

Apolipoprotein

>positive|P02647|APO

MKAAVLTAVLFLTGSQARHFWQDEPPQSPWDRVKDLATVYVDVLKDSGRDYVSQFEG
SALGKQLNLKLLDNWDSVTSTFSKLREQLGPVTQEFWDNLEKETEGLRQEMS KDLEEVK
AKVQPYLDDFQKKWQEEMELYRQKVEPLRAELQEGARQKLHELQEKLSPLGEEMRDRA
RAHVDALRTHLAPYSDELQRQLAARLEALKENGGARLAEYHAKATEHLSTLSEKAKPAL
EDLRQGLLPVLESFKVSFLS ALEEYTKKLNTQ

>positive|P34928|APO

MRLFIALPVLIVVAMTLEGPAPAQAAPDLSGTLESIPDKLKEFGNTLEDKARAAIEHIKQK
EILTKTRAWFSEAFGKVKEKLKTTFS

>positive|P02655|APO

MGTRLLPALFLVLLVLGFEVQGTQQPQQDEMPSPFTLTQVKESLSSYWESAKTAAQNLYE
KTYLPAVDEKLRDLYSKSTAAMSTYTGIFTDQVLSVLKGEE

>positive|P09813|APO

MKLLAMVALLVTICSLEGALVKRQADGPDMQSLFTQYFQSM TDYKDLMEKAKTSEIQS
QAKAYFEKTHEQLTPLVRSAGTSLVNFSSLMNLEEKPAAPAAK

>positive|Q9BWW8|APO

MDNQAERES EAGVGLQRDEDDAPLCEDELQDGDLSPEEKIFLREFPRLKEDLKGNDIKL
RALADDIDKTHKKFTKANMVATSTAVISGVM SLLGLALAPATGGG SLLLSTAGQGLATAA
GVT SIVSGTLERSKNKEAQAARAEDILPTYDQEDREDEEEKADYVTAAGKIIYNLRNTLK YA
KKNVRAFVKLRANPRLANATKRLTTGQVSSRSRVQVQKAFAGTTLAMTKNARVLGGV
MSAFSLGYDLATLSKEWKHLKEGARTKFAEELRAKALELERKLTTELTYKSLQQKVRSR
ARGVGGKDLTGTCETEAYWKELREHVMMWLWLCVCLCVCVYVQFT

>positive|O95236|APO

MGLGQGWGWEASCFACLIRSCCQVVTFTFPFGFQGISQSLENVSGYYADARLEVGSTQLR
TAGSCSHSFKRSFLEKKRFTEEATKYFRERVSPVHLQILLTNNEAWKRFVTAELPRDEAD
ALYEALKKLRTYAAIEDEYVQQKDEQFREWFLKEFPQVKRKIQESIEKLRALANGIEEVHR
GCTISNVSSSTGAASGIMSLAGLV LAPFTAGTSLALTAAGVGLGAASAVTGITTSIVEHSY
TSSAEAEASRLTATSIDRLKVFKEVMRDITPNLLSLLNNYYEATQTIGSEIRAIRQARARARL
PVTTWRISAGSGGQAERTIAGTTRAVSRGARILSATTSGIFLALDVVNLVYESKHLHEGAK
SASAEELRRQAQELEENLMELTQIYQRLNCPCHTH

>positive|P55056|APO

MSLLRNRLQALPALCLCVLVLACIGACQPEAQEGTSLPPPCLKMSRWSLVRGRMKELLET
VVNRTRDQGWQWFWSPSTFRGFMQTYDDHLRDLGPLTKAWFLESKDSLLKKT HSLCPRL
VCGDKDQG

>positive|Q8C7G5|APO

MAAVITWALALLAVFASTQARKSLWDYFSQNSWSKGVMGQPQKLAQENLKGSFEQDLY
NMNNYLEKGLPLRGPGKEPPLLAQDPEGIRKQLQQELGEVSSRLEPYMAAKHQQVGWN
LEGLRQQLKPYTAELMEQVGLSVQELQEQLRVVGEDTKAQLLGGVDEALNLLQDMQSR
VLHHTDRVKELFHPYAERLVTGIGHHVQELHRSVAPHAAASPARLSRCVQTL SHKLTRKA
KDLHTSIQRNLDQLRDELSAFIRVSTDGAEDGDSLDPQALSEEVRQRLQAFRHDTYLQIAA
FTQAIDQETEEIQHQLAPPPSHSFAPELGHSDSNKALSRLQSRLDDLWEDIAYGLQDQG
HSHLSDPEGHSG

>positive|O53493|PPM

MKLGAWVAAQLPTTRTAVRTRLRLVSVI VAGLLLYASFPPRNCW WAAVVALALLAWVLT
HRATTPVGGGLGYGLLFGLVFYVSLPWIGELVGPWPWLALATTCALFPGIFGLFAVVVRL
PGWPIWFAVGVAAQEWLKSILPFGGFPWGSVAFGQAEGPLLPLVQLGGVALLSTGVALVG
CGLTAIALEIEKWWRTGGQGDAPPAVVLPAACICLVFAAIVVWPQVRHAGSGSGEPTVT
VAVVQGNVPRLGLDFNAQRRAVLDNHVEETLRLAADVHAGLAQQPQFVIWPENSSDIDP
FVNPDAGQRISAAAEEAIGAPILIGTLM DVPGRPRENPEWTNTAI VWNPGTGPADRHDKAI
V
QPFGEYLPMPWLFRLHLSGYADRAGHFVPGNGTG VVRIAGVPVG VATCWEVIFDRAPR KSI
LGG AQLLT VPSNNATFNKTMS EQQLAFAKVR AVEH DRYV VVAGTTGISAVI APDGGELIRT
DFFQPAYLDSQVRLKTRLT PATRWGPILQWILV GAAA AVVLVAMRQNGWFPRPRRSEPKG
ENDDSD APPGRSEASGPPALS ESDDELIQPEQGGRRHSSGFGRRHRATSRS YMTTGQPAPP
G NRPSQRVLVIIPTFNERENLPVIHRRLTQACPAHVLVVDDSSPDGTGQLADELAQADPG
RTHVMHRTAKNGLG AAYLAGFAWGLSREYS VL VEMDADGSHAPEQLQRLLD AVDAGAD
LAIGSRVAGGTVRNWPWRRLVLSKTANTYSRLALGIGIHDITAGYRAYRREALEAIDL D G
VDSKGYCFQIDLTWRTVSNGFVVTEVPITFTERELGVS KMSGSNIREALVKVARWGIEGRL
SRSDHARARPD IARPGAGGSRVSRADVTE

>positive|Q9BWW9|APO

MPCGKQGNLQVPGSKVLPGLGEGCKEMWLRKVIYGGEVW GKSPEPEFPSLVNLCQSWKI
NNLMSTVHSDEAGMLS YFLFEELMRCDKDSMPDGNLSEEEKLFLS YFPLHKFELEQNIKE
LNTLADQVDTTHELLT KTSLVASSSGAVSGVMNILGLALAPV TAGGSLMLS ATGTGLGAA
AAITNIVTNVLENRSNS AARDKASRLGPLTTSHEAFGGINWSEIEAAGFCVNKC VKAIQGI
KDLHAYQMAKNSGFMAMVKNF VAKRHIPFWTARGVQRAFE GTTLAMTNGAWVMGA
AGAGFLLMKDMSSFLQSWKHLEDGARTETAELRALAKKLEQELDRLTQHHRHLPQKAS
QTCSSSRGRAVRGSRVVKPEGSRSPWPVVEHQPRLGPGVALRTPKRTVS APRMLGHQP
APPAPARKGRQAPGRHRQ

>positive|O42363|APO

MKFVALALTLLLALGSQANLFQADAPTQLEHYKAAALVYLNQVKDQAEKALDNL DGTD
YEYKQLQLES LTKLQEYAQTTSQALTPYAETISTQLMENTKQLRERVMTDVEDLRSKLEP
HRAELYTALQKHIDEYREKLEPVFQEYSALNRQNAEQLRAKLEPLMDDIRKAFESNIEETK
SKVVP MVEAVRTKLTERLEDLRTMAAPYAEYKEQLVKAVEEAREKIAPHTQDLQTRMEP
YMENVRTTFAQMYETIAKAIQA

>positive|Q9BUR5|MIC

MFKVIQRSVGPASLSLLTFKVYAAPKKDSPPKNSVKVDELSLYS VPEGQS KYVEEARSQLE
ESISQLRHYCEPYTTWCQETYSQTKPKMQSLVQWGLDSYDYLQNAPPGFFPRLGVIGFAG
LIGLLARGSKIKKLVYPPGFMGLAASLYYPQQAIVFAQVSGERLYDWGLRGYI VIEDLWK
ENFQKPGNVKNSPGTK

>positive|Q96LR9|APL

MFRAPCHRLRARGTRKARAGAWRGCTFPCLGKGMERPAAREPHGPDALRRFQGLLLDR
RGRLHGQVLRRLREVARRLERLRRSLVANVAGSSLSATGALAAI VGLSLSPVTLGTSLLVSA
VGLGVATAGGAVTITSDLSLIFCNSRELRRVQEI AATCQDQMREILSCLEFFCRWQCGDR
QLLQCGRNASIALYNSVYFIVFFGSRGFLIPRAEGDTKVSQAVLKAKIQKLAESLESCTGA
LDELSEQLESRVQLCTKSSRGHDLKISADQRAGLFF

>positive|G5BQH4|APO

MQPRVFLAVTLLALLASARALETEDASLLGYMQDYMQGYMEHASKTAQDALTRVQDSQ
MAQQARGWMSDSLSSLQDYWSSFKGKWSGFGFWDATPEEASPTPAPEGI

PQRYHKIKLVPFTEYFPYKRVFPWFYNFLEKQDARFWAQGSEFVVFEARGLKFSVPICFED
AFGYITREFCARGASLLVNISNDSWAKSLSCQYQHLSMAVFRAIENRRALVRASTSGQTV
IAPDGRILDELQPFAPGVLVADVPIVTCACGGYRYWGDALGVFFCVASLFILIAGGVRHML
RCRRGGWR

>positive|O83432|LNT

MLCTAPLVSSAASAVLLAFAIPNEFWLAGSSVLGLGALVPLYVGFLLSPAKKHVACS YGLF
VALVHACSSFWLKNFQGFALFTLGASTVG YFFYALPFGVAFACILRKQAPARACAFALVWT
LWEWVKSTGILAYPWGTVPMTAHSLSHLIQIADITGVWGLSFLIPLANACVAESLHFFIKK
RDSVPVFRLWLLTGCLYCLCSLYGAYRIATLGA PRRTLALAI VQQNADP WDTXSFEKNLTT
AIHLTETALRTQTAPPLPTTPYRKEKTLT HASARAPVDMVVWSESSLRYPYEQYRHVYNA
LPAARPFSAFLRTLGA PLLVGTPLRLSGNSTKGGYANAVALLRPDGHVAQVYGMQMVPF
AEFIPWGHMTSVQRLAQMLAGFSESWTPGPGPRLFHVPCAAGGSVRFATPICYEDAFPSL
CAALHTQGSELLINLTNDSWSKTASAEWQHYYVSLFRAIELRTTLV RSTNSGYT VVIGPEG
KTRAAFPLFQATS AVLVHVPVYPVVRTYYARMRDWVIVLCALIFFAEGVRMAVHTRRHSTT
QAESSLQQIRGEHV

>positive|O67000|LNT

MLTDRHKEVLKGLLAGILFYLSFSKLNLYFLVFPALFLGIRKNFLRLFSFGFSAFFLSLLWIR
IPLIDYGNINPFIAYPALVLLVFLSLYQFGLTYLLWRVFKFSFFAFPFLYTLVEILRS HLPYGG
FPWLLGVNLVDIPVLR YTLNAGTVFLGSFVLLISLPLFNKKEKIFSLAITPLLIYGFIKE
TSYRVTHYGLKIALIQPFVPQDVKLNRELFELKYGEIIELVKKAVEKKPDLVVLPESAFPFY
LGELEEKGKEILELSKKVPIITGFIEIDEGFKPYNTV VLLKDGRVIEKYRKIKLVPFGEYTPPF
FKFFSKYVPYLSFEDYNRGNKVKCFQLNGFSIGTPVCFEVAYPFFVKSFGCEFI AVLTNDA
WFRDSEGTQHMKLARVRAIENEKFFLWVNNTGPSGIISPRGEVIXSIDYGSRGILLFSF

>positive|P61032|LNT

MDSLTYVTNTMMKRWFQFFKHKAYDFRWAILSGILVGTSYIPFPPWALIFCYTPLWIYVT
EESSVKKSFWAGWVTQFILTIGFHWIAYTAHEFGQLPWA VSYLALLLFCAFMHLIYVAV
AAGTWLRLRFKLSGGQTLFTIALHALLERTWPVIFEWHLGYTLIWSKIPMYHLADLVGF
HGLSAVLLFNAWMGYVWLKQSFVKKALS HLSLLALTFAALVGWGFHWGKAWNKF
ETKATVVQANIGNLEKIYAEQGRAYQEVITRKFLDLSFAAMQKYPQTDILIWPETAFFDYL
DQHLLDRKHAQILISGLQPLSRPLITGAYS KDPKADEKQDTSTYNALFLVDPLGNNLDKPY
RKTELLAFGEYLPLSEQFPFLKLLPFVSNFGRGHGPEVMKWDTPQGSVRWGGQICYEGL
YPSFTRGLAEKGADILVNVTNDSWFGKTFEPQQHLYMTLARAIEVRRPLV RSTNTGVSTA
VLANGDVLQKSPLHEEWSGQFVIKYLKNAPLTFVQWGHWDWIVILLVLGAVIGR GALN
ARSRRS

>positive|C1DMW2|LNT

MRWITRPGWPGNLLALAAGALMPLAQAPFDLWPLALLSLALLYLGLREAPRAALWRG
WCYGFGLYAVGTSWIYISIHDIYGAASLPLAGLLTALMLALAFFFALPAWLWSRWLRRSD
APLADALFAALWLALEGFRGWFLTGFPPWLYAGYSQLEGPLAGLAPLGGVWLLSFALAL
SAALLVNLPRLLRPPALLGALVLLAPWATGLALRGHAWTAPAGAPLKVA AVQGNVEQN
LKWDPEQLSAQLLYRDLTLQRAAPVDLVVWPETA VPILKEYAENYLAGLDRYARPRHM
ALLTGVPIRRHNAQGEPRYYNGIVVAGEGSGTYLKQKLVPFGEYVPLQEVLRGLIAFFDLP
MSDFARGPADQPLLEARGWRIAPYICYEVVYPEFAAGLAARSDLLLTISNDAWFGSSIGPL
QHLQMAQMRAL EAGRWMIRTTNNGVTALIDPFGRITERLPQFQRAVLYGEVTPMQGLTPY
LRWRAWPLAGLAVLLGWALLRRRAERAAPGPAVEAQR

>positive|O51253|LNT

MKTRCFCLAAAFSGILTTLAIPNEIKETGYSILGFVAYVPLFIALNKLEDKKALMGLTVFYFII
ANSLQNFWLGFHAFGWITFIGVIIGYIPYSLTLGYFLYYSLSKSFKNKTMSITMLFTFYDYS
RSIGFLAYPWGLAAFTVNNFNLIQIADIFGVFFVSAVYFLNSGIADFLIHKNKTNLLNIAF
PTLLITASFTYGMICKIELKNLLAKEIDSLNIAAIQLNTDPWLPGNDDKKGIRDSIEITEQALK
ENPKIEFVIWSEGVLTYPFSKEDQHFKSSDLHNELKNFIKEHKIPFAIGAPSNLDKAIGIQQN
SIYMVEPNLNITNIYSKIFLVPFAEKIPFYEYKFVRNFFLKNFRILGQIEGNKIEILKLLKFKF
APLICYDDAFPELSRFYKTQGANILVNFSNDSWSKTNSAEWQHFVVAKFRSIENGIKTIRAT
NSGITATINEYGETIKKLETFKKG YLLSTVKLSPTFTTIYEKIGDSFIHILVMMFLITTLRFQF
MEDKNQLLSSSVVKIKV

>positive|Q7VRA5|LNT

MFISKAKYFFQLILSLTFGICGVFAFSPYDFWPLSIISITGLLIHLSNITWKQIIWNTLFWGIGF
FSVGLHWIYIGIDQFIPTHKNMNFFLI AFLIIYLTCYSVLSIILVTLRLFITQWSFLSITAATLW
LIIDRLRGNEFIGFPWLQFGYSQISGPIRGIGPLLGVGIFCLVLISLLALSIRTVQPSPYYIS
LIILACLYPLSWIQWYQVQPQRMTTIALVQGNINQHLYWNTENIQKTLKIYLQHTLPLLK
VKIIWPESAIPGNELAHNELLVLDYQLRKHHTYLITGIIDSRLLINNSYYHHYNSIIVLGN
HDPYKYPSSNRYDKHHLVLCSERFPLQCLFEPVFRFFNIPIAFMKSGPYIQSQLNVYPIKMT
ASICYEIILGNQIRDNFKLDSDFLTLANDVWFGCSIGPWQHLQIARMRALELGRPILFCTN
NGVTAINADGSIQSLSQFISTTLITNISPTTGFTPYAQFGSWWLLIISILICIFIIYIQKNQFK
IFTFKKNK

>positive|Q9AC16|LNT

MIAWTRFRERPWSGPALALIAGLAAALAHPPFGVLPGLLYAGLLHLLDNADVQRPLRSV
FWRGWLAVGYFGLGTWWVGEAFLVDAATHGWMAPFAVTGMAAGLALFWGLAALLY
RALRPASAWRVLTFAFAALEWMRGHVLTGFPWNLPGETWKAGSAPSQLAALVGAYGL
TWITLAIAGAPAVWRQGRGGAATGLAVASLIGLYGYGAIALSRLSPSGPTTVRIVQADIK
QDLKWAERFAQIVQAYVSLTATPYAAKPADIWIWPEGALPAVNDYLAPGTWVRQAIVD
SLAPGQLLLIGGYRYEGAGPHPTYNSLVALRRTEDELDLVLGIYDKHRLVFPGEYLPADRFL
TVIGFKSLARLSDNFTTGTPAPLRISPELLVQPLICYESLFPGLAKPDNVRALINVSNDAW
FGVTSGPPQHLNLASYRAIESAKPILRATPTGISAVVDARGRIVPGASLGLGESGVIDAQIPG
MGQVTPYDNFGDVAFLALILISGVV SARVRIGKISSSIAPKRKLS

>positive|Q7WMN7|LNT

MSPAGKGPWRQPAILAAAGAAHALSFAPDPLPAWSLAPVQVIALAVAAHASLQAPSARR
ALARGWLFAMFSFSLGLYWLYVSMHDYGGLAAPLAAAGVLALS AFLALFPGLACAAAR
WLCPPHWDASPPARARRTLYTAATWAACWAALEWLRVAVLTGFPWLNIGYAHVDSPLAG
WAPLLGVHGMALLAAFAAAALAGLWQSASGRIDSRQALAAGVALLAGAGWLLGQFS
WSRPEGKPLHLRLVQGNVEQSQKFDPALETGLRRHLELASLPPRPGEKPKDLIILPETVLP
VFQDQLPASVWD AWIEVARRADTRIANGVPLHTQPDGATGHRYTNSVIGFDASTPVEQLR
TGTTAMRYDKQHLVPWGEYVPPGFRWFVDMLDIPLGDFDRGAARQPSFDIAGQRIAFNIC
YEDLFGPELLPALQDGPDRPGATIMANVSNLWFGNTWALRQHLQIGRLRTMETARPM
VAATNTGITAAIDARGRVAALPAGRAGVLPVAVQGMTGLTPYARFGDKPALALIGLLIIA
AAARGRRPRQP

>positive|Q9PNJ9|LNT

MKLLKNFLPYFSFIPKLNNTNSIIFKIIKVFFIAILLSNSIYLSFFENIFTQTISPFLAIWGLVLLL
KSKTSKQYFWIGFFVGILWFWWIGLSSIFNLYLVPPIIIIGFIYGLLFRLCYLLKDFLRL

CGIFCISFIHPLGFDWFWNWGIFTVYGGFFDPS YRGIICIFLIAYFI YEG YISRYKYIAI VLILFFSG
FQYNEKQAQTLNLNYKLINTNISQDQKFLQENLKSNSDILIQDILQAINKKEKELVILPETAFA
FDLKNTKYELMLKELS YKTIITGAFHVEKEHT YNST YIFKKGNYVILNKHFLVPFGEEIPFF
KDLTKKYFLKNIEEFSKGPISQSKYKLDNQIITNAICYEATKEQNYQNSQIIIALSNNAWFNNS
SEYKLQQLMKFYASKYGVSVYHATNGKENI VILPKKLLSKDWKNLSKEIFNDKK

>positive|Q9PJK8|LNT

MFKS VLYIGLSWVLVCFAPDSTLASVICCMCGYGLLWRGLLSLVDSSSWRKIWCLAFF
WTWSVEGFHFSWMLDFYVGTSIYFVWCLLISYLAVTFASFSCLVVLCFRKQYWGALFW
LPGVWVAIESVRYYGLLSGVSFDFIGWPLAATAYGRQFGSFFGWAGQSFVVIATNLGCCSV
LVFRKSFSYGLWLVCAPFYFLGGTYEYVRRHFSNEEVLRVAIVQPGYSPHMQGARTAS
AIWSNLVSLCQGICPPVDVIFPEVSVPFGLHRQAYSFHENQQVLESVLPNKFWNEFFTNL
DWIRALSERFQCAVIMGMERWEDKNGVMHLYNAAECLSLQGEVTSYDKRILVPGGEYIP
GGKFGFSLCKAFFPEFALPFQRLPGEKSGIVQITERIKAGISICYEETFGYAILPYKRQKADIL
VNLNDGWYPHSRLPLVHFYHGVLRNQELGMPICIRACHTGVSAAVDSLGRIVGVLPWES
KTCPVCPDVLQVSVPVYSYPTIYAKFGDAPLLFVAVSSVLGVVGYFLKRRGKTLTGSDI

>positive|Q820B4|LNT

MNSVLAALIAGAILPLAFAPFNWFPIAFVSPAILLAVWLRSRPLVAWWRGWLFQGFAGAG
SWVYVSIHHFGNANVPLAVLITVLFVFLALFIAFQGLSFLFRKRKAALTALFAFPWW
VWWEWLRSILFTGFPWLFLGYSQINSPLKGFGLPFIYGISLIVAFISGCIYLLVTSKKNKKI
MCLILILPFIWVLTFTIPWTRPGSESVRVGLVQGNIGQRLKWDPTLYSTLHTYYS ETQK
NWDHGIIVWPEAAIPIYPQQVS VFLQALDKEAKQHNTALMTGIPIYHEKTNKVFNGLMVL
GDGHGLYLKRHLVPFGESFTSSKICNLLMKYFDIPMSDLSPGPEDEPTVVKGIPFAPFICY
EIAYPTEVLNHLNKKQFIVVNDSSWVAGTIAPAQQQLQIAQMRALETERYLLYSTNTGITAI
ISPEGKIVKSAPQNQRLLLTGQIKPVTGKTPLMRWNYYPVVGIIIFLLTFL

>positive|Q89WA1|LNT

MSAFQRLRQIALAIILTGWGKRALVAITAGALS VLALAPFNLFVLFITFPVLVWLIDGAGA
GRYRGIPAAALTGYWFGLG YFVPLYWIGYAFFVDADVFAWLTPFAVLGLPAYLSIFTAIGF
ALARLLWTKNATRVLALAASLTIAEWLRGHALTGFPWNAFGYALSEPLPLAQTASLIGLW
GMTFLTVAIFASPATLIDRTPDRRVAWRAPAAVALLIAMSIFGAIKSLHPTTMVAGAKLRL
MQPNLQQDAKFNAAKTEVMKKYLALSDRASGPQSTGVRDATILWPESAFPFLTREAD
AMAEIAELLPKGTVLITGSVRAPDLPRGTPITRAYNSIYVIDHDGSVLAVYDKLHLVPFGEF
LPYQDLMEKLGFEQLTRVRGGFIAGTVRHALPMPGAPSALPLICYEAIFPGEVAGRNERPG
WIVNLNDGWFGISTGPYQHLEQARMRAIELGLPLVRSANTGISAVIDPVGRTVASLGLGV
EGILDASLPAAIPPTIYARVGDVPAAVLVALAVLLAVRRRVAKRHP

>positive|Q7VFP7|LNT

MLPFYAQWVLESYDKAISPLLVSLLGLFSIASVLFVPKNRRFGVGGFIGMLWFYWISGLR
YFDMSFLIPLVVIACGIFMGFVYIGLWCECLIVRFAFLLLSYLTPFGFDWIVPESVFAYS
YIGVDKLSFALSILALWILFKYKTWWKLGGVICLVFALDFGLKDSKIQNLPLKIKLAQS
AVSQDFDYRMREAKSIFSEHISDIQKAINEEYDVILPESAFYVPLDSQYFPYFDSLLEMS
HKIVII VGALREEIHTDGRASYFNSTYKFDKKGKVSFYDKVHLVPFGETLPSFLLPLVNTFFQ
GIGGF SAGKDFGYFDIAEIKFNAICYEGSNRGFYADYPQYVIVTSNNAWFVPSIEPILQ
KNLMKY YARLYGSVIFHATNLSPAIITPFVSSR

>positive|Q9ZMQ0|LNT

MRLILFNRNAFLACMFVSSVYANAVLDAVAENPYITITLTSLLAPLSMLAFLKTPRNSAF

ALGFFV GALLFYWCALSFYSDFTYLLPLIIVLVALVYG VLFYLLLYFENPYFRLLSFLGSSF
IHPFGFDWLV PDSFFSYS VFRVDKLSLGLIFLACIFLS AQNLKKYRMIGVLLLLGALDFHFF
KISDLKEVGNIELVSTRTPQDLKFDNSYLNNIENNILKEIKLAQSKQKTLIVFPETAYPIALE
NSPFKTQLEDLSDKIAILIGTLRAQGYSLYNSSFLFSKKS VQIADKVILAPFGEIMPLPEFLQ
KPLEKLFEGESAYLYRNAPHFSDFTLDDFTFRPLICYEGTSKPAYSSSSPSKVFILMSNNAWFS
PSIEPTLQRTLLKYYARRYDKIILHSANFSTSYILSPSLLGDILFRKRS

>positive|Q8KCC4|LNT

MNGAYRGALSRLLSKPFFLPLLSGLLLGISFPTWPAVHLEPLAWIALVPLLLSLEHEERFGPF
FRKSWMSMLLFCLIALWWVCLATFVGGILT VVQS LFSV VPLVVFYFVKRAGFRSALLA
LPFIWTGWWEWAYMQQDFSLGWLTFGNSQANLLWMVQYADVTGVWGVSFWLLTFNVLV
LLLFMEKESFQVKVGI VMVMLVMIATPLL YARQVFRNTALDNTSPKVRVALVQPDIDPHEK
WDGLGPEETLSRLYS LTGQSVRGERLELIIWPETAIPFYIRLPENKPYMDSVRRMVMRWNT
PLLTGFPDEVPVFPNSARGEAVAASGAEYAAYNASMLLHPAGGPVQIYRKMRLVPFGERVP
YSEYFPWLERLSFMSGISSWAKGREATVMHFTSRDGQPV RMANIICYESIFPGQVSTFVR
RGAQFLTLVTNDGWYGTSYGPWQHAAIDRLRCIENRRAMARCANTGVTLFYDICGRS YA
ETPWQQSVLTADVPLESRITFYTAHPDLVPHVCLGIAGVLALVA AVRKR

>positive|P44626|LNT

MKNLNRILLSIKFMNKYFTYLIAIISGLLG VFAFSPFDYWP LAYVSL LGLLYVAKNPKKSTA
LLSTFLWAMGFFCFGVSWLNVSIHQFGGASLGVS YFLVGLLAAYLALYPMFTYLVHFK
VQS AVIFAVIWTLTEFLRGWIFTGFPWLQFGYTQIDSPFYGIAPIFGVTGLTFFTVWAS AVIF
NLVSSLFKTKNLKLVLANALLLIIVGGLS AYSSRIHFVKS VEDKAISVTLAQGNIEQN LKW
DPNYFYSTLAIYQKLITENLGKTDLILPESALPTLENAITPFFEGLERAAKETKTEIMVGTV
FQDTKSGKLLNSIMTAGNPDFYQPNQNRYNKHHLVPFGEYVPLESILRPLNSVFNLPMS
AFQSGEAVQPSLIAKKRAFSPAICYEIIIFGEQVRQNLKQDTDYLLTSLNDAWFGDSIGPWQ
HLQMARMRALELGKPLIRATNTGISVVD AQQKVL AQAPQFIETTLTYKIAPAEGKTPYSV
LGNMPLYALSLLFLLLHSMMAFIRRKMNIL

>positive|Q9K0A2|LNT

MVSKLDKYWQHPALYWP LLILFAAATPFTFAPY YHFWLMPLIFGAFVRLIELRPRFAVSSA
YLFGLTAYTTQFYWIHTALHDVSGLPDL YAVPLTFLLPAYLALYPALCFWLWKKFTLPRGIK
IGLVLPILWTLTEFARERFLTGFGWGAIGYSQITPDSPLAGFAPLGGIHMVTLATAFLGVWL
VLASNNTARSGKRLLPILIAALLAAGYTARQTDFTRPDGSRSTVALLQGNIDQTLKWRD
QVIPTIQKYEQVGKTTADIVILPETAIPVMRQNL PENILAKFAEQAQNGSALAVGISQYT
SDGNGYENAVINLTGYQENNQDGIPYYAKNHLVPFGEYKPLPFLTPLYKMMDMPLSDFR
KGGGKQS ALLMKNQKIAFNICYEDGFGDELI AAKDATLLANASNMAWY GKSNAMYQH
LQQSQARAMELGRYMRATNTGATAIISPKGNIIAQAQPD TETVLEGHKGYVGETPYMK
TGSSWWLMGILALALILFIFRNKEH

>positive|Q7NJV1|LNT

MSGIALRRRREQAQRRSIAGVLA AVGGGTALGLAAPPTGWGVLVWVALVPLLVYLRAE
HRPRAFVLGTLAGMVYYAILLRWLLGFHPLTWLGIEWWPSLAIALGAWLFVSASQAWVI
GLWASLVVTRRLSGLRRVLFVAVGLWVGLHVLWGQGETAFPWGTLAQSLAGDLWAVQTV
ALGGAQLLVGLAVAVNALVAESWSTRRVGYAGLAALLAASVYLYGWWQLAQPLPAGEPL
RMGVIQGNIAQARKWTPDGRRET VETVVRGYEELAAAG AQLVLT PETAFPFIWSRPTNPA
APLVEIQSRRVPVLLS AFERRTDGQVATTLFALDGDARTISTFNKIHLVPFGEQIPLKALIGP
LVRKLSPVQQE VFAGSLGQRLQTPVGLVAAGICFDS AFADGFRAQVAAGARLLVQSTNDA

WYGPAMAPQHHALDALRAVETGRYLVRASNNGTS AVVDPLGRTRTRITGWNVYAAFVEPV
RLLEGMTLYALWGDWFVPLS AALALLGLIAGRSPAGRRGRNF

>positive|Q7UGJ8|LNT

MRWLS AASS AFAVVLWLSGPPFAIGPLVFIALVPLLAI AEVSPSSSWKRPLYAAS LAYWLLS
LQGLRYAHP LMFLPWIALSGYLAIYPVLFIALLRRLRLVDNCDVSQARRDRVPLCLVA AVV
WVGLEWIRNYFFTGISVLMGLHALADMPLIQIADLGGT YAVSFVIVCVNVAMFDALNR
WVVQRTSSVSDSPMKSLVTAGLLIATMVYGAMSMNAETEPTGKTIAL LGDNELTVYEQ
DIVREQEIFAT YGQMAID AVAKSNTRIDAVVWPESMFSGGLPWMTTGADLVVPDFMQNPA
AAPLQPEQLRF AVES KQNDFLDRANSIQRAMRASSTVPTEAPP AIIGGCGLVQYADRPSQY
SGVWV V NATGNMSGTYSKNHLVLFGETIPLVHSLPWIRDIVPPGLGLDRGTQPERFDLDGI
SLMPNL CIET AVERIPVNHMHQLNSRANPKLPDAIVTLTNDVWFHDS AVVDHHLRCAQLV
AVGCRRPILSAANGGPTVWIDSAGRVVERLAKGQSDVIYAQPRRDSRISLYVRIGSWPAGL
MGAATL CGLAWMTFEWLMRRRKRS VIA

>positive|Q1RH27|LNT

MYKPKISCLLLGLLSGLVFAPTFLLPALLTSL YLCCLVQKSKDWQEAAKLG YIFGFGHFLS
GIYWISIGVS VYISDFW WAIPFALFGLPIILAFFVS ASCVFSFFVRNNKY YHFIFCLYWV LFE
WVRSWIFTGLPWNLIGYAFSFDILIQSLNIIGIYGLSFI VIYISTSFYPPFFT KQFDQLKVL LLLT
SSITLAVIITYGS VRLHNHPTNFTDIKVR LVQPSIPQTEKWS EEEFWHNLMLHINLSENSQPI
DLVIWSEAAALVVPYDIPVVKSELLG LLNSVDATLITGGISDNKKR GEDFELYTAMYALEKN
GNKLF EYHKS HLPVFG EYMPFKKILPFK KLTHGFVDYTEGNGLVYLDKYNLKI KPLICYE
SIFPDFVRTNNETADVIINVTND AWYKSSGPYQH FHISRSRAVENGLPMVRVANNGIS AII
DPLGRVIK KLDLNEIN YIDGLIPKKLDSPTIFSKFGNITILLI VFFIFLVNYLLD KKLINSRD

>positive|Q8EHP1|LNT

MLTNIR AFAQQKSRLS ALRLVLA FILGASTALSFAP YSLWIIYPIAMSLALWQS ESLNPKASF
FHWLSFGFGCF AVGISWVHVSMDFGGLPLPAS VALMALLALYLALYPALTGLGLAWFTR
TNSHSLWRNLLLFPALWTLTEWARGW VLTGFPWIWAGYSQTEGPLKALASII GALGLSFII
AMIAGALALCFS KRYKSL LILLPITAVA AWVAPKLSQIQPTGES VKVALVQGNIPQSMKWEP
EALWPTLLKYMDLSREHFDADII VWPEAAIPAPESMVQDFLDN ANKVANLNHTSIITGIISR
QQEDFYNSLIVLGNHNQKQ QDNPD YESDGSNQF KKHLLPIGEF VPFQALLRPIAPFFNLP
MSSFARGDYLQPNLS ALGHK VAPAICYEI AFPEQLRDS VNLGTDLLLT VSNDAWFGTSNGP
LQHMEIAQMR AIELGRPLVRATNNGVTAVVDENGNITAALPQFETG VLSATIPLVTGQTWF
AKIGQTPLLILCGALLLVGFIRRQKQQ

>positive|Q8DIC3|LNT

MWRLPPKSNANAKVLSRWLLFVGLGIAGWGTQLALPPVSGWFLAFVGI VPLWWQCQVL
APLWAAIAGLCWGWGFY GSSLVWVWDLHPLTWIGIDPVPSWLISRGIWLC LSSWGAVLS
GSWALLMARYG VRRSAPWQLLWGVTLWC ALEALWSHSPLW WISLSLTQSPGGLVQLGR
LAGPTTITAVVMTVNLVTL S LRQQKWARVGLAMTLVAALNGVLS VRVMADRGEPLR
VGLIQGNIP TREKLTPEGIRRAWQVYLQGYHQLVSWGVD AVLTPEGALPILWQPQMNIPIT
EAVREAGVPLWLGTFMETAGGSHQVLLSLDGNGEIDS HYGKVNLVPLGEYIPPWLGGVV
QRLSTLRSPLIPGDPEQVFTTPWGN AVVLICFES AFSHRSRWQLVHGGQFILS VANDDPYH
RQLMTQHGHGDVLR AVEGDRWLVRCTNTGLS AVIAPTGETLWLSKADEFVIYAATIFRRQ
TETLYTRYGDWLLPLLGLMLSLS VLRQRGWH

>positive|P74055|LNT

MGLATAPLGWTYVAWFGQIPLWIWIFRANTTRLNFTQLKQFLISRSLTAIAWGGGFYGV AL

FWITGVHPLTWLGVPWLASLAAFCWLAITAWGVVLVFWLLAMAVWEVTTARTKVN
STFKKYLFILWGTASWCGLETLWSHSILWWSPVAYTQSPSQLHFLQWGAIGGPALLS AFIV
AVNGFLALGLIDFLDGKT VNKQNW WHYFLIAILIWLFCQGGGWLLYQKPLADTPEEKIN
VGIIQGNIPNQIKFNS EGWQRAIAG YTEG YKKLTEQGA EI VLTPEGALP YLWET VVAKSGF
YQAILQTQVPVWLGAYGT KGDG YTNLLTVDGQGKLLGRYDKF KLVPLGEYIPLSNVFG
QLIQRLSPLKEQLLPGDRPQ VLPTFGPAAVVIC YES AFPDLLRSQLLQGGEFILSS ANNAH
YSDTMAAQHHALDVMRAIEGDRWLARATNTGLS AIINPRGKTLWLS AMNQ YEIHAAPY
RRRGLILYSRWGDWVFLLLVVS AIAWLYQIVFPLNQR

>positive|Q9WZ43|LNT

MNRRRWWRSSERRWRGLVSLFLS VLSGFLTALSMPGFLSG ALIWFSLIPLLYAVEGRGVW
KRAFLSFVYFFTHVLISFFWVPLTLTEN VPLVFGRYPSWLGIVVFVLMGIEAVPFLGFGFLS
YFAPQSI VLKTLYLAS VYTI FEYLRG VGELGFTGGRISEALYS HTGLIQI VSITGTLGLVFLIV
SLN VLFYEFLRRR KGLLIFP VIFFVYLLNSS VVHLLP VPERGSF KVVALQPNVPTSLKYS VS
SGEMLELLESMT KDFHGSIVITPE AFFLED VRYS QKLRELSEENTFVIGFPADNQNS VVLE
GGRFRKVYS KVKLFPFVEKLP YPRVFG VFSFLKGLS YYEPGRNFS VFN VGESPPLSVQICFE
SYFPEVSRAFVKNGSELLI VVTNDGWFHYKAALLNHV VQG VFRAVETRRQFLQ VANTGIT
GLVDEYGRIVDALPLRVRLAGEFHIKARKGETFYVRYGDWFF YLSVILAVVS VFISRMERGE
RNEGIGIRL

>positive|Q8EYY4|LNT

MDTLHHRFQQFQKTIWFNIFCYLWTGIFSFLAFAPVSLT HFVWIAPFGFFWLSLKYHGKYK
KLFFHGLLIGVVF YAISFWIIHMAITFGNFPYV VAILILLFAGLLFGLKFPIMMSFSFLSGK
IGRHS VWVAGFCGLLS ELIGPQLFPW YWGNLAAGNIIAQN AEITGVYGISFLVFI VS YTLF
QSNPWHWKEIHS KEKRKQ YLRFITL PALLLLTFIVSGIFLKKWENVKP VKSLN VLI VQPD
APLSFRD GREIKESIEALMARIEKLTDEG AVRLGKKPD LIVLPEAGVPFFS AHKTEITTKVR
RMYWDRFDSL MFLANRYKAN VFFNEIDAGFKGAPSPRNLRYYNNN VLYDPNGDRRDS
YQKKFLLMFGEYMPFDLYELSQQTGRFEPGLT HNLIRYYTPRYT LAEKEKSPKGRHLG
WTDTETFNHEAVRS YYETTRTEVS ETGKFLPLICYE VILPEFVREFRTAGNPEFIVNLTNDK
WYGATTESDQH MELGRLRSIELRRWMVRSTNSGISANIDHLGRFVGNKKTGLMTAEALS
ETIDVIDSPPTFYTYGNLIPWMLFLTGIYYLNLLIGIRRGKSA

>positive|Q7V0G7|LNT

MINTQNKKNKYFVPCLLGGIFGGIATSTHFWLLFMPLSLFILWSRSDKLANFLWGFFFILV
SHSWLYELHPLTWLGFSWISSLIISISILFGCSIIGILVYLWGLLVKKILQKKEISNMNSLRLT
IKVLLLSFAWGIGEFILSQTPLFWIGLGEIVPGDYL AGLARWIGASGLCVVQLTIGFWIYL
IYEKWKRYHF KKTFLFGLLILVILHFLGGLTNPIERNND YPVALWQTNMPTREKTNFKNQ
FINDKLIS AQKI ALSND AKLLITPEGLTNNNFNLNFKS KIRMLAGGFRNS KNGLRSSLLGY
QIGDKT YSSFIDKHRLVPLGEKIPGFLNIFSRGLS AVGGIQPGSDSRFFKW KFTQPLAIAICY
EITDGFKIRNAVKSGAELIISAANLDPYPRKLHYQFLSLARVRSIENKKNIIISNTGPSGLIS
EEGKIIKLPNTEQNDVVNPNFSIEKTFYTTYGERPLFLLCLFLIGLNLYFGKFTN

>positive|Q5ZK55|MIC

MAAKVARLAAAASSLPFVC AVYAE EKES KSQLVKPKQLPIYCLPPLKS KYIEEQPGR LQKQ
FSSIRQTTGRYIGWCDAFFFAKNGI VDSIQFGKDAYVYLKNPPPDLPRVGIITISGLAGVV
LARKDSRFKKIAYPLGLTTLGISVCYPAQAVVI AKITGKKVIS ASHQT YEAVRSLWTKKED
ASKLQQESKS VTQENKKNREISNVQFES AIESRSSNRTESSPIESWSTKDPLSSGT VKTTKF
KPDPKLMDHGGQSSPEDVDMYSTRS

>positive|Q39T32|LNT

MDYRRLRMPDFD AIPRRD YLMAVLSG VLLALSFPSPGISPLAWI AFAPLLLACGRKDPRKA
FRLGFVTGLAAYAGILYWITIVVTTYGKLPWIVS VGVLSMLVS YLALYPVVAYLVRRGEE
RGISLLISFPLLVGLE YGRAFLVTGFPWASLG YTQYRTLPLIQIADITGVYGLSFLIALANV
VLFRIIRGFAAREPAPYPVKS VVLLLVLVLLVTIAYGFKRLHVPEGGAPFKVALIQGNIDQNIK
WDPSFQEETVAIYERLSRKACAAGPSDLLVWPES AAPFYFQDEPRYASRIKGLARELKTCA
VVGSPAFEKDGGERLKYLNS AFLSPWGDVIGRSDKIHLVFPFGEYVPM AKLLPFVNKLVAGI
GDFSPGAQIAALDTGKGRIGILVCFEGIFPELSRAYVRAGSRLLVNITNDAWFGRSSAPYQH
ISMTVFRAVENRVPLVRAANTGITSIIDSRRGHIRGMTPLFQEAVLNGEVRLGEGESFYNRYG
DVFAWACVAGAAVVAALAFRRKSIHHQ

>positive|P0DMT6|APO

MRVWTVLLGAVLLLAACQAEETKAKWEETVEVFREYVNRLSLATDDITEQITSSQMGKE
MDMLIKDXVAELQAYRKDVEERLGPHAVVMRERLHTDVTVLGERLRVDMEEAKTRVQQ
YLGEARQVAGQNLEDVRSRVGTYLRLKRLAKDTEELRRKLEAYS AEATRHLETVRED
LEPLREKGGQRLAALQQALRDQGGQLREQLEVRAQDMRGS LDRAATQLQEWLEPFLADI
RTQMQLLDKQXKEQQ

>positive|Q7M2U7|APO

MKVLWAALVVALLAGCWADVEPESPLEENLEPELEPKRELEQEVEPEAGWQAGQPWELA
LARFWDYLRWVQTLSDQVQEEVLSNQVTQELTTLMEETMKEIKAYRAELEEQLGPMASE
TQARVAKELQAAQARLRSDMEDVRTRLSQYRGEVQAMLGQSTEELRARFASHMRKLRK
RVLRDAEDLQRLAVYRAGVREGAERSVSTIRERLWPLLEQARTRHAKVDALATQPLRER
VNALGQQLRGRLEE VGSRARSHLDEVREQMEEVQAKMEEQANQMRQQAEAFQARLKG
WFEPLVEDMQRQWAVLVEKVQAAVGTSPPTPPVETK

>positive|Q7V8K1|LNT

MGNDRSLALVQGA VGGVLAGIGIAHGGLLWMAPALALLWSACRFPVAASLWGFVAVLLS
HRWLLALHPLTWVGV PAPLSVPVAASIWLFCGAAA AVL VGLWAWLGTSIAHLATREAGIR
AQLSHALLMASIWGLAEVLLAGSPLFWIGVGGSLLPGDRA LAGLARWFGAGGLATLQLLI
GWWLWRTALAWRRGVGWRSSLLVGLLCLLAHGF GWSLLRSSD ATAPISVAAWQPAIPT
RSKFSEEQRRRLPEALQNALDRADDLDAAWLVAPEGLLPPDAVLLRPAPLPLLSGGFRWL
RGQQRSALLVVD RGERQASAFIDKHRLVPLGEWLPALPGGVFRGLS AVGGLQPGAASRLL
QWPGPTAAVAICYELSNGAALAQA VADGAQWLLAVANLDPYPLALQRQFIALAQLRSIET
ARDLLS VANTGPSALV LATGKQQQLLAPFTEGVGLADLHFHQGISGYTRWREAPLIGLML
FAVVGLGLSRVRSWLISLMLC

>positive|A1WJU9|LNT

MARACPSLAWQLPWALVAGLAQAASLAWPWGGEPLWWLQLASMAMLAWLLRPGADR
AVAWHRAALIGGVFATAWLASTFWWLFISMHRYGALPAPLAAA AVLVA AFLASYAAA
MGLFCRLAPLHRAGAALLFGACWLLAELARGSLWTGFPWGAGGYAHADGPLRVLARYV
GVYGGIGAVAALLALLC VQWRRADLRHWP MWL LLAGAAALALAAVQRTCAIDLCDTPP
PWRRDPTLSVELLQGNIAQDEKFRPGSGVALALQWYQALRTARAQLVVAPETALPLLPQ
QLMPGYLEGLARHYA QGPQAALLGIPWGDQATGYTNS VLG LSPATGAMPYRYDKHHLVP
FGEFVPPFFKWFTARMQIPLGNFN RAGVGQASFAWAGQRLAPNICYEDLFG EELGARFIDP
AQAPT VFNLSNIGWFGNTIAIDQHLQISRMR ALEFERPMVRATNTGATAIIDHRGQVTHQ
LARHTRGVLRGQVHGRGLDAHSGWAITPYAWWVARWGLWPLWALAALALAWAMRAQ
RMRRARGA

Non-apolipoprotein

>negative|P01023|A2M

MGKNKLLHPSLVLLLLVLLPTDASVSGKPQYMLVPSLLHTEETTEKGCVLLSYLNETVTVSASLESVRGNRSLFTDLEAENDVLHCVAFVAVPKSSSNEEVMFLT VQVKGPTQEFKKRTTV MVKNEDSLVFVQTDKSIYKPGQTVKFRVVSMDENFHPLNELIPLVYIQDPKGNRIAQWQS FQLEGGLKQFSFPLSSEPFQGSYKVVVQKKS GGRTHEHPFTVEEFVLPKFEVQVTVPKIITIL EEEMNVSVCGLYTYGKPVPGHVTVSICRKYSDASDCHGEDSQAFCEKFSGQLNSHGCFY QQVKT KVFQLKRKEYEMKLHTEAQIQEEGT VVELTGRQSSEITRTITKLSFVKVDSHFRQG IPFFGQVRLVDGKGVPIPNKVIFIRGNEANYYSNATTDEHGLVQFSINTTNVMGTSLTVRVN YKDRSPCYGYQWVSEEHAAHTAYLVFSPSKSFVHLEPMSHELPCGHTQT VQAHYILNG GTLLGLKKLSFYLLIMAKGGIVRTGTHGLLVKQEDMKGHFISISIPVKS DIAPVARLLIYAVL PTGDVIGDSAKYDVENCLANKVDLSFSPS QSLPASHAHLRVTAAPQSV CALRAVDQS VLL MKPD AELS ASSVYNLLPEKDLTGFP GPLNDQDNEDCINRHN VYINGIT YTPVSS TNEKDM YSFLEDMGLKAFTNSKIRKPKMCPQLQQYEMHGPEGLRVGFYESDVMGRGHARLVHVE EPHTEVTRKYFPETWIWDLVVVNSAGVAEVGVTVPDTITIEWKAGAFCLSEDAGLGISSTA SLRAFQPFVELTMPYSVIRGEAFTLKATVLNYPK CIRVS VQLEASPAFLAVPVEKEQAPH CICANGRQTVS WAVTPKSLGNVNFTVSAEALSEQELCGTEVPSVPEHGRKDTVIKPLLVEP EGLEKETTFNSLLCPSGGEVSEELSLKLPPNVVEESARASVSVLGDILGSAMQNTQNLQ MPYGCGEQNMVLFAPNIYVLDYLN ETQQLTPEIKSKAIGYLNTGYQRQLNYKHYDGSYS TFGERYGRNQGNTWLTAFVLKTFAQARAYIFIDEAHITQALIWLSQRQKDN GCFRSGSLL NNAIKGGVEDEVTL S AYITIALLEIPLT VTHPVVRNALFCLES AWKTAQEGDHGSHVYTKA LLAYAFALAGNQDKRKEVLKSLNEEAVKKDNSVHWERPQKPKAPVGHFYEPQAPS AEVE MTSYVLLAYLTAQPAPTS EDLTSATNIVKWITKQQNAQGGFSSTQDTVVALHALSKYGAATFTRTGKAAQVTIQSSGTFSSKFQVDNNRLLLQQVSLPELPGEYSMKVTGEGCVYLQTS LKYNILPEKEEFPFALGVQTLPQTCEP KAHTSFQISLSVSYTGSRASNMAIVDVKMVSG FIPLKPTVKMLERSNHVSRTEVSSNHVLIYLDKVS NQTL SLFFTVLQDVPVRDLKPAIVKV YDYYETDEFIAEYNA PCSKDLGNA

>negative|Q9BXN1|ASP

MKEYVLLLFLALCSAKPFFSPSHIALKNMMLKDMEDTDDDDDDDDDDDDDDDEDNSLFP TREPRSHFFPFDLFP MCPFGCQCYSRVVHCSDLGLTSVPTNIPFDTRMLDLQNNKI KEIKEN DFKGLTSLYGLILNNNKLTKIHPKAFLTTKKLRRLYLSHNQLSEIPLNLPKSLAELRIHENV KKIQKDTFKGMNALHVLEMSANPLDNNGIEPGA FEGVTVFHIRIAEAKLTSVPKGLPPTLL ELHLDY NKISTVELEDFKRYKELQRLGLGNNKITDIENGLANIPRVREIHLENNKLKKIPS GLPELKYLQIIFLHSNSIARVGVNDFCPTVPKMKKS LYS AISLFNNPVKYWEMQPATFRCV LSRMSVQLGNFGM

>negative|Q6UY14|ATL

MENWTGRPWLYLLLLLLSLPQLCLDQEVLSGHS LQTPTEEGQGPEGVWGPWVQWASCSQ PCGVGVQRRSRTCQLPTVQLHPSLPLPPRPPRHPEALLPRGQGPRPQTSPETLPLYRTQSRG RGGPLRGPASHLGREETQEIRAAARRSRLRDPKPGMFGYGRVPFALPLHRNRRHPRSPPRSE LSLISSRGEAIPSPTPRAEPFSANGSPQTELPTELSVHTPSPQAEPLSPETAQTEVAPRTRPA PLRHHPraQASGTEPPSPHSLGEGGFFRASPQPRRPS SQWASPQVAGRRPDPFPSVPRG RGQQGQGPWGTGGTPHGPRLEPDPQHPGAWLPLLSNGPHASSLWSLFAPSSPIPRCSGESE QLRACSQAPCPPEQDPRALQCAAFNSQEFMGQLYQWEPFTEVQGSQRCELNCRPRGFRF YVRHTEKVQDGTLCQPGAPDICVAGRCLSPGCDGILGSGRRPDGCGVCGGDDSTCRLVSG

NLTDRGGPLG YQKILWIPAG ALRLQI AQLRPSSNYLALRGPGRSIINGNWAVDPPGS YRA
GGTVFRYNRPREEG KGESLS AEGPTTQPVD VYMIFQEENPG VF YQ YVISSPPPILNPTPE
PPVPQLQPEILRVEPLAPAPRPARTPGTLQRQVRIPQMPAPPHPRTPLGSPAAYWKRVGHS
ACS ASCGKG VWRPIFLCISRESGEELDERSCAAGARPPASPEPCHGTPCPPYWEAGEWTSC
SRSCGPGTQHRQLQCRQEFGGGGSS VPPERCGHLPRPNITQSCQLRLCGHWEVGS PWSQC
SVRCGRGQRSRQVRCVGNNGDEVSEQECASGPPQPSREACDMGPCTTAWFHSDWSSKC
SAECGTGIQRRS VVCLGSGAALGPGQGEAGAGTGQSCPTGSRPPDMRACSLGPCERTWR
WYTGPGWEGCSSECGSGTQRRDIICVS KLGTEFNVTSPSNCSHLPRPPALQPCQGQACQDR
WFSTPWSPCSRSCQGGTQTREVQCLSTNQLSTRCPPLRPSRKRPCNSQPCSQRPDQC
KDSPPHCPLVVQARLCVYPYYTATCCRSCAHVLEERSPODPS

>negative|Q76LX8|ATS

MHQRHPRARCPPLCVAGILACGFLGCGWGPSHFQQSCLQALEPQAVSSYLSPGAPLKGRP
PSPGFQRQRQRRAAGGILHLELLVAVGPDVFQAHQEDTERYVLTNLNIGAE LLRDP SLG
AQFRVHLVKMVILTEPEGAPNITANLTSSLLS VCGWSQTINPEDDTPGHADLVLYITRFDL
ELPDG NRQVRGVTQLGGACSPTWSCLITEDTGFDLGVITIAHEIGHSFGLHGDGAPGSGCG
PSGHVMASDGAAPRAGLAWSPCSRRLSLLSAGRARC VWDPPRPQPGSAGHPPDAQPG
LYYSANEQCRVAFGPKAVACTFAREHLD MCQALSCHTDPLDQSSCSRLLVPLLDGTECGV
EKWCSKGRCSRSLVELTPIAAVHGRWSSWGPRSPCSRSCGGGVVTRRRQCNNPRPAFGGRA
CVGADLQAEMCNTQACEKTQLEFMSQQCARTDQGQLRSSPGGASFYHWGAAVPHSQGD
ALCRHMCRAIGESFIMKRGSFLDGTRCMPSGPREDGTLSLCVSGSCRTFGCDGRMDSQQ
VWDRQC VCGGDNSTCSPRKGSFTAGRAREYVTFVTNLT SVYIANHRPLFTHLAVRIG
GRYVVAGKMSISPNTTYP SLEDDGRVEYRVALTEDRLPRLEEIRIWGPLQEDADIQVYRRY
GEEYGNLTRPDITFTYFQPKPRQAWVWA AVRGPCS VSCGAGLRWVNYSCLDQARKELVE
TVQCQGSQQPPAWPEACVLEPCPPYWAVGDFGPCS ASCGGGLRERP VRCVEAQGSLLKTL
PPARCRAGAQQPAVALET CNPQPCPARWEVSEPS SCTSAGGAGLALENETCVPGADGLEA
PVTEGPGS VDEKLPAPEPCVGMSCPPGWGHLDATSAGEKAPSPWGSIRTGAQAAHVWTP
AAGSCS VSCGRGLMELRFLCMDSALRVPVQEELCGLASKPGSRREVCQAVPCPARWQYK
LAACS VSCGRGVVRRILYCARAHGEDDGEEILLDTQCQGLPRPEPQEACSLEPCPPRWKV
MSLGPCS ASCGLGTARRS VACVQLDQGDVEVDEAAC AALVRPEASVPCLADCTYRWH
VGTWMECS VSCGDGIQRRRDTCLGPQAQAPVPADFCQHLPKPVTRGCWAGPCVGGQT
PSLVPHEEAAAPGRTTATPAGASLEWSQARGLLFSPAPQPRLLPGPQENS VQSSACGRQH
LEPTGTIDMRGPGQADC AVAIGRPLGEVVTLRVLESSLNCSAGDMLLWGRLTWRKMCR
KLLDMTFSSKTNLTVRQRRCGRPGGGVLLRYGSQLAPETF YRECDMQLFGPWGEIVSPSL
SPATSNAGGCR LFINVAPHARIAHALATNMGAGTEGANAS YILIRDTHSLRTTAFHGQQVL
YWESESSQAEMEFSEGFLKAQASLRGQYWTLQSWVP EMQDPQSWKGKEGT

>negative|P61769|B2M

MSRSVALAVLALLSLSGLEAIQRTPKIQVYSRHPAENGKSNFLNCYVSGFHPSDIEVDLLKN
GERIEKVEHSDLSFSKDW SFYLLYYTEFTPTEKDEYACRVNHVTL SQPKIVKWDRDM

>negative|Q6UXH0|BET

MPVPALCLLWALAMVTRPASAAPMGGPELAQHEELTLFHGTLQLGQALNGVYRTTEGR
LTKARNSLGLYGRTELLGQEVSRGRDAAQELRASLLETQMEEDILQLQAEATAEVLGEVA
QAQKVL RDSVQRLEVQLRS AWLGPAYREFEVLKAHADKQS HILWALTGHVQRQRREMV
AQQHRLRQIQERLHTAALPA

>negative|Q9NP55|BPI

MFQTGGLIVFYGLLAQTMAGFGGLPVPLDQTLPLNVNPAALPLSPTGLAGSLTNALSNGLLS
GGLLGILENLPLLDILKPGGGTSGGLLGGLLGKVTSVIPGLNNIIDIKVTDPOLELGLVQSP
DGHRLYVTIPLGIKLQVNTPLVGLASLLRLAVKLDITAEILAVRDKQERIHVLVGDCTHSPGS
LQISLLDGLGPLPIQGLLDSLTGILNKVLPVELVQGNVCPLVNEVLRGLDITLVHDI VNMLIH
GLQFVIKV

>negative|Q9NZK5|CEC

MLVDGPSEPALCFLLLAVAMSFSGSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELAN
ERLMTLKI AEMKEAMRTLIFPPSMHFFQAKHLIERSQVFNILRMMPKG AALHLHDIGIVT
MDWLVRNVTYRPHCHICFTPRGIMQFRFAHPTPRPSEKCS KWILLEDYRKR VQNVTEFDD
SLLRNFTLVQHP EVIYTNQN VVWSKFETIFFTISGLIHYAPVFRDYVFRSMQEFYEDN VLY
MEIRARLLPVYELSGEHHDEEWSVKT YQEVAQKFVET HPEFIGIKIYSDHRSKDVAVIAES
IRMAMGLRIKFPTV VAGFDLVGHEDTGHSLHDYKEALMIPAKDGVKLPYFFHAGETDWQ
GTSIDRNILDALMLNTRIGHGFALS KHPAVRTYSWKKDPIEVCPI SNQVLKLVSDLRNHP
VATLMATGHPMVISSDDPAMFGAKGLSYDFYEVFMGIGGMKADLRTLKQLAMNSIKYST
LLESEKNTFMEIWKRWKFIADVATK

>negative|P11597|CET

MLAATVLTALLGN AHACSKGTSHEAGIVCRITK PALLVLNHETAKVIQTAFQRAS YPDIT
GEKAMMLLGQVKYGLHNIQISHL SIASSQVELVEAKSIDVSIQNVSVVFKGTLKYGYTTA
WWLGIDQSIDFEIDS AIDLQINTQLTCDSGRVRTDAPDC YLSFHKLLLHLQGEREPGWIKQ
LFTNFISFTLKLVLKGQICKEIN VISNIMADFVQTRAASILSDGDIGV DISLTGDPVITAS YLE
SHHKGHFIYKNVSEDLPLPTFSPTLLGDSRMLYFWFSE R VFHSLAKVAFQDGRMLMSLMG
DEFKAVLETWGFNTNQEIQEVVGGFPSQAQVTVHCLKMPKISCQNKGVVNSSVMVKF
LFPRPDQQHS VAYTFEEDI VTTVQASYSKKKLFSLDFQITPKTVSNLTESSES VQSFLQS
MITAVGIPEVMSRLEVVFTALMNSKGVSLFDIINPEIITRDGFLLLQMDFGFPEHLLVDFLQS
LS

>negative|P06276|CHL

MHSKVTIICIRFLWFVLLCMLIGKSH TEDDIIIATKNGKVRGMNLT VFGGTVT AFLGIPYA
QPPLGRLRFKPKQSLTKWSDIWNATKYANS CCQNIDQSFPGFHGSEMWNPN TDLSEDCLY
LN VWIPAPKPKNATVLIWIYGGGFQTGTSSLHVYD GKFLARVERVIVVSMNYR V G ALGFL
ALPGNPEAPGNMGLFDQQLALQWVQKNIAAFGGNPKSVTLFGESAGAASVSLHLLSPGS
HSLFTRAILQSGSFNAPWAVTSLYEARNRTLNLAKLTGCSRENETEIIKCLR NKDPQEILLN
EAFVVPYGTPLSVNFGPTVDGDFLTDMPDILLELGQFKKTQILVGVNKDEGTAFLVYGAP
GFSKDNNSIITRKEFQEG LKIFFPGVSEFGKESILFHYTDWVDDQRPEN YREALGDVVG DY
NFCPALEFTKKFSEWGNNAFFYFEHRSSKLPWPEW MGVMHG YEIEFVFGLPLERDNY
TKAEIILSRSI VKRWANFAKYGNPNETQNNSTSWPVFKSTEQKYLT LNTESTRIMTKLRAQ
QCRFWTSFFPKVLEMTGNIDEAEW EWKAGFHRWNNYMMDWKNQFNDYTSKKESC VGL

>negative|O75339|CIL

MVGTKAWVFSFLVLEVT SVLGRQTM LQSVRRVQPGKKNPSIFAKPADTLESPGEWTTWF
NIDYPPGKGDYERLD AIRFY YGDRVCARPLRLEARTTDWTPAGSTGQVVHGSPREGFWC
LNREQRPGQNC SNYTVRFLCPPGSLRRDTERI WSPWSPWSKCS AACGQTGVQTRTRICLA
EMVSLCSEASEEGQH CMGQDCTACDLTCPMGQVNADCDACMCQDFMLHGA VSLPGGAP
ASGAAYLLTKTPKLLTQTDS DGRFRIPGLCPDGKSILKITKV KFAPIVLTMPKTS LKAATIK
AEFVRAETPYMVMNPETKARRAGQSVSLCCATGKPRPKYFWYHNDTLLDPSLYKHES
KLVLRKLQHQAGEYFCKAQSDAGAVKSKVAQLIVIASDETPCNPVPE SYLIRLP HDCFQN

ATNSFYDDVGRCPVKTCAGQQDNGIRCRDAVQNCCGISKTEEREIQCSGYTLPTKVAKEC
SCQRCTETRSIVRGRVS AADNGEPMRFGHVYMGNSRVSMTG YKGTFTLHVPQDTERLVL
TFVDRLQKFVNTTKVLPFNKKGSAVFHEIKMLRRKKPITLEAMETNIIPLGEVVGEDPMAE
LEIPSRSFYRQNGEPYIGKVKASVTFLDPRNISTATAAQTDLNFINDEGDTFPLRTYGMFSV
DFRDEVTSEPLNAGKVKVHLDSTQVKMPEHISTVKLWSLNPDTGLWEEEGDFKFENQRR
NKREDRTFLVGNLEIRERRLFNLDPESRRCFVKVRAYRSERFLPSEIQGVVISVINLEPRT
GFSLNPRAWGRFDSVITGPNGACVPAFCDDQSPDAYSAYVLASLAGEELQAVESSPKFNPN
AIGVPQPYLNKLYRRTDHEDPRVKKTAQISMAMPKPNSEAESNGPIYAFENLRACEEAP
PSAAHFRFYQIEGDRYDYNTVPFNEDDPMWSTEDYLAWWPKPMEFRACYIKVKIVGPLE
VNVRSRNMGGTHRQTVGKLYGIRDVRSTRDRDQPNVSAACLEFKCSGMLYDQDRVDRTL
VKVIPQGSCRRASVNPMLHEYLVNHLPLAVNNDTSEYTMLAPLDPLGHN YGIYTVTDQD
PRTAKEIALGRCFDGTSDGSSRIMKSNVGVALTFCNVERQVGRQS AFQYLQSTPAQSPAAG
TVQGRVPSRRQQRASRGGQRQGGVVASLRFPRVAQQPLIN

>negative|O43405|COC

MSAAWIPALGLGVCLLLLPGPAGSEGAAPIAITCFTRGLDIRKEKADVLCPPGGCPLEEFVY
GNIVYASVSSICGAAVHRGVISNSGGPVRVYSLPGRENYSSVDANGIQSQMLSRWSASFTV
TKGKSSTQEATGQAVSTAHPPTGKRLKKTPEKKTGNKDKADIAFLIDGSFNIGQRRFNLQ
KNFVGKVALMLGIGTEGPHVGLVQASEHPKIEFYLNKFTSAKDVLFAIKEVGFRGGNSNT
GKALKHTAQKFFTVDAGVRKGIPKVVVVFIDGWPSDDIEEAGIVAREFGVNVFIVS VAKPI
PEELGMVQDVTFVDKAVCRNNGFFSYHMPNWFGTTKYVKPLVQKLCTHEQMMCSKTC
YNSVNI AFLIDGSSVGD SNFRLMLEFVSNIAKTFEISDIGAKIAAVQFTYDQRTEFSFTDYS
TKENVLAVIRNIRYMSGGTATGDAISFTVRNVFGPIRESPNKNFLVITDQGSYDDVQGPA
AAAHADAGITIFSVGVAWAPLDDLKDMASKPKESHAFFTREFTGLEPIVSDVIRGICRDFLES
QQ

>negative|O75462|CRL

MPAGRRGPAAQSARRPPPLPLLLLLCVLGAPRAGSGAHTAVISPDPTLLIGSSLLATCSV
HGDPPGATAEGLYWTLNRRRLPELSRVLNASTLALALANLNGSRQRS GDNLVCHARDGS
ILAGSCLYVGLPPEKPVNISCWSKNMKDLTCRWTPGAHGETFLHTNYSKYKLRWYGQD
NTCEEYHTVGP HSCHIPKDLALFTPYEIWVEATNRLGS ARSDVLTLDILDVVTDDPPPDVH
VSRVGGLEDQLSVRWVSPPALKDFLFQAKYQIRYVEDSVDWKVVDDVSNQTSCLAGL
KPGTVYFVQVRCNPFGIYGSKKAGIWEWSHPTAASTPRSERPGPGGACEPRGGEPSSGP
VRRELKQFLGWLKKHAYCSNLSFRLYDQWR AWMQKSHKTRNQDEGILPSGRRGTARGP
AR

>negative|P01034|CYT

MAGPLRAPLLLLAILAVALAVSPAAGSSPGKPPRLVGGPMDASVEEEGVRRALDFAVGEY
NKASNDMYHSRALQVVRARKQIVAGVNYFLDVELGRTTCTKTQPNLDCPFHDQPHLKR
KAFCSFQIYAVPWQGTMTLSKSTCQDA

>negative|P15502|ELN

MAGLTAAPRPGVLLLLLSILHPSRPGGVPGAIPGGVPGGVFYYPGAGLGALGGGALGPGG
KPLKPVPGGLAGAGLGAGLGAFAVTFPGALVPGGVADAAAAYKAAKAGAGLGGVPGV
GGLGVSAGAVVPQPGAGVKPGKVPVGLPGVYVPGGVLPGARFPGVGLPGVPTGAGVK
PKAPGVGGAFAAGIPGVGPFGGPQPGVPLGYPIKAPKLPGGYGLPYTTGKLPYGYGPGGVA
GAAGKAGYPTGTGVGPQAAAAAAAAKAAAKFGAGAAGVLPGVGGAGVPGVPGAIPGIG
GIAGVGTAAAAA KAAKYGAAAGLVPGGPGFGPGVVGVPAGVPGVGVPGAGI

PVVPAGIPGAAVPGVVSPEAAAKAAAKAAKYGARPGVGVGGIPTYG VGAGGFPGFGV
GVGGIPGVAGVPGVGGVPGVGGVPGVGISPEAQAAAAAKAAKYGAAGAGVLGGLVPGP
QAAVPGVPGTGGVPGVGTAAAAAKAAAKAAQFGLVPGVGVAPGVGVAPGVGVAPGVG
LAPGVGVAPGVGVAPGVGVAPGIGPGGVAAAAKSAAKVAKAQLRAAAGLGAGIPGLG
GVGVPGLVGVAGVPLGVGVAGVPGFGAGADEGVRRLSPELREGDPSSSQHLPSTPSSPR
VPGALAAAKAAKYGAAVPGVLGGLGALGGVGIPGGVVGAGPAAAAAAKAAAKAAQF
GLVGAAGLGGLGVGGLGVPGVGGGLGIPAAAAAKAAKYGAAGLGGVLGGAGQFPLGGV
AARPGFGLSPIFPGGACLGKACGRKRK

>negative|Q13822|ENP

MARRSSFQSCQIISLFTFAVG VNICLGFTA HRIKRAEGWEEGPPT VLSDSPWTNISGSCKGR
CFELQEAGPPDCRCDNLCKS YTSCCHDFDELCLKTARGWECT KDRCGEVRNEENACHCS
EDCLARGDCCTNYQVVCKGESHWVDDDCEEIKAAECPAGFVRPPLIIFSVDGFRAS YMK
KGSKVMPNIEKLRSCGTHSPYMRPVYPTKTFPNLYTLATGLYPESHGIVGNSMYDPVFDAT
FHLRGREKFNHRWWGGQPLWITATKQGVKAGTFFWSVIPHERRILTILQWLTLDPHERPS
VYAFYSEQPDFSGHKYGPFGPEMTNPLREIDKIVGQLMDGLKQLKLRHCNVN VIFVGDHG
MEDVTCDRTEFLSNYLTNVDDITLVPGLTGRIRSKFSNNAKYDPKAIANLTCCKPDQHF
PYLKQHLPKRLHYANNRRIEDIHLLVERRWHVARKPLDVYKKPSGKCFQGDHGFNDKNV
NSMQTVFVGVYGSTFKYKTKVPPFENIELYNVMCDLLGLKPAPNNGTHGSLNHLLRTNTFR
PTMPEEVTRPNYPGIMYLSDFDLGCTCDDKVEPKNKLDELNKRHTKGSTEERHLLYGR
PAVLYRTRYDILYHTDFESGYSEIFLMPLWTSYT VS KQAEVSSVPDHLTSCVRPDVRVSPSF
SQNCLAYKNDKQMSYGFLFPPYLSSSPEAKYDAFLVTNMVPMYPAFKRVWNYFQRVLVK
KYASERNGVNVISGPIFDYDYDGLHDTEDKIKQYVEGSSIPVPTHYYSIITSCLDFTQPADK
CDGPLSVSSFILPHRPDNEESCNSSEDES KWVEELMKMHTARVRDIEHLTSLDFFRKTSRS
YPEILTLKTYLHTYESEI

>negative|P05160|F13

MRLKNLTFIILLIISGELYAEEKPCGFPHVENGRIAQYYTFKSFYFPMSIDKKLSFFCLAGYT
TESGRQEEQTTCTTEGWSPEPRCFKKCTKPDLSNGYISDVKLLYKIQENMRYGCASGYKT
TGGKDEEVVQCLSDGWSSQPTCRKEHETCLAPELYNGNYSTTQKTFKVKDKVQYECATG
YYTAGGKKTEEVECLTYGWSLTPKCTKLKCSSRLIENG YFHPVKQTYEEGDVVQFFCHE
NYYLSGSDLIQCYNFGWY PESP VCEGRNRCPPLPINSKIQTHSTTYRHGEI VHI CELN
FEIHGS AEIRCEDGKWTEPPKCI EGQEKVACEPPFIENGAANLHSKIYNGDKVTYACKS
GYLLHGSNEITCNRGKWTL PPECVENNENCKHPPVVMNGAVADGILAS YATGSSVEYRCN
EYLLRGSKISRCEQGWSSPPVCLEPCTVNVDYMNRRNIEMKWKYEGKVLHGDLDIFV
CKQGYDLSPLTPLS ELSVQCNRGEVKYPLCTRKESKGMCTSPPLIKHGVIISSTVDTYENG
SVEYRCFDHFFLEGSREAYCLDGMWTT PPLCLEPCTLSFTEMEKNNLLLKWDFDNRPHIL
HGEYIEFICRGDTYPAELYITGSILRMQCDRGQLKYPRCIPRQSTLSYQEPLRT

>negative|P00740|FA9

MQRVNMIMAESPGLITICLLGYLLSAECTVFLDHENANKILNRPKRYNSGKLEEFVQGNLE
RECMEEKCSFEEAREVFENTERTTEFWKQYVDGDQCESNPCLNGGSKDDINSYECWCP
FGFEGKNCELDVTCNINKGRCEQFCNSADNKVVCSTEGYRLAENQKSCEPAVPFPCGR
VSVSQTSKLTRAETVFPD VDYVNSTEAEITLDNITQSTQSFNDFTRVGGEDAKPGQFPWQ
VVLNGKVD AFCGGSIVNEKWI VTAHC VETGVKITVVAGEHNIEETEHTEQKRN VIRIIPH
HNYNAAINKYNHDIALLELDEPLVLSYVTPICIA DKEYTNIFLKFGSGYVSGWGRV FHKG
RSALVLQYLRVPLVDRATCLRSTKFTIYNNMFCAGFHEGGRDSCQGDSGGPHVTEVEGTS

FLTGIISWGEECAMKGKYGITYTKVSRYVNWIKKTKLT

>negative|Q9UBX5|FBL

MPGIKRILT VTILALCLPSPGNAQAQCTNGFDLDRQSGQCLDIDECRTIPEACRGMDCVNVN
QNGGYLCIPRTNPVYRGPYSNPYSTPYSGPYAAAPPLSAPNYPTISRPLICRFGYQMDASN
QCVDVDECATDSHQCNPQTICINTEGGYTCSCDTG YWLLEGQCLDIDECRYGYCQQLCA
NVPGSYSCTCNPGFNEDGRSCQDVNECATENPCVQTCVNTYGSFICRCDPGYELEEDG
VHCSMDDECSFSEFLCQHECVNQPGTYFCSCPPGYILLDDNRSCQDINECEHRNHTCNLQ
QTCYNLQGGFKCIDPIRCEEPYLRISDNRCMCPAENPGCRDQPFTILYRDMDVVSGRSVPA
DIFQMQUATRYPGAYYIFQIKSGNEGREFYMRQTGPISATLVMTRPIKGPRIQLDLEMITV
NTVINFRGSSVIRLRIYVSQYPF

>negative|Q9GZV9|FGF

MLGARLRLWVCALCSVCSMSVLRAYPNASPLLGSSWGGLIHLYTATARNSYHLQIHKNG
HVDGAPHQTIYSALMIRSEDAGFVVITGVMSRRYLCMDFRGNIFGSHYFDPENCRFQHQT
LENGYDVYHSPQYHFLVSLGRAKRALPGMNPYPYSQFLSRNEIPLIHFNTPIPRRHTRSA
EDDSERDPLNVLKPRARMTAPASCSQELPSAEDNSPMASDPLGVVRGGRVNTHAGGTGP
EGCRPFAKFI

>negative|Q14393|GAS

MAPSLSPGPAALRRAPQLLLLLLAAECALAALLPAREATQFLRPRQRRAFQVFEEAKQGH
LERECVEELCSREEAREVFENDPETDYFYPRYLDCKINKEYGSPYTKNSGFATCVQNLPDQCT
PNPCDRKGTQACQDLMGNFCLCKAGWGGRLCDKDVNECSQENGGCLQICHNKPGSFH
CSCSHGFELSSDGRTCQDIDECADSEACGEARCKNLPGSYSCLCDEGFAYSSQEACRDV
DECLQGRCEQVCVNSPGSYTCHCDGRGGLKLSQDMTCELEAGWPCPRHRRDGSPAAR
PGRGAQGSRSEGHIPDRRGPRPWQDILPCVPFSVAKSVKSLYLGRMFSGTPVIRLRFKRLQ
PTRLVAEFDRTFDPEGILLFAGGHQDSTWIVLALRAGRLELQLRYNGVGRVTSSGPVINH
GMWQTISVEELARNLVIKVNRDAVMKI AVAGDLFQPERGLYHLNLT VGGIPFHEKDLVQPI
NPRLDGCMRSWNWLNGETTIQETVKVNTRMQCFSVTERGSFYPGSGFAFYSLDYMRTP
LDVGTESTWEVEVVAHIRPAADTG VLFALWAPDLRAVPLSVALVDYHSTKKLKKQLVVA
VEHTALALMEIKVCDGQEHVVTVSLRDGEATLEVDGTRGQSEVSAAQLQERLAVLERHL
RSPVLTAFAGGLPDVPVTSAPVTAFYRGCMTLEVNRRLLDLDEAAYKHS DITAHSCPPVEPA
AA

>negative|P39905|GDN

MKLWDVVAVCLVLLHTASAFPLPAGKRPPEAPAEDRSLGRRRAPFALSSDSNMPEDYPDQ
FDDVMDFIQATIKRLKRSPDKQMAVLP RRERNRQAAAANPENS RGKRRGQRGKNRGCV
LTAIHLNVTDLGLGYETKEELIFRYCSGSCDAAETTYDKILKNLSRNRRLVSDKVGQACCR
PIAFDDDL SFLDDNLVYHILRKHS AKRCGCI

>negative|P15516|HIS

MKFFVFALILALMLSMTGADSHAKRHHGYKRFHEKHHS HRG YRSNYL YDN

>negative|P04196|HRG

MKALIAALLLITLQYSCAVSPTDCS AVEPEAEKALDLINKRRRDGYLFQLLRIAD AHLDRV
ENTTVYYLVLDVQESDCS VLSRKYWNDCEPPDSRRPSEIVIGQCKVIATRHS HESQDLRVI
DFNCTTSSVSSALANTKDSPVLIDFFEDTERYRQKANKALEKYKEENDDFASFRVDRIERV
ARVRGGEGTGYFVDFSVRNCPRHHFPRHPNVFGFCRADLFYDVEALDLESPKNLVINCEV
FDPQEHENINGVPPHLGHPPHFWGGHERSSTTKPPFKPHGSRDHHHPKPHHEHGPPPPDER
DHS HGPPLPQGPPLPMSCSSCQHATFGTNGAQRHS HNNNSSDLHPKHHS HEQHPHGH

HPHAHHPHEHDTHRQHPHGHPHGHPHGHPHGHPHGHPHGHPHCHDFQDYGPCDPPPH
NQGHCCGHGPPPGHLRRRGPGKGRPFHCRQIGSVYRLPPLRKGEVLPPLPEANFPSFPLP
HHKHPLKPDNQFPQSVSESCPGKFKSGFPQVSMFFTHTFPK

>negative|Q969J5|I22

MMPKHCFLGFLISFFLTGVAGTQSTHESLKPQRVQFQSRNFHNILQWQPGRALTGNSSVYF
VQYKIMFSCSMKSSHQKPSGCWQHISCNFPGCRTLAKYGRQWKNKEDCWGTQELS
CDLTSETSDIQEPPYGRVRAASAGSYSEWSMTPRFTPWETKIDPPVMNITQVNGSLLVILHA
PNLPYRYQKEKNVSIEDYYELLYRVFIINNSLEKEQKVYEGAHRAVEIEALTPHSSYCVVAE
IYQPMIDRRSQRSEERCVEIP

>negative|P10997|IAP

MGILKLQVFLIVLSVALNHLKATPIESHQVEKRKCNTATCATQRLANFLVHSSNNFGAILSS
TNVGSNTYGKRNAVEVLKREPLNYLPL

>negative|P17936|IBP

MQRARPTLWAAALTLVLLRGPPVARAGASSAGLGPVVRCEPCDARALAQCAPPAVCAE
LVREPGCGCLTICALSEGQPCGIYTERCGSGLRCQPSPEARPLQALLDGRGLCVNASAVS
RLRAYLLPAPPAPGNASESEEDRSAGSVESPSVSSTHRVSDPKFHPLHSKIIIKKGHAKDSQ
RYKVDYESQSTDTQNFSSSKRETEYGPCRREMEDTLNHLKFLNVLSPRGVHIPNCDKKG
FYKKKQCRPSKGRKRGFCWCVDKYGQPLPGYTTKGKEDVHCYSMQSK

>negative|Q9NPF7|IL2

MLGSRAVMLLLLLPWTAQGRAVPGGSSPAWTQCQQLSQKLC TLAWSAHPLVGHMDLREE
GDEETTNDVPHIQCGDGDQPGLRDNSQFCLQRIHQGLIFYEKLLGSDIFTGEPSSLDPSPV
GQLHASLLGLSQQLLQPEGHHWETQQIPSLSPSQPWQRLLRFKILRSLQAFVAVAAARVFAH
GAATLSP

>negative|Q9NZH8|IL3

MRGTPGDADGGGRAVYQSMCKPITGTINDLNQQVWTLQGQNLVAVPRSDSVTPVTVAVIT
CKYPEALEQGRGDPIYLGIQNPMECLYCEKVGEQPTLQLKEQKIMDLYGQPEPVKPFIFY
RAKTGRTSTLESVAFPDWFIASSKRDQPIILTSELGKSYN TAFELNIND

>negative|P05154|IPS

MQFLLLCLVLLSPQGASLHRHHPREMKKRVEDLHVGATVAPSSRRDFTFDLYRALASAA
PSQSIFPVSISMSLAML SLGAGSSTKMQILEGLGLNLQKSSEKELHRGFQQLQELNQPR
DGFQLSLGNALFTDLVDLQDTFVSAMKTYLADTFPTNFRDSAGAMKQINDYVAKQTK
GKIVDLLKNLDSNAVVIMVNYIFFKAKWETSFNHKGTEQDFYVTSETVVRVPMMSRED
QYHYLLDRNLSCRVVGVPYQGNATALFILPSEGKMQQVENGLSEKTLRKWLKMFKKRQL
ELYLPKFSIEGSYQLEKVLPSLGISNVFTSHADLSGISNHSNIQVSEMVHKAVVEVDESGTR
AAAATGTIFTFRSARLNSQRLVFNRPFMLMFIVDNNILFLGKVNRP

>negative|P00995|ISK

MKVTGIFLLSALALLSLSGNTGADSLGREAKCYNELNGCTKIYDPVCGTDGNTYPNECVL
CFENRKRQTSILIQKSGPC

>negative|Q9P0G3|KLK

MSLRVLGSGTWPSAPKMFLLLTALQVLAIAMTQSQEDENKIIGGHTCTRSSQPWQAALLA
GPRRRFLCGGALLSGQWVITAAHCGRPILQVALGKHNLRWEATQQLRVVRQVTHPNY
NSRTHDNDLMLLQLQPARIGRAVRPIEVTQACASPGTSCRVSGWGTISSPIARYPASLQCV
NINISPDEVQKAYPRITPGMVCAGVPQGGKDSCQGGDSGGPLVCRGQLQGLVSWGMER
CALPGYPGVYTNLCKYRSWIEETMRDK

>negative|P18428|LBP

MGALARALPSILLALLTSTPEALGANPGLVARITDKGLQYAAQEGLLALQSELLRITLPDF
TGDLRIPHVGRGRYEFHSLNIHSCCELLHSALRPVPGQGLSLSISDSSIRVQGRWKVRKSFFK
LQGSFDVSVKGISISVNLGSESSGRPTVTASSCSSDIADVEVDMMSGDLGWLLNLFHNQIE
SKFQKVLESRICEMIQKSVSSDLQPYLQTLPTTEIDSFADIDYSLVEAPRATAQMLEVMFK
GEIFHRNHRSPVTLAAVMSLPEEHNKMVYFAISDYVFNTASLVYHEEGYLNFSITDDMIP
PDSNIRLTTKSFRPFVPRLARLYPNMNELEQGSVPSAPLLNFSPGNLSVDPYMEIDAFVLLP
SSSKEPVFRLSVATNVSATLTFNTSKITGFLKPGKVKVELKESKVGLFN AELLEALLNYIIL
NTFYPKFNDKLAEGFPLPLLKR VQLYDLGLQIHKDFLFLGANVQYMRV

>negative|P09382|LEG

MACGLVASNLNLKPGECLRVRGEVAPDAKSFVLNLGKDSNNLCLHFNPRFN AHGD ANTI
VCNSKDGGAWGTEQREAVFPFQPGSVAEVCITFDQANLTVKLPDGYEFKFPNRLNLEAIN
YMAADGDFKIKCVAFD

>negative|O95970|LGI

MESERSKRMGNACIPLKRIAYFLCLLSALLLTEGKKPAKPKCPAVCTCTKDNALCENARSI
PRTVPPDVISLSFVRSGFTEISEGSFLFTPSLQLLLFTSNSFDVISDDAFIGLPHLEYLFIENNN
IKSISRHTFRGLKSLIHLSLANNLQTLPKDIFKGLDSLNTVDLRGNSFNCDCKLKWLVVEW
LGHTNATVEDIYCEGPPEYKKRKINSLSKDFDCIITEFAKSQDLPYQSLSIDTFSYLNDEYV
VIAQPFTGKCIFLEWDHVEKTFRNYDNITGTSTVCKPIVIETQLYVI VAQLFGGSHIYKRD
SFANKFIKIQDIEILKIRKPNDIETFKIENNWYFVVADSSKAGFTTIYKWNGNGFYSHQSLH
AWYRDTDVEYLEIVRTPQTLRTPHLLSSSSQRPVIYQWNKATQLFTNQTDIPNMEDVYAV
KHFSVKGDVYICLTRFIGDSKVMKWGGSSFQDIQRMPSRGS MVFQPLQINN YQYAILGSD
YSFTQVYNWD AEKAKFVKFQELNVQAPRSFTHVSINKRNFLFASSFKGNTQIYKHVI VDL
SA

>negative|Q9Y6Y9|LY9

MLPFLFFSTLFSSIFTEAQKQYWVCNSSDASISYTYCDKMQYPISINVNPCIELKRSKGLLHI
FYIPRRDLKQLYFNL YITVNTMNLPKRKEVICRGSDDDYSFCRALKGETVNTTISFSFKGIK
FSKGYKCVVEAISGSPEEMLFCLEFVILHQPNSN

>negative|P48740|MAS

MRWLLLYYALCFSLSKAS AHTVELNNMFGQIQSPGYPDSYPSDSEVTWNITVPDGFRIKLY
FMHFNLESSYLCEYDYVKVETEDQVLATFCGRET TDTEQTPGQEVVLSPGSFMSITFRSDF
SNEERFTGFD AHYMAVDVDECKEREDEELS CDHYCHNYIGGYCSCRFGYILHTDNRTCR
VECS DNLF TQRTGVITSPDFPNPYPKSSECLYTIELEEGFMVNLQFEDIFDIEDHPEVPCPYD
YIKIKVGPKVLGPFCEKAP EPISTQSHSVLILFHSDNSGENRGWRLSYRAAGNECP ELQPP
VHGKIEPSQAKYFFKDQVLVSCDTGYKVLKDNVEMDTFQIECLKDGTWSNKIPTCKIVDC
RAPGELEHGLITFSTRNNLTYKSEIKYSCQEPYKMLNNNTGIYTCSAQGVWMNKVLGR
SLPTCLPVCGLPKFSRKL MARIFNGRPAQKGTTPWIAMLSHLNGQPFCGSSLLGSSWIVTA
AHCLHQSLDPEDPTLRSDLLSPSDFKIILGKHWRLRSDENEQHLGVKHTTLHPQYDPNTF
ENDVALVELLESPVLN AFVMPICLPEGPQQEGAMVI VSGWGWKFLQRFPETLMEIEIPIVD
HSTCQKAYAPLKKK VTRDMICAGEKEGGKDACAGDSGGPMVTLNRERGWYLVGTVS
WGDDCGKKDRYG VYSYIHHNKDWIQRVTGVRN

>negative|P11226|MBL

MSLFPSPLLLLSMVAAS YSETVTCEDAQKTCPAVIACSSPGINGFPGKDGRDGT KGEKGE
PGQGLRGLQGPPGKLGPPGNPGSPGPKGQKGDGKSPDGDSSLAASERKALQTEMA

RIKKWLTFSLGKQVGNKFFLTNGEIMTFEKVKALCVKFQASVATPRNAAENGAIQNLIKEE
AFLGITDEKTEGQFVDLTGNRLTYTNWNEGEPNAGSDEDCVLLLKNGQWNDVPCSTSH
LAVCEFPI

>negative|P45452|MMP

MHPGVLA AFLFLSWTHCRALPLPSGGDEDDLSEEDLQFAERYLRSYYHPTNLAGILKENA
ASSMTERLREMQSFFGLEVTGKLDDNTLDVMKKPRCGVPD VGEYNVFPRTLKWSKMNL
TYRIVNYTPDMTHSEVEKAFKAFK VVSDVTPLNFTRLHDGIADIMISFGIKEHGDFYFPD
GPSGLLAHAFFPPGPNYGGDAHFDDDETWTSSSKGYNLFLVAAHEFGHSLGLDHSKDPGA
LMFPIYTYTGKSHFMLPDDD VQGIQSLYGPGEDEPNPKHPKTPDKCDPSLSLDAITSLRGE
TMIFKDRFFWRLHPQQVD AELFLT KSFWPELNRIDAAYEHPSHDLIFIFRGRKFWALNGY
DILEGYPKKISELGLPKEVKKISAAVHFEDTGKTLFSGNQVWRYDDTNHIMDKDYPRLIE
EDFPGIGDKVDAVYEKNGYIYFFNGPIQFEYSIWSNRIVRVMPANSILWC

>negative|P98088|MUC

MSVGRRLALLWALALALACTRHTGHAQDGSSSESSYKHHPALSPIARGPSGVPLRGATVF
PSLRTIPVVRASNPAHNRCSTWGSFHYKTFDGDVFRFPGLCNYVFS EHCGAAYEDFNIQ
LRRSQES AAPTLSRVL MKVDGVVIQLTKGSVLVNGHPVLLPFSQSGVLIQQSSSYTKVEAR
LGLVLMWNHDDSLLELDTKYANKTCGLCGDFNGMPVSELLSHNTKLTPEFGNLQK
MDDPTDQCQDPVPEPRNCSTGFGICEELLHGQLFSGCVALVDVGSYLEACRQDLFCED
TDLLSCVCHTLAEYSRQCTHAGGLPQDWRGPDFCPQKCPNNMQYHECRSPCADTCSNQE
HSRACEDHC VAGCFCPEGT VLLDIGQTGCVPVSKACVYNGAAYAPGATYSTDCTNCTC
SGGRWSCQEVPCPGTCSVLGGAHFSTFDGKQYTVHGDCSYVLTKPCDSSAFTVLAELRRC
GLTDSETCLKSVTSLDGAQTVVVIKASGEVFLNQIYTLQLPISAANVTIFRPSTFFIIAQTSL
GLQLNLQLVPTMQLFMQLAPKLRGQTCGLCGNFNSIQADDFRTLSGVVEATAAFFNTFK
TQAACPNIIRNSFEDPCSLSVENEKYAQHWCSQLTDADGPFGRCHA AVKPGTYYSNCMFD
TCNCERSEDCLCAALSSYVHACAAKG VQLGGWRDGVCTKPMTTCPKSMTYHYHVSTCQ
PTCRSLSEGDI TCSVGFIPVDGCICPKGTFLDDTGKCVQASNCPCYHRGSMIPNGESVHDS
GAICTCTHGLKSCIGGQAPAPVCAAPMVFFDCRNATPGDTGAGCQKSCHTLDMTCYSPQ
CVPGCVCVPDGLVADGEGGCITAEDCPCVHNEAS YRAGQTIRVGCNTCTCDSRMWRCTDD
PCLATCAVYGDGHYLTFDGQSYSFNGDCEYTLVQNHCGGKDSTQDSFRVV TENVPCGTT
GTTCSKAIKIFLGGFELKLSHGKVEVIGTDESQEVPTIRQMGIYLVVDTDIGLVLLWDKK
TSIFINLSPEFKGRVCGLCGNFDDI AVNDFATRSRSVVGDVLEFGNSWKLSPSCPDALAPKD
PCTANPFRKSWAQKQCSILHGPTFAACHAHVEPARYYEACVNDACACDSGGDCECFCTAV
AAAYACHEVGLCVSWRTPSICPLFCDY NPEGQCEWHYQPCGVPCLRNCRNPRGDCLR
DVRGLEGCYPKCPPEAPIFDEDKMQC VATCPTPPLPPRCHVHGKSYRPGAVVPSDKNCQS
CLCTERGV ECTYKAEACVCTYNGQRFHPGDVIYHTTDGTGGCISARCGANGTIERRVYPC
SPTTPVPPTTFSESTPPLVVSSTHTPSNGPSSAHTGPPSSAWPTTAGTSPRTRLPTASASLPPV
CGEKCLWSPWMDVSRPGRGTDSDGFDTLLENLRAHGYRVCESPRSVECR AEDAPGVPLRA
LGQRVQCSPDVGLTCRNREQASGLCYN YQIRVQCCTPLPCSTSSSPAQTTPPTTSKTTETRA
SGSSAPSSTPGTVSLSTARTTPAPGTATSVKKTFTSPPPPVPATSTSSMSTTAPGTSVVSSKP
TPTEPSTSSCLQELCTWTEWIDGSYPAPGINGGDFDTFQNL RDEGYTFCESPRS VQCR AESF
PNTPLADLGQDVICSHTEGLICLNKNQLPPICYNYEIRIQCCETVN VCRDITRLPKTVATTRP
TPHPTGAQTQTTFTHMPSASTEQPTATSRGGPTATSVTQGTHTTLVTRNCHPRCTWTKW
FDVDFPSPGPHGGDKETYNNIIRSGEKICRRPEEITRLQCR AKSHPEVSI EHLGQVVQCSRE
EGLVCRNQDQGPFKMCLN YEVRLCCETPRGCHMTSTPGSTSSSPAQTTPSTTSKTTETQ

ASGSS APSSTPGTVSLSTARTTPAPGTATS VKKTFSTPSPPPVPATSTSSMSTTAPGTSVVSSK
PTPTEPSTSSCLQELCTWTEWIDGSYPAPGINGGDFDTFQNLRDEGYTFCESPRSVQCRAES
FPNTPLADLGQDVICSHTEGLICLNKNQLPPICYNYEIRIQCCETVNVCRDITRPPKTVATTR
PTPHPTGAQTQTTFTTHMPSASTEQPTATSRGGPTATS VTQGTHTTPVTRNCHPRCTWTTW
FDVDFPSPGPHGGDKET YNNIIRSGEKICRRPEEITRLQCRAKS HPEVSIIEHLGQVVQCSRE
EGLVCRNQDQQGPFKMCLN YEVRVLCCETPKGCPVTSTPVTAPSTPSGRATSPTQSTSSW
QKSRTTTLVTTSTTSTPQTSTTYAHTTSTTSAPTARTTSAPTTRTTSASPASTTSGPGNTPSPV
PTTSTISAPTTSTISAPTTSTTSAPTSSTTSGPGTTPSPVPTTSTISAPTTSTTSAPTSTTSART
SSTTSAATTSRISGPETTPSPVPTTSTTSATTTSTTSAPTSTTSAPTSSSTSSPQTSTTSAPTTS
TTS GPGTTPSPVPTTSTTSAPTTRTTSAPKSSSTTSAATSTTSGPETTPRPVPTTSTTSSPTTST
TSAPTSTTSASTTSTTSGAGTTPSPVPTTSTTSAPTSTTSAPISSSTTSAATSTTSGPGTTPS
PVPTTSTTSAPTSTTSGPGTTPSAVPTTSTISAPTSTTNSAPISS TTSATTSRISGPETTPSPV
PTASTTSASTTSTTSGPGTTPSPVPTTSTISVPTTSTTSASTTSTTSASTTSTTSGPGTTPSPV
TTSTTSAPTTSTTSAPTTSTISAPTSTTSAATSTTSAPTPRRTSAPTSTISASTTSTTSAAT
STTSAATSTISAPTSTTTLSPTTSTTSTITSTTSAPISSSTTSTPQTSTTSAPTSTTSGPGTSS
PVPTTSTTSAPTTSTTSAPTTRTTSVPTSSTTSTATTSTTSGPGTTPSPVPTTSTTSAPTTRTTS
APTSTTSAPTTSTTSAPTSSSTTSAATSTISVPTTSTTSPVPTTTPSPVPTTSTISVPTTSTTSA
TTSTTSGPGTTPSPVPTTSTTSAPTTSTTSAPTTSTISAPTSTPSAPTSTTLAPTSTTSAPT
TSTTSTPTSSSTSSPQTSTTSASTTISGPGTTPSPVPTTSTTSAPTTSTTSAATSTISAPTTS
TTSAPTSTTSASTASKTSGLGTTSPPIPTTSTTSPPTTSTTSASTASKTSGPGTTPSPVPTTSTI
FAPRTSTTSASTTSTPGPGTTPSPVPTTSTASVSKTSTSHVSIKTHSQPVTRDCHLRCTW
TKWFDIDFPSPGPHGGDKET YNNIIRSGEKICRRPEEITRLQCRAES HPEVSIIEHLGQVVQC
SREEGLVCRNQDQQGPFKMCLN YEVRVLCCETPKGCPVTSTPVTAPSTPSGRATSPTQSTS
SWQKSRTTTLVTTSTTSTPQTSTTSAPTTSTTSAPTTSTTSAPTTSTTSTPQTSISSAPTSSSTTS
APTSSSTISARTTIIAPTSTTSSPTTSTTSAATSTTSAPTSSSTTSTPQTSKTSAAATSSSTSGS
GTTSPVTTTTSTASVSKTSTSHVS VS KTHSQPVTRDCHPRCTWTKWFDVDFPSPGPHGG
DKET YNNIIRSGEKICRRPEEITRLQCRAKS HPEVSIIEHLGQVVQCSREEGLVCRNQDQQGPF
FKMCLN YEVRVLCCETPKGCPVTSTVAPSTPSGRATSPTQSTSSWQKSRTTTLVTTSSITS
TTQTSTTSAPTTSTTPASIPSTTSAPTTSTTSAPTTSTTSAPTTSTTSTPQTSSAPTSSSTTSA
TTSTISAPTSTTISAPTSTTSAPTASTTSAPTSTSSAPTNTTSAPTTSTTSAPISTTISAPTST
TSTPQTSTISSPTTSTTSTPQTSTTSSPTTSTTSAPTTSTTSAPTTSTTSTPQTSISSAPTSSSTTS
APTASTISAPTSTTTFHTTSTTSPPTSSSTPQTSKTSAAATSSSTSGSGTTPSPVPTTSTASV
SKTSTSHVS VS KTHSQPVTRDCHPRCTWTKWFDVDFPSPGPHGGDKET YNNIIRSGEKIC
RRPEEITRLQCRAES HPEVSIIEHLGQVVQCSREEGLVCRNQDQQGPFKMCLN YEVRVLC
ETPKGCPVTSTPVTAPSTPSGRATSPTQSTSSWQKSRTTTLVTTSTTSTPQTSTTSAPTTSTIP
ASTPSTTSAPTTSTTSAPTTSTTSAPTHRTTSGPTTSTTLAPTSTTSAPTTSTNSAPTSTISA
STTSTISAPTSTTISSPTSSSTTSTPQTSKTSAAATSSSTSGSGTTPSPVPTTSTTSASTTSTTSA
TSTTSGPGTTPSPVPTTSTTSAPTSTTSGPGSTPSPVPTTSTTSAPTTSTTSASTASTTSGPGT
TPSPVPTTSTTSAPTTRTTSASTASTTSGPGSTPSPVPTTSTTSAPTTRTTPASTASTTSGPGT
PSPVPTTSTTSASTTSTISLPTTSTTSAPISTTSGPGTTPSPVPTTSTTSAPTTSTTSASTAST
SGPGTTPSPVPTTSTTSAPTTSTTSASTASTTSGPGTSLSPVPTTSTTSAPTTSTTSGPGTTPSP
VPTTSTTSAPTTSTTSGPGTTPSPVPTTSTTPVSKTSTSHLS VS KTHSQPVTRDCHPLCAWT
KWFDVDFPSPGPHGGDKET YNNIIRSGEKICRRPEEITRLQCRAES HPEVNIIEHLGQVVQC

SREEGLVCRNQQDQGGPFKMCLN YEVRLCCETPRGCP VTS VTPYGTSP TNALYPSLSTSM
VSAS VASTS VASSSVASSS VAYSTQTCFCN VADRLYPAGSTIYRHRDLAGHCYYALCSQDC
QVVRG VSDSCPSTLPPAPATSPSISTSEPVTELGCPN AVPPRKKGET WATPNCSEATCEGN
NVISLRPRTCPRVEKPTCANG YPAVKVADQDGCCHHYQCQC VCSGWGDPHYITFDGTYY
TFLDNCTYVLVQQIVP VYGHFRVLVDNYFCGAEDGLS CPRSIILEYHQDRVVLTRKPVHGV
MTNEIIFNNKVVSPGFRKN GIVVS RIGVKMYATIPELGVQ VMFSGLIFS VEVFYSKFANNT
GQCGTCTNDRKDECRTPRGTVVASCSEMSGLWN VSIPDQPACHRP HPTPTTVGPTTVGST
TVGPTTVGSTTVGPTTPPAPCLPSPICQLILSKVFEPCHTVIPPLLFYEGCVFDRCHMTDLDV
VCSSLELYAALCAS HDICIDWRGRTGHMCPFTCPADKVYQPCGPSNPSYCYGNDSASLGA
LPEAGPITEGCFCEGMLTFSTSAQVCVPTGCPRLGPHGEPVKVGHVVGMD CQECTCEA
ATWTLTCRPKLCPLPPACPLPGFVPAAPQAGQCCPQYSCACNTSRCPAPVGCPEGARAI
PTYQEGACCPVQNCSTVCSINGTLYQPGAVVSSSLCETCRCELPGGPPSDAFVVSCTEQI
CNTHCPVGFYEQEQSGQCCGTCVQVACVTNTSKSPAHLFYPGETWSDAGNHCVTHQCEK
HQDGLVVVTTKKACPLSCLDEARMSKDGCCRFCCPPPPPPYQNQSTCAVYHRS LIQQQG
CSSSEPVRLAYCRGNCGDSSSMYSLEGNTVEHRCQCCQELRTSLRNVT LHCTDGSSRAFS
YTEVEECGCMGRRC PAPGDTQHS EEAPEPSQEAESGSW ERGVPVSPMH

>negative|Q00604|NDP

MRKHVLAASFMSLLVIMGDTDS KTDSSFIMSDPRRCMRHHYVDSIS HPLYKCSS KMV
LLARCEGHCSQASRSEPLVSFSTVLKQPFRRSSCHCCRPQTSKLKALRLRCSGGMRLTATYR
YILSCHCEECNS

>negative|P80188|NGA

MPLGLLWLGLALLGALHAQAQDSTSDLPAPPLSKVPLQQNFQDNQFQGWYVVGLAG
NAILREDKDPQKMYATIYELKEDKSYN VTSVLFRRKKKCDYWIRTFVPGCQPGFETLGNIKS
YPGLTSLYLRVVSNTYNQHAMVFFKKVSQNREYFKITLYGRTKELTSELKENFIRFSKSLG
LPENHIVFPVPIDQCIDG

>negative|Q13219|PAP

MRLWSWVLHLGLLSAALGCGLAERPRRARRDPRAGRPPRPAAGPATCATRAARGRRASP
PPPPPPGAWEA VRVPRRRQQREARGATEEPSPPSRALYFSGRGEQLRLRADLELPRDAFT
LQVWLR AEGQRSPAVITGLYDKCSYISRDRG WVVGIHTISDQDNKDPYFFSLKTDRAR
QVTINAHRSYLPQGWVYLAATYDQGFMKLYVNGAQVATSGEQVGGIFSPLTQKCKVLM
LGGALNHN YRGYIEHFSWKVARTQREILSDMETHGAHTALPQLLQENWDNVKHAW
PMKD GSSPKVEFSNAHGFLDTSLEPPLCGQTLCDNTEVIASYNQLSSFRQPKVVRVYRVV
NLYEDDHKNPTVTREQVDFQHHLAEAFKQYNI SWELDVLEVSNSLRRRLILANCDISKI
GDENCDPECNHTLTGHDGGDCRHLRHPAFVKKQHNGVCDMDCNYERFNFDGGECDDPE
ITNVTQTCFDPDSPHRAYLDVNELKNILKLDGSTHLNIFFAKSSEEELAGVATWPWDKEAL
MHLGGIVLNP SFYGM PGHTHTMIHEIGHSLGLYHVFRGISEIQSCSDPCMETEPSFETGDL
NDTNPAPKHKSCGDPGPGNDTCGFHSFFNTPYNNFMSYADDDCTDSFTPNQVARMHCYL
DLVYQGWQPSRKPAVALAPQVLGHTTDSVTLEWFPPIDGHFFERELGSACHLCLEGRILV
QYASNASSPMPCSPSGHWSPREAEGHPDVEQPCSSVRTWSPNSAVNPHTVPPACPEPQG
CYLELEFLYPLVPESLTIWVTFVSTDWDSSGAVNDIKLLAVSGKNISLGPQNVFCDVPLTIRL
WDVGEEVYGIQIYTLDEHLEIDAAMLTSTADTPLCLQCKPLKYKVV RDPLQMDVASILH
LNRKFVMDLNLGSVYQYWVITISGTEESEPSPAVTYIHGSGYCGDGIIQKDQGEQCDDM
N KINGDGCSLFCRQEVSFNCIDEPSRCYFHDGDGVCEEFEQKTSIKDCGVYTPQGFLDQW
ASNASVSHQDQCPGWVIIGQPAASQVCRTKVIDLSEGISQHAWYPCTISYPYSLAQTTF

WLRAYFSQPMVAAAVIVHLVTDGTYYGDQKQETISVQLLDTKDQS HDLGLHVLSCRNNP
LIIPVVHDL SQPFYHSQAVRVSFSSPLVAISGVALRSFDNFDVTLSSCQRGET YSPA EQSCV
HFACEKTDCPELAVENASLNCSSSDRYHG AQCT VSCRTGYVLQIRRDDELIKSQTGPS VTV
TCTEGKWNKQ VACEPVDCSIPDHHQVYAASFSCPEGTTFGSQC SFQCRHPAQLKGNNLL
TCMEDGLWSFPEALCELMCLAPPPVPNADLQTARCRENKHKVGSFC KYCKPGYHVPGS
SRKS KKRAFKTQCTQDGSWQEGACVPVTCDP PPPKFHGLYQCTNGFQFNSECR IKCEDSD
ASQGLGSNVIHCRKDGTWNGSFHVCQEMQGQCS VPNELNSNLKLQCPDG YAIGSECATS
CLDHNSESIILPMNVTVRDIPHWLNPNTRVERVVCTAGLKWYHPALIHCVKGCEPFMGDN
YCDAINNRAF CNYDGGDCCTSTVKT KKVTPFPMSCDLQGDCA CRDPQAQEHSR KDLRG
YSHG

>negative|Q9GZP0|PDG

MHRLIFVYTLICANFCSCRDT S ATPQSASIKALRNANLR RDESNHLTDLYRRDETIQVKGN
GYVQSPRFPNS YPRNLLLTWRLHSQENTRIQLVFDNQFGL EEAENDICRYDFVEVEDISETS
TIIRGRWCGHKE VPPRIKSRTNQI KITFKSDDYF VAKPGFKI YYSLLEDFQAAA S ETNWES
VTSSISGVS YNSPSVTDPTLIADALDKKIAEFDT VEDLLKYFNPESWQEDLENMYLDTPRY
RGRS YHDRKS KVDLDRLNDDAKRYSCTPRNYS VNIREELKLANV VFFPRCLLVQRCGN
CGCGTVNWR S CT CNSGKT VKKYHEVLQFEPGHI KRRGRAKT MALVDIQLD HHERCDCIC
SSRPPR

>negative|P36955|PED

MQALVLLLCIG ALLGHSSCQNPASPPEEGSPDPDSTGALVEEEDPFFKVP VNKLAAAVSNF
GYDLYRVR S STSPTTNVLLSPLS VATALS ALSLGAEQRTESIHRALYDLISSPDIHGT YKEL
LDTVTAPQKNLKS ASRIVFEK KLR I KSSFVAPLEKS YGTRPRVLTGNPRDLQ EINNWVQA
QMKGKLARSTKEIPDEISILLGVAHF KGQWVT KFDSR KTSLEDFYLDEERTVRVPMMSD
PKAVLRYGLSDSLCKIAQLPLTGSM S IIFLPLKVTQNLTLIEESLTSEFIHDIDRELKT VQA
VLTVPK LKLS YEGEVT KSLQEMKLQSLFDS P D FSKITGKPIKLTQVEHRAGFEWNE D GAG
TTPSPGLQPAHLTFPLDYHLNQPFIFVLRD TDTG ALLFIGKILDPRGP

>negative|Q92954|PRG

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

TSRIAEAMLQTTTRPNQTPNSKLVEVNPKSEDAGGAEGETPHMLLRPHVFMPEVTPDMD
YLPRVPNQGIINPMLSDETNICNGKPVDGLTTLRNGTLVAFRGHYFWMLSPFSPSPARRIT
EWWGIPSPIDTVFTRCNCEGKTFFFKDSQYWRFTNDIKDAGYPKPIFKGFGGLTGQIWAALS
TAKYKNWPESVYFFKRGGSIQQYIYKQEPVQKCPGRRPALNYPVYGETTQVRRRRFERAI
GPSQTHIRIQYSPARLAYQDKGVLHNEVKVSILWRGLPNVVTSAISLPNIRKPDGYDYA
FSKDQYYNIDVPSRTARAITTRSGQTLISKVWYNCP

>negative|O94813|SLI

MRGVGWQMLSLSLGLVLAILNKVAPQACPAQCSCSGSTVDCHGLALRSVPRNIPRNTERL
DLNGNITRITKTDFAGLRHLRVLQLMENKISTIERGAFQDLKELERLRLNRNHLQLFPEL
LFLGTAKLYRLDSENQIQAIPRKAFRGAVDIKNLQLDYNQISCIEDGAFRALRDLEVLTLN
NNNITRLSVASFNHMPKLRTFRLHSNNLYCDCHLAWLSDWLRQRPRVGLYTQCMGPSHL
RGHNVAEVQKREFVCSGHQSFMAPSCSVLHCPAACTCSNNI VDCRGKGLTEIPTNLPETIT
EIRLEQNTIKVIPPGAFSPYKCLRRLIDLSNNQISELAPDAFQGLRSLNSLVLYGNKITELPKSL
FEGLFSLQLLLLANKINCLRVDAFQDLHNLNLLSLYDNKLQTIKGTFSPLRAIQTMHLA
QNPFCDCHLKWLADYLHTNPIETSGARCTSPRRLANKRIGQIKSKKFRCSAKEQYFIPGTE
DYRSKLSGDCFADLACPEKCRCEGTTVDCSNQKLNKIPEHIPQYTAELRLNNEFTVLEAT
GIFKLPQLRKINFSNNKITDIEEGAFEGASGVNEILLTSNRLENVQHKMFKGLESKTLML
RSNRITCVGNDSFIGLSSVRLLSLYDNQITTVAPGAFDTLHSLSTLNLLANPFCNCYLAWL
GEWLRKKRIVTGNPRCQKPYFLKEIQDVAIQDFTCDDGNDDNSCSPLSRCPECTCLDT
VVRCNSKGLKVLPKGIPRDVELYLDGNQFTLVPKELSNYKHLTLIDLSNNRISTLSNQSF
NMTQLLTLILSYNRLRCIPRRTFDGLKSLRLLSLHGNDISVVEGAFNDLSALSHLAIGANP
LYCDCNMQWLSDWVKSEYKEPGIARCAGPGEMADKLLTTPSKKFTCQGPVDVNILAKC
NPCLSNPKNDGTCNSDPVDFYRCTCPYFGKQDCDVIHACISNPCKHGGTCHLKEGEE
DGFWCICADGFEGENCEVNDDCEDNDCENNSTCVGINNVTCLCPPEYTGELCEEKLD
FCAQDLNPCQHDSKCILTPKGFKCDCTPGYVGEHCDIDFDDCQDNCKNGAHCTDAVNG
YTCICPEGYSGLFCEFSPPMVLPRTPCDNFDCQNGAQCIVRINEPICQLPGYQGEKCEKL
VSVNFINKESYLQIPSAKVRPQTNITLQIATDEDSGILLYKGDKDHI AVELYRGRVRASYDT
GSHPASAIYSVETINDGNFHI VELLALDQSLSLSVDGGNPKIITNLSKQSTLNFDSPLYVGG
MPGKSNVASLRQAPGQNGTSFHGCIRNLYINSELQDFQKVPMQTGILPGCEPCHKKVC AH
GTCQPSSQAGFTCECQEGWMGPLCDQRTNDPCLGNKCVHGTCLPINAFS YSCKCLEGHG
GVLCDDEEEDLFNPCQAIKCKHGKCRSLGLGQPYCECSSGYTGDSCDREISCRGERIRDYY
QKQQGYAACQTTKKVSRLCRGGCAGGQCCGPLRSKRRKYSFECTDGSSFVDEVEKVV
KCGCTRCVS

>negative|P03973|SLP

MKSSGLFPFLVLLALGTLAPWAVEGSGKSFKAGVCPKKS AQCLRYKKPECQSDWQCPG
KKRCCPDTCGIKCLDPVDTPNPTRR KPGKCPVTYQCLMLNPPNFCMDGQC KRDLKCC
MGMCGKSCVSPVKA

>negative|Q9BQB4|SOS

MLPLALCLVCLLVHTAFRVVEGQGWQAFKNDATEIPELGEYEPPELENNKTMNRAE
NGGRPPHPFETKD VSEYSCRELHFTRYVTDGPCRS AKPVTELVCSGQCGPARLLPNAIGR
GKWWRPSGPDFRCIPDRYRAQRVQLLCPGGEAPRARKVRLVASCKCKRLTRFHNQSELK
DFGTEAARPQKGRKPRPRARS AKANQAELENAY

>negative|P04155|TFF

MATMENKVICALVLSMLALGTLAEAQTECTVAPRERQNCGFPGVTPSQCANKGCCFD

DTVRGVPWCFYPNTIDVPPEEECEF

>negative|P01137|TGF

MPPSGLRLLLLLLPLLWLLVLTTPGRPAAGLSTCKTIDMELVKKRIEAIARGQILSKLRLASPP
SQGEVPPGPLPEAVLALYNSTRDRVAGESAEPEPEPEADYYAKEVTRVLMVETHNEIYDKF
KQSTHSIYMFNTSELREAVPEPVLLSRaelRLRLKLKVEQHVELYQKYSNNSWRYLSN
RLLAPSDSPEWLSFDVTGVVRQWLSRGGEIEGFRLSAHCS CDSRDNTLQVDINGFTTGRR
GDLATIHGMRPFLLMATPLERAQHLQSSRHRRALDTNYCFSSTEKNCCVRQLYIDFRK
DLGWKWIHEPKGYHANFCLGPCPYIWSLDTQYSKVLALYNQHNP GASAAPCCVPQALEP
LPVYVYVGRKPKVEQLSNMIVRSCKCS

>negative|P01033|TIM

MAPFEPLASGILLLLWLIAPSRCTCVPHPQTAFCNSDLVIRAKFVGTPEVNQTTLYQRYE
IKMTKMYKGFQALGDAADIRFVYTPAMESVCGYFHRS HNRS EEFLIAGKLQDGLLHITTC
SFVAPWNSLSLAQRRGFTKTYT VGCEECTVFPCL SIPCKLQSGTHCLWTDQLLQGSEKGF
QSRHLACLPREPGLCTWQSLRSQIA

>negative|P15692|VEG

MNFLLSVHWSLALLLYLHHAKWSQAAPMAEGGGQNHHEVVKFMDVYQRSYCHPIET
LVDIFQEPDEIEYIFKPSCVPLMR CGGCNDEGLECVPTESNITMQIMRIKPHQGQHIGE
MSFLQHNKCECRPKKDRARQEKKSVRGKGGKQKRKRKKSRYKSWSVYVGARCCMPW
SLPGPHPCGPCSERRKHLFVQDPQTC KCSCKNTDSRC KARQLELNERTCRCDKPRR

>negative|P04275|VWF

MIPARFAGVLLALALILPGTLCAEGTRGRSSTARCSLFGSDFVNTFDGSMYSFAGYCSYLL
AGGCQKRSFSIIGDFQNGKRVLSVYLGEFFDIHLFVNGT VTQGDQRVSMYPYASKGLYLET
EAGYYKLSGEAYGFVARIDGSGNFQVLLSDRYFNKTCGLCGNFNIFAEDDFMTQEGTLTS
DPYDFANSWALSSGEQWCERASPPSSSCNISSGEMQKGLWEQCQLLKSTSVFARCHPLVD
PEPFVALCEKTLCECAGGLECACPALLEYARTCAQEGMVLYGWTDHSACSPVCPAGMEY
RQCVSPCARTCQSLHINEMCQERCVDGCSCPEGQLLDEGLCVESTECPCVHSGKRYPPGT
SLSRDCNTCICRNSQWICSNEECPGECLVTGQSHFKSFDNRYFTFSGICQYLLARDCQDHS
FSIVIVTQCADDRDAVCTRSVTVRLPGLHNSLVKLKHGAGVAMDGQDVQLPLLKGDLR
QHTVTASVRLSYGEDLQMDWDGRGRLLVKLSPVYAGKTCGLCGNYNGNQGDFFLTPSG
LAEPRVEDFGNAWKLHGDCQDLQKQHS DPCALNPRMTRFSEEACAVLTSPTFEACHRAVS
PLPYLRNCRYDVCSCSDGRECLCGALASYAAACAGRGVRVAWREPGRCELNCPKGQVYL
QCGTPCNLTCRSLSYPDEECNEACLEGCFPPGLYMDERGDVCPKAQCPCYYDGEIFQPE
DIFSDHHTMCYCEDGMHCTMSGVPGSLLPADVLSPLSHRSKRSLSCRPPMVKLVC PAD
NLR AEGLECTKTCQNYDLECM SMGCVSGCLCPPGMVRHENRCVALERCPCFHQGKEYAP
GETVKIGCNTVCQDRKWNCTDHVCDATCSTIGMAHYLTFDGLKYLFPGECQYVLVQDY
CGSNPGTFRILVGNKGCSHPSVKCKKRVTILVEGGEIELFDGEVNVKRPMKDETHFEVVES
GRYIILLGKALS VVWDRHLSISVVLKQTYQEKVCGLCGNFDGIQNNDLTSSNLQVEEDP
VDFGNSWKVSSQCADTRKVPLDSSPATCHNNIMKQTMVDSSCRILTSDVFQDCNKLVDPE
PYLDVCIYDTCSESIGDCACFCDTIAAYAHVCAQH GKVVWRTATLCPQSCEERNLREN
GYECEWRYNSCAPACQVTCQHPEPLACPVCVEGCHAHCPPGKILDELLQTCVDPEDCP
VCEVAGRRFASGKKVTLNPSDPEHCQICHCDVVNLTCEACQEPGGLVVPPTDAPVSPPTLY
VEDISEPPLHDFYCSRLLDLVFLLDGSSRLSEAEFEVLKAFVVDMMERLRISQKWVRVAVV
EYHDGSHAYIGLKDRKRPSELRRIASQVKYAGSQVASTSEVLKYTLFQIFSKIDRPEASRIT
LLMASQEPQRMSRNFVRYVQGLKKKKVIVIPVGIGPHANLKQIRLIEKQAPENKAFVLSS

VDELEQQRDEI VS YLCDL APEAPPPTLPPDMAQVT VGPGLLG VSTLGPKRNS MVLD VAFV
LEGSD KIGEADFNRS KEFMEEVIQRMD VGQDSIHVT VLQ YS YMVTVE YPFSEAQS KGDIL
QRVREIRYQGGNRTNTGLALRYLSDHSFLVSQG DREQAPNLVYMTGNPASDEIKRLPGDI
QVVPIGVGPANANVQELERIGWPNAPILIQDFETLPREAPDLVLQRCCSGEGLQIPTLSPAPD
CSQPLDVILLDDGSSSFPAS YFDEMKSFAKAFISKANIGPRLTQ VS VLQ YGSITTIDVPWNV
VPEKAHLLSLVD VMQREGGPSQIGDALGFAVRYLTSEMHG ARP GAS KAVVILVTD VS VDS
VDAADAARSNRVT VFPIGIGDRYDAAQLRILAGPAGDSNVV KLQRIEDLPTMVTLGNSF
LHKLCSGFVRICMDEEDGNEKRP GD VWTL PDQCHT VTCQPDGQTLLKS HRVNC DRGLRPS
CPNSQSPVKVEETCGCRWTCPCVCTGSSTRHI VTFDGGQNF KLTGSCS YVLFQNKEQDLEVI
LHNGACSPGARQGC MKSIEVKHS ALS VELHS DMEVTVN GRLVS VP YVGGNMEVN VYGA
IMHEVRFNHLGHIFTFTPQNEFQLQLSPKTFAS KT YGLCGICDENG ANDFMLRDGT VTT
DWKTLVQEWT VQRPGQTCQPIL EEQCLVPDSS HCQVLLLPLFAECHKVLAPATFYAICQQD
SCHQEQVCEVIAS YAHL CRTNGVCVDWRTPDFC AMSCPPSLVYNHCEHGCPRHCDGNVS
SCGDHPS EGCFCPPDKVMLEGSCVPEEACTQCIGEDGVQH QFLEAW VPDHQP CICTCLS
GRKVNCTTQPCPTAKAPT CGLCEVARLRQNADQCCPEYECVCDPVSCDLPPVPHCERGLQ
PTLTNPGECPNFTCACRKEECKRVSPSPCPPHRLPTLRKTQCCDEYECACNCVNSTVSCP
LGYLASTATNDCGCTTTTCLPKVCVHRSTIYPVGQFWEEGCDVCTCTDMEDAVMGLRV
AQCSQKPCEDSCRS GFTYVLHEGECCGRCLPS ACEVVTGSPRGDSQSSWKS VGSQWASPE
NPCLINECVRVKEEVFIQQRNVS CPQLEVPVCPSGFQLSCKTS ACCPSCRCERMEACMLNG
TVIGPGKTVMIDVCTTCRCMVQVGVISGFKLECRKTT CNPCPLGYKEENNTGECCGRCLP
TACTIQLRGGQIMTLKRDETLQDGDTHFCVKNERGEYFWEKRV TGCPPFDEHKCLAEG
GKIMKIPGTCCDTCEEPECNDITARLQYVKVGSCKSEVEVDIHYCQ GK CAS KAMYSIDIND
VQDQCCSCSPTRTEPMQVALHCTNGS VVYHEVLNAMECKCSPRKCSK

>negative|O15537|XLR

MSRKIEGFLLLLLFGYEATLGLSSTEDEGEDPWYQKACKCDCQGGPNALWSAGATSLDCI
PECPYHKPLGFESGEVTPDQITCSNPEQYVGWYSSWTANKARLNSQGGFC AWLSKFQDSS
QWLQIDLKEIKVISGILTQGRCDIDEWMTKYSVQYRTDERLNWIYYKDQTGNNRVFYGNS
DRTSTVQNLLRPPIISRIFIRLIPLGWHVRIARMELLECVSKCA

>negative|Q9BY76|ANG

MSGAPTAG AALMLCAATAVLLS AQGGPVQS KSPRFASWDEMNVLAHGLLQLGQGLREH
AERTRSQLSALERRLSACGS ACQGTEGSTDLPLAPESRVDPEVLHSLQTQLKAQNSRIQQL
FHKVAQQRHLEKQHLRIQHLQSQFGLLDHKHLDHEVAKPARRKRLPEMAQPVDPAHNV
SRLHRLPRDCQELFQVGERQSGLFEIQPQGSPPFLVNCKMTSDGGWTVIQRRHDGSVDFN
RPWEAYKAGFGDPHGFEWLGLEKVHSITGDRNSRLAVQLRDWDGNAELLQFSVHLGGE
DTAYSLQLTAPVAGQLGATTVPPSGLSVPFSTWDQDHDLRDKNC AKSLSGGWVWFGTCS
HSNLNGQYFRSIPQQRQKLKKGIFWKTWRGRYYPLQATTMLIQPMAAEAS

>negative|Q8N6G6|ATL

MECCRRATPGTLLLFLAFLLLSSRTARSEEDRDGLWD AWGPWSECSRTC GGGAS YSLRRC
LSSKSCEGRNIRYRTCSNVDCPPEAGDFRAQCS AHNDVKHHGQFYE WLPVSNPDNPC
SLKCQAKGTTLVVELAPKVLDTGTRCYTESLDMCISGLCQIVGCDHQLGSTVKEDNCGVC
NGDGSTCRLVRGQYKS QLSATKSDDTVVAIPYGSRHIRLV LKGPDHLYLETKTLQGTKGE
NSLSSTGTFLVDNSSVDFQKFPDKEILRMAGPLTADFIVKIRNSGSADSTVQFIF YQPIIHRW
RETDFFPCSATCGGGYQLTS AECYDLRSNRVVADQYCHYYPENIKPKLQECNLDP CPAS
DGYKQIMPYDLYHPLPRWEATPWTACSSSCGGGIQSR AVSCVEEDIQGHVTS VEEWKCM

YTPKMPIAQPCNIFDCPKWLAQEWSPTVTCGQGLRYRVVLCIDHRGMHTGGCSPKTKP
HIKEECIVPTPCYKPKEKLPVEAKLPWFKQAQEELEEGAASVEEPSFIPEAWSACTVTCGVG
TQVRIVRQCQVLLSFSQS VADLPIDECEGPKPASQRACYAGPCSGEIPFNPDET DGLFGGLQ
DFDELYDWEYEGFTKCS ESCGGGVQEAVVS CLNKQTREPAEENLCVTSRRPPQLLKSCNL
DPCPARWEIGKWSPCSLTCGVGLQTRDVFCSHLLSREMNETVILADELCRQPKPSTVQAC
NRFNCPPAWYPAQWQPCSRTCGGGVQKREVLCKQRMADGSFLELPETFCSASKPACQQA
CKKDDCPSEWLLSDWTECSTSCGEGTQTRS AICRKMLKTGLSTVVNSTLCPPLPFSSSIRP
CMLATCARPGRPSTKHSPHIAAARKVYIQTRRQRKLFVVGGFAYLLPKTAVVLRCPARR
VRKPLITWEKDGQHLLISSTHVT VAPFGY LKIHRLKPSDAGVYTCSAGPAREHFVIKLIIGN
RKLVARPLSPRSEEEVLAGRKGKGPKEALQTHKHQNGIFSNGSKAEKRGLAANPGSRYDDL
VSRLLQGGWPGELLASWEAQDS AERNNTSEEDPGA EQVLLHLPFTMVTEQRRLDDILG
NLSQQPEELRDLYSKHLVAQLAQEIFRSHLEHQDTLLKPSERRTSPVTLSPHKHVS GFSSSL
RTSSTGDAGGSRRP HRKPTILRKISAAQQLSASEVVT HLGQTVALASGTLVLLHCEAIG
HPRPTISWARNGEEVQFSDRILLQPDDSLQILAPVEADVGFYTCNATNALGYDSVSI AVTL
AGKPLVKTSRMTVINTEKPAVTVDIGSTIKTVQGVNVTINCQVAGVPEAEVTWFRNKS KL
GSPHHLHEGSLLLTNVSSSDQGLYSCRAANLHGELTESTQLLILDPPQVPTQLEDIRALLAA
TGPNLPSVLTSPGLTQLVLDPGNS ALLGCPIKGHPVPNITWFHGGQPIVTATGLTHHILAAG
QILQVANLSGGSQGEFSCLAQNEAGVLMQKASLVIQDYWWSVDRLATCS ASCGNRGVQQ
PRLRCLLNSTE VNPACAGKVRPAVQPIACNRRDCPSRWMVTSWSACTRSCGGGVQTRR
VTCQKLKASGISTPVSNDMCTQVAKRPVDTQACNQQLC VEWAFSSWGQCNGPCIGPHLA
VQHRQVFCQTRDGITLPSEQCSALPRPVSTQNCWSEACSVHWRVSLWTLCTATCGNYGFQ
SRRVEC VHARTNKAVPEHLCSWGPRPANWQRCNITPCENMECRDTTRYCEKV KQLKLCQ
LSQFKSRCCGTCGKA

>negative|Q9NZP8|C1R

MPGPRVWGKYLWRSPHSKGCPGAMWWLLWGVLQACPTRGSVLLAQELPQQLTSPGY
EPYGGKQESSTDIKAPEGFVRLVFQDFDLEPSQDCAGDSVTISFVGS DPSQFCGQ QGSP
RPPGQREFVSSGRSLRLTFRTQPSENKTAHLHKGFLALYQTVAVNYSQPISEASRGSEAIN
APGDNPAKVQNHCEPYYQAAAAGALTCATPGTWKDRQDGEEVLQCMPCVGRPVTPIA
QNQTTLGSSRAKLG NFPWQAFTSIHGRGGGALLGDRWILTAHTIYPKDSVSLRKNQS VN
VFLGHTAIDEMLKLGNHPVHRV VVHPDYRQNESHNFSGDI ALLELQHSIPLGPNVLPVCLP
DNETLYRSGLLYVSGFGMEMGWLTTELKYSRLPVAPREACNAWLQKRQRPV FSDNMF
CVGDETQRHSVCQGDSGSVYVVWDNHAHHWVATGIVSWGIGCGEGYDFYTKVLSYVD
WIKGVMNGKN

>negative|Q66K79|CBP

MPPPLPLLLLTVLVVAARPGCEFERNPAGECHRPPAADSATCVDLQLRTCSDAAYNHTTF
PNLLQHRSWEVVEASSEYILLSVLHQLLEGQCNPDLRLLGCAVLAPRCEGGWVRRPCRHI
CEGLREVCQPAFD AIDMAWPYFLDCHRYFTREDEGCYDPLEKLRGGLEADEALPSGLPPT
FIRFSHHSYAQMVRVLRRTASRCAHVARTYSIGRSFDGRELLVIEFSSRPGQHELMEPEVKL
IGNIHGNEVAGREMLIYLAQYLCS EYLLGNPRIQRLLNTTRIHLPSMNPDG YEVA AEGA
GYNGWTSGRQNAQNLDLNRNFPDLTSEY YRLAETRARS DHIPQHYWVGKVAPETKA
IMKWMQTIPVLSASLHGGDLVVSYPDFSKHPQEEKMFSPTPDEKMFKLLSRAYADVHP
MMMDRSENRCGGNFKRGSIIINGADWYSFTGGMSDFNYLHTNCFEITVELGCVKFPPEE
ALYILWQH NKESLLNFVETVHRGIKGVVTDKFGKPVKNARISVKGIRHDIT TAPDGDYWR
LLPPGIHIVIAQAPGYAKVIKKVIIPARMKRAGRVDIFILQPLGMGPKNFIHGLRRTGPHDPL

GGASSLGEATEPDPLRARRQPS ADGS KPWW WS YFTSLSTHRPRWLLKY

>negative|Q07092|COG

MW VSWAPGLWLLGLWATFGHGANTGAQCPPSQEGLKLEHSSSLPANVTGFNLIHRSL
MKTSAIKKIRNPKGPLILRLGAAPVTQPTRRVFPRGLPEEFALVTL LLLKKHTHQKTWYLF
QVTDANGYPQISLEVNSQERSLELRAQQDGDVFCIFPVPQLFDLRWHKLMLSVAGRVA
SVHVDCSSASSQPLGPRRPMRPVGHVFLGLDAEQGKPVSFDLQQVHIYCDPELVLEEGCC
EILPAGCPPETSKARRDTQSNELIEINPQSEGKVVYTRCFCLEEPQNSEVDAQLTGRISQKAE
RGAKVHQETAADCEPPCVHGARSDNVTLAPSGPKGKGERGLPGPPGSKGKARGND
CVRISPDAPLQCAEGPKGKESGALGPSGLPGSTGKQKGEKGDGGIKGVPGKPRDG
RPGEICVIGPKGQKGDVPGFVGPGLAGEPGPPGLPGPPGIGLPGTPGDPGPPGPKGDKGS
SGIPGKEGPGKPKGPKGKGEKGDVCEVCPTLPEGFQNFVGLPGKPGPKGEPGDPVARG
DPGIQGIKGEKGEPCLSVVAQAHLVSTGASGDVSGPFGPLPGRAGVPGLKGEK
GNFGEAGPAGSPGPPGVPAGIKGAKGEPCEPCALSNLQDGDVRVVALPGSGEKGEKGP
PPGFGPLGKQKAGERGLKQKGDAGNPGDPTGTTGRPGLSGEPGVQGPAGPKGEK
DGCTACPSLQGTVTDAGRPGQPGKGEQPEGVGRPGKPGQPLPGVQGPGLKGVQ
GEPGPPGRGVQGPQGEPAVGLPGIQLGPRGPPGPTGKGAQGSVKGATGPVGP
ASVSGPPGRDQGGQGLRGTGKGRGKGEKGEKGEKGEKGEKGEKGEKGEKGEKGEK
SSWQPGPQGGPPIGPPGPPGVPGLQGVPGNGLPGQPLTAEGLSLPIEQHLLKSICGDCV
QQRAHPGYLVEKGEKGDQGIPGVPGLDNCACFLSLERPRAEEARGDNSEGDPCVGS
PGLPGPPGLPGQRGEEGPPGMRGSPGPPGPIGPPGFPGAVGSPGLPGLQGERGLTGLTGD
GEPGPPGQPGYPGATGPPGLPGIKGERGYTGSAGEKGEKGEKGEKGEKGEKGEKGEK
PQNSGEKGDQGFQGPFPGPPGPPGFPKVGSPGPPGPAEKGEKGEKGEKGEKGEKGEK
PGPPGIQGPAGLDGLDGDGKPKGLRGPAGPPGLMPPGFKGKTGHPGLPGPKGDGCG
KPGPPGSTGRPGAEGEPGAMGPQGRPGPHVGPVGPVGPVGPVGPVGPVGPVGPVGPV
RGLAGLPQGPVHPGPPGEPGTDGAAGKEGPPGKQGFYGPVGPVGPVGPVGPVGPVGPV
EKGRAGMPGGPKSGSMGPVGPVGPVGPVGPVGPVGPVGPVGPVGPVGPVGPVGPVGPV
KRFIRQEIIMFDERMAYYTSRMQFPMEMAAAPGRPGPPGKDGAPGRPGAAGQKQAG
GREGRQGLPVRGLPGTKGEKGDIGIGIAGENGLPGPPGPPGPPGPPGPPGPPGPPGPPG
PGIPGPPGPMGQPGKAGHCNPSDCFGAMPMEQQYPPMKTMKGPPG

>negative|O75629|CRE

MAGLSRGSARALLAALLASTLLALLVSPARGGRDHGDWDEASRLPPLPPREDAARVA
RFVTHVSDWALATISTLEAVRGRPFADVLSLSDGPPGAGSGVPYFYLSPLQLSVSNLQEN
PYATLTMTLAQTNFCKKHGFDQSPVHIMLSGTVTKVNEMDIKHS LFIRHPEMKT
WPSSHNWFFAKLNITNIWVLDYFGGPKIVTPEEYNTVQ

>negative|P60022|DEF

MRTSYLLLFTLCLLSEMASGGNFLTGLGHRSDHYNVCVSSGGQCLYSACPIFTKIQTGYR
GKAKCK

>negative|Q6E0U4|DMK

MKFQGLACLALLALCLGSGEAGPLQSGEESTGTNIGEALGHGLGDALSEG VGKAIGKEAG
GAAGSKVSEALGQGTREAVGTGVRQVPGFVADALGNRVGEAAHALGNTGHEIGRQAE
DVRHGADAVRGSWQGVPHNGAWETSGGHGIFGSQGGGLGGQGGNPGGLGTPVWHG
YPGNSAGSFGMNPQAPWGQGGNGPPNFGTNTQGAQAQPGYGSVRASNQNEGCTNPP
PSGSGGGSSNSGGGSGSQSGSSGSGSNGDNNNGSSSSGGSSSGSSSGSSGGSSGGSSGNSG
GSRGDSGSESSWGSSTGSSSGNHGSGGGNGHKGKPGCEKPGNEARGSGESGIQNSSETSPGM

FNFDTFWKNFKSKLGFINWD AINKNQ VPPPSTRALLYFSRLWEDF KQNTPFNLWKAIEGA
DASSLQKRAGRDDQNYNYNQ HAYPTAYGGKYS VKTPAKGGVSPSSASRVQPGLLQWV
KFW

>negative|Q9UHF1|EGF

MRGSQEVLLMWLLVLAVGGTEHAYRPGRRVC AVRAHGDPVSESFVQRVYQPFLTTCDBGH
RACSTYRTIYRTAYRRSPGLAPARPRYACCPGWKRTSGLPGACGAAICQPPCRNGGSCVQP
GRCRCPAGWRGDTQCSDVDECSARRGGCPQRCVNTAGSYWCQCWEGHSLSDGTLCPV
KGGPPRVAPNPTGVDSAMKEEVQRLQSRVDLLEEKLQLVLAPLHSLASQALEHGLPDPGS
LLVHSFQQLGRIDSLSEQISFLEEQLGSCSCKKDS

>negative|Q9NP95|FGF

MAPLAEVGGFLGLEGLGQQVGS HFLPPAGERPPLLGERRSAAERSARGGPGAAQLAH
LHGILRRRQLYCRTGFHLQILPDGVSQGTRQDHSLFGILEFISVAVGLVSIRGVDSGLYLG
NDKGELYGSEKLTSECIFREQFEENWYNTYSSNIYKHGDTGRRYFVALNKDGTPRDGARS
KRHQKFTHFLPRPVDPERVPELYKDLLMYT

>negative|Q9UK05|GDF

MCPGALWVALPLLSLLAGSLQGKPLQSWGRGSAGGNAHSPLGVPGGGLPEHTFNLKMFL
ENVKVDFLRSLNLSGVPSQDKTRVEPPQYIMIDLNYRYS DKSTTPASNIVRSFSEMEDAISIT
ATEDFPFQKHILLFNISIPRHEQITRAELRLYVSCQNHVDPSHDLKGSVVIYDVLDTDAWD
SATETKTFLVSQDIQDEGWETLEVSSAVKRWVRSDSTKSNKLEVTVESHRKGCNTLDIS
VPPGSRNLPFFVVSNDHSSGTKETRLELREMISHEQESVLKKLSKDGSTEAGESSHEEDT
DGHVAAGSTLARRKRSAGAGSHCQKTSLRVNFEDIGWDSWIIAPKEYEAYECKGGCFFPL
ADDVTPTKHAIVQTLVHLKFPTKVGKACCVPTKLSPIVLYKDDMGVPTLKYHYEGMSV
AECGR

>negative|Q14520|HAB

MFARMSDLHVLLLMALVGKTACGFSLMSLLES LDPDWTPDQYDYSYEDYNQEENTSSSTL
THAENPDWY YTEDQADPCQPNPCEHGGDCLVHGSTFTCSCLAPFSGNKCKQKVQNTCKD
NPCGRGQCLITQSPYYRCVCKHPYTGPSCSQVVPVCRPNPCQNGATCSRHKRRSKFTCA
CPDQFKGKFCEIGSDDCYVGDGYSYRGKMNRTVNQHACLWNSHLLQENYNMFMED
AETHGIGEHNFCRNPDADEKPWCFIKVTNDKVKWEYCDVSACS AQDVAYPEESPTEPSTK
LPGFDSCGKTEIAERKIKRIYGGFKSTAGKHPWQASLQSSPLTISMPQGHFCGALIHPC
WVLTAAHCTDIKTRHLKVVLGDQDLKKEEFHEQSFRVEKIFKYSHYNERDEIPHNDIALL
KLKPVGDHCALESKYVKT VCLPDGSPSGSECHISGWGVTEGKGRQLLDAKVLIANT
LCNSRQLYDHMIDDSMICAGNLQKPGQDTCQGDSGGPLTCEKDGTYVYVYGI VSWGLECG
KRPVYTVTKFLNWIKATIKSESGF

>negative|P83110|HTR

MQARALLLAALALAREPPAAPCPARCDVSRCPSPRCPPGYVPDLCNCLVCAASEGE
PCGGPLDSPCGESLECVRGLRCRWSHAVCGTDGHTYANVCALQAASRRALQLSGTPVR
QLQKACPLGLHQLSSPRYKFNFIADVVEKIAPAVVHIELFLRHPLFGRNVPLSSGSGFIMS
EAGLIITNAHVVSNSAAPGRQQLKVQLQNGDSYEATIKDIDKSDIATI KIHPKKKLPVLL
LGHSADLRPGEFVVAIGSPFALQNTVTTGIVSTAQREGRELGLRDSMDYIQTDAIINYNS
GGPLVNL DGEVIGINTLKVTAGISFAIPSDRITRFLTEFQDKQIKDWKKRFIGIRMRTITPSLV
DELKASNPDFPEVSSGIYVQEVAPNSPSQRGGIQDGDIIKVNGRPLVDSSELQEAVLTESP
LLEVRRGNDDLFSIAPEVVM

>negative|Q8IZI9|IFN

MTGDCMPVLVLMAAVLTVTGAVPVARLRGALPDARGCHIAQFKSLSPQELQAFKRAKDA
LEESLLLKDCCKCRSRLFPRTWDLRQLQVRERPVALEAELATLKVLEATADTDPALGDVL
DQPLHTLHHILSQLRACIQPQPTAGPRTRGRLHHWLHRLQEAPKKESPGCLEASVTFNLFRL
LLTRDLNLCVASGDLCV

>negative|P15814|IGL

MRPGTGQGGLEAPGEPGNLRQRWPLLLLGLAVVTHGLLRPTAASQSRAALGPGAPGGSSR
SSLRSRWGRFLLQRGSWTGPRCWPRGFQSKHNSVTHVFGSGTQLTVLSQPKATPSVTLFP
PSSEELQANKATLVCLMNDFYPGILTVTWKADGTPITQGVEMTTPSKQSNKYAASSYLSL
TPEQWRSRRSYSCQVMHEGSTVEKTVAPECS

>negative|P20809|IL1

MNCVCRLVLVLSLWPDVAVAPGPPPGPPRVSPDPRAELDSTVLLTRSLLADTRQLAAQLR
DKFPADGDHNLDSLPTLAMSAGALGALQLPGVLTRLRADLLSYLRHVQWLRRAGGSSLK
TLEPELGTQLARLDRLRLQLLMSRLALPQPPDPAPPLAPPSSAWGGIRAAHAILGGL
HLTLDWAVRGLLLLKTRL

>negative|Q9HBE4|IL2

MERIVICLMVIFLGTLVHKSSSQGQDRHMIRMQRQLIDIVDQLKNYVNDLVPEFLPAPEDVE
TNCEWSAFSCFQKAQLKSANTGNNERIINVSIKKLKRKPPSTNAGRRQKHRLTCPSCDSYE
KKPPKEFLERFKSLQKMIHQHLSRTHGSEDS

>negative|Q6ZMJ4|IL3

MPRGFTWLRYLGIPLGVALGNEPLEMWPLTQNEECTVTGFLRDKLQYRSRLQYMKHYFPI
NYKISVPYEGVFRIANVTRLQRAQVSERELRYLWVLVSLATESVQDVLLEGHPSWKYLQ
EVETLLLVQQGLTDEVSPKVESVLSLLNAPGPNLKLVRPKALLDNCFRVMELLYCSCC
KQSSVLNWQDCEVPSPQSCSPEPSLQYAATQLYPPPPWSPSSPPHSTGSVRPRAQGEGLL
P

>negative|Q8N2S1|LTB

MPRPGTSGRRPLLLVLLPLFAAATS AASPSPSQVVEVPGVPSRPASVAVCRCCPGQTSR
RSRCIRAFCRVRSCQPKKAGPQRCLNPVAVPSPSPSVRKRQVSLNWQPLTLQEARALLK
RRRPRGPGGRGLLRPPQRAPAGKAPVLCPLICHNGGVCVKPDRCLCPPDFAGKFCQLH
SSGARPPAPAVPLTRS VYTMPLANHRDDEHG VASMVS VHVEHPQEASVVVHQVERVSG
PWEEADAEAVARAEAAARAEAAAPYT VLAQSAPREDGYS DASGFGYCFRELRGECASP
LPGLRTQEVCCRGAGLAWGVHDCQLCSERLGNSEVSAPDGPCPTGFERVNGSCEDVDE
CATGGRCQHGECANTRGGYTCVCPDGFLLDSSRSSCISQHWISEAKGPCFRVLRDGGCSLP
ILRNITKQICCCSRVKGAWGRGCQLCPPFGSEGFREICPAGPGYHYSASDLRYNTRPLGQEP
PRVLSLQPRTLPATSRPSAGFLPTHRLEPRPEPRDPDPGPELPLPSIPAWTGPEIPESGPSSGM
CQRNPQVCGPGRCISRPSGYTCACDSGFRLSPQGTRCIDVDECRRVPPPCAPGRCENSPGS
FRCVCGPGFRAGPRAAECLDVDECHRVPPPCDLGRCENTPGSFLCVCPAGYQAAPHGASC
QDVDECTQSPGLCGRGACKNLPGSFRCVCPAGFRGSACEEDVDECAQEPPPCGPGRCNDT
AGSFHCACPAGFRSRGPGAPCQDVDECARSPPPCTYGRCENTEGSFQCVCPMGFQPN
TAGSECDVDECENHLACPGQECVNSPGSFQCRTPSGHHLHRGRCTDVDECSSGAPPCGPHG
HCTNTEGSFRCSAPGYRAPSGRPGPCADVNECLEGDFCFPHGECLNTDGSFACTC
APGYRPGPRGASCLDVDECSEEDLCQSGICTNTDGSFECICPPGHRAGPDLASCLDV
DECRRERGPALCGSQRCENSPGSYRCVRDCDPGYHAGPEGTCDDVDECQY
GPEICGAQRCECTPGSYRCTPACDPGYQPTPGGGCQDVDECNR
SFQCGAHAVCQNLPGSFQCLCDQGYEGARDGRHCVDVNECETLQGVCGAALCEN
VEGSFLCVCPNSPEEFDPMTGRCVPPRTSAGTFFGSQPQ

APASVLPARPPPPPLRRPSTPRQGPVSGRREC YFDTAAPDACDNILARNVTWQECCT
VGEGWGSQCRIQQCPGTETAEYQSLCPHGRGYLAPSGDLSLRRDVDECQLFRDQVCKSG
VCVNTAPG YSCYCSNGYYYHTQRLECIDNDEC ADEEPACEGGRCVNTVGS YHCTCEPPL
VLDGSQRRCVSNESQS LDDNLGVCWQEVGADLVCS HPRLDQRQATYTECCCLYGEAWGM
DCALCPAQDSDDFEALCNVLRPPAYSPPRPGGFLP YEYGPDLGPPYQGLP YGPELYPPPA
LPYDPYPPPPGPFARREAPY G APRFDMPDFEDDGGPYGESEAPAPPGPTRWP YRSRDTRR
SFPEPEEPPEGGS YAGSLAEP YEELEAEEC GILDGCTNGRC VRVPEGFTCRCFDG YRLDMT
RMACVDINECDEAEAASPLCVNARCLNTDGSFRICICRPGFAPT HQPHHCAPARPRA

>negative|Q9H8L6|MMR

MILSLLFSLGGPLGWLLGAWAQASSTSLSDLQSSRTPGVWKAE AEDTGKDPVGRNWCP
YPMSKLVTLALCKTEKFLIHSQQPCPQ GAPDCQKVKVMYRMAHKPVYQVKQKVLTSLA
WRCCPGYTGPNCEHHDSMAIPEPADPGDS HQEPQDGPVSFKPGHLAAVINEVEVQEQQE
HLLGDLQNDVHRVADSLPGLWKALPGNLTAAMEANQTGHEFPDRSLEQVLLPHVDFTL
QVHFSPiWRSFNQSLHSLTQAIRNLSLDEANRQAISRVQDS AVARADFQELGAKFEAKVQ
ENTQRVQQLRQDVEDRLHAQHFTLHRSISELQADVDTKLRHLKAQEA PGTNGLSLVATP
GAGARPEPDSLQARLGQLQRNLSLHMTTARREEELQYTL EDMRATLTRHVDEIKEL YSE
SDETFDQISKVERQVEELQVNHTALREL RVILMEKS LIMEENKEEVERQLELNLTLQHLQ
GGHADLIKYVKDCNCQKLYLDLDVIREGQRD ATRALEETQVSLDERRQLDGSSLQALQN
AVDAVSLAVDAHKAEGERARAATSRLRSQVQALDDEVGALKAAAAEARHEVRQLHS AF
AALLEDALRHEAVLAALFGEEVLEEMSEQTPGPLPLS YEQIRVALQDAASGLQEALGWD
ELAAARVTALEQASEPPRPAEHLEPSHDAGREEAATTALAGLARELQSLSNVKNVGRCC
AEAGAGAASLNASLHGLHNALFATQRSLEQHQR LHFSLFGNFQGLMEANVSLDLGKLQT
MLSRKGGKQKQKDL EAPRKRDKKEAEPLVDIRVTGPVPGALGAALWEAGSPVAFYASFSE
GTAALQTVKFNTTYINIGSS YFPEHG YFRAPERGVYLF AVSVEFGPGPGTGQLVFGGHHRT
PVCTTGQSGSTATVFAMAELQKGERVWFELTQGSITKRSLSGTAFGGFLMFKT

>negative|P04054|PA2

MKLLVLAVLLTVAADSGISPRAVWQFRKMIKCVIPGSDPFLEYNNYGCYCGLGGSGTPV
DELDKCCQT HDNCYDQAKKLDSCFKLLDNPYTHYYS YSCSGSAITCSS KNKECEAFICNC
DRNAAICFSKAPYNKAHKNLDTKKYCQS

>negative|P22079|PER

MRVLLHLPALLASLILLQAAASTTRAQTTRTS AISD TVSQAKVQVNKAFLDSRTRLKTAMS
SETPTSRLSEYLKHAKGRTRTAIRNGQVWEESL KRLRQKASLTNVTDP SLDLTSLSLEVG
CGAPAPVVRCDPCSPYRTITGDCNNRRKPALGAANRALARWLP AEYEDGLSLPFGWTPGK
TRNGFPLPLAREVSNKIVGYLNEEGVLDQNRSL LFMQWGQIVDHDLD FAPDTELGSSEYS
KAQCDEYCIQGDNCFPIMFPNDPKAGTQ GKMPFFRAGFVCPTPPYKSLAREQINALTSF
LDASFVYSS EPLSASRLRNLS SPLGLMAVNQEVSDHGLP YLPYDSKKPS PCEFINTTARVPC
FLAGDSRASEHILLATSHTLFLREHNRLAREL KRLNPQWDGEKLYQEAR KILGAFVQIIFR
DYLPIILLGDHMQKWIPPYQGYSES VDPRISNVFTFAFRFGHLEVPSSMFRLDENYQPWGPE
PELPLHTLFFNTWRMVKDGGIDPLVRGLLAKKS KLMKQNKMMTGELRNKLFQPTHRIHG
FDLAAINTQRCDHGQPGYNSWRAFCDLSQPQTLEELNTVLKS KMLAKKLLGLYGTDPN
IDIWIGAI AEPLVERGRVGPLLACLLGKQFQQIRDGDRFWWENPGVFTNEQKDSLQKMSF
SRLVCDNTRITKVPRDPFWANS YPYDFVDCS AIDKLDLSPWAS VKN

>negative|P04280|PRP

MLLILLSVALLALSSAQNLNEDVSQEESPSLIAGNPQGPS PQGGNKPQGGPPPPGKPGGPP

QGGNKPQGPPPGKPGQPPPQGDKSRSPRSPPGKPGQPPPQGGNQPPGPPPPGKPGQPPP
QGGNKPQGPPPGKPGQPPPQGDKSQSPRSPPGKPGQPPPQGGNQPPGPPPPGKPGQPPP
QGGNKPQGPPPGKPGQPPPQGDKSQSPRSPPGKPGQPPPQGGNQPPGPPPPGKPGQPPP
QGGNRPQGPPPGKPGQPPPQGDKSRSPQSPPGKPGQPPPQGGNQPPGPPPPGKPGQPPP
QGGNKPQGPPPGKPGQPPAQGGSKSQSARAPPKPGQPPPQEGNNPQPPPPAGGNPQQ
PQAPPAGQPQGP RPQGG RPSRPPQ

>negative|Q92626|PXD

MAKRSRGPGRRCLLALVLFCAWGTAVVAQKPGAGCPSRCLCFRTTVRCMHLLLEAVPAV
APQTSILDLRFNRIREIQPGAFRRLRNLNTLLNNNQIKRIPSGAFEDLENLKYLYLYKNEIQ
SIDRQAFKGLASLEQLYLHFNQIETLDPDSFQHLPKLERLFLHNNRITHLVPGTFNHLESMK
RLRLDSNTLHCDCEILWLADLLKTYAESGNAQAAAICEYPRRIQGRSVATITPEELNCERPR
ITSEPQDADVTSNTVYFTCRAEGNPKEIHLRNNNELSMKTDSRLNLLDDGTLMIQNT
QETDQGIYQCMACKNVAGEVKTQEVTLRYFGSPARPTFVIQPNTEVLVGESVTLECSATG
HPPPRISWTRGDRTPLPVDPRVNITPSGGLYIQNVVQGDSEYACSATNNIDSVHATAFIIVQ
ALPQFTVTPQDRVIEGQTVDFQCEAKGNPPPVIAWTKGGSQSLVDRRHVLSSGTLRISG
VALHDQGGYECQAVNIIGSQKVVAHLTVQPRVTPVFASIPSDTTVEVGANVQLPCSSQGEPE
EPAITWNKDGVQVTESGKFHISPEGFLTINDVGPADAGRYECVARNTIGSASVSMVLSVNV
PDVSRNGDPFVATSIVEAIATVDRAINSTRTHLFDSPRSPNDLLALFRYPRDPYTVEQARA
GEIFERTLQLIQEHVQHGLMVDLNGTSYHYNDLVSPQYLNLIANLSGCTAHRRVNNCSDM
CFHQKYRTHDGTCCNNLQHPMWGASLTAFERLLKSVEYENGFNTPRGINPHRLYNGHALPM
PRLVSTTLIGTETVTPDEQFTHMLMQWGQFLDHDLDSTVVALSQARFSDGQHCSNVCSN
DPPCFVMIPPNDSRARSGARCMFFVRSSPVCGSGMTSLLMNSVYPREQINQLTSYIDASN
VYGSTEHEARSIRDLASHRGLLRQGIQVRSQKPLLPFATGPTECMRDENESPIPCFLAGDH
RANEQLGLTSMHTLWFREHNRIATELLKLNPHWDGDTIYYETRKI V GAEIQHIT YQHWP
KILGEVGMRTLGEYHGYDPGINAGIFNAFATAAFRFGHTLVNPLLYRLDENFQPIAQDHLP
LHKAFFSPFRIVNEGGIDPLLRLGLFGVAGKMRVPSQLLNTELTERLFSMAHTVALDLAANI
QRGRDHGIPPYHYRVCNLSAAHTFEDLKNEIKNPEIREKLRKLYGSTLNIDLFPALVVE
DLVPGSRLGPTLMCLLSTQFKRLRDGDRLWYENPGVFSPAQLTQIKQTSLARILCDNADNI
TRVQSDVFRVAEFPHG YGSCDEIPRVDLRWQDC CEDCRTRGQFN AFSYHFRGRRSLEFS
YQEDKPTKTRPRKIPSVGRQGEHLSNSTSAFSTRSDASGTNDFREFVLEMQKTITDLRTQ
IKKLESRLSTTECVDAGGESHANNTKWKKDACTICECKDGQVTCFVEACPPATCAVPVNI
PGACCPVCLQKRAEEKP

>negative|Q16769|QPC

MAGGRHRRVVGTLHLLLLVAALPWASRGVSPSASAWPEEKNYHQPAILNSSALRQIAEGT
SISEMWQNDLQPLLIERYPGSPGSYAARQHIMQRIQLQADWVLEIDTFLSQTTPYG YRSFS
NIISTLNPTAKRHLVLACHYDSKYFSHWNNRVFVGATDSAVPCAMMLELARALDKLLSL
KTVSDSKPDLSQLIFFDGEEAFLHWSPQDSLYGSRHLAAKMASTPHPPGARGTSQLHGM
DLLVLLDLIGAPNPTFPNFFPNSARWFERLQAIHELHELGLLKDHSLEGRYFQNYSYGGV
IQDDHIPFLRRGVPVLHLIPSPFPEVWHTMDDNEENLDESTIDNLNKILQVFLVLEYLHL

>negative|Q9BYZ8|REG

MASRSMRLLLLLSCLAKTGVLGDIIMRPSCAPGWFYHKSNCYGYFRKLRNWSDAELECQ
SYGNGAHLASILSLKEASTIAEYISGYQRSQPIWIGLHDPQKRQQWQWIDGAMYLYRSWS
GKSMGGNKHCAEMSSNNNFLTWSSNECNKRQHFLCKYRP

>negative|Q5VYX0|RNL

MAQVLI VGAGMTGSLCAALLRRQTSGLPYLAVWDKAEDSGGRMTTACSPHNPQCTADL
GAQYITCTPHYAKKHQRFYDELLAYG VLRPLSSPIEGMVMKEGDCNF VAPQGISSIIKHYL
KESGAEVYFRHRVTQINLRDDKWEVS KQTGSPEQFDLIVLTMPELQLQGDITTLISECQ
RQQLEAVS YSSRYALGLFYEAGTKIDVPWAGQYITSNPCIRFVSIDNKKRNIESSEIGPSLVI
HTTVPFVGT YLEHSIEDVQELVFQQLLENILPGLPQPIATKCQKWRHSQVTNAAANCPGQM
TLHHKPFLACGGDGFTQSNFDGCITSALCVLEALKNYI

>negative|Q6FHJ7|SFR

MFLSILVALCLWLHLALGVRGAPCEAVRIPMCRHMPWNITRMPNHLHHSTQENAILAIEQ
YEELVDVNCSAVLRFFLCAMYAPICTLEFLHDPIKPKCSVCQRRARDDCEPLMKMYNHSWP
ESLACDELPPVYDRGVCISPEAIVTDLPEDVKWIDITPDMMVQERPLDVDCRKLSPDRCKC
KKVKPTLATYLSKNYSYVIHAKIKAVQRSGCNEVTTVVDVKEIFKSSSPIPRTQVPLITNSS
CQCPHILPHQDVLIMCYEWRSRMMLLENCLVEKWRDQLSKRSIQWEERLQEQRRTVQDK
KKTAGRTSRSNPPKPKGKPPAPKPASPKNIKTRS AQKRTNP KRV

>negative|Q9GZM7|TIN

MWRCPLGLLLLLPLAGHLALGAQQGRGRRELAPGLHLRGIRDAGGRYCQEQLCCRGR
ADDALPYLGAICYCDLFCNRTVSDCCPDFWDFCLGVPFPFPIQGCMMHGRIYPVLGT
WDNCNRCTCQENRQWQCDQEPCLVDPDMIKAINQGNYGWQAGNHSAFWGMTLDEGIR
YRLGTIRPSSVMNMHEIYTVLNPGEVLPTAFEASEKWPNLIHEPLDQGNCAGSWAFSTAA
VASDRVSIHSLGHMTPVLSPOQLLSCDTHQQQGCRGGRLDGAWWFLRRRGVVSDDHCYPF
SGRERDEAGPAPCMMHSRAMGRGKRQATAHCPNSYVNNNDIYQVTPVYRLGSNDKEI
MKELMENGVPQALMEVHEDFFLYKGGIYSHTPVSLGRPERYRRHGTHSVKITGWGEETL
PDGRTLKYWTAANSWGPWGERGHFRIVRGVNECDIESFVLGVWGRVGMEDMGHH

>negative|O75888|TNF

MPASSPFLAPKGGPPGNMGGPVREPALSVALWLSWGAALGAVACAMALLTQQTELQSLR
REVSRLQGTGGPSQNGEGYPWQSLPEQSSDALEAWENGERSRKRRAVLTQKQKKQHSVL
HLVPINATSKDDSDVTEVMWQPALRRRGRGLQAQGYGVRIQDAGVYLLYSQVLFQDVTFT
MGQVVSREGQGRQETLFR CIRSMPSHPDRAYNSCYSAGVFHLHQGDILSVIIPRARAKLNL
SPHGTFLGFVKL

>negative|Q7L8A9|VAS

MPGGKKVAGGGSSGATPTSAAATAPSGVRRLETSEGTS AQRDEEPEEEGEEDLRDGGVVF
FVNRGGLPVDEATWERMWKHVAKIHPDGEKVAQRIRGATDLPKIPIPVPTFQPTPVER
LEAVQRYIRELQYNHTGTQFFEIKSRPLTGLMDLAKEMTKEALPIKCLEAVILGIYLTNSM
PTLERFPISFKTYFSGN YFRHIVLGVNFAGRYGALGMSRREDLMYKPPAFRTLS ELVDFE
AAYGRCWHVLKKVKGQS VS HDPHSVEQIEWKHSVLDVERLGRDDFRKELERHARDMR
LKIGKGTGPPSPTKDRKKDVSSPQRAQSSPHRRNSRSERRPSGDKKTSEPKAMPDLNGYQI
RV

>negative|Q14508|WFD

MPACRLGPLAAALLSLLLFGFTLVSGTGA EKTGVCPQLQADQNCTQECVSDSECADNLK
CCSAGCATFCSLPNDKEGSCPQVNINFPQLGLCRDQCQVDSQCPGQMKCCRNGCGKVSC
VTPNF

>negative|Q6ZMM2|ATL

MGKLRPGRVEWLASGHTERPHLFQNL LFLWALLNCGLGVS AQGPGWTPWVSWTRCS
SSCGRGVSVRSRRCLRLPGEEPCWGDSEYRLCQLPDCPPGAVPFRDLQCALYNGRPVLG
TQKTYQWVPFHGAPNQCDLNLCLAEGHAFYHSFGRVLDGTACSPGAQGVVAGRCLASG

CDGLLGSGALEDRCGRCGGANDSCLFVQRVFRDAGAFAGYWNVTLIPEGARHIRVEHRS
RNHLALMGGDGRYVLNGHWVVSPPGTYEAAGTHVVYTRDTGPQETLQAAGPTSHDLLL
QVLLQEPNPGIEFEFWLPRERYSPFQARVQALGWPLRQPQPRGVEPQPPAAPAVTPAQPT
LAPDPCPPCPDTRGRAHRLHYCGSDFVFQARVLGHHHQAQETRYEVRIQLVYKNRSPLR
AREYVWAPGHPCPMLAPHRDYLMVQRLVSPDGTQDQLLLPHAGYARPWSPAEDSRIR
LTARRCPG

>negative|Q9H324|ATS

MAPACQILRWALALGLGLMFEVTHAFRSQDEFSSLESYEIAFPTRVDHNGALLAFSPPPP
RRQRRGTGATAESRLFYKVASPSTHFLNLTRSSRLLAGHVSVEYWTREGLAWQRAARPH
CLYAGHLQGQASTSHVAISTCGGLHGLI VADEEEYLIEPLHGGPKGSRSPESGPHVYKRS
SLRHPHLDTACGVRDEKPWKGRPWWLRTLKPPPARPLGNETERGQPLKRSVSRERYVE
TLVVADKMMVAYHGRRDVEQYVLAIMNIVAKLFQDSSLGSTVNILVTRLILLTEDQPTLEI
THHAGKSLDSFCWKQKSI VNHSGHGNAIPENG VANHDTAVLITRYDICIYKNKPCGTLGLA
PVGGM CERERSCS VNEDIGLAT AFTIAHEIGHTFGMNHG VGNSCGARGQDPAKLMAAHI
TMKTNPFWSSCSRDIYTSFLDSGLGLCLNNRPPRQDFVYPTVAPGQAYDADEQCRFQHG
VKSQRCKYGEVCS ELWCLS KSNRCITNSIPAAEGTLCQHTIDKGWCYKRVCVPFGSRPE
GVDGAWGPWTPWGDSCRTCGGGVSSSRHCDSRPTIGGKYCLGERRRHRSCNTDDCPP
GSQDFREVQCS EFDSIPFRGKFYKWKT YRGGGVKACSLTCLAEGFNFYTERAAAVVDGTP
CRPDTVDICVSGECKHVGC DRVLGSDLREDKCRVCGGDGS ACETIEGVFSPASPGAGYED
VWVIPKGSVHIFIQDLNLSLSHLALKGDQESLLEGLPGTPQPHRLPLAGTTFQLRQGPDQ
VQSLEALGPINASLIVMLARTELPALRYRFNAPIARDSLPPYSWHYAPWTKCSAQ CAGGS
QVQAVECRNQLDSS AVAPHYCSAHS KLPKRQRACNTEPCPPDWV VGNWSLCSRSCDAGV
RSRSVVCQRVSAAEKALDDS ACPQPRPPVLEACHGPTCPPEWAALDWS ECTPSCGPGL
RHRVVLCKSADHRATLPPAHCSPAKPPATMRCNLRRCP PARWVAGEWGECSAQCGVGQ
RQRSVRCTSHTGQASHECTEALRPPTTQQCEAKCDSPTPGDGPEECKDVNKVAYCPLVLK
FQFCSRAYFRQMCCKTCHGH

>negative|Q8N8U9|BMP

MLWFSGVGALAERYCRRSPGITCCVLLLLNCSGVPMSLASSFLTGSVAKCENEGEVLQIPFI
TDNPCIMCVCLNKEVTC KREKCPVLSRDCALAIKQRGACCEQCKGCTYEGNTYNSSFKW
QSPAEPVLRQCQEGVVTESGVRCVVHCKNPLEHLGMCCPTCPGCVFEGVQYQEGEEFQ
PEGSKCTKCSCTGGRTQCVRVCPILSCPQHLSHIPPGQCCPKCLGQRKVF DLFPGSCLFRS
DVYDNGSSFLYDNCTACTCRDSTVVCKRKCSHPGGCDQGQEGCCEECLLRVPPEDIKVCK
FGNKIFQDGEWSSINCTICACVKGRTECRNKQCIPISSCPQGKILNRKGCCPICTEKPGVC
TVFGDPHYNTFDGRTFNFQGTCCQYVLT KDCSSPASPFQVLVKN DARRTSFSWTKSVELV
LGESRVS LQQHLT VRWNGSRIALPCRA PHFHIDLDGYLLKVTTKAGLEISWDGDSFVEVM
AAPHLKGLKGLCGN YNGHKRDDLIGGDGNFKFDVDDFAESWRVESNEFCNRPQRKPV
ELCQGTVKVKLRAHRECQKLKSWEFQ TCHSTVDYATFYRSCVTDMCECPVHKNCYCESF
LAYTRACQREGIKVHWEPQNC AATQCKHGA VYDTCGPGCIKTCDNWNEIGPCNKPCVA
GCHCPANLVLHKGRCIKPVLC PQR

>negative|Q9Y3E2|BOL

MLSGRLVLGLVSMAGRVCLCQGSAGSGAIGPVEAAIRTKLEEALSPEVLELRNESGGHAVP
PGSETHFRVAVVSSRFEGLSPLQRHRLVHAALAEELGGPVHALAIQARTPAQWRENSQLDT
SPPCLGGNKKTLGTP

>negative|Q53S33|BOL

MAAWSPAAAAPLLRGIRGLPLHHRMFATQTEGELRVTQILKEKFPRATAIKVTDISGGCGA
MYEIKIESEEFKEKRTVQQHQMVNQALKEEIKEMHGRLRIFTSVPKR

>negative|Q9GZN4|BSS

MVVSGAPPALGGGCLGTFTSLLLLASTAILNAARIPVPPACGKPQQLNRVVGGEDSTDSEW
PWIVSIQKNGTHHCAGSLLTSRWVITAAHCFKDNLNKPYLFSVLLGAWQLGNPGSRSQKV
GVAWVEPHPVYSWKEGACADIALVRLERSIQFSERVLPICLPDASIHLPNTHCWISGWGSI
QDGVPLPHPQTLQKLVPIIDSEVCSHLYWRGAGQGPITEDMLCAGYLEGERDACLGDGSG
GPLMCQVDGAWLLAGIISWGEGCAERNRPGVYISLSAHRSWVEKIVQGVQLRGRAQGGG
ALRAPSQSGSAAAARS

>negative|Q8N4T0|CBP

MKCLGKRRGQAAAFPLPCWLFKILQPGHSHLYNNRYAGDKVIRFIPKTEEEAYALKKISY
QLKVDLWQPSSISYVSEGTVTDVHIPQNGSRALLAFLQEANIQYKVLIEDLQKTLEKGS
SLHTQRNRRSLSGYNVEVYHSLLEIQNWMHHLNKTSGLIHMFSIGRSYEGRS
LFIKLGRRSRLKRAVWIDCGIHAREWIGPAFCQWFVKEALLTYKSDPAMR
KMLNHLYFYIMPVFNVDGYHFSWTNDRFWRKTRSRNSRFRCRGVDANRNW
KVKWCDEGASMHPCCDDTYCGPFPESEPEVKAVANFLRKH
RKHIRAYLSFHAYAQMMLYPYSKYATIPNFRCVESAAVKAVNALQSVY
GVRYYRYPASTTLYVSSGSSMDWAYKNGIPYAFAFELRDTGYFGFLLPEMLIKPTCTE
TMLAVKNITMHLKKCP

>negative|Q49AH0|CDN

MWCASPVAVVAFCAGLLVSHPVLTQGGQAGGRPGADCEVCKEFLNRFYKSLIDRGVNFSL
DTIEKELISFLDTCGKENRLCYLGGATKDAATKILSEVTRPMSVHMPAMKICEK
LKKLDSQICELKYEKTLDLASVDLRKMRVAELKQILHSWGEECRACA
EKTDYVNLIQELAPKYAATHPKTEL

>negative|Q2WEN9|CEA

MALTGYSWLLLSATFLNVGAESITILEPAQPSEGDNVTLVVHGLSGELLAYS
WYAGPTLSVSYLVASYIVSTGDETPGPAHTGREAVRPDGS
LDIQGILPRHSGTYILQTFNRQLQTEVGYGHVQVHEILAQPTVLANSTAL
VERRDTLRMLCSPSPPTAEVRWFFNGGALPVALRLGLSPDGRV
LARHGIRREEAGAYQCEVWNPVSRSRSEPINLTVYFGPERVAILQDSTTRT
GCTIKVDFNTSLTLWCVSRSCPEPEYVWTFNGQALKNGQDHLN
ISSMTAAQEGTYTCIAKNTKTLSSGASVSVVVKLSAAAVATMI
VPVPTKPTGEGQDVTLTVQGYPKDLLVYAWYRGPASEPNRLLS
QLPSGTWIAGPAHTGREVGFNPNSLLVQKLNLTDTGRYTLKTVT
VQGKTETLEVELQVAPLG

>negative|Q7Z4R8|CF1

MAAPRGRAAPWTTALLLLASQVLSPGSCADEEEVPEEWVLLHV
VQGGIGAGNYSYLRLNHEGKIVLRMRS
LKGADLYVSSSLHPSFDDYELQSATCGPD
AVSIPAHFRRPVGIGVYGHPSHLESEFEMK
VYYDGTVEQHPFGEAAYPADGADAGQKHAG
APEDASQEEESVLWTILSILKLVLEILF

>negative|Q6NUI6|CHA

MEGPRSSTHVPLVPLLVLLLLAPARQAAAQRCPQACICDNSRRHVACRYQNLTEVPD
AIP
ELTQRDLQGNLLKVIPAAAFQGPHLTHLDRHCEVELVAE
GAFRGLGRLLLLNLASNHLREL
PQEALDGLGSLRRLELEGNALEELRPGTFGALGALATLNL
AHNALVYLPAMAFQGLLRVRWLR
LSHNALSVLAPEALAGLPALRRLSLH
NELQALPGPVLSQARGLARLELGHNP
LTYAGEEDGLALPGLRELLDGGALQALG
PRAFAHCPRHTLDRGNQLDTPPLQGP
GQLRRRLQGNPLWCGCQARPLLEWLAR
ARVRS
DGACQGP
RRLRGEALD
ALRPWDLRCPG
DAAQEEEELEERAVAGPRAPPRGPPRGP
GEERAVAPCP
RACVCVPESR
HSSCEGCGLQAVP

RGFPSDTQLLDLRRNHFPS VPRAAFPGLGHLVSLHLQHCGIAELEAGALAGLRRIYLYLS
DNQLAGLS AAALLEGAPRLG YLYLERNRFLQVPGAALRALPSLFSHLQDN AVDR LAPGDL
GRTRALRWVYLSGNRITEVSLGALGPARELEKHLDRNQLRE VPTGALEGLPALLELQLS
GNPLRALRDGAFQP VGRSLQHFLNSSGLEQICPGAFSGLGPGLQSLHLQKNQLRALPALP
SLSQLELIDLSSNPFHCDCQLLPLHRWLTGLNLRVGATCATPPNARGQRVKA AA AVFEDCP
GWAARKAKRTPASRPSARRTPIKGRQCGADKVGKEKGRL

>negative|O75596|CLC

MAKNGLVICILVITLLLDQTTSHTSRLKARKHS KRRVRDKDGD LKTQIEKLWTEVNALKEI
QALQTVCLRGTKVHKKCYLASEGLKHFHEANEDCIS KGGILVIPRNSDEINALQDYGKRS
LPGVNDFWLGINDMVTEGKFVDVNGIAISFLNWDR AQPNGGKRENCVLFSSQAQGWKWS
DEACRSSKRYICEFTIPQ

>negative|Q6UX73|CP0

MASLGLLLLLLLTALPPLWSSSLPGLDTAES KATIADLILS ALERATVFLEQRLPEINLDGMV
GVRVLEEQLKS VREKWAQEP LLQPLSLRVGMLGEKLEAAIQSLHYLKLSDPKYLREFQL
TLQPGFWKLP HAWIHTDASLVYPTFGPQDSFSEERSD VCLVQLLGTGTDSSEPCGLSDLCR
SLMTKPGCSG YCLSHQLLFFLWARMRGCTQG PLQQSQDYINLFCANMMDLNRRAEAIY
AYPTRDIFMENIMFCGMGGFSDFYKLRWLEAILS WQKQEGCFGEPAEDEELS KAIQYQ
QHFSRRVKRREKQFPDSRS VAQAGVQWRNLGSLQPLPPGFKQFSCLILPSSWDYRS VPPYL
ANFYIFLVETGFHHVAHAGLELLISRPPTSGS QSVGL

>negative|Q9NQ79|CRA

MAPSADPGMSRMLPFLLLLWFLPITEGSQRAEPMFTA VTNVLPDP YDSNPTQLNYG VAV
TDVDHDGDFEIVVAG YNGPNLVLKYDRAQKRLVNI AVDERSSPYALRDRQGN AIGVTAC
DIDGDGREEIYFLNTNNAFSGVAT YTDKLFKFRNNRWEDILSDEVN VARGVASL FAGRSVA
CVDRKSGSRYSIYIANYAYGNVGPDALIEMDPEASDLSRGILALRDVA AEAGVSKYTGGR
GVS VGPILSS ASDIFCDNENGNPFLFHNRGDGTFV DAAASAGVDDPHQHGRGVALADFN
RDGKVDI VYGNWNGPHRLYLQMSTHGKVRFRDIASP KFSMPSPVRT VITADFDNDQELEI
FFNNIAYRSSSANRLFRVIRREHGDPLIEELNPGDALEPEGRGTGGVVTDFDGDGMLDLILS
HGESMAQPLS VFRGNQGFNNNWL RVVPRTRFGAFARGAKV VLYTKKSGAHLRIIDGGSG
YLCEMEPVAHFGLGKDEASSVEVTWPDGKMVSRN VASGEMNSVLEILYPRDEDTLQDPA
PLECGQGFSQQENGHCMDTNECIQFPFVCP RDKPVCVNT YGSYRCRTNKKCSRGYEPNE
DGTACVGTLGQSPGPRPTTPTAAAATAAAAAAAGAATAAPVLVDGDLNLGS VVKESCEPS
C

>negative|Q01523|DEF

MRTIAILAAILLVALQAQAESLQERADEATTQKQSGEDNQDLAISFAGNGLS ALRTSGSQA
RATCYCRTGRCATRESLSGVCEISGRLYRLCCR

>negative|Q96BH3|ESP

MTRWSSYLLGWTTFLLYS YESSGGMHEECVFPFTYKGS VYFTCTHIHSLSPWCATRAVYN
GQWKYCQSEDYPRCIFPIYRGKAYNSCISQGSFLGSLWCSVTS VFDEKQQWKFCETNEY
GGNSLRKPCIFPSIYRNNVVSDCMEDES NKLWCPTTENMDKDGKWSFCADTRISALVPGF
PCHF PFNYKNKNYFNCTNEGSKENLVWCATS YN YDQDHTWVYC

>negative|Q6KF10|GDF

MDTPRVLLS AVFLISFLWDLPGFQQASISSSSSSAELGST KGMRSRKEGKMQRAPRDS DAG
REGQEPQRPQDEPRAQQPRAQEPPGRGPRVVPHEYMLSIYRTYSIAEKLGINASFFQSSKS
ANTITSFVDRGLDDLSHTPLRRQKYLFDVSM LSKHEELVGAELRLFRQAPS APWGPPAGP

LHVQLFPCLSPLLLDARTLDPQGAPPAGWEVFDVWQGLRHQPWKQLCLELRAAWGELD
AGEAEARARGPQQPPPPDLRSLGFGRVRPPQERALLVVFTRSQRKNLFAEMREQLS AE
AAGPGAGAEGSWPPPSGAPDARPWLSPGRRRRRTAFASRHGKRHGKKSRLRCSKKPLH
VNFKELGWDDWIIAPLEYEAYHCEGVCDFPLRS HLEPTNHAIQTLMNSMDPGSTPPSCCV
PTKLTPI SILYIDAGNNVVYKQYEDMVVESCGR

>negative|Q8WWQ2|HPS

MRVLCAPPEAMPSSNSRPPACLAPGALYLALLHLSLSSQAGDRRPLPVDRAAGLKEKTLI
LLDVSTKNPVRTVNEFLSLQLDPSIIHDGWLDLSSKRLVTLARGLSPAFLRFGGKRTDFL
QFQNLRNPAKSRGGPGPDYLYKNYEDDVRSDVALDKQKGCKIAQHPDVMLELQREKAA
QMHLVLLKEQFSNTYSNLILTARSLDKLYNFADCSGLHLIFALNALRRNPNNNSWNSSALS
LLKYSASKKYNISWELGNENNYRTMHGRAVNGSQLGKDYIQLKSLLQPIRISRASLYGP
NIGRPRKNVIALLDGFMKVAGSTVDAVTWQHCYIDGRVVKVMDFLKTRLLDTLSDQIRKI
QKVNTYTPGKKIWLEGVVTTSAGGTNNLSDS YAAGFLWLNTLGMLANQGIDVVIRHSF
FDHGYNHLVDQNFNPLPDYWLSLLYKRLIGPKVLAVHVAGLQRKPRPGRVIRDKLRIYAH
CTNHNNHNYVRGSITLFIINLHRSRKKIKLAGTLRDKLVHQYLLQPYGQEGLKSKSVQLN
GQPLVMVDDGTLPELKRPLRAGR TLVIPPVTMGFYVVKVNALACRYR

>negative|Q6UW32|IGF

MAPRGCIVAVFAIFCISRLCSHGAPVAPMTPYMLCQPHKRCGDKFYDPLQHCCYDDAV
VPLARTQTCGNCTFRVCFEQCCPWTFMVKLINQNCDSARTSDDRLCRS VS

>negative|Q9NPH9|IL2

MLVNFILRCGLLLVTLSLAI AKHKQSSFTKSCYPRGTL SQAVDALYIKAAWLKATIPEDRIK
NIRLLKKKT KKQFMKNCQFQEQLSFFMEDVFGQLQLQGCKKIRFVEDFHSLRQKLSHCI
SCASSAREMKSITRMKRIFYRIGNKGIYKAISELDILLSWIKKLESSQ

>negative|Q8NEV9|IL2

MGQTAGDLGWRLSLLLLPLLLVQAGVWGFPRPPGRPQLSLQELRREFTVSLHLARKLLSE
VRGQAHRAESHLPGVNLYLLPLGEQLPDVSLTFQAWRRLSDPERLCFISTTLQPFHALLG
GLGTQGRWTNMERMQLWAMRLDLRDLQRHLRFQVLAAGFNLPEEEEEEEEEEEEEERKG
LLPGALGSALQGPAQVSWPQLLSTYRLLHSLELVLSRAVRELLLSKAGHSVWPLGFPTLS
PQP

>negative|P24001|IL3

MCFPKVLSDDMKKLRKARMVMMLLPTSAQGLGAWVSACDTEDTVGHLPWRDKDPALWC
QLCLSSQHQAIERFYDKMQNAESGRGQVMSSLALEDDFKEGYLETVAAYYEEQHPELTP
LLEKERDGLRCRGNRSPVPDVEDPAT EEPGESFCDKVMRWFQAMLQRLQTWWHGVLAW
VKEKVALVHAVQALWKQFQSFCCSLSELMSSFQS YGAPRGDKEELTPQKCSEPQSSK

>negative|P54317|LIP

MLPPWTLGLLLLLATVRGKEVCYQGLGCFSDKWPAGTLQRPVKLLPWSPEIDTRFLLYT
NENPNNFQLITGTEPDTIEASNFQLDRKTRFIIHGFLDKAEDSWPSDMCKKMFVEKVNCI
CVDWRHGSRAMYTQAVQNIRVVGAEAFLIQALSTQLGYSLEDVHVIGHSLGAHTAEA
GRRLGGRVGRITGLDPAGPCFQDEPEEVRLDPSDAVFVDVIHTDSSPIVPSLGFQMSQKVG
HLDFFPNGGKEMPGCKKNVLSTITDIDGIWEGIGGFVSCNHLRSFEYSSS VLNPDGFLGY
PCASYDEFQESKCFPCPAEGCPKMGHYADQFKGKTSAVEQTFFLNTGESGNFTSWRYKVS
VTLSGKEKVNGYIRIALYGSNENS KQYEIFKGS LKPDASHTCAIDVDFNVGKIQKVKFLWN
KRGINLSEPKLGASQITVQSGEDGTEYNFCSSDTVEENVLQSLYPC

>negative|Q8TAX7|MUC

MKTLPLFVCICALSACFSFSEGRERDHELRRHRRHHHQSPKSHFELPHYPGLLAHQKPFIRK
SYKCLHKRCRPKLPPSPNNPPKFPNPHQPPKHPDKNSSVVNPTLVATTQIPSVTFPSASTKIT
TLPNVTFLPQNATTISSRENVNTSSSVATLAPVNSPAPQDTTAAAPPTPSATTPAPPSSSAPPET
TAAPPTPSATTQAPPSSSAPPETTAAPPTPPATTAPPSSSAPPETTAAPPTPSATTPAPLSSSAP
PETTAVPPTPSATTLDPSSASAPPETTAAPPTPSATTPAPPSSPAPQETTAAPITTPNSSPTLAP
DTSETSAAPTHQTTTSVTTQTTTTKQPTSAPGQNKISRFLLYMKNLLNRIIDDMVEQ

>negative|Q8TB73|NDN

MVLLHWCLLWLLFPLSSRTQKLPTRDEELFQMQRDKAFFHDSSVIPDGAIESSYLFRTDP
KRYFFVVEEDNTPLSVTVPDAPLEWKLSLQELPEDRSGEGSGDLEPLEQQKQIINEEG
TELSYKGNDEYFISSSSPGLYQLDLLSTEKDTHFKVYATTTPESDQPYPELPYDPRVDV
TSLGRTTVTLAWKPSPTASLLKQPIQYCVVINKEHNFKSLCAVEAKLSADDAFMMAPKPG
LDFSPFDFAHFGFSDNSGKERSFQAKPSPKLRHVYSRPKVDIQKICIGNKNIFTVSDLKP
DTQYYFDVFNINSNMSTAYVGTFFARTKEEAKQKTVELKDGKITDVFVKRKGAKFLRF
APVSSHQKVTFIHSCLDAVQIQVRRDGLLLSQNVEGIQQFQLRGKPKAKYLVRKGNK
KGASMLKILATTRPTKQSFPSLPEDTRIKAFDKLRTCSSATVAWLGTQERNKFCIYKKEVD
DNYNEDQKKREQNQCLGPDIRKSEKVLCKYFHSQNLQKAVTTETIKGLQPGKSYLLDV
YVIGHGGHVKYQSKVVKTRKFC

>negative|Q6UWY5|OLF

MMVALRGASALLVLFLAAFLPPPQCTQDPAMVHYIYQRFRVLEQGLEKCTQATRAYIQEF
QEFKKNISVMLGRCQTYTSEYKSAVGNLALRVERAQQREIDYIQLREADECIASEDKTLAE
MLLQEAEEEEKIRTLNASCNDMLMGIKSLKIVKKMMDTHGSMKDAVYNPKVYLLI
GSRNNTVWEFANIRAFMEDNTKPAPRKQILTLSWQGTGQVIYKGFLLFFHNQATSNEIHKYN
LQKRTVEDRMLLPGGVGRALVYQHSPTIYDLAVDEHGLWAIHSGPGTHSHLVLTKIEPGT
LGVEHSWDTPCRSQDAEASFLLCGVLYVVYSTGGQGPHERITCIYDPLGTISEEDLPNLFPP
KRPRSHSMIHYNPRDKQLYAWNENQIYKLTQTKRKLPLK

>negative|Q9BZM2|PA2

MKKFFTVAILAGSVLSTAHSLLNLKAMVEAVTGRSAILSFVGYGCYCGLGGRGQPKDEV
DWCCHAHDCCYQELFDQGCHPYVDHYDHTIENNTAIVCSDLNKTECDKQTCMCDKNM
VLCLMNQTYREEYRGFLNVYCQGTPNCSIYEPPEEVTCSHQSPAPPAPP

>negative|Q9BSG0|PAD

MVPGAAGWCCLVLWLPACVAAHGFRIHDYLYFQVLSPGDIRYIFTATPAKDFGGIFHTRYE
QIHLVPAEPPEACGELSNNGFFIQDQIALVERGGCSFLSKTRVVQEHGGRAVIISDNVAVDND
FYVEMIQDSTQRTADIPALFLLGRDGYMIRRSLEQHGLPWAIISIPVNVTSIPTFELLQPPWT
FW

>negative|Q96LB8|PGR

MLPWLLVFSALGIQAWGDSSWNKTQAKQVSEGLQYLFENISQLTEKGLPTDVSTTVSRKA
WGAEAVGCSIQLTTPVNVLVIHHVPGLECHDQTVCSQRLRELQAHVHNNNSGCDVAYNFL
VGDDGRVYEGVGWNIQGVHTQGYNNISLGFAGFTKKGHSPPAALSAMENLITAVQK
GHLSSSYVQPLLGKGENCLAPRQKTSLLKACPGVPRS VWGARET HCPRMTLPAKYGIII
HTAGRTCNISDECRLLVRDIQSFYIDRLKSCDIGYNFLVGQDGAIEYGVGNVQGSSTPGY
DDIALGITFMGTFTGIPPNAAALEAAQDLIQCAMVKGYLTPNYLLVGHSDVARTLSPGQAL
YNIISTWPHFKH

>negative|Q5K4E3|POL

MARHLLLPLVMLVISPIGAFQDSALSPTQEEPEDLDCGRPEPSARIVGGSNAQPGTWPWQ

VSLHHGGGHICGGLIAPSWVLSAAHCFMTNGTLEPAAEWSVLLGVHSDQDGPLDGAHTR
AVAAI VVPANYSQVELGADLALLRLASPASLGPVWPVCLPRASHRFVHGTACWATGWG
DVQEADPLPLPWVLQEVRLRLLGEATCQCLYSQPGPFNLTLQILPGMLCAGYPEGRRDTC
QGDSGGPLVCEEGGRWFQAGITSFGFGCRRNRPGVFTAVATYEAWIREQVMGSEPGPAF
PTQPQKTQSDPQEPREENCTIALPECCKAPRPGAWPWEAQVMVPGSRPCHGALVSESW
LAPASCFLDPNSSDSPRDLDAWRVLLPSRPRARERVARLVQHENASWDNASDLALLQLRTP
VNLSAASRPVCLPHPEHYFLPGSRCLARWGRGEPALGPGALLEAELLGGWWCHCLYGR
QGAAVPLPGDPPHALCPAYQEKEEVGSCWNDSRWSLLCQEEGTWFLAGIRDFPSGCLRPR
AFFPLQTHGPWISHVTRGAYLEDQLAWDWGPDGEETETQTCPPHTEHGACGLRLEAAPV
GVLWPWLAEVHVAGDRVCTGILLAPGWVLAATHCVLRPGSTTVPYIEVYLGRAGASSLP
QGHQVSRLVISIRLPQHLGLRPPLALLESSRVEPSALPICLHPAGIPPGASCWVLGWKEP
QDRVPVAAAVSILTQRICDCLYQILPPGTLCVLYAEGQENRCEMTSAPLLCQMTEGSWIL
VGMVAVQGSRELFAAIGPEEAWISQTVEGANFLPPSGSPHWPTGGSNLCPPELAKASGSPA
VYFLLLLLLIQS

>negative|Q96NZ9|PRA

MRLLLLVTSLVVLLWEAGAVPAPKVPIKMQVKHWPSAQDPEKAWGARVVEPPEKDDQL
VVLFPVQKPKLLTTEEKPRGQGRGPILPGTKAWMETEDTLGHVLSPEPDHDSLYHPPPEED
QGEERPRLWVMPNHQVLLGPEEDQDHIYHPQ

>negative|Q8IVN8|SBS

MRTLWMAALCALSLWPGAQAGCAEAGRCCPGRDPACFARGWRLDRVYGTFCFDQACRF
TGDCCFDYDRACPARPCFVGEWSPWSGCADQCKPTTRVRRRSVQEQPQNGGAPCPLEE
RAGCLEYSTPQQDCGHTYVPAFITTSFANKERTRQATSPHWSTHTEDAGYCMFKTESL
TPHCALENWPLTRWMQYLREGYTVVCDCQPPAMNSVSLRCSGDGLSDGNQTLHWQAI
GNPRCQGTWKKVRRVDQCSCPAVHSFIFI

>negative|Q8IX30|SCU

MGSGRVPGLCLLVLLVHARAAQYSKAAQDVDECVEGTDNCHIDAICQNTPRS YKCICKS
GYTGDGKHCKDVEDECEREDNAGCVHDCVNIPGNRYRCTCYDGFHLAHDGHNCLDVEDEC
AENGNGCQQSCVNMMGSYECHCREGFFLSDNQHTCIQRPEEGMNCMNKNHGCAHICRE
TPKGGIACECRPGFELTKNQRDCKLTCNYGNGGCQHTCDDTEQGPRCGCHKFVLHTDG
KTCIETCAVNNGGCDSKCHDAATGVHCTCPVGFMLQPDRKTKDIDECRLNNGGCDHIC
RNTVGSFECSCKKGYKLLINERNQDIDECDFDRTCDHICVNTPGSFQCLCHRGYLLYGIT
HCGDVDECSINRGGCRFGCINTPGSYQCTCPAGQGRLHWNGKDCTEPLKCQGSFGASKA
MLSCNRSGKKDTCALTCPSRARFLPESENGFTVSCGTPSPRAAPARAGHNGNSTNSNHCH
EAAVLSIKQRASFKIKDAKCRHLHLRNKGKTEEAGRITGPGGAPCSECQVTFIHLKCDSSRK
GKRRARTPPGKEVTRLTLEAEVRAEETTASGLPCLRQRMERRLKGSLKMLRKSINQ
DRFLLRLAGLDYELAHKPLVAGERAEPMESCRPGQHRAGTKCVSCPQGTYYHGQTEQC
VPCPAGTFQEREGQLSCDLCPSDAHGPLGATNVTTCAGQCPPGQHSVDGFKPCQPCPRG
TYQPEAGRTLCPFCGGGLTTKHEGASIFQDCDKVQCSPGHYYNTSIHRCIRCAMGSYQP
DFRQNFCSRCPGNTSTDFDGSTVAQCKNRQCGGELGFTGYIESPNYPGNYPAGVECIW
NINPPPKRILIVPEIFLPSSEDCGDVLMRKNSSPSSITTYETCQTYERPIAFTARSRLKWI
NFKTSEANSARGFQIPYVYDEDEYQLVEDIVRDGRLYASENHQEILKDKKLIKAFKFLA
HPQNYFKYTEKHKEMLPKSFILKLLRSKVSSFLRPYK

>negative|Q969D9|TSL

MFPFALLYVLSVSFRKIFILQLVGLVLT YDFTNCFEIKAAAYLSTISKDLITYMSGTKSTEF

NNTVSCSNRPHCLTEIQSLTFNPTAGCASLAKEMFAMKT KAALAIWCPGYSETQINATQA
MKKRRKRKVTTNKCLEQVSQ LQGLWRRFNRPLLKQQ

>negative|O15240|VGF

MKALRLS AS ALFCLLLINGLGAAPPGRPEAQPPPLSSEHKEPVAGDAVPGPKDGS APEVRG
ARNSEPQDEGELFQGVDPRALAAVLLQALDRPASPPAPSGSQGP EEEAAEALLTETVRSQ
THSLPAPESPEPAAPPRPQTPENGPEASDPSEELEALASLLQELRDFSPSSAKRQQETAAAET
ETRHTLTRVNLESFPERVWRASWGEFQARVPERAPLPPPAPSQFQARMPDSGPLPETHK
FGEGVSSPKTHLGEALAPLSKAYQGVAAPFPKARRPES ALLGGSEAGERLLQQGLAQVEA
GRRQAEATRQAAAQEERLADLASDLLQYLLQGGARQRGLGGRGLQEAAEERESAREEE
EAEQERRGGEERVGEEDDEEAAEAEAEAEAEERARQNALLFAEEEDGEAG AEDKRSQEET
PGHRRKEAEGTEEGEEDDEEMDPQTIDSLIELSTKLHLPADDVVSIIIEVEEKRKRKKN
APPEP VPPRAAPATHVRSPPPPAPARDEL PDWNE VLPPWDREED E VYPPGPYHPFP
NYIRPRTLQPPSALRRRHYHHALPPSRHYPGREARRAQEEAEAEERLQEQEEL ENYIE
HVLLRRP

>negative|P60827|C1Q

MAAPALLLALLLPVGAWPGLPRRPCVHCCRPAPPPGPYARVSDRDLWRGDLWRGLPRV
RPTIDIEILKGEKGEAGVRGRAGRSKKEGPPGARGLQGRGQKGQVGPPGAACRRAYAAF
SVGRREGLHSSDHFQAVPFDTEL VNL DGAFDLAAGRFLCTVPGVYFLSLNVHTWNYKET
YLHIMLNRRPAAVLYAQPSERSVMQAQSLMLLLAAGDAVWVRMFQRDRDN AIYGEHGD
LYITFSGHLVKPAEEL

>negative|B2RNN3|C1T

MRIWWLLL AIEICTGNINSQDTCRQGHGIPGNPGHNLPGRDGRDGA KGD KGDAGEPG
CPGSPGKDGTSGEKGERGADGKVEAKGKGDQSGRSGPGKHGPKGLAGPMGEKGLRGE
TGPQGGKGNKGDVGPTGPEGPRGNIGPLGPTGLPGMGPIGKPGPKGEAGPTGPQGEV
RGIRGWKGDRGEKKGIGETLVLPKSAFTVGLTVLSKFPSSDVPIKFDKILYNEFNHYDTAV
GKFTCHIAGVYYFTYHITVFSRN VQVSLVKNGVKILHTRDAYVSSSEDQASGSI VLQLKLG
EMWLQVTGGERFNGLFADEDDDTTFTGFLLFSSQ

>negative|Q6UWK7|CJ0

MRLLVLSLLCILLCFSTEGKRRPAKAWSGRRTRLCHRVPSPNSTNLKGHHVRLCKP
CKLEPEPRLWVVP GALPQV

>negative|Q8IUH2|CRE

MSVRRGRRPARPGTRLSWLLCCS ALLSPAAGYVIVSSVS WAVTNEVDEELDS ASTEEAMP
ALLEDSGSIWQQSFPAS AHKED AHLRPRAGAARARPPPAPPGMFSYRREGGQTAS APPGP
RLRAATARSLAHASVWGCLATVSTHKKIQLPFGNCLPVSDGPFNNS TGIPFFYMTAKDP
VVADLMKNPMASLMLPESEGEFCRKNIVDPEDPRC VQLTLTGQMI AVSPEEVEFAKQAMF
SRHPGMRKWPRQYEWFFMKMRIEHIWLQKWYGGASSISREEYF KAVPRKA

>negative|Q9NRR1|CYT

MRTPGPLP VLLLLLAGAPAARPTPPTCYSRMRALSQEITRDFNLLQVSEPEPCVRYLPRLY
LDIHN YCVLDKLRDFVASPPCWKVAQVDSLKDKARKLYTIMNSFCRRDLVFLLD CNALE
YIPVTTVLPDRQR

>negative|Q96LR4|F19

MRSRMRVCAKS VLLSHWLFLAYVLMVCCKLMS ASSQHLRGHAGHHQIKQGTCEVVAV
HRCCKNRRIERSQTVKCSCFPGQVAGTTRAQPSCEASIVIQKWWCHMNPCLGEDCK
VLPDYSGWSCSSGNKVTKVTR

>negative|Q9BYJ0|FGF

MKFVPCLLLVTLSCGLTGLQAPRQKQGSTGEEFHFQTGGRDSCTMRPSSLGQGAGEVWL
RVDCRNTDQTYWCEYRGQPSMCQAFAADPKPYWNQALQELRRLHHACQGAPVLRPSVC
REAGPQAHMQQVTSSLKGSPEPNQQPEAGTPSLRPKATVKLTEATQLGKDSMEELGKAKP
TTRPTAKPTQPGPRPGGNEEAKKAWEHWCWKPQALCAFLISFFRG

>negative|P60985|KTD

MKIPVLPVAVLLSLLVLHS AQGATLGGPEEESTIENYASRPEAFNTPFLNIDKLRS AFKADEF
LNWHALFESIKRKL PFLNWD AFPKLKGLRS ATPDAQ

>negative|Q99935|PRO

MKLTFFLGLLALISCFTPSQRSRRPYLPGQLPPPPLYRPRWVPPSPPPPYDSRLNSPLSLP
FVPGRVPPSSFSRFSQAVILSQLFPLESIRQPRLPFGYPNLHFPLRPYYVGPILKPPFPPIPF
LAIYLPISNPEPQINITTADTTITNPPTTATATTSTSTKPTMTISSSTVPISSSTPEPAT'SIS AATPA
ASTENTTQILANRPHTVLLNATVQVTTSNQTILSSPAFKSFWQKLF AIFG

>negative|Q8N2E6|TOR

MAAATRGCRPWGSLGLLGLVSA AAAAWDLASLRCTLGAFCEDFRPDLPGLECDLAQH
LAGQHLAKALVVKALKAFVRDPAPT KPLVLSLHGWTGTGKS YVSSLLAHYLFQGLRSP
RVHHFSPVLHFPHPHS HIERYKKDLKSWVQGNLTACGRSLFLFDEMDKMPPGLMEVLRPFL
GSSWVVYGTNYRKAIFIFIRWLLKLGHHGRAPRRSGALPPAPAAPRALRAQRAGPAGPG
AKG

>negative|Q9BXJ3|C1Q

MLPLLLGLLGPAACWALGPTPGPGSSELRS AFS AARTTPLEGTSEMAVTFDKVYVNIGGDF
DVATGQFRCRVPGAYFFSFTAGKAPHKLS VMLVRNRDEVQALAFDEQRRPGARRAASQS
AMLQLDYGDTVWLRHLGAPQYALGAPGATFSGYLVYADADADAPARGPPAPPEPRSAFS
AARTRSLVGS DAGPGRHQPLAFDTEFVNIGGDFDAAAGVFRCLPGAYFFSFTLGLKLRK
TL SVKLMKNRDEVQAMIYDDGASRRREM QSQS VMLALRRGD AVWLLSHDHDG YGAYS
NHGKYITFSGFLVY PDLAPAAPPGLGASELL

>negative|Q9Y6N3|CLC

MVFSLKVILFSLLLSPVLKSSLVTLNNGYDGI VI AINPSVPEDEKLIQNIKEMVTEASTHL
FHATKQRAYFRNVSILIPMTYKSKSEYLIPKQETYDQADVI VADLYLKYGDDPYTLQYGC
GDKGQYIHFTPNFLLTNNLATYGRGKVFVHGWAHLRWGVFDEYNVDQPFYISRRNTTE
ATRCSTRITVYMLNECKGASCIARPFRRDSQTGLYEAKCTFIPKRSQTAKESI VFMQNLD
VTEFCTEKTHNKEAPNL

>negative|Q1L6U9|MSM

MALRMLWAGQAKGILGGWGHICLVMSLLQHPGVYSKCYFQAQAPCHYEGKYFTLGES
WLRKDCFHCTCLHPVGVGCCDTSQHPIDFPAGCEVRQEAGTCQFSLVQKSDPRLPCKGGG
PDPEWGSANTPVPGAPAPHSS

>negative|M5A8F1|SUP

MACIYPTTFYTS LPTKSLNMGISLTILILSVAVLLSTAAPPSCRECYQSLHYRGEMQQYFT
YHTHIERS CYGNLIEECVESGKSYKVKNLG VCGSRNGAICPRGKQWLCFTKIGQWGVN
TQVLEDIKREQUIAKAKASKPTTPPENRPRHFHSFIQKL