L
Y
G
A
P
P
L
V
N
F
P
D
P
D
M
T
R
V
N
S
P
L
Q
A
H
L
Q
A
L
Y
L
V
Q
H
E
V
W
R
P
L
A
A
Y
Q
E
Q
L
D
R
P
V
V
P
H
P
Y
R
V
G
D
T
V
W
V
R
R
Q
T
K
N
L
E
P
R
W
K
G
P
Y
T
V
L
L
T
P
T
A
L
K
V
D
G
I
A
A
W
I
H
A
A
H
V
K
A
A
D
P
G
G
P
S
S
R
L
T
W
R
V
Q
R
S
Q
N
P
L
K
I
R
L
T
R
E
A
P

>DP01190|Q9WUP7-2|#151-160

MSSNAGEWCLMESDPGVFTELIKGFGCRGAQVEEWSLEPESFEKLKPVHGLIFLFKWQPGE

PAGSVVQDSRLETIFAKQVINNACATQAIJVLLNCTHQDVHLGETLSEFKEFSQFDAAMK
GLALSNSD VIRQHNSFARQQMFEFDTKPAKEEDAFHFVSYVPVN GRLYELDGLREGPIDL
GACNQDDWITA VRPVIEKRIQKYSEGEIRNLMAIVSDRKMIYEQKIAELQRQLAEEPMDTQ
GSTVLSAIQSEVARNQMLIEEVQKLKRYKIENIRRKHNYLPFIMELLKTLAEHQQLIPLVEKA
KEKQNAKKAQETK
>DP00575|P77072|#1-20 #146-161 #178-184 #205-212
MKLAPYILELLTSVNRTNGTADLLVPLLRELAKGRPVSR TTLAGILDWPAERVAAVLEQATST
EYDKDGNIIGYGLTLRETSYVFEIDDRRLYAWCALDTLIFPALIGRTARVSSHCAATGAPVSLT
VSPSEIQAVEPAGMAVSLVLPQEADVRQSFCCHVHFFASVPTAEDWASKHQGLEGLAIVSV
HEAFGLGQE FNRHLLQT MSS RTP
>DP00622|P63045|#1-35 #36-54 #55-76 #77-88
MSATAATVPPAAPAGEEGGPPAPPNLTSNRRLQQTQAQVDEVVDIMRVNV DKVLERDQKLS
ELDDRADALQAGASQFETSAAKLKRKYWWKNLKMMIILGVICAIILIIIVYFST
>DP01854|Q9M605|#83-93 #83-130 #93-113 #114-130
MAYQQDPCANPTRQTGKTGGQTDQYGNPVHQTEALGAYGAGTGTGMHGGEHQQQPHQQP
GVLHRSGSSSSEDDGQGGRRKKGMKEKIKERIPGMGRKDEQKQTSATSTPGQGQQKGMM
EKIKEKLPGAH
>DP00527|P02783|#1-70
MKSTSFLCSLLLLVTGAIGRKTEKYSQSEEVVSESFASGPSSGSSDELVRDKPYGPKVSG
GSFGE EASEEISSRRSKHISRSSGGSNMEGE SSYAKKKRSRFAQDVLN
>DP01480|Q96FI4|#312-389
MPEGPELHLASQFVNEACRALVFGGCVEKSSVSRNPEVFESSAYRISASARGKELRLILSPLP
GAQPQQEPLALVFRFGMSGSQLVPREELPRAHLRFTAPPGPRALCFVDI RRGRWDLG
GKWQPGRGPCVLQEYQQFRENVLRLADKA FDRPICEALLDQRFFNGIGNYLRAEILYRLKIP
PFEKARSVLEALQQHRPSPELTLSQKIRTKLQNPDLLELCHSVPKEVVQLGGKG YGSES GEED
FAAFRAWLRCYGM PG MSSQLQDRHGR TIWFQGD PGPLAPKGRKS RKK SKATQL SPEDRVED
ALPPSKAPSRTTRAKRDLPKRTATQRPEGTSLQDPEAPTVPKKGRKGRQAASGHCR PRKV
KADIPSLEPEGTSAS
>DP01567|B9UCQ5|#1-58
MMEPSRDSGLNLEGGFMSPMSPP EMKPDTAML DGLRDDSTPPP AFKNYPP NHPLSGSKHLC S
ICGDRASGKHYGV SCEGCKGFFKRTVRKD LT YAC REERN CIIDKRQRN RCQYCRY QK CLA
CGMKREAVQEERQRGARGTEDAH PSSVQ VQELS IERLLEMESLVADPSEEFQFLRVGPDS N
VPPKFRAPVSSL CQIGNKQIA ALV VWARDI PHFSQ LELEDQILLIKGSW NELLFAIA WRSMEY
LTEERDGVDGTGNRTT SPPQLMCLMPGML HRNSALQAGVGQIFDRV LSEL SLKMRSLRVD
QAEYVALKA II LNPDVKG LKNRQE VEVLREKMFCL DEYCR SRGSE EGRFA ALL RL P AL
RSISLKSFEHLFFFHLVADTSIAGYIRDALRNHAPPIDTNMM
>DP01675|O75928|#427-488 #466-479
MADFEELRN MVSSFRVSELQVLLGFAGR NKS GRKHDLLM RA LHLLKG CSP AVQIKIRELYR
RRY PRTLEGLSDLSTIKSSV FS LDGGSSP VEPDLA VAGI HSLP STS VTPHSPSS PVGSVLLQDTK
PTFEMQQPSPPIPPVHPDVQLKNLPFYDVLDVLIKPTSLVQSSIQRFQE KFFIFAL TPQQVREICI
SRDFLPGGRRDYTVQVQLRLCLAETSCPQEDNYPNSLCIKVNGKLPLPGY APPPKNGIEQKR
PGRPLNITSLVRLSSA V PNQISI SWASEIGKNYSMSVY LRQL TSAM LLQRLKM KGIRNP DHSR
ALIKEKLTADPDSEI ATTSLRVSLMCPLGK MRL TIPCRAV TCHLQCFDA ALY LQMNEKKPT
WICPVC DKKAAYE SLL DGLFMEI LND CS DVDE IKFQEDG SWCPMRPK KEAM KVSSQ PC T KIE
SSVLSKPCSVTVASE ASK KVDV IDLTIES S DEE EDPPA KRKC IFM SET QSSPTKG VL MYQP
SSVRVPSVTSVDPAAIPPSL TDY SVPFHHTPISSMSSD LPGLDF LSLIPV DPQYC PPMFL DLS LTSP
LTASSTS VTTTSSHE STHVSSSSRSETGVITSSGSNIPDIISLD

>DP00627|Q05323|#27-40
MEASYERGRPRAARQHSRDGHDDHVRARSSRENYRGEYRQSRASQVRVPTVFHKKRVEPLTVPPAPKDICPTLKKGFLCDSSFCKKDHQLES LTDRELLLIARKTCGSVEQLNITAPKDSRLANPTADDFQQEEGPKITLLTLIKTAEHWARQDIRTIEDSKLRALLTLCAVMTRKFSKSQLSLLCETHLRREGLGQDQAEPLEVYQLHSDKGGSFEAALWQQWDRQSLIMFITAFLNIALQLPCESSAVVSGLRTLVPQSDNEEASTNPGTCSWSDEGTP
>DP01496|P0AFG0|#45-65 #117-131
MSEAPKKRWYVVQAFSGFEGRVATSLREHIKLHNMEDLFGEVMVPTEEVVEIRGGQRRKSERKFFPGYVLVQMVMNDASWHLVRSPRVMFIGGTSDRPAPISDKEVDAIMNRLQQVGDKPRPKTLFEPGEMVRVNDGPFAFNFGVVEEVDYEKSLKVSVSIFGRATPVELDFSQVEKA
>DP00614|Q07412|#66-80 #165-178
MARKYFVAANWCNGTLESIKSLTNSFNNLDFDPSKLDVVVFVSVHYDHTRKLLQSKFSTGIQNVSFKGNGSYTGEVSAEIAKDLNIEYVIIGHFERRKYFHETDEDVREKLQASLKNNLKAVVCFGESLEQREQNKTIEVITKQVKAFVDLIDNFDNVILAYEPLWAIGTGKTATPEQAQLVHKEIRKIVKDTCGEKQANQIRLYGGSVNTENCSSLIQQEDIDGFLVGNASLKESFVDIISAM
>DP01604|Q12483|#1-19 #1-22
MKQFGLAAFDELKDGYNDVNKTILEKQSVELRDQLMVQERLVEFAKKHNSELQASPEFRSKFMHMCCSIGIDPLSLFDRDKHLFTVNDFYYEVCLKVIECRQTKDMNGGVISFQELEKVHF RKLNVGLDDLEKSIDMLKSLECFCEIFQIRGKKFLRSVPNELTSDQTKILEICSILGYSSISLLKANLGWEAVRSKSALDEM VANGLLWIDYQGGAEALYWDPSWITRQL
>DP02271|P29131|#68-79 #94-116 #124-215
MAQRDYVRRSQPAPSRRKKSTSRRKQRNLPAVSPAMVAIAAAAVLVTFIGGLYFITHHKKEESTLQSQKVTGNGLPPKPEERWRYIKELESRQPGVRAPTEPSAGGEVKTPEQLTPEQRQLLEQM QADMRRQQPTQLVEVPWNEQTPEQRQQLRQRQAQQLAEQQRQLAQQSRTTEQSWQQQTRTSQAAPVQAQPRQSKPASSQPYQDLLQTPAHTTAQSKPQQAAPVARAADAPKPTAEKKDER RWMVQCGSFRGAEQAETVRAQLAFEGFDISKITTNNNGWNRVVIGPVKGKENADSTLNRLKMAGHTNCIRLAAGG
>DP01482|O13828|#553-741
MSFTNATFSQVLDDLSARFILNLPAAEQSSVERLCFQIEQAHWFYEDFIRAQNDQLPSLGLRVS AAKLFAHCPLLWKWSKVHEEAFFDDFLRYKTRIPVRGAIMLDMSMQCQLVKGWKASSGWG FPKGKIDKIDESDVCAIREVYEETGFDCSSRINPNEFIDMTIRGQNVRLYIIPGISLDTRFESRTR KEISKIEWHNLMDLPTFKKNKPQTMKNKFYMVIPFLAPLKKWIKKRNIANNTKEKNISVDV DADASSQLLSSLLSSTAPSDLATQPSTFPQPPVESHSSFDIKQKILHLLNEGNEPKSPIQLPPVS NLPLNPPIQSSNSRLSHDNNSFDPFAYLGLDPKNPSASFPRVVSQNNMLTNKPVLNNHFQQSM YSNLLKDQNSVQHLFAASDMPSMPMELPSPSTVYHQVFYPPSTS VSSYGLGKTPQPAYGSSSP YVNGHQTQQISSLPPFQSQTQFLARNSDNSGQSYNSEGDSNSKRLLSMSLQQDTPSSTLSKE ANVQLANLFLTPNSLETKKFSDNSQGEEISDNLHGESCNPNA SVHSAQLLQALLHPSATET KEETPKKTSDSLSSLLKSGLPTPANDLQNKSQNNEKASSQVKELEVKNYSKSTDLLKTL RIPRNDEPLEAANQFDLLKVSPQQKSEVPPKRNELSQSKLKNRKKENSETNKNHVDMSPGF VKILKRSPLADQKKEDTQESDFKGSDDHFLSYLQSVVSSNSNGLH
>DP00561|P28583|#329-342
MAAKSSSSTTTNVVTLKA AWVLPQRTQNI REVYEVGRKLGQGQFGTTFECTRRASGGKFA CKSIPKRKLLCKEDYEDVWREIQIMHHLSEHANVVRIGTYEDSTAVHLVMECEGGELFDRI VQKGHYSERQAARLIKITIVEVVEACHSLGVMHRDLKPENFLFDTIDEDAKLKATDFGLSVFY KPGESFCDVVGSPYYVAPEVLRKLYGPESDVWSAGVILYILLSGVPPFWAESEP GIFRQILLGKLDFHSEPWPSISDSAKDLIRKMLDQNPKTRLTAHEVLRHPWIVDDNIAPDKPLDSA VLSRLKQFSAMNKLKKMALRVIAERLSEEEIGGLKELFKMIDTDNSGTITFDELKDGLKRVGSEMEI

KDLMDAADIDKSGTIDYGEFIAATVHLNKLEREENLVSASFYFDKGSGYITLDEIQQACKDF
GLDDIHIDDMIKEIDQDNDGQIDYGEFAAMMRKGNGGIGRRTMRKTLNLRDALGLVDNGSN
QVIEGYFK

>DP02007|Q9H2Y7|#1265-1521

MPVGRIECPSSPSFPRDISHECRVCGVTEVGLSAYAKHISGQLHKDNVDAQEREDDGKGEEEEE
EDYFDKEIQLIKQRKEQSRQDEPSNSNQEINSDDRRPQWRREDRIPYQDRRESYSQPAWHHRG
PPQRDWKWEKDFGNTRKNSFPHSLRNGGGPRGRSGWHKGVAGGSSTWFHNHSNSGGGW
LSNSGAVDWNHNGTGRNSSLSEGTTGGFSSWHMNNNSNGNWKSSVRSTNNWNYSGPDKF
QPGRRNRNSNCQMEDMTMLWNKKSNSNKYSHDRYNWQRQENDKLGTVATYRGPSEGFTS
DKFPSEGLDFNFEQLESQTTQADTATSKVSGKNGSAAREKP RRWTPYPSQKTLDLQSGLK
DITGNKSEMIEKPLFDFSLITTGIQEPQTDETNSPTQTKQEIHTGSLNHKASSDSAASFVVR
QCPTAEKPEQEHTPNKMPSLKSPLPCPATKSLSQKQDPKNISKNTKTNFFSPGEHSNPSNKPT
VEDNHGPYISKLRSSCPHVLKGKSTFGSQKQSGDNLNDTLRKAKEVLQCHESLQNPLLSTS
KSTRNYAKASRNVEESEKGLKIEFQVHALEDESDEGETSDTEKHGTIGTLGSATTELLSGST
RTADEKEEDDRILKTSRELSTSPCNPIVRQKESELQMFTAASPHGULLDLKTSLEDAQVDDSI
KSHVSYETEGFESASLDAELQKSDISQPSGPLLPELSKLGFPASLQRDLTRHISLKSKTGVHLPE
PNLNSARRIRNISGHRKSETEKESGLKPTLRQILNASRRNVNWEQVIQQVTKKKQELGKGLPR
FGIEMVPLVQNEQEALDDLGEPDLSSLEGFWEGVSISSSPGLARKRSLSSESSVIMDRAPS VYS
FFSEEETGKENEPQQMVSPNSLRAQGSQKATMHLKQEVT PRAASLRTGERAENVATQRHHS
AQLSSDHIIPLMHLAKDLNSQERSIPPSENQNSQESNGEGNCLSSASSALAISLADAATDSSC
TSGAEQNDGQSIRKKRATGDSSPELPSLERKNKRRKIKGKKERSQVDQLLNISLREEELS KS
LQCMDNNLLQARAALQTAYVEVQRLLMLKQQITMEMSALRTHRIQILQQLQETYEPSEHPD
QVPCSLTRERRNSRSQTSIDAALLPTPFFPLFLEPPSSHVSPSPGTGASLQITTSPTFQTHGSVPAP
DSSVQIKQEPMSP EQDENVNAVPPSSACNVSKELLEANREISDSCP VYPVITARLSLPESTESFH
EPSQUELKSVEQRNTRNREN SPSSQSAGLSSINKEGEPTKGNGSEACTSSFLRLSFASETPLE
KEPHSPADQPEQQAESTLTS AETRGSKKKKLRKKSLRAAHVPENS DTEQDVLTVKPVRKV
KAGKLKGGKVT TSWEDSR TGREQESVRDEPDSDSLEVLEIPNPQLEVVAIDSSES GEEKPD
SPSKKDIWNSTEQNPLETSRSGCDEVSSTSEIGTRYKDGIPV SVAETQTVISSIKGSKNSSEISSE
PGDDDEPTEGSFEGHQAAVN AIQIFGNLLYTC SADKTVRVY NLVSRKCIGV FEGHTSKVNCL
VTQTSGKNAALYTGS SDHTIRCYNVKSREC VEQQLQEDRVLCLHSRW RILYAGLANGTVVTF
NIKNNKRLEIFECHG PRAVSCLATAQEGARKLLVVG SYDCTISVRDAR NGLLRTLEGHSKTI
LCMKVVNDLVFS GSSDQSV HAHNIHTGELV RIYKGHN HAVTVV N ILGKVM TACLDKFV RV
YELQSHDRLQVYGGH KDMIMCM TIHKSMI YTGCYDGS IQAVRLN LMQNYRCW WHGCSL IF
GVVDHILKQHLLTDHTNPNF QTLKCRWKNC AFFTARKGSKQDAAGHIERHAEDDSKIDS

>DP01168|F9UST4|#126-147

MATLATKKATLVAALKDLQRVTVA FSGGIDSTLV KMA LDV LGRDN VTAVVAN SELFTDEE
FDKAMSLAEE LGANVQ GTTLDYLS DDH IKNNT PD SWYYAKK MFY SRLNDIAAN NGSA A VL
DGMIKNDENDYR PGLKAR SEAGAR SLLQ EAD FFKD VR ALA QEL GLTN WNK VAS CSVSSRF
PYGTTLHDNIAQVMAAEKYL RSLGFPTV R VFHNDIARIELPEARIGDFLV FND RVNRQLQS
LGFRYVTLDLGGFRSGRMNDLT K AQL ATFA

>DP01869|P51587|#21-39

MPIGSKERPTFFEIFKTRCNKADLGPI SLNWF EEL SSEAPP YNSEPAEESEHKNNNYEPNL FKTP
QRKPSYNQLASTP IIFKEQGLT LPLYQSPVKE LDKF KLDL GRN VPNSRHKSL RTVKT KMDQAD
DVSCPLLNSCLSESPVVLQCTHVT PQRDKS VCGSLFHTPKFVKGRQTPKHI SESLGAEVDPD
MSWSSSLATPPTLSSTV LIVRNEEASET VFPHDTTANVKS YFSN HDESLK KNDRF IASV TDSEN
TNQREAASHGF GKTSGNSFKV NSCKDHIGK S MPNV LEDEV YETV VDTSEEDSFSL CFSK C RT
KNLQKVR SKTRKKI FHEA NADECEKSKNQVKE KYSFVSEVEPNDT DPLDS NVANQKPFESG

SDKISKEVVPSLACEWSQLTLSGLNGAQMEKIPLLHISSCDQNISEKDLLDTENKRKKDFLTSE
NSLPRISSLPKSEKPLNEETVVNKRDEEQHLESHTDCILAVKQAISGTPVASSFQGIKKSIFRIR
ESPKETFNASFSGHMTDPNFKKETEASESGLEIHTVCSQKEDSLCPNLIDNGSWPATTQNSV
ALKNAGLISTLKKKTNKFYAIHDETSYKGKKIPKDQKSELINCSAQFEANAFEAPLTFANADS
GLLHSSVKRSCSQNDSEEPTSLTSSFGTILRKCSRNETCSNNVISQDLDYKEAKCNKEKLQL
FITPEADSLSCLQEGQCENDPKSKVSDIKEEVLAACHPVQHSKVEYSDTDFQSQKSLLYDH
ENASTLILTPTSKDVLSNLVMISRGKESYKMSDKLGKNNYESDVELTKNIPMEKNQDVCALN
ENYKNVELLPPEKYMVRASPNSRQVQFNQNTNLRVIQKNQEETTSISKITVNPDSEELFSDEN
NFVFQVANERNNLALGNTKELHETDLTCVNEPIFKNSTMVLYGDTGDKQATQVSINKDLVY
VLAEEENKNSVKQHIMTLGQDLKSDISLNIDKIPKNNNDYMNKWAGLLGPISNHSFGGSFRT
ASNKEIKLSEHNKSKMFFKDIEEQYPTSLACVEIVNTLALDNQKKLSKPQSINTVSAHLQSS
VVVSDCKNSHITPQMLFSKQDFNSNHNLTPSKAEITELSTILEESGSQFETQFRKPSYILQKS
TFEVOPENQMTILKTSEECDADLHVIMNAPSIGQVDSSKQFEGTVIEKRFAGLLKNDCNKS
ASGYLTDENEVGFRGFYSAHGTKLNVSTEALQAVKLFSDIENISEETS AEVHPISLSSSKCHD
SVVSMFKIENHNDKTVSEKNNKCQLILQNNIEMTTGTFVEEITENYKRNTENEDNKYTAASR
NSHNLEFDGSDSSKNDTVCIHKDETDLFTDQHNICLKLSGQFMKEGNTQIKEDLSDLTFLEV
AKAQEACHGNTSNKEQLTATKTEQNIKDFETSDTFFQTASGKNISVAKESFNKIVNFFDQKPE
ELHNFSLNSELHSDIRKNKMDILSYEETDIVKHKILKESVPVGTGNQLVTFGQPERDEKIKEP
TLLGFHTASGKKVKAIAKESLDKVKNLFDEKEQGTSEITSFSHQWAKTLKYREACKDLELACE
TIEITAAPCKCEMQNSLNDKNLVIETVPPPULLSDNLCRQTERNLKTSKSIFLKVKVHENVE
KETAKSPATCYTNQSPYVIENSALAFYTCSRKTTSQTSLLEAKKWLRREGIFDGQPERINTA
DYVGNLYENNSNSTIAENDKNHLSEKQDTYLSNSSMSNSYSYHSDEVYNDSGYLSKNKLD
SGIEPVLNVEDQKNTFSKVISNVKDANAYPQTVNEDICVEELVTSSPCKNNAAIKLSISN
SNNFEVGPPAFRIASGKIVCVSHETIKVKDIFTDSFSKVIKENNENKSICQTAIMAGCYEAL
DDSEDLHNSLDNDECSTHSHKFADIQSEEILQHNQNMMSGLEVKVKSPICDVSLETSICKCSI
GKLHKS VSSANTCGIFSTASGKSVQVSDASLQNARQVFSIEEDSTKQVFSKVLFKSNEHSQL
TREENTAIRTPEHLISQKGFSYNNVNSAFSGFSTASGKQVSILESSLHKVKGVLEFDLIRTEH
SLHYSPTSRQNVSKILPRVDKRNPEHCVNSEMECTCSKEFKLSNNLNVEGGSENNHSIKVSP
YLSQFQQDKQQLVLGTVKSLVENIHVLGKEQASPKNVKMEIGKTETFSDFPVKTNIEVCSTYS
KDSENYFETEAVEIAKAFMEDDELTD SKLPSHATHSLFTCPENEEMVLSNSRIGKRRGEPLILV
GEPSIKRNLLNEFDRIIENQEKLASKSTPDGTIKDRRLFMHHVSLEPITCVPFR TTKERQEIQ
NPNFTAPGQEFLSKSHLYEHTLEKSSNLA VSGHPFYQVSATRNEKMRHLITTGRPTKVFVP
PFKTKSHFHRVEQCVRNINLEENRQKQNI DGHGSDDSKNKINDNEI HQFNKNNSNQAAAVTF
TKCEEPLDLITSQNARDIQDMRIKKQRQRFQPGSLYLAKTSTLPRISLKA AVGGQVPSA
CSHKQLTYGVSKHCIKINSKNAESFQFH TEDYFGKESLWTGKGQLADGGWLIPSNDGKAG
KEEFYRALCDTPGVDPKLI SRIWVY NHYRWIWKLAAMECAFKEFANRCLS PERVLLQLKY
RYDTEIDRSRRSAIKKIMERDDTAAKTLVLCVSDIISLSANISSETSSNKTSSADTQKVIIELTDG
WYAVKAQLDPPLLAVLKNGRLTVGQKII LHGAELVGSPDACTPLEAPESMLKISANSTRPAR
WYTKLGFPDPDFPLPLSSLFSDGGNVGCVDVIIQRAYPIQWM EKTSSGLYI FNRERE EKEA
AKYVEAQKQRLEALFTKIQEEFEEHEENTTKPYLPSRALTRQQRV ALQDGAELYEAVKNAAD
PAYLEGYFSEEQLRALNNHRQMLNDKKQAQI QLEIRKAMESAEQKEQGLSRDVTTVWKLRI
VSYSKKEKDSVILSIWRPSSDLYSLLTEGKRYRIYHLATSKSKSERANIQLAATKKTQYQQL
PVSDEILFQIYQPREPLHF SKFLDPDFQPSCSEV D LIGFVVSVVKKTGLAPFV YLSDECYNLLAI
KFWIDL NEDIIKPHMLIAASNLQWRPESKSGLLT FAGDFSVFASPKEGHFQETFNKM KNTV
ENIDILCNEAENKLMHILHANDPKWSTPTKDC TSGPYTAQIIPGTGNKLLMSSPNCEIYYQSP
SLCMAKRKS VSTPVSAQM TS KSKC GEKEIDDQKNCKR RALDFLSRLPLPPPVS PICTFVSPA
AQKA FQPPRSCGTYETPIKKKELNSPQMTPFKFNEISLLESNSIADEELALINTQALLSGSTG

EKQFIVSESTRTAPTSSEDYLRLKRRCTTSLIKEQESSQASTEECEKNKQDTITTKYI
>DP01390|P62799|#1-21
MSGRGKGGKGLGKGAKRHRKVLRDNIQGITPAIRRLARRGGVKRISGLIYEETRGVLKVF
LENVIRDAVTYTEHAKRKTVTAMDVVYALKRQGRTLYGF GG
>DP01621|E5LC01|#1065-1117
MAPPGMRLRSRSTGAPLTRGSCRKNRSPERCDLGNDLHLQPRRKHVADSDVGRECGPH
LPIPGSPTVFTSGLPAFVSSPTLPVAPIPSPAPATPLPPPALLSPVTTSSSIPPSPHPVSPGTTDTHS
PSPALPPTQSPESSQRPPLSSPTGRPDSSPMRPPPSQTTPPHSPTTPPEPPSKSSPDLSAPSTL
RSLRKRRLLSPQGPSTLNPICQSPPVSPPRCDFANRSVYPPWATESPIYVGSSDGTTPRQPPT
SPISIGSSSPSEGSGWDDTAMLVLLAEIAEASKNEKECSENNQAGEDNGDNEISKESQVDKD
DNDNKDDEEEQETDEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEED
EEEDEEEDEEEDEEDDDDEDNEDEEDDEEDDEEDKKEDEEDGGDGNKTLSIQSSQQQQEPQQQ
EPQQQEPQQQEPLQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQ
QREPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQEPQQQ
EPQQQEPQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDE
QQQDEQQQDEQQQDEQQQEEQQEQQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQE
LEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQE
EEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQE
QEQQEQQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQELEEEQEQE
QEQQETVEEPIILHGSSSEDEMEVDYPVVSTHEQIASSPPGDNTPDDDPQPGPSREYRYVLRTSP
HRPGVRMRRVPVTHPKPHPRYQQPPVPRQIDDCAKARPQHIFYRRFLGKDGRDPKCQ
WKFAVIFWGNDPYGLKKLSQAFQFGGVKAGPVSLPHLGPDQSPITYCVYVCQNKTDSKK
VQMARLAWEASHPLAGNLQSSIVFKKPLTQPGENQGPGDSPQEMT
>DP01626|Q01831|#815-940
MARKRAAGGEPRGRELRSQKS KAKSKARREEEEEDAFEDEKPPKKSLLSKVSQGKRKGCS
HPGSADGPAKKVAKVTVKSENLKVIKDEALSDGDDL RDFPSDLKKAHLKRGATMNEDS
NEEEESENDWEEVEELSEPVLGDVRESTAFSRSLPVKPVEIEIETPEQAKTRERSEKIKLEFE
TYLRRAMKRFNKGVHEDTHKVHLLCLLANGFYRNNICSQPDHLAIGLSIIIPARFTRVLPRDVD
TYYLSNLVKWFIGTFTVNAELSASEQDNLQTTLEERRFAIYSARDDEELVHIFLLILRALQLLTR
LVLSLQPIPLKSATAKGKKPSKERLTADPGGSSETSSQVLENHTPKTKTSGTKQEETFAKGTC
RPSAKGKR NKGRKKRSKPSSEDEGPGDKQEKA TQRRPHGRERRVASRVSYKEESGSDEA
GSGSDFELSSGEASDPSDEDSEPGPPKQRKAPAPQRTKAGSKSASRTHRGSHRKDPSLPAASSS
SSSSKRGKKMCS DGEKA EKRSIAGIDQWLEVFC EQUEEKWVCVDCVHGVVGQPLTCYKYATK
PMTYVVGIDSDGWVRDVTQRYDPVWMTVTRKCRVDAEWWAETLRPYQSPFMDREKKEDL
EFQAKHMDQPLPTAIGLYKNHPLYALKRHLKYEAIPETAAILGYCRGEAVYSRDCVHTLH
SRDTWLKKARVVRGEVPYK MVKGFSNRARKARLAEPQLREENDLGLFGYWQTEEYQPPV
AVDGKVRNEFGNVYLFPSMMPIGCVQLNLPNLHRVARKLDIDCVQA ITGFDFHGGYSHPV
TDGYIVCEEFKDVL LTAWENEQAVIERKEKEKKEKRALGNWKLLAKGLLIRERLKRRYGPKS
EAAAPHTDAGGLSSDEEGTSSQAE AARILAASWPQNREDEEKQKLKG PKKT KREKKA
ASHLF PFEQL
>DP00621|P00736|#193-305
MWLLYLLVPALFCRAGGSIPIPQKLFGEVTSPFPKPYPNMFETTVITVPTGYRVKLVFQQFD
LEPSEGCFYDYVKISADKKSLGRFCGQLGPLGNPPGKKEFMSQGNKMLLT FHTDFSNEENG
TIMFYKGFLAYYQA VDLDECASRSKSGEEDPQPQCQHLCNYVGGYFCSCRPGYELQEDTHS
CQAECSSELYTEASGYISSLEYPRSYPPDLRCNYSIRVERGLTLHLKFLEPF DIDDHQVHCPY
DQLQIYANGKNIGEFCGKQRPPDLDTSSNAV DLLFFTDESGDSRGWKLRYTTEIIKCPQPKTL
DEFTIIQNLQPQYQFRDYFIATCKQGYQLIEGNQVLHSFTA VCQDDGTWHRAMPRCKIKDCG

QPRNLPNGDFRYTTMGVNTYKARIQYYCHEPYYKMQTRAGSRESEQVYTCTAQGIWKNE
QKGEKIPRCLPVCVGKPVNPVEQRQRIIGGQAKMGNFPWQVFTNIHGRGGGALLGDRWILTA
AHTLYPKHEAQSNASLDVFLGHTNVEELMKGHNPIRRVSVHPDYRQDESYNFEGDIALLE
LENSVTLGPNLLPICLPNDTFYDLGLMGYVSGFGVMEEKIAHDLRFVRLPVANPQACENWL
RGKNRMDVFSQNMFCAGHPSLKQDACQGDSGGVFAVRDPNTDRWVATGIVSWGIGCSRGY
GFYTKVLNYVDWIKKEMEEED

>DP01704|P62318|#85-97

MSIGVPIKVLHEAEGHVTCETNTGEVYRGKLIEAEDNMNCQMSNITVYRDGRVAQLEQVY
IRGSKIRFLILPDMKNAPMLKSMKNQNQSGAGRGAAILKAQVAARGRGRGMGRGNIFQ
KRR

>DP02253|Q96F86|#203-258

MATDWLGSIVSINCGDSLGVYQGRVSAVDQVSQTISLTRPFHNGVKCLVPEVTFRAGDITELK
ILEIPPGDQNQHFGDLHQTELPGSGAGCQVGINQNQNTGKFVKKPASSSSAPQNIPKRTDVKSQ
DVAVSPQQQCSKSYVDRHMESLSQSFSRRRHNSWSSSRHPNQATPKKSGLKNGQMKNK
DDECFGDDIEEIPDTDFEGNLALFDKAAVFEEIDTYERRSGTRSRSRGIPNERPTRYRHDENILE
SEPIVYRIIIVPHNVSKEFCTDSGLVVPSISYELHKKLLSVAEKHGLTLERRLEMTGVCASQMA
LTLLGGPNRLNPKNVHQRPTVALLCGPHVKGAQGISCGRHLANHDVQVILFLPNFVKMLESI
TNELSLFSKTQGQQVSSLKDLPTSPVDLVINCLDCPENVFLRDQPWYKAAVAWANQNRAPI
LSIDPPVHEVEQGIDAKWSLALGLPLPLGEHAGRIYLCDIGIPQQVQEVGINYHSPFGCKFVIP
LHSA

>DP00242|P0AG63|#1-83

MTDKIRTLQGRVVSDKMEKSIVVAIERFVKHPIYGKFIKRRTKLHVHDENNECGIGDVVEIRE
CRPLSKTSWTLVRVVEKAVL

>DP01961|P38516|#43-95

MAQVDLLNVKGEKVGTLEISDFVFVNIDPNYDVMWRYVDMQLSNRRAGTASTKTRGEVSGG
GRKPWPQKHTGRARHGSIRSPIWRHGGVHGPKPRDWSKKLNKKMKKLALRSALSVKYRE
NKLLVLDLKLERPKTKSLKEILQNLQLSDKTLLVLPWKEEGYMNVKLSGRNLPDVKVIAD
NPNNSKNGEKAVIDGLNVFDMLKYDYLVLTRDMVSKIEEVLGNEAGKALTA

>DP02530|P18564|#1-788

MGIELLCLFFLFLGRNDHVQGGCALGGAETCEDCLLIGPQCAWCAQENFTHPSGVGERCDTP
ANLLAKGCQLNFIENPVSQVEILKNKPLSVGRQKNSSDIVQIAPQSLILKLRPGQAQLQVHVR
QTEDYPVDLYYLMDSLASMDDDLNTIKELGSRSLKEMSKLTSNFR LGFGSFVEKPVSPFKTT
PEEIANPCSSIPYFCLPTFGFKHILPLTNDAEFRNEIVKNQKISANIDTPEGGF DAIMQAACKE
KIGWRNDSLHLLVFVSDADSHFGMDSKLAGIVIPNDGLCHLDSKNEYSMSTVLEYPTIGQLID
KLVQNNVLLIFAVTQEQQVHLYENYAKLIPGATVGLLQKD SGNILQLIISAYEELRSEVELEV LG
DTEGLNLSFTAICNNGLFQHQKKCSHMVKVGD TASFSVTVNIPH CERRSRHI IKPVGLGDALE
LLVSPECNCDCQKEVEVNSSKCHHGNGSFQCGVCACHPGHMGPRCECGEDMLSTDSCKEAP
DHPS CS GRGDCY CGQCICLSPYGN IYGP YC QCDNF SC VR HK GLL CGG NG DC DC GE CV CRS
GWTGEYCNCTTSTDSCVSEDGVLC SGRGDC VCGKCVCTNPGASGPTCERCPTCGDPCNSKRS
CIECHLSAAGQAREECVDKCKLAGATISSEEEDFS KDG SVCSLQGENECLITFLITTNEGKTII
HSINEKDCPKPPNIPMIMLGVL AILLIGVVL CIWKL LVSF HDR KEVAK FEAERS KAKWQTG
TNPLYRGSTSTFKNV TYKHREKQKV DLSTDC

>DP00052|P07214|#18-302

MRAWIFFLCLAGRALAAPQQTEVAEEIVEEETVVEETGVPGVANPVQVEMGEFEDGAEETV
EEVVADNPCQNHHC KHGKVCELDESNTPMCVCQDPTSCPAPIGEFEKVCSDNKT FDSSCHF
FATKCTLEGTKKGHKLHLDYIGPCKYIAPCLDSELTEFPLRM RDWLKNVLVTLYERDEGNNL
LTEKQKLRVKKIHENEKRLEAGDHPVELLARDFEK NYN MYIFPVHWQFGQLDQHPIDGYLSH

TELAPLRAPLIPMEHCTTRFFETCDDLNDKYIALEEWAGCFGIKEQDINKDLVI

>DP01397|Q9Z0P7|#279-359

MAELRPSVAPGPAAPPASGPSAPPAFASLFPPLHAIYGECCRRLYPDQPPLQVTAIVKYWLG
GPDPLDYVSMYRNMGSPSANIPEHWYISFGLSDLYGDNRVHEFTGTDGPGFGFELTFRLL
RETGESAPPTWPAELMQGLARYVFQSENTFCSGDHVSWSPLDNSESRIQHMLLTEDPQMOP
VRTPFGVVTFLQIVGVCTEELHSAQQWNGQGILELLRTVPIAGGPWLITDMRRGETIFEIDPHL
QERVDKGIETGSNLSGVSAKCAWDDLSRPPDEEDSRSCILGTQPRRLSGKDTEQIRETLRR
GLEINSKPVLPPINSQRQNGLTHDRAPSRKDSLGSDSSTAIPHETRQLESVHLKFNQESGA
LIPLCLRGRLLHGRHTYKSITGDMAITFVSTGVEGAFATEEHPYAAHGPWLQILLTEEFVEK
MLEDLEDLTSPEEFKLKEYSWPEKKLVSI LPDVVFDSPLH

>DP00297|P10415#1-5 #26-48

MAHAGRTGYDNREIVMKIHYKLSQRGYEWGDAGDVGAA APPGAAPAPGIFSSQPGHTPHPAA
SRDPVARTSPLQTTPAAPGAAAGPALSPVPPVHLLRQAGDDFSRRYRRDFAEMSSQLHLTPF
TARGRFATVVEELFRDGVNWGRIVAFFEFGGVMCVESVNREMSPLVDNIALWMTEYLNRLH
HTWIQDNGGWDAFVELYGPSMRPLFDFSWLSKTLSSLALVGACITLGAYLGHK

>DP00814|P01252#1-110

MSDAAVDTSEITTSDLKEKKEVVEEAENGREAPANGNANEENGEQEADNEVDEEEEGGE
EEEEEEEGDGEEDGDEDEEEAATGKRAAEDDEDVVDTKKQKTDEDD

>DP02503|Q28146#31-280

MGTALLQRGGCFLLCLSLLLGCWAELGSGLEFPAGEQWTRFPKWNACCESEMSFQLKTR
SARGLVLYFDDEGFCDFLLELILTRGGRLQLSFSIFCAEPATLLTDTPVNDGAWHNVRIRRQFR
NTTLFIDQVEAKWVEVKSKRRDMTVFSGLFVGLLPELRAAALKLTASVREREPFKGWIRD
VRVNSSLALPVDSGEVKLDDEPPNSGGSPCEAGEEGEGGVCLNGGVCSVDDQAVCDCSR
TGFRGKDCSQEDNNVEGLAHLMMGDQGKSKE DNNVEGLAHLMMGDQGKEEYIATFKGSE
YFCYDLSQNPIQSSSDEITLSFKTLQRNGLMLHTGKSADYVNLALKNGAVSLVINLGSGAFEA
LVEPVNGKFNDNAWHDVKVTRNLRQTSIGHAMVNKLHCSVTTISVDGILTTGTYQEDYTM
LGSDFFFYVGSPSTADLPGPVSNNFMGCKEVVYKNNDVRLELSRLAKQGDPMKIHGV
VAFKCENVATLDPITFETPESFISLPKWNAKKTGSISFDRTTEPNGLILFSHGKPRHQDAKHP
QMIKVDFFAIEMLDGHYLLLDMGSGTIKIKALQKKVNDGEWYHVDFQRDGRSGTISVNTLR
TPYTAPGESQILDDELYLGGLENPKAGLVPTEVWTALLNYGYVGCI RDLFIDGQSKDIRQ
MAEVQSTAGVKPSCSRETAKPCLSNCCKNNGMCRDGWNRYVDCSGTGYLGRSCEREATV
LSYDGSFMFKIQLPVVMHTEAEDVSLRFRSQRAYGILMATTSDRSDATLRLDAGRVKLT
NLDCIRINCNSSKGPETLFAGYNLDNEWHTVRVVRGKSLKTVDQQAMTQQMAGDHT
RLEFHNIETGIITERRYLSSVPSNFIGHLQLSLTFNGMAYIDLCKNGDIDYCELNARFGFRNIIADP
VTFKTKSSYVALATLQAYTSMHLLFFQFKTTSLDGLILYNSGDGNDFIVVELVKGYLHYVFDL
GNGANLIKGSNSNKPLNDNQWHNVMSRDTSNLHTVKIDTKITTQITAGARNLDLKS DLYIGGV
AKETYKSLPKLVHAKEGFQGCLASVDLNGLRPLDISDALFCNGQIERGCEGPSTTCQEDCSN
QGVCLQQWDGISCDCSMTSFSGPLCNDPGTTYIFSKGGQITYKWPPNDRPSTRADRLAIGFS
TVQKEAVLVRVDSSGLGDYLELHIHQKGKIVKFNVGTDDIAIESNAIINDGKYHVVRFTRS
GGNATLQVDSWPVIERYPAGNNDNERLAIARQRIPYRLGRVVDEWLLDKGRQLTIFNSQATII
IGGKEQQQPFQGQLSGLYYNGLKVNMAAENDANIAIVGNVRLVGEVPSSMTTESTATAMQ
SEMSTSIMETTTLATSTARRGKPPTKEPVQTTDDILVASAECPSDDEDIDPCEPSSGLANPT
RAGGREPYPGSAEVIRESSSTGMVVGIVAAAALCILLLYAMYKYNRDEGSYHVDESRSNYI
SNSAQNSGAVVKEKQPSSAKSANKKNKDKEYYV

>DP01288|O43313#362-823

MAASEAAAAGSAALAAGARAVPAATTGAAAAASGPWVPPGPRLRGSRPRPAGATQQPAV
PAPPAGELIQPSVSELSRAVRTNILCTVRGCGKILPNSPALNMHLVKSRLQDGIVNPTIRKDL

KTGPKFYCCPIEGCPRGPERPFSQFSLVKQHFMKMHAEKHKCSKCSNSYGTTEWDLKRHAE
DCGKTFRCTCGCPYASRTALQSHIYRTGHEIPAECRDPPSKRKMCNCAQNQKLSNKTIESLN
NQPIPRPDTQELEASEIKLEPSFEDSCGSNTDKQLTTPRYPQKLLPKPKVALVLPVMQFS
VMPVFVPTADSSAQPVVLGVDDQGSATGAVHLMPLSVGTLILGLDSEACSLKESLPLFKIANPI
AGEPISTGVQVNFGKSPSNPLQELGNTCQKNSISSINVQTDLSYASQNFIPSAQWATADSSVSS
CSQTDSLFDQSVLSPISVHTQFLPSSKVTSIIAQTDCAFMDTCFQSGGSRETQTSGIESPTDD
HVQMDQAGMCGDIFESVHSSYNATGNIISNLVAETVTHSLLPQNEPKTLNQDIEKSAPIINF
SAQNSMLPSQNMTDNQTQTDLLSDLENILSSNLPAQTLHDHSLLSDTNPGPDTQLPSGPAQN
PGIDFDIEFFSASNQIQTQTEESELSTMTEPVLESLDIETQTDFLAADTSAQSYGCRGNSNFLGL
EMFDTQTQTDLNFFLDSSPHLPLGSILKHSSFSVSTDSSDTETQTEGVSTAKNIPALESKVQLNS
TETQTMSSGFETLGSLLFTSNETQTAMDDFLADLAWTNTMESQFSSVETQTAEPHTVSNF
>DP01832|Q7Q3R9|#22-103 #56-84 #85-103
MASKLFVLAFLCLALVVVQSAQPYARGDVPTYDEEDFDEESLKPHSSSSDDGEFFDPSLL
EEHADAPTARDPGRNPEFLRNSNTDEQASAPAASSSESDE
>DP02524|A5YKK6|#1565-1832
MNLDSSLALSQISYLVNDNLTKNYRASQQEIQHIVNRHGPEADRHLRLCLFSHVDFGDGKS
SGKDFHQTQFLIQECALLTKPNFISTLSYADNPLHYQKSLKPAHFLFAQLSKVLKLSKVQEVI
FGLALLNSSSSDLRGFAAQFIQKQKLDPLLRSYIDADVSGNQEGGFQDIAIEVLHLLSHLLFGQ
KGAFVGQEQIDAFLKTLRRDFPQERCPVVLAPLLYPEKRDILMDRILPDSSGGVAKTMMESSL
ADFMQEVGYGFCAIEECRNIVQFGVREVTAAQVARVLGMMARTHSGLTDGIPLOQSIAPGS
GIWSDGKDKSDGAQAHTWNVEVLIDVLKELNPSLNFKEVTYELDHPGFQIRDGKGLHNVVY
GIQRGLGMEVFPVDIYRPWKHAEGQLSFIQHSLINPEIFCFADYPCHTVATDILKAPPEDDR
EIATWKSLLDLIESLLRAEVGQEYQVKQLFSFPIKHCPDMLVLALLQINTSWHTLRHELISTLM
PIFLGNHPNSAIIHYAWHGQGQSPSIRQLIMHAMAEWYMRGEQYDQAKLSRILDVAQDLKA
LSMLLNGTPFAFVIDLAALARREYLKLDKWLTDKIREHGEFFIQACMTFLKRRCP SILGG LAP
EKDQPQSAQLPPETLATMLACLQACAGSVSQELSETILTMVANCSVMNKARQPPP GVMPK
GRPPSASSLDAISPVQIDPLLAGMTSLSIGGSAAPHTQSMQGFPPNLGSAFSTPQSPA KAFPPLST
PNQTTAFSGIGGLSSQLPVGGLGTGSLTGITGALGLPAVNNDPFVQRKLGTSGLNQPTFQQS
KMKPSDLSQLVWPEANQHFSKEIDDEANSYFQRIYNHPPHTMSVDEVLEMLQRFKDSTIKRE
REVFNCLRLNLFEEYRFFPQYPDKE LHTACLFGGIIEKGLVTY MALGLALRYVLEALRKPF
SKMYYFGIAALDRFKNRLKDYPQYCQHLASISHFMQFPHLQEYIEYQQSRDPPVKMQGS
TTPGSIALAQAAQAAQVPAKAPLAGQVSTMVTTTTVAKTVTRPTGVSFKKDVPPSINT
TNIDTLLVATDQTERIVEPENIQEKIAFIFNNLSQSNMTQKVEELKETVKEE FMPWVSQYLV
MKRVSIEPNFHSLYSNFLDTLKNPEFNKMVLNEYRNIKVLLSDKAAANFSDRSLLKNLGH
WLGMITLAKNKPILHTDLDVKSLLAEYVKGQQELLYVVPFVAKVLESSIRSVVFRPPNPWT
MAIMNVLAELHQEHDLKLNKFEIEVLCKNLALDINELKPGNLLKD KDRLKNLDEQLSAPKK
DVKQPEELPPITTSTTPATNTCTATVPPQPQYSYHDINVYSLAGLAPHITLNPTIPLFQAH
PQLKQCVRQAIERA VQELVHPVVDRSIKIAMTTCEQIVRKDFALDSEESRMRIA AHMMRN
TAGMAMITCREPLMSISTNLKNSFASALRTASPQQREMMMDQAAAQLAQDNCELACCFIQKT
AVEKAGPEMDKRLATEFELRKHARQEGRYYCDPVVLTYQAERMPEQIRLKVGGVDPKQLA
VYEEFARNVPGFLPTNDLSQPTGFLAQPMKQAWATDDVAQIYDKCITELEQHLHAI PPTLAM
NPQAQALRSLLVVVLSRNSRDAIAALGLQKAVEGLLDATSGADADLLRYRECHLLVLKA
LQDGRAYGSPWCNKQITRCIECRDEYKYNVEAVELLIRNHLVNMQQYDLHLAQMENGLN
YMAVAFAMQLVKILLV DERSVAHVTEADLFHTIETLMRINAHSRGNAPEGLPQLMEVVR
YEAMIDRAHGGPNFMMHSGISQASEYDDPPGLREKA EYLLREWVNLYHSAAAGR DSTKA
AFVGQMHQQGILKTDDLTRFFRLCTEMCVEISYRAQAEQQHNP AANPTMIRAKCYHNL
AFVRLIALLVKHSGEATNTVTKINLLNKVLGIVVGVLQDHDVRQSEFQLPYHRIFIML
LELN

APEH VLET INF QTL AFC NTF HIL RPT KAP GFV YAW LE LISH RI FIA RML AHTP QQKG WP MYA
QLL IDLF KYLA PFLR NVEL T KPMQ ILYKG TLRV LLV LHD FPEFLC DYHYGFC DVIPPC IQLR
NLILSAFPRNMRLPDPFTPNLKVDMLSEINIAPRILTNTGVMPQFKKDLSYLTRSPVTFLS
DLRSNLQVSNEPGNRYNQLINALVYVGTQAIAHINKGSTPSMSTITHSAHMDIFQNLAVD
LDTEGRYLFN AIA NQLRYPNSHTHYFSCTMLYLF AEA NTEA IQEQITR VLLERLIVNR PHPW
GLL ITFIELIKNPAFKFWNHEFVHCAPEIEKL FQSVAQCCMGQKQAQQVMEGTGAS

>DP02130|P02671|#220-581

MFSMRIVCLVLSVVGTAWTADS GEGD LAEGGGVRGPRVVERHQ SACK DSDWPFC SDEDW
NYKCPSGCRMKGLIDEVNQDFTNRINKNSLF EYQKNNKDSHSLTTNIMEILRGDFSSANNR
DNTYNRVSEDLRSRIEVLRKVIEKVQHIQLLQKNVRAQLVDMKRLEV DIDI KIRSCRGCSR
ALAREVDLKD YEDQQKQLEQVIAK DLLPSRDRQHPLI KMKPVDLPGNFKSQ LQKV PPEW
KALT DMPQMRMELERPGGNEITRGGSTS YGTSETESPRNPSSAGSWNSGSSGPGSTGNRNP
GSSGTGGTATWKPGSSGPGSTGSWNNSGSSGTGSTGNQNPGSPRGSTGTWNPGSSERGSAGH
WTSESSVSGSTGQWHSESGSF RDPSPGSGNARPNNPDWGT FEEVSGNVSPGTRREYHTEKL V
TSKGDKELRTGKEVKTGSTTT RRS CSKTVTKT VIGPDGHKEVTV E VTSEDGSDCPEAMD
LGTL SGIGTLDGFRHRHPDEA AFFDTASTGKT FPGFFSPMLGEFVSETESRGSESGIFTNTKESS
SHHPGIAEFP SRGKSSSY SKQFTS STSY NRGDSTF ESKSYKMADEAGSEADHEGTHSTKRGHA
KSRPVRCDDVLQTHPSGTQSGIFNIKLPGSSKIFS VYCDQETSLGGWLLIQQRMDGSLNFNR
TWQDYKRGFGSLNDEGE GE FWL GNDYLHLLTQRGSVLRVE LEDWAGNEAYAEYHFRVGSE
AEGYALQVSSYEGTAGDALIEGSVEEGA YTSHNNMQFSTFDRDADQWEENCAEVYGGGW
WYNNCQAANLNGIYYPGGSYDPRNNSPYEIENGVVVVSFRGADYSLRAVRMKIRPLVTQ

>DP01078|P40477|#441-881

MSSLKDEVPTETSEDFGF KFLGQKQILPSFNEKLPFASLQNL DISNSKSLFVAASGSKAVV GEL
QLLRDHITS D STPLTFKWEKEIPDVIFVCFHGDQVLVSTRNALYSLDLEELSEFRTV TSFEKP VF
QLKNVNNTLVILNSVNDLSALDLRTKSTKQLAQNVTSFDVTSQ LAVLLKDRSFQSFAWRNG
EMEKQF EFSLPSELELPVEEYSPLSVTILSPQDFLA VFGNVISETDDEV SYDQKMYIIK HIDGS
ASFQETFDITPPFGQIVRFPYMYKVTLSGLIEPDANVNVLASSCSSEVSIWDSKQVIEPSQD SER
AVLPISEETDKDTNPIGVA DVVTSGTILEPCSGVDTIERLPLVYILNNEGSLQIVGLFH VAAIK
SGHYSINLESLEHEKSLP TSEKIPIAGQE QEKKNNESSK ALSEN PFTSANTSGFTFLKTQPA
AANSLSQSSSTFGAPSFGSSAFKIDLPSVSS TGVASSEQD ATDPASAKPVFGKPAFGAIAKE
PSTSEYAFGKPSFGAPSFGSGKSSVES PASGSAFGKPSFGTSAFGTASSNETNSGSIFGKA AFGSSSFAPANELFGS
GTPSFGSGN SSAEPPASGSAFGKPSFGTSAFGTASSNETNSGSIFGKA AFGSSSFAPANELFGS
NFTISKPTVDSPKEVDSTSPF PSSGDQSEDES KSDV DSSSTPFGTKPNTSTKPKTNA FDFGSSSF
GSGFSKALESVGS DTTFKFGTQASFSQLGNKSPFSSFTKDDTENGSLKGSTSEIN DDNEEH
ESNGPNVSGNDLTDSTVEQTSSTRLPETPS DEDGEV VEEEAQKSPIGKL TETIKK SANIDMAGL
KNPVFGNHVKAKSESPFSAFATNITKPSSTTPAF SFGNSTM NKNTSTVSPMEEADT KETSEKG
PITLKS VENPFLPAKEERTGESSKKDHNDDPKDGYVSGSEISVRTSESAFD TANE EIPKSQDV
NNHEKSETDPKYSQHAVVDHDNKS KEMNETSKNNERSGQPNHG VQGDGIALKKDNEKENF
DSNMAIKQFEDHQSSEDAEKDSRQSSEVKESDDNMSLNSDRDESISESYDKLEDINTDELP
HGGEAFKAREVSASADF DVQTSLEDNYAESGIQTDLSESSKENEVQTDAIPVKHNSTQTVKK
EAVDNGLQTEPVETCNFSVQT FEGDENYLA EQCKPKQLKEYY TSAKVSNIPF VSQNSTLRLIE
STF QTVEAEFTVLMENIRNMDTFFT DQSSIPLVKRTVRSINNLYTWRIPEAEILLNIQNNIKCEQ
MQITNANIQDLKEKVTDYVRKDIAQITEDVANAKEEYLFLMHFDDASSGYVKDLSTH QFRM
QKTLRQKLF DVS A KINHTEELL NILK LFTVKNKRLDDNPLVAKLAKESLARDG LKEIKLLRE
QVSRLQLEEKGKKASSFDASSSITKDMKGFKVVEVGLAMNTKKQIGDFFK NLNMAK

>DP00238|P38398|#103-1646

MDLSALRVEEVQNVINAMQKILECPICLELIKEPVSTKCDHIFCKFCMLKLLNQKKGPSQCPL

CKNDITKRSLOESTRFSQLVEELLKIICAFQLDTGLEYANSYNFAKKENNSPEHLKDEVIIQS
MGYRNRAKRLQSEPNPLSQLTSLVQLSNLGTVRTLRTKQRIQPQKTSVYIELGSDSSEDT
VNKATYCSVGDQELLQITPQGTRDEISLDSAKKAACEFSETDVTNTEHHQPSNNDLNTTEKR
AAERHPEKYQGSSVSNLHVEPCGTNTTHASSLQHENSSLTKDRMNVEKAFCNKSQPGLA
RSQHNRWAGSKETCNDRRTPSTEKKVDLNADPLCERKEWNKQKLPSENPRDTEDPWTIL
NSSIQKVNEWFSRSDELLGSDDSHGESESNAKVADVLVLNEVDEYSGSSEKIDLLASDPHE
ALICKSERVHSKSVESNIEDKIFGKTYRKASLPNLSHVTENLIIGAFVTEPQIILERPLTNKLKR
KRRPTSGLHPDFIKKADLAQKTPEMINQGTQEONGQVMNITNSGHENKTKGDSIQNEK
NPNPIESLEKESAFKTKAEPISSSISNMELENIHNSAKPKNNRRLKSSTRHIHALEVSRNL
SPPNCTELQIDSCSSSEEIKKKYNQMPVRHSRNLQLMEGKEPATGAKSNKPNEQTSKRHDS
DTFPELKLTNAPGSFTKCSNTSELKEFVNPSLSPREEKEKLETVKVSNNAEADPKDMLSGERV
LQTERSVESSSISLVPGTDYGTQESISLEVSTLGAKTEPNKCVSQCAAFENPKGLIHGCSKD
NRNDTEGFKYPLGHEVNHSRETSIEMEEELDAQYLQNTFKVSKRQSFAFPNSPQNAEECAT
FSAHSGSLKKQSPKVTFECEQKEENQGKNESNIKPVQTVNITAGFPVGQKDKPVVDNAKCSIK
GGSRFCLSSQFRGNETGLTPNKHGLLQNPyRIPPLFPIKFVKTCKKNLLENFEHSMSPER
EMGNENIPSTVSTISRNNIRENVFKEASSSNINEVGSSTNEVGSSINEIGSSDENIQAEGRNRGP
KLNAMLRGVLPQEVYKQSLPGSNCKHPEIKKQEYEEVQTVNTDFSPYLISDNLEQPMGSS
HASQVCSETPDDLLDDGEIKEDETSFAENDIKESSAVFSKSVQKGELSRSRSPFTHTHLAQGYRR
GAKKLESSEENLSSEDEELPCFQHLLFGKVNNIPSQSTRHSTVATECLSKNTEENLLSLKNSLN
DCSNQVILAKASQEHHLSEETKCSASFSSQCSELEDLTANTNTQDPFLIGSSKQMRHQSESQG
VGLSDKELVSDDEERGTGLEENNQEEQSMSNLGEAASGCESETSVSEDCGLSSQSDILTTQ
QRDTMQHNLIKQQEMAELAVEREQHGSQPSNSYPSIIDSSAEDLRNPEQSTSEKAVLTSQ
KSSEYPISQNPEGLSADKFEVSADSSTSNNKEPGVERSSPSKCPSSLDRWYMHSCSGSLQNRN
YPSQEELIKVVDEEQQLEESGPHDLTETSYLPRQDLEGTPYLESGISLFSDDPESDSEDRAPE
SARVGNIPSSTSALKVPQLKVAESAQSPAAAHTTDTAGYNAMEEVSREKPELTASTERVNK
RMSMVSGLTPEEFMLVYKFARKHHITLTNLITEETTHVVMKTDAEFVCERTLKYFLGIAGG
KWVVSYFWVTQSIKERKMLNEHDFEVRGDVNGRNHQGPKRARESQDRKIFRGLEICCYGP
FTNMPTDQLEWMVQLCGASVVKELOSSFTLGTGVHPIVVQPDAWTEDNGFHAIGQMCEAPV
VTREWVLDSVALYQCQELDTYLIPQIPHSHY

>DP00544|B0FRH7|#1-120

MAKSIRSKHRRQMRNVKREHFAKKDLRKLASKAQELLDNVVTMKSAAEIKNPSTSA
SDADKGMEVDNTKKVFKKKTQQNEDGHYPQWMNQRAVKKQKVAKLTKKKIGKKIK
W

>DP01271|Q15691|#249-268

MAVNYYSTSVTSNDLNRHDMALAWINESLQLNLTKIEQLCSGAAYCQFMMDMLFPGSIALKKV
KFQAKLEHEYIQNFKILQAGFKRMGVDKIIPVDKLVKGKFQDNFEFVQWFKKFFDANYDGK
DYDPVAARQQQETAVAPSLVAPALNPKKKPLTSSAAPQRPISTQRTAAAPKAGPGVVRKNP
GVGNGDDEAAELMQQNVNLKLTVEDLEKERDFYFGKLRNIELICQENEGETPVLQRIVDIL
YATDEGFVIPDEGGPQEEQEEY

>DP01156|P07305|#1-22 #105-194

MTENSTSAPAAPKRAKASKSTDHPKYSMDIVAAIQAENRAGSSRQSIQKYIKSHYKVGE
NADSQIKLSIKRLVTTGVLQTKGVGASGSFRLAKSDEPKKSVAFKKTKEIKKVATPKKAS
KPKKAASKAPTPKPKATPVKKAKKKLAATPKKAKPKTVKAKPVKASKPKKAKPVKPKAK
SSAKRAGKKK

>DP00021|P1351|#40-67

MAVKVEYDLKRLRNIGIAAHIDAGKTTTERILYYTGRHKIGEVHEGAATMDFMEQERERGI
TITAAVITCFWKDHRINIIDTPGHVDFTIEVERSMLVLDGAIIVVFDSSQGVEPQSETVWRQAE

KYKVPRIAFANKMDKTGADLWLVRTMQERLGARPVVMQLPIGREDTFSIIDVLRMKAYT
YGNGLGTDIREIPIPEEYLDQAREYHEKLVEVAADFDENIMLKYLEGEETEEELVAAIRKGTI
DLKITPVFLGSALKNVQLLDAVVDYLPSPLDIPPIKGTTPEGEVVEIHDPNGPLAALAFKI
MADPYVGRLTFIRVYSGTLTSGSYVYNTTKGRKERVARLLRMHANHREEVEELKAGDLGAV
VGLKETITGDTLVGEDAPRVILESIEVPEPVIDVAIEPKTKADQEKLSQLARLAEDPTFRVST
HPETGQTIIISGMGELHLEIIVDRLKREFKVDANVGKPQVAYRETITKPVDFEGKFIRQTGGRG
QYGHVKIKVEPLPRGSGFEFVNAIVGGVIPKEYIPAVQKGIEEAMQSGPLIGFPVDIKVTLYD
GSYHEVDSSEMAFKIAGSMAIKEAVQKGDPVILEPIMRVEVTPEEYMGDVIGDLNARRGQIL
GMEPRGNAQVIRAFVPLAEMFGYATDLRSKTQGRGSFVMFFDHYQEVPKQVQEKLICKQ
>DP00271|P02699|#226-242 #327-348

MNGTEGPNFYVPPFSNKTGVVRSPFEAPQYYLAEPWQFSMLAAYMFLIMLGFPINFLTLYVT
VQHKKLRTPLNYILLNAVADLFMVFGGFTTLYTSLHGYFVFGPTGCNLEGFFATLGGEIAL
WSLVVLAIERYVVVCKPMNSNRFGENHAIMGVAFTWVMALACAAPPLVGWSRYIPEGMQC
SCGIDYYTPHEETNNESFVIYMFVWHFIPLIVIFFCYGQLVFTVKEAAAQQQESATTQKAKE
VTRMVIIMVIAFLICWLPHYAGVAFYIFTHQGSDFGPIFTIPAFFAKTSAVYNPVIYIMMNQF
RNCMVITLCCGKNPLGDDEASTTVSKTETSQVAPA

>DP01187|P34087|#57-68

MFFIKDSLNLTHPSFFGPRMKQYLKTKLLEEVEGSTGKFGYILCVLDYDNIDIQRGRILPTD
GSAEFNVKYRAVVFKPKFGEVVDGTVVSCSQHGFEVQVGP MKVFVTKHLMPQDLTFNAGS
NPPSYQSSEDVITIKSRIRVKIEGCISQVSSIHAIGSIKEDYLGAI

>DP00256|P40316|#1-110

MMPANEDKENNIVYTGNESSGINFPQTPAHLLKRSHSNILKPPVRLDQLKRDANSNNGNTLK
YIQQGKEVSPTKRLHTHAQQQGRPLAAKDNNRSKSFIPETSNQSKDADLPQLQNTLSIRKN
DQLRKLSQISRSRSRANHNDLLNSRKLQYGSVLYNALPKMKSLVLKDLADSGKNEESSD
DDEGNEDSESKLGKKLQSALLKQDSSDGENELNGGLLFNEQGGLQQLIKNSTKNEQKTKN
DKSDKTDDYDIEIAPQRQEPLPVPEGYSPFQQDDIEKLKTFNSPYKLDILEDDEDDTPDKVDLL
PLEQIDEEGEKDETETCITRNQEEGAALPLLSKNFKEVAAVPTMELVYSEEGLDPEELEDLVT
>DP00917|P21583|#92-103 #127-141

MKKTQTWILTCIYLQLLLNLVKTGICRNRVTNNVKDVTKLVANLPKDYMITLEKYVPGM
DVLPSHCWISEMVVQLSDLTDLLDKFSNISEGLNSYIIDKLVNIVDDLVECVKENSSKDLKK
SFKSPEPRLFTPPEFFRIFNRSIDAFKDFVVASETSDCVSSTLSPEKDSRVSVTKPFMLPPVAAS
SLRNDSSSNRKA KNPPGDSSLHWAAMALPALFSLIIGFAFGALYWKKRQPSLTRAENIQIN
EEDNEISMLQEKEKEREQEV

>DP00653|P26039|#139-168 #799-814

MVALSLKISIGNVVKTMQFEPSTMVYDACRMIRERIPEALAGPPNDFGLFLSDDDPKKGIWLE
AGKALDYMLRNGDTMEYRKKQRPLKIRMLDGTVKTMVDDSKTVTDMLMTCARIGITNH
DEYSLVRELMEKKDEGTGTLRKDKTLLRDEKKMEKLQKLHTTDELNWLDHGRTLREQG
VEEHETLLRRKFFYSDQNVDSRDPVQLNLLYVQARDDILNGSHPVSF DKACEAGFQCQIQF
GPHNEQKHKAGFLDKDFLPKEYVKQKGERKIFQAHKNCQMSEIEAKVRYVKLARSLKY
GVSFLVKEKMKGKNLKVPRLLGITKECVMRVDEKTKEVIQEWSLTNIKRWAASPKSFTLDF
GDYQDGYYSVQTTEGEQIAQLIAGYIDIILKKKSKDHFGLEGDEESTMLEDVSPKKSTVLQ
QQYNRVRGVKVEHGSVALPAIMRSGASGPENFQVGSMPPAQQQITSGQMHRGHMPPLTSAQQA
LTGTINSSMQAVQAAQATLDDFETLPLLGQDAASKAWRKNKMDESKHEIHSQVDAITAGTA
SVVNLTAGDPAETDYAVGCAVTISSLTEMSRGVKKLAALLEDEGGNGRPLLQAAGL
GAVSELLRSAQPASAEPRNLLQAAGNVGQASGELLQQIGESDTDPHFQDVLMQLAKAVAS
AAAALVLKAKSVAQRTEDEGLQTQVIAAATQCALSTSQLVACTKVVAPTISSPVCQEQLVEA
GRLVAKAVEGCVSASQAATEDGQLLGVGAAATAVTQALNELLQHVKAHATGAGPAGRY

DQATDTILTVDENIFSSMGDAGEVMRQARILAQATSDLVNAIKADAEGESDELSRKLLSAA
KILADATAKMVEAKGAAAHPDSEEQQQLREAAEGLRMATNAAAQNIAKKKLVQRLEHA
AKQAAASATQTIAAAQHAASAPKASAGPQPLLVQSCKVAEQIPLLQGVGRGSQAQPDSPSA
QLALIAASQSFLQPGGMVAAKASVPTIQDQASAMQLSQCAKNLGTALAEERTAAQKAQE
ACGPLEMDALSJVQNLEKDLQEIKAAARDGKLKPLPGETMEKCTQDGNSTKAVSSAIKL
LGEIAQGNENYAGIAARDVAGGLRSLAQARGVAALTSDPAVQAIVLTDASDVLKASSLIE
EAKKASGHPGDPESQQRLAQVAKVTQALNRCVSCLPGQRDVDNALRAVGDAKRLLSDL
PPSTGTQEAQSRLNEAAAGLNQAATELVQASRGTPQDLARASGRFGQDFSTFLEAGVEMAG
QAPSQEDRAQVVSNLKGISMSSKLLAALKALSTDPAСПNLKSQAAAARAVTDSINQLITMC
TQQAPGQKECDNALRQLETVRELLENPVQPINDMSYFGCLDSVMENSKVLGEMTGISQNA
KNGNLPEFGDAIATASKALCGTEAAAQAAQAYLVGVSDPNSQAGQQGLVEPTQFARANQAIQ
MACQSLGEPGCTQAQVLSAATIVAKHTSALCNSCRASARTANPTAKRQFVQSAKEVANST
ANLVKTICKALDGDFTEENRAQCRAATAPLLEAVDNLSAFASNPEFSSVPAQISPEGRAAMEPI
VISAKTMLESAGGLIQTARALAVNPRDPPRWSVLAGHSRTVSDSIKKLITSMRDKAPGQLECE
TAIAALNSCLRDLQASLAQSVQLAPREGISQEALHTQMLTAVQEISHLIEPLASAARAES
QLGHKVSQMAQYFEPLTLAAVGAASKTLSHPQQMALLDQTKTLAESALQLLYTAKEAGGNP
KQAAHTQEALEEAVQMMTEAVEDLTTLNEAASAAGVVGGMVDSITQAINQLDEGPMGDP
EGSFVDYQTTMVRTAKIAVTQEMVTSNTSPEELGPLANQLTSYDGYRLASQAKPAAVAA
ENEIGAHIKHRVQELGHGCSALVTKAGALQCSPSDVYTKELIECARRVSEKVS HVLAALQ
AGNRGTQACITAASA VSGIADLTTIMFATAGTLNREGAETFADHREGILKTA KV LVEDTKV
LVQNAAGSQEKLAQAAQSSVATITRLADVVKLGAA SLGAEDPETQVVLINAVKDVA KALGD
LISATKAAAGKVGDDPAVWQLKNSAKVMVTNTVLLKTVKA VEDEATKGTRALEATTEHIR
QELAVFCSPPEPPAKTSTPEDFIRMTKGITMATAKAVAAGNSCRQEDVIATANLSRRAIADMLR
ACKEAAFHPEVAPDVRRLALHYGRECANGYLELLDHVLLTLQKPNPDLKQQLTGHSKRVAG
SVTELQAAEAMKGTEWVDPEDPTVIAENELLGAAAAIEAAKKLEQLKPRAKPKEADESLN
FEEQILEAAKSIAAATSA LVKAASAAQRELVAQGKVGAI PANALDDGQWSQGLISAARMVA
AATNNLCEAANA AVQGHASQEKL ISSAKQVA ASTA QLLVACKVKADQDSEAMKRLQAAGN
AVKRASDNLVKA AQKAA AFQENETVVVKE MVGGIAQII AAEMLRKERELE EARKKL
AQIRQQYKFLPSELRDEH

>DP02326|Q05776|#62-71

MVLLHKSTHIFPTDFASVSR AFFN RYPNPYSPH VLSIDTISRNV DQEGN LRTTR LLKSGKLPT
WVKPFLRGITETWII EVSVVNPANSTMKYTRNLDHTGIMKVEEYTTYQFDSATSSTIADSRV
KFSSGFNMGI SKVEDWSRTKFDENVKKS RMGMAFVIQKLEEARNPQF

>DP02331|O17428|#356-397

MWCPLFLVLLAGAATAEHLQAWKTDTEYQYAVRGRTLSALHDVADQYSGIIMRALLTIQPK
SDGTLEAKVTKARYAQIHTKLPGWNSEIPDHKLEMKQFPMSEKVF EIKMKHG VVRDLIVD
KDVPTWEVNLKSI SQLQVDTQGENL MASKYNQEPEDEGVTAMFKT MEDTV GGRCEVLY
DINPLPEFVLQKRPELVPMPDIRGDGEIIDIVTKNYSNCEQRSGYHFGIPGTNKWE PSSGASG
NFLSRSSV SRVIV TGNLKSFTIQSSV STNKVILSPNFHENRKG MVSS RVN VT LVKIGAPSTGDW
STPANPESTGNLVYN YNNPFAVG VGEDRRASRPQDNRNSEEK VRS LYNLYRRNRINDN DDDSS
ASDSSKSAKSLESNEEQLYWQPKPTLNEAPAMAMLPFFIGNHGKSIHK TDEIEPITMAKTLAS
QIGSDFQDPNSITDEQTLKFTLLVRIIRT MSTSQQIAEAERDLYQSNNEIDPHDESQSVRRGTW
AAFRDAVAQAGTAPALVITLWIKQKKIRGVEAASVVGVLAKTARTPTREYIDVFFELATMP
ETIHEPFLNTTALFTSELVRYSQMDNPSSHTRY PVHTFGRFS DKINPEVFRMYV PYLA EKLKT
SIEKNENAKAHTYIVSLGNIAHPKILA VFEPYLEGKMPASTFQRLLMVISLNKLATLKPKLARG
VFYRIYKNTGEAHQLCAA VTALMSTNPPASMLQRM AEFTNEDHSKHVNAAVKS AIESASE
LET PWQELAENARNAKPLL NKESYGF EY SKLYLTDFIEREMNVAYQAQASFIS SDDSYVPE

ALFVKARAIFGGFTPRTSAGAMVSSAKDLLSAFEDAFKGEKTSHKHSHVEFSPENVAKLLKI
KSEPNEDVEGAFMLQSAYNNKFMSLDKNTLKNLPELSSKALKALKDGHHFNTARIESYEMT
MSFPMESGFVFYTMKVPSMLLAGSVKGSNEDSLDGHVHLRAVYSVQFQSKLGFVTPFE
HQHYMAGINKNYQAYVPLRVNVYEDSDKRVTLKIQPIEQNEFKLWHHSVVPFTSRHDILK
MSPVLKDKEQKIIIEVSKNEYNFGSDKHGVKFTVLAEADNDNSPLNFEDAkwERNPLTQL
FHLFVEQPVYHKVDIFMQPSKSSEQSIILSTAFETLQDDTTKYDEDRSKHIAEAPKVENKLN
DPQRRLKLLKEAKGIAAADAFADVIGLEYPGQAPVQAFATLAFASSEVDEKSRLVWRLT
DAGNDDEFESCTSLEARSPRTSDFGKDMQDQPEFRSRKFDIDLRYQQTCEKGKVEIQQSQEQ
TEKYRDTIKRLPTAIECIRAAKKGMKSLPACHDVSVKMTMLDKTRITIKYDKDSREMYQLFD
DYLDMSDADDLKSSKKRLNAVKDDDKAYDDTVKIAVDLSPNDNNGRFSYESDFVKLEAR
DVPINGIGPLVNHPDLETAERLDMDMSDEPVRQRICVLDHSATTFDESTYPINLGKCWHVV
MTTFPKTNNSGAEPIDEDMALSILVRDAGDKKKDIKVTLGDKEQFQSHADSKNKVTLDGK
KVDLSEKRSYRKNGKIDFEVLRQPDGTLGLVSSKYDIDAwyDGQRVQIKASGKYRSDIRG
LCGNFDGEPDNDFTSPKDCVLLKPEFAASYALTTKDCHGSALEHARKASQAVCSQKSPRPG
NVVSDRDAGRKYSENSNWGYHSRQNSDEQGKNDSSDHKRCNTLRTKVIIEEDQICFSLRPL
PTCAEGCTANRTKPKVMPMHCPKNAIAERMADRIKQGANPDFSQKSYTCKNGFDIPVGCH
AA

>DP01032|Q06556|#810-969

MTNCKYKLRLSIGLVSGTMFMAAPVMGEDASQPTASVTESPAIQTEEDQGSQAEALEEP
TPAPQTSPSTVSAVPAEAAAAMADEKGIAEAPAHEPAPKASVQAEASPAGKAEATTNTGQPT
NTEQARSRSKRAAEIAPQTIEVEKLEVDKENSSLTVKDGEKDKQLIKHRDGNQRDIFDISRDV
KVNQDGTMDVTLTVKPKQIDEAGEVIVLLTSQKMTETDFNTAKENIKKLVTLTGTTDKEG
KNVSHYNNRNSVRIDLDFYRKVGESTDLSGWDACKIDEKLNEWWKKAKDDYNGWGVDLQG
AIHKAREIFNLDKEKRSRGKRQHIVLFSQESTFSYDIKDKSKMDKVAVEEPVTYSNPLFPWP
YFDTTTRTHNVVNDAKKLIDFLNLKGISQFNGAVDNVATVGNTLLGLGSFFGLKNPLDYISLA
DLETSKLNSEKFDSRRVGEFYNRSYFDREVDKVGFKKILVEKIKGNLKKFQPKQTDTWLS
SLGLNSIKEIQDWMDKALDNLFYRRQYQFYNHNLQAEARMAREGIKFYAVDVTEPER
IAKEINSQKYSEAYTNHLKKAAEARELAKRNEKFDFKYLKEMSESQKFFKDVEDPEKFKDI
LTELKVTTETFEEKVSVNNSEQRKSNKEVEYKKASSNSSFLSFIFSSSTNESITWTLSKDKLQKA
LQSGETLTLEYKLKIHDKFKLAPQTRSRSRSLDTSENKKSUTEVITSDVKYKINDKEVKGKE
LDDVSLTYSKETVRKPQVEPNVPDTPQEKPPLTAPSEPSQPSIPETPLIPSEPVETPEGPTE
GENNLGGQSEEITIDESQSGMSGQNPGSGNETVVEDTQTSQEDIVLGGPGQVIDFTEDSQPG
MSGNNNSHTITEDSKPSQEDEVIIIGGQGQVIDFTEDTQSGMSGDNSHTDGTVLEEDSKPSQEDE
VIIGGQGQVIDFTEDTQMSGAGQVESPTITEETHKPEIIMGGQSDPIDMVEDTLPMSGNSE
ATVVEEDTRPKLQFHFDNEEPVATVPTVSQTPIAQVESKVPHAKAESALPQTGDTNKLEFF
TITALTVIGAAGLLGKRRNNQTD

>DP01240|Q9UJX2|#1-25 #558-597

MAASTSMVPVAVTAAVAPVLSINSDFSDLREIKKQLLIAGLTRERGLLHSSKWSAELAFSLP
ALPLAELQPPPITEEDAQDMDAYTLAKAYFDVKEYDRAAHFLHGCNSKKAYFLYMSRYL
SGEKKKDDETVDSLGPYLEKGQVKNEALRELRLVELSKKHQARELDGFGLYLYGVVLRKLDLV
KEAIDVFVEATHVPLHWGAWLELCNLITDKEMLKFLSLPDTWMKEFFLAHIYTELQLIEAL
QKYQNLIDVGFSKSSYIVSQIAVAYHNIRDIDKALSIFNELRKQDPYRIENMDTFSNLLYVRSM
KSELSYLAHNLCEIDKRYVETCCVIGNYYSLRSQHEKAALYFQRALKLNPRYLGAWTLMGH
EYMEMKNTSAAIQAYRHAIENVKRDYRAWYGLGQTYEILKMPFYCLYYYRRAHQLRPNDS
RMLVALGECYEKLNQLVEAKKCYWRAYAVGDVEKMALVKLAKLHEQLTESEQAAQCYIK
YIQDIYSCGEIVEHLEESTAFRYLAQYYFKCKLWDEASTCAQKCCAFNDTREEGKALLRQILQ
LRNQGETPTTEVPAPFFLPASLSANNTPRRVSPNLSSVTP

>DP02168|Q72J05|#304-319

MTEDTYSKAFDRALFARILRYVWPYRLQVLALLFLVVTLAAAATPLFFKWAIDLALVPTE
PRPLAERFHLLWISLGFLAVRAVFAATYGETYLIQWVGQRVLFDLRSDLFAKLMRLHPGF
YDRNPVGRLMTRVTSDAINQFITGGLGVIADLFTLVGLLGFMLFLSPKLTVVLLVAPVL
LAVTTWVRLGMRSAYREMRLRLARVNAALQENLSGVETIQLFVKEREREKFDRLNRDLFR
AWVEIIRWFALFFPVVGFLGDFAVASLVYYGGGEVVRGAWSLGLLVAFVDYTRQLFQPLQDL
SDKFNLFQGAMASAERIFGVLDTEELKDPEDPTPIRGFRGEVEFRDVWLAYTPKGVEPTEKD
WVLKGVSFRVRPGEKVALVGATGAGKTSVSLIARFYDPQRGCVFLDVDVRYYRQEELRR
HVGIVLQEPFLFSGTVLDNLRLFDPSVPPERVEEVARFLGAHEFILRLPKGYQTVLGERGAGLS
TGEKQLLALVRALLASPDILLDEATASVDSETEKRLQEALYKAMEGRTSLIIAHRLSTIRHV
DRILVFRKGRLVEEGSHEELLAKGGYYAALYRLQFQEA

>DP00898|P13338|#1-31 #103-112

MTQFSLNDIRPVDETGLSEKELSIKKEDIAKLLDRQENGFIIEKMVEEFGMSYLEATTAFLE
ENSIPETQFAKFIPSGIEKIQSEAIDENLLRPSVVRCEKTNTLDFLL

>DP00721|Q8IRG6|#889-1044

MSSFVLDKEAFVRRVKRLYTEWRAPSIGHDDALRNLDIMSIVGVEEDVMYSKSMALQLWL
LGYEL TDTISVFCSDAVYFLTSKKIEFLKQTQNITEEGFPEINLLVRDRTDKDQGNFEKLIKAL
QNSKKKGKRLGVFAKDAYPGEFSEAWKKSLTASKFEHVDISTIIAYLMCPKDESEINNIRKASL
VSMDIFNKLKDEIMDIIDSCHKVKHNKLSDGCEAAIGEKKYTSGLDPRLLDMAYPPIIQSGG
AYSLKFSAVADKNPLHFGVIVCSLGARYKSYCSNISRTFLVNPTTEAMQENYTFLVSVQEEILK
LLVPGTKLCDVYEKTLDFVKKEKPSMVDNLPKSFGFAMGLEFRENSIVIGPKCQALLKKNMV
FNLHVGISNLTNPEATDKEGKNYALFIGDTVLVGEQSPASVMTPSKKKIKNVGIFIKDDSDEE
DVDDKKTAKEDEXQGTEILGRSKRNAVLESCLRNEINTEEKRKEHQRELAAQQLNERAKDRLAR
QGNSKEVEKVRKNTVSYKSISQMPREPEVKELKLYVDKKYETVIMPVFGIQVPFHISTIKNISQ
SVEGEYTYLRINFFHPGATMGRNEGGLYPQPEATFVKEVTYRSSNVKEHGEVGAPSANLNNA
FRLIKEVQKRFKTREAEEREKEDLVKQDTLJLSQNKGPNPLKDALYIRPNIVKRMGTGSLEAHS
NGFRYISVRGDKVDILYNNIKSAFFQPCDGEMIILLHFHLKYAIMFGKKHVDFQFYTEVGEI
TTDLGKHQHMHDRDDLAEEQAERELRHKLKTAFKSFCEKVETMTKSVEFDTPFRELGFPG
APFRSTVTLQPTSGSLVNLTEWPPFVITLDDVELVHFERVQFHRLRNFMIFVKEYNKKVAMV
NAIPMNMLDHVKEWLNSCDIRYSEGVQSLNWQKIMKTITDDPEGFFEQQGWTFLDPESGSEG
ENETAEEDEAYNPTDAESDEESDEDSEYSEASEDSEESDEDLGSDEESGKDWSDLEREAAE
EDRNHDYAADDKPRNGKFDSKKHGKSSKHPSKSSKDYNRSRDKHSSSSGNKSSSKDKD
RKRSRDDS RDNGHKSKKSRH

>DP01556|Q96GC6|#4-77 #4-246

MASRLPTAWSCEPVTFEDVTLGFTPEEWGLLDLKQKSLYREVMLENYRNLVSVEHQLSKPD
VVSQLEEAEDFWPVERGIPQDTIPEYPELQLDPKLDPLPAESPLMNIEVVEVLTLNQEAGPRN
AQIQALYAEDGSSLADAPSEQVQQQKGHPGDPEAARQRFRQFRYKDMTPREALDQLRELC
HQWLQPKARSKEQILELLVLEQFLGALPVKLRTWVESQHPENCQEVALVEGVTWMSEEEV
LPAGQPAEGTTCLEVTAQQEEKQEDAICPVTLPPEEPVTQDVAVDFSREEWGLLGPQR
TEYRDVMLETFGHLVSVGWETTLENKELAPNSDIPEEPAPSJKVQESSRDCALSSTLEDTLQ
GGVQEVDQTVLKQMEQAQEKDLPQKKHFDNRESQANS GALDTNQVSLQKIDNPESQANSGA
LDTNQVLLHKIPPRKRLRKRDSQVKSMKHNSRVKIHQKSCERQKAEGNGCRKTSRSTKQI
TFIRIHKGSQVCRCSEC GKIFRNPRYFSVHKKIHTGERPYVCQDCGKGFVQSSSLTQHQRVHS
GERPFECQECGRTFNDRSAISQHLRTHTGAKPYKCQDCGKAFRQSSHLRHQRTHGPYAC
NKCGKAFTQSSHIGHQRTHNRTKRKKKQPTS

>DP01779|Q05917|#146-199

MEEGGRSPREEAAEPQESGGDAEPGGRRALLPPGDPPPHPHPHRITNFFIDNILRPEFGR

KEAGGTAGEPRRPGAESRRSPAAAAPAPGAPVPGGGGGGGSPGRGEGGPAALALHGAAK
KGGDPAALEAALKARGLSGAELSVSSDSDSSQAGSNAGNQPMLWPAWVYCTRYSDRPSSGP
RSRKPKKKNPNKEDKRPTAFTAQLQRLKAEFQTNRYLTEQRQQSLAQUEGLNNEQIKIWF
QNKRRAKIKKATGSKNSLAVHLMAQGLYNHSTTAKDGKSDSE

>DP00223|P14635|#1-28

MALRVTRNSKINAENKAKINMAGAKRVPTAPAATSKPGLRPTALGDIGNKVSEQLQAKMP
MKKEAKPSATGKVIDKKLPKPLEKVPMLVPVPVSEPVPEPEPEPEVKEEKLSPPEILVDTA
SPSPMETSGCAPAEEDLCQAQSDVILA VNDVDAEDGADPNLCSEYVKDIYAYLRQLEEEQAV
RPKYLLGREVTGNMRAILIDWLVQVQMKFRLLQETMYMTVIIDRFMQNNCVPKMLQLVG
VTAMFIASKYEEMYPPEIGDFAFVTDNTYTKHQIRQMEMKILRALNFGLGRPLPLHFLRRASK
IGEVDVEQHTLAKYLMELTMLDYDMVHFPPSQIAAGAFCLALKILDNGEWTPTLQHYLSYTE
ESLLPVMQHLAKNVVMVNQGLTKHMTVKNKYATSKHAKISTLPQLNSALVQDLAKAVAKV
>DP02150|Q9HD26|#248-277 #255-279

MSAGGPCAAAGGGPGGASCVGAPGGVSMFRWLEVLEKEFDKAFVDVDLLLGEIDPDQAD
ITYEGRQKMTSLSSCFAQLCHKAQSVSQINHKLEAQLVDLKSELTETQAEKVVLEKEVHDQL
LQLHSIQLQLHAKTGQSADSGTIKAKLSGPSVEELERELEANKKEKMKEAQLEAEVKLLRKE
NEALRRHIAVLQAEVY GARLA AKYLDKELAGR VQQIQLLGRDMKGPAHDKLWNQLEAEIH
LHRHKTIVACRGRNDLKRPMQAPPGHDQDSLKSQGVGPIRKVLLKEDHEGLGISITGGK
EHGPILISEIHPGPADRCGGLHVGDAILAVNGVNLRDTKHKEAVTILSQQRGEIEFEVVYV
APEVDSDDENVEYEDESGHRYRLYLDELEGGGNPGASCKDTSGEIKVLQGFNKKAVTDTHE
NGDLGTASETPLDDGASKLDDLHTLYHKKSY

>DP01148|A0A068MVV3|#1-65

MSTQQQARALMMRHQFIKNRQQSLLSRAAAEIGVQAEKDFWTTVQGKPQSSFRETYDRSS
ASLS

>DP01435|O60829|#1-102

MSARVRSRSRGDGQEAPDVVAFVAPGESQQEEPPTDNQDIEPGQEREGTPPIERKVEGDC
QEMDLEKTRSERGDGSDVKEKTPPNPKHAKTKEAGDGQP

>DP00959|O15169|#295-500

MNIQEQQGPLDLGASFTEADAPRPPVPGEEGELVSTDPRPASYSFCSGKGVGIKGETSTATPRRS
DLDLGYEPEGSASPPTPYLKWAESLHSLLDDQDGISLFRTFLKQEGCADLLDFWFACTGFRKL
EPCDSNEEKRKLARAIYRKYILDNNNGIVSRQTKPATKSFIKGICIMKQLIDPAMFDQAQTEIQA
TMEENTYPSFLKSDIYLEYTRTGSESPKVCSDQSSGSGTGKGISGYLPTLNEDEEWKCDQMD
EDDGRDAAPPGRLPQKLLLETAAPRVSSSRRYSEGREFRYGSWREPVPNYYVNAGYALAPAT
SANDSEQQLSSDADTLSLTSSVDGIPPYRIRKQHREMQESVQVNGRVPLPHIPRTYRVPKE
VRVEPKFAEELIHRLEAVQRTREAEKLEERLKRVRMEEEGEDGDPSSGPPGPCHKLPPAPA
WHHFPPRCVDMGCAGLRDAHEENPESILDEHVQRVL RTPGRQSPGPGRSPDSGHVAKMPV
ALGGAASGHGKHVPKSGAKLDAAGLHHHRVHHVHSTARPKEQVEAEA TRRAQSSFAW
GLEPHSHGARSRGYSESVGAAAPNASDGLAHSGKVGVACKRNAKKAESGKSASTEVPGASED
AEKNQKIMQWIIEGEKEISRHRRTGHGSSGTRKPQPHENRPLSLEHPWAGPQLRTSVQPSHL
FIQDPTMPPHPAPNPLTQLEEARRLEEEKRSRAPSKQRYVQEVMRGRACVRPACAPVL
HVPAVSDMELSETTRSQRKVGGSAQPCDSIVVAYFCGEPIPYRTLVRGRAVTLGQFKE
LLTKKGSYRYFKKSDEFDCGVVFEEVREDEAVLPVFEEDIKVEKVD

>DP00246|P21758|#1-50

MAQWDDFPDQQEDTSDCTESVKFDARSVTALLPPHPKNGPTLQERMKSYKTALITLYLIVFV
VLVPIIGIVAAQLLKWEKNCTVGSVNADISPSPEGKGNSEDEMRFREAVMERMSNMESRI
QYLSDNEANLLDAKNFQNFSITTDQRFNDVLFQLNSLLSSIQEHENIIGDISKSLVGLNTVLDL
QFSIETLNGRVQENAFKQQEEMRKLEERIYNASAEIKSLDEKQVYLEQEIKGEMKLLNNITND

LRLKDWEHSQTLKNITLLQGPPGPGEGKDRGPPGQNGIPGPGLIGTPGLKGDRGISGLPGR
GFPGPMGKTGKPGLNGQKGQKGEKGSGSMQRQSNTVRLVGSGPHEGRVEIFHEGWGTV
CDDRWELERGGLVVCRSLGYKGVQSVHKRAYFGKGTGPIWLNEVFCFGKESSIEECRIRQWG
VRACSHDEDAGVTCTT

>DP00163|Q03768|#1-265

MDYKEEQKQELEVLESIYPDELRINDEYPKIKFEVAIKLELDTGSTSVLTKEHTIIAEFKLPE
NYPDEPCLISLEAQEVALNDNEEDNEEDEDEVEYDDHGNVKLKFENLPDLISFKGYLPELT
QLESQIETDMLLGMQMCFALISSIKERCEQWYSEQLNKLEKQYELEAQEREKKEQAKFHGT
VTRESYLEWRSKFRQELKLDERDVRRMKAHHGKLTGKQMFEQGVVGTGDEYMEEDDAS
VDDVAKGLAKTEIANQ

>DP01965|P0CE48|#42-63 #43-63 #44-64

MSKEKFERTKPHVNVTIGHVDHGKTTAAITVLAKEYGGAARAFDQIDNAPEEKARGITI
NTSHVEYDTPTRHYAHVDCPGHADYVKNMITGAAQMDGAILVVAATDGPMPQTREHILLGR
QVGVPYIIVFLNKCDMVDEELLEVEMEVRELLSQYDFPGDDTPIVRGSAALKALEGDAEWE
AKILELAGFLDSYIPEPERAIDKPFLPIEDVFSISGRGTVVTGRVERGIKVGEVEIVGIKETQK
STCTGVEMFRKLLDEGRAGENVGVLLRGIKREEIERGQVLAKPGTIKPHTKFESEVYILSKDE
GGRHTPFFKGYRPQFYFRTTDVTGTIELPEGVEMVMPGDNIKMVVTLIHPIAMDDGLRFAIRE
GGRTVGAGVVAKVL

>DP00667|P42763|#1-185

MAEEIKNVPEQEVPKVATEESSAEVTDRGLFDLGKKKDETKEETPIASEFEQKVHISEPEPE
VKHESLLEKLHRSDSSSSSSEEQSDGEKRKKKKEKKKPTTEVEVKEEEKGFMELKEKL
GHKKPEDGSAAAAAPVVVPPPVEEAHPVEKKGILEKIKEKLPGYHPKTTVEEEKKDKE

>DP00736|Q9UKV8|#1-22 #818-838

MYSGAGPALAPPAPPPPPIQGYAFKPPPRPDFSGRTIKLQANFFEMDIPKIDIYHYELDIKPEK
CPRRVNREIVEHMVQHFKTQIFGDRKPVFDGRKNLYTAMPLPIGRDKVELEVTLPEGKDRIF
KVSINKWVSCVSLQALHDALSGRLPSVPFETIQALDVVMRHLPSMRYTPVGRSFFTASEGCSNP
LGGGREVWFGFHQSVRPSLWKMMNLIDVSATAFYKAQPVIEFCEVLDFKSIEEQQQKPLTDS
QRVKFTKEIKGLKVEITHCGQMKRKYRVCNVTRRPASHQTFLQQESGQTVECTVAQYFKD
RHKLVLRYPHLPCLVQGQEQQKHTYLPLEVCNIVAGQRCIKLTDNQTSTMIRATARSAPDRQ
EEISKLMRSASFNTDPYVREFGIMVKDEMVTGRVLQPPSILYGRNKAIATPVQGVWDMR
NKQFHTGIEIKVVAIACAFQRCQTEVHLKSFTEQLRKISRAGMPIQQPCFCKYAQGADSV
EPMFRHLKNTYAGLQLVVVILPGKTPVYAEVKRVGDTVLGMATQCVQMKNVQRTTPQTLS
NLCLKINVKGNNILLPQGRPPVFQQPVIFLGADVTTHPPAGDGKKPSIAAVVGSMDAHPN
RYCATVRVQQHRQEIIQDLAAMVRELLIQFYKSTRFKPTRIIFYRDGVSEGQFQQVLHHELLAI
REACIKLEKDYQPGITFIVVQKRHHTRLFCTDKNERVGKSGNIPAGTTVDTKITHPTEFDYLC
SHAGIQGTSRPSHYHVLWDDNRFSSDELQILTYQLCHTYVRCTRSVSIPAPAYYAHVAFRAR
YHLVDKEHDSAEGSHTSGQSNGRDHQALAKAVQVHQDTLRTMYFA

>DP01112|P27986|#80-109

MSAEGYQYRALYDYKKEREEDIDLHGDILTvnkGSLVALFSDGQEArPEEIGWLNGYNET
TGERGDFPGTYVEYIGRKKSPPTPKPRPPRPLVAPGSSKTEADVEQQQALTLPDLAEQFAPPDI
APPLLIKVEAIEKKGLECSTLYRTQSSNLAELRQLLDCDTPSVDEMDVHLADAFKRYLL
DLPNPVPAAVYSEMISLAPEVQSSEYYIQLLKKLIRSPSIPHQYWLTQYLLKHFFKLSQTSSK
NLLNARVLSEIFSPMLFRFSAASSDNTENLIKVIEILISTEWNERQPAPALPPKPKPTTVANNG
MNNNMSLQDAEWYWDISREEVNEKLRDTADGTFLVRDASTKMHGDYTLRLKGNNKLI
KIFHRDGKYGFSDPLTFSSVVELINHYRNESLAQYNPKLDVKLLYPVSKYQQDQVVKEDNIE
AVGKKLHEYNTQFQEKSREYDRLYEEYTRTSQEIQMKRTAIEAFNETIKIFEEQCQTQERYSK
EYIEKFREGNEKEIQRIMHNYDKLKSRISEIIDSRRRLEEDLKKQAAEYREIDKRMNSIKPDLI

QLRKTRDQYLMWLTQKGVQRKKLNEWLGMENTEDQYSLVEDDEDLPHDEKTWNVGSSN
RNKAENLLRGKRDGTFLVRESSKQGCVYACSVVVDGEVKHCVINKTATGYGFAEPYNLYSSL
KELVLHYQHTSLVQHNDSLNVTLAYPVYAQQR

>DP00192|P02668|#1-21

MMKSFFLVVTILALTLPLGAQEQQEPIRCEKDERFFSDKIAKYIPIQYVLSRYPSEGLNYY
QQKPVVALINNQFLPYPPYYAKPAAVRSPAQLQWQVLSNTVPAKSCQAQPTTMARHPHPLSF
MAIPPKKNQDKTEIPTINTIASGEPTSTPTTEAVESTVATLEDSPEVIESPPEINTVQVTSTAV
>DP00854|Q9X8U3|#121-199

MAGETVITVVGVLVDDPELRFTPSGAAVAKFRVASTPRTFDRQTNEWKDGESLFLTCSVWR
QAAENVAESLQRGMRVIVQGRLKQRSYEDREGVKRTVYELDVDEVGASLRSATAKVTKTSG
QGRGGQGGYGGGGGGQGGGWGGPGGGQQGGGAPADDPWATGGAPAGGQQGGGGQG
GGWGCGGGGGGGSDEPPF

>DP00390|P17870|#65-72 #90-95 #282-309 #383-393

MGDKGTRVFKKASPNGKLTVYLGRDFVDHIDLVEPDGVVLVDPEYLKERRVYVTLTCAF
RYGRELDVLGLTFRKDLFVANQSFPPAPEDKKPLTRLQERLIKLGHEAYPFTFEIPPNLPC
SVTLQPGPEDTGKACGVDYEVKAFCARENLEEKIHKRNSVRLVIRKVQYAPERPGPQPTAETT
RQFLMSDKPLHLEASLDKEIYYHGEPISVNVHVTNNNTKTVKKIKISVRQYADICLFNTAQYK
CPVAMEEADDTVAPSSTFCKVYLTTPFLANNREKRGALDGKLKHEDTNLASSTLLREGANR
EILGIIVSYKVVKVLVSRGGLLGDASSDVAVELPFTLMHPKPKEEPPHREVPEHETPVDTNL
IELDTNDDDIVFEDFARQLKGMDKKEEEEDGTGSPLNDR

>DP01467|Q9SP32|#1732-1811

MVMEDEPREATIKPSYWLDAECDISCDLIDDLVSEFDPSSVAVNESTDENGVINDFFGGIDHIL
DSIKNGGGLPNNGVSNTNSQINEVTVPQVIAKETVKENGLQKNGGKRDEFSKEEGDKDRKR
ARVC SYQSERSNLSGRGHVNNREGDRFMNRKTRNWDEAGNNKKRECNNYRRDGRDRE
VRGYWERDKVGSNELVYRSGTWEADHERDVKKVSGGNRECDVKAENSKPEERKEKVVE
EQARRYQLDVLEQAKAKNTIAFLETGAGKTLIAILLIKSVHKDLMMSQRKMLSVFLVPKVPL
VYQQAEVIRNQTCFQVGHYCSEGQDFWDSRRWQREFESKQLVMTAQILLNILRHSIIRME
TIDLLILDECHHAVKKHPYSLVMSEFYHTTPKDKRPAIFGMTASPVLKGVSSQVDCAIKIRN
LETKLDSTVCTIKDRKELEKHVPMPSEIVVEYDKATMWSLHETIKQMIAAVEAAQASSRK
SKWQFMGARDAGAKDELQRVYGVSERTESDGAANLIHKLRAINYT LAELGQWCAYKVGQS
FLSALQSDERVNFQVDVKFQESYLSEVVSLQCELLEGAAAEEKVAAEVGKPENGNAHDEME
EGELPDDPVSGGEHVDEVIGAAVADGKVTPKVQSLIKLLLKYQHTADFRAIVFVERVVAAL
VLPKVF AELPSLSFIRCASMIGHNNSQEMKSSQM QDTISKFRDGHVTLLVATVAEEGLDIRQ
CNVVMRFDLAKTVLAIYIQSRGRARKPGSDYILMVERGNVSHAFLRNARNSEETLRKEAIER
TDLSHLKDTSLISIDAVPGTVYKVEATGAMVSLNSAVGLVHFYCSQLPGDRYAILRPEFSME
KHEKPGGHTEYS CRLQLPCNAPFEILEGPVCSSMRLAQQAVCLAACKLHEMGAFTDMLLP
DKGSGQDAEKADQDDEGEPEVPGTARHREFYPEGVADVLKGEWVSSGKEVCESSKLFHLYM
YNVRCVDFGSSKDPFLSEVSEFAILFGNELDAEVLSMSMDLYVARAMITKASLAFKGSLDITE
NQLSSLKKFHVRMLSIVLDVDVEPSTTPWDPAKAYLFVPTDNTSMEPIKGINWELVEKITKT
TAWDNPLQRARP DVY LGTNERTLGGDRREYFGKLRHNIVFGQKSHPTYGIRGAVASFDVV
RASGLLPVRDAFEKEVEEDLSKGKLMMA DGC MVAEDLIGKIVTAHSGKRFYVDSICYDMS
AETSFPRKEGYLGPLENYTADYYKQKYGVDLNCKQQPLIKGRGVSYCKNLLSPRFEQSGES
ETVLDKTYYVFLPPELCVHVPLSGSLIRGAQRLPSIMRRVESMILLA VQLKNLISYPIPTSKILEA
LTAASCQETFCYERAELLGDAYLKWWVSRLFLKYPQKHEGQLTRMRQQMVSNMVL YQFA
LVKGQLQSYIQADR FAPS RWSAPGVPPVFD ETDKDGSSFFDEEQKPVSEENSDV FEDGEMED
GELEGDLSSYRVLSSKTLADVVEALIGVYYVEGGKIAANHLMKWIGI HV EDDPDEV DGT LKN
VNVPESVLKSIDFVGLERALKYEFKEKG LLV EAITHASRPSSGVSCYQRLEFGDAVLDHLIT

RHLFFTYTSLPPGRLTDLRAAVNNENFARVAVKHLHYLRHGSSALEKQIREFVKEVQTE
SSKPGFNSFGLGDKAPKVLGDIVESIAGAIFLDGKDAAWKFQPLQPMVTPELPMHP
VRELQERCQQQAEGLEYKASRSGNTATVEVFIDGVQVGVAQNPQKKMAQKLAARNALAAL
KEKEIAESKEKHINNGNAGEDQGENENGKNGHQPFTRQTLNDICLRKNWPMPSYRCVKE
GGPAHAKRTFGVRVNTSDRGWTDECIGEPMPSVKKAKDSAABLLELLNKTF

>DP01880|Q15596|#624-829

MSGMGENTSDPSSRAETRKKECPDQLGPSPKRNTKRNREQENKYIEELAELIFANFNDIDNF
NFKPDKCAILKETVKQIRQIKEQEAAAIDEVKQSDVSSTGQGVIDKDALGPMMLEALDG
FFFVNLEGNVVFVSENVTQYLRYNQEELMNKSIVSILHVGDHTEFKVNLLPKSIVNGGSWS
GEPPRRNSHTNCRMLVKPLPDSEEEDHDNQEAHQYETMQCFAVSQPKSIKEEGEDLQSCLI
CVARRVPMKERPVLPSESFTTRQDLQGKITSLDSTMRAAMKPGWEDLVRRCIQKFHAQHE
GESVSYAKRHHHEVLRQGLAFSQIYRFSLSDGTLVAAQTKSKLIRSQTNEPQLVISLHMLHR
EQNVCVMNPDTLGTMGKPLNPISSNSPAHQALCSGNPGQDMTLSSNINFPPINGPKEQMGM
MGRFGGSGGMNHVSGMQATTPOGSNYALKMNSPSQSSPGMNPQPTSMSPRHRMSPGVA
GSPRIPPSQFSPAGSLHSPVGVCSTSNSHNTSSNLALQALSEGHGVSLGSSLASPDLMGN
LQNSPVNMNPPPLSKMGSLDSKDCFGLYGEPEGTGQAESSCHPGEQKETNDPNLPPAVSSE
RADGQSRLLHDSKGQTKLQLLTTKSDQMEPSPLASSLSDTNKDSLGSLSLPGSGSTHGTSLKEKH
KILHRLQDSSSPVDSLAKLTAEATGKDLSQESSSTAPGESEVTIKQEPVSPKKKENALLRYLLDK
DDTKDIGLPEITPKLERLDSKTDPSANTKLIAMKTEKEEMSFEPEGDQPGSELDNLEEILDDLQN
SQLPQLFPDTRPGAPAGSVDKQAIIDLMLQTAENSPVTPVGAQKTAIRISQSTFNNPRPGQL
GRLLPNQNPLLDITLQSPTGAGPFPPIRNSSPYVIPQPGMMGNQGMIGNQGNLGNSSSTGMIG
NSASRPTMPSGEWAQSSAVRVTCATTSAMNRPVQGGMIRNPAAASIPMRPSSQPGQRQTLQ
SQVMNIGPSELEMNMGGPQYSQQQAPPNTAPWPESILPIDQASFASQNRQPFGSSPDLLCP
HPAAEPSDEGALLDQLYLALRNFGLEEIDRALGIPELVSQSQAVDPEQFSSQDSNIMLEQK
APVFPQQYASQAQMAQGSYSPMQDPNFHTMGQRPSYATLRMQPRPGLRPTGLVQNQPNQL
RLQLQHRLQAQQNRQPLMNQISNVNVNLTLRPGVPTQAPINAQMLAQRQREILNQHLRQR
QMHQQQVQQRQLMMRGQGLNTPSMVAPSGMPATMSNPRIPQANAQQFPFPNNYGISQQ
PDPGFTGATTPQSPLMSPRMAHTQSPMMQQSQANPAYQAPSINGWAQGNMGGNMSFSSQ
SPPHFGQQANTSMSYNNMINVSMATNTGGMSSMNQMTGQISMTSVTSPVTSGLSSMGPEQ
VNDPALRGGNLFPNQLPGMDMIKQEGDTTRKYC

>DP01034|P73124|#1-65

MSTQQQARALMMRHQFIKRQSQMLSRAAAEIGVEAEKDFWTTVQGKPQSSFRRTYDRSN
ASLS

>DP00123|P01730|#398-458

MNRGVFRHLLLVLQLALLPAATQGKKVVLGKKGDTVELTCTASQKKSIQFHWKNSNQIKIL
GNQGSFLTKGPSKLNDRADSRRSLWDQGNFPLIINKLIEDSDTYICEVEDQKEEVQLLVFGL
TANSDDTHLLQGQSLTTLTESPPGSSPSVQCRSPRGKNIQGGKTLVSQLELQDSGTWTCTVLQ
NQKKVEFKIDIVVLAFKASSIVYKKEGEQVEFSPLAFTVEKLTSQELWWQAERASSSKS
WITFDLNKEVSVKRVTQDPKLQMGKKLPLHLPQALPQYAGSGNLTALAEAKTGKLHQE
VNLVVMRATQLQKNLTCEVWGPTSPKLMQLSLKLENKEAKVSKREKAJVWLNLPEAGMWQC
LLSDSGQVLLESNIKVLPWSTPVQPMALIVLGGVAGLLFIGLGIFFCVRCRHRRQAERMS
QIKRLLSEKKTQCQCPHRFQKTCSPI

>DP02332|Q9BUQ8|#1-257

MAGELADKKDRDASPSKEERKRSRTPDRERDRDRKSSPSKDRKRHRSRDRRRGGSRSSR
SRSKSAERERRHKERERDKERDRNKKDRDRKDGHRRDKDRKRSSLSPGRGKDFKSRKDRD
SKKDEEDEHGDKKPKAQPLSLELLAKKAEEEAEAKPKFLSKAEREAEALKRRQQVEERQ
RMLEERKKRKQFQDLGRKMLEDPQERERRMERETNGNEDEEGRQKIREEKDKSKE

LHAIKERYLGGIKKRRRTRHLNDRKFVFEWDASEDTSIDYNPLYKERHQVQLLGRGFIAGIDL
KQQKREQSRFYGDLMEKRRTLEEKEQEEARLRKLKKEAKQRWDRHWSQKKLDEMTDR
DWRIFREDYSITTKGGKIPNPIRSWKDSSLPPHILEVIDKCGYKEPTPIQRQAIPGLQNRDIIGV
AETGSGKTAFLIPLLVWITTLPKIDRIEESDQGPYAIILAPRELAAQQIEEETIKFGKPLGIRTVA
VIGGISREDQGFRLRMGECEVIATPGRLIDVLENRYLVLSRCTYVVLDEADRMIDMGFEPDVQ
KILEHMPVSNQKPDTEAEDPEKMLANFESGKHKYRQTVMFATMPPAVERLARSYLRRPA
VVYIGSAGKPHERVEQKVFLMSESEKRKKLLAILEQGFDPPIIFVNQKKGCDVLAKSLEKMG
YNACTLHGGKGQEQQREFALSNLKAGAKDILVATDVAGRIDIQDVSMVVNYDMAKNIEDYI
HRIGRTGRAGKSGVAITFLTKEDSAVFYELKQAIESPVSSCPPELANHPDAQHKPGTILTKKR
REETIFA

>DP02105|P74518#100-191

MKLLIQGNNITVTEAIHDYVEEKVERAVKHFNQLTTKVDVHLSVARNARITNKHKAEVTVY
ANGTVIRAQEGSENLYASIDLVADKIAQRQLKYKERIQDKQHGNVKTSEIVEDKPVEENLIGD
RAPELPSEVLRMKYFAMPPMAIEDALEQLQLVDHDFYMFRNKTDEINVYIRNHGGYGVIQ
PHQAS

>DP00134|Q06787#200-208 #281-422 #516-632

MEELVVEVRGSNGAFYKAFVKDVHEDSITVAFENNWPDRQIPFHDVRFPVVGYNKDINES
DEVEVYSSRANEKEPCCCWWLAKVRMIKGEFYVIEYAACDATYNEIVTIERLSVNPNKPATKD
TFHKIKLDVPEDLRQMCAKEAAHKDFKKAVGAFSVTYDPENYQLVILSINEVTSKRAHMLID
MHFRSLRTKLSLIMRNEEASKQLESSRQLASRFHEQFIVREDLMGLAIGHGANIQQARKVPG
VTAIDLDEDTCFHGYGEDQDAVKKARSFLEFAEDVIQVPRNLVGKVIGKNGKLIQEIVDKSG
VVRVRIEAENEKNVPQEEEIMPPNSLPSNNSRVGPNAPEEKHHLDIKENSTHSQPNSTKVQR
VLVASSVVAGESQKPELKAWQGMVPFVFVGTKDSIANATVLLDYHNLVKEVDQLRLERLQ
IDEQLRQIGASSRPPPNTDKEKSYYTDDGQGMGRGSRPYRNRGHGRGPGYTSGTNSEASN
ASETESDHRDELSDWLAPTEEERESFLRRGDGRRRGGGGRGQGGRGGGFKNDDHSRT
DNRPRNPREAKGRTTD GSLQIRVDCNNERSVHTKTLQNTSSEGSRLRTGKDRNQKEKPDSV
DGQQPLVNGVP

>DP02505|O53168#1-262

MRRNRRGSPARPAARFVRPAIPSALS VALLVCTPGLATADPQTDTIAALIADVAKANQRLQDL
SDEVQAEQESVNKAMVDVTETARDNAAAEDDLEVSQRAVKDANAAIAAAQHRFDTFAAAT
YMNGPSVSYLSASSPDEIIATVTAAKTLSASSQAVMANLQRARTERVNTESAARLAKQKADK
AAADAKASQDAAVAALTETRRKFDEQREEVQLAAERDAAQARLQAARLVAWSSEGGQG
APPFRMWDPGSGPAGGRAWDGLWDPTLPMIPSANIPGDPIAVVNQVLGISATSAQVTANMG
RKFLSQLGILQPTDTGITNAPAGSAQGRIPRVYGRQASEYVIRRGMSQIGVPYSWGGNAAGP
SKGIDSGAGTVGFDCSGLVLYSFAGVGKLPHYSGSQYNLGRKIPSSQMRRGDVIFYGPNGSQ
HVTIYLGNGQMLEAPDVGKVRVAPVRTAGMTPYVVRYIEY

>DP00200|P20963#28-164

MKWKA LFTA AILQA QLPITEAQSFG LDPKLCYLLDGILFIYGVILTALFLRVKFSRSADAPAY
QQQNQLYNELNLGRREYDVLDKRRGRDPEMGGKPQRRKNPQEGLYNELQDKMAEAY
SEIGMKGERRRGKGHDGLYQGLSTATKDTYDALHMQALPPR

>DP00269|Q24298#1350-1507

MSTS VQRMSRSYHCINMSATPQAGHLNPAQQQTHQQHKRKCRDLGRRLIPARLLLGVIVAS
LLSPALALHSPPDKNFSGDNRKPAFKNCAGYAPKVKEEQPENTYVLTVEAVDPDPDVIRYSI
VQSPFERPKFFINPSTGVIFTHTFDRDEPIHEKFVFVTVQATDNGLPLDDVCTFNV TIEDIND
NAPAFNKARYDESMSENAQPDAV VMTISASDFDDGNNSLVEYEILRERDFQYFKIDKESGIY
LKR PIDKRPQGSYAIIVRAYNVVPDPPQDAQIEVRIRVVESSI KPPSFVNPI DTPI YLKENLKNFT
HPIATLRAVSNMPDKPEVIFELNTGRTEQTN SKNTFVNQIGNEVTISLGK TLDYEAITDYTLT

MIVRNTHELGTEHQIKIQVEDVNDNIPYYTEVKSGTILENEPPGTPVMQVRAFDMDGTSANNI
VSFELADNREYFTIDPNTGNITALTFDREERDFYNVKVIASDNPSSLFDNGEPNRGHQVFRI
SIGDKNDHKPHFQQDKYLAERLLEDANTNEVIEVKAEDEDNASQILYSIESGNVGDAFKIGL
KTGKITVNQKLDYETITEYEELKVRADFGIYDDYTTVIKIEDVNDNPPVFQDYSVTILEETTY
DDCILTVEAYDPDIKDRNADQHIVYIHQNDGNRWTIDNSGCLRLVKTLDRDPPNGHKNWQ
VLIKANDEDGVGTTVSTVKEVTVLKDINDNAPFLINEMPVYQENRNPGRHVQLQANDYD
DTPGAGNFTFGIDSEATPDIKTKFSMDGDYLHANVQFDREAQKEYFIPIRISDSGVPRQSAVSIL
HLVIGDVNDNAMSEGSSRIFIYNYKGEAPETDIGRVFVDDDDWDLEDKYFEWKDLPHDQFR
LNPSTGMITMLVHTAEGEYDLSFVVTEDSMFVPRHSVDAYVTVVVRELPEEAVDKSGSIRFIN
VTKEEFISVPRDFQSPDALSLKDRQLSLAKLFNTSVSNVDVFTVLQNEHTLDVRFSAHGSP
YYAPEKLNGIVAQNQQRLENELDLQMLMVNIDECLIEKFKCEESCTNELHKSSVPYMIYSNTT
SFVGVNAFVQAQCVCAPLMRRCLNGGSPRYGENDVCDCIDGFTGPHCELVSVAFYGSGYA
FYEPPIACNNTKISLEITPQIDQGLIMYLGPLNFNPLLAISDFLALELDNGYPVLTVDYGSGAIRI
RHQHIKMVADRTYQLDIILQRTSIEMTVDCNCLRSTCQLGAPIGPNEFLNVNAPLQLGGTPVD
LEQLGRQLNWTHVPNQKGFPGCIRNLTINEQTYNLGMPSVFRNIDSQCQQSVAVAFAFSFGIDRN
FIIAIIVCLALLIILLAVVQKKQKNGWHEKDIDDIRETIIYEDEGGGERDTDYDLNVLRQP
FYEEKLYKDHALQGNMRDPNDIPDIADFLGDKKENCDRDVGATTVD DVRHYAYEGDGNS
DGSLSSLASCTDDGDLNFDYLSNFGPRFRKLADMYGEEPSDTDSNVDDDQGWRI
>DP01067|P19599|#21-238

MKVIKTLSIINFFIFVTFNIKNESKYSNTFINNAYNMSIRRSMANEGSNTNSVGANAPNADTIAS
GSQRSTNSASTSTTNNGESQTTPTAACDTIASGSQRSTNSASTSTTNNGESQTTPTAACDPTA
TESISPSPPIITTESSKFWQCTNKTDGKGESEKQNELNESTEEGPKAPQEPQTAENENPAAPE
NKGTGQHGHMHGSRNNHPQNTSDSQKECTDGNKENCGAATSSLNSSNIASINKFVVLISAT
LVLSFAIFI

>DP01319|Q15796|#241-264

MSSILPFTPPVVKRLLGWKSAGGSAGGGEQNGQEEKWCEKAVKSLVKLKKTGRLDEL
EKAITTQNCNTKCVTIPSTCSEIWGLSTPNTIDQWDTTGLYSFSEQTRSLDGRLQVSHRKGLPH
VIYCRLWRWPDLHSHHELKAIENCEYAFNLKKDEVCVNPYHYQRVETPVLPPVLVPRHTEIL
TELPLLDYTHSIPENTNFPAGIEPQSNYIPETPPPGYISEDGETSDQQLNQSMDTGSPEALSPPT
LSPVNHSLDLQPVTYSEPAFWCSIAYYELNQRVGETFHASQPSLTVDGFTDPSNSERFCLGLLS
NVNRNATVEMTRRHIGRGVRLYYIGGEVFAECLSDSAIFVQSPNCNQRYGWHPATVCKIPPG
CNLKIFNNQEFAALLAQSVNQGFEAVYQLTRMCTIRMSFVKWGAEYRRQTVTSTPCWIELH
LNGPLQWLDKVLTQMGSPSVRCSSMS

>DP01731|O75143|#384-517

METDLNSQDRKDLDKFIKFALKTVQVIVQARLGEKICTRSSSSPTGSDWFNLAIKDIPEVTHE
AKKALAGQLPAVGRSMCVEISLKTSEGDSMELEIWCLEMNEKCDKEIKVSYTVYNRLSLLK
SLLAITRVTPAYRLSRKQGHEYVILYRIYFGEVQLSGLEGFTQRTVVGTVGTPVGTTITLSCAYR
INLAFMSTRQFERTPPIMGIIDHFVDRPYPPSSPMHPCNYRTAGEDTGVYIYPSVEDSQEVCTTS
FSTSPPSQLSSRLSYQPAALGVGSADLAYPVVFAAGLNATHPHQLMVPGKEGGVPLAPNQP
VHGTQADQERLATCTPSDRTHCAATPSSSETETVSNSSGRASP HDVLETIFVRKGAFVNK
PINQVTLTSLDIPFAMFAPKNLELEDTDPMVNPDSPETESPLQGSLHSDGSSGGSSGNTHDDF
VMIDFKPAFSKDDILPMDLGFYREFQNPPQLSSSIDIGAQSMAEDLDSLPEKLA VHEKNVRE
FDAFVETLQ

>DP01729|P69490|#144-159

MNIRRKNRLWIACAVLAGLALTIGLVLYALRSNIDL FYTPGEILYGR ETQQMPEVGQRLRV
GGMVMPGSVQRDPNSLKVTFTIYDAEGSVDVS YEGILPDLFREGQGVVVQGELEKGHNILAK
EVLA KHDENYTPPEVEKAMEANHRRPASVYKDPAS

>DP00198|P33905|#133-144 #164-175

MQHWLDKLTDLAAIEGDECILKTGLADIADHFGFTGYAYLHIQHRHITAVTNYHRQWQSTYF
DKKFEALDPVVKRARSRKHIFTWSGEHERPTLSKDERAFYDHASDFGIRSGITIPIKTANGFMS
MFTMASDKPVIDLDREIDAVAATIGQIHAMISFLRTPTAEDAAWLDPKEATYLRWIAVGK
TMEEIADVEGVKYNSVRVLREAMKRFDVRSKAHLLTALAIRRKLI

>DP01099|O00204-2|#1-10 #339-350

MDGPAEPQIPGLWDTYEDDISEISQKLPGEYFRYKGVPFPVGLYSLESISLAENTQDVRDDDI
ITYPKSGTTWMIEIICLILKEGDPSWIRSPVPIWERAPWCETIVGAFSLPDQYSPRLMSSHLPIQIF
TKAFFSSAKVIYMGGRNPRDVVVSLYHYSKIAGQLKDGPDPQFLRDFLKGEVQFGSWFDHI
KGWLRMKGDNFLITYEELQQDLQGSVERICGFLGRPLGKEALGSVVAHSTSAMKANTM
SNYTLPPSLLDHRRGAFLRKGVCGDWKNHFTVAQSEAFDRAYRKQMRCGMPTFPWDEDPEE
DGSPDPEPSPEPEPKSLEPNTSLEREPRPNSSPSPGQASETPHPRPS

>DP01245|P12823|#1-20

MNDQRKKARNTPFNMLKRERNRVSTVQQLTKRFSLGMLQGRGPLKLFMALVAFLRFLTIPPT
AGILKRWGTIKKSAINVLRGFRKEIGRMLNILNRRRTAGMIIMLIPTVMAFHLLTRNGEPh
MIVSRQEKGKSLLFKTKDGTNMCTLMAMDLGELCEDTITYKCPFLKQNEPEDIDCWCNSTST
WVTYGTCTTGGEHRREKRSVALVPHVGMGLETRTEWMSSEGAWKHAQRIETWILRHPGFT
IMAAILAYTIGTHFQRVLIFILLTAIAPSMTMRCIGISNRDFVEGVSGGSWVDIVLEHGSCVTT
MAKNKPTLDFELIKTEAKQPATLRKYCIEAKLTNTTDSRCTQGEPTLNEEQDKRKFVCKHS
MVDRGWGNCGGLFGKGGIVTCAMFTCKKNMEGKIVQPNLEYTVVITPHSGEEHAVGNDT
GKHGKEVKITPQSSITEAEALTGYGTVTMECSPRTGLDFNEMVLLQMKDKAWLVHRQWFLL
PLPWLPGADTQGSNWIQKETLVTFKNPRAKKQDVVVLGSQEGAMHTALTGATEIQMSSGNL
LFTGHLKCRRLMDKLQLKGMSYSMCTGKFVVKEIAETQHGTIVIRVQYEGDGSPCKTPFEI
MDLEKRHVLGRLTTVNPIVTEKDSPVNIEAEPFGDSYIIIGVEPGQLKLDWFKKGSSIGQMFE
TTMRGAKRMAILGDTAWDFGSLGGVFTSIGKALHQVFGAIYGAFFSGVSWTMKILIGVIITWI
GMNSRSTSLSVSLVVGIVTLYLGVMVQADSGCVSWKNKELKGSGIFVTDNVHTWTEQY
KFQPESPSKLASAIQKAHEEGICGIRSVRTLENLMWKQITSELNHILSENEVKLTIMTGDIGIM
QVGKRSLRPQPTELRYSWKTWGAKMLSTELHNQTFIDGPETAECPNTRAWSLEVEDY
GFGVFTTNIWLRREKQDAFCDSKLMSSAIKDNRNAVHADMGYWIESALNDTWKIEKASFIEV
KSCHWPKSHTLWSNGVLESEMIPKNFAGPVSQHNNRPGYHTQAGPWHLGKLEMDFDFCE
GTTVVVTEDCGNRGPSLRTTASGKLITEWCCSCTLPLRYRGEDGCWYGMEIRPLKEKEE
NLVSSLVTAGHQIDNFSLGLGMALFLEEMLRTRVGTKHAILLVAVSFTLITGNMSFRDLG
RVMVMVGATMTDDIGMVTYALLAASFVVRPTFAAGLLRKLTSELMMTTIGIVLLSQSSI
PETILETDALALGMMVLKMVRNMEKYQLAVTIMAILCVNAVILQNAWKVSCTILAVSVS
PLFLTSSQQKADWIPLALTICKLNPTAIFLTTLSRTSKRSWPLNEAIMAVGMVSILASSLLKN
DTPMTGPLVAGGLLTVCYVLTGRSADLELERATDVWDDQAEISGSSPILSITISEDGSMSIKN
EEEEQTLTILIRTGLVISGLFPVSIPIAAWYLWEVKKQRAGVLWDVPSPPPVGKAELEDGA
YRIKQKGILGYSQIGAGVYKEGTFTMWHVTRGAVLMHKGRKIEPSWADVKKDLISYGGG
WKLEGEGEEVQVLALEPGKNPRAVQTKGFLRTNTGTIGAVSLDFSPGTSGSPIVDKKG
KVVGLYNGVVTTRSGAYVSAIAQTEKSIEDNPEIEDDIFRKRRRTIMDLHPGAGKTKRYLP
VREAIKRGLRTLILAPTRVVAEEMEEALRGLPIRYQTPAIRAEHTGREIVDLMCHATFTM
SPIRVPNLYNLIIMDEAHFTDPASIAARGYISTRVEMGEAAGIFMTATPPGSRDPFPQS
NAPIMDEEREIPERSWNSGHEWVTDKGKTVWFVPSIKTGNDIAACLRKNGKRV
IQLSRKTFDSEYVKT
RTNDWDFVVTTDISEMGANFKAERVIDPRRCMKPVILTDGEERVL
AGMPVTHSSAAQRRG
RIGRNPRNENDQYIYMGEPLENDEDCAHWKEAKMLLDNINTPEGI
IPSMFEPEREKVDAIDGE
YRLRGEARKTFV
DLMRRGDPVWL
AYK
VAAEGINYADRR
WC
FDGTRNNQILEEN
VEIW
TKEGERKKL
KPRWLD
DARIYSDPL
ALKEFAAGR
KS
LT
NL
ITEM
GRL
P
MT
Q
KARD
ALDN
LA

VLHTAEAGGKAYNHALSELPETLETLLLTLATVTGGIFLFLMSGRGIGKMTLGMCIIASI
LLWYAQIQPHWIAASIILEFFLIVLLIPEPEKQRTPQDNQLTYVIIAILTVVAATMANEMGFLEK
TKKDLGLGNIATQQPESNILDIDLRPASAWTLYAVATTFITPMLRHSIENSSVNVSATAIANQA
TVLMGLGKGWPLSKMDIGVPLLAIGCYSQVNPILTAAALLLVAHYAIIGPGLQAKATREAQ
KRAAAGIMKNPTVDGITVIDLDPIPYDPKFEKQLGVMLLVCVTQVLMRMRTTWALCEALT
LATGPVSTLWEGNPGRFWNTTIAVSMANIFRGSYLAGAGLLFSIMKNTTSTRGTGNIGETLG
EKWKSRLNALGKSEFQIYKKSGIQEVDRTLAKEGIKRGETDHAVSRGSAKLWFVERNLVT
PEGKVVDLGCGRGGWSYYCGGLKNVREVKGLTKGGPGHEEPIPMSITYGWNLVRLQSGVDV
FFVPPEKCDTLLCDIGESSPNPTVEAGRTLRLVNLVENWLNNNTQFCVKVLNPYMPSVIERME
TLQRKYGGALVRNPLSRNSTHEMYWVSNASGNIVSSVMISRMLINRFTMRHKKATYEPDV
DLGSCTRNINGIESETPNLDIIGKRIEKIKQESETSWHYDQDHPYKTWAYHGSYETKQTGSASS
MVNGVVRLTKPWDVVPMTQMAMTDTPFGQQRFKEKVDTRTQEPKEGTKKLMKITAE
WLWKELGKKKTPRMCTREEFTKKVRSNAALGAIFTDENWKWSAREAVEDSRFWELVDKER
NLHLEGKCETCVYNMMGKREKKLGEFGKAKGSRAIWYMWL GARFLEALGFLNEDHWFS
RENLSLGVEGEGLHKGYILREVSKKEGGAMYADDTAGWDTRITIEDLKNEEMITNHIMAGE
HKKLAEAIFKLTYQNKKVVRVQRPTPRGTVMDIISRRDQRGSGQVGTYGLNTFTNMEAQLIRQ
MEGEGLFKSIQHLTASEEIAVQDWLARVGRERLSRMAISGDDCVVKPLDDR FARAL TALNDM
GKVRKDIQQWEPSPRGWNDWTQVPCSHHFHELIMKDGR TLV VPCR NQDELIGRARISQGAG
WSLRETACLGKSYAQMWSLMYFRRDLRLAANAICSAVPSHWVPTSRTWSIHASHEWMT
TEDMLTVWNKVWILENPWMEDKTPVESWEEIPYLKREDQWCGLIGLTSRATWAKNIQTA
INQVRSLIGNEEYTDYMPMSMKRFREEEEEAGVLW

>DP01152|Q9JK11|#544-725

MEDIDQSSLVSSSTDSPRPPPAFKYQFVTEPEDEEDEEEEDEEEDDEDLEELEVLERKPAAG
LSAAAVPPAAAAPLLDFSSDSVPPAPRGPLPAAPPAAPERQPSWERSPAAPAPSLPPAAVLPS
KLPEDDEPPPARPPPPPAGASPLAEPAPPSTPAAPKRRGSGSVDETLFALPAASEPVIPSSAEKI
MDLMEQPGNTVSSGQEDFPSVLLETAASLPLSPLSTVSFKEHGYLGNLSAVSSSEGTTIEETLN
EASKELPERATNPVNRLAELFSELEYSEMSSFKGSPKGESAILVENTKEEVIRSKDKEDLV
CSAALHSPQESPVGKEDRVVSPEKTMIDIFNEMQMSVVAPVREEYADFKPFEQAWEVKDTYE
GSRDVLAARANVESKVDRKCLEDSLEQKSLGKDSEGRNEDASFPSTPEPVKDSSRAYITCASF
TSATESTTANTFPLLEDHTSENKTDEKKIEERKAQIITEKTSNPKTSNPFLVAVQDSEADYVTTD
TLSKVTEAAVSNMPEGLT PDLVQEACESELNEATGTKIAYETKDLVQTSEAIQESLYPTAQL
CPSFEEAEATPSPVLPDIVMEAPLNSLLPSAGASVVQPSVS PLEAPPPVSYDSIKLEPENPPPYEE
AMNVALKALGTKEIKEPESFNAAVQETEAPYISIACDLIKETKLSTEPSPDFS NYSEIAKFEKS
VPEHAELVEDSSPESEPVDLFSDDSIPEVPQTQEEAVMLMKESL TEVSETVAQHKEERLSASPQ
ELGKPYLESFQPNLHSTKDAASNDIPTLTKEKISLQMEEFNTAIYSNDDLSSKEDKIKESETF
SDSSPIEIIDEFTFVSAKDDSPKLAKETYTDLEVSDKSEIANIQSGADSLPCLELPCDLSFKNIYP
KDEVHVSDEFSEN RSSVSKASISPSNVSALEPQTEMGSIVKS KSLTKEAEKKLPSDTEKEDRSL
SAVLSAELSKTSVVDLLYWRDIKKTG VFGASLFLLSLTVFSIVS VTAYIALALLSVTISFRIY
KGVIQAIQKSDEGHPFRAYLESEVAISEELVQKYSNSALGHVNSTIKELRRFLVDDLVDLSLK
AVLMWVFTYVGALFNGLTLLLALISLFSIPVIYERHQVQIDHYLGLANKSVKDAMAKI QAKI
PGLRKAD

>DP01304|Q99LJ8|#47-120

MTGLYELVWRVLHALLCLHLLTWSL RVRFGTWNWIWRRCCRAASAAVLAPLGFTLRKPR
AVGRNRRHHRHPPHGGPGPGPAATHPRLWRADVRSLQKLPVHMGLLVTEEVQE PSFSIDI
ASL VVWCMAVGISYISVYDHQGIFKRNN SRLMDEILKQQQELLGQDCSKYSAEFANSNDKD
DQDLNCPSAVKVLSPEDGKADIVRAAQDFCQLVAQQQRKPTLDVDLLGSLSSHGFDPDPL
VLKFGPV DSTLGF LPWQIRL TEIVSLPSHLNIS YEDFFS ALRQY AACEQRLGK

>DP02334|Q98148#1110-1162 #1133-1144

MAPPGMRLSGRSTGAPLTRGLSCRKNRSPERCDLGDDLHLQPRRKHVADSIDGRECGPHTL
PIPGSPTVFTSGLPAFVSSPTLPVAPIPSPAPATPLPPPALLPPVTSSSIPPSPHPVSPGTTDTHSPS
PALPPTQSPESSQRPPLSSPTGRPDSSTPMRPPPSQQTPPHSPTTPEPPSKSSPDSLAPSTLR
LRKRRLSSPQGPSTLNPICQSPPVSPRCDFANRSVYPPWATESPIYGSSSDGDTPPRQPPTSPI
SIGSSSPSEGSWGDDTAMLVLLAEIAEEASKNEKECSENNQAGEDNGDNEISKESQVDKDDN
DNKDDEEEQETDEEDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEEDDEE
EDEEEDEEEDEEEDEEDDDDEDNEDEEDDEEDKKEDEEDGGDGDKTLSIQSSQQQQEPQQ
QEPQQQEPPQQQEPLQEPQQQEPLQEPQQQEPLQEPQQQEPLQEPQQQEPLQEPQQQEPLQEPQQ
QEPQQQEPLQEQQQQEPLQEQQQQEPLQEQQQQEPLQEQQQQEPLQEQQQQEPLQEQQQQEPLQEQ
PQQREPQQREPQQREPQQREPQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQ
EQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQ
QDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQDEQQQ
QDEQEQQEEQEQQEEQELEEEQELEEDQEQELEEEQELEEEQELEEEQELEEEQELEEEQELE
EQEQELEEEQELEEEQELEEEQELEEEQEVEEQEVEEQEVEEQEVEEQEVEEQEVEE
QEEQELEEEQELEEEQELEEEQELEEEQELEEEQELEEEQELEEEQELEEEQELEEEQELE
HGSSEDEMEVDYPVVSTHEQIASSPPGDNTPDDDPQPGPSREYRYVRLTSPPHRPGVRMRRV
PVTHPKKPHPRYQQPPVPYRQIDDCPAKARPQHIFYRRFLGKDGRDPKCQWKFAVIFWGN
PYGLKKLSQAFQFGGVKAGPVSLPHPGPQSPITYCVYVCQNKTTSKKVQMARLAWEAS
HPLAGNLQSSIVFKKKPLTQPGENQGPQDSPQEMT

>DP00446|O35718#128-163

MVTHSKFPAAGMSRPLDTSRLKTFSSKSEYQLVVNAVRKLQESGFYWSAVTGEANLLS
AEPAGTFLIRDSSDQRHFFTSLVKTQSGTKNLRIQCEGGFSLSQSDPRSTQPVPRFDCVLKLVH
HYMPPPGTPSFSLPPTEPSSEVPEQPPAQALPGSTPKRAYIYSGGEKIPLVLSRPLSSNVATLQ
HLCRKTVNGHLD SYEKVTQLPGPIREFLDQYDAPL

>DP02055|P33322#351-394

MSKEDFVIKPEAAGASTDTSEWPLLKNFDKLLVRSGHYTPIPAGSSPLKDLKSYISSGVINL
DKPSNPSSHEVVAIKRILRCEKTGHSGTLDPKVTGCLIVCIDRATRLVKSQQGAGKEYVCIV
RLHDALKDEKDLGRSLENLTGALFQRPLISAVKRQLRVRTIYESNLIEFDNKRNLLGVFWASC
EAGTYMRTLCCVHLGMLVGVMQELRRVRSGALSENDNMVTLHDVMDAQWVYDNTRD
ESYLRSIIQPLETLLVGYKRVVKDSA NAVCYGAKLMPGLLRYEEGIELYDEIVLITTKGEAI
AVIAQMSTVDSLASC DHGVVASVKRCIMERDLYP RWRGLGPVAQKKQMKADGKLDKYG
RVNENTPEQWKKEYVPLDNAEQSTS SSETKETEEEPKKA KEDSLIKEVETEKEEVKEDDSK
KEKKEKKDKKEKKEKKEKKEKKEKKEKKS KKS KKS

>DP01851|P10686#770-779

MAGVGTPCANGGPSAPSEAEVLHLCRSLEVGTVMFLYSKKSQRPERKTFQVKLETRQITW
SRGADKIEGSDIREIKEIRPGKTSRDFDRYQEDPAFRPDQSHCFVILYGMFRLKTLQLQATSE
DEVNMWIKGLTWLMEDTLQAATPLQIERWLRKQFY SVDRNREDRISAKDLKNMLSQVNYR
VPNMRFRLRERLTDFEQRSGDITYGQFAQLYRSLSMYSAQKTM DLPFLETNLTGERPELCQV
SLSEFQQFLLEYQGELWAVDRLQVQE FMLSFLRDPLREIEEPYFFLDELVTFLFSKENS VWN
QLDAVC PETMNPLSHYWISSHNTYLTGDQFSESSLEAYARCLRMGCRCIELDCWDGP
MPVITYHGHTLTTKIKFSDVLHTIKEHAFVASEYPVILSIEDHCSIAQQRNMAQHFRKVLD
TKPV DIAADGLPSPNQLRK KILIKHKKLAEGSAYEEVPTSMYSEN DISNSIKNGILYLED
HEWYPHYFVL TSSK IYYSEETSSDQGNEDEE PKEASGSTELHSSEKWFHGKLGAGRDRHIA
ERLLTEYCIETGAPDGSFLVRESETFVGDYTLSFWRNGKVQHCRIHSRQ DAGTPKFFLTD
FD SLYDLITHYQQVPLRCNEFEMRLSEPVPQTNAHESKEWYHASLTRAQAEHMLMRV
PRDG AFLVRKRNEPNSY AISFRAEGKIKHCRVQQEGQTVMLGNSEFDSLVDLISYYEKHPL
YRKM K

LRYPINEEALEKIGTAEPDYGALYEGRNPGFYVEANPMPTFKCAVKALFDYKAQREDELTFT
KSIIQNVEQDGGWWRGDYGGKKQLWFPSNYVEEMINPAILEPEREHDENSPLGDLLRGV
LDVPACQIAIRPEGKNNRLFVFSIMPSVAQWSLDVAADSQEELQDWVKKIREVAQTADARL
TEGKMMERRKKIALELSELVVYCRPVPFDEEKIGTERACYRDMSSFPETKAEKYVNKAKGKK
FLQYNRLQLSRIYPKGQRLEDSSNYDPLPMWICSQLVALNFQTPDKPMQMNLQALFMAGGHC
GYVLQPSTMDEAFDPFDKSSLRGLEPCVICIEVLGARHLPKNGRGIVCPFVEIEVAGAEYDST
KQKTEFVVVDNGLNPVWPAKPFHQISNPEFAFLRFVYEEDMFSDQNFLAQATFPVKGLKTG
YRAVPLKNNYSEDLELASLLIKIDIFPAKENGDLSPSGTSLRERASDASSQLFHVRAREGSFE
ARYQQPFEDFRISQEHLADHFDSRERRAPRTRVNGDNRL

>DP01361|P15927|#1-42 #175-270

MWNSGFESYGSSSYGGAGGYTQSPGGFGSPAPSQAEEKSRARAQHIVPCTISQLLSATLVDEV
FRIGNVEISQVTIVGIIRHAEKAPTNIVYKIDDMTAAPMDVRQWVDTDDTSSENTVVPPETYY
KVAGHLRSFQNKKSLVAFKIMPLEDMNEFTTHILEVINAHMVLSKANSQPSAGRAPSINPGMS
EAGNFGGNSFMPANGLTVAQNQVLNLIKACPRPEGLNFQDLKNQLKHMSVSSIKQAVDFLSN
EGHIYSTVDDDHFKSTDAAE

>DP00129|Q04207|#295-304

MDDLFPLIFPSEPAQASGPYVEIIEQPKQRGMFRYKCEGRSAGSIPGERSTDTTKTHPTIKING
YTGPGTVRISLVTKDPPHRPHFHELVGKDCRDGYYEADLCPDERSIHSFQNLGIQCVKKRDLEQ
AISQRIQTNNNPFHVPIEEEQRGODYDLNAVRLCFQVTVRDPAGRPLLTPVLSHPIFDNRAPNTA
ELKICRVNRNSGSCLGGDEIFLLCDKVQKEDIEVYFTGPGWEARGFSQADVHRQVAIVFRTP
PYADPSLQAPVRVSMQLRRPSDRELSEPMEFQYLPDTDDRHRRIEKRKRTYETFKSIMKKSPF
NGTEPRPPTRRIAVPTRNSTSVPKPAPQPYTFPASLSTINFDEFSPMLLPSGQISNQALALAPSS
APVLAQTMVPSSAMVPLAQPPAPAPVLTGPPQQLSAPVPKSTQAGEGTLSEALLHLQFDADE
DLGALLGNSTDGVFTDLASVDNSEFQQLNQGVSMHSTAEPMLMEYPEAITRLVTGSQRP
PDPAPTPLGTGLPNGLSGDEDFSSIADMDFSALLSQISS

>DP01893|O14776|#98-108

MAERGGDGGE SERFNPGELRMAQQQALRFRGPAPPNAVMRGPPPLMRPPPFGMMRGPPP
PPRPFGRPPFDNPMPMPPPGI PPPMGPPHLQRPPFMPPPMSMPPPGMMFPPGMPPVTAP
GTPALPPTEEI WENKTPDGKVYYYNARTRESAWTKPDGVKVIQQSELTPMLAAQAQVQAQ
AQA
VQAQVQAQVQAQAVGASTPTTSSPAPAVSTSTSSTPSSTTATSVQTVSTPTQDQTP
SSAVSVATPTVS VSTPAPTATPVQTVQPHPQLPPAVPHSVPQPTTAIPAFPPVMPPFRVPLP
GMPAPIPLPGVAMMQIVSCPYVKT VATTKTGVLPGMAPPIVPMIHPQVAIAASPATLAGATAVSE
WTEYKTADGKTYYNNRTLESTWEKPQELKEKEKLEEKIKEPIKEPSEEPLPMETEEEDPKEE
PIKEIKEEPKEEEMTEEEKAQKAKPVATAPIGTPWCVVWTGDERVFFYNPTTRLSMWDRP
DDLIGRADVDKIIQEPPHKKGMEELKKLRHPTPTMLSIQKWQFSMSAIKEEQUEL MEEINEDEP
VKAKKRKRDDNKDIDSEKEAAMEAEIKAARERAIVPLEARMQFKDMILLERGVSAFSTWEK
ELHKIVFDPRYLLLNPKERKQVFDQYVKTRAEEERREKKNKIMQAKEDFKMMEEAKFNP
ATFSEFAAKHAKDSRFKAIEKMKDREALFNEFVAAARKKEKEDESKTRGEKIKSDF FELL SNH
HLDSSQRWSKVDKVESDPRYKAVDSSMREDLFKQYIEKIAKNL DSEKEKELERQARIEAS
LREREREVQKARSEQTKEIDREREQHKREEAIQNFKALLSDMVRSSDVSDTRRTLKDHR
WESGSSLEREEKEKLFNEHIEALT KKKREHFRQLLDETSAITLTSTWKEVKKI KEDP RCIKFSS
SDRKKQREFEEYIRD KYITAKADFRTLLKETK FITYRSKKLIQESDQHLKDVEKILQNDKRYL
VLDCVPEERRKLIVAYVDDLDRRGPPPP TASEPTRRSTK

>DP01383|P0CU51|#1-229

MSAEAMNMNMNQDAVFIPPPEGEQYERKEKQEIQQT SYLQSQVKVPLVNLPAPFFSTSFSAQ
EILGEGFQASISRISAVSEELSSIEIPELAEEARRDFAAKTREQEMLSANYQKEVERKTEAYRKQ

QEVEADKIRKELEKQHLRDVEFRKDIVEMAIENQKKMIDVESRYAKKDMDRERVKVRMML
EQQKFHSDIQVNLDSSAAGTETGGQVSESQKFTERNRQIKQ
>DP01505|P0AGB6|#67-90

MSEQLTDQVLVERVQKGDKAFNLLVVRYQHKVASLVSRYVPSGDVPDVQEAFIGAYRA
LDSFRGDSAFYTWLRYIAVNTAKNYLVAQGRRPPSSDVAIEAENFESGGALKEISNPENLML
SEELRQIVFRTIESLPEDLRMAITLRELDGLSYEEIAIMDCPVGTVRSRIFRAREAIDNKVQPLI
RR
>DP01012|P27392|#57-93

MDKKKLLYWVGGGLVLILIWLWFRNRPAAVASNWEGPPYMTYNQPQAGSVTLPVAGYTS
PSPTLPNRNRSCGCNCNAVSAAMAQGADLASKLTDITSQLNDYASSLNDYLASQAGV
>DP01624|Q06433|#328-362 #395-413

MNNNKRSLSTVPSRPIRVGFVGLTSGKSWVAKTHFLAIQQLSSQFQIVALYNPTLKSSLQTI
EQLQLKHATGFDLSLESFAQYKIDMIVSVKPEHYEVVKNILEHSSQNLRYLVEWALA
ASVQQAEELYSISQQRANLQTICLQGRKSPYIVRAKELISEGCIGDINSIEISGNGGWYGYERP
MRSPEYLYDIESGVNLISNSFGHTIDVLQYITGSYFQKINAMISNNIPTQFLLDENKGRTKETIS
KTCPDHLLFQGILENGKVPVSCSFKGTPVKKLTKNLVIDIHTKGDLKIEGDAGFVEISNVL
YFYGIKNGNGSSNGTDNNNGAAAIKDKEVKTKSPSPSTGTSEEQTMEVFHLRNYNSVGNIL
RIYESIADYHFLGKPESKSSRGPDLLFASTKFDKQGFRFEGFPTFKDAIIHLRLIDAVFRSDKEE
KTLDVSKIMI
>DP01591|P18212|#170-186

MASTQCFLHHHALSTPARTPLVRSIVPSLKPQNLVCRAQKQSAPQEDNVNSVSRRALTV
LIGAAAVGSKVSPADAAYGEAANVFGPKTDTDFQTYNGDGFKLQIPSKWNPNKEVEYPGQ
VLRFEDNFDATSNVIVAITPTDKSITDFGSPEQFLSQVDYLLGRQAYSGKTDSEGGFESDAV
AIANVLETSSAEVGGKPYYLSVLTRTADGNEGGKHQLITATVNDGKLYICKAQAGDKRWF
KGAKKFVENTATFSLA
>DP00053|P27001|#1-101

MLEEALAAIQNARDLEELKALKARYLGKKGLLTQEMKGLSALPLEERRKRGQELNAIKAAL
EAALEREKALEEALKEALERERVDVSLPGASLFSGGLHPITLMERELVEIFRALGYQAVEG
PEVESEFFNFDALNIPEHHPARDMWDTFWLTGEFRLEGPLGEEVEGRLLLRTHTSPMQVRY
MVAHTPPFRIVVPGRVFRFEQTDATEAVFHQLEGLVVGEIGIAMAHLGAIYELAQALFGPD
SKVRFQPVYFPFVEPGAQFAVWWPEGGKWLELGGAGMVHPKVFQAVDAYRERLGLPPAYR
GVTGFAFGLGVERLAMLRYGINPDIRYFFGGLRKFLEQFKGVL
>DP01983|Q9Q8N4|#151-203

MEEGIVHKLDVFLIDENSIKHVNLFQDGSYGCNIHLKTATCKYITFILVLEPDWENIVEAKPI
HMRLNGKKIRVPLVAKTHTSLIYKVVIYVEEDALARFYSDVERSYTDVYPTFLVNTDTRYYI
LDSGRTYTYIDPFISDGDKRRWLTRIEEEAYDASTEEEEDTEEDMDTVHLYCLEEDEEKI
ADTGNDNQKDAED
>DP01926|C4M7X2|#583-769

MSKQLFLNRCKDVEEYQKAGHNPWPHKFNVSITVPEFIAKYSGLEKSQVSDDIVSAGRVL
KRSSSSALMFIDLHDSQTKLQIMLNKSAYENKEDFVSLTKMIYRGDICGFTGHPTRTKTGELS
LIPISGMILSPCLHMLPSMHYGLGDQETRFRKRYLDLIVNPESVKNFVLRTKVVKAVKYLDD
KGFLLEVTPILNTIPGGATARPFITHHNQLDIQMYMRIAPELYLKELVVGGINRVEIGRLFRN
EGIDQTHNPEFTCEFYMAYADYNDIMKMTTEELLGNMVKDITGGSTKLEIKDRLMDINNEED
IKMLEKFFKEPIPGRPNSAECSKVIEKHCTELNYYDGNNEKAMKKLFADFVTEKKMVLDFT
APFKRISYVHALEEKFGEKIPRPLDGPEALTFLKKQAIRFNAICAEPQTTARVMDKLFGDLIEV
DLVQPTFVCDQPQLMSPLAKYHRSEPELTERFELFILKREIANAYTELNNPIVQRSNFEQQAKD
KAAGDDEAQLVDEVFLDAIEHAFFPTGGWGLGIDRLAMLLADVDNIKEVILFPTMRPEDELE

KKAREAKEDAMVAQELAATEEKGGKKVVKPANKQQPVKEVLDGFQLEIRVGKIVEAGPH
PNSEHLLALKVDVGEEKPRSVVAGLAEHYKPEELLNQKATFCVNLKPSKLRGVASEAMILAA
TSLDGTKVFKFCHPSADAIGAQVIPKEGKVTISAKKISIDVVGKMLALKGLVRTNDVPLIV
KDTELTVTDEVVDGTVR

>DP00142|P14602|#192-209

MTERRVPFSLLRSPSWEPFRDWYPWAHSRLFDQAFGVPRLPDEWSQWFSAAAGWPGYVRPLPA
ATAEGPAAVTAAAPAFSRALNRQLSSGVSEIRQTADRWRVSLDVNHFAPEELTVKTKEGVVE
ITGKHEERQDEHGYISRCFTRKYTLPPGVDP TLVSSLSPEGTLTVEAPLPKAVTQSAEITIPVT
FEARAQIGGPEAGKSEQSGAK

>DP00996|Q9WZ73|#38-48 #86-92 #109-141

MSFFNIILIGRLVRDPEERYTLSGTPVTTFTIAVDRVPRKNAPDDAQTTDFRIVTFGR LAEFA
RTYLTGRLVLVEGEMRMRRWETPTGEKRV SPEVVANVVR FMDRKPAETVSETEELEIPEE
DFSSDTFSEDEPFF

>DP00925|J8TM36|#236-249

MQKQSLLIHFSKKIVSHRYFTRIIITLIFNALLVGLETYPALRHEYGSLFHVL DVILLWIFTLEIL
TRFLATTPKKDFFKG GWNNWFDTIIVLSSHIFVGGHFITVRLRILRVLRLRAISVIPS LRR LV DAL
MLTIPALGNILILMSIIFYIFA VLGTM LFANVAPEYFANLQLSML TLFQIVLDSWGSGVMR P I L
VDIPWAWTYFIAFVLVGTFIIFNLFIGVIVNNVEKANEDEVKDKVKEKEAAQKQMDSLHEEL
KEIKQYLKSIEKQRNRSS

>DP01982|Q8HYY9|#1-12

YLDHGLGAPAPYYPDPLEPRREVCELNPD CDELA DHIGFQEAYRRFYGIA

>DP00886|Q9RY65|#1-18

MAHKKGVGSSKNRDSNP K YLGWKKFGGEVV KAG NIL VRQR GTKFKA GQGVGMGRDHTL
FALSDGKVVFINKGKGARFISIEAAQTEVAAD

>DP02220|P32521|#1191-1480

MYNPYQQQGMGYQQQQQQQQQQNGFYPQQQQGQSSNQPQGPQPQQQMAFNQPQATGI
GGMPQSFGNSFSMPQQPQTGYNNNNNGSVYGNGNFGQQPQQQQQAKPQHTGYVPNSS
MPMMNTTGTMP PPNP AQQPQLQSIQPQGTGYYQAANTANVHSVQPLQS QGTGYYVSTPNLI
SSNQTQQPLQAQGTGYYQSQPQVPPPQQAQLQPLKPQQTGFYLQPQNQAPLEPLKPTATG
FVNSFANNGLNN DIKIPAIRLS FITAQDQAKFETLFRSIVTNGSNTVSGANC R KILMRS GLP PSQ
LARIWL CDTSKAGELLFPEF ALAMHLINDVLQGDTIPYELDSKT KNEVSSFIDAINLSIANQD
SSANDAPKTFDEFITAGVQNLQPQPTGYMPQTSFGIPLQS QITGGVASALNPQSTGFMAPTT
FNMSMNTGTPGLNPQITGGAPASMQPNITGNALQPQTTGMM P QTTGMM P QTTGMM P QTSF
GVNLGPQLTGGALQSQYTGGYGSVMPQQSGPASMPNLSFNQQGLQSQLTGLQPQPTGFLPPS
NFSATMPLTAQKTGFGNNEIYTKSNFNNNLIDNSSQDKISTEEKSLFYKIFETFD TQNKGLLDS
PTAVEIFRKSGLNRADLEQIWNLCDINNTQLNKQEALGMHLVYGK LNGKPIPNVL PSSLIPS
STKLLDNLKNQLKTEPTTTKEKPSFGKIDALSYKNNDDVLPN YRNRRKVYSAKNEEQSSFSS
PSAKSVNHSSSTLQTDDISVDKTVEKKTAKPKYAGFSREINLKNIASLENEIKNISNPENCYDSS
IPSDLTSRFDAIIAKLPNLFNEISTIDNEITNAKIQLYRKKNPSSIIGSGPNGEITENDRKKAKSRA
LLRARMSALTGKSTESEDLSMEDEQQSAEIKRIQQENGKNQEIIKDIRSSISDISASLKSTM TG
SNMISNQE FERWEFGIGLEDGVREFLDDLKSNSNKS VT ESSPFVPSSTPTVDDRSSSPSY SQFK
TAEERAAYLKEAKKR MKEKLAKFDKNRRNVTQSSRSISSENSREQPQ QIAGSSNLVEPRATP
FQE EKYVEA QPTQPVQ STQPVQ PTQPVQ PTQPVQ PTQPVQ PVQ N VYNAKQES
DDEDEDDEEKRLQEEELKRLKLKKADKEKRLAALRKQIEDAQN EDEEETNGKDNFGGHVN
VPQ AAPVAPS AAFSQNSTNAPRSVHA AVTPAAGKNSTGLPSTTMGHNPYFKDASASSTSTFD
ARAAEMQRRIQRGLDEDEDGW SDEDESNNRVAVDNKVEEAKIGHPDHARAPPVTAAPLPS
VTPVPPAVPVPQANTSNEKSSPIAPIPPSVTQEPPVPLAPPLPAVDGFQEPPIPSAPAIATAVQK

SGSSTPALAGGVLPPLPTQQASTSEPIIAHVDNYNGAEKGTGAYGSDSDDVLSIPESVGT
DEEEEGAQPVSTAGIPSIPPAGIPPPPLP
>DP01464|P28229|#265-332 #362-396
MSWSFLTRLLEEIHNSTFGKIWLTVLIVFRIVLTAVGGESIYYDEQSKFVCNTEQPGCENV
YDAFAPLSHVRFWVFQILVATPSVMYLGYAIHKIAKMEHGEADKKAARSKPYAMRWKQHR
ALEETEEDHEEDPMMPYMELESEKENKEQSQPKPKHDGRRIREDGLMKIYVLQLLARTVF
EVGFLIGQYFLYGFQVHPFYVCSRLPCPHKIDCFISRTEKTIFLLIMYGVTGLCLLNWEMLH
LGFGTIRDSLNSKRRELDPGAYNYPFTWNTPSAPPGYNIAVKPDQIQYTELSNAKIAYKQN
ANIAQEQQYGSHEEHPADLETLQREIRMAQERLDLAIQAYHHQNNPHGPREKKAKVGSKSG
SNKSSISSKSGDGKTSVWI
>DP00949|Q9HAU5|#430-530 #1105-1129 #1130-1166 #1167-1207
MPAERKKPASMEEKDSLPPNNKEKDCSERRTVSSKERPKDDIKLTAKKEVSKAPEDKKRLED
DKRKEDKERKKKDEEKVKAEEESKKKEEEEKKHQEEERKKQEEQAKRQQEEEAAQMK
EKEESIQLHQEAWERHHLRKELRSKNQNAPDSRPEENFFSRDSSLKKNTAFVKKLTITEQQ
RDSLHDFNGLNLSKYIAEAVASIVEAKLKISDVNCAVHLCSLFHQRYADFAPSLLQVWKHH
FEARKEEKTPNITKLRTDLRFIAELTIVGIFTDKEGLSLIYEQLKNIINADRESHTHVSVISFCR
HCGDDIAGLVPRKVKSAAEKFNLSFPPSEIISPEKQQPFQNLLKEYFTSLTKHLKRDHRELQNT
ERQNRRILHSKGELSEDRHKQYEEFAMSYQKLLANSQSLADLLDENMPDLPQDKPTPEEHGP
GIDIFTPGKPGEYDLEGGIWEDEDARNFYENLIDLKAFVPAILFKDNEKSCQNKESENKDDTKE
AKESKENKEVSSPDDLELELENLEINDDTLELEGGDEAEDLTKLLDEQEDEEASTGSHLK
LIVDAFLQQQLPNCVNRDLIDKAAMDFCMNMNTKANRKKLVRALFIVPRQRLLPFYARLV
ATLHPCMSDVAEDLCMSMLRGDFRFHVRKKDQINIETKNKTVRFIGELTKFKMFTKNDTLHCL
KMLLSDFSHHHIEMACTLLETGRFLFRSPESHRTSVLLEQMMRKQAMHLDARYVTMVE
NAYYYCNPPPAEKTVKKKRPLQEVYRKLLYKDLSKVTEKVLRQMRKLPQDQEVDYV
ICCMINIWNVKYNSIHCVANLLAGLVLQEDVGIHVVDGVLEDIRLGMEVNQPKFNQRISS
AKFLGELEYNYRMVESAVFRTLYSFTSGVNPDGSPSSLDPPEHLFRIRLVTILDTCGQYFDR
GSSKRKLDCLVYFQRYVWWKKSLEVWTKDHPFPIDYMSDTLELLRPKIKLCNSLEESIR
QVQDLEREFLIKGLVNDKDSKDSMTEGENLEEDEEEQGAETEEQSGNESEVNEPEEEEGS
DNDDDEGEEEEEEENTDYLTDSNKENETDEENTEVMIGGGKHVPCVEDEDIQALDKMML
ENLQQRSGESVKHQLDVAIPLHLKSQLRKGPPLGGGEGEAESADTMPFVMLTRKGNKQF
KILNVPMSQLAANHWNQQAEQEERMRMKKLTDINERQEQEDYQEMLQSLAQRPAPAN
TNRERRPRYQHPKGAPNADLIFKTGGRRR
>DP00570|P09132|#119-128
MACAAARSPADQDRFICIYPAYLNNKKTIAEGRRIPIASKAVENPTATEIQDVCSAVGLNVFLEK
NKMYSREWNRDVQYRGRVRVQLKQEDGSLCLVQFPSRKSVMLYAAEMIPKLKTRTQKTGG
ADQSLQQGEGSKKGKGKKKK
>DP00641|P51671|#1-31
MKVSAALLWLLIAAFSPQGLAGPASVPTCCFNLANRKIPLQRLESYRRITSGKCPQKAEIF
KTKLAKDICADPKKKWVQDSMKYLDQKSPTPKP
>DP00543|Q14061|#1-63
MPGLVDSNPAPPESQEKKPLKPCCACPETKKARDACIEKGEEHCGHLIEAHKECMRALGFKI
>DP00147|P0A7U3|#82-92
MPRSLKKGPFI DLHLLKKVEKAVESGDKPLRTWSRRSTIFPNMIGLTIAVHNGRQHVPVFVT
DEMVGHKLGEFAPTRTYRGHAADKKAKKK
>DP01436|P54936|#423-487
MRELDPPDESNLLDEQLSIRDVIEQGPFSNVYRILHGPSNRKFLLRSINLNLFQHTGLGFEEID
EEIRICQNLQHPYICRLEKTINSVHYRIIFENMEGNDICFEIVQRASNGVFSEYVVSHYTRQL

LDALDYCHTRKIVHRDVRPHNLVLASKDTSAPLKLCFGVAKDLSEIGGSMACGRVGVPQF
MAPEIVRKDRVSCSSDIWSSGVLFLLAGRLPFGSTSIDIYERIMQTDVDVGYMPNISESAR
NLVRRMLNADPSKRISAKEALNHEWIRDKEHMASRKHMDVIDQMRRYNESRKLKNVLS
AVNSGRFDETTPRQDTPQTAFDVGSSPGDCCHRGESSNDAAEPPADKDLGAYKVLGSLD
AINSLLDPNSYKPGSTTFQKIHDDGSVRNLLRYDKIKALPCEPVVTEVDTSLRKETLNQIDG
LLGPSPEALELRQLLNSPHLASCVQALDVVCIEIRDPKNEASGSGDKEGNCVSSDPAPAYLNG
GVLPLGAQRAGTSFEHFNQSAVHTSYDEEEELYDCMSRLLVQFQKDTQEPMGITLKVNED
GRCFVARIMHGGMIHRQATLHGDEIREINGMSVANRSVESLQEMLRDARGQVTFKIIPSYRS
APPACEIFVRAQFDYEPSQDDLIPCPQAGIPFKTDILQVISKDDHNWWQARFVSSFPSSIGNSSN
AQRSNQQVAGLIPSPELQEWRRTACLAMERSKNTCNCMWFNKKKKYYTTKYLQKHSAL
FDQLDLVTYEEVMRLSQYRRKTLVLLGAHGVGRRHIKNTLIHRHPNRFAYPIPHTTRPPRKDE
VDGKHYYFVTNEQMMADIQNNEYLEYGTHEESMYGTKLETIRNIHKSGKIAILDVEPQALKV
LRTAEYSPFVVFIAAPNLQGMQDPDGSLKLLNESDVLRQAFGHLDFIITNSDIDDTIAQLER
LVEKLPAYPQWLPVTWVY

>DP01554|P23443|#422-525

MRRRRRRDGYPAPDFRDREAEDMAGVFDIDLDQPEDAGSEDELEEGGQLNESMDHGGVGP
YELGMEHCEKFEISETSVRNRGPEKIRPECFELLRLKGGGYGVFQVRKVGTGANTGKIFAMK
VLKKAMIVRNAKDTAHTKAERNILEEVKHPFIVDLIYAFQTGGKLYLILEYLSGGELFMQLER
EGIFMEDTACFYLAEISMALGHLHQKGIIYRDLKPENIMLNHQGHVKLTDFGLCKESIHDTV
THTFCGTIEYMAPEILMRSGHNRAVDWWSLGALMYDMLTGAPPFTGENRKKTIIDKILKCKL
NLPPYLTQEARDLLKKLLRNAASRLGAGPGDAGEVQAHPFRHINWEELLARKVEPPFKPL
LQSEEDVSQFDSDKTRQTPVDSPDDSTLSESANQVFLGTYVAPSVLESVKEKFSFEPKIRSPRR
FIGSPRTPVSPVKFSPGDFWGRGASASTANPQTPVEYPMETSGIEQMDVTMSGEASAPLPIRQP
NSGPYKKQAFPMISKRPEHLMNL

>DP01750|P62877|#12-39

MAAAMDVDTPSGTNSGAGKKRFEVKKWNNAVALWAWDIVVDNCAICRNHIMDLCIECQAN
QASATSEECTVAWGVCNHAFHFHCISRWLKTRQVCPLDNREWFQKYGH

>DP01140|P38293|#1-148

MNIVPQDTFKSVQSTDQDKSVLSSAVPSLPDTLRQQEGGAVPLSTQLNDRPLESTLKNWET
TQRQRQMEQYRQIFGIAEPMKRTMEMEIVNRTDFNPLSTNGSIHRDILLNKECSIDWEDVYPG
TGLQASTMVGDDVHSKIEKQLGI

>DP00752|E6PB09|#1-71

MQVQVKTLEGETKIYTLEQGTSVLDLKSQISQDMGFEIDMMTLVNNGFIAPNTELVTDDVTY
YLSLKLGGKKKKKSYTTKKTKHRHVHTKLGALAFYKLENNGVSLQQKGCPKGPGI
FMAKHYDRHYCGKCHLTAKIDAETAKNLEELKKQDAKSGAAATDAGAGGAGKKDAK
KGKKGKK

>DP01757|Q13029|#197-269 #197-341 #297-341

MNQNTTEPVAATETLAEVPEHVLRGLPEEVRLFPSAVDKTRIGVWATKPILGKKFGPFVGD
KKKRSQVKNNVYMWEVYYPNLGWCIDATDPEKGNWLRYVNWACSGEEQNLFPLEINRAI
YYKTLKPIAPGEELLVWYNGEDNPEAAAIEERASARSKRSSPKSRKGKKQSENKNKGNI
QDIQLKTSEPDFSANMRDSAEGPKEDEEKPSASALEQPATLQEVASQEVPPELATPAPAWE
QPEPDERLEAAACEVNDLGEEEEEEEDEEEEEDDDDELEDEGEEEASMPNENSVKEPEIR
CDEKPEDLLEEPKTSEETLEDCSEVTPAMQIPRTKEEANGDVFETMFPCQHCERKFTTKQG
LERHMHIHISTVNHAFKCKYCGKAFGTQINRRHERRHEAGLKRKPSQLQPSEDLAGKAS
GENVASKDDSSPPSLGPDCIMNSEKASQDTINSSVVEENGEVKELHPCKYCKVFGTHTNM
RRHQRRVHERHILPKGVRRKGGLEEPQPPAEQAQATQNJVYVPSTEPEEEGEADDVYIMDISS
NISENLNYYIDGKIQTNNNTSNCDVIEMESASADLYGINCLLPTVTEITQNIKTTQPVTEDLP

KEPLGSTNSEAKKRTASPPALPKIAETSDPMVSCSLPLSISTTEAVSFHKEKSVYLSSK
LKQLLQTQDKLTPAGISATEIAKLGPCV рапасмлрвтssrfkrrtssppspqhsрalrdfg
KPSDGKAATDAGLTSKKSKLESHDSPAWSLGRDERETVSPPCFDEYKMSKEWTASSAFS
SVCNQQPLDLSSGVKQKAEGTGKTPQWESVLDLSVHKKHCSДSEGKEFKESHVQPTCSA
VKKRKPTTCMLQKVLLNEYNGIDLPVENPADGTRSPSPCKSLEAQPDPLGPГSGFPAPTVES
TPDVCPSPALQTPSLSSGQLPPLIPTDPSSPPCPPVLTВАТРРРЛЛPTVPLPAPSSSASPHPCP
SPLSNATAQSPLPILSPTVSPSPPIPPVEPLMSAASPGPPTLSSSSSSSSFSSSSSSSPSPPPL
SAISSLVSSGDNLЕASLPMISFKQEELЕНEGLKPREEPQSAAEQDVVQETFNKNFVCNVCESP
FLSIKDLTKHLIHAEEWPFKCEFCVQLFKDKTDLSEHRFLLHGВGNIFVCVCKKEAFLCNL
QQHQRLHРDKVCTHHEFESGTLRPQNFTDPSKAHVEHMQSLPEDPLETSKEEEELNDSSEEL
YTTIKIMASGIKTКDPDVRGLNQHYPSFKPPPQYHHRNPMGIGVTATNFTTHNIPQTFTTAI
RCTKCGKGVDNMPЕLHKHILACASASDKKRYTPKKNPVPLKQTВQPKNGVVLDNSGKNA
FRRMGQPКRLNFSVELSKMSSNKLKLNALKKNQLVQKAILQKNKSAKQKADLKNACESS
HICPYCNREFTYIGSLNKHAASFСPKPLSPPKKVSHSSKKGGHSSPASSDKNSNSНRRRT
ADAEIKMQSMQTPLGKTRARSGPTQVPLPSSFRSKQNVKFAASVKSКKPSSSLRNSSPIRM
AKITHVEGKKPKAVAKNHSАQLSSKTSRSLHVRVQKSКАVLQSKSTLASKRTDRFNIKSRE
RSGGPVTRSLQLAAAADLSENKREDGSAKQELKDFSYSLRASRCSPPAAPYITRQYRKVKAP
AAAQFQGPFFKE

>DP00161|P77173|#86-185

MMQDLRLILIIVGAIАIALLVHGFWTSRKЕRSSMFRDRPLKRMKSКRDDSYDEDVEDDEGV
GEVRVHRVNHAПANAQEHEAARPSPQHQYQPPYASAQPRQPVQQPPEAQVPPQHAPHPAQP
VQQPAYQPQPEQPLQQPVSPQVAPAPQPVHSAPQPAQQAFQPAEPVAAPQPEPVAEPAPVMD
KPKRKEAVIIMNVAAHHGSELNGELLNSIQQAGFIFGDMNIYHRHLSPDGSGPALFSLANMV
KPGTFDPEMKDFTPGVTIFMQVPSYГDELQNFKLMQSAQHIADEVGGVVLDDQRMMTP
QKLREYQDIIREVKDANA

>DP01653|Q3E840|#71-82

MSTYDEIEIEDMTFEPEНQMFTYPCPCGDRFQIYLDDMFEGEKVAVCPCSLMIDVVFDKEDL
AEYYEEAGIHPPEPIAAAA

>DP01668|P12081|#344-355

MAERAALEELVKLQGERVRGLKQQKASAELIEEVAKLLKLKAQLGPDESKQKFVLKTPKG
TRDYSPRQMAVREKVFDVIIRCFKRHГAEVIDTPVfelketLMGKYGEDSKLIYDLKDQGGЕ
LLSLRYDLTVFARYLAMNKLNIKRYHIAKVYRRDNPAMTRGRYREFYQCDFDIAGNFDP
MIPDAECLKIMCEILSSLQIGDFLVKVNDRRIЛDMFAICGVSDSKFRTICSSVDKLDKVSWEЕ
VKNEMVGEKGLAPEVADRIGDYVQQHGGVSLVEQLLQDPKLSQNКQALEGLGDLKLLFEYL
TLFGIDDKISFDLSLARGLDYTГVIYEAVLLQTPAQAGEEPLGVGSVAAGGRYDGLVGMFD
PKGRKVPCVGLSIGVERIFSIVEQRLEAEEKIRTETQVLVASAQKKLLEERLKLVSELWDAG
IKAELLYKKNPKLLNQLQYCEEAGIPLVAIIGEQUELKGVIKLRSVTSREEVDVRREDLVEEIK
RRTGQPLCIC

>DP00239|P31896|#1-27

MTHHDCAHCSSDACATEMLNLAЕANSIETAWHRYEKQQPQCGFGSAGLCCRICLKGPCRIDP
FGEГPKYGVCGADRDTIVARHLVRMIAAGTAAHSEHGRHIALAMQHISQGELHDYSIRDEAK
LYAIAKTLGVATEGRGLLAIVGDLAAITLГDFQNQDYDKPCAWLAASLPRRVKRLGDLGLL
PHNIDASVAQTMSRTHVGCDADPTNLILГGLRVAMADLDGSMILATELSDALFGTPQPVSA
ANLGVMKRGAVNIAVNGHNPMLSDIICDVAADLRDEAIAAGAAEGINIIGCCTGHEVMMRH
GVPLATNYLSQELPILTГALEAMVVДVQCIMPSPRIAECFHTQIITTDKHNKISGATHVPFDE
HKAVETAKTIIRMAIAAFGRRDPNRVAIPAFKQKSIVGFSAEAVVAALAKVNADDPLKPLVD
NVVNGNIQGIVLFVGСNTTKVQQDSAYVDLAKSLAKRNVLVLATGCAAGAFAKAGLMTSE

ATTQYAGEGLGVLSAIGTAAGLGGPLPLVMHMGSCVDNSRAVALATALANKLGVDLSDLP
LVASAPECMSEKALAIGSWAVTIGLPTHVGSPVPIGSIVTKLVTETAKDLVGGYFIVDTDP
KSAGDKLYAAIQERRAGLGL

>DP00869|F2Z293|#1-87

AQPKSGFSTDRLWYPGAKAPEYLD GSL VGDYGFDPFG LGKPAEYLQYDYDGLDQNLAKNL
AGDIIGTRTESADVKSTSLQPYSEVFGLQRFRECELIHGRWAMLATLGALTVEGLTGITWQDA
GKVELIEGSSY LGQPLPFSMTTLIWEVLVIGYIEFQRNAELDTEKRLYPGGTFDPLGLASDPEK
KPIQLAEIKHARLAMVGFLGFAVQAATGKGPLNNWVTHLSPLHTTILDRLF

>DP01877|Q96AY2/#445-455

MALKKSSPSLDGSDSEELPTFAFLKKEPSSTKRRQPEREEKIVVVDISDCEASCPPAPELFSP
PVPEIAETVTQTQPVRLLSSESEDEEEFIPLAQRLTCKFLTHKQLSPEDSSSPVKSVDHQNNNEG
ASCDWKKPFPKIP EVPLHDTPERSAADNKDLILDPCCQLPAYLSTCPGQSSLAVTKTNSDILP
PQKKTKPSQKVQGRGSHGCRQQARQKESTLRRQERKNAALVTRMKAQRPEECLKHIIVV
LDPVLLQMEGGGQQLLGALQTMECRCVIEAQAVPCSVTWRRRAGPSEDREDWVEEPTVLVLL
RAEAFVSMIDNGKQGSLSTMKGKETLQGFVTITAKTAGKALSLVIVDQEKCFSAQNPPRR
GKQGANKQTKKQQQRQPEASIGSMVS RVD AEEALVDLQLHTEAQAQIVQS WKE LADFTCAF
TKAVAEAPFKKL RD ETTFSFCLES DWAGGVKVDLAGRGL ALVWRRQIQQLNRVSLEMASAV
VNAYPSPQLLVQAYQQCFSDKERQNLLADIQVRRGE GTSTSRRIGPELSRRIYLQM TTLQPH
LSLDSAD

>DP01039|Q85258|#336-523

RLGRVGRFKKGVALRIGHTEKGIIEIPSMIATEAALACFAYNLPVMTGGVSTS LIGNCTVRQV
KTMQQFELSPFFIQNFVAHDGSMHPVIHDILKKYKL RDCMTPLCDQSIPYRASSTWLSVSEYE
RLGVALEIPKQVKIAFH IKEIPP K LHEMLWETVVKYKDVC L F SIRASSISKIAYTLRTD L FAIPR
TLILVERLLEEERVKQS QFRSLIDE GCS MFSIVNLT NLRARYAKDYTADNIQKLEKVRSQLK
EFSNLDGSACEENLIKRYESLQFVHHQAATSLAKDLKLKG TWKSLVAKDLIIAGAVAIGGIG
LIYSWFTQS VETVSHQGKNKSKR I QALKFR HARDK RAGFEIDNNDDTIEEFFGSAYRKKGKG
KGTTVGMGKSSRRFINMYGFD PTE YSF IQF VDPL TGAQIEENVYADIRD I QERFSEVRKKMVE
NDIEMQALGSNTTIHAYFRKDWS D KALKIDLM PHNPLK VCDKTNGIAKF PERE ELRQTGP
AVEVDVKDIPAQEVEHEAKSLMRGLDFNPIAQTVCR L KV SVEYGTSEMYGFGFGAYIIANH
HLFRSYNGSMEVRSMHGTFRVK NLHS

>DP00533|P06701|#216-549

MAKTLKLDGWQVIITDDQGRVIDDNNRRRSRKGGENVFLKRISDG LSGKGESVIFNDNV
TETYSVYLIHEIRLNTLN VVEIWVFSYLRWFELKPKLYEQFRPD LIKEDHPLEFYKDKFFNE
VNKSEL YLTAELSEIWLKDFIAVGQILPESQWNDSSIDKIEDRDFLVRYACEPTAEKFVPIDIFQ
IIRR VKE MEPKQSDEYLK RVSPVSGQKTNRQVMHKM GVERSSKRLAKKPSMKKIKIEPSAD
DDVNNGNIPSQRGTSTTHGSISPQEEVSPNISSAPSALT SPTDSSKILQKRSISKELIVSEEIPIN
SSEQESDYEPNNETSVLSSKPGSKPEKTSTELVDGRENFVYANNPEVSDGGLEETDEVSSSES
SDEAIIPVNKRRGAHGSELSSKIRKIH IQETQEFSKNY TTETDNEMNGNGKPGIPRGNTKIHSM
NENPTPEKGNAKMIDFATSLKLKKYQIILDRFAPDNQVTDSSQLNKL TDEQSSL DVAGLEDK
FRKACSSSGRETILSNFNADINLEESIRESLQKRELLKSQVEDFTRIFLPIYDSL MSSQNKL FYIT
NADDSTKQLVNDVMDELITSSARKE LP IFDYIHIDALELAGMDAL YEKIWF AISKENLCGDIS
LEALNFYITNVPKAKKRKTLILIQN PENLLSEKILQYFEKWISSKNSKLSIICVGGHNVTIREQIN
IMPSLKAHFTEIKLNKVDKNE LQQMIITRLK SLLKP FHVKVNDK KEMTIYNNIREGQNQKIPD
NVIVINHKINNKITQLIAKNVANVSGSTEKA F KICEAAVEISKKDFVRKG GLQKGKLV VSQEM
VPRYFSEAINGFKDETISKKIIGMSILLMRTFLYTLAQETEGTNRHTLA LETVLI KMVKMLRDN
PGYKASKEIKKVICGAWEPAITIEKLKQFSWISVVNDLVGEKL VVVLEEPSASIMVELKL PLE
INYAFSMDEEFKNMDCI

>DP02486|A7ZUK2|#931-1134

MKDLLKFLKAQTKTEEFDAIKIALASPMIRWSFGEVKKPETINYRTFKPERDGLFCARIFGP
VKDYECLCGKYKRLKHRRVICEKCGVEVTQTKVRERMGHIASPTAHIWFLKSLPSRIGLL
LDMPLRDIERVLYFESYVVIEGGMTNLERQQILTEEQYLDALEEFGDEFDAKMGAEAIQALLK
SMDLEQECEQLREELNETNSETKRKKLTKRIKLLEAFVQSGNKPEWMLTVLPVLPPDLRPLV
PLDGGRFATSDLNDLYRRVINRNNRLKRLLDLAAPDIIVRNEKRLQEAVDALLDNGRRGRA
ITGSNKRPLKSLADMIKGKQGRFRQNLLGKRVDYSGRSVITVGPYLRLHQCGLPKKMALELF
KPFIFYGKLELRGLATTIKAACKMVEREEAVVWDILDEVIREHPVLLNRAPTLHRLGIQAFEPV
LIEGKAIQLHPLVCAAYNADFDDGQDMAVHVPLTLEAQLEARALMMSTNNILSPANGEPIIVPS
QDVVLGLYYMTRDCVNAKGEGMVLTGPKEAERLYRSGLASLHARVKVRITEYEKDANGEL
VAKTSLKDTTVGRAILWMIVPKGLPYSIVNQALGKKAISKMLNTCYRILGLKPTVIFADQIMY
TGFAYAARSGASVGIDDMVIPEKKHEIISEAEAEVAEIQEKFQSQLVTAGERYNKVIDIWAAA
NDRVSKAMMDNLQTETVINRDGQEEKQVSFNSIYMMADSGARGSAAQIRQLAGMRGLMAK
PDGSIIETPITANFREGLNVLQYFISTHGARKGLADTALKTANSGYLTRRLVDVAQDLVVTED
DCGTHEGIMMTPVIEGGDVKEPLRDRVLGRVTAEDVLKPGTADILVPRNTLLHEQWCDLLEE
NSVDAVKVRSVVSCDTDFGVCAHCYGRDLARGHIINKGEAIGVIAAQSIGEPGTQLTMRTFH
GGAASRAAAESSIQVKNKGSIKLSNVKSVVNSSGKVITSRNTELKLIDEFGRTKESYKVPYG
AVLAKGDGEQVAGGETVANWDPTHMPVITEVSGFVRFTDMIDGQTITRQTDDELTLGLSSLVVL
DSAERTAGGKDLRPALKIVDAQGNDVLIPGTDMPAQYFLPGKAIVQLEDGVQISSGDTLARIP
QESGGTKDITGGLPRVADLFEARRPKEPALAEISGIVSGKETKGKRRLLVITPVDGSDPYEEIMI
PKWRQLNVFEGERVERGDVISDGPPEAPHIDLRLRGVHAVTRYIVNEVQDVYRLQGVKINDKH
IEVIVRQMLRKATIVNAGSSDFLEGEQVEYSRVKIANRELEANGKVGATYSRDLLGITKASLA
TESFISAASFQETTRVLTEAAVAGKRDELRGLKENVIVGRLIPAGTGYAYHQDRMRRRAAGE
APAAPQVTAEDASASLAELLNAGLGGSDNE

>DP00664|Q01417#1-173

MQGGKKAGESIKETATNIGASAKAGMEKTAKVQEKAERMTARDPVQKELATQKKEAKMN
QAELDKQAARQHNTAAKQSATTAGHMGHGHHTGTGTATYSTTGEYGQPMGAHQTSAMPGHGTGOPTGHVTEGVVGSHPIGTRNGPGGTATAHNTRAGGKPNDYGYGTGGT

>DP00197|P0A707|#78-89

MKGGKRVQTARPNRINGEIRAQEVRLTGLEGEQLGIVSLREALEKAEEAGVDLVEISPNAEPP
VCRIMDYGKFLEYEKSCKSSKEQKKKQKVIQVKEIKFRPGTDGHDYQVKLRLSLIRFLEEGDKAKI
TJLRFRGREMAHOQIGMEVI.NRVKDDLOELAVVESFTKIEGROMJMVI.APKKKO

DP01994|P27321|#629-652

MSRPGPKPAASSRPRRGAAASHTQEHVNEKNIGSSKPAEKKGSDEVTASSAATGTSPRMSTT
GAKAVKIESEKSQSSEPPVIHEKKPKGKPKEGSEPQLPKHASDTGSKHAHKEKALSRSNEQI
VSEKSSESKTQFQDAPSADGESVAGGVTVATASDKVVVKKEKSLPTLPMESTLNKLSDK
SGVNAALDDLIIDLGECEDTNKDDPPYGPVVLDPMDSTYLEALGIKEGTIPPEYRKLLKNE
AITGPLPDSPKPMGIDHAIDALSSDFTCSSPTGKQTEKEKSTGESSKAQSAGVTRSAVPPQEKK
RKVEEEVMNDQALQALSDSLGTRQPDPQSHLRQAKQVKEAKAKEERQEKGEDEDTVPAE
YRLKPAKDGDGPPLLPEPEETSKCLSESELIGELSADFVQPTYQEKPSSMPAAKIKGVVPDDA
VETLARSLGTRKEDPEDEKSLVDKVKEKEEDHEKLGEKEETIPPDYRLEIVKDGDGPPLL
KEAEEQLPLSDDFLLDALSQDFSSPANILSLGFEDAQLSAAVSETVSQVPAPSNTAAPPPGT
ERRDKELDDALDELSDLGQRQDPDENKPLDDKVEKIKAEHSEKLGERDDTIPPEYRHLLD
NDGDKPEKPLTKNTEKLGQDQDPIDALSEDLDSCPPTETSQNTTKEKGKKTSSSKASKNEE
KTKDSSKKTTEFVPKPKVDEDAT

>DP01833|P85800#1-32 #8-32 #11-32 #12-28 #15-32

SDQGDVAEPKMHKTAPPFDEAIPPEEYLDDES

>DP02025|P30429#1-105
MLCEIECRALSTAHTRLIHDPEPRDALTYLEGKNIFTEDHSELISKMSTRLERIANFLRIYRRQA
SELGPLIDFFNYYNNQSHLADFLEDYIDFAINEPDLLRPVIAPQFSRQMDDRKLGGNVPKQMT
CYIREYHVDRVVIKKLDEMCDLDSFFLFLHGRAGSGKSVIASQALKSDQLIGINYDSIVWLKD
SGTAKSTFDLFTDILLMLARVSDTDDHSITDFINRVLRSSEDDLNFPSVEHVTSVVLKRM
ICNALIDRPNTLFVFDDVVQEETIRWAQELRLRCLVTTRDVEISNAASQTCEFIEVTSLEIDECY
DFLEAYGMPMPVGEKEEDVLNKTIELSSGNPATLMMFFKSCPEKTFEKMAQLNNKLESRGKV
GVECITYSYKSLAMALQRCVEVLSDEDRSALAFAVVMPPGVIPVKLWSCVIPVDICSNEEE
QLDDEVADRLKRLSKRGALLSGKRMPVLTFKIDHIIHMFLKHVVDAQTIANGISILEQRLLIG
NNNVSPERHIPSHFQKFRRSSASEMYPKTTEETVIRPEDFPKFMQLHQFYDSLKNFACC
>DP01277|Q6VMQ6#938-964
MDSLEEPQKKVFKARKTMRVSDRQQLEAVYKVKEELLKTDVKLLNGNHENGDLDPSTSLEN
MDYIKDKEEVNGIEEICFDPEGSKAEWKETPCILSVNVKNQDDDLNCEPLSPHNITPEPVSKL
PAEPVSGDPAPGDLDAGDPASGVLASGDSTSSEPSSSDAASGDATSGDAPSGDVSPGD
ATSGDATAADDLSSGDPTSSDPIPGEVPVPEISGDCAADDIASSEITSVDLASGAPASTDPASDD
LASGDLSSSELASDDLATGELASDELTSESTFDRTFEPKSPVCEPVPEDIIDNIEPSSNKDDDFLE
KNGADEKLEQIQSKDSLDEKNKADNNIDANEETLETDDTTICSDRPPENEKKVEEDIITELALG
EDAISSSMEIDQGEKNEDETSADLVETINENVIEDNKSENILENTDSMETDEIPILEKLAPSEDE
LTCFSKTSLLPIDETNPDLEEMESSFGSPSKQESSESLPKEAFLVLSDEEDISGEKDESEVISQN
ETCSPAEVESNEKDNPKEEEEQVIHEDDERPSEKNEFSRRKRSKSEMDNVQSKRRRYMEEE
YEAEFQVKITAKGDINQKLQKVIQWLLEEKCALQCAVFDKTLAELKTRVEKIECNKRHKTV
LTELQAKIARLTKRFEAAKEDLKKRHEHPPNPPVSPGKTVNDVNSNNMSYRNAGTVRQML
ESKRNVSESAPPFQTPVNTVSSTNLVTPPAVVSQPKLQTPVTSGLTATSVLPAPNTATVVA
TTQVPSGNPQPTISLQPLPVILHVPVAVSSQPQLQSHPGTLVTNQPSGNVEFISVQSPPTVSGL
TKNPVSLPSLPNPTKPNNVPSVPSPIQRNPTASAAPLGTTLAVQAVPTAHSIVQATRTSLPTV
GPSGLYSPSTNRGPQMKIPISAFSTSSAAEQNSNTTPRIENQTNKTIADASVSKAADSTSQCGK
ATGSDSSGVIDLTMDEESGASQDPKKLNHTPVSTMSSQPVSRPLQPIQPAAPLQPSGVPTSG
PSQTTIHLPTAPTVNVTHRPTQVTTLPVPRAPANHQVYTTLPAPPAQAPLRGTVMQAP
AVRQVNPQNSVTVRVPQTTTVVNNGLTLGSTGPQLTVHRRPPQVHTEPPRVHPAPLPEAP
QPQRLPPEAASTSLPKQKPHLKLARVQSQNGIVLSWSLEVDRSCATVDSYHYAYHEEPSAT
VPSQWKKIGEVKALPLMACTLTQFVSGSKYYFAVRAKDIYGRFGFCDPQSTDVISSTQSS
>DP02536|P15825#30-62 74-348
MSAESERKTETIPEWKQEEVDAIVEMIESYESVGVVNIAGIPSRLQDMRRDLHGTAELRVSR
NTLLERALDDVDDGLEDNGYITGQVGLIGTDDNPFSLFQELEASKTPAPIGAGEVAPNDIVIP
EGDTGVDPGPVGFELQSVGADARIQEGSIQVLSDSTVLDTGEEVSQELSNVNELGIEPKEVG
LDLRAVFADGVLFEPEELELDIDEYRSDIQAAAGRAFNLSVNADYPTATTAPTMQLQSARGNA
KSLALQAAIEDPEVVPDLVSKADAQVRALASQIDDEALPEELQGVEADVATEEPTDDQDD
TASEDDADADAAEADDDDDDEDAGDALGAMF
>DP00250|P01555#19-212 #245-255
MVKJIFVFFFILSSFSYANDDKLYRADSRPPDEIKQSGGLMPRGQSEYFDRGTQMNINLYDHA
RGTQTGFVRHDDGYVSTSISLRSAHLVGQTILSGHSTYYIYVIATAPNMFNVDVLGAYSPHP
DEQEVSALGGIPYSQIYGWYRVHFGVLDEQLHRNRYDRYYSNLDIAPAADGYGLAGFPPE
HRAWREEPWIHAPPCCGNAPRSSMSNTCDEKTQSLGVKFLDEYQSKVKRQIFSGYQSDIDT
HNRIKDEL
>DP00636|P17120#1-71
MAGPQRATSGLPTRRRTTRQPTRRAGSAIPERQTSTASPAVSTKTAISRRTLKSPGEPASVL
AKRKERDIEREINEDTSIHVVVRCGRNEREVKENSGVVLQTEGVKGKTVELSMGPNAVSNK

TYTFDKVFSAAADQITVYEDVVLPIVTEMLAGYNCTIFAYGQTGTGKYTMSGDMTDLGIL
SDNAGIIPRVLYSFLAKLADTESTVKCSIELYNEELRDLLSAEENPKLKIYDNEQKKGHMSTL
VQGMEETYIDSATAGIKLLQQGSHKRQVAATCNDLSSRSHTVFTITVNIKRTTESGEYVCP
GKLNLVDLAGSENIGRSGAENKRATEAGLINKSLLTGRVINALVDKSQHIPYRESKLTRLLQ
DSLGGRTKTCIATISPARNLEETISTLDYAFRAKNIRNKPQINSTMPKMTLLREFTAEIEKLK
AEIATRHRNGVYMSVESYEEMKMENESRIISEEQRAKIESMESSLRHKVQELLTLTSKFND
LKKDNDDTLAACSTNDVLQQTDIVLQNTRAQLEEEMLRCAHEETEHQLQDVKGKLISTLG
QTVEDINSLQSKLDRKAELDATNAELWRASSTEVDVTKRIDQRVEAFQTRHAKLLETTSVK
VNEFIATEISNIERTRSDLSEYNRSLDAACNNAKAETSSAHEDMNNVLEEIKDLREEVKSKEVG
EGLNGLSAAAARISEEVIGEFTQLHSQLHTSFNNLGKDLKSIFETMATHLSEQKNEINRLRAEL
QSSNRQNIETTHKASAHLAQAAIEEEHVAAEAEREILMSQIKALVEESRQKQFARLRAKIDGVR
TEISASGDMLEQATTQHDRQIDEWWFKSEQFAKDVNASKDEIRTKLQNDWEAFDQRNSTIRK
ATESVHKETVRIVDVQVDDMGRQMEALDDFVAKARSQNGRYRDAHIATLDTIATGVRDSYS
SIEGRVENLTGRMNQFQQEATHHATLEESIAPLSNDVRKPLTDLSSSFQNRSLVEYVATGVT
PKKRKYDYISVLPSTESHEVLSRLRTKEMEVLPFNNSDDQLSGPSSSPGGSPSKGFVYNDVE
DEVGTHAPTVTNVNPNTGLREVDANVAARPLVYSTGEKSTDQDGSPVVSPDSATEAEGMN
GPPSKRRRSNSVADTKLPNMLARRMAGMMEGRENVPPIGISNGRRLRGRPS

>DP00287|P40337#1-57

MPRRAENWDEAEVGAEAGVEEYGPEEDGGEESGAEESGPEESGPEELGAEEEMEAGRPRP
VLRSVNSREPSQVIFCNRSRPRVVLPPVWLNFGEQPYPYPTLPPGTGRRHSYRGHLWLFRA
HDGLLVNQTELFVPSLNVDGQPIFANITLPVYTLKERCLQVVRSLVKPENYRRLDIVRSLYED
LEDHPNVQKDLERLTQERIAHQRMGD

>DP01103|Q13698#665-791

MEPSSPQDEGLRKKQPKPVPEILPRPPRALFCLENPLRKACISIVEWKPFETIILLTIFANC
ALAVYLPMPEDDNNSLNLGLEKLEYFFLIVSIEAAMKIIAYGFLHQDAYLRSGWNVLDFT
VFLGVFTVILEQVNVIQSHTAPMSSKGAGLDVKALRAFRVLRPLRLVSGVPSLQVVLNSIFKA
MLPLFHIALLVLFMVIYAIIGLELFKGKMHKTCYFIGTDIVATVENEESPSCARTGSGRRCTIN
GSECRRGGWPGPNHGITHFDNFGFSMLTVYQCITMEGWTDVLYWVNDAINEWPWYFVT
LLGSFFILNLVGVLSGEFTKEREKAKSRGTFQKLREKQQLDELRGYMSWITQGEVMDVED
FREGKLSLDEGGSDTESLYEIAGLNKIIQFIRHWRQWNRFWRWKCHDIVSKVFYWL
VILIVALNTLSIAEHHNQPLWLTRLQDIANRVLLSLFTTEMLMKMYGLGLRQYFMSIFNR
FDCFVVCS
GILEILLVESGAMTPLGISVRLCIRLLRIFKITKYWTSLSNL
VASSLLNSIRSIAS
LLLFLFIVIFA
LLGMQLFGGRYDFEDTEVRRSNFDNFPQALISVFQVL
TGEDWTSMMYNGIMAYGGPSYPM
LVCYFIILFVCGNYILLNVFLAIAVDNL
AEAESLTS
AQAKAEEKKRRKMSKGLPD
KSEEKS
TMAKKLEQKPKGE
GIPTTAKLK
IDEFESNV
NEVKDPYPSAD
FPGD
DEDEPEIPL
SPRPRPLAE
LQLKE
AVPIPE
ASSFF
SPTNKIR
VLCHRIV
NATWFTN
FILLFILL
SSA
ALAA
EDPI
RADSMR
N
QILKHFD
DIGFT
SVFT
VEIVL
KM
TT
YGAFL
HKGS
FCRN
YFN
ML
DLL
V
AV
SL
ISM
G
LE
SSA
IS
VV
KIL
RVL
VLR
PL
RAIN
RAK
GLK
HVV
QCMF
VA
I
ST
IGN
IVL
V
T
T
L
L
QFM
FAC
IGV
QL
KG
FF
RC
TDL
SK
M
TE
E
C
R
G
Y
Y
Y
Y
K
D
G
D
P
M
Q
I
E
L
R
H
R
E
W
V
H
S
D
F
H
D
N
V
L
S
A
M
M
S
L
F
T
V
S
T
F
E
G
W
P
QL
LY
K
A
I
D
S
N
A
E
D
V
G
P
I
Y
N
N
R
V
E
M
A
I
F
F
I
Y
I
I
L
I
A
F
F
M
M
N
I
F
V
G
F
V
I
V
T
F
Q
E
Q
G
E
T
Y
K
N
C
E
L
D
K
N
Q
R
Q
C
V
Q
Y
A
L
K
A
P
L
R
C
Y
I
P
K
N
P
Y
Q
Y
Q
W
Y
I
V
T
S
S
Y
F
E
Y
L
M
F
A
I
M
L
N
T
I
C
L
G
M
Q
H
Y
N
Q
S
E
Q
M
N
H
I
S
D
I
L
N
V
A
F
T
I
I
F
L
E
M
I
L
K
L
M
A
F
K
A
R
G
Y
F
G
D
P
W
N
V
F
D
F
L
I
V
I
G
S
I
D
V
I
L
S
E
I
D
T
F
L
A
S
S
G
G
Y
C
L
G
G
C
G
N
V
D
P
D
E
S
A
R
I
S
A
F
F
R
L
R
M
R
L
I
K
L
S
R
A
E
G
V
R
T
L
W
T
F
I
K
S
F
Q
A
L
P
Y
V
A
L
I
V
M
L
F
F
I
Y
A
V
I
G
M
Q
M
F
G
K
I
A
L
V
D
G
T
Q
I
N
R
N
N
N
F
Q
T
P
Q
A
V
L
L
F
R
C
A
T
G
E
A
W
Q
E
I
L
L
A
C
S
Y
G
K
L
C
D
P
E
S
D
Y
A
P
G
E
E
Y
T
C
G
T
N
F
A
Y
Y
Y
F
I
S
F
Y
M
L
C
A
F
L
V
I
N
L
F
V
A
V
I
M
D
N
F
D
Y
L
T
R
D
W
S
I
L
G
P
H
H
L
D
E
F
K
A
I
W
A
E
Y
D
P
E
A
K
G
R
I
K
H
L
D
V
V
T
L
R
R
I
Q
P
P
L
G
F
G
K
F
C
P
H
R
V
A
C
K
R
L
V
G
M
N
M
P
L
N
S
D
G
T
V
T
F
N
A
T
L
F
A
L
V
R
T
A
L
K
I
K
T
E
G
N
F
E
Q
A
N
E
E
L
R
A
I
I
K
I
W
K
R
T
S
M
K
L
L
D
Q
V
I
P
I
G
D
D
E
V
T
V
G
K
F
Y

ATFLIQEHFRKFMKRQEEYYGYRPKKDIVQIQAGLRTIEEEAAPEICRTVSGDLAAEELERA
MVEAAMEEGIFRRTGGLFGQVDNFLERTNSLPPVMANQRPLQFAEIEMEEMESPVFLEDFPQ
DPRTNPLARANTNNANANVAGNSNHSNSHVSSVHYEREFPEETETPATRGRALGQPCRVL
GPHSKPCVEMLKGLLTQRAMPRGQAPPAPCQCPRVESSMPEDRKSSTPGSLHEETPHSRSTRE
NTSRCAPATALLIQLKALVRGGLGLAADANFIMATQALADACQMEPEEVEIMATELLKGR
EAPEGMASSLGCLNLGSSLGSLDQHQGSQETLIPPR

>DP01195|P39007|#299-351

MGSDRSCVLSVFQTILKLVIFVAIFGAIISSRLFAVIKFESIIHEFDPWNYRATKYLVNNSFYK
FLNWFFDDRTWYPLGRVTGGTLYPGLMTSAFIWHALRNWLGLPIDIRNCVLFAPLFSGVT
WATYEFTKEIKDASAGLLAAGFIAIVPGYISRSVAGSYDNEAIAITLLMVTMFWIKAQKTGSI
MHATCAALFYFYMVSAWGGYVFITNLIPLHVFLLIMGRYSSKLYSAYTTWYAITGVASMQI
PFVGFLPIRSNDHMAALGVFGLIQIVAFGDFVKKGQISTAKFKVIMMVSFLLVLGVVGLSALT
YMLGLIAPWTGRFYSLWDTNYAKIHIPPIAVSEHQPVSWPAFFFDTHFLIWLPAGVFLFLDL
KDEHVFVIAYSVLCSYFAGVMVRLMLTLTPVICVSAVALSKIFDIYLDFKTSDRKYAIKPAA
LLAKLIVSGSFIFYLYLFVFHSTWVTRTAYSSPSVVLPSQTPDGKLALIDDFREAYYWLRMNS
DEDSKVAAWWDYGYQIGGMADRTTLVDNNNTWNNTHIAIVGKAMASPEEKSYEILKEHDVD
YVLVIFGGLIGFGGDDINKFLWMIRISEGIWPEEIKERDFYTAEGEYRVDARASETMRNSLLYK
MSYKDFPQLFNGGQATDRVQQMITPLDVPPLDYFDEVFTSENWMVRIYQLKKDDAQGRTL
RDVGELTRSSTKTRRSIKRPELGLRV

>DP01432|E1UJ20|#2-109

MACAHLCKEADIKAALEACKAADTFNFKTFHTIGFASKSADDVKKAFKVIDQDASGFIEVE
ELKLFLQNFCPNARVLTDAETKAFLKAGDADGDGMIGIDEFAVLVKQ

>DP01795|Q9BUH6|#143-204

MDPLSPPLCTLPPGPEPPRFVCYCEGEESGEGRGGFNLYVTDAELWSTCFPDLSAALKAR
FGLSAAEDITPRFRAACEQQAVALTLQEDRASLTSGGPSALAFDSLKVPGPEAAPRLRALTL
GLAKRVWSLERRLAAAETAVSPRKSPRAGPQLFLPDPPQRGGPGPGVRRRCPGESLNPG
FKSKKPAGGVDFDET

>DP00206|P17838|#22-28 #143-150

MKAAQKGFTLIELMIVVAAIIGILAAIAIPAYQDYTARAQLSERMTLASGLKTKVSDIFSQDGSC
PANTAATAGIEKDTINGKYVAKVTTGTAASGGCTIVATMKASDVATPLRGKTLTLGN
ADKGSYTWACTSNAADNKYLPKTCQTATTTP

>DP01030|Q51912|#136-155

MAALAGIAVVTGGVGSYAADEPIDLEKLEEKRDKENVGNLPKFDNEVKDGSENPMAKYPDF
DDEASTRFETENNEFEKKVVSDNFFDQSEHPFVENKEETPETPETDSEEVTIKANLIFANGS
TQTAEFKGTFEKATSEAYAYADTLKKDNGEYTVDVADKGYTLNIKFAGKEKTPEEPKEEV
TIKANLIYADGKTQTAEFKGTFEEATAEARYADALKDNGEYTVDVADKGYTLNIKFAGKE
TPEEPKEEVTKANLIYADGKTQTAEFKGTFEEATAEARYADLLAKENGKYTVDVADKGY
LNKFAGKEKTPEEPKEEVTKANLIYADGKTQTAEFKGTFAEATAEARYADLLAKENGKY
TADLEDGGYTINRFAGKKVDEKPEEKEQVTIKENIYFEDGTVQTATFKGTFAEATAEARYA
DLLSKEHGKYTADLEDGGYTINRFAGKEEPEETPEKPEVQDGYASYEEAAAKEALKNDD
VNKSYTIRQGADGRYYVLSPEAETPEKPVEPSEPSTPDVPSNPSTPDVPSNPSTPEVPSNPST
PGNEEKPGNEQKPGNEQKPGNEQKPGNEQKPGNEQKPDQPSKPEKEENGKGGVDSPKKKEK
AALPKAGSEAEILTLAAASLSSVAGAFISLKKR

>DP02035|A6QHR2|#323-420

MTNVLIEDLKWRGLIYQQTDEQGIEDLLNKEQVTLYCGADPTADSLHIGHLLPFLTLRRFQE
GHRPIVLIGGGTGMIGDPSGKSEERVLQTEEQVDKNIEGISKQMHNIFEFGTDHGAVLVNNRD

WLGQISLISFLRDYKGKGVNYMLGKDSIQSRLEHGISYTEFTYTILQAIDFGHLNRELNCKIQ
VGGSDQWGNITSGIELMRRMYGQTDAYGLTIPLVTKSDGKKFGKSESGAVWLDAEKTPYE
FYQFWINQSDEDVKFLKYFTFLGKEEIDRLEQSKNEAPHLREAQTLAEEVTKFIHGEDALN
DAIRISQALFSGDLKSLSAKELKDGFKDVPQVTLSNDTTNIVEVLIEGISPSKRQAREDVNNG
AIYINGERQQDVNYALAPEDKIDGEFTIIRRGKKYFMVNYQ

>DP00606|P42759|#1-260

MAEEYKNTVPEQETPKVATEESSAPEIKERGMFDLKKKEEVKPQETTLASEFEHKTQISEPE
SFVAKHEEEEHKPTLLEQLHQKHEEEEENKPSLLDKLHRSNSSSSSDEEGEDGEKKKEKK
KKIVEGDHVKTVEEENQGVMDRIKEKFPLGEKPGDDVPVVTMPAPHSVEDHKPEEEEKK
GFMDKIKEKLPGHSKKPEDSQVVNTPLVETATPIADIPEEKKGFMDFIKEKLPGYHAKTTGE
EEKKEKVSD

>DP01642|P06492|#350-394 #403-490

MDLLVDELADMNADGASPPPPRAGGPKNTPAAPPLYATGRLSQAQLMPSPPMPVPPAALF
NRLLDDLGFSAGPALCTMLDTWNEDLFSALPTNADLYRECKFLSTLPSDVVEWGDAYVPER
TQIDIRAHGDVAFTLPATRDGLGYEALSRFFHAELRAREESYRTVLANFCASYRYLRAS
VRQLHRQAHMRGRDRDLGEMLRATIADRYYRETARLARVLFLHLYLFLTREILWAAYAEQ
MMRPDLFDCLCCDLESWRQLAGLFQPBMVNGALTVRGVPIEARRLRELNHIREHNLPLVR
SAATEEPGAPLTTPPTLHGNQARASGYFMVLIRAKLDSYSSFTSPSEAVMREHAYSARTKN
NYGSTIEGLLDLPPDDDAPEEAGLAAPRLSFLPAGHTRRLSTAPPTDVSGLGDELHLDGEDVAM
AHADALDDFDLDMGLGDGDSPGPGBTPHDSAPYGALDMADFEFEQMFTDALGIDEYGG

>DP02169|P37028|#217-232

MAKSLFRALVALSFLAPLWLNAAPRVITLSPANTELAFAGITPGVSSYSDYPPQAQKIEQV
STWQGMNLERIVALKPDLVIAWRGGNAERQVDQLASLGKVMWVDATSIEQIANALRQLAP
WSPQPDKAEQAAQSLLDQYAQLKAQYADKPKKRVFLQFGINPPFTSGKESIQNVLEVCGGE
NIFKDSRVPWPQVSREQVLARSPQAIVITGGPDQIPKIKQYWGEQLKIPVIPLTSWDWERASPRI
ILAAQQLCNALSQVD

>DP02159|P32566|#340-505

MDLFKRKVKEWVYSLSTDHYAEYNPDETPTFNMGKRLNSNNQVNPSQMHLNSVDEEMS
MGFQNGVPSNEDINIDEFTSTESNDGVSETLLAWRHIDFWTSEHNPDLNATLSDPCTQNDITH
AEEDLEVSFPNPVKASFKIHDGQEDLESMTGTSGLYFGQLMTLDQVVAMTQAWRNVAKNL
NKRSQQGLSHVTSTGSSSMERLNGNFKLPNIPDQKSIPPNAVQPVYAHPAWIPLITDNAGN
HIGVDLAPGPNGKYAQIITFGRDFDTKFVIAENWGEFLSFANDLEAGNWYLVDDNDDYFSG
DGELEVFRDKKSNGPIQDYFEVLKRRTWIKYQENLRSQQQKSQPDTSQQYVPAQKVA
AEQPSTLNAESIKGEDSGSADVQSVQDHESVKIVKTEPSEAETTVNTESLGQAEHEIKADNV
DIKQESERKEDEKQPKVEEKEHVENEHVTESAKKDDDVNKQTEEMNKKEENEIRSDDAKVE
EAREEFENIAL

>DP01879|Q9JIH2|#47-109

MAKRVAEKELTDRNWDEEDEVEMGTFVASSEVMKNRAVKKAKRRNVGFESDSGGAFK
GFKGLVPSGGGGFSGFGGSGKPLEGLTNGNSTDNATPFSNVKTAEPKAAFGFAVNGPT
TLVDKKISSPKCNSNQPPSSGPASSTACPGNAYHKQLAGLNCVRDWIVKHVNNTNPLCDLT
PIFKDYERYLATIEKQLENGGSSSESQTDRA TAGMEPPSLFGSTKLQQESPFSFHGNKAEDTS
EKVEFTAEEKSDAAQGATSASFSGKKIESSALGSLSSGSLTGFSSAGSSLFGKDAAQSKAA
SSLFSAKASESPAGGGSSEC RDGEEEENDEPPKVVVTEVKEEDAFYSKKCKLFYKKDNEFKE
KGVTGLHLKPTATQKTQLVRADTNLGNILLNVLIAPNMPCTR TGKNNVLIVCVPNPLDEK
QPTLPATMLIRVKTSEDADELHKILLEKKDA

>DP01437|P90976|#115-180

MGLKGFTGSFQQIRGLLRPPKNLPFRGIFRKDGEVVRKDDLLVNQFKMNYHPGLNVYYEND

RGERLLRAHCDGIVRISQEKCOPDYEIEEMKGYERYKDVLYKMTFNMDNPDPNLERDVQ
RILELMEHVQKTGEVNNAKLASLQQVLQSEFFGAVREVYETVYESIDADTTPEIKAATAKA
TVAFAAAAEGHAHPRIVELPKTDQGLGFNVMMGGKEQNSPIYISIIPGGVADRHGGLKRGDQ
LIAVNGNVEAECHEKAVDLLKSAVGSKLVIRYMPKLLDEMERRFERQRIP

>DP01611|Q06696|#203-395

MEYWHYVETTSSGQPLLREGEKDIFIDQSVGLYHGKSILQRQRGRIFLTSQRRIYDDAKPTQ
NSLGLELDDLAYVNYSQGFLTRSPRLILFFKDPSSKDELGKSAETASADVSTWVCICMVSN
ETQGEFTKDTLPTICINCGVPADYELTKSSINCNAIDPNANPQNQFGVNSENICPACTFANHP
QIGNCEICGHRLPNASKVRSKLNRLNFHDSRVHIELEKNSLARNKSSHSALESSSSTGSSTEFV
QLSFRKSDGVLFQSATERALENLTEKNKHIFNQNVSVNGVDMRKGASSHEYNNEVPFIETK
LSRIGISSLEKSRENQLNNNDILFNNALTDLNKLMSLATSIERLYKNSNITMKTTLNLQDEST
VNEPKTRRPLLILDREKFLNKELFLDEIAREIYEFTLSEFKDLNSDTNYMIITLVDLYAMYNKS
MRIGTGLISPMECREACERFEHLGLNELKLVVKVNKRILCVTSEKFVVKEKLVDLIGDNPBSD
LLRLTQILSSNNNSKSNWTLGILMEVLQNCVDEGDLLIDKQLSGIYYYKNSYWPSHI

>DP01044|Q47785|#40-46 #82-103

MKKNAKQIVHELYNDISISKDPKYSIDLEVQKVLKLEKQKYELDPSPLINRLVNYLYFTAY
TNKIRFTEYQEELIRNLSEIGRTAGINGLYRADYGDKSQF

>DP00958|P46984|#1-123

MKLPVAQYSAPDGVEKSFAPIRDDPRYMTTEGRRTGPSDHVLNAGQIDRDKPSEPERTKDGS
QLTYLGQLRTQLTGLQDDINEFLTGRMELAKNKKKAGADEKRIQEEINQLLDGGDGDEDAD
>DP01633|P29083|#378-393

MADPDVLTEVPAALKRALKYVIRGFYGIEHALALDILIRNSCVKEEDMLELLKFDRKQLRSVL
NNLKGDKFICRMRVETAADGKTRHNYYFINYRTLNVVVKYKLDHMRRRIETDERDSTNR
ASFKCPVCSSTFTDLEANQLFDPMTGTFRCTFCHEVEEDESAMPKKDARTLLARFNEQIEPIY
ALLRETEDVNLAIELEPEPTEIPALKQSKDHAATTAGAASLAGGHHREAWATKGPSYEDLY
TQNVVINMDDQEDLHRASLEGKSAKERPIWLRESTVQGAYGSEDMKEGGIDMDAFQEREEG
HAGPDDNEEVMRALLIHEKKTSSAMAGSVGAAAPVTAANGSDSESETSESDDSPRPAAVA
VHKREEDEEEDDEFEEVADDPIVMVAGRPFSYSEVSQRPELVAQMTPEEEYIAMQRMFE
DLFE

>DP00964|P60460|#1-20

MSKREETGLATSAGLIRYMDETFSKIRVKPEHVIGVTVAFVIIEMAILTYGRFL

>DP02016|Q9RSK0|#1-36

MKVRSVKKMCDNCKVRRHGRVLVICSNVKHQRQG

>DP01396|P01130|#163-175 #354-393

MGPWGWLWTVALLAAGTAGVGDRCEPNEFQCQDGK CISYKWVCDGSAECQDGSDES
QETCLSVTCKSGDFSCGGRVNRCIPQFWRCGQVDCDNGSDEQGCPPKTC SQDEFRCHDGK
CISRQFVCDSDRDCLDG SDEASCPVLTGPA SFQCNSS CIPQLWACDNPDCE DGSDEWPQR
CRGLYVFQGDSSPCSAFEHCLS GECIHSSWRCGGPDCKDKSDEENCAVATCRPDEFQCS
GNCIHGRQCDREYDCKDMSDEVGCNVTLCEGPNKFKCHSGECITLDKVCNMARDCRDW
SDEPIKECGTNECLDNNGGSHVCNDLKIGYECLCPDFQLVAQRRCEDIDEQCDPDTCSQLC
VNLEGGYKCQCEEGFQLDPHTKACKAVGSIAYLFTNRHEVRKMTLDRSEYTSIPNLRNVV
ALDTEVASNRIYWSLSQLRMICSTQLDRAHGVSSYDTVISRDIQAPDGLAVDWIHSNIYWTDS
VLGTVSVADTKGVKRKTLFRENGSKPRAIVVDPVHGFMYWTDWGTPAKIKGGGLNGVDIYS
LVTENIQWPNGITLDLLSGRLYWVDSLHSIISIDVNGGNRKTILEDEKRLAHPFSLAVFEDKV
FWTDIINEAIFSANRLTGSDVNLLAENLLSPEDMVLFHNL TQPRGVNWCERTTLSNGGCQYLC
LPAPQINPHSPKFTCACPDGMLLARDMRSCLTEAEAAVATQETSTVRLKVSSTA VRTQHTTT
RPVPDTSRLPGATPGLTTVEIVTMSHQALGDVAGRGN EKKPSSVRALSIVLPIVLLVFLCLGVF

LLWKNWRLKNINSINFDPVYQKTEDEVHICHNQDGYSYPSRQMVSLEDDVA

>DP01115|Q16236|#69-84

MMDLELPPPGPSQQDMIDLIDILWRQDIDLGVSREVDFDSQRKEYELEKQKKLEKERQEQL
QKEQEKAFFAQLQLDEETGEFLPIQPAQHIQSETSGSANYSQVAHIPKSDALYFDDCMQLLAQ
TFPFVDDNEVSSATFQLSLVDIPGHIESPVFIATNQAQSPETSVAQVAPVLDGMQQDIEQVW
EELLSIPELQCLNIENDKLVEETMVPSPPEAKLTEVDNYHFYSSIPSMEKEVGNCSPHFLNAFED
SFSSILSTEDPNQLTVNSLNSDATVNTDFGDEFYSAFIAEPSISNSMPSPATLSHSLSELLNGPID
VSDLSLCKAFQNQHPESTAEFNDSDSGISLNTPSVASPEHSVESSSYGDTLLGLSDSEVEELDS
APGSVKQNGPKTPVHSSGDMVQPLSPSQGQSTHVHDAQCNTPEKELPVSPGHRKTPFTKDK
HSSRLEAHLTRDELRAKALHIPFPVEKIINLPVVDFNEMMSKEQFNEAQALIRDIRRGKKN
VAAQNCRKRKLENIVELEQDLDHLKDEKEKLLKEKGENDKSLHLLKKQLSTLYLEVFSMLR
DEDGKPYSPSEYSLQQTRDGNVFLVPKSKKPDVKKN

>DP01629|P32628|#77-147 #185-265 #311-355

MVSLTFKNFKKEKVPLDLEPSNTILETKLAKQSISCEESQIKLIYSGKVLQDSKTVSECGLKD
GDQVVFMVSQKKSTKTKEPIAPESAATPGRENSTEASPSTDASAAPAATAPEGSQPQEEQ
TATTERTESASTPGFVVGTERNETIERIMEMGYQREEVERALRAAFNNPDRAVEYLLMGIPEN
LRQPEPQQQTAAAEEQPSATAATTAEQPAEDDLFAQAAQGGNASSGALGTTGGATDAAQGGP
PGSIGLTVEDLLSLRQVSGNPEALAPLLENISARYPQLREHIMANPEVFVSMILLEAVGDNMQ
DVMEGADDMVEGEDIEVTGEAAAAGLGQGEGEGSFQVDYTPEDDQAISRLCELGFERDLVI
QVYFACDKNEEAANILFSDHAD

>DP01047|O50835|#56-205

MKKVSKYLAJGLLFGFISCDLFIRYEMKEESPGLFDKGNSILETSEESIKPMNKKGKGKIA
KKGKSKVSRKEPYIHSLKRDSANKSNFLQKNVILEEESLKTELLKEQSETRKEKIQQDYEYK
GMTQGSLNSLSGESGELEPIESNEIDLTDSDLRPKSSLQGIAGNSNSISYTDEIEEEDYDQYYLD
EYDEEDEEEIRLSNRYQSYLEGVKYNVDSAIQTITKIYNTYTLFSTKLTQMYSTRLDNFAKAK
AKEEAAKFTKEDLEKNFKTLLNYIQSVKTAANFVYINDTHAKRKLENIEAEIKTLIAKIKEQS
NLYEAYKAIVTISLLMRDSLKEVQGIIDKNGVWY

>DP00160|P04851|#400-523

MATLLRSLALFKRNKDKPPITSGSGGAIRGIKHIIIVPIPGDSSITRSRLLDRLVRLIGNPDVSGP
KLTGALIGILSLFVESPGQLIQRITDDPDVSIRLLEVVQSDQSQSGLTFAASRTNMEDADEQYFS
HDDPISSDQSFRGWENKEISDIEVQDPEGFNMLGTILAQIWVLLAKAVTAPDTAADSELRR
WIKYTQQRVVGEFRLERKWLDVVRNIIAEDLSLRRFMVALILDIKRTPGNKPRIAEMCIDIT
YIVEAGLASFILTIFGIETMYPALGLHEFAGELSTLESMLNLYQQMGKPAPYMVNLENSIQN
KFSAGSYPLLWSYAMGVGVELENSMGGLNFRSYFDPAYFRLGQEMVRRSAGKVSSTLASE
LGITAEDARLVEIAMHTTEDKISRAGPRQAQVSFLQGDQSENELPRLGGKEDRRVKQSRGE
ARESYRETGPSRASDARA AHLPTTPLIDITASESSQDPQDSRRSAEPLLSCPKWQESRKNKA
QTRTPLQCTMTEIF

>DP01475|P55980|#877-1186 #893-1001

MTNETIDQTRPDQTQSQTAFDPPQQFINNLQVAFIKVDNVVASFDPDQKPIVDKNDRDNRQA
FDGISQLREYESNKAINKNPTKKNQYFSDFIDKSNDLINKDNLIDVESSTKSFKFGDQRYQIFTS
WVSHQKDPSKINTRSIRNFMENIIQPPIDKEKAFLSAKQSFAGIIGNQIRTDQKFMGVFD
ESLKERQEAEKNGGPTGGDWLDIFLSFIFNKKQSSDVKEAINQEPVPHVQPDIAATTTDIQLP
PEARDLLDERGNFSKFTLGDMEMLDVEGVADIDPNYKFNQLLIHNNALSSVLMGSHNGIEPE
KVSLLYAGNGGFSDKHDWNATVGYKDQQGNVATLINVHMKGNSGLVIAGGEKGINNPSF
YLYKEDQLTGSQRALSQEEIRNKVDFMEFLAQNNNTKLDNLSEKEKEKFQNEIEDFQKDSKAY
LDALGNDRIAFVSKKDTKHSALITEFNNGDLSYTLKDYGKKADKALDREKNVTLQGSLKHD
GVMFVDYSNFKYTNASKNPNGVGVATNGVSHLEAGFNKVAVFNLPDNNLAITSFVRRNLE

NKLTAKGLSLQEANKLIKDFLSSNKEAGKALNFNKAVAEEKSTGNYDEVKKAQKDLEKSL
RKREHLEKEVEKKLESKSGNKNKMEAQAQANSQKDEIFALINKEANRDARAIAYTQLKGIK
RELSDKLEKISKDLKDFSKSDEFKNGKNKDFSKAETLKALKGSVKDLGINPEWISKVENLN
AALNEFKNGKNKDFSKVTQAKSDLENSVKDVINQKVTDKVDNLNQAVSVAKAMGDFSRV
EQVLADLKNFSKEQLAQQAQKNEDFNTGKNSELYQSVKNSVNKTIVGNGLSGIEATALAKN
FSDIKKELNEKFKNFNNNNGLKNSTEPIYAKVNKKKTGQVASPEEPIYTQVAKKVNAKIDR
LNQIASGLGGVGQAAGFPLKRHDKVDDLSKVGLSASPEPIYATIDDLGGPFLKRHDKVDDLS
KVGRSRNQELAQKIDNLNQAVSEAKAGFFGNLEQTIDKLKDSTKKNVMNLYVESAKKVPAS
LSAKLDNYAINSHTRINSNIQNGAINEKATGMLTQKNPEWLKLVNDKJVAHNVGSVSLSEYD
KIGFNQKNMKDYSDSFKFSTKLNNAVKDIKSGFTHFLANAFSTGYYCLARENAEHGIKNVNT
KGFFQKS

>DP00310|P62495|#333-342 #358-370 #423-437

MADDPSAADRNVEIWIKKKLIKSLEAARGNGTSMISLIIPPKDQISRVAKMLAEGFTASNKS
RVNRLSVLGAITSVQQRLLKLYNKVPPNGLVVYCGTIVTEEGKEKKVNIDFEPFKPINTSLYLC
DNKFHTEALTALLSDDSKFGFIVIDSGALFGTLQGNTREVLHKFTVDLPKKHGRGGQSALRF
ARLRMEKRHNYVRKVAETAVQLFISGDKVNVAAGLVLAGSADFTELSQSDMFDQRLQSKVL
KLVDISYGGENGFNQAIESTEVLSNVKFIQEKKLIGRYFDEISQDTGKYCFGVEDTLKALEM
GAVEILIVYENLDIMRYVLHCQGTTEEKILYLTPEQEKDKSHFTDKETGQEHELIESMPLLEWF
ANNYKKFGATLEIVTDKSQEGSQFVKGF GGIGGILRYRVDFQGMEMYQGGDDEFFDLDDY

>DP02164|Q8WUM0|#244-293

MFPAAPSPRTPGTGSRRGPLAGLPGPSTPRASRKGLPLGSAVSSPVLFSPVGRRSSLSSRGTP
TRMFPHHSITESVNYDVKTFGSSLPVKVMEALTLAEVDDQLTINIDEGGWACLVCKEKLIIWK
IALSPITKLSVCKELQLPPSDFHWSADLVALSYSSPSGEAHSTQAVAVMVATREGSIRYWPSL
AGEDTYTEAFVDSGGDKTYSFLTAVQGGSFILSSSGSQLIRLIPESSGKIHQHILPQGQGMLSGI
GRKVSSLFGILSPSSDLTLSSVLWDRERSSFYSLTSSNISKWELEDSSEKHAYSWDINRALKENI
TDAIWGESNYEAIKEGVNIRYLLDKQNCDGLVILAAA WHSADNPCLIYYSLITIEDNGCQMS
DAVTVEVTQYNPPFQSEDLILCQLTVPNFSNQTAYLYNESAVYVCSTGTGKFSLPQEKFIVFNA
QGDSVLGAGACGGVPIIFSRNSGLVSITSRENVSILAEDLEGSCLASSVAGPNSESMIFETTTKNE
TIAQEDKIKLLKAAFLQYCRKDLGHAQMVVDELFSSHSDLDSDSELDRAVTQISVDSLMDYDYP
ASDPRWAESVPEEAPGFSNTSLIILHQLEDKMKWAHSFLMDFIHQVGLFGRGLGSFPVRGTPMAT
RLLLCEHAEKLSSAAIVLKNHHSRLSDLVNTAILIALNKREYEIPSNLTPADVFFREVSQVDTICE
CLLEHEEQVLRDAPMDSIEWAEVINVNNILKDMQLQAASHYRQNRNSLYRREESLEKEPEYV
PWTATSGPGGIRTVIIRQHEIVLKVAYPQADSNLRNIVTEQLVALIDCFLDGYVSQLKSVDKSS
NRERYDNLEMEYLQKRS DLLSPLLSLGQYLWAASLAEKYCDFDILVQMCEQTDNQSRLQRY
MTQFADQNFSDFLFRWYLEKGKRGKLLSQPISQHGQLANFLQAHEHLSWLHEINSQELEKAH
ATLLGLANMETRYFAKKTLLGLSKLAALASDFSEDMQLQEKEEMAEQERFLLHQETLPEQL
LAEKQLNLSAMPVLTAPQLIGLYICEENRRANEYDFKKALDLLEYIDEEDININDLKLEILCK
ALQRDNWSSSDGKDDPIEVSKDSIFVKILQKLLKGQLSEYLPEVKDLLQADQLGSLKSNPY
FEFVLKANYEYYVQGQI

>DP02476|P36106|#1-231 #74-134 #134-232 #366-594

MSVRTSSRSNKGQNKYIEYLLQEEETEAPKKKRTKKVDSAIEKNKSDSSQEPRKDENVRT
DEVDEADEGYVRCLCGANNENYDAAEYSHGDMVQCDGCDTWQHICKMTDGKDTIDGLMS
EDSKYYCELCDPSLYAHLETSKEAEVSEDEDYHDDVYKPVNDHDDNDADVFLDEESPRKRK
RSPDSAKGIHIKSQVKKSNGSKKRNKSIDAOKSDTAENEMPTRKDFESEKEHKLRYNAEKM
FSTLFSKFIVPETIEAKLYELPDGKDVISISQEFAHNLEEELYKACLNVEFGTLDKIYTEKVRSL
YSNLKDKKNLELKAHVVEGKLPLNKLVNMNASELANPDLQEFKEKRDKIILENFIVEVPDKP
MYVKTHKGDELIEDIAEPQEDILYSKDSIRLHNIDSIDSKSKIEQTHAISKEPSPSTIINEESLNC

AFLYPGLGLEFTGYLNYIGASQKLRKDIFKEAIGDGKLVEGRLPTTAAPYLKEISCSRAILV
YQLFPSNDSESKTTFADVVDSLENKGRIAGIKPKTRYEKDFYIVPSKGGEIPEILKDILGSHNDE
RSERFSRMKSDERTLFAFVVVKQEFIH

>DP01236|P55735|#1-14 #305-316

MVSVINTVDTSHEDMIHDAQMDDYYGTRLATCSSDRSVKIFDVRNGGQILIADLRGHEGPVWQ
VAWAHPMYGNILASCYDRKVIIWREENGTEKSHEAGHDSSVNSVCWAPHDYGLILACG
SSDGAISLLTYTGEHQWEVKINNAHTIGCNAVSWAPAVVPGSLIDHPSGQKPNYIKRFASGG
CDNLKLWKEEEDGQWKEEQKLEAHSDWVRDVAWAPSIGLPTSTIASCSQDGRVFIWTCDD
ASSNTWSPKLLHKFNDVVWHVWSITANILAVSGGDNKVTLWKEVDGQWVCISDVNKQG
GSVASVTEGQQNEQ

>DP00064|P03607|#1-64

MSGLFHHRTKPREIRAFVMATRLTKKQLAQAIQNTLPNPPRRKRRRAKRRAAQVPKPTQAGVS
MAPIAQGTMVKLRPPMLRSSMDVTILSHCELSTELAVTVTIVVTSELVMPFTVGTWLRGVAQ
NWSKYAWVAIRYTYLPSCPITTSGAIHMGFQYDMADTLPVSVNQLSNLKGYVTGPVWEGQS
GLCFVNNTKCPDTSRAITALDTNEVSEKRYPFKTATDYATAVGVNANIGNILVPARLTAME
GGSSKTAVENTGRLYASYTIRLIEPIAAALNL

>DP02499|A0KJC7|#1-230

MSYQHPWCARLLTSLPDEQIRGAVLADEPRWDYVETELVKLGSLAHSQVDLNAVAEACGL
LESRTKDMRVLAQLLRCLQHPAKATPLGAAISLLEAWIQAQYWLLAWPGNASQKQRLMVQIV
KRFEGLALPRICESASAAELAQLLAQAEQLERVWLAQCPDKGELLDPLVMGLKRAQRQQLAQ
AEANAAGQPQSSGAAAAGSPASVASTASCAGAMVLSGSAGVDVDSSNDRAWRQTQLKVAE
LLIERQPEVAVGYRLRRHAVWAGITAVPMMSGAGNKTPLAPMSADMVDEYRAAMNAPDQGL
WQRIEQSLTLAPYWFEGHRLSAEVAEKLFGAVAQAQIAEELGTFLQRQLPALRELAFSDGSPFL
SPECSRWLQPAKGGSAGIGEAGLAEVAQRHGEQGIAAALALLDERIAQLKEPRDRFHALLV
QAELLAQEGMEALARQHYQHLWQEASRLGLSHWEPGLVNRLESLAAPLSK

>DP01173|Q15726|#20-138

MNSLVSWQLLLFCATHFGEPLEKVASVGNRPTGQQLESLGLAPGEQSLPCTERKPAAATA
RLSRRGTSLSPPPESSGSPQQPGSAPHSRQIPAPQGAVLVQREKDPNWNNSFGLRGKRE
AAPGNHGRSAGR

>DP01142|O92972|#191-447

MSTNPKPQRKTKRNTNRRPQDVKFPGGGQIVGGVYLLPRRGPRLGVRATRKASERSQPRGRR
QPIPKARRPEGRAWAQPGYPWPLYGNEGLGWAGWLLSPRGSRPSWGPTDPRRSRNLGKVI
DTLTCGFADLMGYIPLVGAPLGGAARALAHGVRVLEDGVNYATGNLPGCSFSIFLLALLSCL
TIPASAYEVNVSGIYHVTNDCNSSIVYEADVIMHTPGCVPCVREGNSSRCWVALPTLAA
RNASVPTTIRRHVDLLVGTAAFCSAMYVGDLCGSIFLVSQQLFTSPRRHETVQDCNCISIYPG
HVSGRHMAWDMMMNWSPTALVVSQQLRIPQAQVDMVAGAHGVLAGLAYYSMVGNW
AKVLIVALLFAGVDGETHTGRVAGHTSGFTSLFSSGASQKIQLVNTNGSWHINRTALNCN
DSLQTGFFAALFYAHKFNSSGCPERMASCRPIDWFAQGWGPTYTKPNSSDQRPYCWHYAPR
PCGVVPASQVCGPVYCFTPSPVVVGTTDRSGVPTYSWGENETDVMLNNTRPPQGNWFGCT
WMNSTGFTKTCGGPPCNIGGVGNRTLICPTDCFRKHPEATYTKCGSGPWLTPrCLVDPYRL
WHYPCTLNFSIFKVRMYVGGVEHRLNAACNWTRGERCNLEDRDRSELSPLLSTTEWQILPC
AFTTLPALSTGLIHLHQNVDVQYLYGVGSASFSAIKWEYILLFLLADARVCACLWMML
LIAQAEAALENLVVLNAASVAGAHGILSFLVFFCAAQYIKGRLAPGAAYAFYGVWPLLLL
ALPPRAYALDREMAASCGGAVLVGLVFLTSPYYKVFLTRLIWWLQYFITRAEAHMQVWVP
PLNVRGGGRDAIILTCAVHPELIFDITKLLAILGPLMVLQAGITRVPYFVRAQGLIRACMLVR
KVAGGHYVQMAFMKLGALTGTYVYNHLLTPLRDWAHAGLRLAVAVEPVVFSAMETKVIT
WGADTAACGDIILGLPVSARRGKEIFLGPADSLEGQGWRL LAPITAYSQQTRGVLCIITSLG

RDKNQVEGEVQVVSTATQSFLATCINGVCWTYHGAGSKTLAGPKGPITQMYTNVDLDLVG
WQAPPGARSMTPCSCGSSDLYLVTTRHADVIPVRRRGDSRGSLLSPRPVSYLGSSGGPLLCP
GHVGVFRAAVCTRGAVALDFIPVESMETTMRSVPFTDNSSPPAVPQTQVAHLHAPTGSG
KSTKVAAYAAQGYKVLVNPVAATLGFAYMSKAHGIDPNIRTGVRTITTGGSITYSTYG
KFLADGGCSGGAYDIICDECHSTDSTTILGITVLDQAETAGARLVVLATATPPGSVTVPHPN
IEEIGLSNNGEIPFYGKAIPIEAIKGGRHLIFCHSKKKCDELAAKLTGLGLNAVAYYRGLDVSVI
PPIGDVVVVATDALMTGFTGFDSSVIDCNCVTQTVDFSLDPTFTIETTTVPQDAVSRSQRGG
RTGRGRSGIYRFVTPGERPSGMFDSSVLCECYDAGCAWYELTPAETSVRRLRAYLNTPLPVC
QDHLEFWESVFTGLTHIDAHFLSQTKQAGDNFPYLVAYQATVCARAQAPPSWDQMWKCLI
RLKPTLHGPTPLLYRLGAVQNEVILTHPITKYIMACMSADLEVVTSTWVLVGGVLAALAAYC
LTTGSVVIVGRIILSGPAVVPDREVLYQEFDEMEECASQLPYIEQGMQLAEQFKQKALGLLQ
TATKQAEAAAPVVESKWRALETFWAKHMWNFISGIQYLAGLSTLPGNPAIASLMAFTASITS
PLTTQNTLLFNILGGWVAAPPSAASAFVGAGIAGAAVGSIGLGKVLVDILAGYGAGVAG
ALVAFKVMMSG EVPSTE DLVNLLPAILSPGAL VVGVVCAAILRRHVGPGEGAVQWMNRLLIAFA
SRGNHVSPTHYPESDAAARVTQILSSL TITQLLKRLHQWINEDCSTPCSGSWLRDVWDWICT
VLTDFKTWLQSKLLPRLPGVPFLSCQRGYKGVWRGDGIMQTTCPGQAQIAGHVKNNSMRIV
GPRTCNSNTWHGTFPINAYTTGPCTPSAPNYSRALWRVAAEYYVEVTRVGDFHYVTGMTTD
NVKCPCQVPAPEFFTEVDGVRLHRYAPACKPLLREDVTQVGLNQYLVGSQLPCEPEPDVT
LTSMLTDPSHITAETAKRRLARGSPPSLASSSASQLSAPSLKATCTTHHDSPDADLIEANLLWR
QEMGGNITRVESENKVVILDSFEPLHAEGDEREISVAEILRKSRKFPSALPIWARPDYNPPLL
ESWKDPDYVPPVVGCPPLPTKAPPPIPPRRKRTVVLTESNVSSALAELATKTFGSSGSSAVDS
GTATALPDLASDDGDKGSDVESYSSMPPLEGEPGDPDLSDGSWSTVSEEASEDVVCCSMSYT
WTGALITPCAEEESKLPIPLNSNLLRHNMVYATTSRSASLRQQKVTFDRLQVLDDHYRDV
LKEMKAKASTVKAKLLSIEEACKLTPHSAKSKFGYGAKDVRNLSSRAVNHIRSVWEDLLED
TETPIDTTIMAKSEFCVQPEKGGRKPARLIVFPDLGVRVCEKMALYDVVSTLPQAVMGSSY
GFQYSPKQRVEFLVNTWKSKKCPMGFSYDTRCFDSTVTESDIRVEESIYQCCDLAPEARQAIR
SLTERLYIGGPLTNSKGQNCGYRRCRASGVTTSCGNTLCYLKATAACRAAKLQDCTMLV
NGDDLVVICESAGTQEDAALRAFTEAMTRYSAPPGDPPQPEYDLELITSCSSNVSAHDASG
KRVYYLTRDPTTPLARA AWE TARHTPINSWLGNIIMYAPTLWARMILMTHFFSILLAQEQUE
ALDCQIYGACYSIEPLDLPQIIERLHGLSAFTLHSYSPGEINRVASCLRKLGVPLRTWRHRARS
VRAKLLSQGGRAATCGRYLFNWAVRTKLKLTPIPAASQLDLSGWVFAGYSGGDIYHSLRSA
RPRWFPLCLLLS VGVGIYLLPNR

>DP01441|P14921|#276-318

MKAAVDLKPTLTIKTEKV DLELFPSPDMECADVPLLT PSSKEMMSQALKATFSGFTKEQQRL
GIPKDPRQWTETHVRDWVMWAVNEFSLKGVDFQKFCMNGAACALCALGKDCFLEAPDFVGD
ILWEHLEILQKEDVKPYQVNGVNPAYPESRYTSDYFISY GIEHAQCVPPSFSEPSFITESYQTL
HPISEELL SKYENDYPSVILRDPLQTDTLQNDYFAIKQEVT PDNMCMGRTSRGKLGGQDS
FESIESYDSCDR LTQSWSSQSFNSLQRVPSYDSFDSEDYPAALPNHKPKGT FKDYVRDRADL
NKDKPVIPAA ALAGYTGS GPIQLWQFLLELLTDKSCQSFISWTGDGWEFKLSDPDEVARRWG
KRKNKP KMNYEKLSRGL RYYDKNIIHKTAGKRYVYRFVCDLQSLLGYTPEELHAML DVKP
DADE

>DP01481|Q5UPT2#1-94

MSKKNVDPFSDSDSSEPPSIFSSDNEENSDVDNSVIINDKNTKSDEADIKYMDEDESSDSESES
ESKKKS KKS KKS KKS VTK KKK NLLVGNRIITEYI LIDANNYHFK SWIECFPDCKVNLKLL
LFRPEWFDF KYVESKTYFPQLESKLSSYLEKRQRIVPYP ELLFNTMNVLPPGKIKV VILGQDP
YPGSCISGV PYAMGCSFSVPLNCVPKSLANIYTNLIKFNHMRKAPKHGCLASWILQGTFMIN
SAFTV LNE SGV HART WESFTADLIDY LTD NYDDLIFVAWGAHAHKL CQRVDPKKHYIITSS

HPSPYSVSNTMTSMSYGPNPKKVYPSFNSVDHFGKINEHLKSRNKKPIFWDL
>DP00587|Q9CQK7|#1-243
MTDYGEEQRNEALESIYPDSFTVLSESPPSFTITVTSEAGENDETVQTLKFTYSEKYPDETP
LYEIFSQENLEDNDVSDILKLLALQAEENLGVMVIMFTLVTAVQEKLNEIVDQIKTRREEKKQ
KEKEAEEAEKKLFHGTPVTIENFLSWKAKFDAELLEIKKKRMKEEQAGKNLSGKQLFETD
HNLDTSIDIQFLEDAGNNVEVDESLFQEMDDLELEDGEDDPDYNPVAPGSDSSD
>DP00387|P25814|#1-116
MKKRNRLLKKNEDFQKVFKHGTSVANRQFVLYTLDQPENDELRVGLSVSKIGNAVMRNRIK
RLIRQAFLEEKERLKEKDYIIIARKPASQLTYEETKKSQHLFRKSSLYKKSSSK
>DP01615|P03126|#1-10 #148-158
MHQKRTAMFQDPQERPRKLPQLCTELQTTIHDILECVYCKQQLRREVYDFAFRDLCIVYRD
GNPYAVCDKCLKFYSKISEYRHYCISLYGTTLEQQYNKPLCDLLIRCINCQKPLCPEEKQRHL
DKKQRFHNIRGRWTGRCMSCCRSSRTRRETQL
>DP02296|P60761|#26-47 #51-62
MDCCTESACSKPDDDIIDIPPLDDPGANAAAQIQASFRGHMARKKIKSGECGRKGPGPGGGP
GAGGARGGAGGGPSGD
>DP00553|Q9NZ94|#731-848
MWLRLGPPSLSLSPKPTVGRSLCLTLWFLSLALRASTQAPAPTVNTHFGKLRGARVPLPSEIL
GPVDQYLGVPYAAPPIGEKRFLPPEPPPSWSGIRNATHFPPVCPQNIHTAVPEVMLPVWFTAN
LDIVATYIQEPNEDCLYLNVYVPTEDVKRISKECARKPNKKICRKGGSGAKKQGEDLADNDG
DEDEDIRDSGAKPVMVYIHGSYMEGTGNMIDGSILASYGNVIVITLYRVGVGLFLSTGDQ
AAKGNYGLLDQIQALRWVSENIAFFGGDPRRITVFGSGIGASCVSLLTLHHSEGLFQRAIIQS
GSALSSWAVNYQPVKYTSSLADKVGCVNLDLTVMDVDCRLRQKSAKELVEQDIQPARYHVAF
GPVIDGDVIPDDPEILMEQGEFLNYDIMLGVNQGEGLKFVEGVVDPEDGVSGTDYDVSNF
VDNLYGYPEGKDTLRETIKFMYTDWADRDNPETRRKTLVALFTDHQWVEPSVVTADLHAR
YGSPTYFYAFYHHCQLMKPAWSDAAHGDEVPYVFGVPMVGPTDLPFCNFSKNDVMSAV
VMTYWTFNAKTGDPNKPQDTKFIHTKANRFEEVAWSKYNP RDQLYIHLIGLKPRVRDHYR
ATKVAFWKHLVPHLYNLHDMFHYTSTTKVPPPDTTHSSHITRRPNGKTWSTKRP AISPAYS
NENAQGSWNGDQDAGPLL VENPRDY STELSVTIAVGASLLFLNLAFAALYYRKDKRRQEP
LRQPSPQRGAGAPELGAAPEEE LAALQLGPTHHECEAGPPHDTLRLTALPDYTLTLRRSPDDI
PLMTPNTITMIPNSLVGLQTLHPYNTFAAGFNSTGLPHSHSTTRV
>DP01646|P35236|#37-52
MVQAHGGRSRAQPLTLSLGAAMTQPPPEKTPAKKHVRLQERRGSNVALMLDVRSLGAVEPI
CSVNTPREVTLHFLRTAGHPLTRWALQRQPPSPKQLEEFLKIPSNFVSPEDLDIPGHASKDRY
KTILPNPQSRVCLGRAQSQEDG DYINANYIRGYDGKEKVIATQGPMPNTVSDFWEMVWQE
EVSLIVMLTQLREGKEKCVHYWPTEEETYGPFQIRIQDMKECPEYTVRQLTIQYQEERRSVKH
ILFSAWPDHQTPESAGPLRLVAEVEESPETAAHPGPIVHCSAGIGRTGCFIATRICCQLKA
RGEVDILGIVCQLRLRGGMIQTAEQYQFLHHTLALYAGQLPEEPSP
>DP02096|P28698|#1-13
MRPAVLGSPDRAPPEDEGPVMVKLEDSEE EGEAALWDPGPEAARLRFCFRYEEATGPQEAL
AQLRELCRQWLRPEVR SKEQM LELLVLEQFLGALPPEI QARVQGQRPGSPEEAA ALVDGLRR
EPGGP RRVWTVQVQGQEVLSEKMEPSSFQPLPETEPTPEPGPKTPR TMQESPLGLQVKEES
EVTEDSDFLESGPLAATQESVPTLLPEEAQRCGTVLDQIFPHSKTGPEGPSWREHPRALWHEE
AGGIFSPGFALQLGSISAGPGSVSPHLHVPWDLGMAGLSQIQSPSREGGFAHALLPSDLRSE
QDPTDEDPCRGVGPALITTRWRSRGRSRGPSTGGVVRRGRC DVC GKVFSQRSNLLRHQK
IHTGERPFVCSECGRSFSRSSHLLRHQLTHTERPFVC GDCGQGFVRSARLEHRRVHTGEQPF
RCAECGQSFRQRSNLLQHQRIHGDPGP GAKPPAPPGAPEPPGPFP CSECRESFARRAVLLEHQ

AVHTGDKSFGCVERGRRSVLLQHRRVHSGERPFACAEKGOSFRQRSNLTQHRRHTGE
RPFACAEKGAFRQRPTLTQHLRVHTGEKPFCAPCECGQRFSQLKLTRHQRHTGEKPYHCG
ECGLGFTQVSRLTEHQRHTGERPFACPECGQSFQHANLTQHRRHTGERPYACPECGKAFR
QRPTLTQHLRTHRREKPFACQDCGRRFHQSTKLIQHQRVHSAE

>DP00120|P12957|#636-771

MDDFERRRELRRQKREEMRLEAERLSYQRNDDDEEEAARERRRARQERLRQKEEGDVSGE
VTEKSEVNAQNSVAEEETKRSTDDEAALLERLARREERRQKRLQEALERQKFDPITDGSL
VPSRREVNNVEENEITGKEEKVETQGRCEIEETETVTSYQRNNWRQDGEEGKKEEKDSE
EEKPKEVPTENQVDVAVEKSTDKEEVVETKTLAVNAENDTNAMLEGEQSITDAADKEKEE
AEKEREKLEAEKERLKAEEKKAAEEKQKAEEKKAAEERERAKAEEKRAAEERERAKA
EEERKAAEERERAKAEEERKAAEERAKAEEERAKAEEERAKAEEERAKAEEKERKAA
EERERAKAEEKKRAAEEKARLEAEKLKEKKMEEKKAQEEKAQANLLRKQEEDEAKVEA
KKESLPEKLQPTSKKDQVKDNKDEKAPKEEMKS梧DRKRGVPEQKAQNGERELTPKLKS
TENAFGRSNLKGAAANAEGSEKLKEKQQAVALDELKKRREERRKILEEEEQKKQEEAER
KIREEEKKRMKEEIERRRAEAAEKRQKVPEGVSEEKKPKCFSPKGSSLKIEERAFLNKSA
QKSGMKPAHTTAVVSKIDSRLEQYTSAVVGNKAAPKAQPAASDLPVPAEGVRNIKSMWEKG
NVFSSPGGTGTPNKEAGLKVGVSSRINEWLTKTPEGNKSAPKPSDLRPGDVSGKRNLWEK
QSVEKPAASSSKVTATGKSETNGLRQFEKEP

>DP02205|Q2TUW1|#1-238

MAEEKHHKHRLFHHHKDEDNKPVETDTGYDNTSYSKPSDDYDSGFNKPYSYESSGGGYEGGY
NKTSYSSDEPASGGGYEGGYKKTGYSGGIDETSGGYGAGGGGYSVTDGGYGKPSGGYGA
AGGGGVYPDTTDGGYSKTSGGGYDDEVDYKKEEHHKHLHEHLGELGAASAAAYALHEKH
KAEDPDEHAHRHKIEEEVAAAAAVGSGGFAFHEHHEKKEAKEQDEEAHGKKHHHLFG

>DP02126|P30307|#208-225

MSTELFSSTREEGSSGSGPSFRSNQRKMLNLLERDTSFTVCVDVPRTPVGKFLGDSANLSILS
GGTPKRCLDLSNLSSGEITATQLTTSADLDETGHLDSSGLQEVHLAGMNHDQHLMKCSAPAQL
LCSTPNGLDRGHRKRDAMCSSANKENDNGNLVDSEMKGSPITVPKLDKNPNLGEDQA
EEISDELMEFSLKDQEAKVSRSGLYRSPSMENLNPRPLKQVEFKDNTIPDKVKKYFSGQG
KLRKGCLKKTVSLCDITITQMLEEDSNQGHLIGDFSKVCALPTVSGKHQDLKYVNPETVAA
LLSGKFQGLIEKFYVIDCRYPYEYLGGHIQGALNLYSQEELFFNLLKKPIVPLDTQKRIIVFHC
EFSSERGPRMCRCLREEDRSLNQYPALYYPELYILKGGYRDFPEYMELCEPQSYPYCPMHQD
HKTELLRCRSQSKVQEGERQLREQIALLVKDMSP

>DP00358|Q15185|#123-160

MQPASAKWYDRRDYVFIEFCVEDSKDVNVNFEKSCLTFSCLGSDNFKHLNEIDLFCIDPN
DSKHKRRTDRSILCCLRKGESGQSWPLTKERAKLNWLSVDFNNWKDWEDDSDEDMNSNFDR
FSEMMNMGGDEDVDPVLDPEVGDADDSDQDSDEKMPDLE

>DP02854|Q9BYF1|#769-805

MSSSWLLLSSLVAVTAAQSTIEEQAKTFLDKFNHEADLFYQSSLASWNYNTNITEENVQNM
NNAGDKWSAFLKEQSTLAQMYPLQEIQNLTVKQLQLQQNGSSVLSEDKSKRLNTILNTMS
TIYSTGKVCNPDPNQEQCLLEPGLNEIMANSLDYNERLWAWEWRSEVGKQLRPLYEEYVVL
KNEMARANHYEDYGDYWRGDYEVNGVDGYDYSRGQLIEDVEHTFEEIKPLYEHLHAYVRA
KLMNAYPSYISPICLPAHLLGDMWGRFTNLYSLTVPGQKPNIDVTDAMVDQAWDAQRI
FKEAEKFFVSVGLPNMTQGFWENSLTDPGNVQKAVCHPTAWDLGKGDFRILMCTKVTMD
DFLTAHHEMGHIQYDMAYAAQPFLRNGANEZFHEAVGEIMSLSAATPKHLKSIGLLSPDFQ
EDNETEINFLLKQALTIVGTLPTYMLEKWRWMVFKEIPKDQWMKKWWEMKREIVGVVE
PVPHDETYCDPASLFHVSNDYSFIRYYTRTLYQFQFQEALCQAACKHEGPLHKCDISNSTEAGQ
KLFNMLRLGKSEPWTIALENVVGAKNMNRPLLNYFEPLFTWLKDQNKNFSVGWSTDWSP

YADQSIKVRISLKSALGDKAYEWNDNEMYLFRSSVAYAMRQYFLKVKKNQMILFGEEDVRVA
NLKPRISFNFFVTAPKNVSDIIPRTEVEKAIRMSRSRINDAFRLNDNSLEFLGIQPTLGPPNQPPV
SIWLIVFGVVMGVIVVGIVILIFTGIRDRKKKNKARSGENPYASIDISKGENNPGFQNTDDVQT
SF

>DP00040|P17096|#72-82

MSESSSKSSSQPLASKQEKGTEKRGRGRPRKQPPVSPGTALVGSQKEPSEVPTPKRPRGRPKG
SKNKGAAKTRKTTPGRKPRGRPKLEKEEEEGISQESSEEEQ

>DP01643|O75506|#1-10 #60-76

MAETDPKTVQDLTSVVQTLLQQMQDKFQTMSDQIIGRIDDMSRIDDLEKNIADLMTQAGVE
ELESENKIPATQKS

>DP00850|P36932|#46-161

MAIKLDDGRYEVDIRPTGRNGKIRRKFDKSEAVAFEKYTLYNHHNKEWLSKPTDKRRL
SELTQIWWDLKGKHEEHGKSNLGKIEIFTKITNDPCAFQITKSLISQYCATTRRSQGIKPSSINRD
LTCISGMFTALIEAELFFGEHPIRGTKRLKEEKPETGYLTQEEIALLAALDGDNKKIAILCLST
GARWGEAARLKAENIIHNRVTFKTNTKRTVPISEAVAKMIADNKRGFLFPDADYPRFRR
TMKAIKPDLPMGQATHALRHSFATHFMINGGIITLQRILGHTRIEQTMVYAHFAPEYLQDAIS
LNPLRGGTEAESVHTVSTVE

>DP01261|P53905|#1-26 #105-115

MHQHQHSKSENKPQQQRKKFEGPKREAILDLAKYKDSKIRVKLMGGKLIGVLGYDQLMNL
VLDDTVEYMSNPDDENNTTELISKNARKLGLTVIRGTLVSLSSAEGSDVLYMQK

>DP01569|P34021-2|#2-226

MLTTSGQQQSKQLSTLPSHILLQQQLAASAGPSSSVLSPSSAALTSHVASANGGARETTS
AAAVKDCLRPTPTAIKIEPMPDVISVGTVAGGSSVATVVAPAATTTSNKPNSTAAPSTSAAAA
NGHLVLVPNKRPRLDVTEDWMSTPSGPSSAPPLSPSPGSQNHSYNMSNGYASPMASAGSY
DPYSPTGKTGRDDLSPSSSLNGYSANESCDAKKSKKGAPRVEELCLVCGDRASGYHYNAL
TCEGCKGFFRRSRTKSAVYCCFKGRACEMDMYMRRKCQECLKKCLAVGMRPECVVPENQ
CAMKRREKKAQKEKDMMTSPSSQHGGNGSLASGGGQDFVKKEILDLMTCPPQHATIPLL
DEILAKCQARNIPSLTYNQLAVIYKLIWYQDGYEQPSEEDLRRIMSQPDENESQTDVSFRHITE
ITILTVQLIVEFAKGLPAFTKIPQEDQITLLKACSEVMMRMARRYDHSSDSIFFANNRSYTR
DSYKMGAMADNIEDLLHFCRQMSMKVDNVEYALLTAIVIFSDRPGLEKAQLVEAIQSYYID
TLRIYILNRHCGDSMSLVFYAKLLSILTELRTGNQNAEMCFSLKLKNRKLPKFLEEIWDVHAI
PPSVQSHLQITQEENERLERAERMRAVGGAITAGIDCDASTSAAAAAAQHQPQPQPQPS
SLTNQNDSQHQTQPQLQPQLQGQLQPQLQTQLQPQIQPQQLPVSAPVPASVTAP
GSLSAVSTSSEYMGSAIIGPITPATTSSITAATASSTSAPVMNGVGVGVGVGGNVSMY
ANAQTAMALMGVALHSHQEQLIGGVAVKSEHSTTA

>DP02002|O15922|#1-89 #230-240 #315-324

MASKRCRQCSGDSASSSTSSLPSSELPSKKAAGGQRVTAEVEVAPITTDATSATVTAAGGAK
KKATTGSPARRTSSAAKITNGDAGELIRTAEALAALNAKKSEKEIWSDVVPFVRRRTDSDFDP
SRMYKFITWNVAGLRGLKKNASALRAFMEAEPDVLCQETKLNVDEADANATLGVVDG
YSFVDHPCAFKRGYSGRTYMKNSTTVKGLHARCTRGFALPSEPQADAAGSRVLVEGAGD
EEGRVLTTFLSPDPDSASSSSRALVNTYVANSGMGLTRLPYRVQSFPSMREYLHRLDTWAT
ENAAVPSAAAMGSGSSPHGFIWAGDLNVAERDYDRYYAGTFKSMQECGFAPEERMSFRET
MQRTNSVDIFRQLYPQAGPVYSFWQRINGRPRNLGWRLDYFVVSSRLASYVVDCFPMPVT
MGSDHCPFQMWMRHP

>DP01307|Q9BXH1|#137-151

MARARQEGSSPEPVEGLARDGPRPFPLGRLVPSAVSCGLCEPGLAAAPAAPTLLPAAYLCAPT
APPAVTAALGGSRWPGGPRSRRGPRPDGPQPSLAEQHLESPVPSAPGALAGGPTQAAPGV

RGEEEQWAREIGAQLRRMADDLNAQYERRQEEQQRHRPSPWRVLYNLIMGLPLPRGHRA
PEMEPN

>DP00066|P27285|#1-113

MNRRGFFNMLGRRPFAPTAMWRPRRRQAAPMPARNGLASQIQQLTTAVSALVIGQATRPQ
NPRPRPPRQKKQAPKQPKPKPKPQEKKKKQPAKTKPGKRQRMALKLEADRLFDVKNED
GDVIGHALAMEGKVMKPLHVKGTDHPVLSKLKFTKSSAYDMEFAQLPVNMRSEAFYTSE
HPEGFYNWHHGAVQYSGGRFTIPRGVGGRGDSRPMIDNSGRVVAIVLGADEGTRTALSV
VTWNSKGKTICKTPEGTEEWSAAPLVTAMCLLGNSFPCNRPTCYTREPSRALDILEENVNH
EAYDTLLNAILRCGSSGRSKRSVTDDFTLTSPYLGTCSYCHTEPCFSPIKEQVWDEADDNTI
RIQTSAQFGYDKSGAASNKYRYMSFEQDHITVKEGMDDIKISTSGPCRRLSYKGYFLAKC
PPGDSVTVIASSNSATSCMARKIKPKFVGREKYDLPPVHGKKIPCTVYDRLKETTAGYITM
HRPGPHAYTSYLEESSGKVYAKPPSGKNITYECKCGDYKTGTVTRTEITGCTAIKQCVAYKS
DQTWKVFNSPDLIRHADHTAQGKLHLPFKLIPSTCMVPVAHAPNVIHGFKHISLQLTDHLL
LTTRRLGANPEPTTEWIIGKTVRNFTVDRDGLEYIWGNHEPVRVYAESAPGDPHGPHEIV
QHYYHRHPVYТИЛАVASAAVAMMIGVTVAALCACKARRECLTPYALAPNAVIPTSLALLCC
VRSANAETFTETMSYFWNSNPFFWVQLCIPLAAVIVLMRCCSCLPFLVVAGAYLAKVDAY
EHATTVPNVPQIPYKALVERAGYAPLNLEITVMSSEVLPSTNQEYITCKFTTVVPSPKVKCCGS
LECPAAHADYTCVKFGVYPMWGAQCFCDSENSQMSEAYVELSADCATDHAQAIKVH
TAAMKVGRLIVYGNNTSFLDVYVNGVTPGTSKDLKVIAGPISASFTPFDHKVVIHRLVNY
DFPEYGAMKPGVFGDIQATSLTSKDLIASTDIRLLKPSAKNVHVPYTQAASGFEMWKNNSGR
PLQETAPFGCKIAVNPLRAVDCSYGNIPISIDIPNAAFRTSDAPLVSTVKCDVSECTYSADFGG
MATLQYVSDREGQCPVHSSTATLQESTVHLEKGAVTVHFSTASPQANFIVSLCGKKTTC
NAECKPPADHIVSTPHKNDQEFQAAISKTSWSWLALFGGASSLLIIGLTIFACSMMLTSTRR

>DP01161|Q9UMS4|#169-194

MSLICSIISNEVPEHPCVSPVSNHVYERRLIEKYIAENGTDPINNQPLSEEQLIDIKVAHPIRKPP
SATSIPIALKALQDEWDVMLHSFTLRQQLQTTRQELSHALYQHDAACRVIARLTKEVTAAR
EALATLKQAGLIVPQAVPSSQPSVVGAGEPMDLGELVGMTPEIIQKLQDKATVLITTERKKR
GKTVPEELVKPEELSKYRQVASHVGLHSASIPGILALDLCPSDTNKILTGGADKNVVFDKSS
EQILATLKQHTKKVTSVFHPSQDLVFSASPDATIRIWSVPNASCVQVVRRAHESAVTGLSLHA
TGDYLLSSDDQYWAFSDIQTGRVLTKVTDETSGCSLTCAQFHFDGLIFGTGTMDSQIKIWDL
KERTNVANFPGHSGPITSIAFSENGYYLATAADDSSVKLWDLRKLKNFKTLQLDNNFEVKSLI
FDQSGTYLALGGTDVQIYICKQWTEILHFTEHSGLTTGVAFGHAKFIASTGMDRSLKFYSL

>DP01447|P30281|#255-292

MELLCEGTRHAPRAGPDPRLLGDQRVLQSLRLEERYVPRASYFQCVQREIKPHMRKMLA
YWMLEVCEEQRCEEVFPLAMNYLDRYLSV PTRKAQLQLGAVCMILLASKLRETTPLTIEK
LCIYTDHAVSPRQLRDWEVLVLGKLKDAAVIAHDFLAFLHRLSLPRDRQALVKKHAQTF
LALCATDYTEAMYPPSMIATGSIGAAVQGLGACMSGDELTELAGITGTEVDCLRACQEIQIE
AALRESLREASQTSSPAPKAPRGSSSQGPSQTSTPTDVTAIHL

>DP01767|Q9H1D0|#655-725

MGPLQGDGGPALGGADVAPRLSPVRVWPRPQAPKEPALHPMGLSLPKEKGLLCLWSKFCR
WFQRRESWAQSRDEQNLLQQKRIWESPPLAAKDNDVQALNKLLKYEDCKVHQRGAMGET
ALHIAALYDNLEAAMVMEAAPELFEPMTSELYEGQTALHIAVVNQNMNLVRALLARRAS
VSARATGTAFRRSPCNLIYFGEHPLSFAACVNSEEIVRLLIEHGADIRAQDSLGNQTVLHILILQP
NKTFCQMYNLLSYDRHGDHLQPLDLVPHQGLTPFKLAGVEGNTVMFQHLMQKRKHTQ
WTYGPLTSTLYDLTEIDSSGDEQSLELIITKKREARQILDQTPVKEVSLKWRYGRPYFC
MLGAIYLLYIICFTMCCIYRPLKPRTRNNRTSPRDNTLLQQKLLQEAYMTPKDDIRLVGELVTI
GAIILLVEVPDIFRMGVTRFFGQTILGGPFHVLITYAFMVLVTMVMRLISASGEVVPMMSFALV

LGWCNVMYFARGFQMLGPFTIMIQKMIFGDLMRFCWLMAVVILGFASAFYIIFQTEDPEELGHFYDYPMALFSTFELFLTIIDGPANYNVDLPMYSITYAAFAIIATLLMLNLLIAMMGDTHWRVAHERDELWRAQIVATTVMLERKLPRCLWPRSGICGREYGLGDRWFLRVEDRQDLMNRQRIQRYAQAFHTRGSEDLDKDSVEKLELGCPFSPLSLPMPSSRSRSTSRSANWERLRQGTLRRDLRGIINRGLEDGESWEYQI

>DP00437|P43351|#1-23

MSGTEEAILGGRDSPAAGGSVLCFGQCQYTAEEYQAIQKALRQRLGPEYISSRMAGGGQKVCYIEGHRVINLANEMFGYNGWAHSITQQNVDVFLNNNGKFYVGVCARVQLKDGSYHEDVGYGVSEGLKSKALSLEKARKEAVTDGLKRALRSFGNALGNCILDKDYLRLSLNKLPRQLPLEVDLTKAKRQDLEPSVEARYNSCRPNMALGHPQLQQVTSPSRPSHAVIPADQDCSSRSLSSSAVESEATHQRKLRQKQLQQFRERMEKQQVRVSTPSAEKSEAAPPAPPVTHSTPVTVSEPLL EKDFLAGVTQELIKTLEDNSEKWAVTPDAGDGVVKPSSRADPAQTSDTLALNNQMVTQNRTPHSVCHQKPQAKSGSWDLQTYSAQRRTGNWESHRKSQDMKKRKYDPS

>DP00125|P63292|#30-60

MLLWVFFLVTLTLSGGSHGSLPSQLRIPRYADAIFTNSYRKVLGQLSARKLLQDIMNRQQGERNQEQQGAKVRLGRQVDGVWTDQQQMALESTLVSLQERRNSQG

>DP01175|P28235|#233-333

MGDWGFLEKLLDQVQEHESTVVGKIWLTVLFIRLILGLAGESVWGDEQSDFECNTAQPGCTNVCYDQAFPISHIRYWVLQFLVSTPTLIYLGHVITYLSRREERLRQKEGELRALPSKDLHVERA LAAIEHQMAKISVAEDGRLRIRGALMGTYYVSVLCKSVLEAGFLYQGWRLYGWTMEPVFC QRAPCPHVDCYVSRPTEKTIFIIFMLVVGVISLVLNLLELVHLLCRCVSREIKARRDHADPA QGSASDPYYPEQVFFYLPMEGPPSSPCPTYNGLSSTEQNWANLTTEERLTSSRPPPFVNTAPQG GRKSPSRPNSSASKKQYV

>DP01546|P84051|#1-11

MSGRGKGKVKKGAKRSNRAGLQFPVGRIHRLRKGNYAERVGAGAPVYLAAMEYLAAEVLELAGNAARDNKKTRIIPRHLQLAIRNDEELNKLLSGVTIAQGGVLPNIQAVLLPKKTEKK A

>DP00700|O55778|#1-404

MDKLDLVNDGLDIIDFIQKNQKEIQKTYGRSSIQQPSTKDRTRAWEFLQSTSGEHEQAEGG MPKNDGGTEGRNVEDLSSVTSSDTIGQRVSNTRAEDPDDIQLDPMVTDVYHDHGGECTGHGPSSPERGWSYHMSGTHDGNRAVPDTKVLNPAPKTTVPEEVREIDLIGLEDKFASAG LNPAAVPFVPKNQSTPTEEPVIPEYYYYGSGRRGDLSKSPPRGNVNLDISKIYTSDEDENQLEYEDEFAKSSSEVVIDTPEDNDSINQEEVVGDPSDQGLEHPFPLGKFPEKEETPDVRRKDSLQMDSCKRGVPKRLPMLSEEFECSGSDDPIIQLEREGSHPGGSLRREPPQSSGNSRNQPDQLKTGDAASPGGVQRPGTPMPKSRIMPIKKGTDAKSQYVGTEDVPGSKSGATRYVRGLPPNQES KSVTAENVQLSAPSATRNEGHDQEVTSNEDSLDDKYIMPSDDFANTFLPHDTDRLNHYAD HLNDYDLETLCCESVLMGIVNAIKLINIDMRLNHIEQMKEIPKIKIDSIDRVLAKTNTALSTIEGHLVSMIMIPGKGKGERKGKTNPELKPVIGRNILEQQELFSFDNLKNFRDGLTDEPYGGVARIRDDLILPELNSETNASQFVPLADDASKDVVRTMIRTHIKDRELSELMDYLNRAETDEEVQEVANTVNDIJDGNI

>DP01170|O00268|#408-838

MAAGSDLLEVFNFSEVDEKVVSSDLVGSLESQAAASAAHHHLAPRTPEVAAAAGALGNH VVSGSPAGAAGAGPAAPAEGAPGAPEPPPAGRPGGGPQRPGPSSPRPLVPAGPAPPA AKLRPPPEGSAGSCAPVAAAAVAAGPEPAPAGPAKPGPAALAARAGPGPGPGPGPGPGPG PGKPGAGPAAQTLNGSAALLNSHAAAPAVSLVNNGPAAALLPLPKPAAPGTVIQTTPFVGAA APPAPAAPSPPAAPAPAAPAAAPPPPPAPATLARPPGHPAGPTAACAVPPPAAAQNGGSAG AAPAPAPAAAGGPAGVSGQPGPAAAAAPAGVKAESPKRVVQAAPPAAQTLAASGPASTAA

SMVIGPTMQGALPSAAVPPPAPGPTGLPKGAAGAVTQSLSRPTATTSGIRATLTPTVLAPR
LPQPPQNPTNIQNFQLPPGMVLVRSENGQLLMIPQQALAQMQAQAHAPQTTMAPRPATPTS
APPVQISTVQAPGTPIIARQVTPTTIKQVSQAQTTVQPSATLQRSPGVQPQLVLGGAAQTASL
GTATAVQTGTPQRTVPGATTSSAATETMENVKKCKNFLSTLIKCLASSGKQSTETAANVKEL
VQNLLDGKIEAEDFTSRLYRELNSSPQPYLVFLKRSLPALRQLTPDSAIFIQQSQQQPPPPTSQ
ATTALTAVVLSVVQRTAGKTAATVTSALQPPVLSLTQPTQVGVGKQQPTPLVIQQPPKPGA
LIRPPQVTLTQTPMVALRQPHNRIMLTPQQIQLNPLQPVPVVKAVALPGTKALSAVSAQAAA
AQKNKLKEPGGGSFRDDDDINDVASMAGVNLSEESARILATNSELVGTLTRSCKDETFLQA
PLQRRIEIGKKHGITELHPDVSYVSHATQQLQNLVEKISETAQQKNFSYKDDDRYEQASD
VRAQLKFFEQLDQIEKQRKDEQEREILMRAAKSRSRQEDPEQLRLKQAKEMQQQELAQMR
QRDANLTALAAIGPRKKRKVDCPGPGSGAEKGPGSVPGSSVGTPRQFTRQRITRVNLRD
LIFCLENERETSHSLLYKAFLK
>DP01850|Q9JK66|#76-141 #378-392
MIVFVRFNSSYGFPEVDSSTSIFQLKEVVAKRQGPADQLRWFAGKELQNHTVQNCdle
QQSIVHIVQRPQRKSHETNASGGDKPQSTPEGSIWEPRSLTRVDLSSHILPADSVGLAVILD
SKSDSEAARGPEAKPTYHSFFVYCKGPCHKVQPGKLRVQCGTCRQATLTLAQGPSCWDDV
PNRMSGECQSPDCPGTRAEFFFKCGAHPTSDKDTVALNLITNNRSIPCIACTDVRNPVLVFQ
CNHRHVICLDCFHLYCVTRLNDRQFVHDAQLGYSLPCVAGCPNSLIKELHHFRILGEEQYN
YQQYGAEECVLQMGGLCPRPGCGAGLLPEQGQKKVTCEGGNGLGCGFVCRDCKEAYHE
GECDSMFEASGATSQAYRVDQRAAEQARWEEASKETIKTTKPCPRCNVPIEKNGGCMHM
CPQPQCKLEWCWNCGEWNRACMDHWFDV
>DP00559|O66493|#50-56 #87-117 #326-350
MSLRYLRFLTAGESHGKGTLAILEGIPANLPLSEEINHELRRRQRGYGRGGRMKIEKD
SGVRFGKTLGSPIALFIRNRDWENWKEKMAIEGEPSVVPFTRPRPGHADLSGGIKYNQRDL
RNILERASARETAARVAVGAVCKKFLSEFGIKIGSFVVSIGQKEVEELDKSYFANPEKLLSYH
EKAEDSELRIPFPEKDEFKTYIDEVKEKGESLGGVFEVFA
LNVPPGLGSHIQWDRRIDGRIA
AMMSIQAIGVEIGLGFEAARRFGSQVHDEIGWSEGKGYFRHSNNLGGTEGGITNGMPIV
VAMKPIPTLKNPLRSVDIETKEEMKAGKERTDIVAVPAASVVG
EAMLAIVLADALLEKLGGD
FMEEVKKRFEDYVNHVKS
>DP00141|O95405|#663-751
MENYFQAEAYNLDKVLDFEQNEDETVSSTLLDTKWNKILDPPSHRLSFNPTLASV
NESQPQLKVFSLAHSAPLTTEEDHCANGQDCNLNPEIATMWIDENA
VAEDQLIKRNYSWDD
QCSAVEVGEKKCGNLA
CLPDEKNVLVAVMHNC
DKRTLQNDLQDCNNYNSQLMDAFSCS
LDNENRQTDQFSFSINESTE
KDMNSEKQMDPLNRPKTEGRSVNH
LCPTSSDSL
ASVCSPSQLK
DDGSIGRDPSMSAITS
LTVD
SVISSQGT
DGCPAVKK
QENYIP
DEDLTG
KISS
PRTDLGSPNS
SH
MSEGILMK
KEPAEEST
TEESLR
SGL
LLL
KPD
MPNG
GRNN
DCER
CSD
CLVP
NEV
RAD
NEG
YEHEET
LGT
TEFL
NMTE
HFSE
SQDM
TNW
KLT
KLN
EM
MDS
SQV
NEE
KE
KFL
LQIS
QPED
TNG
DSG
GQC
VGL
ADAG
LDLK
GTC
CISE
SEE
CDF
ST
VID
TPA
ANY
LSNG
CDSY
GMQDP
GVF
VP
KTL
PS
KE
DSV
TEE
KE
IE
ES
KSEC
YSNI
YEQRG
NEATE
GG
LNST
GDL
MK
KNY
LHN
FCS
QV
PS
VLG
QSS
PKV
VAS
LPS
ISVP
FGG
ARP
KQPS
NLK
LQIP
KPL
SDH
LQ
NDF
PANS
GNNT
K
N
D
ILG
K
AKL
GE
NSAT
N
VC
C
PSL
GN
IS
N
V
DT
N
GE
H
LES
YE
AE
I
STR
P
CL
A
L
AD
SP
D
N
DL
R
A
G
Q
FG
I
S
A
R
K
P
FT
TL
GEV
APV
VV
VP
DSQ
AP
NC
MK
CE
AR
FT
K
RR
H
C
AC
G
K
V
FC
A
CC
S
L
K
C
L
L
Y
MD
R
KE
AR
CV
ICH
S
V
LM
NA
Q
A
W
E
N
M
M
S
A
S
S
Q
S
P
N
P
N
P
A
E
Y
C
S
T
I
P
L
L
Q
Q
A
S
G
A
L
S
P
P
T
T
V
M
V
P
V
G
V
L
K
H
P
G
A
E
V
A
Q
P
R
R
V
W
F
A
D
G
I
L
P
N
G
E
V
A
D
A
A
K
L
T
M
N
G
T
S
A
G
T
L
A
V
S
H
D
P
V
K
P
V
T
T
S
P
L
P
A
E
T
D
I
C
L
F
S
G
S
I
T
Q
V
G
S
P
V
G
S
A
M
N
L
I
P
E
D
G
L
P
P
I
L
I
S
T
G
V
K
G
D
Y
A
V
E
E
K
P
S
Q
I
S
V
M
Q
Q
L
E
D
G
G
P
D
P
L
F
V
L
N
A
N
L
S
M
V
K
I
V
N
Y
V
N
R
K
C
W
C
F
T
K
G
M
H
A
V
G
Q
S
E
I
V
I
L
Q
C
L
P
D
E
K
C
L
P
K
D
I
F
N
H
F
V
Q
L
Y
R
D
A
L
A
G
N
V
V
S
N
L
G
H
S
F
F
S
Q
S
F
L
G
S
K
E
H
G
G
F
L
Y
V
T
S
T
Y
Q
S
L
Q
D
L
V
L
P
T
P
P
Y
L
F
G
I
L
Q
K
W

ETPWAKVPIRLMLRLGAEYRLYPCPLFSVRFRKPLFGETGHTIMNLLADFRNYQYTLPPVVQGLVVDMEVRKTSIKIPSNRYNEMMKAMNKSNEHVLAGGACFNEKADSHLVCVQNDGNYQTQAISIHNPQRKVGTGASFFVSGALKSSGYLAKSIVEDGVMVQITAENMDSLRQALREMKDFTITCGKADAEEPQEHIHQWVDDDKNVSKGVVSPIDGKSMETITNVKIFHGSEYKANGK VIRWTEVFFLENDQHNCLSDPADHSRLTEHVAKAFCALCPHLKLLKEDGMTKLGLRVTLDSQVGYQAGSNGQPLPSQYMNDLDSALVPVIHGGACQLSEGPVVMELIFYILENIV

>DP02129|O94444|#192-209 #229-243

MVLEATMILIDNSEWMINGDYIPTFEAQKDTVHMIFNQKINDNPENMCGLMTIGDNPQVLSTLTRDYGKFLSAMHDLPVRGNAKFGDGIIQIAQLALKHRENKIQRQRIVAFVGSPIVEDEKNLIRLAKRMKKNNVAIDIHHIGELQNESALQHFIDAANSSDSCHLVSI PPSPQLLSDLVNQSPIGQGVVASQNQFEYGVDPNLVELALALELSMAEERARQEVAAQKSSETEDKKMQE

>DP01200|O29867|#336-373

MQNAESWFKKYWHLSVLVIAALISVKLRILNPWNSVFTWTVRLGGNDPWWYYRLIENTIHNFPHRIWFDPFTYPYGSYTHFGPFLVYLGSIAGIIFSATSGESLRAVLAFIPAIGGVLA ILPVYLLTREVFDKRAAVIAAFLIAIVPGQFLQRSILGFNDHHIWEAFWQVSALGTFLAYNRWKGHDLSHNLTARQMAYPVIAGITIGLYVLSWGAGFI APILA FMFFAFVLAGFVNADRKNLSLVAVVTFAVSALIYLPFAFNYPGFSTIFYSPFQLLVLLGSAVIAAAFYQIEKWNDVGF FERVGLGRKGMP AVIVLTALIMGLFFVISPDFARNLLSVRVVQPKGGALTIAEVYPFFFTHNGEFTLTNAV LHFG ALFFFGMAGILY SAYRFLKRRSFPEMALLIWAIAMFIALWGQNRFAYYFAAVSAVYSALALS VVF DKLHLYRALENAIGARNKLSYFRVAFALLIALAAIYPTYI LADAQSSYAGGPNKQWYDA LTWMRENTPDGEKYDEYYLQLYPTPQSNKEPF SYPFETYGVISWWWDYGHWIEAVAH RMPIA NPFQAGIGNKYNVPGASSFTAENESYAEFVAEKLNVKYVVS DIEMETGKYYAMA VWAEG DLPLAEKYYGGYFYYSP TGTGYANSQWDIPLNSIIPLRIPSELYYSTMEA KLHLFDGSGLSHYRMIYESDYPAEWKS YSSQVN LNNE SQVLQTA LYEA VMRARYGVSP MTGTQEVL KYAYT QLYEKKGIPVKIAPSGYV KIFERVKGAVVTGKVSANVTE SVNATIKTNQNRTFEY WQTVE VKNGTYTVVLPYSHNSDYPVKPITPYHIKAGNVVKEITIYESQVN G EIIQLDL

>DP01806|Q67953|#1-108

MQLIITSKLGIIYILCGRALFYIREKLHAVPHVGHILGNKSYSMGGWSSKPRQGMGTNLSVPNPLGFFPDHQLDPAFGANSNNPDWDFNPNKDHWPEAKQVGAGAFGPGFTPPHGGLLGWSPQAQGTLTTVPA APPPASTNRQSGRQPTPISPLRDSHPQAMQWNSTTFHQALLDPRVRGLYFPA GGSSSGTVNPVPTTASPISSIFSRTGDPAPNMESTSGFLGPLLVLQAGFLLTRILTIPQSLSW LTSLNFLGGTPKCPGQNSQSPTSNHSPTSCPCTPGYRWMCLRRFIIFLFILLCLIFLLVLLDYKGMLPVCP LLPGTSTTSTGPKTCTIPAQNTSMFPSCCCTKPSDGNC TCIPIPSSWAFARFLWEW ASVRFSWLSLLVPFVQWSAGLSP TVWLSVIWTM WYWG PSL YNILSPFLPLLPILCCLWAYI

>DP01930|P29990|#108-128

MNDQRKKAKNTPNMLKRERNRVSTVQQLTKRFSL GMLQGRGPLKLYMALVAFLRFLTIPP TAGILKRWG TIKKS KAINVLRGF RKEIGRMLN I LNR RRSAGM I MLIPTVMAFH LTTRN GEPH MIVSRQEKGKSLFKTEDGVNMCTL MAMDLGELCEDTITYKCPLLRQNEPEDIDWCNSTST WWTYGTCTMGEHRRQKRSVALVPHVGMGLETRTETWMSSEGAWKH VQRIETWILRHPGF TMMAAILAYTIGTTHFQRALIFILLTAVTPSMTMRCIGMSNRDFVEGVSGGSWVDIVLEHGSC VTTMAKNKPTLDFELIKTEAKQPATLRKYCIEAKLTNTTTE SRCPTQGEPSLNEEQDKRFVCK HSMVDRGWNGCGLFGKGGIVTCAMFRCKKNMEGKVVQOPENLEYTIVITPHSGEEHAVGN DTGKHGKEIKITPQSSTTEAELTG YGTVTMECS PRTGLDFNEMVLLQ MENKA WL VHRQWFL DLPLWLPGADTQGSNWIQKETLVTFKNPHAKKQDVVVLGSQEGAMHTALT GATEIQMSSG NLLFTGHLKCRLRMDKLQLKGMSYSMCTGKF KVVK EIAETQHGTIVIRVQYEGDGSPCKIP EIMDLEKRHVLGRLITVNP IVTEK DSPVNIEAEPFGDSYIIIGVEPGQLKLNWFKKGSSIGQM FETTMRGAKRMAILGDTAWDFGSLGGVFTSIGKALHQVFGAIYGA AFSGVSWTMKILIGVIIT

WIGMNSRSTSLSVTLVGIVTLYLGVMVQADSGCVWSWNKELKGSGIFITDNVHTWTE
QYKFQPESPSKLASAIQKAHEEGICGIRSVTRLENLMWKQITPELNHILSENEVKLTIMTGDIK
GIMQAGKRSLRPQPTELKYSWKTWGAKMLSTESHNQTFLIDGPETAECPNRAWSLEV
EDYGFVFTTNIWLKLKEKQDVFCDSKLMSAAIKDNRAVADMGYWIESALNDTWKIEKAS
FIEVKNCWHPKSHTLWSNGVLESEMIIPKNLAGPVSQHNYRPGYHTQITGPWHLGKLEMDFD
FCDGTTVVVTEDCGNRGPSLRTTASGKLITEWCCSCTLPPRLRYRGEDGCWYGMEIRPLKE
KEENLVNSLVTAGHGQVDNFSLGVLMALFLEEMLRTRVGTKHAILLVAVSFVTIIGNMSF
RDLGRVMVMVGATMTDDIGMVTYLALLAFAKVRPTFAAGLLRKLTSKALMMTTIGIVLS
SQSTTPETILETDALALGMMVLKMVRNMEKYQLAVTIMAILCVPNAVLQNAWKVSCILA
VVSVSPFLTSSQQKTDWIPLALTICKLNPTAIFLTTLSRTSKRSWPLNEAIMAVGMVSILASS
LLKNDIPMTGPLVAGGPLTVCYVLTGRSADLELERAADVWKWEDQAEISGSSPILSITISEDGSM
SIKNEEEEQTLTILIRTGLVISGLFPVSIPITAAAWYLWEVKKQRAGVLWDVPSPPPMGKAEL
EDGAYRIKQKGILGYSQIGAGVYKEGTFHTMWHVTRGAVLMHKGKRIEPSWADVKKDLISY
GGGWKLEGEWKEGEEVQVLALEPGKNPRAVQTKPGLFKTNAGTIGAVSLDFSPGTSGSPIID
KKKGKVVGLYGNGVVTRSGAYVSAIAQTEKSIEDNPEIeddIFRKRRLTIMDLHPGAGKTKRYL
PAIVREAIKRGLRTLILAPTRVVAEEMEEALRGLPIRYQTPAIRAEHTGREIVDLMCHATFTMR
LLSPVRVPNLYNLIIMDEAHFTDPASIAARGYISTRVEMGEAAGIFMTATPPGSRDPPFQSNAPII
DEEREIPERSWNSGHEWWTDFKGKTVWFVPSIKAGNDIAACLSKNGKKVIQLSRKTFDSEYA
KTRTNDWDFVVTTDISEMGANFKAERVIDPRRCMKPVILTDGEERVILAGPMPVTHSSAAQR
RGRIGRNPKNENDQYIYMGEPLENDEDCAHWKEAKMLLDNINTPEGIIPSMFEPEREKVDAID
GEYRLRGEARTTFVDMRRGDLPVWLAYRVAAGINYADRRWCDFGVKNNQILEENVEI
WTKEGERKKLKPRWLDARIYSDPLALKEFKEAGRKSLTNLITEMGRLPTFMTQKARDAL
DNLAVLHTAEAGGRAYNHALSELPETLETLLLTLLATVGGILLFLMSGRGIGKMTLGMCCI
ITASILLWYAQIQPHWIAASIILEFFLIVLLIPEPEKQRTPQDNQLTYVVIALTVVAAATMANEM
GFLEKTKKDLGLGSATQQPESNILDIDLRPASAWTLYAVATTFTPMLRHSIENSSVNVLSTA
IANQATVLMGLGKGWPLSKMDIGVPLAIGCYSQVNPTTLTAALFLVAHYAIIGPALQAKA
SREAQKRAAAGIMKNPTVDGITVIDLDPIPYDPKFEKQLGQVMLLVLCVTQVLMRTTWAL
CEVLTATGPISTLWEGNPGFWNTTIAVSMANIFRGSYLAGAGLLFSIMKNTTNARRGTGNI
GETLGEKWSRLNALGKSEFQIYKKSGIQEVDRTLAKEGIKRGETDHAVSRGSAKLRWFVE
RNMVTPPEGKVVVLGCGRGGSYYCGGLKNVREVKGTLKGPGHEEPIPMSITYGWNLVRLQ
SGVDVFFFIPPEKCDTLLCDIGESSPNPTVEAGRTLRVNLVENWLNNNTQFCIKVLPYMPSVI
EKMEALQRKYGGALVRNPLSRNSTHEMYWVSASNAGNIVSSVNMISRMLINRFTMRYKKATY
EPDVDLGSGTRNIGIESEIPNLDIIGKRIEKKQEHETSWHYDQDH PYKTWAYHGSYETKQTGS
ASSMVNGVFRLLTkpWdVPMVTQMAMTDTPFGQQRVFKEKVDTRTQEPKEGTKKLMKI
TAEWLWKELGKKKTPRMCTREEFTRKVRNSAALGAIFTDENKWKSAREAVEDSRFWELVD
KERNELHLEGKCETCVNIMGKREKKLGEFGKAKGSRAIWYMWLGARFLEALGFLNEDH
WFSRENSLSGVGEGLHKGYILRDVSKKEGGAMYADDTAGWDTRITLEDKNEAMVTNH
MEGEHKKLAEAIFKLTYQNKKVVRVQRPTPRGTVMIDIISRRDQRSGQVGTYGLNTFTNMEA
QLIRQMEGEGVFKSIQHLTITEEIAVQNWLARVGRRLSRMAISGDDCVVKPLDDRLPSALTA
LNDTGKIRKDIQQWEPSRGWNDWTQVPFCSSHFFHELIMKDGRVLVVPCRNQDELIGRARISQ
GAGWSLRETA CLGKSYDQMWSL MFHRRDLRLAANAICSAVPSHWVPTSRTTWSIHAKHE
WMTTEDMLTVWNRVWIQENPW MEDKTPVESWEEIPYLGKREDQWCGLIGLTSRATWAKN
IQAAINQVRSLIGNEEYTDYMPSMKFRREEEEAGVLW

>DP00469|O24646#1-77

MQEQA TSSLAA SSLPSS SERSSSSAP HLEIKE GIES DEEIRRVPEFGGEAV GKETSGRESGSATG
QERTQATVGE SQRKRGRT PAEKENKRLKRLRN RVSA QQARERK KAYLSELEN RVKD LENK
NSE LEER LSTL QNEN QML RHIL KNTT GNKRG GGGGS NADASL

>DP00582|P56552|#38-45
QDKCKKVYENYPVSKCQLANQCNYDCKLDKHARSGEFYDEKRNLQCICDYCEY
>DP00734|O08785|#89-107 #223-248 #258-269
MVFTVSCSKMSSIVDRDDSSIFDGLVEEDDKDKAKRVSRNKSEKKRRDQFNVLIKEGLGMLP
GNARKMDKSTVLQKSIDFLRKHKETTAQSDASEIRQDWKPTFLSNEEFTQLMLEALDGFFLAI
MTDGSIIYVSESVTSLLEHLPSDLVDQSIFNFIPEGEHSEVYKILSTHLLESDSLTPEYLKSKNQL
EFCCHMLRGTDIPKEPSTYEYVRFIGNFKSLTSVSTSTHNGFEGTIQRTHRPSYEDRVCVFATV
RLATPQFIKEMCTVEEPNEEFTSRHSLEWKFLFLDHRAPIIGYLPFEVLGTSGYDYYHVDDLE
NLAKCHEHLMQYGKGKSCYYRFLTKGQQWIWLQTHYYITYHQWNSRPEFIVCTHTVVSYAE
VRAERRRELGIEESLPETAADKSQDSGSDNRINTVSLKEALERFDHSPTPSASSRSSRKSSHTA
VSDPSSTPTKIPTDTSTPPRQHLPACHEKMTQRRSSFSSQSINSQSVGPSLTQPAMSQAANLPIPQ
GMSQFQFSAGLQAMQHLKDQLEQRTRMIEANIHRQQEELRKIQEQLQMVGQGLQMFLQQS
NPGLNFGSVQLSSGNSNIQQLTPVNMQGVVPANQVQSGHISTGQHMIQQQLQSTSTQQSQ
QSVMMSGHSQQTSLPSQTPTSLTAPLYNTMVISQPAAGSMVQIPSSMPQNSTQSATVTTFTQDR
QIRFSQGQQLVTKLVTAPVACGAVMVPSTMLMGQVVTAYPTFATQQQQAQTLSVTQQQQ
QQQQPQQQQQQQQSSQEQQLPSVQQPAQAQLGQPPQQFLQTSRLLHGNPSTQLILSAAFPL
QQSTFPPSHHQHQPQQQQQLPRHRTDSLTDPSKVQPO
>DP00209|P46170|#1-9
GPLSCGRNGGVCIPRCVPMRQIGTCFGRPVKCCRSW
>DP01845|Q13451|#1-12
MTTDEGAKNNEESPTATVAEQGEDITSKKDRGVLKIVKRVGNGEETPMIGDKVYVHYKGKL
SNGKKFDSSHDRNEPFVFLSGKGQVIKAWDIGVATMKKGEICHLLCKPEYAYGSAGSLPKIPS
NATLFFEIELLDKGEDLFEDGGIIRRTRKRKGEYSNPNEGATVEIHLEGRCGGRMFDCRDVA
FTVGEGEDHDIPIDKALEKMQREEQCILYLGPRYGFGEAGKPKFGIEPNAELIYEVTLKSFE
KAKESWEMDTKEKLEQAAIVKEKGTVYFKGGKYMQAVIQYKIVSWLEMEYGLSEKESKA
SESFLLAFLNLAMCYKLREYTKAVECCDKALGLDSANEKGLYRRGEAQLLMNEFESAKG
DFEKVLEVNPQNKAAARLQISMCKAKEHNERDRRIYANMFKKFAEQDAKEEANKAMGKK
TSEGVTNEKGTDQSQAMEEKPEGHV
>DP01100|P10636-8|#1-441
MAEPRQEFEVMDHAGTYGLGDRKDQGGYTMHQDQEGDTDAGLKESPLQTPTEDGSEEPG
SETSDAKSTPTAEDVTAPLVDEGAPGKQAAAQPHTEIPEGTTAAEAGIGDTPSLEDEAAGHVT
QEPESGKVVQEGFLREPGLPGLSHQLMSGMPGAPLLPEGPREATRQPSGTGPEDTEGGRHAPE
LLKHQLLGLDLHQEGPPLKGAGGKERPGSKEEVDEDRDVDESSPQDSPPSKASPAQDGRPPQT
AAREATSIPGFPAEGAIPLPVDFLSKVSTEIPASEPDGPSVGRAKGQDAPLEFTHVEITPNVQK
EQAHSSEEHLGRAAFPGAPGEGPEARPGPSLGEDTKEADLPEPSEKQPAAPRGKPVSRVPQLK
ARMVSKSKDGTGSDDKAKTSTRSSAKTLKNRPLSPKHPTPGSSDPLIQPSSPAVCPEPPSSP
KYVSSVTSRTGSSGAKEMKLKGADGKTKIATPRGAAPPGQKGQANATRIAKTPPAPKTPPSS
GEPPKSGDRSGYSSPGSPGTPGSRSRTPSLPTPPTREPKKVAVVRTPPKSPSSAKSRLQTAPVP
MPDLKNVSKSKIGSTENLKHQPGGGKVQIINKLDSNVQSKCGSKDNIKHVPGGGSVQIVYK
PVDLSKVTSKCGSLGNIHKPGGGQVEVKSEKLDKDRVQSKIGSLDNITHVPGGGNNKIEH
KLTFRNAAKTDHGAEIVYKSPVVSGDTSPRHLNSVSSTGSIDMVDSPQLATLADEVASALA
KQGL
>DP01773|P98170|#241-254 #345-356
MTFNSFEGSKTCVPADINKEEEFVEEFNRLKTFANFPSGSPVASTLARAGFLYTGEGLTVRCF
SCHAADVDRWQYGDASAVGRHRKVSPNCRFINGFYLENSATQSTNSGIQNGQYKVENYLGSRD
HFALDRPSETHADYLLRTGQVVDISDTIYPRNPAMYSEEARLKSFQNWPDYAHLTPRELASA
GLYYTGIGDQVQCFCCGGKLKNWEPCDRAWSEHRRHFPNCFFVLGRNLRNIRSESDAVSSDRN

FPNSTNLPRNPSMADYEARIIFTFGTWIYSVNKEQLARAGFYALGEGDKVKCFHCAGGLTDW
KPSEDPWEQHAKWYPGCKYLLEQKGQEYINNIHLTHSLEECLVRTTEKTPSLTRRIDDTIFQN
PMVQEAIRMGFSFKDIKKIMEEKIQISGSNYKSLEVADLVNAQKDSMQDESSQTSQKEIS
TEEQLRRLQEEKLCKICMDRNIAIVFVPCGHLVTCKQCAEAVDKCPMCYTITFKQKIFMS
>DP02267|Q8IVG9|#1-24
MAPRGFSCLLLTSEIDLGVKRRA
>DP01599|P47142|#55-74 #56-70
MSALPPVYSFPPPLYTRQPNSLTRQQISTWIDIISQYCKTKIWYMSVDGTVINDNELDSGSTD
NDDSKKISKNLFNNEDIQRSVSQVFIDEWSQMTKEGKCLPIDQSGRSSNTTTRYFILWKSL
DSWASLILQWFEDSGKLNQVITLYELSEGDETvnWEFHMPESLLYYCLKPLCDRN RATMLK
DENDKVIAIKV

>DP01787|A0A1Z3GD05|#1-138
MAEEKHHHHHLFHHKKEGEDFQPAADGGADVYGYSTETVVTGTNEGEYERITKEEKHHKH
KEHLGEMGAVAAGAFALYEKHEAKKDPEAHKHKIEELAAAAAVGAGGFVFHEHHEKKQ
DHKEAKEASGEKKHHLF
>DP01744|Q07528|#1-160
MSDLNDVQENAKLNSETRNTGKAEPHGTTTEYVAEAEISKNGVGSPKKPKGKVGKGDN
KVETELVHTALLEKDNPFMEEGPTGFTKSALLEIPGMRSHNLKNPNEDYEDDSEGLLPLNQES
NAETCRTSLSGSINSMNGETSASEEPSVSNRKKSAARIHILEAKRVSEGQGRAYIAVVIQFENST
VQRRYSDFESLSRSLIRLFPMTLIPPIPEKQSICKNYGKSITGSSSKYLLPSEGSGSVDLSSVIHAS
VNNSDDEKLIRHRIRMLTEFLNKLLTNEEITKTSIITDFLDPPNNHWHEFVNSSTFSSLPKSILQC
NPLDPTNTTRIHAMLPINGSSSQLLNKESNDKMDKERSKSFTNIEQDYKQYENLLDNGIYK
YNRRTTKTYHDLKSDYNEIGEVFAQFAHEQAQVGELAEQLSYLSNAFGSSISLEKLVGRLYY
NINEPLNESVHMATSARELIKYRKLYLQNEMIKKSLNSKRAQLEKLEAQNNEYKDVDKID
NEMSKSHTINLERPNNNTGSGGKSYGGKLFNGFNKLASMVKDSVKYQETDPHTASINKKEI
EQLSESLEVTENDLEVISVKVIKNDQLPKFSKEREVDLSEILKHYSRYMRNYARQNLEIWKEVK
RHQDFA
>DP01092|O66683|#5-88
MVNRIELSRLIGLLETEKRKNTEQKESGTNKIEDKVTLSKIAQELSNDVEEKDLEKKVKEL
KEKIEKGEYEVSDEKVVKGGLIEFFT
>DP01042|Q7CJN0|#21-215
MRYNRNHMLTLMFSLLIFDAYANEPKVCFYMDDDYNGESLCAAQGNSVASIPDKWNDRSSI
SIPHGLVTVYEDVDFLGASRSFEADVDSLSDKDLIYLNDNISAFKIKKAVCFYGESNFTGDS
LCLSSGEQFDLYRGNYPERKQSHLVNPLNDEVYSIKIPPGMQTTVYEDDDYNGKYFVLTEDY
TPDDLLIIRMNNKISSMRVSQDEFICDRFCISIKKSIFKIQKSFGSYWIDPRIKYRDILLDFQLS
DTDDYSIKFFDEGLIKVKNYKLFFDGNEKHGEGLFNLSDKSSNLSFLRFNGFFFQIQFVES
LNNEIVYSSPLIGTLFDDANSVIFDINNVDANSPIVIDKMVLTVGKEHNRAERSTLGLATCW
AIPILSIINYIVQGHNCQADKFVHNAADFFGSPADKILQIFGSSLPLPPKNSNETLDDESALINF
MSDVKGTLTYITTNMGEHALTVPATLACKASMREKILPHLRNRRDLAPGCIDWTLSILTDFT
LLFGASIEYWNSKNFGRVIENIVREGEIGSAADVDTASRLIESVQAHVAEATEVADIHLKTA
FDFSQLSYVSYVRHTEEEVVSPQSAQALPLGRYELALVDYHFIETVPRIRDGRWVERPDLHF
DIEVISGVPEETDASRQVLLPIIEAWQHSYSQQELLFHASDILPESSLARYIEPLLEASRLTSEV
AISWLRTSRDDFVYVVVRLEGEVISLTMAVDININDVGVAGSLTNPDYVITPNAEGAVRGAG
TAAIRALADHFKRKGKISLVSSVISQPSAIVKKVGFRFIEEL
>DP02492|Q808Y3|#1-216
MAADGYLPDWLEDNLSEGIREWWDLKPGAPPKANQQKQDDGRGLVLPGYKYLGPFGNLD

KGEPVNAADAALEHDKAYDQQLKAGDNPYLRYNHADAEFQERLQEDTSFGGNLGRAVFQ
AKKRVLEPLGLVEEGAKTAPGKKRPVEQSPQEPDSSSGIGKTGQQPAKKRLNFGQTGDSESV
PDPQPLGEPPAAPSLGPNTMASGGGAPMADNNNEGADGVGNSSGNWHCDSTWLGDRVITTS
TRTWALPTYNNHLYKQISNGTSGGSTNDNTYFGYSTPWGYDFNRFHCHFSPRDWQRLINNN
WGFRPKRLNFKNFNIQVKETTNEGTKTIANNLTVQVFTDSEYQLPYVLGSAHQGCLPPFP
ADVFMVPQYGYLTNNNGSALGRSSFYCLEYFPSQMLRTGNNFQFSYTfedvPFHSSYAHSQ
SLDRLMNPLIDQYLYYLVRTQTTGGTQTLAFSQAGPSSMANQARNWVPGPCYRQQRVST
TTNQNNSNSFAWTGAAKFKLNGRDSLMPGVAMASHKDDDRFFPSSGVLFKQGAGND
GVDYSQVLITDEEEIKATNPVATEEYGAVAINNQAANTQAQTGLVHNQGVIPGMVWQNRDV
YLQGPIWAKIPHDTGNFHPSPLMGGFLKHPPPQILIKNTPVPADPPLTFNQAKLNSFITQYST
GQVSVEIEWELQKENSKRWNPEIQYTSNYYKSTNVDFAVNTEGVYSEPRPIGTRYLTRNL
>DP0233|P13861|#44-90

MSHIQIPPGLELLQGYTVEVLRQQPPDLVEFAVEYFTRLREARAPASVLPAAUTPRQSLGHPPP
EPGPDRVADAKGDSESEEEDEDLEVVPVSRFNRRVSVAETYNPDEEEEDTDPRVIHPKTDEQR
CRLQEACKDILLFKNLDQEQLSQVLDAMFERIVKADEHVIDQGDDGDNFYVIERGTYDILVT
KDNQTRSVGQYDNRGSFGEALMYNTPRAATIVATSE GSLWGLDRVTFRRIIVKNNAKRK
MFESFIESVPLLKSLEVSERMKIVDVIGEKIYKDGERIITQGEKADSFYIIESGEVSILRSRTKSN
KGNNQEVIEARCHKGQYFGEALVTNKPRAASAYAVGDVKCLVMDVQAERLLGPCMDI
MKRNISHYEEQLVKMFGSSVDLGNLGQ

>DP01004|Q9KJ82|#1-32

MSLEKAHTSVKKMTFGENRDLERVV TAPVSSGKIKRVNVNFDEEKHTRFKAACARKGTSITD
VVNQLVDNWLKENE

>DP01040|Q9FUW7|#1-280

MKTFLIFVLLAMAMKIATAARELPSNKELOSPQQFSYQQQFPQQPQPQQPQQPQQPQQP
QPFPTPQQQFPEQSQQPFTQPQQPTPIQPQQFPQQPQQPQQPFPQWPQQPFPQTQQ
SFPLQPQQFPQQPQQPFPQPKLFPQQPQQSEQIIPQQQLQQPFPQPLQPQQPFPQWPQQPFPQPK
QPQQSFPPQQSQSQPFAQPQQLFPELQQPIPQQPFPQPLQPQQPFPQWPQQPFPQPK
QQPQQPYPQQPYGSSLTSIGGQ

>DP02197|P0ADV9|#24-58

MSKARRWVIIVLSA LVMIGINMAEKDDTAQVVVNNNDPTYKSEHTDTLVYNPEGALSYR
LIAQHVEYYSDQAVSWFTQPVLTTFDKDKIPTWSVKADAKLTNDMLYLYGHIVEVNALVP
DSQLRRITTDNAQINLVTQDVTS ELDVTLYGTTFNSSGLKMRGNLSKNAELIEKVRTSYEIQ
NKQTQP

>DP00761|E6PB03|#1-22 #116-143

MGKQPAAGQKKTKEAIAKAAQAKKGGKKWTKGAKDKVNHA VFIEKNVESIINPSKV
GKVLTVSTVVEKLKVNGSLARQLMRTMADRKLVEKVA KNGNQWVY SVIGGVKEDKTAAP
AAAGGKKQQQSKKGAAADKEEVQA

>DP01131|O14558|#1-56

MEIPPVQPSWLRRASAPLGLSAPGRLFDQRFGEGLLEAELAALCPTTAPYYLAPSVALP
VAQVPTDPGHFSVLLDVKHFSPPEEIAVKVVGEHVEVHARHEERPDHG VAREFHR RYRLPP
GVDPAAVTSALSPEGVLSIQAAPASAQAPPAAK

>DP02003|P16220|#101-160

MTMESGAENQQSGDAAVTEAENQQMTVQAQPQIATLAQVSM PAAHATSSAPTVL VQLPN
GQTVQVHGVIQAAQPSVIQSPQVQTVQSSCKDLKRLFSGTQISTIAESEDSQESVDSVTDSQKR
REILSRRPSYRKILNDLSSDAPGVPRIEEKSEEETSAPAITT VTVPTPIYQTSSGQYIAITQGGAI
QLANNGTDGVQGLQTLTMTNAATQPGTTILQYAQTTDGQQILVPSNQVVVQAASGDVQTY
QIRTAPTSTIAPGVVMASSPALPTQPAEEAARKREVRLMKNREAARECRRKKKEYVKCLENR

VAVLENQNKTIEELKALKDLYCHKSD
>DP00908|P9WJ35|#1-46
MALSIKHPEADRLARALAARTGETLTEAVVTALRERLARETGRARVVPLRDELAAIRHRC
LPVVDNRSAEAILGYDERGLPA
>DP01493|P09429|#1-13 #2-13 #185-214
MGKGDPKKPRGKMSSYAFFVQTCREEHKKHPDASVNFSKCSERWKTMSAKEKGKFE
DMAKADKARYEREMKTYIPPKGETKKFKDPNAPKRPPSAFFLFCSEYRPKIKGEHPGLSIGD
VAKKLGEMWNNTAADDQPYEKKAALKYEKDIAAYRAKGKPDAAKGVVKAEKSK
KKKEEEEDEEDEEEDEEEDEEDEEEDEEDDDDE
>DP01637|Q8NI22|#27-66
MTMRSLLRTPLCGLLWAFCAPGARAEEPAASFQPGSMGLDKNTVHDQEHI
MEHLEGVINK
PEAEMSPQELQLHYFKMHDYDGNNLLDGLELSTAITHVHKEEGSEQAPL
MSDELINIIDGVL
RDDDKNNNDGYIDYAEFAKSLQ
>DP00696|Q9Y258|#1-9
MMGLSLASAVLLASLLSLHLGTATRGSDISKCCFQYSHKPLPWTWVRSYEFTNSCSQR
AVI
FTTKRGKKVCTHPRKKWVQKYISLLKTPKQL
>DP01620|P20823|#182-200
MVSKLSQLQTELLAALLESGLSKEALIQALGEPGPYLLAGEGPLDG
ESC
GGRRGELAELPNG
LGETRGSEDETDDDGEDFTPPILKELENLSPEEA
AHQKAVVETLLQEDPWRVAKMVKS
SYLQQ
HNIPQREVVDTTGLNQSHLSQH
LNKGTPMKTQKRAALYT
WYVRKQREVAQQFT
HAGQGGL
IEEPTGDELPTKKGRRNRFK
WGP
ASQQILFQAYERQKNPS
KEERETLVEECNRAECIQRGVSP
SQAQGLGSNL
VTE
RVYNWFANRRKEAFRKLAMDTYSG
PPP
PG
GP
PALPAHSSPGLPPP
ALSPSKVHG
VRY
GQP
ATSETAE
VP
SS
GG
PLV
TV
STPL
HQV
SPT
GLE
PSH
SLL
STEAK
LV
SAAG
GPL
PP
V
STL
TAL
HS
LE
QT
SP
GLN
QQ
P
Q
N
L
I
M
A
S
L
P
G
V
M
T
I
G
P
G
E
P
A
S
L
G
P
T
F
T
N
G
A
S
T
L
V
I
G
L
A
S
T
Q
A
Q
S
V
P
V
I
N
M
G
S
S
L
T
L
Q
P
V
Q
F
S
Q
P
L
H
P
S
Y
Q
Q
P
L
M
P
P
V
Q
S
H
V
T
Q
S
P
F
M
A
T
M
F
A
K
P
G
Y
T
H
G
L
P
Q
T
M
L
I
T
D
T
T
N
L
S
A
L
S
T
P
T
K
Q
V
F
T
S
D
T
E
A
S
S
E
G
L
H
T
P
A
S
Q
A
T
T
L
H
V
P
S
Q
D
P
A
G
I
Q
H
L
Q
P
A
H
R
L
S
A
S
P
T
V
S
S
S
L
V
Y
Q
S
S
D
S
S
N
G
Q
S
H
L
P
S
N
H
S
V
I
E
T
F
I
S
T
Q
M
A
S
S
Q
>DP00188|P12359|#85-331
MAASLQASTTFLQPTKV
ASRNTLQLRSTQNVCKA
FGVESASSG
GRLS
LQLSQSDL
KELANKCV
DATKLAGLALATS
ALIAS
GANAE
GGKRLTY
DEI
QS
K
T
Y
LEV
K
G
T
G
T
A
N
Q
C
P
T
V
E
G
G
V
D
S
F
A
F
K
P
G
K
Y
T
A
K
K
F
C
L
E
P
T
K
F
A
V
K
A
E
G
I
S
K
N
G
P
D
F
Q
N
T
K
L
M
T
R
L
T
Y
T
L
D
E
I
E
G
P
F
E
V
S
S
D
G
T
V
K
F
E
E
K
D
G
I
D
Y
A
A
V
T
V
Q
L
P
G
G
E
R
V
P
F
L
T
I
K
Q
L
V
A
S
G
K
P
E
F
S
G
D
F
L
V
P
S
Y
R
G
S
S
F
L
D
P
K
G
R
G
G
S
T
G
Y
D
N
A
V
P
A
G
G
R
G
D
E
E
E
L
Q
K
E
N
K
N
V
A
S
K
G
T
I
T
L
S
V
T
S
S
K
P
E
T
G
E
V
I
G
V
F
Q
S
L
Q
P
S
D
T
D
L
G
A
K
V
P
K
D
V
K
I
E
G
V
W
Y
A
Q
L
E
Q
>>DP00961|P52630|#786-816 #817-838
MAQWEMLNLDSPFQDQLHQLYSHSLLPVDIRQYLAVWIEDQNWQEAALGS
DDSKATMLF
FHFLDQLNYECGRCSQDPESLLLQHNLRKFCRDIQPF
S
Q
D
P
T
Q
L
A
E
M
I
F
N
L
L
E
E
K
R
I
L
I
Q
A
Q
R
A
Q
L
E
Q
G
P
V
L
E
T
P
V
E
S
Q
Q
H
E
I
E
R
I
L
D
L
R
A
M
M
E
K
L
V
K
S
I
S
Q
L
K
D
Q
Q
D
V
F
C
R
Y
K
I
Q
A
K
G
K
T
P
S
L
D
P
Q
T
K
G
V
D
L
R
N
A
Q
V
T
E
L
L
Q
R
L
L
H
R
A
F
V
V
E
T
Q
P
C
M
P
Q
T
P
H
R
P
L
I
L
K
T
G
S
K
F
T
V
R
T
R
L
L
V
R
L
Q
E
G
N
E
S
L
T
V
E
V
S
I
D
R
N
P
P
Q
L
Q
G
F
R
K
F
N
I
L
T
S
N
Q
K
T
L
P
E
K
G
Q
S
Q
G
L
I
W
D
F
G
Y
L
T
L
V
E
Q
R
S
G
G
K
G
S
N
K
G
P
L
G
V
T
E
E
L
H
I
I
S
F
T
V
K
Y
T
Y
Q
G
L
K
Q
E
L
K
T
D
T
L
P
V
V
I
I
S
M
N
Q
L
S
I
A
W
A
S
V
L
W
F
N
L
L
S
P
N
L
Q
N
Q
Q
F
F
S
N
P
P
K
A
P
W
S
L
G
P
A
L
S
W
A
D
F
T
K
R
E
S
P
P
G
K
L
P
F
W
T
L
D
K
I
L
E
L
V
H
D
H
L
K
D
L
W
N
D
G
R
I
M
G
F
V
S
R
S
Q
E
R
R
L
K
K
T
M
S
G
T
F
L
L
R
F
S
E
S
S
E
G
G
I
T
C
S
W
V
E
H
Q
D
D
D
K
V
L
I
Y
S
V
Q
P
Y
T
K
E
V
L
Q
S
L
P
L
T
E
I
I
R
H
Y
Q
L
L
T
E
E
N
I
P
R
F
L
Y
P
R
I
P
R
D
E
A
F
G
C
Y
Y
Q
E
K
V
N
L
Q
E
R
R
K

YLKHRLIVVSNRQVDELQQPLELKPEPELESLELELGLVPEPELSLDLEPLLKAGLDLGPELES
VLESTLEPVIEPTLCMVSQTVEPDQGPVSQPVPEPDLPCDLRHLNTEPMEIFRNCVKIEEIMPN
GDPLLAGQNTVDEVYVSRPSHFYTDGPLMPDF
>DP00986|Q8QWD4|#2-29
MGAQVTRQQTGTHENANIATNGSHITYNQINFYKDSYAASASKQDFSQDPSKFTEPVVEGLK
AGAPVLK
>DP01650|P0A7K2|#33-43
MSITKDQIIAEVAAMSVMDVVELISAMEEKFGSAAAAVAAGPVEAAEKTEDVILKAA
GANKVAVIKAVRGATGLGLKEAKDLVESAPAALKEGVSKDDAEALKKALEEAGAEVEVK
>DP01199|B9KDD4|#281-327
MKLQQNFTDNNISKYTCILILIAFAFSVLCRLYWVAWASEFYEFFNDQLMITTNDGYAFAEG
ARDMIAGFHQPNDLSYFGSSLSTLYWLYSILPFSFESIILYMSAFFASLIVVPIILIAREYKLTTY
GFIAALLGSIANSYNRMSGYYDTMLVLVLPMLILLTFIRLTINKDIFTLLSPVFIMIYLW
WYPSSYSLNFAMIGLFGLYTLVFHRKEKIFYLTIALMIALSMLAWQYKLALIVLLFAIFAFKE
EKINFYMIWALIFISILILHLSGGLDPVLYQLKFYVFKADEVQNLKDAAFMYFNVNETIMEVNT
IDPEVFMQRISSSVLFILFIGFILLCKDHKSMLALPMLALGFMALRAGLRTIYAVPVMAL
GFGYFLYAFFNFLEKKQIKLSLRNKNILLILIAFFSISPALMHYYYYKSSTVFTSYEASILNDLKN
KAQREDYVVAAWDYGYPIRYYSDVKTLIDGGKHLGKDNNFSSFVLSKEQIPAANMARLSVE
YTEKSFKENYPDVLKAMVKDYNKTSAKDFLESNDKDFKDTNKTRDVYIYMPYRMLRIMP
VVAQFANTNPDNQEKEKSLFFSQANAIAQDKTTGSVMLDNGVEIINDFRALKVEGASIPLKAF
VDIESITNGKFYYNEIDSKAQIYLLFLREYKSFVILDESLYNSSYIQMFLLNQYDQDLFEQITND
TRAKIYRLKR
>DP01101|P04370-5|#1-169
MGNHSGKRELSAEKASKDGEIHRGEAGKKRSVGKLSQTASESDVGEADAIQNNGNTSAED
TAVTDSKHTADPKNNWQGAHPADPGNRPHLIRLFSDAPGREDNTFKDRPSESDELQTIQED
PTAASGGLDVMASQKRPSQRSKYLATASTMDHARHGLPRHRTDGILDSIGRFFSGDRGAPK
RGSGKDSHTRTTHYGLPQKSQHGRTQDENPVVFFKNIVTPRTPPPSQKGGRDSRGSPM
ARR
>DP02317|Q03689|#228-289
MSEPFGIVAGALNVAGLFNNCVDCFEYVQLGRPFGRDYERCQLRLDIAKARLSRWGEAVKIN
DDPRFHSDAPTDKSVQLAKSIVEEILLFESAQKTSKRYELVADQQDLVVFEDKDMKPIGRAL
HRRLNDLVSRRKQTSLAKKTAWALYDGKSLEKIVDQVARFVDELEKAFPIEAVCHKLAEIE
IEEVEDEASLTILKDAAGGIDAAMSDAAAQKIDAIVGRNSAKDIRTEERARVQLGNVTAAA
LHGGIRISDQTTNSVETVVGKGESRVLIGNEYGGKGFWDN
>DP01134|P10071|#106-236
MEAQSHSSTTTEKKVENSIVKCSTRDVSEKAVASSTSNEDESPGQTYHRERRNAITMQPQ
NVQGLSKVSEEPSTSSDERASLIKKEIHGSLPHVAEPSPVYRGTVFAMDPRNGYMEPHYHPPH
LFPAFHPPVPIDARHHEGRYHYDPSPIPPLHMTSALSSSPTYPDLPFIRISPHRNPTAASESPFSPP
HPYINPYMDYIRSLHSSPLSMISATRGLSPTDAPHAGVSPAEEYHQMAILTGQRSPYADIIPS
AATAGTGAIHMEYLHAMDSTRFSSPLSARPSRKRTLSISPLSDHSFDLQTMIRTSPNSLVTILN
NSRSSSSASGSYGHLSASAISPALSFTYSSAPVSLHMHQQLSRQQSLGSAFGHSPLIHPAPTFP
TQRPIPGIPTVLNPVQVSSGPSESSQNKPTSESAVSSTGDPMHNKRSKIKPDEDLPGARGQQ
EQPEGTTLVKEEGDKDESKQEPEVIYETNCHWEGCAREFDTQEQLVHHINNDHIHGEKKEFV
CRWLDCSREQKPFKAQYMLVVMRRHTGEKPHKCTFEGCTKAYSRLLENLKTHLRSHTGEKP
YVCEHEGCNKAFSNASDRAKHQNRTHSNEKPYVCKIPGCTKRYTDPSSLRKHVKTVGPEA
HVTKKQRGDIHPRPPPRDGSHSRSPGRPTQGALGEQQDLSNTTSKREECLQVKTVKAEK
PMTSQSPGGQSSCSSQQSPISNYNSNGLELPLTDGGSIGDLSAIDETPIMDSTISTATTALALQA

RRNPAGTKWMEHVKLERLKQVNGMFPRLNPILPPKAPAVSPLIGNGTQSNNTCSLGGPMTLL
PGRSDLSGVDTVMLNMLNRDSSASTISSAYLSSRRSSGISPFCSSRSSEASQAERPVNVSV
ADSYDPISTDASRRSSEASQSDGLPSLLSLTPAQYRLKAKYAAATGGPPPTPLPNMERMSLK
TRLALLGDALEPGVALPPVHAPRRCSDGGAHGYGRRHLQPHDAPGHGVRRASDPVRTGSEG
LALPRVPRFSSLSCNPPAMATSAEKRSLVLQNYTRPEGGQSRRNFHSSPCPPSITENVTLST
MDADANLNDEDFLPDDVVQYLNSQNQAGYEQHFPSALPDDSKVPHGPGDFDAPGLPDSHAG
QQFHALEQPCPEGSKTDLPIQWNEVSSGSADLSSSKLCGPRPAVPQTAFGFCNGMVHPQ
NPLRSGPAGGYQTLGENSNPYGGPEHMLHNSPGSGTSGNAFHQPCKAPQYGNCNRQPV
APGALDGACGAGIQASKLKSTPMQGSGGQLNFGLPVAPNESAGSMVNGMQNQDPVGQGYL
AHQLLGDSMQHPGAGRPGQQMLGQISATSHINIYQGPESCLPGAHMGSQPSSLAVVRGYQP
CASFGGSRRQAMPDRSLALQSGQLSDTSQTCRVNGIKMEMKGQPHPLCSNLQNYSGQFYDQ
TVGFSQQDTKAGSFSISDASCLLQGTSAKNSELLSPGANQVTSTVDSLSDHDLEGVQIDFDAII
DDGDHSSLMSGALSPSIQNLSHSSRLTTPRASLPFPALSMSTTNMAIGDMSSLTSLAEEKF
LAVMQ

>DP02071|P04383|#1-81

MENKGEKIAMNPTVQTLAQKGDKLAVKLVTRGWASLSTNQKRAEMLAGYTPAILAFTPRR
PRMTNPPRRTSRNSPGQAGKSMTMSKTELLSTVKGTGVIIPSfedWVVsPRNVAVFPQLSLA
TNFNKYRITALTVKYSACSFETNGRVALGFNDDASDTPPTTKVGFYDLGKHVETAAQTAKD
LVIPVDGKTRFIRDSASDDAKLVDFGRIVLSTYGFDAKTVVGELFIQYTIVLSDPTKTAKISQ
ASNDKVSDGPTYVVPNVNGNELQLRVVAAGKWCIVRGTVEGGFTKPTLIGPGISGDVDYES
ARPIAVCELVTQMEGQILKITKTSAEQPLQWVWVYRM

>DP00195|P02313|#1-89

MPKRKAEGDAEGDKAKVKDEPQRRSARLSAKPAPPKPEPKPKAPAKKGEKVPKGKKGKA
DAGKDGNPAENGDAKTDQAQKAEGAGDAK

>DP01836|O14713|#49-59

MFRKGKKRHSSSSQSSEISTKSVDSSLGGLSRSSTVASLTDSTKSSGQSNNNSDTCAEFRI
KYVGAIEKLKLESEGKGLEGPLDLINYIDVAQQDGKLPFVPPEEEFIMGVSKYGIKVSTDQYD
VLHRHALYLIIRMVCYDDGLGAGKSLLALKTTDASNEEYSLWVYQCNSLEQAQAIICKVLSTA
FDSVLTSEKP

>DP00410|P12497|#108-143 #217-231 #351-377 #1287-1300

MGARASVLSGGELDKWEKIRLRPGKKQYKLKHIVWASRELERFAVNPGLETSEGCRQILG
QLQPSLQTGSEELRSLYNTIAVLYCVHQRIDVKDTKEALDKIEEQNKSKKAQQAAADTG
NSQVSQNYPIVQNLQGQMVMHQAIISRTLNAWVKVVEEKAFSPEVPMFSALSEGATPQDLNT
MLNTVGGHQAAMQMLKETINEAAEWDRLHPVHAGPIAPGQMREPRGSDIAGTTSTLQEIQ
GWMTHNPIPVGIEYKRWIILGLNIVRMYSPTSILDIRQGPKEPFRDYVDRFYKTLRAEQASQ
EVKNWMTETLLVQNANPDCKTILKALGPATLEEMMTACQGVGGPGHKARVLAEMSQVT
NPATIMIQKGNFRNQRKTVKCFNCGKEGHIAKNCRAPRKKGCGKEGHQMKDCTERQA
NFLREDLAFPQGKAREFSSEQTRANSPTRRELQVWGRDNNSLSEAGADRQGTVSFSFPQITLW
QRPLVTIKIGGQLKEALLDTGADDTVLEEMNLPGRWPKPMIGGIGGFIKVRQYDQILIEICGH
KAIGTVLVGPTPVNIIGRNLLTQIGCTLNFPISPIETVPVKLKPGMDGPVKQWPLTEEKIKALV
EICTEMEKEGKISKIGPENPYNTPVFAIKKDSTKWRKLVDFRELNKRTQDFWEVQLGIPHPA
GLKQKKSUTVLDVGDAYFSVPLDKDFRKYTAFTIPSINNETPGIRYQYNVLPQGWKGSPAIFQ
CSMTKILEPFRKQNPDIVIYQYMDDLYVGSDLEIGQHRTKIEELRQHLLRGFTTPDKKHQKE
PPFLWMGYELHPDKWTVQPIVLPEKDSWTVDIQLKLVGKLNWASQIYAGIKVRQLCKLLRG
TKALTEVVPLTEEALELAENREILKEPVHGYYDPSKDLIAEIQKQGQGQWTYQIYQEPFKN
LKTGKYARMKGAHTNDVKQLTEAVQKIATESIVIWGKTPKFKLPIQKETWEAWWTEYWQA
TWIPEWEFVNTPPLVKLWYQLEKEPIIGAETFYVDGAANRETKLGAGYVTDRGRQKVPLT

DTTNQKTELQAIHLALQDSGLEVNIVTDSQYALGIQAQPDKSESELVSQIIQLIKKEKVYLA
WVPAHKIGGGNEQVDGLVSAGIRKVLFLDGIDKAQEHEKYHSNWRAMASDFNLPPVVAKE
IVASCDKCQLKGEAMHGQVDCSPGIWQLDCTHLEGKVLVAHVVASGYIEAEVIPAETGQET
AYFLLKLAGRWPVKTVHTDNGSNFTSTTVKAACWWAGIKQEFGIPYNPQSQGVIESMNKEL
KKIIGQVRDQAELKTAVQMAVFIFHFKRKGGIGGYSAGERIVDIATDIQTKELQKQITKIQN
FRVYYRDSRDPVWKGPALKWKGEGAVVIQDNSDIKVVPRRKAKIIRDYKGKQMAAACVA
SRQDED

>DP00732|Q00496|#234-244 #412-421

MPKINSFNYNDPVNDRTILYIKPGGCQEFYKSFNIMKNIWIIPERNVIGTPQDFHPPTSLKNGD
SSYYDPNYLQSDEEKDRFLKIVTKIFNRINNNLSGGILLELSKANPYLGNDNTPDNQFHIGDA
SAVEIKFSNGSQDILLPNVIIMGAEPDLFETNSSNISLRNNYMPSNHRFGSIAIVTFSPPEYSFRFN
DNCMNEFIQDPALTLMHELIHSLHGLYGAKGITTKEYTITQKQNPPLITNIRGTNIEEFLTFGGTDL
NIITSAQSNDIYTNLADYKKIASKLKVQVSNPLLNPYKDVFEAKYGLDKDASGIYSVNINKF
NDIFKKLYSFTEDLRTKFQVKCROTYIGQYKFKNLNSDINYSEGYNINNLKVNFRGQ
NANLPRIITPTGRGLVKKIIRFCKNIVSVKGIRKSICIEINNGELFFVASENSYNDNNINTPKEI
DDTVTSNNNYENDLDQVILNFNSESAPGLSDEKLNLTIQNDAYIPKYDSNGTSDIEQHDVNEL
NVFFYLDAQKVPEGENNVLNTSSIDTALLEQPKIYTFFSEFINNVNKPVQAALFVSWIQQVLV
DFTTEANQKSTVDKIADISIVVPIYGLALNIGNEAQKGKGNFKDALELLGAGILLEFEPELLIPTILV
FTIKSFLGSSDNKVKIAINNALKERDEKWKEVYSIVSNWMTKINTQFNKRKEQMYQALQ
NQVNAIKTIIESKYNSTLEEKNELTNKYDIKQIENELNQKVSIAMNNIDRFLTESSISYLMKIIN
EVKINKLREYDENVKTYLLNYIIQHGSILGESQQELNSMVTDTLNNSIPFKLSSYTDDKILISYF
NKFFKRIKSSSVLMRYKNDKYVDTSGYDSNININGDVYKPTNKNQFGIYNDKLSEVNISQ
NDYIIYDNKYK NFSISFWVRIPNYDNKIVNVNNEYTIINCMRDNNSGWKVSLNHNEIIWTFED
NRGINQKLAFTNYGNANGISDYINKWIFVTITNDRLGDSKLYINGNLIDQKSILNLGNIHVSNDI
LFKIVNCSYTRYIGIRYFNIFDKELDETEIQTLYSNEPNTNILKDFWGNYLLYDKEYYLLNVLK
PNNFIDRRKDSTLSINNIRSTILLANRLYSGIKVKIQRVNNSSNDNLVRKNDQVYINFVASKT
HLFPLYADTATTNKEKTIKISSSGNRFNQVVVMNSVGNCMFKNNGNNIGLLGFKADTVV
ASTWYYTHMRDHTNSNGCFWNFISEEHGWQEK

>DP00769|Q24F70|#106-162

MVHVLKATKIRIYKQLLQDGVFVLKKDFEGHHEETGPNLHCYILVRSLKDRGFLEEINWG
FTYYYLNGEGCEYLKTKLGISADNVPKTFKASNVNFISKEEDEERPRRQFNKGRTGERDG
RNKRGVGRGTRREGEEAAKEEGAETAQGNQETPAQE

>DP01355|P46014|#299-313

MAMIGMNIIGLFMLMLLISLIIIFACKPWRYFSRFRSSSRFSSTFKVGDLQRPLISDDGNLIQ
GQTSEVTREYDLEGACYQNDGLLHSSLTEGRFYKQRLPSSSPHFSQGESFVLEVISEPSDNALV
GQTLKPAEKGLAEVQTYDWQNNRNENLQYNLEKDRLINLSPRLVEDQRSWLLEVIAAGPA
IGLQHAVNSTSSSKLPVKLGRVSPSDLALKDSEVSGKHAQITWNSTKFKWELVDMGSLNGTL
VNSHSISHPDLSRKWGNPVELASDDIITLGTTKVVRISSQNEFQIPFKIGVASDPMAMRRG
GRKLPMEDVCHYKWLPGANKFLFCVCDGHGGSGAAQSAIKIPEVLANILSDSLRKEKVLS
KRDASDVLRDMFAKTEARLEEHQYEGCTATVLLVWKDNEENFFAQCANLGDSACVIHLGG
RYIQMTEDHRVVSLSERKRFQEAGLALRDGETRLFGINLARMLGDKFPKQQDSRFSAEPYISE
PLRIDQSSKDVFAVLASDGLWDVSPKKAVQLVLQMRDKERGRESSAEKIANGLLNEARAM
RTKDNTSIIYLDFTSL

>DP00918|A0MHA3|#36-64

MNKKNILPQQGQPVIRLTAGQLSSQLAELSEEALGDAGLEASVTACITFCAYDGVEPSCTLCY
TLCAYDGE

>DP00117|P60058|#4-22 #23-28 #29-39

MDQVMQFVEPSRQFVKDSIRLVKRCTKPDRKEFQKIAMATAIGFAIMFIGFFVKLHIPINNII
VGG

>DP02148|Q676U5|#59-84

MSSGLRAADFPRWKRHISEQLRRDRLQRQAFEEIILQYNKLLEKSDLHSVLAQKLQAEKHD
VPNRHEISPGHDGTWNDNQLQEMAQLRIKHQEELTELHKKRGELAQLVIDLNNQMQRKDRE
MQMNEAKIAECLQTISDLETECLDLRTKLCDLERANQTLKDEYDALQITFTALEGCLRKTTEE
NQELVTRWMAEKAQEANRLNAENEKDSRRRQARLQKELAEAACEPLPVEQDDDIEVIVDET
SDHETEETSPVRAISRAATKRLSQPAGGLDSITNIFGRRSVSSFPVPQDNVDTHPGSGKEVRVP
ATALCVFDAHDGEVNAVQFSPGSRLLATGGMDRRVWLWEVFGEKCEFKGSLSGSNAGITSIE
FDSAGSYLLAASNDASFASRIWTVDDYRLRHTLTGHSGKVLSAKFLDNARIVGSHDRTLKLW
DLRSKVCIKTVFAGSSCNDIVCTEQCVMGFDKKIRFWDIRSESIVREMELLGKITALDLNPE
RETELLSCSRDDLLKVIDLRTNAIKQTFSAPGFKCGSDWTRVVFS PDGSYVAAGSAEGSLYIWS
VLTGKVEKVL SKQHSSSINA VAWSPSGSHVVSVDKGCKAVLWAQY

>DP00005|P03045|#1-107

MDAQTRRRERRAEKQAQWKAANPLLGVSAKPVNPILSLNRPKSRVESALNPIDLTVLAE
YHKQIESNLQRIERKNQRTWYSKPGERGITCSGRQKIKGKSIPLI

>DP00485|Q9UBE0|#172-178 #178-215 #289-311 #332-346

MVEKEEAGGGISEEEEAAQYDRQIRLGLEAQKRLRASRVLLVGLKGLGAEIAKNLILAGVKG
LTMLDHEQVTPEDPGAQFLIRTGSVGRNRAEASLERAQNLNPMDVKVDTEDIEKKPESFFT
QFDAVCLTCCSRDVIVKVDQICHKNSIKFFTGDVFGYHGYTFANLGEHEFVEEKTKVAKVSQ
GVEDGPDTKRAKLDSETTMVKKVVFCPVKEALEVDWSSEKAKAALKRTTSDFYFLQVLL
KFRTDKGRDPSSDTYEEDSELLLQIRNDVLDLGISPDL PEDFVRYCFSEMAPVCAVVGGLA
QEIVKALSQRDPHNNFFF DGMKGNGIVECLGP K

>DP01540|O00429|#503-610

MEALIPVINKLQDVNTVGADIIQLPQIVVVGTQSSGKSSVLES LVGRDLLPRGTGIVTRRPLIL
QLVHVSQEDKRKTGEENGVEAEIEWGKFLHTKNLYTDFDEIRQEJENETERISGNNGVSP
EPIHLKIFSPNVVNLTVDLPGMTKPVGDQPKDIELQIRELILRFISNPNSIILAVTAANTDMA
TSEALKISREVDPDGRRTLAVITKLDLMDAGTDAMDVL MGRVIPVKLGIIGVVNRSQLDINNK
KSVTDSIRDEY AFLQKKYPSLANRN GTKYLARTLN RLLMHHIRDCLPELKTRINVLAQYQS
LLNSYGEVDDKSATLLQLITKFATEYCNTIEGTAKYIETSEL CGGARICYIFHETFGRTLESVD
PLGGLNTIDILT A IRNATGPRPA LFVPEV SFELLVKRQIKRLEEPSLRCVELVHEEMQRIIQHCS
NYSTQELLRFPKLHDAIVEV VTCLRKLPVTNEMVHN LVAIELAYINTKHPDFADACGLMN
NNIEEQRRNRLARELPSAVSRDKSSK VPSALAPASQEPSPAASAEADGKLIQDSRRETKNVAS
GGGGVGDG VQEPTTGWRGMLKTSKA EELLAEEKSKPI PIMPASPQKG HAVNLLDVPVPVA
RKLSAREQRDCEVIERLIKSYFLIVRKNIQDSVPKAVMHFLVNHV KDTLQSELVGQLYKSSL
DDL TESEDMAQRRKEAADM LKALQGASQIIAEIRETHLW

>DP01329|P28324|#94-136

MDSAITLWQFLLQLLQPKQNKHMICWTSNDGQFKLLQAEVARLWGIRKNKP NMNYDKLS
RALRYYVKNIIKKVNGQKFVYKFVSYPEILNMDPMTVGRIEGDCESLN FSEVSSSSKDVENG
GKDKPPQPGAKTSSRNDYIHSGLYSSFTLNSLNSSNVKLFKLK T ENPAEKLA EKKSPQEPTPS
VIKFVTPSKKPPVEPVAATISIGPSISPSSEETIQALETLVSPK LPSLEAPTSASNVMTA FATT PPI
SSIPPLQEPPRTPSPLSSHIDTDIDSVASQPMELPENLSLEPKDQDSV LLEKDKVNNSSRSK
KPKGLELAPTLVITSSDPSPLGLILSPSLPTASLTPAFFSQTPIILTPS PLLSSIHF WSTLSPVAPL SPA
RLQGANTLFQFPSVLSHGPFTLSGLDPSTPGFSPDLQKT