

DESs

>SexiDes2

MAPAQKHVQMCGDEIQSGLKISPVTYDADKLNIEGPQYENNNNTVLRNSANDKVNSDADF
DISKYEAIDFKAKFRWPDLTQILLHLVSIYGLYLTFSNQVKILTLLFALGTIYTSFGGITAGV
HRLWSHRAYRARLPLRIILALLFTVTGQRDIYTWALDHRVHHKYAETVADPHDIRRGFWF
AHVGWLVLTPHPAVEDRRIALRPTCADLIADPVVRLQKQFFIPMFALLNIAIPIWVPWYCW
NETLVNSFVISFVMRFTITLNI AFCVNSFAHLWGNKPYDRFVKSVENSLVSLAALGEGWHN
YHHVFPWDYRTSELGKLNISTGFIDFFAKIGWAYDLKAATDMISKRAKRCGDGTFGESEE
PYPSSSEKCHAE

>SexiDes3

MAPNTEKRQVSFPKLEYPIFREAQPKSAQHWLKGKRLQDGAEDLWRIHDSLYDLTDFISS
HPGGTHWISVTKGTDITEAFETHHLKGIAESLLPNYYVRKAIAKPRNQPFTEKEDGFYKTLK
LKVMDQMALIPKDVRKKSDFITDSLLLALILAPLSCWGWTSQSFVIGASLTFSTGFVLSSLV
TCAHNYFHRGDNWRMYIFNLAGMSFNDWRVSHSMHHLHTNTAQDIELSMIEPFLQFIPY
KDKPIWAQMGAFYYPLVYATSLLSIMGHELILSATNHEGKTLSWRNFIPFTIPAWMYLMGG
LPLHSTILLWLVTLPASFFFVYGLTAGHHNHRNFFEGDVPRDENIDWGIHQDLAICERID
YAGNHFKSITRFGDHALHHLFPTLDHAELKYLPLVLEHCEKFDQFKTNTFYETIINASK
QLIRKRPNNFRDVKATK

>SexiDes4

MAHITKTISSKILNKSTHRSNSTAVSQIRIYEVGPRDGLQNEAKFVPTDIKIELINKLAAAGI
KDIESASFVSPKWVKQMSDGVDMKNIPRVPGVNYPVLPNLKGYDIAKQCNIIEVAIFP
AGSEAFSQKNLNCVVEGLKRFKLVADQAVKDGIRVRGYVSCVVGCPYEGPIHPKGIKIT
EQLFEMGCYEVSLGDTIGVGTAGSVKRLMREVLTVAKPEQLALHFHDTYGGALSNNLAG
LEFGIKTVDSSISGLGGCPYARGASGNLATEDLVYLLYGLGVNTNVDLVKLIEAGRYISNFL
GKPTESKVNRAISDRFKKHNDIVKIASCDI

>SexiDes5

MAQTIQTTTILEQKEEKTVTLLVPQAGKRKFEFVYQNLITFAYWHIAGLYGLYLCFTSAKW
ATILFSFILFVIAEIGITAGAHRLWSHKSYVKLPLEILLMVMNSIAFQNTVIDWVRDHRLH
HKYSDDADPHNASRGFFYSHIGWLFVRKHPEVKKRGKELDMSDIYNNPVLRFRQKYAV
PFIGAVCFGLPTLIPVYCWGESWTNAWHITMLRYIMNLNATFLVNSAAHIYGKRPYDKKIL
PAQNIGVSIATFGEGFHNYHHVFPWDYRAAELGNNGNLNTTKFIDFFAWIGWAYDLKTVS
KEMIKQRSKRTGDGTNLWGLEDKDTPENLKNIKGE

>SexiDes7

MAAMSGAPLLL ANATLT SKLQDDDHRYAEPMKKNRDYEWQVVWRNVFAFVYLHAAAL
YGFYLMFTGKVRIWTILFGLLFAIMAGMGV TAGAHRLWAHRSYKARWPLRLFLALMQT
MAFQNHIEWVRDHRVHHKFTETDADPHNARRGFFFSHIGWLMVRKHKDVFEKGATVD
MSDLEKDPIVMFQKKTYMVLMPLLCFVIPAWIPCYFWGENPWYSWYVASITRYTVALHFT
WLVNSAAHIWGNRPYDKNIGATDNKAVAICAFGEGWHNYHHVFPWDYKAAELGNYSTN
LSTALIDFAAKHGLAYDLKTVSAEMIRQVRNRTGDGSHPWTKDSQEEEHYPENPVWGW
EDTDMTEEEKQFAEIVHRKTE

>SexiDes8

MGARVSRTDFEWVYTEEPHASRRKIILEKYPQIKKLFGYDPNFKWVVVTGMVLVQIISLPFV
TQLSWPMMMLV VAYCFGGVINHSLMLAIHEIAHNLAFGHNRPLANKLFGFFANLPIGLPVS
SFKKYHLEHHRYQGNEVIDTDLPTLLEAKLFCTTGKLLWLFLQPFFYSFRPLVVRPKPPT

PMELINLVIQLFFDAVVIKLWGWKAIGYLLIGALMAMGVHPVAGHFVAEHYMFKKGYET
YSYYGPLNWITFNVGYHNEHDFPAVPGSKLPEVRRIAPEFYDTLPHHDSWSKVLYDFVM
DPDIGPYARIKRKHHGLDS

>SexiDes9

MPPQGGQTGGSWVLYETDAVNVDSEAPVIVPPSAEKREWKIVWRNVILMGLLHIGGVYGA
YLFLTAMWRTSLFAVFLYICSGLGITAGAHRLWAHKSYPKARLPLRLLTLFNTLAFQDAVI
DWARDHRMHHKYSETDADPHNATRGGFFSHVGVLLVRKHPQIKAKGHTIDLSDLKNDPI
LRFQKKYYLILMPLICFILPCYIPTLWGESLWNAYFVCSIFRYVYVLNVTLVNSAAHLWG
AKPYDKNINPVETKPVSLVVLGEGFHNHHTFPWDYKTAELGDYSLNLTCLFIDFMAAIG
WAYDLKTVSPDVIQKRVKRTGDGSHAVWGWDDHEVQQEDKKLAAIINPDKTE

>SexiDes10

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RIHDKLYDLTRFIKRHPGGEEWLELTQGTDITEAFESHHLNPSTEKILTQYYIRDAKTPRNSP
FTFKEDGFYKTLKRAAFEELKKIPKASRTANNITDGLFVSLISSAMASWVTNYYAVKF
WYTYASINLAILTVCCCHNYIHRKTNWRMYLFNMSMWSYRDFRVSHVLSSHLYTNTLMD
LELSSLEPFLFYTPRKDKPLHAKLGFITEIFFFPVFVFLSFVKRFLSIFLHQGFFKSHYRWH
AIGLLLPLWMIASGAPILDVISMWLWINCTGSLIFFSIAVNAAHHHPDAIKDGDQPASETPD
WGMHQVEALLDRKDVNGNVFAVMTLFGDHLHMFPTLDHSLVKYMHPLFIDLCEKYQ
ANYRVSTQFKLVLGQIKETMRTEFKTKND

>SexiDes11

MAPNISEDVNGVLFESDAATPDLALARPPVQKADNKPKQLVWRNIILFAYLHLAALYGGY
LFLFSKWQTDIFAYILYVISGLGITAGAHRLWAHKSYPKAKWPLKVILIFNTVAFQDAAM
DWARDHRMHHKYSETDADPHNATRGGFFSHIGWLLVRKHPDLKEKGKGLDMSDLLADP
LLRFQKKYYLVLMPLACFVMPTMIPVYLWGETWTNAFFVAAMFRYAFILNVTLVNSAA
HKWGDKPYDKSIKPSNMSVAMFALGEGFHNHHTFPWDYKTAELGNNKLNFAFAFINF
FAKIGWAYDMKTVSDDIVKNRVKRTGDGSHHLWGWGDKNQPKKEIEAAIRINPKDD

>SexiDes12

MVEVKEAAPVAEEQKLSKSREANWPAVLFFIHHLLSLYGTYYYYLFEVKMMTLLFFILLTS
VALLGMTTGAHRLWAHQAYQASTGLKITLMLFQTLGIGSIYDWVKYHRFHHAHFATDV
DPYDYNQGFHSHLLTRLRKLSPHQEKLMSIDMSDLEKDSVVMFQKRLYVWLYAIFALL
PLNAPLEYWDDTILSSAFVIGFLRYLVVLHGSLWIESAICVWGLKPGEKSPPDNTAVFILT
TFWPHYHYLVYPYDYKSGEYGTYDSGCSTAFIRVWAALGLATKLRTVETVTIQKALAESAR
TKKDLKACIDAAVNNQKLPDEHYLKRA

>SlitDes2

MAPAQKHVQMCGDEIQSGLKISPLTYDADKLNAPQYENNNNTVLRNSANDKVNSEADFD
INKYEAIDFKAKIRWPDLTQILLHLVSIYGLYLMISNQVKLLTLFALGTIYTSFGGITAGV
HRLWSHRAYRARLPLRIILALLFTVTGQRDIYTWALDHRVHHKYAETVADPHDIRRGFWF
AHVGWLVLTPHVAEDRRIALKPTCADLLADPVVRLQKQFFIPLFALLNIAIPIWVPWYCW
NETLINSFVISFVMRFTITLNIACVNSFAHLWGNKPYDRFVKSVENSLVSLAALGEGWHN
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PYPTSEKCHAE

>SlitDes3

MAPNTEKRQVSFPQLEYPIYREAQPKSAQHWLKGKRMQDGAEDLWRIHDSLYDLTDFISS
HPGGSQWIAVNKGTDITEAFETHHLKGIAESLLPNYYVRKATKPRNQPFTEFKEDGFYKTLK

LKVM DQIQSIPKDV RKKSDFITDGLLLALIVLAPLSCWGWTSFIIGASLTLMTSYVLSSVV
TCAHNYFHRGDNWRMYIFNLAGMSFS DWRVSHSM SHHLHTNTAQDIELSMIEPFLQFIPY
KDKPIWAQMGA FYYPLVYATSLLSIMGHELILSATNHEGKTLTWKNLIPFLIPTWMYIMGG
LPLHWTILLWLATMPASFFVFYGLTAGHHNRNFFEGDVPRDENIDWGIHQ LDAICERI
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KQLIRKRPNNFRDVKATK

>SlitDes4

MAHITKTISSKILNKSTHRCLSTAVSQIRIYEVGPRDGLQNEAKFVPTDIKIELINKLAAAGI
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AGSEAFSQKNLNCVVEEGLKRFKLVADQAVKDGIRVRGYVSCVVGCPYEGPIHPKGIKIT
EQLFEMGCYEVSLGDTIGVGTAGSVKRLMREVLTVAKPEQLALHFHD TYGQALS NLVAG
LEFGIKTV DSSISGLGGCPYARGASGNLATEDLVYLLYGLGVNTNVDLVK LIEAGRYISNFL
GKPTESKVNRAISDRFKNHSDIVKIASCDI

>SlitDes5

MAQTIQT TTILEQKEEKT VTLVPQAGKRKFEIVYFNLVSFAYWHIAGLYGLYLCFTSAKW
ATILFSFFLVVAE VGTAGAHRLWSHKTYKAKLPLQILLMVMNSLAFQNTAIDWVRDHR
LHHKYS DTDADPHNASRGFFYSHIGWLFVRKHPDVKKRGKEIDISDIYNNPVLRFQKKYA
IPFIGAVCFALPTLIPVYGWGETWTNAWHVAMLR YIMN LNVTFLVNSAAHIYGKRPYDKKI
LPSQNI AVSIATFGEGFHNYHHVFPWDYRAAE LGNNCLNFTTKFIDFFAWIGWAYDLKTVS
KEMIKQRSKRTGDGTNLWGLEDVDT PEDLKN TKGE

>SlitDes8

MGARVSRTDFEWVYTEEPHASRRKIILEKYPQIKK LFGYDPNFKWVV TAMVLVQIISLPFV
TQLSWPLMLV VAYCFGGVINHSLMLAIHEIAHNLAFGHNRPLANKLFGFFANLP IGLPVSIS
FKKYHLEHHRYQGDEVIDTDLPTLIEAKLFCTTG GKLLWLFLQPFFYSFRPLVVRPKAPT
MELINLVIQLFFDAV IIKLWGWKALGYLLLGA VMAMGVHPVAGHFVAEHYMFKKGYETY
SYYGPLNWITFNVGYHNEHDFPAVPGSKLPEVRRI APEFYDTLPHHDSWSKVLYDFVMD
PDIGPYARIKRKHHGLDS

>SlitDes9

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DWARDHRMHHKYSETDADPHNATRGFFFSHV VWLLVRKHPQIKAKGHTIDLSDLKNDPI
LRFQKKHYLILMPLVCFILPCYIPTLWGESLWNAYFVCSIFRYVYVLNVTWLVNSAAHLW
GAKPYDKNINPVETKPVSLVVLGEGFHNYHHTFPWDYKTAELGDYSLNLT KLFIDFMAAI
GWAYDLKTVSSDVIQKRVKRTGDGSHAVWGWD DHEVHQEDKELAAIINPDKTE

>SlitDes10

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RIHDKLYDLTRFIKRHPGGEEWLELTQGT DITEAFESHHLNPSTEKILTQYYIRDAKT PRNSP
FTFKEDGFYKTLKRAAFEELKKIPKDASRTANNITDFL FVSLLISSSLTCWVTNNIAVKFWY
TYASFNLAVLTVACHNYIHRKTNWRMYLFNMSMWSYRDFRVSHVLSHHLYTNTLMDLEL
SSLEPILFYTPRKDKPLHAKLGCITEIFFFPVFVFLSFTKRFLSIFLQQGFFKSHYRWHDAIGL
LLPLWMAITSGAPFLDVISMWLWINCSGLIFFSIAVNAAHHHPDAIKDGDQPA SETPDWG
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YRVSTQFKLVLGQIKETMRTEFKMKND

>SlitDes11

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DWARDHRMHHKYSETDADPHNATRGGFFSHIGWLLVRKHPDLKEKGKGLDMSDLLADP
VLRQKKYYLLLMPLACFVMPTVIPVYLWGETWTNAFFVAAMFRYAFILNVTWLVNSAA
HKWGDKPYDKSIKPSENMSVAMFALGEGFHNYHHTFPWDYKTAIEFGNNKLNFTTAFINF
FAKIGWAYDMKTVSEDIVKNRVKRTGDGSHHLWGWDENQPKKEIEAAIRINPKDD

>SlitDes12

MLSLYGTYLLLFEVKMMTLLFFMLLTSVALLGMTTGAHRLWAHQTYQASTGLKIMLMFLF
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MSDLEKDTVVMFQKKLYWLLYAIIFVLLPLNAPLEYWDDTILCSAFVIGFLRYLVVLHGS
WLIESAISVWGLKPGEKSPPDNTAVFILTCTFWPHYHYLVYPYDYKSGEYGTYDGGCSTAFI
RVWAALGLATKLRTVETASIQKALADAARTKKDLKTCIDAAVNNQQLPEEHYLRKRA

>SinfDes1

GQVAGFGVTAGVHRYWCHRSYKAKLPLQWILMICYSVAGQNTIYEWVRDHRVHHKHSE
TSADPHDANRGFFFSHVGLWMMKKHPDVLKQGVKMDMSDIVNDPLVQFHTRYFLMFKI
SCCWVIPSVIPVLCWNETWLTSIMSQAVALRYLLSLNITWSVNSFAHLWGFKSYDV

>SinfDes2

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DWARDHRMHHKYSETDADPHNATRGGFFFAHVGLWLLVRKHPQIKAKGHTIDLSDLKSDPI
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WGAKPYDKNINPVEIKPVSLVVLGEGFHNYHHTFPWDYKTAELGNYSLNITKLFIDTMAA
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>SinfDes3

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MDWARDHRMHHKYSETDADPHNATRGGFFSHIGWLLVKKHPDLKEKGKGLDMSDLRSD
PILRFQKKYYLLLMPLACFIMPTVVPVYFWGETWTNAFFVAAMFRYAFILNVTWLVNSAA
HKWGDKPYDKSIKPSENMSVAMFALGEGFHNYHHTFPWDYKTAELGNNKLNFTTTFINF
FAKLWAYDMKTVSQDIVKSRVKRTGDGSHNLWGWDKNQSKKEIAAAIRINPKDD

>SinfDes4

MLSQEEPTDTSVPRAAPRKYQIVYPNLITFGYWHLAGLYGLYLCFTSAKWTTILFSFILCV
IAEIGVTAGAHRLWAHKTYKANLPLQILLMVMNSIAFQNSAIDWVRDHRHLHHKYSDDA
DPHNASRGFFYSHVGLWLLVKKHPEVKKRGKELDMSDIYSNPVLRQKQYAIPIGAVCFIL
PTVIPVYCWGETWTNAWHITMLRYITNLNVTFLVNSAAHIWGYKPYDENILPAQNIASIA
TCGEGFHNYHHVFPWDYRAAELGNNNLNLTTKFIDFFAWLGWAYDLKTVSSDMIKLRAK
RTGDGTNLWGEHNDELKEGKED

>SinfDes5

GNRPYDKNIGATDNKTVALCAFGEWHNYHHVFPWDYKAAELGNYSTNLSTALIDFAAK
HGMAYDLKTVSADMIRQRVNRTGDGTHP

>SinfDes6

MAPAQQNIEMCGEEMNAELKLNPHITYKNGKVAQLDNNNTVLRDSASVVTSDSDFDIKKF
EAMEFKAQWRWPDLTQILLHLVSLYGLYLIFSNOVKLYTILFAFCTIYTSFGGITAGVHRL
WSHRAYRARLPLRILLAILFTITGQRDIYTWALDHRVHHKYSETVADPHDIRRGFWFAHVG

WLVLTTPHPAVEDRRIALRPTCADLLADPVVRLQQKLFIPMFAILNIGLPVFLPWYVWNETL
VNSFIISFVLRFTITLNI AFCVNSFAHLWGNKPYDKFVKSVENSLVSLAALGEGWHNYHHV
FPWDYRTSELGKINVSTGFINLFEKIGWAYDLKAA TNEMVSKRARRSGDGTGGESEEPYPT
SEHCHSE

>SlitZ9

MAPNISEDVNGVLFESDAATPDLALARPPVQKADNKPKQLVWRNILLFAYLHLAALYGGY
LFLFSAKWQTDIFAYILYVISGLGITAGAHRLWAHKSYPKAKWPLKVILII FNTVAFQDAAM
DWARDHRMHHKYSETDADPHNATR GFFFSHIGWLLVRKHPDLKEKGKGLDMSDLLADP
VLR FQKKYYLLLMPLACFVMPTMIPVYLWGETWTNAFFVAAMFRYAFNLNVTWLVNSA
AHKWGDKPYDKSIKPSENMSVAMFALGEGFHNYHHTFPWDYKTAELGNNKLNFTTAFIN
FFAKIGWAYDMKTVSEDIVKNRVKRTGDGSHHLWGWGDENQPK EEIEAATRINPKDD

>SlitZ9-2

MPPQGQTGGSWVLYETDAVNVDTEAPVIVPPSAEKREW KIVWRNVILMGLLHIGGVYGA
YLFLTAMWRTSLFAVFLYICSLGITAGAHRLWAHKSYPKARLPLRILLTLFNTLAFQDAVI
DWARDHRMHHKYSETDADPHNATR GFFFSHVGVLLVRKHPQIKAKGHTIDLSDLKNDPI
LRFQKKHYLILMPLVCFILPCYIPTLWGESLWNA YFVCSIFRYVYVLNVTWLVNSAAHLW
GAKPYDKNINPVETKPVSLVVLGEGFHNYHHTFPWDYKTTELGDYPLNLTKLFIDFMAAI
GWAYDLKTVSSDIVKRVKRTGDGSHAVWGWDDHEVHQEDKELAAIINPKDTE

>SlitZ11/E11

MAQCVQTTTILEQKEEKTVTLLVPQAGKRKFEIVYFNIITFAYWHIAGLYGLYLCFTSTKW
ATVLFSSFLFVVAEVGVTAGSHRLWSHKTYKAKLPLQILLMVMNSLAFQNTVIDWVRDH
RLHHKYS DTDADPHNASRGFFYSHVGVLLVRKHPDVKKRGKEIDISDIYNNPV LRFQKK
YAIPFIGAVCFVLPTLIPVYGWGETWTNAWHVAMLRYIMNLNVTFLVNSAAHIY GKRPYD
KKILPSQNI AVSIATFGE GFHNYHHVFPWDYRAAELGNNSLNFPTKFIDFFAWIGWAYDLK
TVSKEMIKQRSKRTGDGTNLWGLEDVDT PEDLKNTKGE

>HassGATD

MAAMSSTSLLLANTMLSSKLQDHDDLRYAEPRKPNRDYEWQVVWRNVLA FVYLHVS AV
YGLYLMLTGKVKS YTILFGALFAIMSGMGVTAGARRLWAHRSYPKARWPLRVFLALMQT
MAFQNHIEYWVRDHRVHHKFTETDADPHNAKRGFFFSHIGWLMVRKHKDVFEKGATVD
MSDLEQDPVIMFQKKTYLVMPILCFVIPAWIPVHFWDENPWT SWYTAATRYTIALHFT
WLVNSAAHIWGNRPYDKNIGATDNKMVAICAFGEGWHNYHHVFPWDYKAAELGDYST
NLSTALIDFAAKHGYAYDLKTVSADMIRKRVNRTGDGSHPWTKGKVEGDHYHPENPVW
GWEDTDMTEEEKQFAEIVHRKTE

>HassZ9

MAPNISEDVNGVLFESDAATPDLALSTPPVQKADNRPKQLVWRNILLFAYLHLAAQYGGY
LFLFSAKWQTDIFAYILYVISGLGITAGAHRLWAHKSYPKAKWPLRVILVIFNTVAFQDAAM
DWARDHRMHHKYSETDADPHNATR GFFFSHIGWLLVRKHPDLKEKGKGLDMSDLLADPI
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KWGDKPYDKSIKPSENLSVAMFALGEGFHNYHHTFPWDYKTAELGNNKLNFTTTTINFFA
KIGWAYDLKTVSDDIVKNRVKRTGDGSHHLWGWGDENQSKEEIDAAIRINPKDD

>HassZ9-2

MPPQGQTGGSWVLYETDAVNEDTDTPVIVPPSAEKREW KIVWRNVILMGMLHIGGVYGA
YLFLTAMWRTCIFAVVLYICSLGITAGAHRLWAHKSYPKARLPLRIMLT LFN TLAFQDAVI
DWARDHRMHHKYSETDADPHNATR GFFFAHVGVLLVRKHPQIKAKGHTIDLSDLKSDPI

LRFQKKHYLFLMPLVCFILPCYIPTLWGESLWNAYFVCSIFRYVYVLNVTWLVNSAAHLW
GAKPYDKNINPVETRPSLVVLGEGFHNYHHTFPWDYKTAELGDYSLNLTCLFIDTMAAI
GWAYDLKTVSTDVIQKRVKRTGDGSHPVWGWDDHEVHQEDKKLAAIINPEKTE

>*HassZ11*

MAQSYQSTTVLSEEKEPTLTHLVPQASPRKYQIVYPNLITFGYWHIAGLYGLYLCFTSAKW
ATILFSYILFVLAIEGITAGAHRLWAHKTYKAKLPLELLLMVFNSIAFQNSAIDWVRDHLRH
HKYSDTDADPHNASRGFFYSHVGWLLVRKHPEVKKRGKELNMSDIYNNPVLRFAQKKYAI
PFIGAVCFALPTMIPVYFWGETWSNAWHITMLRYIMNLNVTFLVNSAAHIWGNKPYDAKI
LPAQNVAVSVATGGEGFHNYHHVYPWDYRAAELGNNSLNLTCLKFIDFFAAIGWAYDLKTV
SEDMIKQRIKRTGDGTDLWGHEQKCDKSGSVNDKLS

>*SfruDES1*

MKEKYLEDSPTKVFNNIEKTTCPVIENVDRIPKCIATDFSYPKHQIVWKNVIGFVLLHVFA
LWGLVLIFTGTALWKTSIWALCVLYIGSEGVITGAHRCFAHRSFKATPLLRAVMVITQTLAG
QNSVYTWCRDHLHHRYSDDADPHNSKRGFFFCHIGWILYKKHPYVKEFGRNIDMSDL
QGDWMVMFQKKYYIILYLVAILVPVWVPVHYFGETWWNSLFVSFYFARYVCQLHGTWC
VNSVAHLYGTRPYDKNLQPVESWVFSISLGEGWHNYHHAFPWDYKAAELSMHFNLSAS
IIRFLARIGLAYKLKSASTDMVASRILRTGDGSHYKMGTEEARAAVTAWGPLHPLNPTYNT
TLKAPDAILKPGGQPLCY

>*SfruDES2*

MAPAQKHQMCGEIQSGLKISPLTYDADKLNEAPQYENNNNTVLRNSANDKVNSEADFDIT
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RLWSHRAYRARLPLRIILALLFTVTGQRDIYTWALDHRVHHKYAETVADPHDIRRGFWFA
HVGWLVLTPHPAVEDRRIALKPTCADLLADPVVRLQKQFFIPLFALLNIAIPIWVPWYCW
ETLVNSFVISFVMRFTITLNIACVNSFAHLWGNKPYDRFVKSSENSIVSLAALGEGWHNY
HHVFPWDYRTSELGKLNISTGFIDFFAKIGWAYDLKAATDMISKRAKRCGDGTFGESEEP
YPTAEKCHAE

>*SfruDES3*

MAPNTERRQVSFPQLEYPLFREAPKSAQHWLKAARMQDGAEDLWRIHDSLYDLTDFVS
THPGGSHWIAVTKGTDITEAFETHHLKGIAESLLPNYYIRKATKPRNQPFTEKEDGFYKTL
KLKVMDDQIQSIPKDARKKSDFITDSLALLIVLAPLSCWGWTSQSFIIASLTLMTSYVLSSV
VTCAHNYFHRGDNWRMYIFNLGSSFSWVRVSHSMHHLHTNTAQDLEISMVEPFLQFIP
YKDKPIWAQMAAFYYPVYATSLLSIMGHELILSATNHEGKTLTWKNLIPFLIPTWYIMG
GLPLHWTILLWLVTLPASFFVFYGLTAGHHNHRNFFEGDVPRDENIDWGIHQDLAICER
SDYAGNHFKSITRFGDHALHHLFPTLDHAELKYLYPVLLHCEKFDYQFKTNTFYETVINA
SKQLIRKRPNNFRDVKATK

>*SfruDES4*

MAHITKTISSKILNKSTHRCLSTAVSQIRIYEVGPRDGLQNEAKFVPTDIKIELINKLAAAGI
KDIESASFVSPKWVKQMSDGVEVMKNIPRVPGVNYPVLIPNLKGYEIAKQCNIIEVAIFPA
GSEAFSQKNLNCVVEEGLKRFKLVADQAVKDGIKRVGRYVSCVVGCPYEGPIHPKGIKITE
QLFEMGCYEVS LGDTIGVGTAGSVKRLMREVLTVAKPEQLALHFHDTYGGQALS NLVAGL
EFGIKTVDSISGLGGCPYARGASGNLATELVYLLYGLGVNTNVDLVKLIIEAGRYISNFLG
KPTESKVNRAISDRFKNHNDIVKIASCDI

>*SfruDES5*

MAQTIQTITILEQKEKTITLPLVPQAGKRKFEIYPNLITFTYWHIAGLYGLYLCFTSAKWA

SILFAFFLVVAEVGITAGAHRLWSHKTYKAKLPLEILLMVMNSIAFQNSAIDWVRNHRHLH
HKYSDTDADPHNASRGFFYSHVGWLLVRKHPDVKKLGKKLDMSDIYNNPVLRFQKKYAI
PFIGAVCFGLPTLIPVYCWGETWTNAWHITMLRYIMNLNVTFLVNSAAHIYGKRPYDKKIL
PAQNIAVSIATFGEGFHNHVVFPWDYRTAELGNNSLNFTTKFIDFFAWIGWAYDLKTVSN
EMIKQRSKRTGDGTNLWGLEDVDTPDDLKNTKGE

>*SfruDES6*

MGNSKEELGFVSKVREFEKWMGFQTKIKWTVAFIALAYHILAVYWCYHYTLPVKWQTV
LFAYMMFVFSFGGITGGAHRYWAHRTFKASTPLRIIMILGFASAGQNTLRQWVRNHRVHH
KYSDTDSDPHNRRERGLFFSHIGWLLMHKNSAVVSKFNEIDMSDIDNDPIVKWHTKYVDIV
NPLACAVIPTLVGILLWGEDWRVAIAWQCFIRMMAVYHSELTVNSLGHTLGYPYNQSIRP
AENVFIAAITGGEGWHNFHHAFPFDYKTSELPHGIDTTTRLIHLFETFGWVQDKREVSPET
IKKYSLQHCEGIEQIKMAEKEF

>*SfruDES7*

MAAMSGAPLLLANATLTSLQDDDHRYAEPMKKNRDYEWQVVWRNVFAFVYLHAAAL
YGFYLMFTGKVKIWTILFGLLFAIMAGMGVTAGAHRLWAHRSYKARWPLRLFLALMQT
MAFQNHIEYWVRDHRVHHKFTETDADPHNARRGFFFSHIGWLMVRKHKDVFEKGATVD
MSDLEKDPVIMFQKKTYMVVMPLLCFVVPWIPCYFWGENAWYSWYVASITRYTVALHF
TWLVNSAAHIWGNRPYDKNIGATDNKAVAICAFGEGWHNYHHVFPWDYKAAELGNYST
NLSTALIDFAAKHGLAYDLKTVSAEMIRQVRNRTGDGSHPWTKDSQEEEHYHPENPVWG
WEDTDMTEEEKQFAEIVHRKTE

>*SfruDES8*

MGARVSRTDFEWVYTEEPHASRRKIILEKYPQIKKLFGYDPNFKWVVTLMLVLVQIISLPFV
VQLSWPLMLVVAYCFGGVINHSLMLAIHEIAHNLAFGHNRPLANKLFGFFANLPIGLPVSIS
FKKYHLEHHRYQGDEVIDTDLPTLLEAKLFCTTGKKLLWLFLQPLFYSRPLIVRPKNPTP
MELINLVIQLFFDAVILKWGGKALGYLLLGSVMAMGVHPVAGHFVAEHYMFKKGYETY
SYYGPLNWITFNVGYHNEHDFPAVPGSKLPEVRRIAPEFYDTLPHHDSWSKVLYDFVMD
PDIGPYARIKRKHHGLDS

>*SfruDES9*

MPPQGQTGGSWVLYETDAVNADTEAPVIVPPSAEKREWKIVWRNVILMGLLHIGGVYGA
YLFLTAMWRTSLFAVFLYICSLGITAGAHRLWAHKSYPKARLPLRLLLTFLNTLAFQDAVI
DWARDHRMHHKYSETDADPHNATRGFFFSHVGWLLVRKHPQIKAKGHTIDLSDLKNDPI
LRFQKKHYLILMPLVCFILPCYIPTLWGESLWNAYFVCSIFRYVYVLNVTWLVNSAAHLW
GAKPYDKNINPVETKPVSLVVLGEGFHNHHTFPWDYKTAELGDYSLNLTCLFIDFMAAI
GWAYDLKTVSPDVIQKRVKRTGDGSHAVWGWDDEHVHQEDKKLAAINPEEKTE

>*SfruDES10*

MKMPPNADWEEVAQQRAVDKNTHVSFPQLKYPSLRDDGLRDPVQWLAGKAMDDGAEG
LWRIHDKLYDLTRFIKRHPGGEWLELTQGTDITEAFESHHLNPSTEKILTQYYIRDAKTPR
NSPFTFKEDGFYKTLKRAAFEELKKIPKASRSANNITDCLFVSLVSSAMACWVTNNYA
MKFWYTYASNLAVLTVACHNYIHRKTNWRMYLFNMSMWSYRFLSIFLYRGFFKSHYR
WHDAIGLLLPLWMAIASDAPLLDVISMWLWINCTGSLIFFSIAVNAAHHHPDAIKDGDQPA
NETPDWGMHQVEALLDRKDVNGNVFAVMTLFGDHCLHHMFPTLDHSLVKYMHTLFDL
CEKYQANYRVSTQFKLVLGQIKETMRTEFRVKND

>*SfruDES11*

MWFAILLDCFKLLTFIYCARKCGKMAPNISEDVNGVLFESDAATPDALARPPVQKADNK

PKQLVWRNIILFAYLHLAAVYGGYLFLFSKWQTDIFAYILYVISGLGITAGAHRLWAHKS
YKAKWPLKVILIIFNTVAFQDAAMDWARDHRMHHKYSETDADPHNATRGGFFSHIGWLLV
RKHPDLKEKGKGLDMSDLLADPILRFQKKYLLLMPLACFIMPTVIPVYLWGETWTNAFF
VAAMFRYTFILNVTWLVNSAAHKWGDKPYDKSIKPSENMSVAMFALGEGFHNYHHTFP
WDYKTAELGNNKLNFTTAFINFFAKIGWAYDMKTVSDDIVKNRVKRTGDGSHHLWGWG
DENQPKEEIEAAIRINPKDD

>*SfruDES12*

MYNDLSRSCALSLCCVHRLRLPASNSSKMVEVKEAAPVAGEPKLSKSREANWPAVLFFIHI
HLLSLYGTYLLFFEVKMMTALFFIVLTSVALLGMTTGAHRLWAHQTYQASTGLRITLMLF
QTLAGVGSIDWVKYHRFHHAHFATDVPDYDYNQGFHSHFLTRLRKLSPHQEKLME
SIDMSDLEKDSVVMFQKRLYWGLYAIIFLLPLNAPLEYWDDASILASAFVIGFLRYLVV
LHGTWLIESAISVWGLKPGEKSPPDSNTVFILTKTFWPHYHYLVPYDYKSGEYGT
YDSGCSTAFIRVWAALGLATKLRTVETVTIQKALADAARSKKDLKTCIDAAVNHQQL
PADHYLKRA

>*SfruDES13*

MAPITFTETEVIEQPIHETDYIQYKLYQPTKDSRDTNGKSNGESCELSPYDQMLSPKDPKFL
APIRKLEKSLGFVTPIRWFNTISISLFHIGAVLWMIRYIFLNKMPIKWQTTAFGYLLGQVAGF
GVTAGAHRYWCHRSYKATKPLQWILILCYSVAGQNTIYEWVRDHRVHHKFSETSADPHD
ANRGFFFSHVGLMMKKHPDVLKQGVKIDMSDIVNDPLVQFHTRHFWLKFIMCCWVLP
SLVPALCWNWTWEASIMSQVVIRYLLSLNFTWSVNSFAHLWGNKPYDKNIMPVENWGV
SVVAMGEGWHNYHHTFPWDYKAAELGIPMNLTTLLNYFASIGWAYDLKEASPGLVRAVA
KARGEPAED

>*SfruDES14*

MTIQSNSLGFSTENGSKQDGKVNSLPHTPKKWDIVWRELIIFTIFHITAVRGLYLFITVAK
WQTCIFALLYIATTTSVTVGAHRLWSHKAFAQAKLPLKVILLFFFTMAFQYSAVIWARLHR
MHHKYLDTDADPHNAGRGGFFSHIGWMLIKKHPEYRAHKVDISDLMQDPLLRFQHKHY
WEVLFIAFFLVPTYVPTLWGEQSSTAFYTCVCLRYVCGLHSIWLVNSAAHMGWTKPYDK
NIRAVETKIVSMLAAGEGFHNYHHTFPWDYRIAEGDYSLNLGKLFIDTMAKIGWAYNLK
SVPDELIEKRVKRTGDGTHPVWGWDDPDLPLEDKRMSIVK

>*SfruDES15*

MAPKDSSYIEWAHKTAAEKKTHVSFPQLKYP SLRDGGLRDPIQWLEGKAMDDGAEGLW
RIRNSLYDFSEFLDKHPGGAEWLELAKGTDITEAFECHHLNPVVEKV KDKYYVRDAKTPR
NSPFTFEEDGFYKTLKRSVAEELKKIPASERKRTTLIDGLVATLLISSALSCWATNYWVVM
VSYLVASLT LAWTTVAAHNYIHMKTNWRMYLFNLSLWSYRDFRVSHALSHHVYPNTLID
LEISGFEPITWIPRKKPAFAKFTLLIETIVFPFLFILNFLKRFISNFIRKGGFFTRHYRWH
DVIGLLL PVWMYLASGCTFYHAFITWLWINCTGSFIFFTIGSNAAHHHPNIFKDG
DQLKEKTVDWGMHELEAVMDRNDINDNFFKVM TFFGDHALHHLFPTLDHAVLRHLYPVFLKH
CEEFRANYRLTSQYDFFIAQLKMAVKEDPTVLDESS

>*SfruDES16*

MPPQVDPVPSGVVFESDTQTSDLGLAKDVSVLKNASPRKHEYVWFNIFWFLYLHIASLYG
LYLVFTSAKWQTNVFAFAVHLMCAIGIGAGSHRLWTHRSFKARTPLRIVLMLWQTMGFQD
CIFEWARDHRTHHKYADTDADPHNAERGLFFSHMGWLCKKSPEVIEGGKRIDLTDLYAD
PVVMFQKKHYMKMMPLLCFVLPTVIPVYFWGETWTNAFFIPTILRYTCGINVVWSVNSFA
HTFGYRPPYDKSLNPRENIGVWMICVEGFHNYHHTFPWDYRATELPLYNMLTPTIVFIDLM
AKIGQAYDLKYVSPEIHKQRAHRTGDGTHHLWGWDDPEFTEKLKEKYGAVSHSEENRKL

A

>*SfruDES17*

MTAANMETKSPSSNDLKNPMKDGNVNKEETMEIPKVIGTDYSYKHTIVWKNAIGFLIMHI
LALWGVGLLFAGYMKWQSLVWTLFIAFLSTEGVTIGAHRFYTHKSFKATPFLKAIFLLCQT
IAGQNSMFIWCRDHRLLHRYSDTDGDPHNSKRGFFFCBIGWLMHKKHPYVIELGRKIDM
SDLQADWMVMFQKKYYYHLYFLLAFLIPVWVPVHFFGEPVLHSILVVYFARYVLQLNGT
WLVNSAAHLYGTRPYDAKLQPVESWVFSFISLGEGWHNYHHAFPWDYKAAELTMHFNQ
SASIIRFFERIGLAYDLKTASPELVNRIIRTGDGSHYKMGTEEARSAVTAWGPVHPLNPTY
NTTLKAPDAILKPEGLPLYHEKDTLNLTVIQKNSRRG

>*AperDES1*

MKIIFDEILRRFERVFAFDNDIKWGSVFVIFGYHALAVYWCYNYSLPVKWQTVIFAYCTY
VLSGMGITLGVHRYWSHRCFKATKPLQIILFLMFALTGQTSIRIWVRNHLHKKASDTPGD
PHNATRGLFYSHIGWLMMKKTDQLIEQGKKIDMRDIDSDPLLRWYDRNVFMVNLMAAF
VLPTMVNIWCLGESWRCAVAWQCFVRYLGVLHAQMTINSLAHKFGNRPFSNRIKPAENM
FVSYITFGEGFHNYHHVFPYDYRTTG DYFILDY GKILLKFFEKIGWAYNLRKASPETIASAV
GRLNCAESDDLKKS

>*AperDES2*

MAPNTKKEDELITCEGSIEKLIAPQANQRKHQIVYMNLFTEFGYWYIAGLYGLYLFFTSTK
WSTIILNIFLIASGLGITVGAHRLWTHKCFKAKLPLQIILMIFNTLAYQYTATTWVRYHRM
HHKFADTDADPHNATRGGFFSHIGWLLVKKHPEYLRKRKNIDMSDIYNNPVLYFQKKYAK
PLMATITFILPTVPMYFWEESLSNSWHTTILRYTSNWNFMFLINSAHRWGYRPPYDKSIQ
PTQNMLATVCTLGEGFHN

>*AperDES3*

MAPNITDANGVLVESDATTPLGLPIQPIQQADNRPKQFVWRNIILFAYLHIAALYGGYLFL
FHAKWQTDIFAYILYVMSGLGITAGAHRLWAHKSYPKAKWPLRLILVIFNTLAFQDSAIDWA
RDHRMHHKYSETDADPHNASRGGFFSHIGWLLVRKHPELKRKGKGLDLNDLYADPILRFQ
KKYYLLLMPIACFILPTVIPVYFWSETWSNAFFVAALFRYTFILNVTWLVNSAAHKWGDK
PYDKSIKPSENISVSFALGEGFHNYHHTFPWDYKTAELGNNRLNFTTNFINFFAKFGWAY
DLKTVSDEIVQNRVKRTGDGSHHLWGWGDKDHDKAEINAAIRINPKDD

>*AperDES4*

MEEVNQTVETDSSAIKLSKSREANWPSVLFFIHIHLLSLYGLWLLFYEVKWMTLVLLVILA
SIAILGMITGAHRLWAHGSYKASTGLRITLMLFQTLAGVGSIDWVLYHRLHHAHFATDD
DPYDYRKGLYSHMLTRMRKLSPHQEKLKESIDMSDLENDVVKFQKILYWPLYAIIFLLLP
LNAPLEYWNSDVLSTVFGFLRYGIVLHASWLIESAVCLWGLKPGEKSPPDSNSVFIITKT
FWPHYHYLIPYDYKSGEYGTYSGCSTAFIRVWAALGLATDLRTVESKTIQKALASVAKT
GRPLQTCIDEALKDQSLPDQHLYLKR

>*AperDES5*

MPPQNQQQDSWVVQESDEVNGEADISTLVPHTAEKRKLQIVWRNVILFTFLHIGGVYGAY
LFLFKAMWATSLFAIVLYLCSGLGITAGAHRLWAHKSYPKARLPLRVLLTAFNTIAFQDSVL
DWARDHRMHHKYSETDADPHNATRGGFFSHVGVLLVRKHHPQIKAKGHTIDLNDLWSDP
VLRQKKYYLLMPFACFVLPYIPTLWGETLWNAFYVCAIFRYVYVLNVTWLVNSAAH
MFGDKPYDRNINPVEIRPVSLVVFEGGFHNYHHTFPWDYKTAELGDYSLNFSKLFIDLMA
KIGWAYDLKTVSSEVIEKRVKRTGDGSHPIWGWDDKDVPIDRNIAIHKSEKSK

>*AperDES6*

MAPAQQNVEVCTETVDSQIKMRLKQSDFKCTNGVTSCENNNTVLNDSVSEKLISDTDFDL
MKYEAMEFKPQIRWPDLTQVSLHLTTIYGLYLILTQVMILTTLFAALLTIYTSFGGITAGV
HRLWSHRAYKANTPLRVILALLFTITGQRDIYTWALDHRVHHKYSETAADPHDIRRGFWF
AHIGWLVLTPHPAVEDRRVALRKTSLDLMADPVVRLQKIFFIPLFALLNIALPVWIPYYFWN
ESLTNSFIVSFVTRFTITLNIASFVNSFAHLGKPKYDRFIKSVENGMVSLAALGEGWHNY
HHVFPWDYRASELGRLNISTTFIDTFKIGWAYDLKAATPAMIISRAQRSGDGTLGEMEEP
EPTSLDPSSSSD

>*OnubZ/E14*

MADIDATNPYDLQDKSEDDKPEDTEGELTIVGTDYSYTHRIIWPIVMVYVVMHIGAITGLL
LVLGGNVKIASIIWAVFYSLVATEGAHMGAHRCFSHRAFKAKPLLKILLIMQITISGQHSTY
IWCRRHRQHRYSDTDGDPHNSKRGMFYCHVGWLMTSRHPLCKKLRKTIDMSDLQQDP
LVMFQYRYFRSLFFTFGFLLPVWVPMHFFQESFTNAVFCFFLRYVYALHVTYFINSLAHK
YGRPYDKTIQPVETWVSVLLSLGEGWHNYHHAYPWDYKAAEIGMPLNSTASLIRLCASL
GLAYDLKSVDPETLNKRIMNKGDGTYEVKYLQEHVTAIGPLHPLNPSYRGTCPDPEIKLK
VRMKP

>*OnubZ9*

MAPNIKDGADLNGVLFEDDASTPDYALATAPVQKADNYPRKLVWRNIILFAYLHLAAVYG
AYLFLFSAKWQTDIFAYILYVISGLGITAGAHRLWAHKSYPKAKWPLRLILIFNTVSFQDSAL
DWSRDHRMHHKYSETDADPHNATRGGFFSHIGWLLVRKHPELKRKGKGLDLSDLADPI
LRFQKKYLLLMLPLGCFIMPTVVPVYFWGETWTNAFFVAALFRYTFILNVTWLVNSAAH
KWGHKPYDSSIKPSENLSVSLFALGEGFHNYHHTFPWDYKTAELGNRNLNFTTNFINFFA
KIGWAYDLKTVSDEIIQNRVKRTGDGSHHLWGWGDKDQPKKEEVNAAIRINPKDE

>*OnubZ/E11*

MVPYATTADGHPEKDECFEDNEIKSNSLPKLEILYFNVMTFTFLHLSALYGLYLGFTSVKW
ATIGLGIIFYFFAEIGITAGAHRLWSHRSYKAKLPLEILLMVFNMAFQNTALSWARDHRVH
HKCPDTNGDPHNANRGFFYSHVGWLMTKKSDEVIKQGKLCDVADLYSNPVLRQKKYA
VPFIGTLCFVLPTLIPMYFWGETLNNAWHFNMFYVINLNATFCVNSVVHKWGYKPYDK
NICPTQNVLLNLAVLGEAFHNYHHVFPWDYRAAELGNQKMNPTTLFIDFFAWIGWAYDL
KTASKEMIKSRsertGDGTDLWGHsADKLK

FARs

>*SfurFAR1*

MAVETLTETQMFEKPKQGGDITYMDMVEESQPLGDSQIQKLFAGSSVLLTGGTGFLGKLVV
EKLLRSCPDLKKIFLLARPKKNKTITKRLQEQQFDDVLYDRLRKECPDFINKISIVEGDVGQL
DLGMCPEdRIKIMNEVEVIFHGAATVRFDEPLKTAVEINVRGTREMFKLARGCSKLKAFV
HISTAYSNCpQNMIGEKFYESPLPGDKLIDLvetMEEKVINNITPGLLGDFPNTYAYTKAVA
ENIVKEYSKGLPVALFRPSIVIGTSKEPVSGWIDNVYGPTGVVVGAAGLLHVLNCNPKV
KADLVPGDMVvnACIATAWKTAKEYPSNHEDAPPPDLTPPVYNYVSSEQRPLTWEKFMN
YNEVYGFQVPTVQAIYYLFLHLSKFLYNLYCFLHWPAYIIDGVAVIIGKKPMLRKAYK
KITKFSEVMAYFATREWKFDNTNTQQLFKELCPADKHLFDfDMSALKWNEYFYNYIRGV
RVYLLKDPVETVPQGIKKLHRLKYLHYTFcAILGLLFLRLLWAMLSGVFSF

>*SfruFAR2*

MTYRRVSECDAEiITQYPDPVSYVSPDFYAGKSIFLTGVTGFLGKVfLEKLLfSCEDIETIY
ILIREKKGKTPLQRIEELFDKPLFSRLKEKDPQCKKKVPIIGELSEPGLGISKANEETLLEKV
SVVFHAAANVQFDKELKEiINTNVCgTKYVLQlCQRMKNIKAFVHVSTAYCHTDQKVLE

ERVYPPPAELSEVLKFLHQPQHDNKKQIKEFFKEQPNSYTFAKALAETYIAENCGHVPTIII
RPSIISSSLKEPLPGWLDTWNGATGLITASYNGANRVLLGEGSNILDLIPVDFVANLAIVAAT
RCTSPLKVYNCCSSGCNPLTLKQLISHMNHYGCDKNVSIIFTNNKPSMSTFTFLQTTPSFT
ADMFLRATGKSPKYMKIQSKLTLAQKALSYFTSHSWVMKADNSRKLYASMSIQDRQKFP
CDPTDIDWKQYITIYLEGINKFLMKNYT

>*SfruFAR3*

MVVLTSSKEKSNMSVADFYAGKSVFITGGTGFLGKVFIKLLYSCPDIDKIYMLIREKKGQSI
RERMTKIVADPLFNRLKDKRPGDLDKIVLVPGDITVPGLGISEENETILTDKVSVVIHSAAT
VKFNEPLATAWNINVEGTKMIMALSRRMKRIEVFIHISTAYTNTNRAVIDEVLVPPPADINE
VHQHVKNGVTEETEELNNGRPNTYTFTKALTEHLVAENQAYMPTIIVRPSIVGAIKDDPIR
GWLNSWYGATGLTVFTAKGLNRVIHGHPNHIVDLIPVDYVANLVIVAGAKTYHSNEVSIY
NCCSSSCNPITMKRLVGLFIDDAVKHKSVMPLPGWYVYSNYRWLVFLITLIFQVIPAFGLG
DIGRRLGKSPRYKQLQNLVAQTQEAVHFFTSHTWEIKSKRTRELFSSLSLTDQRMFPCDA
NRIGWTDYITDYSSGVRKFLEKKK

>*SfruFAR4*

MAPSMSIAEYYAGKTLFITGATGFMGKVMVEKLLRDCSDVKKMYLLMRPKKGHSSKER
LDELLNFKIFDRLKAENPKLFEKLQVVAGDILSEDLGLSAEDRLLIQEEAQIIFHCAACVRF
DMFLRDAVKMNTMGTKKVLELAEGVKNLEAFVHVSTSYCRCELPLFEEKLYPSKHRPEH
VMHCVNWMDELLGHLQPKIIEPQPNTYAYTKSLTEDLVSQYEGKFPVIARPSIVAAAYK
EPLPGWVDNLNGPTGLLVGAGKGVIRTMHCNENYEADVVPVDVTNACHIILGYLTGMER
PKKINFCNITQSQINPITWGQALDMGRVHVQEFPTVCLWYPGGSASWIAHQFALFFTH
MLPAYFVDLLMFLMGKKTFMIKIQKRINYLEVLQYYTTKEWHFTNDYFVSLQHRISERD
NEVFYTNMKEMDWSQYIRNYIKGAREYCKEDPSTLPAARRLQKQLYYLDKAVQIMVGL
LVSYFIYYYYFNMLYSVISS

>*SfruFAR5*

MDPALAVEMEALSRRQKAMFEATERGDSTVQQFYKDSTVFLTGASGFLGKQLVEKLFRAC
NIRKIFILLRPKKNMTIQUERLEEMLQDPVFSVLVKKKKPNFAENIVPVKGDVAEIKLGLSDED
WTMITNEVDIIFHVAATTRFDEALRISTMINIRGTREAVLLGKDCQKLKSFVYVSTTYSTAT
QANVDKEVMERFYPCPLPELMVDMAENIDDERMDAIEANLIKGYPNNTYTFTKSIAEEVV
RSRAGGMPTCIIRPAVVISSYREPVPGWADASCAFGASGLILGPATGLIHAIYASNDVKFSLV
PVDYVNNAILVAGWHTATNRPNDVQIYSVSSARNLFHWEPISSKIRDIGKVLPTPLAVWYT
FIVNTSNKPLFLLTWLLHYIPGYILDACCILLGKPTMFIKLYNRVNRSSLALSIFYTHTTWV
FNDTNSDKLFNSLSKTDRLIFNFDTTDINIPEFVTLWCVGLRKYLMKDGIKNTEYAKRKQV
LLKYLHYVVSCLYVYVLFKVACFVCYLILCLFGFV

>*SfruFAR6*

MVPRPAPQTATPPLIPEYFAGREVLITGATGFMGKVLVERLLWTCPDIGRLHLLMRHKKDC
APDKRLALLKQSQVFDVVREQCPQQLDKLCVLPGDVTKTRFGLDQVALHQLNQVSVVFH
SAATLKFDPLAAAAEQNVRPVLTLMDICDQLANVQVFIHVSTAYSNAELCAVEERVYAA
PLAPRQLLALVDALPPALLQEITPRLIAPKPNNTYTFTKAVAESAVSEHAPTAHYACAIFRPSI
VVSSLRHPFPGWIENLNGPSGVVAGAGKGLLRVLRCAARRRADMMPVDICIDTLIAVAWE
TGVDSDREARVYQCASSAHAATWGQFRARMLRLVRAHPFDGALWYPWGVICENTVIQK
ALETVLQTAPLCLAHCVLKACGLKQKPSLWTACKRLQAMNQALQFFATRHWFEFGTARVQ
RLADRLHAEDTLRYNLRPETIDWEQHCVDVFKGTRRYLLRERDEDIPAARRRMKLLTVV
HNATLLFAIFIMCRFTVVRTAPAILRGIAVLTRLRNKTALAS

>*SfruFAR7*

MSNPTIRDFYKGRNILVTGGTGFMGKVLIEKLLYSIPDIGNIYILMRPKRGKSVSQRIEDMQ
RLKLFERIRTEKPDALKKMKALQGDVLFELGLSESDIELLSNEVSVVFHFAATLKLEAPL
KDNVNMNTCGTQRALDIVKKFKKLDVVFHLSTAFPCYDYEVLGERCFAPPIKPENVMKLI
QWLDDKQLALLTPSLLGHPNICYTFSKRLAESIVEQAYAEPLVVIARPSIVCPSLKDPVPG
WVDNLNGPIGLMLGAGKGVIRTMCDGSLIAQVCPVDIAINGHIAIGMIEGNRKEKPTSLP
VYNVNNGHQKPTTWGEVLQIAKDYGRKFPLSWPLWYPNGDITTNVLAHEYRRIFYHLVP
AYLIDFLLFVLGQKRIMIRIQUERISNGLEVLQYFTMRPWNFPCPNYDAIKDKLNPEEQEIYN
TDITEADREVYLMNCVEGGRVYCFKEDPTKVPYNRIYHRFLYFLDWFWKIMFWLFLVLSFL
ASWFEPIKALFSYGEPVVKHLPFLGKAVCQVEEL

>*SfruFAR8*

MASETISAELEYLPDRIADTFSGMKVLITGGTGFMGKVLVEKLLRKCPDIDQILLFVRSK
KGKNPKQRLEEIFSGALFDQLREMRGGVEPLLEKVTILINGDVSEPDLAMSPEDRQMIINQ
VDIIHAAATIRFDEELKKAVLLNVRGTKLMVELGKACQKLVFIHISTAYCHLHEKLLLEEK
AYPPPADPHQIIQAVEWMDEETIATMTPKLLNKLPSYAFTKALAEALVVEAMEKANLPA
MVLRPSIVIPWQEPVPGWTDNINGPTGLLIGAGKGVIRSMYCKSNSYADYLPVDVFINGI
MIVAWNYIKNGDTKCNINFTSSAEIKVTWSEMIDAGREIMNRVPLNGVWVYPGGSMKH
SRLYHNICVFFFHWIPAFIIDTLLFCLGYKPVLCRVQRRTKGFEVFEYTTNNQWDFKSDIA
QTLRQKLNAKERRDYKVDAGLDISKYFEDCIRAARIFILKEYDDTLPAARRHMRIMYWV
DVIVNCLFWGFLLYWLSGWMTTTTKAIVPDTASPTVIAMDA

>*SfruFAR9*

MFNLCKMNGVQRSVGRNCVVFNKIVVVKPIRGYSNASSVISKDKYQSVADFYSKGKSVFM
TGGTGFLGKVYMEKLLYSCPKLDKLYLLIREKKGVSADKRIADLFENPLFKRLKSSNPDF
MKKVVLVPGDLGLPNLGISPSDEQTLIDKVSVVYHAGATVRFYEPLVPSININFDGTRKML
ELSQRINKIEAFVYVSTAFQAQANAKVLVETAYPSPAKVEDVYKFIEEHGHDKHAVKKFIGN
HFGTYAFAKALSEAYIAKNHGKVPVIRPSAVTATKDGPVKGWLDNWFNGASGILYYINKG
VIRILHGHGNHTVDFIPVDYVSNLCIISALRAKESNEVQVYNSTSTSDNPVNWDITFNTMK
EEKTLSGKNKFPYLSMTYVDSKLALQLGTFFLQITPAVLADLWLKIKGKDPKYLKMVSQA
LTIRNAYDYFTTNNFILRSRDTRELHSSLSPEDREEFPCDPTQIRWPEYLKDNMNGIYKYLK
PSKIL

>*SfruFAR10*

MSSATQNASLAQTPVTHEKMEKWVDAQVKGEKVDIDVYGKPTDKMLKELENVRNLSKE
LQDNLHELENSVRIAEVENQAMNPTAQILDFSEDHEFVPDKKDTYYAEEDKLDAKEEEKR
KLTKGKGPKTEIQEFYKDQCFLTGGTGFLGKVLIEKLIRSCGDINTIYVLARNKKGKDPR
VRLHEMMDDFLFHRAHEENPKGIHKVVPILGDMELPGLGINEEDRKMLASKVTIINAAA
TVKFDEKLSVSTAINVKGTKEVLKLAKECRNLKAITHVSTAFSNTQVKHIEEKFYEPMSV
EALAEISEVDEKLVESILPTLLGTRPNTYCFTKAVAEAEAVRTYGEGLPICIVRPSIVVSTYEPP
VRGWTDVYGPGLVIGIGTGVLRTMYMDQEKVADMVVDLCVNAILASAWYTARNYK
ENQTSHPYINNFVSGAQNPLTWGEFIARNRKYGIDKPTTKAVWYYGLNPTNNYYMFLFYNN
FFLHYLPALMIDTYCAVTGKRRAMKLYSKVMKLANILFYFSTQDWKFSDMNVRNMWN
SLSDADRVVFPFSIGEMSWEYMCETFLVGLRVYLIKDDLSTLPEARKKWNKLFYLVHQLVK
IITLSLVLYLTYFVLQPIIALVFN

>*SfruFAR11*

MSAPEPGEGPLLPGFYAGRAVLITGGTGFLGKVLIERLLYTCPEVGEVHLLLRDKRGQPPR

VRLNQLKQSQAQFDKVVRAQCPGQLDKLRVVCGDVAQPRLGLDDAALQQLREVSVVFHSA
ATVKFWESLETALHQNVTSSVALMDLCDQLPKLEALVHVSTAYSNAERRNIEERVYEAPA
QLAGLRAMLDALPPSLDDLTARYIAPKPNTYVFSKAVAEATIAQRPRKHYATAIVRPSIVV
SSHRHPFGWIENLAGPSGVVVGCGKGLVHAFNLDLAARADLIPVDITIDTMLAVAWEIAT
DKSGEVRVYNSSCSQQNPITWRAFRDRVVRNVRAHPFDHLMYYPFTFGIKNRYVYKTLEL
VLQTVPLHVADYLARLCGVKLQLSLVTVSERLQAMNRVLAFFATREWFSTRNVHALRR
RLTRADRDIYNLDVCSVDWDEHVRDFVKGTRKFLLEKDDNIPRARRFVERLRRVHQFV
LLVLSALLYRLLTLLPRFLFRSAPALAGPH

>*SfruFAR12*

MADPSQVRSFYAGKNIFITGGTGFVGLCLIEKILRCIPDAGKIYLLMRPKKGKEIADRLQEF
PKNPVFEKLLSNSTDIFKKLIPIAGDVGEENLGLSPQDRQTIIDNVNVVIHSAATLDFQESL
RPTVNINLLGTRRVMQLCKDAKNLKVMIHVSSAYVNSYLTEAHEKVYEAPEDPEKVISLV
GTLNDEGLLEVEPKLLKSHPNITYTFTKHLAEHEVVKCADLFPCTIVRPTMIVASWKEPVP
GWTCSKVGPPQGFLMGAAGVVRRLPLAKENVADYIPVDVVVNQLLVAGWEAANSRSGL
TVYHCSSSTCHPFTWSMLDDTVNSMLHKYPLKSAVWYPYLFVPSLLMFRISAIFVHFFP
ALLLDLMLRMTGGRPIRLHKNVWNSLNRLERFIFSEWKFHNPNTLELATKLNQTDKEL
FFIDISKLYWVEYFKTLHLGVERRYLNKEKESSLPAARKKDTVLLLFHVIWQLVIMGLVWY
VFACATGLTLAHSAPAPIIYILFTCL

>*SfruFAR13*

MAPNVLEYRGGKNIFITGGTGFVGKALVEKLLRSCSEVNAIYLLMRQKKGVSTEERLKDL
CSKPVFDMVREKNPSGFKKLRIINGDITEPGLGISEEDVRLQKECNIFHSAACVRFDQKL
KDAVNMTSGTLRMLTLAESMQNLEVFVHLSTAYCRCDLVDLEEKVYAAVHKPRKIMDI
VEWMDNDTLDHLEPKIIESEPNTYSYTKAITEDLVNEYSKGFPPIAARPSIVTAAWKEPIPG
WVDNLNGPTGIVIGSGKGVIRTMHCEPSYKADAISVDVVANACILAIYVTGLDKPKETQV
YNLTLSGVISLTWQEIILGEKWVNEYPTYTMALWYPGGSIKSYNFTHQIDKFFSHLVPAYL
VDALLFLLGKKTFFMINLQKRISHGLNVLQYYTTKEWHFRNNNYKALRTRVSPEDNEEFYT
DASTLNPDEYLKNYVLGTRKFCCHEDPANLPRARKLHRIRYFADRLFKLLFIILVLWTLYS
NSNVFTSSVELLDNSLKSPLMNQANAEIIPNIAL

>*SfruFAR14*

MASCLSGGHYVPGSKEYVPVAEFYADKSVFVTGGTGFMGKVLVEKLLRSCPKIKKIYLLM
RPKRQGDVASRLTELTSPLFETLRRERPQELNKIVPIVGDITEPELGISAADQTMCLQKVS
VVFHSAATVKFDEKLKLSVTINMLGTQQLVQLCHRMLNLECHVVDSEYCNPDVTRDEW
KEYGVLLPPAHPEHVTLVQTLPPDDLVDRLTPDLVGDRLPNITYTFTKALAEDMLIKESGNLP
VSIVRPSIVLSSLREPVGWVDNWNGPNGIIAAGVGKGIFRTMLGTGTVADLVPVDTVINL
MIVCAWRTHLRRGEGVVVYNCCTGQQNPITWQRFVKTSFKYMRKHPFNEVLWYPGGDI
TSNRLKHGTLSSLQHRAPAAIMDLVSTATGKKPMMVRVQNKLEKAAACLEYFTTRQWAF
ADDNVQALCASLSPDDRRTDFDNVRNIDWDAYIESYVLGIRRLFKESPDTLPKSRAVLRR
LHIVHILTQVATVFFLWRFLFSRSNALRSIWRRVLELLTRAARLLAIA

>*SfruFAR15*

MGFLEERDLCEVPTIPEFYKGKTIFITGGSGFIGKVLIEKLLYSCSELDRIYLLMRNKKGVK
SEDRLAQLYATPCFDRLKKKKPNVFNKSVFVSGDVLEPGLGLSQEDRALLVNRNVNIFHV
AASVRFDDTLKYAAQMNLRGTMQVMELAKEVRDLSAVVHVSTSYSNTNRDPIEEVLYPP
LADWRETLAVCETADEHTMRVLTPKYLGEPLNTYFTTKQLAEHVVAEYKQQLPIVIRPSI
VISSVEEPSPGWIENFNGPVGIFVACGKGIMRTIHTKPDIIICDFIPVDICAKNIIAGAWIRGTK

PIEPTDDIEIYNCCSGNLNNMLMGDLVEMSKHVSKEVPLDDMLWHTGGTITTNPVYHYIK
VLVQHLLPAFLVDLTLLWLIGKKPMLVKVQRRRIYIANLALSYYLTQQWTFDNTNFVQLRSV
LKQADMKQFYDYDLETTDLVEYFTKCCLGRRFLLKEKDEDIPKARAHCKRMMILDQAM
QVLFHAVFLWWVCKKIVQLFGIQSNLF

>*SfruFAR16*

MDSKFMSSDKMDEYQKHIEMMNNDLNLNLNYESHMNMEHPDKTSEAIADFYEDSIIL
VTGGTGFVVGKALLEKLLRSCAGIKTVYVLMRPKRGLTVDQRYKELLKNQVFDRIKWP
ERLGKLYPITGDVSAPNLGVSPEQRELLGKVTAVFHSAATVRFTEPLHAATTLNVQGTASL
LKLAEDMPKLKALVHVSTAYSNA PRSHIEERVYPPYPDPDSIVRCTKMLPPETVEVISDTLQ
GEHPNPYTLTKALAESIVYGHTNLPVCIVRPSIVTAALQEPYPGWIDNVYGVGTGIIMEISRG
TYRSGYCRERYVVDLPVDMVNVNSCILAAWRQGVKQPGRCPVYNVTSGSINPLQWGQFT
KLCVKWALENPTKYVMWYPNFAFTESRFMNTFW EITCHFLPAFMYDLLLRAQGRKAIM
MKLARFRKMAAATGEYFANHEWQFGIAELTALHDDASYARDSGAFPHWPADFDWDSYI
GAYMFGIRRYILKDTAESLPVARTKLRRLYWVHKL FQAATGYIYFRFLAGRLR

>*SfruFAR17*

MSKANCSNVASFYAGKSVFITGGTGFVVGKTLIEKLLYSCNGIDKIYVLVRDKYGKQASERL
ARVTSTPVFDRKTSKNEELKKIVVISGDITRENGLQEDVLKTLENEVS VVFHLAATVAF
KLPLKDAMRINVTNGTENVIALCRRMKKLQAFVHVSTAFTNSDRKEINEMVYPMPINLEEA
RHVADTYSHDDVIVSAFMGKKPNTYTFSKAFAEQQVMKQCEDLPTAIRPSIVMSSIKEPC
PGWIDTWNGSTGLFVGMPAGILRVVLGRGSNVTDLVPVDIVTNLIVVAATECQKSKEIKVY
NCCTGTSNPITCDEATTISRKVALKYSNELPWFLMFTPSVFLYTLITFLLQIVPAYLIDLW
CILTGRKATQIKLQRRLLKKVVD AVKFLLNEWKFSDDNIRDLLKTMSPV DKEIFNFDVKTI
NWETCIEDYILGARKYLLKSEK

>*SfruFAR18*

MGFLEDRLDSGVPSIPEFYRGKTVFITGASGFMGKVLVEKLLYSCPDLDRIYILLRSKKG V
NPEDRLAKMLSVPLFDRLRKDRPGFASKVFVIAGDVMELGLGISEEDRALIVNRVNIVYH
VAASVRFDDTLEYAIRMNLRG TKEMVELAADIRNLDVFIHVSTSYSNTNRETLEEIYPPHA
DWRETLEICETMDPHTLKVLPKFLGELPNTYTFSKQLAENVVAEYKGILPVVIIRPSIVISS
VEEPVSGWVENFNGPVGLMLGCGKGILRSMYSDPDLIADYMPVDIAIKSFIVASWLRGTK
KLSPTDDVPIYNCCSGRLNIITMGDMIEKAKRISWTPFNDILWVPGGGLTTSRTVYYYVKL
LIQHLLPAMLVDIILWCAGKKPMLFKIQRRRIYASMA LIYYITKQWTFDNKNLVLMR SKIKE
EDMKDFYYVMENV DQDEFFVNATLGCRRYLLHEKDED FPKAKRHYRRMVIVEIIAKIIFY
GALLWWFFNLNYTKKFISEWSH

>*SfruFAR19*

MGFLEDRLDSGVPSIPEFYRGKTVFITGASGFMGKVLVEKLLYSCPDLDRIYILLRNKKG V
KSEDLAQILAAPLFDRLRKERP GFESQVFVIAGDVMELGLGISEEDRALIVNRVNIVYHV
AASVRFDDPLEYAIRMNLRG TKEMVELAADIRNLDVFIHVSTSYANTNRETLEEIVYPPH
ADWRETNLICETD SHMLKVLPKFLGELPNTYTFSKQLAENVVAEYKGILPVVIIRPSIVIS
SVEEPVPGWIENFNGPAALLAACGKGILRSMYTD PDLVADYMPVDISIKSFIVASWLRGTK
ELSPNDDLPIYNCCAGKLNVTMTGQMIAMGRQIYPSVPVNDMLWTPGGDLTKSKTLHYI
KVILLHLLPAIFVDITLWLAGRK PMLVKVQRRRIYIANLALQYYITKQWTFDNTNLVLMRTK
IKDEDRKHFFYYEMENIDQYKYFVNAVKGKKYLLKEKDEDMPKAMKHYKRMVVVDIIV
QIVFYSALLWWFLHLNCIQNLISQIYHES

>*SfruFAR20*

MDAAEEVILKALDCQKGTKSVIDRGDSTVQQFYKDSTVFLT GASGFLGKQLVEKLFRTCK
LKKVYVLMRPKKGKSVEERIDEILLDPYDILRKEKPDFTKRIPIIGELAEKNLAISEADRRI
IIEVDIIFHVAATISFQEPLRSAALVNVRGTKEMIVVAKQCRRLRSFVYMSTAYSHATYSR
GGTEIMEEFYTSPMCPELMIELAESLEEERLNRIKDELIKDWPNNTYSFTKALAEELLRINSK
ELPVSVIRPAVVVCARREPYAGWIDLSSVFGPSGITLGCMMGVIHSLQSVQGIRIDFVPVDY
VNNTAIVAAAASKGATKIYHVATSKRNHLTWGGLTNILNNVARRTIVSPHAIWYCFVVQSP
YLWLHQLVSFLLHTIPANLADGACVLMKKPPRLKKIYTTVTKMASTIAFYSNHGWIFNDT
NALQLFQSLSKSDRVIYHCDVSDLEWTELIVLWCVGLRKYIVKDGLNTTQKGMKKQQIFR
ITTYVISFVFFAVIFLLFYCLFKLLCNFVIGF

>*SfruFAR21*

MGETEALDPAQELELHFMARQKPMHEATARGNSAIQQFYNGQN VFVTGGTGFLGKQLIE
KMFRATNVSKVFVLLRPKKGKAVELRINELLQDPVFDWVKEHKPKALNKIVPIAGDVAE
MRLGISDKDWKMLAAEINIIFHMAATTRFDETLRVATMINVRGAREALILGKACKQLKSY
VHVSTAYSACDNLIDTEVLEDFYKSPIDPDTLIKMTETVDETRLNSITPSLIKNWPNTYSF
GKAVAEETVKNMCEGLPLCVVRPAIVICAMKEPSPGWLDMSNVYGASGIVLGP GIGLMHS
FMARDDVHIGLVPVDYVNNAILAAAWETAKRVAAGQTAPKIYSVTASTRNPTRWDNLVNI
NTSEVRTNYPTPAAIGWSFVWQTQYPLVFLIYSWFLHFIPGHVVDGICVLLGKERRFLKIY
KKMYNMCALS YFTTNWRFVDDNTAALYNSLSTIDKEIFDFDVCKINWREYMYIWCIG
LRKYIHKDGLKNTVYARRKQFVFKILT CMFMPLYVFALYKVFSFFVLTLFSFLGYFLHALGF

>*SfruFAR22*

MAEVDIMDPAQEYVETMLNRHKKMDDITERGDSEVQKFYEDAVVFVTGGTGFLGKQLV
EKLIRSTKLSKVYVVL RPKKGKGVEERLRALLKEPVFDKLRKLQPEFASKITPVAGDVSEP
NLGISEQEWNIMATEVNIIFHLAATTRFDASIRESTLINIRGAKEALRF GKQCRNLKSYVHV
STAFANACHSRINAQVEEDFYPPPMAPDMMIDLVESVEEERLNNMTPSLIKDWPNNTYCFT
KAIAEEAVRAESGKLPICVVKPSIVIGAMKEPHPGWIDVSAVYGVTGAGLGKALGLMHTS
MANSKVFLGLIPVDYVTNATIVAAWETAKQKSTKDENPKVYTVISSTRSPKMWSDLKYL
MTDITLWKYPTPTTMAFSLYFQTRSPFLYWVYSWLFHMIPAYIADGVCSLLGRQRRFVKL
YTKMSKLSALS YFSLNNWHFADNNT EALYDNL SAADKEIFSFDIDRLNWTEFISSWVIG
VRQFILKDGLVNTRYAIKKLKVL RALTYIGTAIYLFVLYKIVYFSYSMLSFAVGTVF

>*SfruFAR23*

MAVETMDPAQVFMAKITNRFKPVHDLTARGTSSVQQFYSGATVFLTGGSGFLGKQLIEKL
LRATRVSKIYVLLRSKKGKNVQQRLLEMLKDPVYETLREQQPDFVDKIVAVSGDVSELKL
GLSDKDWNTIADEVDIIFHMAATTRFDETLKRATFINVRGTREILDIGKACKKLRSFVYVS
TAYTHASADRVEDAVLEKFYPSPVSPKTMIGMAETIDEERLNDITSLTKSWPNNTYTFTKAI
GESLVESIGKDLPLCVVRPAIVVGTKREPTPGWLDVSCIYGATGLLLAVGLGVMHTSYARP
DNQIDLVPVDYVNNAILVAACETARTKRATSQHNETKIYTVTSSTRNRFTWDKLDYLLTNE
ARYYTPPKAVGYGFVWSTYNRLLFWLYTWLLHLIPAYIIDTIAVVF GHKRRYVKLARKMQ
RLSDVLAYFLTNGWKFEDQNTVTLFDNL SKDDKQIFNFDVTDIDWTEYILIWCLGLRKYV
IKDGLTDTLYACKKQTIFKFATYTLLPLYFYGLFKLMYCAVAFLYVTFLK

>*SfruFAR24*

METETLDPAQAFMAKVSDRFKPVHDLTARGTSSVQQFYSGATVFLTGGSGFLGKQLIEKL
FRATKISKIYVLLRCKKGKSMEQRLVDMLKDPLYDTLREQQPEFANKIVAVSGDVSELKLG
LSDKDWNTIADEVDIVFHLAATTRFDEELKLATFINIRGTREVLALGKACKKLRSFVYVST
AFSHARDEYIAGDVLEKFYESPISPENLIGVAESMDEERLNNITSLIKGWPNTYTFTKAVA

EELVRTMGKDLPLCVVRPSIVTCSIQEPSPGWLDLSCIYGASGYVYAVGLGVAHTAYGEHS
NKLD FVPVDYVNNAILTAAWETTRTKSSAPGKDEIKIYTVSTATRKPITWRVVDILANKA
RYYPTPKAVSYTFAWCTNIRLLYWIYAWLLHLIPAYIVDAVMVLFGKERRFGKLAQKLSK
MTMALSHFLSHHWKFDDRNTVALFESLSEDDRKIFNFDVTDIDWSEYILVWCLGLRKYFV
KDGLNGTIYGRKKQTVLKIVTFIMMPYFYGLFKIVYCVFYFLVLFNLLFK

>*Sfru*FAR25

MAMETETLDPAQALMMKISDRFKPVQDLSARGTSSVQQFYSGATVFLTGGSGFLGKQLIE
KLFRATKISKMYILLRCKKGKSIEQRLQEMLQDSLYDTLREQQSDFAKKIVAVSGDTSSELK
LGLSDKDWNTLADEVDLIFHLAATTRFDETLKMATFINIRGTREMLALGKACKKLRSFVY
VSTAFSHARYDRVNMEVLEQFYPSISPETMIGIAETLDEEKINDITSLTKKWPNTYTFTK
AIAEELVNTMGKDLPICVVRPAIVICTIQEPAPGWVDKSCIYGASGCLFATGVGVMHVTF
KRDNLVALIPVDYVNNATIVA AWETA KTKRLAPENNEIKIYTLTSSNRNVIYWDAFEGIMC
GEVRNKYPTPKMVGYSIKITHNRLLFWIYSWIMHLIPAYTLDAFAAGGKICLYYVRVDKF
GKLAQKLLKLTALSYFLTHQWKFDLNTAALHASLSEDDQKIFNFDVTDINWEEYMCT
WCIGLRKYLKDELKGTLYARKKQTVFKYATFILFPIYLYEKDKGFGVELDVDIHCSPVIS
P

>*Sfru*FAR26

MEVDTLDAERHELALLEKQRP MNAVIDLGNSPVQQFYKGT TIFLTGGSGFLGKQFMEKIF
RSCEIERIYILLRPKKGKTIAQRLTYILKDPLYD TLRKKKPNFANDIVPIEGDVADVRLGLSD
KDWD TLTKEVNVIVHLAATVRFDEHLKKAGLINVRGTREMLELGKQCKNLKIFNHISTAF
AHTTKSRINNEVREQFYPTPVL PDTFIDLVENMEEERLTEITPGLIKGWPNTYTFTKAIAEEL
VRTRAGELPVCIVKPAVVLG SYTEPSPGWIDKQTVMASPVGFLLGCGIGVMHVLYLKRDN
QFVITPVDYANNAILAAGWDSVQNRKAIDSEVP IYIVGTATSNFTWDNLLNLTDELVKII
TPKALYYVCAAHTSNPVVFWILT WLFHYIPGYFIDAIVNILGVRPKGLPSLSIYSKYKLC
KVYEYFLFNNWKIRDDNLVSMMDRMAPADQAIFGCNVREIDQRGIALSMSVGLRRFIVQ
DGLKDSEYGQKKMRILKYVHVVCVLLYSYLIYSVFRTIYSAFCVIIPV

>*Sfru*FAR27

MDLAQEVENKALASYEPVEKLMRQGTSDVQR FYANETVFLTGGSGFLGKQFIEKIFRSCA
IKKMYVLIRPKKGKTIQDRIQFILSDPVFDKLRTVKPNFAEQIVLLEGDVADIRLGISDKEW
EMVAKDTSIIVHMAATIRFDSPIRDAVVTNVRGTREVISLAKDCKHIKSFVHVSTGFTHATA
SRIGKDLREEFHPCIPSPSAIIGMVETMEDSRLDNITAELIKDWPN TYTFTKAIAEELVRTTA
ADLPVAIVKPPLVLT SYIEPSPGWADTSIMTGPCGVLIGVGLGLLRVFY LKSDLNLNIAPVD
MVNNAIIAAGWDSVANRPASDGIPIYTVSSTKCGIPWNYFGSLVRSEEFKHLACPKAVWY
CYLIETTNNLLYLFLFWFLHYIPAYVIDGICYVMKIKIGIPSATKVYEKIYKVSKVFGYFM
TNEWHFKDDNLVAMINRMSETDKTIYNCDVASINYKEFLIRMIVGLRK FIVKDGLIDSEKA
YRKQKRLFYANLVFMTLYIYVWVMIAFYMFKG IYIVY

>*Sfru*FAR28

MAAVSQLISVSDVISENLNKNENNTYCAQCNDSDENMNNMSDNLTEVQKFYNGKNILI
TGATGFLGKILVEKLLRCCPGVENLYLLVRQKRGKDIYTRMEEIFDDPVFSRLKEEV PKFR
HKVVVPADCEAAGLGLTLTDRQMLTEKVNII FHSAAATVKFDEHLRAALVTNVMAPLHLL
RLARDLKKLDVLMHISTAYSNSHLPLIEERFYPCEADCEQLHQMV DKLTDQ LNSMLPKI
LGPWPNTYTFTKALAEKELRASAGGMPIGIFRPAIVISTAQEPLKGWLDNMYGPTGVAVGS
ATGILRTMQCDELVSADIVPVDSVVNCLMVAACSVHNAYKRSSPPLEPIFYVSSVENRIT
WGDFLSKNMAWIIHYPFSDAVWFISVRLTKSA AVNKVYMFFLHLVPATLVDGLAVCLGR

KPKMLKVYRKIHKFSSVLSYFCTREIKFCNSRTRELWEKTSEADKKLYPFSMSSELNWEEYF
RDYLAGIRRYLFKESDDTLPQARIKWKRLYYLHQITRFFIFILAVYALWWILSLMW

>*SfruFAR29*

MGRRLAAISPDVAMVPRPVSPSPAELVPRFYAGRSILITGATGFMGKVLVERILATCPDVG
RLHLLMRDCKKGHSPQKRLAQLKQSQVFDKVRARNHRQLDKLCVVSGDVSKPQLGMDA
DAIAQLREVSVVFHSAATLKFDEPLPVALDQNVRSVQRLLDICDQLPKMQAFIHVSTAYSN
AELAVVEERVYPAPVPLAQAQCTLAQTLPGDLLGQINTQYISPKPNTYTFTKALAETVVQEH
GNRGYPVAIFRPSIVISSLRHPFPGWIENLNGPSGVVVAAGKGLLHVCCRSAARADMLPV
DMAIDTLLCVAWETAIDRPESVRVYNCSTCENPTTWREFEALRRHLRGHPLDNAFWYPC
GFTVENKLTQKTLEAVLQTAPLHVAEYISKILGIKTKLSLITVSQRLVAMNDVLRFFSVREW
HFVTDNVRKLLHARLTPQDAIYNLDPQTINWDEHYCNFVKGARKYLLQEKDQDIDEAKK
HLRRMYYLHQGVLFVVTLLCRLALQNQYLRAFIYRTFRMLLTVAGSAYMRIRQS

>*OnubFAR6*

MVSCKDDVTAQIPQFYAGRSIFITGATGFMGKVLVERLLTTCPDVDQLFLLMRTKRVDGPE
KRLQQLKESQVFDNVRQCSPAQLDKLCIVPGDITKPQLGMTGESIAQLRNVSVVFHSAAT
LKFDEALGLAVDQNVRSVRLMELCDMLPNMQAFVYVSTGYSNAELSVVEERVYPPAP
LEQVLALTEAMPEDLMASVTRKYIHPKPNYTYTFTKAIAEVAVQQHNSSYPRAIFRPTIVVS
ALRTPFPGWVENLNGPTGVIAGVGKGLLHFFSCRRDARADMVPVDIVIDALLAVGWETAI
DRSSEVRVYNCSSYNNTTWRTFEAALSRYIREHPMDQVFWYPYGSIVENGVAQKCLELL
LQTMPLHLADYCSRIFGIKTKLSFIMVSNRLQAMNTVLQFFSQREWKFITNNMERLRQRL
TPADAAIFNLDVKTINWEELCTNFIKGTKKYIFKEKAENTPEAKKHLQRMKLLPPWCNFI
HFNPASTTHL

>*OnubFAR4*

MAPSMTVPEYYAGKTLFITGSTGFMGKVLIEKLLRSCPDIKKIYLLMRPKKGHGSKERLD
GFMNCRVFDKLGSEHPEQFHKLQVVPGDILMEDLGLSVEDRDTLQRECQVLMHCAACV
RFDMFIRDVNMNTVGTGRVLDVASGMKQIEVFVHVSTAYCRCEVEVLEERLYPAKHRPK
HVIETVNWMDDELLTHLQPKIIEPQPNYAYTKSLTEDLVAQHAGKFPIVIARPSIVTAAYK
EPMPGWVDNLNGPTGLLVGAGKGVIRTMHCNENYAADIVPDMVNVNACILLGYTTALEK
PKEVQFCNIAQSGINGFTWGEALALGRIHVMEYPFSICLWYPPGAPSASRLRHQVTLFLTH
TLPAYTVDLLARALQQKPFMVKMQRISGLEVLQYYTTKEWHFRNENLRALRTKVTEE
DDETFYTDLTVIDWNTYIRDYIKGAREFVMKEDPSTLPQARRLNRQLYYLDTFTKIFIYSII
ASSWMKRSISNILKMFVAA

>*OnubFAR2*

MNHSLEASPLIPTEVTRDKMERWVEAQNKGEKTEVDVYGKPSEKQIKELNIRSLSRELQ
DNLHELENSVRIADVENQAMNPTAKILDYSEDHEFVSANQLDNYYAEEDKVDAKEEEKR
RLTKGKAGKTDIQQFYKDQCFLTGGTGFLGKVLIEKLLRSCTDVTIYVLIRNKKGKDA
RVRLHDMLEDFLFHRALDENPKGIHKVVPPIIGDMELPGLGISDEDRRTITSKVSIIINAAATV
KFDEKLSVSTGINVRGTKEVRLLAKECRNLRAITHVSTAFSNTHVPYIEEKFYDPPMSVEA
LEAVSEINEDLIDAILPTLIGKRPNTYCFTKAVAEAAVRKYGEGLPICIVRPSIVVSTYEEPVR
GWTDSVYGPTGLVVGTTGTGVLRTMYMDLNKVADMVPVDLTVNAILASAWHAAKNFKE
NQTSDIPIYNFVSGAQNPWKFIELNRKYGIDKPTTKAVWYYGLNPTNSYFMFLFYNNF
LHYLPALMVDAYCAVTGRRRAMLKLYSKVMKMANILFYFSTRDWRFSDRGVRAMWASL
SEADRAVFPFSMGDMSWDRLCETFLIGLRVYLIKDDLSTLPEARKKWNRLFYLHQLLKVV
TFALVLNLAYLVLRPILSLVFGL

>*OnubFAR5*

MAPLLDSTPGDDAAFKIPAMAYSNDNDNDASLKTDDNNNDIDTRNNVELTQIQKFYNGKNI
LITGATGFLGKILVQKLLRCCPGVENLYLLVRQKRQKDIYTRIEEIFDDPVFDRLKKEEVPKF
RHKIVVIPADCEAAGLGLTSLDRQTLTEKVNVIHSAATVKFDEQLRLAFNVNVKASLHVL
RLARDIKGLDVLHISTAYSNSHLDQVEEKFYPCNMDLETNLQTIKMTDEEINSQLSKLL
GEYPNTYTMTKALAENELRINSKGIPLAIFRPAVVVSSAKEPVKWCWLDNMNGPNGIVVGS
GTGILRTLQCDMQGTADPVPVDMVNVNCLMAAAVNVNAAYAQSNPPPEPPIFNYVSSVEN
KITWGEFMTLNMEQVDKYPFSNAVWYISLRLTKSWLLNRFYMFHLHLPVLMMDGLTVCV
GKKPKMLKVYKKIHKFSDVLSYFCTKDIEFCNRRTQELWQKTSEEDKQLFPFSMAELDW
RDYFQDYLLGIRRYLFKENDDNLPQARIKWKRLYYHQLVTMLFYFLALYALWSTFSSFL
L

>*OnubFAR1*

MGFLEERNFEDVPEIPEYYKGKTIFITGGSGFMGKALIEKLLYSCSDDLRIYLLLRTKKGVK
AEDRLAELYSTGCFDRLREEKPDIFSSKVFFVAGDVMDPGLGLSEEDRALLVNRVNIIFHV
AASVRFDDPLPFATKLNLGGTKEVVTLAKEVRNLSALVHVSTVYSNTNRDVIEEVMYPPH
ADWKDTLEVCDVIDEHSRLVTPKYLGDIPNTYTFTKQLAEHVVEYEQKGQLPAVIIGPSIVI
SSVEEPVPGWIENFNGPVGMLVACGKGIMRSIYTDPNLISDYMVPDVSISIVTAAWIRGT
KKLEPPDDVQIYNCCAGKLNITMQELVDIGKRLAASLPLNDTLWNIGGSITTSRTIHYIKV
LILHCLPAIFVDAILLLLGGKPLLLKVQRRYIANLALRYITKEWTFDNTNFIQLRSRIKEQ
DKKHFFYYDIENVDKKEYFRKSCIGGRKYLLKEKDEDLPKAKAHHKRMVILDKTVQCIFY
GYLFWVWNTHYIKGLTDFLYEIFTM

>*OnubEpgFAR*

MSANTMETDEQFTYNSPIVNFYSGKSVFVTGATGFLGTVLVEKLLFSCCKGINNIYILIKQTE
DLTIEARILNYLNSKAFHRVKNTNPPELMKKIIPICGNLEDKNLGISDSMDKTLLEEVSIVFH
VAAKLLFKMSLTAAVNINTKPTEQLIAICKKMRRNPFIYVSSAYSNNVNEQIIDEKVYNTGV
PLETIYDTLDTENTRITDIFLDKRPNTYTYSKALAEVVVEKEFDESAAIVRPSIIVSSIREPIP
GWLSGSHGFPRVVGAAACKGLLLRWHGDGTVCCLIPVDHVNLIHAAWESNERRLMGN
KGVKVYNCCSSLRNPIDVITVVKTCIKYRKYFGTRTMSIFTPRFIMKKNYFIYKLLYFTYHT
IPAAIIDGFFWLTGRTPIMLKTLDKLGKISSVLEYFTHHQFIFLDSNVRGLLRRMEGTDRQT
FNFDVTEIEWEPYLQNFVRGIANNYDYSM

>*OnubZpgFAR*

MSANTMETDEQFTYNSPIVNFYSGKSVFVTGATGFLGTVLVEKLLFSCCKGINNIYILIKQTE
DLTIEARILNYLNSKAFHRVKNTNPPELMKKIIPICGNLEDKNLGISDSMDKTLLEEVSIVFHL
AAKLLFKMSLAAAVNINTKSTEQLIAICKKMRRNPFIYVSSAYSNNVNEQIIDEKVYSTGVP
LETIYDTLDAKNTRLMDIFLDKRPNTYTYSKALAEVLVNEFDESAAIVRPSIIASSIREPIP
GWLSGSHGFPRVVEAACKGLLLRWHGDGTVAFGIIPVDHVNLIHAAWESNERRLIGNK
GVKVYNCCSGLRNPIDVSTVMNTCLKYRKYFGTRTMSIITPRFIMKKNYFLYKLLYFTYHT
IPAAIIDGFFWLTGRTPMMLNTLHKLRKLSSVLEYFTLRQFLFLDSNVRGLLRRMEGTDRQ
TFNFDVTEIEWEPFLQNCVRGIANNYD

>*SexiFAR1*

MAVETLTEHQLFEAKQGGDITYKDMVEESQPLGDSQIQKLFAGSSVLLTGGTGFLGKLIVE
KLLRSCPDLLKIFLLARPKKNKTITKRLQEQQFDDVLYDRLRKECPDFINKISLVEGDVGQL
DLGMCPEDEKIMNEVEIIFHGAATVRFDEPLKTAVEINVRGTREMFKLARGCSKLKAFVH
ISTAYSNCNQNMIGEEFYESPLPGDKLIDLVTMEEKVINNITPGLLGDFPNTYAYTKAVAE

NIVKEYSKGLPVALFRPSIVIGTSKEPVSGWIDNVYGPTGVVVGAAGLLHVLNCNPKVIA
DLVPGDMVVNACIATAWKTAKEYPSNHEDAPPPDLTPPVYNYVSSEQRPLTWEKFMNYN
EVYGFQVPTVQAIYYLFLHLTSSKFLYNLYCFLHWPAYIIDGIAVIIGKKPMLRKAYKKIT
KFSEVMAYFATREWKFDNTNTQQLFKELCDADKYMFD FDMSSLEWNEYFYNYIRGVRV
YLLKDPVETVPQGLKKHNRLKYLHYTF CAILGLLFLRLLWAIFSGIFSF

>SexiFAR2

MTYRQINEFDAEKFTAAAVPTSYSVSPDFYAGKSIFITGGTGFLGKVFLEKLLYSCKD VET
VYILIREKKGKTPQQRVEDL FNKPIFSRLKQKDSQCMKKVTAIIGDLSEPGLGISKDDEELL
LQKVS VVFHVAANVQFYKEFKEIINTNVGGTKYVLQLCQRIKDIKAFVHISTAYCHTDQK
VLEERIYP PPAELSEVLKFLQQPQHDKKQIKELFKKQPN SYTFAKALAETYIAENCGRVPTII
IRPSIISASLKEPLPGWVDSWNGATGLITASYNGANRVLLGEGGNFLDLIPVDFVANLAIVA
AAKCTSSLKVYNCCSSGCNPLTLKQLVSHMNNVGFDKNVSIIFTN NKASLSTLTFFLQ TTP
SFTADMFLRV TGKSPRYMKIQSKLTIARNALNFFTCHSWVMKADNSRRLYASLSLHDRHT
FPCDPTDIDWKYITIYIEGINQFLMKRS

>SexiFAR3

MVVLTSKEKSNMSVADFYAGKSVFITGGTGFLGKVFIEKLLYSCPDIDKIYMLIREKKGQSI
RERLTKIVDDPLFNRLKEKRPGLDKIVLIPGDVTV PGLGISDENEAILDKVSVVIHSAATV
KFNEPLATAWNVNVEGTRMIMALSRMKRIEIFIHISTAYTNTNRAVVDEVLYPPPADINEV
HQYVKN GITEEETEKILNGRPNTYTFTKALTEHLVAENQAYMPTVIVRPSIVGAIKDDPIRG
WLANWYGATGLSVFTAKGLNRVIYGQSSHVVDLIPVDYVANLVIVAGAKTYRSNEVTIYN
SCSSSCNPITMERLVGLFIDDTV KHNSYVMPLPGWYVYSNYRWLVYLVTIIFQMIPAYLADI
GRRLLGKNPRYYKLQSLVAQTQEAVHFFTSHTWEIKSKRTSELFASLSHTDQRMFPCDAK
KIDWTDYITDYCSGVRQFLEKRK

>SexiFAR4

MCHTYCFYYIKKLIMAPSMNIAEYYAGKTLFITGATGFMGKVMVEKLLRDCSDVKKMYL
LMRPKKGHSSKERLDDILSFRIFDRLKAENPKLFEKLQV VAGDILSEDGLSPEDRLLIQEE
AQIIFHCAACVRFD MFLRDAVKMNTMGTKKVLELAEGVKNLQAFVHVSTSYCRCELPFE
EKLYPSKHRPEHVMHCNVWMDDELLGHLQPKIIEPQPNTYAYTKSLTEDLVSQYEGKFPIV
IARPSIVAAAYKEPLPGWVDNL

>SexiFAR5

MPTPLAVWYTFIINTSNKPLFFLLTWLLHYIPGYILDAGCILLGKPTMFIKLYNRVNRSSLAL
SYFTSRTWVFN DNNSDKLFQSLSKSDKLIFNFDTTDINIPEFVTIWCVGLRKLYLMKDG IKN
TEYARKKQ

>SexiFAR6

MVPRPAPQFPTPPLIPEYFAGREVLITGATGFMGKVLVERLLWTCPDIGRLHLLMRHKRDV
APDKRLALLKQSQVFDVVRERCPQLDKLCMVPGDVTKRRFGFDQSALNQLNQVS VVF
HSAATLKFDEPLSVAAEQNVRPVLTLMDICDQLPNMQVLVHVSTAYSNAELAEVEERVYP
APVTPEHLLALVDALPASMLQEITPRLIAPKPN TYTFTKAVAESAVSERAVTARYACAIFRPT
IVVSSLRHPFPGWIENLNGPSGVVAGAGKGLLRVLR CGAQRRADMMPVDICIDTLIAVAW
ETGIDNLREARVYQCASSSHAATWGQFRERMLRLVREHPFDNVLWYPYGVICENTVVQK
VLEAVLQTAPLCVAHCVARACGLKQKPSLWTACKRLQAMNQALQFFATRHW SFRTTRVQ
QLAHLRHPDDQKLYNLRPETIDWEQHCVDFVKGARRYLLRERDDDIHAARRRM RILYLIH
KATLLFAIFTMCRLTIRTAPAILWGVAALTRQRNKSALLS

>SexiFAR7

MANPTIRDFYRGRNILVTGGTGFMGKVLIEKVLYSIPDVGNIIYILMRPKRGKSVAQRIEDM
QRLRLFERRSEKPDALKKMKPLQGDVLFENLGLSDSDIEKLSNEVSVVHFHAATLKLEAP
LKDNVNMNTCGTQRALEIAKKFKKLDIFVHLSTAFCDYEVLGERCYGPVVRPENVMK
LIQWLDDKQLALLTPSLLGHPNICYTFSKRLAETIVEQAHDLPVVIARPSIVCPSVAEPM
GWVDNLNGPVGVMLGAGKGVIRTMCDGLIAQVCPVDIAINAIIGMIEGNRKEKHTT
LPVYNVNGHQKPTTWGDVLTIAKDYGRKYPLSWPLWYPNGDITNAVLHEYRRIFYHL
VPAYLIDFLLFLLGQKRIMIRIQERISQGLEVLQYFTMRPWNFPCPNYDAIKEKLSPEEQVIF
NTDITDADRDEYMKMCVEGGRVYCFKEDPTKIPYNRIYHRFLYVLDWVFKIMFWLFLVLS
YLASFWEPIKTLFSLGEPVVKHLPFLGKVCKTEEL

>SexiFAR8

MASETISSAELECLPDRIADTFSGMKVLITGGTGFMGKVLVEKLLRKCPDIEQIYLFVRAK
KGKNPKQRLEEIFSGPLFEKLRDMRGGVEPLLAKMTIVNGDVSEPDLGMSPEDRQMIINQ
VDIIHAAATIRFDEELKKAVLLNVRGTKLMVELGKACKNLKVFIHISTAYCHLEKLLEEK
PYPPPADPHQIIQAVEWMDEETIANMTPKLLNKLPSYAFTKALAEALVVEAMEKANLPA
MVLRPSIVIPWQEPVPGWTDNINGPTGLLIGAGKGVIRSMYCKSNSYADYLPVDVFINGI
MIVAWNYLKNKGDKKCNINFTSSAEIKVTWSEMIDAGREIIMNRVPLNGVVWYPGGSMDK
SRMYHNICVFFFHWIPAFIITLLFCLGYKPVLCRVQRRITKGFEVFEYYTNNQWDFKSDIA
QTLRQKLNAKERRDYKVDVGLDISKYFEDCIRAARIFILKEYDDTLPAARRHMRIMYWV
DVIVNCLFWGFLLYWLSGWMTTSKAIVPDTATPTVIAMDA

>SexiFAR9

MNTNFESTKKLLELSQRMKNIEVFLYISTAFTHTQKKVLVETVYPPPAKVEDIYKFIEENG
DEQATLKFINGQPNTYTFTKSLSEAYLSKHHGNVPAVIRPSIVSATNQEPGWLNDWYGS
TPFLMNASEGWLRIVRGNYSIDFIPVDFVTNLSIVAAAKAKRTNEVQVFHSTTSADNPT
DWSDFKNYFLDEVVRRGKNDLPYPNIVFVESKIALAIGSFLMQTPAHMLDLWLKITGKE
PRYVKILAQVIRLRDSYEHFSSNDWIMRSDRTRQLHASLSPEDQEKFCQDPTQINWPEYK
DYCRGVLYLKPRKMY

>SexiFAR10

MNYTAEKSPLSQTPVTREKMDKWVDAQVKGEKLDIDVYGKPTDKMLKELENVRNLSKE
LQDNLHELENSVRIAEVENQAMNPTAQILDFSEDHEFVPDNKDTYYAEEDKLDKEEEEK
KLTKGKGPKTEIQEFYKDQCVFLTGGTGFLGKVLIEKLIRSCGDINTIYVLARNKKGKDPR
VRLHEMMDEFLFHRAHEENPKGIHKVVPILGDMELPGLGINEEDRKMLASKVTIINAAAT
VKFDEKLSVSTAINVKGTKEVLKLAKECRNLKAITHVSTAFSNTQVKHIEEFYEPMSVE
ALEAISEVDEKLVESILPTLLGSRPNTYCFTKAVAEAVRTYGEGLPICIVRPSIVSTYEEPV
RGWTDVYGPGLVVGIGTGVLRTMYMDQEKVADMVPVLDLCVNAILASAWHTAKNYK
ENQTSPIPIYNFVSGAQNPLTWGEFIERNRKYGIDKPTTKAVWYYGLNPTNNYYLFLFYNF
FLHYLPALMIDTYCAITGKRRAMKLYSKVMKLANILFYFSTQDWKFSMDNVRNMWNS
LSDADRVIFPFSIGEMSWEYMCETFLVGLRVYLIKDDLSTLPEARKKWNKLFYHQLTKAI
TSLSVVYLYFVLQPIIALVFN

>SexiFAR11

MASEVNEWYKGRSVLVTGALGLMGKVLIEKLLYSVPDVGCYALVRSKRGKSPETRIE
MWKLPLFKRIEEKPHVMKKLIPVTGDIMYDELGISAENLNKIYNEVSIVFHAASLRLEA
PLKEGLEMNTRGTLRVLEMAKKMKSLVAFIHLSTAFCDYERMAEKVFDPPPTDPHEVLR
AASWLTEEQLNLLAPSIYQKHPNSYTYSKRLAEALVRESYPNLPAVVVRPSIVTPSYKEPT
GWVDNLNGPIGLMVGAGKGVIRSMHCYGHYAEVIPVDIAINSIIVIAKYTGKDTERRQPEI

PVYNLTGDDRNTTWKEVLDIGKATVRKFPFEGPLWYPDGNIRHNKFIHDLCVFFYHIIPA
YFIDFLMFLFRQKRFMVRIQNRISIGLEVLQYFTTREWTFDTNNYKSLVHLLNPVDKETFP
MDTTIEDEPYIESCMIGGKLYCLKEKLENLPKARLQNHILYILDRLVSLFFYLVLVLYWIVSY
FEPARELLSYGGPAVRYLPLVGKAVFKDV

>SextiFAR12

MADPSQVRSFYAGKNFFITGGTGFVGLCLIEKILRCIPDSGKIYLLMRPKKGKEIADRLQEF
PKNPVFEKLLSNSTDVFNKLIPIAGDVGEENLGMSPQDRQTIINNPNVVIHSAATLDFQE
NLRPTVNINLLGTRRVMQLCKDAKNLKVMIHVSSAYVNSYLTEAHEKIYEAPEDPEKVISL
VGTLNDEALLEIEPKLLKSHPNITYTFTKHLAEHEVVKCADLFPCTIVRPTMIVASWKEPIPG
WTCSKVGPQGFLMGAAKGVVRRPLAKENVADYIPVDVVVNQLLVAGWEAANSSSGLT
VYHCSSSTCHPFTWTMLDDTVNGMLHKYPLKSAVWYPHLKFVPSLLMFRISAIFVHFFPA
LLLDLMLRMTGGRPILIRLHKNVWNSLNRLERFIFSEWKFNPNNTLELATKLNQTDKELFF
IDISKLYWVEYFKTLHLGVRRYLNKEKESTLPAARKKDMVLLLHFVMWQLFIMGLVWYI
FACATGLTLAHSWVAPIIYILFTFL

>SextiFAR13

MAPNVKEYYRGKNIFITGGTGFVGKALLEKLLRNCSEVNAIYLLMRQKKGVSAEERLKD
LCSKPVFDMVREKNPSSFKKLMINGDITEAGLGISEDVVKLLQKECNIIHFHSAACVRFDQ
KLKDAVNMMNTTGTLRMLTLAESMQNLEVFVHLSTAYCRCDLDVLEEKVYTAVHKPRKIM
DIVEWMDDETLAYLEPKIISSEPNTYSYTKAITEDLVNEYSKGFPPIAIARPSIVTAVWKEPIP
GWVDNLNGPTGIVIGSGKGVIRTMHCEPSYKADAISVDVVANACILIAVVTGLDKPKETQ
VYNLTLSGVINLTWQEIIDLGEKWVNEFPYTMALWYPGGSIKSYRITHQIDKFFSHLVPAYL
VDALLFLLGKKTFFMINLQKRISHGLNVLQYYTTKEWHFRNNNYKGLRNRVTPEDNEVFY
TDASTLDPDEYLKNYVLGTRKFCCNEDPANLPRARKLHRIRYMADRFFKLLFIFLILWTLY
SNSHVFTSSVELLDNSLKSPLMNQANAEESNIAL

>SlitFAR1

MAAETLTENQLFEAKQGGDITYMDMIEETQPLGDSQIQKLFAGSAVLLTGGTGFLGKLVV
EKLLRSCPDLLKIFLLARPKKNKTITKRLQEQQFDDVLYDRLRKECPDFINKISIVEGDVGQL
DLGMCPEDEKIMNEVEVIFHGAATVRFDEPLKTAVEINVRGTREMLKLARGCSKLKAFV
HISTAYSNCQNMIGEKFYESPLPGDKLIDLVTMEEKVINNITPGLLGDFPNTYAYTKAVA
ENIVKEYSKGLPVALFRPSIVIGTSKEPVSGWIDNVYGPTGVVVGAAGVLLHVLNCNPKV
KADLVPGDMVNVNACIATAWKTAKEYPSNHEDAPPPDLTPPVYNYVSSEQRPLTWEKFMN
YNEVYGFQVPTVQAIYYLFLHLLTSSKFLYNLYCFLHWPAYIIDGIAVIGKKPILRKAYKKI
TKFSEVMAYFATREWKFDNSNTQQLFKELCDADKYLFDFFDMSALQWNEYFYNYIRGVRV
YLLKDPVDTVPEGLKKHHRLKFLHYTFGILGLLFFRLLWAMISGILSF

>SlitFAR2

MLWVDFSVSLNLDKIFATMVPRPVSPSPAEPLIPRFYAGRSILITGATGFMGKVLVERILST
CPEVGRLHLLMRDCKGHSPQKRLAQLKQSQVFDNVARNHRQLDKLCVVSQDVSKPQL
GMDADAIAQLREVSIVFHSAAATLKFDPELPVAIDQNVRSVERLLDICDKLPNMEAFIHVST
AYSNAELTVVEERVYPAPVPLAQACTLAETLPVDLLGQINTQYISPKPNTYTF

>SlitFAR3

MVVLTSKEKSNMSVADFYAGKSVFITGGTGFVGKVFIEKLLYSCPDIDKIYMLIREKKGQSI
RERLTKIVDDPLFNRLKDKRPGDLGKIILIPGDITVPGLGISEENETILIEKVSVVIHSAATVK
FNEPLATAWNVNVEGTRMIMALSRMKRIEVFIHISTAYTNTNRAVIDEVLYPPPADINDVH
QHVKNQVTEETEELKILNGRPNTYFTFKALTEHLVAENQSYMPTIIVRPSIVGAIKDDPIRGW

LANWYGATGLSVFTAKGLNRVIYGHSNHVVDLIPVDYVANLVIVAGAKTYHSNEVTIYNS
CSSSCNPITMKRLVGLFIDYTVKHKSVMPLPGWYVYSNYRWLVFLVTLIFQVIPAYLGDI
GRLLGKNPRYYKLQNLVAQTQEAVHFFTSTWEIKSKRTSELFSSLSLTDQRMFPCDANR
IDWTDYITDYCSGVRQFLEKIK

>*SlitFAR4*

MAPSVNIAEYYAGKTLFITGATGFMGKVMVEKLLRDCSDVKKMYLLMRPKKGHSSKER
LDELLNFKIFDRLKAENPKLFEKLQVVAGDILLEDLGLSAEDRLLIQEEAQIIFHCAACVRF
DMFLRDAVKMNTMGTKKVLELAEGVKNLEAFVHVSTSYCRCELPLFEEKLYPSKHRPEH
VMHCVNWMDDLELGHLPKIIEPQNTYAYTKSLTEDLVSQYEGKFPVIARPSIVAAAYK
EPLPGWVDNLN

>*SlitFAR5*

MDPALAVELEALSQRQKAMFEATERGDSTVQQFYKDSTVFLT GASGFLGKQLVEKLFACN
IRKIFILLRPKKNM TIQERLEEM LQDPVFNLVKKKKPDF AENIVPVKGDVAETKLGLSDTD
WTMITSEVDVIFHVAATTRFDEALRVSTMINIRGTRETVLLGKDCQKLKSFVYVSTTYSTA
TQANVDKEVMERFYPCPLPPELMIDMAENIDDERMEAIEANLIKGYPN TYTFTKSIAEEVV
RSLAGEMPTCIIRPAVVISSYREPVPGWADASCAFGASGLILGPATGLIHAIYASNDVKFSLV
PVDYVNNAILVAGWHTATEKPNDVQIYSVSSARNLFHWEPISSKIRDIGKVLPTPLAVWYT
FIINTSNKPLFFILTWLLHYIPGYILDAGCILLGKPTMFIKLYNRVNRSSLALS YFTTHTWVF
NDSNTDKLFNSLSKTDRLIFNFDTS DINISEFVTLWCVGLRKYLMKDG IKNTEYARKKQFL
LKYLHYVVSFMYVYVLFKITCLVCYLILCLFG

>*SlitFAR6*

MVPRPAPQSSTPPLIPEYFAGREVFITGATGFMGKVLVERLLWTCPDISRLHLLMRHKKDC
APDKRLALLKQSQVFDVVREQCPQQLDKLCVVPGDVTKRRFGFDQPTLNQLNQSVVVFH
SAATLKFD EPLSVAVEQNVRPVLT LMDICDQLPNMQVFIHVSTAYSNAELSTVEERVYPAP
VSPSHLLALVDALPATMLQEITPRLIAPKPNTYTFTKAVAESAVSERATSAHYACAIFRPSIV
VSSLRHPFPGWIENLNGPSGVIAGAGKGLLRVLRCGAQRRADMMPVDICIDTLIAVAVET
GVDNLREGRVYTCASSCHAATWGQFRARMLRLVREHPFDNLWYPYGIICENTVIQKVL
ETVLQTAPLCLAHCVWRACGLKQKPSLWTACKRLQAMNHALQFFATRHWSFSTTHVQK
LADRLHGEDKLRYNLRPETIDWEQHCVD FVKGARRYLLRERDDDIHTARRRMKLLTVIH
NATLLFAIFFVCRLTIRTAPAILRGVAVLTRLRNKA IQES

>*SlitFAR7*

MSNPSIRDFYKGRNILVTGGTGFMGKVLIEKMLYSIPDLGNIYILMRPKRGKSVAQRIEDM
QRLRLFERIRTEKPD AFKKMKPLQGDVLF DNGLGSDSDIELLCNEVS VVFHFAATLRLEAP
LKDNVNMNTCGTQRALDI AKKFKKLDIFVHLSTAF CYPDYEVLGEKCFGPPVKPENVMK
LIQWLDDKQLALLTPSL LGPHPNCYTFSKRLAETIVEQA HDELPVVIARPSIVCPSLKEPVP
GWVDNLNGPVGVM LGAGKG VIRTMLCDGSLTAQVCPVDIAINGHIAIGMIEGNKKEKHTS
LPVYNVNNGHQKPTTWGDVLTIAKDYGRKYPLSWPLWYPNGDITTN AVLHEYRRIFYHL
VPAYLIDFLLFLLGQKRIMIRIQERISQGLEVLQYFTMRPWNFPCPNYDAIREKLSPEEQEIY
NTD TTDVDRHEYMKMCVEGGRVYCFKEDPNKIPYNRIYHRFLYVLDW FVKIMFWLFLVLS
FIASWCGPIKTVFSFGEP IVKHL PFLGKVVS KVEEL

>*SlitFAR8*

MASETISAELECLPDRIADTFSGMKVLITGGTGFMGKVLVEKLLRKCPDIDQILLFVRSKK
GKNPKQRLEEICSGVLFEKLREMRGGVEP LLEKVTLINGDVSEPDLAMSPEDRQM IIDQV
DIIHAAATIRFDEELKKAVLLNVRG TKLMVELGKACKNLKVFIHISTAYCHLHEKLL EKA

YSPPADPHQIIQAVEWMDEETIATMTPKLLNKLPSYAFTKALAEALVVEAMEKANLPAM
VLRPSIVIPIWQEPVPGWTDNINGPTGLLIGAGKGVIRSMYCKSNSYADYLPVDVFINGIMI
VAWNYLKNNGDKKCNIIINFSSAEIKVTWSEMIDAGREIIMNRVPLNGVVWYPGGSMKHSR
LYHNICVFFFHWIPAFIIDTLLFCLGYKPVLCRVQRRITKGFEVFEYYTNNQWDFKSDIAQT
LRQKLNAKERRDYKVDAVGLDISKYFEDCIRAARVFILKEYDDTLPAARRHMRIMYWVD
VIVNCLFWGFLLYWLSGWMTTSKAIVPDTASPTVIAMDA

>SlitFAR9

MHCNENYEADVVPVDVTVNACIILGYLTGMEKPKKINFCNITQSQINPITWGQALDMGRV
HVQEFPFTVCLWYPGGSASWIAHQFALFFTHMLPAYFVDLLMFLMGKKTFMIKIQKRI
NYGLEVLQYYTTKEWHFTNDFFVSLQNRISKRDNEIFYTNMKEMDWSQYIRNYIRGARE
YCKKEDPSTLPAARRLQKQLYYLDKAVQIMVGLLVSYFIYYFNMLYSSMISS

>SlitFAR10

MNYAIEKSPLSQTPVTREKMEKWVDAQVKGEKADIDVYGKPTDKMLKELENVRNLSKE
LQDNLHELENSVRIAEVENQAMNPTAQILDSEDFEVPDNKDTYYAEEDKVDAKEEEK
KKLTKGKGPKTEIQEFYKDQCVFLTGGTGFLGKVLIEKIIRSCGDINTIYVLARNKKGKDPR
VRLHEMMDEFLFHRAHEENPKGIHKVVPILGDMELPGLGINEEDRKMLASKVTIINAAAT
VKFDEKLSVSTAINVKGTKEVLKLAKECRNKKAITHVSTAFSNTQVKHIEEFYEPMSVE
ALEAISEVDEKLVESILPTLLGTRPNTYCFKAVAEAEAVRTYGEGLPICIVRPSIVVSTYEPPV
RGWTDVSYGPTGLVVGIGTGVLRTMYMDQEKVADMVPVDLCVNAILASAWHTAKNYK
ENQTSHIPIYNYVSGAQNPLTWGEFIERNRRYGIDKPTTKAVWYYGLNPTNNYYLFLFYNF
FLHYLPALMIDTYCAITGKRRAMLKLYSKVMKLANILFYFSTQDWKFSMDMVRNMWNS
LSDADRVVFPFSMGEMSWEYMCETFLVGLRVYLIKDDLSTLPEARKKWNKLYYLHQILKI
ITLSLVLYLTYFVLQPIIALVFN

>SlitFAR11

MSTEPGDGPLLPGFYAGRAVLITGGTGFLGKVLIERLLWTCPEVGEVHLLLRDKRGQPPRV
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VKFWESLETALHQNVTSVVALMELCDQLPRLEALVHVSTAYSNAERRHIEERVYEAPACL
AGLRAMLDALPPSLDDLTARYIAPKPNTYVFSKAVAEATIAQRPRKHYATAIVRPSIVVSS
HRHPYPGWENLAGPSGVVVGCGKGLVHAFNLDLAARADLIPVDITIDTMLAVAWEIATD
KSEEVRYNSCSQQNPITWGTFRDRVRNARAHFPDQLMYYPFTFGIKNRYVYKALELVL
QTIPLYVADYIARLCGIKLQLSLVTVSERLQAMNRVLAFFATREWFSTRNVQALRRRLTR
ADQDIYNLDVTSVDWDEHVSNFVKGTRKFLLKEKDDNIPRAKKFVERLRRVHQFVLLML
SVLVYRFLMLLLPRFLRSSPVLAGLAAPH

>SlitFAR12

MADPSQVRSFYAGKNFFITGGTGFGVGLCLIEKILRCIPDAGKIYLLMRSKKGKEIADRLQEF
PKNPVFEKLLESNSADIFKKLIPIAGDVGEENGLSPQDRQTIIDNVNVVIHSAATLDFQESL
RPTVNINLLGTRRVMQLCKDAKNLKVMIHVSSAYVNSYLTEAHEKVYEAPEDPEKVISLV
GTLNDEALLEVEPKLLKSHPNITYFTKHLAEHEVVKCADLFPCTIVRPTMIVAAWKEPIPG
WTCISKVGPQGFLMGAAKGVVRRRLPLAKENVADYIPVDVVVNQLLVAGWEAANSRSGLT
VYHCSSTCHPFTWTMLDDTVNSMLHKYPLKSAVWYPHLKFVPSLLMFRISAIFVHFFPA
LLLDLMLRMTGGRPILIRLHKNVWNSLNRLERFIFSEWKFNPNNTLELATKLNQTDKELFF
IDISKLYWVEYFKTLHLGVERRYLNKEKESSLPAARKKDMVLLLHFVIWQLFIMGLVWYIF
ACFTGLTLAHSAWIAPIIYILFTFL

>SlitFAR13

MAARADMLPVDMAIDTLLAVAWETAVIDRPEAVRVYNCSTCENPTTWDRDFETALRHRLRV
NPLDNAFWYPSGFTVENKLTQKTLETILQTAPLHIAEYISKILGIKTRLSLITVSQRLIAMNE
VLRFFSVREWHFVTDNVRKLHARLTPQDAAIYNLDPQTINWNEHYCNFIIGARKYLLQEK
DQDINEAKKHLRRMYYLHHGVMFFVVTLLCRLALRNQYLRAFIYRTFRMLLTVAGSAYM
RIRQS

>*SinfFAR1*

RLKEERPNDLNKVIPIAGDINLLDLGISAKDEEILIQKVSVVFHIAATIRFTEELKDAVNVNV
TGTKYVLQLCQRMKNIAFVHVSTAYSNPEKHILEEKMYPPPAKLTEVQTFLDQSIDSNQ
IKALLKGAPNTYTFTKALAETYVAENYGNIPTVIIRPSIVSASLREPL

>*SinfFAR2*

MVVRATGDAEKPSVAEFYAGKSVFITGGTGFLGKVFIEKLLYSCPDIKVFMLIREKKGLSI
SERMNQFLDDPLFNRLKDKRSTDLLKIVLIPGDISVPGLGISREIENILLETVSVIIHSAATVK
LNEPLPTAWKINVEGTRSVVALSKRMKRIEVFIHISTAYTNTNRKVVEEILYPPPADINEVYQ
LLEDGITEEDTERLLNGRPNTYTFTKSFSEHVVAENQVRVPTIIVRPSIVGSVKDHPKRWL
NNWFGATGLSVFTARGMNRVLYGRSSNVVDLIPADYVANLVIAAGAKSGNEKSSELKVY
NCCSSSCNQITLGTVMMAKFTEDAVNQPSDMLLPGWYVFTRYKWMMTVWTILLQVIPAY
LADTYRILTRKNPRYVKLQSLVAQTQTALRFFTFNSWVMKADRVRELFASLSPADKDIFPC
DPISIDWNEYIKDYCCGVRQFLEKRR

>*SinfFAR3*

METVEQISAYESVAGFYAGKSVFVTGFTGFLGKVFEKLLYSCKDIGDVYVLIRAKKSKDI
KQRLEETFNKPLFARLKEERP

>*HassFAR*

MVVLTSKETKPSVAEFYAGKSVFITGGTGFLGKIFIEKLLYSCPDIGNIYMLIREKKGLSVSE
RIKQFLDDPLFTRLKEKRPADLEKIVLIPGDITAPDLGITSENEKMLIEKVSIIHSAATVKFN
EPLPTAWKINVEGTRMMLALSRRMKRIEVFIHISTAYTNTNREVVEILYPAPADIDQVHQY
VKDGISEEETEKILNGRPNTYTFTKALTEHLVAENQAYVPTIIVRPSVVAIKDEPIKRWLG
NWyGATGLTVFTAKGLNRVIYGHSSYIVDLIPVDYVANLVIAAGAKSSKSTELKVYNCCSS
ACNPITIGKLMSMFAEDAIKQKSYAMPLPGWYVFTRYKWLVLTLILFQVIPAYITDLYRH
LIGKNPRYIKLQSLVNQTRSSIDFFTSHSWVMKADRVRELFASLSPADKYLFPDPTDINWT
HYIQDYCWGVRHFLEKKTNNK

>*AperFAR1*

MNNNSHINLETSREVDTDVVSSENDEYESVADFYSVGKSVFITGATGLLGKVCVEKLLYTCT
NIDKIYILIRDKKGLHIDQRMASFFEQPVFSRIKREKPDVLKKVIPISGDITADNLGLKLEDE
QLLIQTVSVVIHSAATIKFNEPLKIAFNINVEGTRRVLNLAKRMHNIKVFVYVSTAYSNTNQ
KILDEIYPPSIELDELKHIIAYQHIRGDDEVELKKLLKFHPNTYTFTKSLAENLVAKEHGDL
PIVIRPSIITASEKEPISGWIDNWGGATAITFIMNGWNKMYLCDGNIYLDMIPVDYVTNLIL
TSAACKCYRTKSVQVFHSCTSSENPIVNEMLNLTNRVYNEKRNIDSKSIILTRSKFLVTCLTLII
HTIPAYVADLWMRACGKKEKYVKLHFQIVAHRALEYFTTNSWVMRCGGTSLFNSLNV
CDRQLFPCDPRDIVWTEYMDTYVSGIFKYLLKE

>*AperFAR2*

MNIMSDKINKEEFYQPVAEFYEDKSVFITGATGFLGKVLLERLLWNCPKIDKVYVLVREK
KGVSVDRRIEELLDNVLFSLKLDNRPDLLKKIPIPGDIAVNNLGMNDADENTLIEKVAIVI
HTAASIKFKNPLKESLKINLEGTNQILNLCHRMKKLEVHVHTSTAYTNTDKKVIEEIVYPPP
ANLSDVYVLQLEQNLEDEFTKVLNGQPNTYTFTKALTENLIMDRNRNLTTILIRPSIVTAVAN

EPLPGWIDNWyGASATLSSISKGINRILWGNVDNIVDLIPVDYVANFFLIAIAKGQRSESVV
VYNCCSSFSNPIRYRGLFRAFVDDAIKHRNYIYPFPQIYFMTTNKIIESIVKIFLEILPAFIADC
VGWLFNKPTGFLKLQKRIVAKREVIKFFTTNSWMMQDLGARALYTSLSLSDQNQFPCDV
TQLNWDEYILTYSAGIRKHLENK

>AperFAR3

MTSEVNEWYRGRKVLITGSSGFMGKVLMEKLLYSVPDIGCVYALARSKRGKSPESRIEDM
WKLPLFSRIREEKPHVMKKVIPVSGDIMYDNLGINKDQLEQIYNEVSVVHFHFAASLRLEAP
LKEGLEMNTRGTLRVLELSKNIKNLAAVFHLSTAFYCYPDYERMAEKVHDPPEDPHRVLEA
AGWISDEQFNLLAPSIMKMHPNSYTYSKRLAEALVRESYPELPAVVVRPSIVTPTYKEPIPG
WVDNLANGPIGLMVGAGKGVIKSMHCYGHYHAEVIPVDIAINAIIVTAYKTGKSTERSPEIP
VFNITTGDDRNTTWKQVLDIGKASVRKFPFEGPLWYPDGNIRHRSKFIHDLCVFFYHLLPAY
FIDFLLLIFRQRRFMVRIQNRISVGLEVLQYFTTREWTFDNDNFKSLVTILNPIDQALFPMD
LTIIEDEPYIESCMIGGKLYCMKEKLENLPRARLHNNILYLLDRLVTALFYLFLLSWVASYF
EPVRYLLSYGGPVVRLLPFLGKAVFSDD

>AperFAR4

MAKDITTHVDFKKKFEDFTDLDMWEEKSLGESQIEKFFSGTTVLLTGGTGFLGKLFVEKL
LRCCPDHKLKLYLLTRPKKDKSITKRLQEQQFDDVLYDKLRKERPDFIKKIAIEGDVGAILDG
MSLKDRNKIVNEVEIIFHGAATVRFDEPLKTAVEINVRGTREICQLARACDKLSLVHISTA
YSNCVLNEIEERFYESPLPGEKLIDLTVETVDETIINNITPGLLDGYPNTYAYTKGVAEDIVQK
YSKGLPVALFRPSIVIGTATEPVSGWIDNVYGPTGVVVGAAGVLLHVLNCPNSAVADLVPG
DMVVNACIATAWKTAKEYPGNHEDAPPPDLPPPYNFVSSVQQPLTWRNFMKYNETYGL
EVPTVQAVYYYYLFHLTPSRFIYSLYCFHLHWIPAYIIDGVAVLIGRKPMRLKAYRKISKFSEVI
GYFATREWKFFHNDNVKSlyTELCDADKQMFDFDLSRLDWSDFESYVRGVRIYLLKDPM
DTIPAGLKHKHYKLKYAHYFLCLVLLSLTLRLFWsILCMVIDF

>AperFAR5

MSEESQIRAFYSGKSFFITGGTGfVGLCLLEKILRCIPDVGKIYLLMRPKKGKEISQRLEEFa
KHPVFEKLLENKSADIFNKLIPIAGDVGEDNLGINARDRQTLIDNVNVVIHSAATLDFQDN
LRPTVNINLLGTRRVMALCKEIKNLKVMIHVSSAYVNSYLTDVHEKIYDCPEDPEKVISLV
GTLNDAALDEIEPKLLKDHPNTYTFTKHLAEHEVVKCAELFPCTIVRPTMIVASWKEPVPG
WTCSKVGPPQGFIMGASKGVVRRPIAIEINIADYIPVDVVVNELLVAGWHAATTKSGITVYH
CSSSTQNPFWRWSMLESSTVNGNLHKYPLKSAVWYPHLKFVSSLWLFKLSAIFVHFIPAILLD
MVLRLTGGRPILFRLHKNVWSSLGLLERFIFTEWHFHNPKTIELSKELNKTDESELFYINIAS
LNWNEYFTDLLLGVRRLNKEKDSTLKAARNKDTVLLGFHIVWQLVIIAMFWYIPAWIFG
LTIYQSAWVAPVMYFLYSFL

>AperFAR6

MASCLSFPGSGQEYVPVAEFYADKSIFVTGGTGfMGKVLVEKLLRSCPKIKKIYLLMRPKR
GQDVASRLNELTQSPLFETIRKERPQELTKIVPIVGDITEPELGISPADQTMLCQKVSVVfHS
AATVKFDEKLKLSVTINMLGTQQLVQLCHRMLGLEALVHVSTAYCNCERERVEETVYAPP
AHPEHVVTLVQTLDELVDRIPTDLVGDRPNTYTFTKALAEDMLIKESGNLPVAIVRPSIVL
SSVREPVKGWVDNWNGPNGIIAAVGKGIFRTMLGTGTriadLVPVDTVINLMIVCAWRTH
LRRGDGVVVYNCTGQQNPITWQQFVRSSFKYMRKHPFTDVVWYPGGDITSNRLKHGA
LCLVQHRAPAVIMDFVSRATGNNKPMVMVRVQNKLDKAAACLEYFTTRQWAFADDNVQA
LCSSLSAEDQRTFDFNVRNIDWDAIESYVLGIRRFLFKESPDTLPKSRALLRRLHIVHILTQ
VAGVILLWRFLFYRSNALRNIWRRVIDMLTRAARLLAIA

>AperFAR7

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LTKGNAVSTVIQNFYKDQCQVFTGGTGFLGKVLIEKLLRSCVGINTIYVLIRNKKGKDYTT
RLQELLDEFLFHKAHEINPKGIHKVVPINGDMQLPGLGISDTRKTLTSNVSIINAAATVK
FDEKLSVSTAINVKGTKEVLKLAKECRNLKAVTHVSTAFSNTHVSYIEEFYEPMTVEAV
EAISELDEHLLSILPTLLGKRPNTYCFTKAIAEEAVRIYGEGLPICIVRPSIVISTYEEPMRG
WTDSVYGPTGLVVGIGTGVRTMYMDLDKVADMVPVDLTVNAILASVWHTARNFKENQ
TSEIPIYNYVSGAQNPWKWRQFIDVNRNGINNPPTTKAVWYYGLNPTNCYYMFMFYNFFL
HYLPALLIDVYCLLSGKRRKTLALYGKVMRMSNILFYFSTQDWKFEDDGVKAMWNTLSE
DDKTVPFMSMSEMSWDYMCETFLVGLRVYLLKDDLSTLPEARMKWKNLFAIHLILKLATL
TFVLYMVYILLRPIFSFVFI

>AperFAR8

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QRLPLFDRLRQERPSAFNKLKPLQGDVLFDDFGLSSLDIDNLSKEVSVLFHFAATLRLEAPL
KDNVNMNTAGTMRTLNVARRLKKLVILHLSTAFQCYPDYEVVLGEKLYPPPVPKENVMNLI
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WVDSLNGPVGVMGAGKGVIRTMCDGSLYAQVIPVDIAINAIIGMIEGLKKDKTETIP
VYNVNIGHQMPTTWGYVLEVAKDYGQYPLSWPLWYPNGDITNTYTLHEMRRIFYHLLP
AYVIDFILFLVGQKRFMVRIQDRISQGLEVLQYFTIRPWNFPCPNYDGIQTKLNEEEKIIFNT
DITNSNRAEYMKNCVEGGRVYCLKEDPTKVSINRSYHNFLYVLDWICKIMFWLFWFSFLA
SWYEPVSDILKYGEPVVKHLPFLGPAVFKDTN

>AperFAR9

FKGKTVFVTGGSGFMGKVLIEKLLYSCPDVEKIYLLLRSKKGIHSEDRLSSIYSSECFNRLR
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RGTRVVELAKDIKNLMVLVHLSTSYSNTNREVLEEVMYPPHADWRDTLAVTESFDDHT
LDVLTPKYLGEPLNTYTFTKQLGEHVMYEQRGRLPIVILRPSIVISSLAEPMPGWIDNFNGP
VGLLVASGKGVMRSIYTDPNLVADYVPVDVAIKAIITSAWSRGTKQLESTDDIPIYNCCSSK
IYRVTLGDIHEMGMELSKEYPLNDVLWHVGGNVTNSKTLHYLKVLLHLLPAILVDITLWA
LGRKPILIKVQRRITYANLALHYITQQWTFDNTNVLKLLESIKDEDKGHFHFIDFYNIDVK
QFFRKSFFGARKYLLKE

>AperFAR10

SGFVRGRVLILCLFYNNVKNITISMSCEGYSAEEVDSMPDRIADTFTGLTVFITGGTGFMG
KVLVEKLLRKCPNIGHIILLVRTKKGKNPRQRLEDIFNGELFEKLRNLRGGIEPLLEKVSIA
GDVGEPDLALSAADRERITNDVDIIHAAATIRFDEELKKAVLLNVRGTKLMVELGKQCK
KLKLFHIVSTSYCHLHEKLLEEKPYPPPADPHQVIQAVEWMDTETVAALTPKLLDKLPNSY
AFTKALGEALVVEAMEHMPAMVLRPSIVIPWQEPPIGWTDNINGPTGLLIGAGKGVIRSM
YCKSNSYADYLPVDVFINGIMIAIWNIVYGDKNINFTSSAEIKVTWSEMIIDAGREIIM
NRMPLNGVAWYPGGSMKHSRLYHNICVFFFHWVPAVIVDTLLFCLGYKPVLMRVQRRIN
KGFEVFEEYTNQWDFKSDIAQTVRRRLNTRERRDYKVDAVGVDISKYFEDCIRAARIYI
LKEYDDTLPAARRHMRVMWWVDLITRIIFWGLILYWISGWFSFSSFTEGSNETPTVLSMD
A

>AperFAR11

MSPTVAEFYAGKTVFITGGTGFGKVLVEKLLRSCPDVKTICLLMRPKKGYSCEERLHDL

CSSKVFDLVRRDNP GAFNKLKFIDGDITVDGLGISDEDNEMLRSECNIIFHSAACVRFDQK
LKEAVNMNTTGTLRLLTLAETMNKLQAFIHLSTAFRCCELDVLEEKLYKAVHSPRRIMDIV
DWMDNDTLDYLEPKLISSEPNTYSYTKAITEDLVAEYGNKFPLAIARPSIVTPAWKEPFG
WVDNLNGPVGIFVGGSKGIIRSM LCEGSYKADVISVDIVVNACILIA YVTALDKPKATQVY
NVTLSRAIKISWYQVIKLGEKWVHEYPTLALWYPGGSLKSSRIMHKISVAVTHYLPAYLI
DGLLYILGKKTFMVKVQKKVSRGLEVLEY YTMKEWNFKNTNFLALRHRVDKSDEKTFFT
DASECNADEYLRNCVLGAREYCLKEDSSTLPRARTLHKIRYVAD RIMKFISFCLLFWFLYC
YRDVFLSALELLDCYLKNFTLNPIKAKESCESN