

Trubripesesytl1a -----MAAMPAVDAEPMVMDGASFAFPASPQ---RRPGDRAVTVLWSFGKCLGALLPVYLAGYYGFSISVVLFGVLVIFMGWKHSRLDKVMRLKSAMYLLENERTFTTES--
Trubripesesytlb -----MATMENDKSEAIGTDTADCSGNTDTEKSVQTAAGTEAPKPKGISAVAVLWTFGKCLGALLPVYLAGYYRVSTSLVCGMMVYTGWKHAREAKEARLKSATIEFLDDECTSRQ--
Tnigroviridisesytl1a -----MAAMPAADAERVMGDAAFAFPAPSPQPPPPQRPGDRAVSVLWSFGKCLGALLPVYLAGYYGFSVIVVLFGLIIFMGWKHSRLDKTMRLLKSAMYLLENERAFTTES--
Tnigroviridisesytlb MVSPQQRFLTATMQNDKSEPSGSDSADRPGTGDADQRLQTAAQAEAPKPKGISAVAVLWTFGKCLGALLPVYLAGYYRVSTSLVCGMMVYTGWKHAREAKEARLRSATIQLEDSDDGGASRQ--
Gaculeatusesytl1a -----MRPATAE-----GAGIAAPALPIQ---TPGERALSVLWSFAKCLAALLPVYLAGYYGFSISVVLFGMLIYMGWKHSRLKVKTRLKLSMFLQENKAFTTTQQ--
Gaculeatusesytlb -----MQSDKSEPSEAEGAECVSASDAEKKALRAAGTGGPEPRGISAVAVLWTFGKCLGALLPVYLAGYYRVSTSLVFGMMVYTGWKHAREAKETRLRSAMQLLDNEEYMSTK--
Olatipesesytl1a -----MPGADAEVVTAPPAERAVGALWSFAKCLGALLPVYLAGYYGFSISLVLLGLMLYIGWKHGRMEKVMRLKSAMYLLENEREFTTEK--
Olatipesesytlb -----MQNDKSEPTTEPKGAE---GSNPPSDGAEDPV---KVGKISAVAVLWTFGKCLSLALLPVYLAGYYRVSTSLVFGMMVYTGWKHVREAKEERLRSAMQLLSDGDDYASSR--
Drerioesytl1a -----MQKSPMSVDDAG-----NAGAAPEAADAAPTDSAGKHAVSVLWSFGKCVGAFPLPVYLAGYFGFSISVVLGLLVYIGWKHSRDGKKARLQSAMYFLENEDQVTTTR--
Drerioesytlb -----MSHVDSETTNDQKITEPAQDSSSGEMDV---PKTKLFDAKAILWTFGKCLTALLPVYLAGYYRMSTSLVFGMMVYAGWKHTRAKEARLRSATIQLVNDEQEYVSSK--
Xtropicalisesytl1 -----MSDTERQSIPIVP---TSGSDLVPLLLSMGKLLLLLPYILCGYLGMSIFFVVIAGLFLYLGWKGSRENKLSRLSAQEALEKEVAVTAST--
Acarolinensisesytl1 MERSQAKGGGPTMEGSPGKEGDPSPDPDPVP---PAPVSRRLPGGL---GSA-EALAAALGAMGRLLWLPLPVYLAGRAGLSVGFVVAGVALYLGWRGRRRSKEQSLRAAGLVLGDEEAAVSATAL
OanatinusEsytl1 -----XYLGWRRVRGGKERSLRAARRLLDDEERITAQT--
MmusculusEsytl1var1 MEHSPEEGASP-----EPSGQPPATDSTRDGGSGVPPAGP---GAASEALAVLTSFGRRLLVLVPVYLAGAAGLSVGFVFLGGLALYLGWRRVRDGKERSLRAARQLLDDEERITAE--
MmusculusEsytl1var2 MEHSPEEGASP-----EPSGQPPATDSTRDGGSGVPPAGP---GAASEALAVLTSFGRRLLVLVPVYLAGAAGLSVGFVFLGGLALYLGWRRVRDGKERSLRAARQLLDDEERITAE--
HsapiensESYtl1var1 MERSPGEGPSPSPMDQPSAPSDPTDQPPAAHAKPDPGSGGQPAGP---GAAGEALAVLTSFGRRLLVLIPVYLAGAVGLSVGFVFLGGLALYLGWRRVRDEKERSLRAARQLLDDEEQLTAKT--
HsapiensESYtl1var2 MERSPGEGPSPSPMDQPSAPSDPTDQPPAAHAKPDPGSGGQPAGP---GAAGEALAVLTSFGRRLLVLIPVYLAGAVGLSVGFVFLGGLALYLGWRRVRDEKERSLRAARQLLDDEEQLTAKT--

Trubripesesytl1a ---VFRAKRDLPWVNFDPDEKVEWVNKILIQAWPFIGQYLEKLLVETIAPAIRASSIHLQTSFTTKVDIGKAVKVVGVKAHTEQDRRQVILDLYLSYAGDVEINVEIKKYFCKAGVKGVLH
Trubripesesytlb ---MSRIKRELPAWVNFDPDEKVEWLNKVLQVWPFVGGYLEKLLMETIAPSIASSTHLQTFGFTKVDMDGDKAMKVVGIKAHTENDKGQVLLDLYISYVGNVEINVEVKRYFCKAGVKGVLH
Tnigroviridisesytl1a ---VLRAKRDLPWVNFDPDEKVEWVNKILIQAWPFIGQYLEKLLVETIAPAIRASSIHLQTSFTTKVDIGKAVKVVGVKAHTEQDRRQVILDLYLSYAGDVEINVEIKKYFCKAGVKGVLH
Tnigroviridisesytlb ---MSRIKRELPAWVNFDPDEKVEWLNKVLQVWPFVGGYLEKLLVETIAPSIASSTHLQTFGFTKVDMDGDKAMKVVGIKAHTENDKGQVLLDLYISYVGNVEINVEVKRYFCKAGVKGVLH
Gaculeatusesytl1a ---AFRTKRDLPWVNFDPDEKVEWLNKILQAWPFIGQYLEKLLVETIAPAIRASSIHLQTSFTTKVDIGKALKVVGVKAHTENDKQVLLDLYLSYAGDVEINVEIKKYFCKAGVKGVLH
Gaculeatusesytlb ---AFRGKRGPLPAWVSFPDVEKAEWLNKVMHQVWPFVGGYLEKLLVETIAPIRASNAHLQTSFTTKVDIGKAMKVVGVKAHTENDKGQVLLDLYISYVGNVEINVEVKRYFCKAGVKGVLH
Olatipesesytl1a ---VFRAKRDLPWVNFDPDEKVEWVNKILIQAWPFIGQYLEKLLVETIAPAIRASSIHLQTSFTTKVDIGKALKVVGVKAHTEHDKKQVLLDLYLSYAGDVEINVEIKKYFCKAGVKGVLH
Olatipesesytlb ---LSKIKRDLPWVNFDPDEKVEWLNKVLQVWPFVGGYLEKLLVETIAPSIASSTHLQTFNFTKVDMDGDKAMKVVGIKAHTENDKGQVLLDLYISYVGNVEINVEVKRYFCKAGVKGVLH
Drerioesytl1a ---VFRSKRDLPWVNFDPDEKVEWVNKILIQAWPFIGQYLEKLLVETIAPSIASSTHLQTSFTTKVDIGKAMKVVGVKAYTEFDRRQVILDLYLSYAGDVEINVEIKKYFCKAGVKGVLH
Drerioesytlb ---SFRSKRDLPWVNFDPDEKVEWLNKVIHQAWPFIGQYLEKLLTETIAPAIRGSSAHLQTSFTTKIDFGGKPMKVVGVKAHTENDKGQVLLDLYISYVGNVEINVEVKRYFCKAGVKGVLH
Xtropicalisesytl1 ---MFMNKRELPSWVSFPDTEKAEFLNKIVAQWPFVGGYLEKLLTDSAPTIRASNTHLSTFYFTKINVGKAPKVTGVKAHTEFDDKKQIILDLHLISYVGDIEVNVEVKKYFCKAGIKGMQLH
Acarolinensisesytl1 GRSLGQSQSQLPAWVSFPDVEKAEWLNKILAQAWPFIGQYMEKLLVENIAPSIASNTHLQTFTFKIDMGEKPLRIVGVKVTGLNKKQIILDLNLSYAGDVQIDVEVKKYFCKAGVKGVLH
OanatinusEsytl1 ---LHLSHRELPAWGTFPDVEKVEWLNKIVAQIWPFLGQYMEKLLAETVAPIVRASNPHLQTFTFTRVELGEKPLRILGVKVHTGQSKNQIILDLNLSYVGDQIDVEVKKYFCKAGVKGVLH
MmusculusEsytl1var1 ---LYMSHRELPAWVSFPDVEKAEWLNKIVAQVWPFVGGYMEKLLAETVAPAVRGANPHLQTFTFTRVELGEKPLRIIGVKVHPSQRKDQIILDLNLSYVGDVQIDVEVKKYFCKAGVKGVLH
MmusculusEsytl1var2 ---LYMSHRELPAWVSFPDVEKAEWLNKIVAQVWPFVGGYMEKLLAETVAPAVRGANPHLQTFTFTRVELGEKPLRIIGVKVHPSQRKDQIILDLNLSYVGDVQIDVEVKKYFCKAGVKGVLH
HsapiensESYtl1var1 ---LYMSHRELPAWVSFPDVEKAEWLNKIVAQVWPFVGGYMEKLLAETVAPAVRGSNPHLQTFTFTRVELGEKPLRIIGVKVHPGQRKEQIILDLNLSYVGDVQIDVEVKKYFCKAGVKGVLH
HsapiensESYtl1var2 ---LYMSHRELPAWVSFPDVEKAEWLNKIVAQVWPFVGGYMEKLLAETVAPAVRGSNPHLQTFTFTRVELGEKPLRIIGVKVHPGQRKEQIILDLNLSYVGDVQIDVEVKKYFCKAGVKGVLH

Trubripesesytl1a GKLRVILEPLIGNIPLVGAVTMFFIRRPKLDINWGTGLTNLLDIPGLSAMSDTMIMDAIASQLVLPNRLTVPLVADLH-VAQLRSPPLRGVVRILHLEAEDLTAKDTVIKGLIDGKSDPYAVLVRV
Trubripesesytlb GMMRVILEPLIGDVPIAGAVSMFFIKRPRLDINWGTGLTNLLDIPGLNVMSDSMIMDAIASCLVLPNRLVPLVQGLH-LAQLRSPPLRGVVRILYLLAQNLAKDSYKGVMAGLSDPYAITRV
Tnigroviridisesytl1a GKLRVILEPLIGNIPLVGAVTMFFIRRPKLDINWGTGLTNLLDIPGLSAMSDTMIMDAIASQLVLPNRLTVPLVADLH-VAQLRSPPLRGVVRILHLEAEDLTAKDTVIKGLIDGKSDPYAVLVRV
Tnigroviridisesytlb GMMRVILEPLIGDVPIVGAVTMFFIKRPRLDINWGTGLTNLLDIPGLNVMSDSMIMDAIASCLVLPNRLVPLVQGLH-VAQLRSPPLRGVVRILYLLAQNLAAKDNVYKGVMAGLSDPYAIMRV
Gaculeatusesytl1a GKLRVILEPLIGDVPLVGATMFFIRRPKLDINWGTGLTNLLDIPGLNAISDTMIMDAIASHLVLPNRLTIPLVADLH-VAQLRSPPLRGVVRILHLEAEDLTAKDTVIKGLIDGKSDPYAVLVRV
Gaculeatusesytlb GMMRVILEPLIGDVPIVGAVTMFFIQRPKLDINWGTGLTNLLDIPGLNVKSDSMIMDAIASFLVLPNRLVPLVGLH-VAQLRSPPLRGVVRILHLEAQNLAKDNMYKGVMAGLSDPYAILRV
Olatipesesytl1a GKLRVILEPLIGDVPLVGATMFFIRRPKLDINWGTGLTNLLDIPGLNVMSDSMIMDAIASHLVLPNRLTIPLVANLH-VAQLRSPPLRGVVRILHLEAEDLTAKDTVIKGLIDGKSDPYAVIRV
Olatipesesytlb GMMRVILEPLIGDVPIVGAVTMFFIRRPKLDINWGTGLTNLLDIPGLNAKSDSMIMDAIASFLVLPNRLVPLVPLDLH-LAQLRCPPLRGVVRILHLEAQNLPAKDNHNVKGVMAGLSDPYAVLVRV
Drerioesytl1a GKLRVILEPLIGDVPLVGATMFFIRRPKLDINWGTGLTNLLDIPGLNAMSDTMIMDAIASFLVLPNRLTVPLVANLH-VAQLRSPPLRGVVRILHLEAENLPAKDNMYKGVISGKSDPYAVLVRV
Drerioesytlb GMMRVILEPLISDVPIVGAVTMFFIRRPKLDINWGTGLTNLLDIPGLNVMSDSMIMDAIASFLVLPNRLTVPLVADLP-VAQLRCPPLRGVVRILHLEADNLAAKDNVYKGVMAGLSDPYAIVRV
Xtropicalisesytl1 GMLRVILEPLIGDVPIVGAMTFFIRRPVLDINWGTGLTNLLDIPGLNLSMTMVMMDIISGFLVLPNRLAIPLASNLH-VAELRSPPLRGVVRILHLEARDLSAKDIQKGLLAGKSDPYAIVRV
Acarolinensisesytl1 GMLRVILEPLIGNVPIVGATMFFIRRPVLDINWGTGLTNLLDIPGLSSLSDTMIMDSIAAFVLPNRLLIPLVPDLHEAQLRSPIPRGIVRVYLMEAKDLQSKDKYIKGMIEGKSDPYAVVRV
OanatinusEsytl1 GVLRVILEPLLDGLPIVGAVSMFFIKRPRLDINWGTGLTNLLDIPGLNVMSDSMIMDSIAAFVLPNRLVPLVPDLQDVVAQLRSPPLRGVVRILHLLAARLGSKDTFVRGLIEGKSDPYALVRV
MmusculusEsytl1var1 GVLRVILEPLTGLDPIVGAVSMFFIKRPRLDINWGTGLTNLLDIPGLSSLSDTMIMDSIAAFVLPNRLVPLVPDLQDVVAQLRSPPLRGVVRILHLLAARLGSKDKYVKGGLIEGKSDPYALVRV
MmusculusEsytl1var2 GVLRVILEPLTGLDPIVGAVSMFFIKRPRLDINWGTGLTNLLDIPGLSSLSDTMIMDSIAAFVLPNRLVPLVPDLQDVVAQLRSPPLRGVVRILHLLAARLGSKDKYVKGGLIEGKSDPYALVRV
HsapiensESYtl1var1 GVLRVILEPLLDGLPFVGAVSMFFIRRPVLDINWGTGLTNLLDIPGLSSLSDTMIMDSIAAFVLPNRLVPLVPDLQDVVAQLRSPPLRGVVRILHLLAARLGSKDKYVKGGLIEGKSDPYALVRL
HsapiensESYtl1var2 GVLRVILEPLLDGLPFVGAVSMFFIRRPVLDINWGTGLTNLLDIPGLSSLSDTMIMDSIAAFVLPNRLVPLVPDLQDVVAQLRSPPLRGVVRILHLLAARLGSKDKYVKGGLIEGKSDPYALVRL

Trubripesesytl1a GTQIFTSHHIDSNLNPQWREMYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRVKVVDLDIVKKARVDDWFLNKDVPSPGSVHLRLEWLSLLSSAERLSEVIQKNQNL--SKTEBPPSAAILAIYVL
Trubripesesytlb GPQHFTSKHMDNTDSPKWNETYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRVVDLDIVKKARSIVDDWFLNKDTPESGRVHFRLEWLSLLPSTERLEQVILKRNESIT--SNAGDPPSAAILVYVL
Tnigroviridisesytl1a GTQIFTSHHIDSNLNPQWREMYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRVKVVDLDIVKKARVDDWFLNKDVPSPGSVHLRLEWLSLLSSAERLSEVIQKNQNL--SKTDPPSAAILAVYL
Tnigroviridisesytlb GPQHFTSKHVDNTNSPKWNETYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRVVDLDIVKKARVDDWFLNKDTPESGRVHFRLEWLSLLPGTDHLEQVILKRNESIT--SKAGDPPSAAILVYV
Gaculeatusesytl1a GTQIFTSHHVDSNLNPQWREMYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRVVDLDIVKKARVDDWFLNRDQVTPSGVHLRLEWLSLLSSADRLESEVIQKNQNL--TKTADPPSAAILAVYL
Gaculeatusesytlb GPQTFTSKHVDNTDSPKQWETIYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRVVDLDIVKKARSIVDDWFLNKETPSGRVHFRLEWLSLLPSTDRLEQVILKRNESVT--SKTDPPSAAILVYVL
Olatipesesytl1a GTQIFTSHHVDSNLNPQWREMYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRVVDLDIVRKARIVDDWFLNKDVPSPGSVHLRLEWLSLLSSADRLESEVIQKNQNL--TKTSBPPSAAILAIYVL
Olatipesesytlb GPQTFTSKHIDNTDCPKWGETYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRVVDLDIVGKNSIVDDWFLTKESSSGRIHFRLEWLSLLPNTDKLEQVILKKSQAVT--GKNLEPLSSAVLVYVL
Drerioesytl1a GTQIFTSHHVDNLNPQWREMYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRMKLDLGIVKKSIVDDWFLNKDASGGVHLRLEWLSLLSSAERLSEVLERNQNTVPSKTDPPSAAVLTVYVL
Drerioesytlb GPQTFKSHLDNTLSPKWGEVYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRMKLDLGIVKKSIVDDWFLNKDQTPGRVHLKLEWLTLEHTERLKEVILKRNESV--SKAAEPPSAAILAVYL
Xtropicalisesytl1 GTQVFNSQIINENLNPVWREMYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRMKIDLGIVKQHSGLDKWFLPSDTKSGRHLRLEWLTLMNSASQLKKEILEINREIT--AKTQEPSSAAILIVYL
Acarolinensisesytl1 GTQVFTSKVIDENLNPKNWREMYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRMKLDLGIVKQHSGLDKWFLPSDQGGRRVHLRLEWLTLMSDTSKLDQVQLQWNKTL--TKP-EPPSAAILVYVL
OanatinusEsytl1 GTQVFCRSRVVDNDLNPQWGETYEK-----XWFPQLQ-GGPGQVHLRLEWLTLPDTPDKLDQVQLQWNRGV--SSRPDPPSAAILVYVL
MmusculusEsytl1var1 GTQTFCSRVIDEELNPWGETYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRMKLDVGVKVLQAGVLDWYPLQ-GGQGQVHLRLEWLSLLPDAEKLDQVQLQWNRGIT--SRP-EPPSAAILVYVL
MmusculusEsytl1var2 GTQTFCSRVIDEELNPWGETYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRMKLDVGVKVLQAGVLDWYPLQ-GGQGQVHLRLEWLSLLPDAEKLDQVQLQWNRGIT--SRP-EPPSAAILVYVL
HsapiensESYtl1var1 GTQTFCSRVIDEELNPQWGETYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRMKLDVGVKVLQASVLDWYPLQ-GGQGQVHLRLEWLSLLSDAEKLEQVQLQWNWGV--SRP-DPPSAAILVYVL
HsapiensESYtl1var2 GTQTFCSRVIDEELNPQWGETYEVIIVHEVPGQELEVEVFDDKDPDQDDFLGRMKLDVGVKVLQASVLDWYPLQ-GGQGQVHLRLEWLSLLSDAEKLEQVQLQWNWGV--SRP-DPPSAAILVYVL

500 600

Trubripesesytl1 DQAQDLF-----MRKGNKDPSPMVQISIQDTTRESKTCYGTNSPIWSDAFTFFIQDPSKQDIDIQVKKDDDRALSLGTLTIPLMRLLGSPLELTMQWQFQLENSSGSASRIYVKIVLRVVLWL

Trubripesesytlb DKAEEFLP-----MKKGNQEPNPVHLSVQDTTKRESKTCYTTTSPPEWEAFTFFIQDPSKQDIDIQVKKDDDRALSLGTLTIPLMRLLGSPLELTMQWQFQLENSSGSASRIYIKAVLRVVLWL

Tnigroviridisesytl1 DQAQDLF-----MRKGNKDPSPIVQISIQDTTRESKTCYGTNNPIWSDAFTFFIQDPSKQDIDIQVKKDDDRALSLGTLTIPLMRLLGSPLELTMQWQFQLENSSGSASRIYIKIVLRILWL

Tnigroviridisesytlb DKAEEFLP-----TKKGNKEPNPLVQLSVQDTTKRESKTCYGTNNPIWSDAFTFFIQDPSKQDIDIQVKKDDDRALSLGTLTIPLMRLLGSPLELTMQWQFQLENSSGSASRIYVKAVLRVVLWL

Gaculeatusesytl1 DQAHALP-----MRKGNKDPSPMVQISIQDATKESKTCYGTNGPVWEAFTFFIQDPSKQDIDIQVKKDDDRALSLGSLSIPLSRLLAAPLELTMQWQFQLENSSGSASRIYIKIVLRVVLWL

Gaculeatusesytlb DKAHALP-----MKKGNQEPNPVHLSVQDTTKRESKTCYTTINPEWEAFTFFIQDPSKQDIDIQVKKDDDRALSLGTLTIPLSRLLSNSNLSDQWQFQLENSSGSASRIYINTVLRVVLWL

Olatipesesytl1 DQGFELP-----MRKGSKFPSMAQISIQDTTKRESKTCYGSNSPVWEAFTFFIQDPSKQDIDIQVKKDDDRALSLGTLTIPLNRLLSSTDLTLQWQFQLENSSGSASRIYAKIVLRILWL

Olatipesesytlb DKAHALP-----MTKGNKEPNPTVHISVQDTTKRESKTCYTTIDPEWEAFTFFIQDPSKQDIDFQVKKDDDRALSLGSLRIPLPRIEESLSDQWQFQLENSSGSPASRIYVNAVLRVVLWL

Drerioesytl1 DRAQDLF-----MKKGNKDPSPMVQISVQDTTKESKTCYGTNNPAWEAFTFFIQDPSKQDIDIQVKKDDDRALSLGSLYIPMSRLLSSPELTMQWQFQLENSSGSPASRIYITAMLRVVLWL

Drerioesytlb DKAHALP-----MKKGNKDPSPIVQISVQATRDSTRICWNTVNPQWEAFTFFIRDPNNQDISVQVKKDDDRALSLGSLKMSIPASRLLSHDPLSMDEWYNLENSSGPKSRHINTVLRVVLWL

Xtropicalisesyt1 DRAQDLF-----LKKNVKEPSPMVQLSIQDMTRESKTPVSSSSPVWEAFTFFIRDPNNQDISVQVKKDDDRALSLGSLSVPLSRILSADDLTLQWQFQLENSSGSPASRIYMKLVMRILHL

Acarolinensisesyt1 DRAQELP-----LKKSKKEPNPMVQLSVHDVTRESKTVVYNTVSPIDWDAFRFFLQDPTAEDIDIQVKKDDDRALSLGSLTIHLRLLNADDLTLQWQFQLENSSGSPASRIYMKVVMRILYL

OanatinusEsytl1 DRAHDLF-----LKKGNKEPNPMVQLSVQDVTQESKATYNTNSPVWEAFTFFIRDPNNQDISVQVKKDDDRALSLGSLTIPLSRLLSADDLTLQWQFQLENSSGSPASRIYMKLVMRILYL

MmusculusEsytlvar1 DRAQDLF-----LKKGNKEPNPMVQLSVQDVTRESKATYSTNSPVWEAFTFFIRDPNNQDISVQVKKDDDRALSLGSLTIPLSRLLSADDLTLQWQFQLENSSGSPASRIYMKLVMRILYL

MmusculusEsytlvar2 DRAQDLF-----LKKGNKEPNPMVQLSVQDVTRESKATYSTNSPVWEAFTFFIRDPNNQDISVQVKKDDDRALSLGSLTIPLSRLLSADDLTLQWQFQLENSSGSPASRIYMKLVMRILYL

HsapiensESYTLvar1 DRAQDLF-----LKKGNKEPNPMVQLSVQDVTQESKATYSTNSPVWEAFTFFIRDPNNQDISVQVKKDDDRALSLGSLTIPLSRLLSADDLTLQWQFQLENSSGSPASRIYMKLVMRILYL

HsapiensESYTLvar2 ● DRAQDLF MVTSELYPPQLKKGKKEPNPMVQLSIQDVTQESKATYSTNSPVWEAFTFFIRDPNNQDISVQVKKDDDRALSLGSLTIPLSRLLSADDLTLQWQFQLENSSGSPASRIYMKLVMRILYL

700

Trubripesesytl1 SDEATPTTPSPRPSASGNQGGQSIFPSNQNTMGSSGLGKPLLTRPQHTSPDPEFATE

Trubripesesytlb DEER-----ISSNTASNLEA-GLSKELPHQTSPPHSFATEGLLRRIHLLAGQNLIPKDNLMGGMVKGKSDPYVKINVGGETFTSQVVKGNLNPWNEMYEVILTQLPG

Tnigroviridisesytl1 SDEASPTAPSPRPSAPGNQGFQSVFPSTLNSQSSGSGKAPPSRPQHTSPDPEFATE

Tnigroviridisesytlb DEER-----VSSNVASDLEA-GVSKQLPQQTSPHPSFATEGLLRRIHLLAGQNLIPKDNFMGGMVKGKSDPYVKINIGGETFTSQVVKGNLNPWNEMYEVILTQLPG

Gaculeatusesytl1 NDDATPTTPSPRPLAPGPGGLQGQGITSEMNPMPGGLAKPQSTRPQHTTPDAEFATE

Gaculeatusesytlb DEER-----VATDVSTLES-GMSRQLPQQTSPHSSFATEGLLRRIHLLAGTNLIVPKDNLMGGMVKGKSDPYVKINIGGETFTSVRVIKSNLNPWNEMYEVILTQLPG

Olatipesesytl1 SDDVTPTTPSPRPSGSGSEVGQGGITSDLSAPGPGGLNKFPQTPQHTTPDPEFATE

Olatipesesytlb DEEN-----IKSDVSSGVAA-AMQKPLPQKSSPHPSFATEGLLRRIHLLAGQNLIVPKDNWIGSMLKGKSDPYVKISIGGETFTSQTIKENLNPWNEMYEVILTQLPG

Drerioesytl1 NEDAILT--SPVSPIPGEGYGETEVSSGATKV-----TATPKRPEHTSPDSNFASE

Drerioesytlb DEEA-----VTASLLSSGPL-SKSSR-PEKTTPHSSFATEGLLRRIHLLVEGQNLIVAKDNLMGGMVKGKSDPYVKIQIGGETFTSKSHVIKENLNPWNEMYEVVLTQLPG

Xtropicalisesyt1 DPSNTLVNADP-----ESIIAEEA-----GSSVDKPPRPNQTTFFPEKFATE

Acarolinensisesyt1 DAPEVCIKTRPCPPGQLDV-IESANL-----GSSVDQPPRPPTKASPDFAEFGTE

OanatinusEsytl1 DTSSVHFPLTPSSPGTTETSGESFHP-----GSSVDHPPRPPTHTSPDGHFGTE

MmusculusEsytlvar1 DYSEIRFPTVPG---AQDWDRESLET-----GSSVDAPPRPYHTTPNSHFGTE

MmusculusEsytlvar2 DYSEIRFPTVPG---GAQDWDRESLET-----GSSVDAPPRPYHTTPNSHFGTE

HsapiensESYTLvar1 DSSEICFPTVPGCPGAWDVSSENPRQ-----GSSVDAPPRPCHTTTPDSQFGTE

HsapiensESYTLvar2 DSSEICFPTVPGCPGAWDVSSENPRQ-----GSSVDAPPRPCHTTTPDSQFGTE

800

Trubripesesytlb QELHLEVFYDMDMKDDFMGRKLGKLDIIDSQYTDQWFSLNDVKSGRVHLTLEWVPTASEARSLDQVLQFHSRQSFQNKAVPSAALLFVFLVEQANDLFLKKSQKPKVGAEVTLGKLSQKTTV

Tnigroviridisesytlb QELHLEVFYDMDMKDDFMGRKLGKLDIIDSQYNDQWFSLNDVKSGRVHLTLEWVPTVSESQFLDQVLQFYSKQSFQNKAVPSAGLLFVFLVEQANGFLKKSQKPKVGAETLGKLSHKTIV

Gaculeatusesytlb QDLQIEVFYDMDMKDDFMGRKLGKLDIIDSQYTDQWYFSLNDVKSGRVHLTLEWVMAASQSDRLDQVLQFYSRQSFQNKAVPSAGLLFVFLVEQADSLFLKKSQKPKVGAEVTLGKLSHKTIV

Olatipesesytlb QELHLEVFYDMDMKDDFMGRKLGKLDIIDSQYADQWYFSLNDVKSGRVHLTLEWVPTSEADRLDQVLQFYSRQSFQNKAVPSAGLLFVFLVEQAYGLFLKKSQKPKVGAELILGKLSHKTIV

Drerioesytlb QELTLEVFYDMDMKDDFMGRKMSLSDIISQYINEWFSLSDVKRGRVHLALEWLPVTVTKEPLQQLVLFHFSKSSFLNKAVPSAALLFVFLVEQAYELFLKKSQKPKVGAELVLGGTSRKTIV

900

Trubripesesytlb SDRTTSPQWNEAFCFLVQDPKEDILVVKLSHSHWALPISGLVVPVKQLLSEPELILDQWNLNDGASPEQIILLRAELKMLIPSKCPVTADKAKATSASQSPAPQKQETDVTVERSAASISPPVET

Tnigroviridisesytlb SDRTTSPQWNEAFCFLVQDPKEDILVVKLSHSHWALPISGLVVPVKQLLSEPELILDQWNLNDGASPEQIILLRAELKMLIPSKCPVTADKAKATSASQSPAPQKQETDVTVERSAASISPPVET

Gaculeatusesytlb CDRTTSPQWNEAFCFLVQDPKEDILVVKLSHSHWALPISGLVVPVKQLLSEPELILDQWNLNDGASPEQIILLRAELKMLIPSKCPVTADKAKATSASQSPAPQKQETDVTVERSAASISPPVET

Olatipesesytlb CDRTTSPQWNEAFCFLVQDPKEDILVVKLSHSHWALPISGLVVPVKQLLSEPELILDQWNLNDGASPEQIILLRAELKMLIPSKCPVTADKAKATSASQSPAPQKQETDVTVERSAASISPPVET

Drerioesytlb CDRTTSPQWNEAFCFLVQDPKEDILVVKLSHSHWALPISGLVVPVKQLLSEPELILDQWNLNDGASPEQIILLRAELKMLIPSKCPVTADKAKATSASQSPAPQKQETDVTVERSAASISPPVET

1000

Trubripesesytlb LVSSSEISPANLDIKEMTPAVMEETVEEVPTPAVVQPPHTSPKPSFAGEGLLRRIILLEAQSLIAKDNMMGMVKGKSDPYAKISVGEFMPKSNVIKENLNPVWNEMYEVVVLKPESEQEQVKVELF

Tnigroviridisesytlb VASSKNLPEDLDIKEMTPAVIEETAKAAPTAVVVQPPHTSPKPSFAGEGLVRRIILLEAQSLIAKDNMMGMVKGKSDPYAKISVGEFTFKSSVIKENLNPVWNEMYEVVVLKPESEQEQVKIELF

Gaculeatusesytlb IASSASLHESVDVKKMAADVTEDKVEELPSPPTTQPPHTSPDFSFAGEGLLRRIILLEAQCLVAKDNMMGMVKGKSDPYAKINVGGAFLSNVIKENLNPVWNEMYEVVVLKPESEQEQVKVELF

Olatipesesytlb ITSSVISDEVIQGGKEVNDKDEELSPATMQPLHTSPHLSFAGEGLLRRIILLEAQCLVAKDNMMGMVKGKSDPYAKINVGGAFLSNVIKENLNPVWNEMYEVVVLKPESEQEQVKVELF

Drerioesytlb SRTSSVS---VPEEEEAEVET----QVSSSDDLRLPLHTSPDFSFAGEGLVRRIILLEAQCLVAKDNMMGMVKGKSDPYAKIHIGDFTFKSHVVIKENLNPVWNEMYEVVLTSSSSS-EVLVEVF

1100 1200

Trubripesesytlb DKDMDKDDFLGRVNIISVGDIIINSQYTDQWYTLNDVKSGRVRLIMEWVQTVSHGATLDQVMQMQSHQSYHNKTVPAAALLFVLVDRANLLPLKKSQKPKVGAELVCGNATFKTKVCDRSRSPQW

Tnigroviridisesytlb DKDVKDDDFLGRVSVSVEDIIINSQYTDQWYTLNDVKSGRVRLILEWVQTVSHGATLDQVMQMQSHQSYHNKTVPAAALLFVLVDRANLLPLKKSQKPKVGAELVCGNATFKTKVCDRSRSPQW

Gaculeatusesytlb DKDMDKDDFLGRCKISVADVIRSQYTDQWYTLNDVKSGRVRLILEWVQTVSHGATLDQVMQMQSHQSYHNKTVPAAALLFVLVDRANLLPLKKSQKPKVGAELVCGNATFKTKVCDRSRSPQW

Olatipesesytlb DKDLNKKDDFLGRFKICVSDIIISQYTDQWYTLNDVKSGRVRLILEWVQTVSHGATLDQVMQMQSHQSYHNKTVPAAALLFVLVDRANLLPLKKSQKPKVGAELVCGNATFKTKVCDRSRSPQW

Drerioesytlb DKDMDKDDFLGRMKISLQEIISQYTDQWYTLNDVKSGRVRLILEWVQTVSHGATLDQVMQMQSHQSYHNKTVPAAALLFVLVDRANLLPLKKSQKPKVGAELVCGNATFKTKVCDRSRSPQW

1300

Trubripesesytlb SEAFYFVVDHPQREMLIVKLSAARDQPMGSLVLPVVRQLLSQPQLVLDEWMPLDGALPDSKILLRAELKILNSMMIEAPQ-PAVTASKEE--ELLEIKPDAEH-PAQTEAGREEDLEEM-TEEDA

Tnigroviridisesytlb SEAFHFLVVDHPREEMLIKLSAARDQPMGSLVLPVVRQLLSKPQLVLDEWMPLDGALPDSKILLRAELKILNSMMIEAPQ-PAMTDSKEE--ELLEIKPQVEP-PSQ--AGKKGDRLDLQVKDS

Gaculeatusesytlb DEAFYFQVRNPRQEMLIKLSAARDQPMGSLVLPVVRQLLSKPQLVLDEWMPLDGALPDSKILLRAELKILNSMMIEAPQ-PSAPGSKKD--PTFKHSEAADAAAPAEADISAEPAIDTERDIT

Olatipesesytlb SEAFHFLVVDHPREEMLIKLSAARDQPMGSLVLPVVRQLLSKPQLVLDEWMPLDGALPDSKILLRAELKILNSMMIEAPQ-PSAPGSKKD--PTFKHSEAADAAAPAEADISAEPAIDTERDIT

Drerioesytlb SEAFHFLVVDHPREEMLIKLSAARDQPMGSLVLPVVRQLLSKPQLVLDEWMPLDGALPDSKILLRAELKILNSMMIEAPQ-PSAPGSKKD--PTFKHSEAADAAAPAEADISAEPAIDTERDIT

Trubripesesytlb DMGDLAHATVMGLPAETVGPAAEVPDVRAAGEVLPQHTAPGLEFGKE

Tnigroviridisesytlb DLSNLAHATVTGLPAETVGPAAEIPQ---AGEVLPRRRTAPGLNFGKE

Gaculeatusesytlb GLGNLAQATVTSPLADTVGPADDTEIPNARETLQPHHTTPQKHFGE

Olatipesesytlb TMEDLAQSTFSGLPTDKKPSAKVSEIPKAETALQSRRTTTPRDFGKE

Drerioesytlb HKSSSPSV-----PAEETKVTSSTDTTRPQKTSHNSNFGTK

1400

Trubripesesytl1	G	V	L	R	I	H	L	M	E	A	Q	N	L	I	A	K	D	N	F	M	G	G	M	V	K	G	K	S	D	P	Y	V	K	I	R	V	A	G	I	T	Y	R	S	H	T	I	K	E	N	L	N	P	T	W	N	E	L	Y	E	V	I	L	T	Q	L	P	G	Q	E	I	Q	F	E	L	F	D	K	D	I	Q	D	D	F	L	G	R	F	K	L	N	L	R	D	I	S	A	Q	F	
Trubripesesytl1b	G	V	L	R	I	H	L	L	E	A	Q	N	M	V	A	K	D	N	L	M	G	G	M	V	K	G	K	S	D	P	Y	V	K	I	N	I	G	T	V	F	K	S	H	V	I	K	E	N	L	N	P	T	W	N	E	M	Y	E	L	V	L	R	G	N	R	D	H	E	I	K	F	A	Y	D	K	D	L	N	D	D	F	L	G	R	F	S	V	R	L	N	E	V	I	R	S	Q	Y		
Tnigroviridisesytl1a	G	V	L	R	I	H	L	V	E	A	Q	N	L	I	A	K	D	N	F	M	G	G	M	V	K	G	K	S	D	P	Y	V	K	I	R	V	A	G	I	T	Y	R	S	H	T	I	K	E	N	L	N	P	I	W	N	E	L	Y	E	V	I	L	T	Q	L	P	G	Q	E	I	Q	F	E	L	F	D	K	D	I	Q	D	D	F	L	G	R	F	K	L	S	L	R	D	I	S	A	Q	F	
Tnigroviridisesytl1b	G	V	L	R	I	H	L	E	A	Q	N	L	V	A	K	D	N	L	M	G	G	M	V	K	G	K	S	D	P	Y	V	K	I	S	I	G	A	V	F	K	S	H	V	I	K	E	N	L	N	P	T	W	N	E	M	Y	E	L	V	L	N	G	H	T	D	H	E	I	K	I	A	Y	D	K	D	L	N	D	D	F	L	G	R	F	S	V	R	L	N	E	V	I	R	S	Q	Y			
Gaculeatusesytl1a	G	V	L	R	I	H	L	V	E	A	Q	N	L	I	A	K	D	N	F	M	G	G	M	V	K	G	K	S	D	P	Y	V	K	I	R	V	A	G	I	T	F	R	S	H	T	I	K	E	N	L	N	P	T	W	N	E	L	Y	E	V	I	L	T	Q	L	P	G	Q	E	I	Q	F	E	L	F	D	K	D	I	Q	D	D	F	L	G	R	F	K	L	N	L	R	E	I	S	A	Q	F	
Gaculeatusesytl1b	G	L	L	R	I	H	L	L	E	A	Q	H	L	V	A	K	D	N	L	M	G	G	M	V	K	G	K	S	D	P	Y	V	K	I	N	I	G	T	V	F	K	S	H	V	I	K	E	N	L	N	P	T	W	K	E	M	Y	E	L	V	L	S	E	H	S	V	Q	E	I	K	V	E	A	F	D	K	D	L	D	A	D	D	F	L	G	R	F	S	I	K	L	N	E	V	I	R	S	Q	Y
Olatipesesytl1a	G	V	L	R	I	H	L	V	E	A	Q	N	L	I	A	K	D	N	F	M	G	G	M	V	K	G	K	S	D	P	Y	V	K	I	K	V	A	G	I	T	F	R	S	H	T	I	K	E	N	L	N	P	T	W	N	E	L	Y	E	V	I	L	T	Q	L	P	G	Q	E	I	Q	F	E	L	F	D	K	D	I	Q	D	D	F	L	G	R	F	K	L	S	L	R	D	I	S	A	Q	F	
Olatipesesytl1b	G	V	L	R	I	H	L	E	A	K	N	L	V	A	K	D	I	V	L	G	--	--	K	G	K	S	D	P	Y	V	K	I	N	I	G	T	F	M	F	K	S	H	V	I	K	E	N	L	N	P	T	W	N	E	M	Y	E	L	V	L	S	G	N	H	D	Q	I	K	F	A	F	D	K	D	L	N	S	D	D	F	L																		

1500 1600

Trubripesesytl1 IDTWYTLNDVKGSGQVHLVLEWLPVSELNRLEQILQYQAQQSYQNKVVPSSAMLFVYVERAHGLFLKKNKGKPKVGADVLLKNVSHRTKVCERSTSPRWDEGFHFLVRDPKEETLTVKLSHSWG

Trubripesesytlb TDQWYTLNDVKGSGKVHLILEWVPAVSHPVRLDVLQLQSLQSFQNKAVPAAALFLIHLEGAHSLPLKKSCKEPKAGAEVLVGETTYKTQLCDRSTSPQWNESFYFLVHDPKQLMLIVKLSGSGWD

Tnigroviridisesytl1 IDTWYTLNDVKGSGRVHLVLEWLPVRSDLRLELILQYVQQSYQNKVVPSSAMLFVYVERAHGLFLKKSCKEPKVGADVLLRNVSHTKVCERSTSPRWDEGFHFLVRDPKEETLTVKLSHSWG

Tnigroviridisesytlb TDQWYTLNDVKGSGVHLILEWVPAVSHAPRLDVLQLQALQSFQNKAPAAALFLVYVERAHSPLKKSCKEPKAGAEVLVGETRYKTQLCDRSTSPQWNESFYFLVHDPKQHMLIVKLSGSGWD

Gaculeatusesytl1 IDTWYTLNDVKGSGRVHLEWLPVRADLPRLDQILQYQQSYHNKLPVSSALLFVYVERAHGLFLKKNKGKPKVGAETLTGKVSHTKVCERSTSPRWDEAFHFLVRDPREDTFLSVKLSHSWG

Gaculeatusesytlb TDQWYTLNDVKGSGRVHLILEWVPTVSHSVRLDQVLQLQSLQSYQNKAVPAAALFLVHLERAHSLPLKKSCKDPKAGAEVLVGETTYKTQLCDRSTNPQWNECFYFLVHNPKDQMLVVKLSGSGWD

Olatipesesytl1 IDSWYTLNDVKGSGRVHLVLEWLPVRSDLRLEQVLQYQQSYQNKAVPSAALFVYVERAHGLFLKKNKGKPKAGVEALKGVSFKTKICERSTSPRWDEAFHFLVRDPDTELTVTVKLSHSWG

Olatipesesytlb TDQWTLNDVKGSGQVHVLWEWVPTVSSSIRLDQVQLQSLQSYQNKAVPSAALFVYVIAQAQSLPLKKSCKEPKAGAEVLVGEASSTKQLCDRSANPQWNESFHFVVRDPKQRTFLIVKLSGSGWD

Drerioesytl1 TDQWYTLNDVKTGRILHLVLEWVPKISDPIRLEQILQYNRQSYLNKIVPSAALFVYIERAHGLFLKKSCKEPKAGAEVSLKNVSYRTKVVNRSTSPQWDEALHFLIHNPETDTLIVKLSHSWG

Drerioesytlb NDEWYTLNDIKHGRVHLVLEWLPVTVTQRDKLEQVQMOMQSSQSYQNKSVASAAALFLILLDRAHGLPLKKSCKEPKAAEELTGGTSYKSKVCERSSSPHNWETDFFLVHDPKKDVLVLIKLSHSAWD

Xtropicalisesytl1 IDEWLPLEKVGSGKLHVKLECLSLDADQQLDQVLMNLSNQPAHSDNFSAAALFVFIERANGLMRKRGDKNPPSPSAELKIRKDIYKTKVAQNTNAPAAWEEFSVFLLTTPHSELELMIRDEGK

Acarolinensisesytl1 VDEWLPLEDVKGSGRLHVKLECLPPTYSAAELEQVLIVNSLIQTQPKSEELSSALLSVFLDRAADLPLMRKSGSKPPSPFVSLSVRGISYKTKVSSQTADPVWDEAFSFLIKKPHAESLELOVKDDGH

OanatinusEsytl1 MDEWLILEDVSSGRLHLRLERLSPRPSTAAELEQVLQVNSLIQTQNKSTELAAALLSVYLEHADLPL-----

MmusculusEsytl1var1 LDEWLTLEDVPSGRLHLRLERLTPRPTAAELEEVQLQVNSLIQTQKSSELAALLSVFLERAEDLPLRKGTKPPSPYATITVGETSHKTKTVSQSSAPVWEESASFILIRKPHAESLELOVRGEGT

MmusculusEsytl1var2 LDEWLTLEDVPSGRLHLRLERLTPRPTAAELEEVQLQVNSLIQTQKSSELAALLSVFLERAEDLPLRKGTKPPSPYATITVGETSHKTKTVSQSD--APLLRTGERRLDQVPVPAHPNPSVSNRLS

HsapiensEsytl1var1 LDEWLTLEDVPSGRLHLRLERLTPRPTAAELEEVQLQVNSLIQTQKSAELAALLSIYMERAEEDLPLRKGTKHLSPYATITVGDSSHKTKTISQTSAPVWDESASFILIRKPHTESLELOVRGEGT

HsapiensEsytl1var2 LDEWLTLEDVPSGRLHLRLERLTPRPTAAELEEVQLQVNSLIQTQKSAELAALLSIYMERAEEDLPLRKGTKHLSPYATITVGDSSHKTKTISQTSAPVWDESASFILIRKPHTESLELOVRGEGT

1700

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Trubripesesytl1 QALGSLTLPLRDVLLEPGMVLDRWINLDGALPESQILLRVMLKILDTQ-----LVACRR---NADGEISGDDVIPRWVPSHLDIRQRTAFSMGSDNMNPTS--QVKLTIGYSTEARLF
Trubripesesytl2 QPMGSLVLPVKNNLLAAPQLVMDQWFHLDGALPESQVLLRAELKILDSK-----MLDL-----ISAGTLPCAAPIWGSTNG--QVKLTLSYSLOERQRLM
Tnigroviridisesytl1 QALGSLTLPLRDVLDPGMVLDLRFHNVVDGALPESQILLRVMLKILDTQ-----LVTCCR---DADGEVGGDDVIPRWVPSHLDIRQRTAFSGMSTDNANTAG--QVKLTIGSYAESRSLF
Tnigroviridisesytl2 QPMGSLVISVSKSLAEPQLLTDQWFLRDGALPDQVLLRAELKILDSK-----MVM-----ISSGTLPCAPIWGSGNG--QVEVTLTISYSPERQRLM
Gaculeatusesytl1 QALGSFTTIPLEVLFEPEGVLDRWINLDGALPESQILRLATLKVLDTO-----LALCRRAPGDVGNDDGGEGEGLPRWVPSHLDLRH---FSM-AESTNSAG--QVKLTVGYSVESRSLF
Gaculeatusesytl2 QPMGSLVLPVNNLLAEPHLVLDQWFHLDGATPDQVLLRAELKVLHSHK-----MVM-----IGPGLTPCVA-----SGCG--QVKLTLSYALQERHLL
Olatipesesytl1 QALGSLTLPLKEVLSESGVLDRWLSLDGALPESQILLRVTLKVLDTQ-----LAVCRSGPVGAAANDADEETVFPKWDPHLDLRNRSRFSVSDNANTAG--QVKLTIGYSTENRLLF
Olatipesesytl2 EPMGSLVVPVRELLSEPELVLDRWFHLDGASAYQVLLRAELKILNTK-----MLHL-----IGTEALPCAA-----ASAG--QLKMSLTYPAQQKKLV
Drerioesytl1 QALGSLVLPVRELLLEEKDLTDRWFLSNGAMPESQILLRAELKILDSK-----LAQCS---DEEDASHVIPSAEPTVAANSELRHNRNPVQGGEDASSTGKAQIKLSISYSSBHRLLI
Drerioesytl2 QPMGSLVLPVIRELLLEKPDLLLDQWLSLDGASAQVLLRAELKILDSK-----MAAL-----VAMGSGPVLNKNQQTATTG--QIQLMSF---QKKLT
Xtropicalisesytl1 GSLGSLTVPLVDLLKKEDLTFMDGWFPLNTSGTYSSEVLIRLQMRVLVSP-----SPLKESEVDPKQPTIEDISLNKQSTEGELRQQLTNSDMESSAPFGQLCLTLYYPAPKDRGLV
Acarolinensisesytl1 -VLGSLSLPLTLQLVAEGLVLDQWFQLNNASPTTQILMRVQLGLVLSQHSQGEAFHVMGEDNEESSLKGETELYIQEDGDSRSMQELRQRMPHANSNLELSDSPLQLHLTVWYNIDARKLI
OanatinusEsytl1 -XPQRHRLGKLGQVKLTVWYYTEEQQLV
MmusculusEsytl1var1 GTLGSVSLPLSELLQEDQLCDHWFALS-GQG---QVLMRAQLGLVLSQHSQGEA-HSHSYSHSHSSSSLNDEPEALGGTPHPASPVLEVRHLTHGDSPEAPVGPLGQVKLTVWYHSDQKLI
MmusculusEsytl1var2 PNLRLPSGRRVPLFSSGSHTLRAWSCRFQGVKGPAWALYPFLSLSSSRITS-SAWTTLGLHSVVRARC
HsapiensEsytl1var1 GVLGSLSLPLSELLVADQLCLDRWFLTSSGQG---QVLLRAQLGLVLSQHSQGEA-HSHSYSHS---SSSLSEEPELSGGPPHITSSAPELRQRLTHVDSPLAPAGPLGQVKLTLWYYSERKLV
HsapiensEsytl1var2 GVLGSLSLPLSELLVADQLCLDRWFLTSSGQG---QVLLRAQLGLVLSQHSQGEA-HSHSYSHS---SSSLSEEPELSGGPPHITSSAPELRQRLTHVDSPLAPAGPLGQVKLTLWYYSERKLV

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1800

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Trubripesesytl1  ITVHACRALAACSKD GADPVVS FILLPDKKATTKRR TATKKRDLNPEFNERFD FDFSLEESYQRRLLDLSVKN-SVSFMSRERELIGKQLQDL EEDIDLKACVTQWYDLVAELN----
Trubripesesytl2  VVHACRGLLPQSKD ADVSVS LMLLPDKNKATKKKTAVKKRDQNP EYNERFEYDLPDLERFRRLSVTVKNN SASF--RSRDVIGQVQIELAQINLVAGVTDWFTLRDDAE----
Tnigroviridisesytl1 ITVHACRVLAAACSKD GADPVVS FILLPDKKATTKRR TATKKRDLNPEFNERFD FDFSLEESLQRRLLDLSVKN-SVSFMSRERELIGKLLDLE EIDLKACLTQWYDLVAELN----
Tnigroviridisesytl2 VVHACRGLLPQSKD GVDVSVS LMLLPDKNKATKKKTAVKKRDHNP EYNERFRYDLPDLERFRRLSVTVKNN SASF--RSRDVIGQVQIELAQVDTL AGVTDWFTLRDDDE----
Gaculeatusesytl1  ITVHSCRALAACSKD GADPVVS FILLPDKKATTKRR TATKKRDLNPEFNERFD FDFSLEESTQRRLLDLSVKN-SVSFMSRERELIGKQLQDL DQIDLKAGITQWYDLVAETN----
Gaculeatusesytl2  VIVHACRGLLSQSKD GVDVSVS LMLLPDKSKATTKRK TAVKKRDLNPEYNERFEYELSVDEMRFRKLLSVKNN SASF--RSRDIIGQVQIELAHVDLVSGVTA WFTLVKEAE----
Olatipesesytl1    ITVHSCRGLAPRSK D GADPVVS FILLPDKKATTKRR TTTAKKDLNPEFNERFE FDFSLESTRQKLYLVSKN-SVSFMSR EKELIGKQLQDL DQIDLKAGVAQWFDLV AETN----
Olatipesesytl2    VLVHACRGLLAQSKD GVDVSVS LMLLPDKTKATTKR TTA VKKDLNPEYNERFEFDLP EQEVPFKCLASVKNNS --F--RGKDVIGQVQVELAQMDLKS GITQWFDLDEAE----
Drerioesytl1      IKVHACRNLPSSSK EPPDSYS FILLPDKNRNTKKKT SVKKKSLKPEFNEI FEFDMSLEEAKQKHLEVS VKN-SVSFMSR EKELLGKQLQD FSPDLKLTGVSQWYDL SHETN----
Drerioesytl2      LLVHNCRGLVTSSK EPLDTPVS FILLPDKSKATTKR KTSVKKKTLNPEFNEKFE FDMSEEVQRREL SVCKNASS FMNRDKDVIGQVQIDLGHIDLSGVTQWFDLKEQN----
Xtropicalisesytl1 AIVSKGRNLCTSAK EPPDHYVS FVLLPDKSRSTKKKTSVKRRTHNPEFNEKFEWMSLEEARKKRLVSVKN-SVSFMSR EKELGKVLIDSDV DPLATQNGWYDVGPENTSV--
Acarolinensisesytl1 AIIHACRNLKSSAK DIPDPVVS LILLPDKSRVTKKR TAVRKKTLNPEFNEKFEWDLTLEEAQRKKLEAY IKN-SISFMSRG-EP I GKVHIDLSQKDLTQGAAGX-----
OanatinusEsytl1   SIIVHSCRALRQSGR DTPDPVVS LLLLPDKNKRASKKR TSPKKKTLNPEFNERFEW DMSLDEAMRRKLEVS VKS-NVSFMTRERELX-----
MmusculusEsytl1var1 SILHSCRALRQNGR DLPDPVVS VLLLPDKNRSTKKR TPQKKRTLNPEFNERFEW DLPDLGTLRRKLDVSVKS-NSSFMSREREL LGKVQLDLAEIDL SQGAAGWYDLMDDRDKGGS
MmusculusEsytl1var2 -----
HsapienESytl1var1 SIIVHGCRLRQNGR DPPPDPVVS LLLLPDKNRGTKKR TSQKKRTLSP EFNERFEWELPDLDEAQRKKLDVSVKS-NSSFMSREREL LGKVQLDLAETDLSQGVARWYDLMDNKDKGSS
HsapienESytl1var2 SIIVHGCRLRQNGR DPPPDPVVS LLLLPDKNRGTKKR TSQKKRTLSP EFNERFEWELPDLDEAQRKKLDVSVKS-NSSFMSREREL LGKVQLDLAETDLSQGVARWYDLMDNKDKGSS

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