

Cotesia 1 -----MCYVIVTGR  
 Bufo 1 -----MVSCM  
 Engystomops 1 -----MVSCM  
 Mus 1 -----ME  
 Homo 1 -----MLRG  
 Pan 1 -----MS  
 Actinia 1 -----MSAI  
 Homarus 1 -----ATSWAV  
 Pogona 1 MGRP RENFQALNCHPKDRTWRPAGR-----GEAGPSRVPQGSR-GSGS  
 Tyto 1 MLSV-----PVAVPGA--VAGAGAVRGAGSLPRRRTMC SGV  
 Gallus 1 ML-----SVPVP--VAGAGAARGTGSLPRRRTMC SGV  
 Crotalus 1 MPPRRK-----KKKKEEEEAGSGGQAALLPGRPAPSLASGRLPPAAAALPTMMFSGV  
 Rhinatrema 1 MHSVLD-----RKQKEA-----AGLRAARRMVGCV  
 Polypterus 1 MHSLF-----YRKKTS--V-----VVGLKVHPGTLQPDRMFS CV  
 Astyanax 1 MHSLLL-----SPKSKE--A-----GFGIDLSPGS--ARIMFSCV  
 Clupea 1 MHS-LL-----DRKKKE--A-----GIGFDLSPSPFPQAARMFSCV  
 Anguilla 1 MHS-LL-----DRKKKE--A-----GVGIDLSPSSLPQAPRMFSCV  
 Pecten 1 -----MISFV  
 Pomacea 1 -----MPSPV  
 Mytilus 1 -----MISPV  
 consensus 1 m s v

Cotesia 10 SLLWSLLSLVALMAV---FSALITPKWIVGPPKTKDTQNGTEL-----YPTAG  
 Bufo 6 GSLWVTLSEFILSLIL---AFSLMSSSAWFKHDKT-----TFG  
 Engystomops 6 GSLWVALSIIISLIL---GFSLMSSSAWFKNDNT-----SFG  
 Mus 3 VGVRAALGLSLTGMS---GLSLISPAWFQSLSS-----SYG  
 Homo 5 LRSWSMSRGASTCP-----CPSQHP-----  
 Pan 3 SSVVALGLSLTCTTS---AFSLISPAWFQPTTF-----SFG  
 Actinia 5 SVLWTVLTVVFTLLC---SIAIVSPFWFENVLDPDT-----FTPDNSSFAAFG  
 Homarus 15 VGLWAGVTLVALA---SLAALFTPTWVVRHSP-----SPPVMFSG  
 Pogona 43 GAFFLRLLRRPWPPPARLTEEAAILSTTVAAQAEVAVTTGAGASATAALGGLPGSPEVSFG  
 Tyto 35 GCFWALLSAGLLAAC---AAAFSPAWLLPPG-----RAAAGFG  
 Gallus 31 GCFWALLSAGLLAAC---AAAFSPAWLLPPG-----RAAAGFG  
 Crotalus 53 GCFWVLLSSCLLAVC---SLGFLSPAWIVRPRGGGRRWGSPPASVEAVGGVGEVSFG  
 Rhinatrema 26 GCFWVLLSSCLLAVC---SFSFISPAWIVRGGGGFQ-----QREPVSFG  
 Polypterus 34 SCFWVLLSSALVAIC---SFSFISPAWIVKERL--R-----NEEAVSFG  
 Astyanax 32 GCFWVLLSSALVAVC---SFSFISPAWIVKDHL--R-----GEDSVSFG  
 Clupea 34 GCFWVLLSSALVAVC---SFSFISPAWIVKEHL--K-----NKDSVSFG  
 Anguilla 34 GCFWVLLSSALVAIC---SFSFISPAWIVKDHL--K-----NKDSVSFG  
 Pecten 6 SYIWLITLALVAVTC---AFSLLQPFWIIHPDG-----IHVSFG  
 Pomacea 6 LLLWSLLSVLVAGTC---TETFLQPFWLVHSDL-----LHAFSG  
 Mytilus 6 LIIWAFSLVLSGLT---TYAEVQPVWLVGSNL-----LDTFSG  
 consensus 61 g l w v l l s l g i c f s f i s p a w i v h s f g

Cotesia 56 IFNRC TMLFN-----RIHCANFNIDGLATDSNVFPGCWKASLFFLALGLSVMAL  
 Bufo 39 VFVQCAGEISS-----PCNQTCI--T--F-RTLEEIPDMSWKISAVILFIGWLLLSF  
 Engystomops 39 VFVQCAGEISS-----PCNQTCI--G--F-RTLEEIPDVSWKISAVILFAGWLLLSF  
 Mus 36 IFTYCSWPPGD-----CWNQSCV--T--FG-SLKDMPSLAWKVSAAATLLGGWLLLSI  
 Homo 26 ---FCLFLAGL-----SCDAPRRLAP--VGLQCNFPPVSSLQVSAVMLLGGWLLLAF  
 Pan 36 ILTYCSWPQGN-----SWNQSC--VT--F-SSLEDIPDFAWKVSAMMLLGGWLLLAF  
 Actinia 50 LLRYCSKKHIKSVLDMDEWRDFETCSFYG----SFQDIPSLFWQFSIIFYGVGLLFLCLC  
 Homarus 52 VWAWCVGGLN-----EQRC AAVGQGVGDHSGALPSAVWVMVGAVYGGGALLAV  
 Pogona 103 LLWHCSETL-----QSLPD CYAFG--GLGRFSQMPSGSWQTSAVLCAGGCALLAL  
 Tyto 71 LLWRCAGPP-----RGCHGSA--GPGGFGDIPSGSWQTSAVLCAGGCVLLAL  
 Gallus 67 LLWRCSGPP-----RGCHGSA--GPGGFGDIPSGSWQTSAVLCAGGCALLAL  
 Crotalus 109 LLWHCSEAATAA-----ARHVEPCDGLG--GLGGFGRIPASWQTSAVLCAGGCALLAF  
 Rhinatrema 67 LLWHCSEGR-----DRTSGCYTFG--GLGQFNEIPSSWQTSAVLCAGGCALLAL  
 Polypterus 73 LLWRCSESS-----DHRYGCYTFA--GMGRFAEIPSSWQTSAVLCAGGCVLLAI  
 Astyanax 71 LLWHCSESL-----DHMYRCYTFG--GLGRFAEIPSSWQTSAVLCAGGCALLAV  
 Clupea 73 LLWHCSESM-----DHMYRCYTFG--GLGRFDEIPSSWQTSAVLCAGGCALLAV  
 Anguilla 73 LLWHCSESL-----DHMYRCYTFG--GLGKFAEIPSSWQTSAVLCAGGCALLAV  
 Pecten 41 IYVYCKGSELVGASS---DLTNRMC SFYG--GQLSVVSIIPSGAWQATFLLFSTGCAILLA  
 Pomacea 41 LVAYCYSGSSH-----DDRETCSAYG--GNFRLGSIIPSGAWQAACVLYGAGCVLACL  
 Mytilus 41 MISLCLSRTVFPGG-----SLKQCEFYG--GYFNLGNIIPSGAWQAACVLYGAGCVLLSC  
 consensus 121 ll rCs c fg g a f eips swq savl gGclllal

Cotesia 105 TVFAALLGCCVQS-IGRKSIFNLAGVAQAIAGILYLMGMILYPAGWGAPRVRRI CGDAS-  
 Bufo 86 GAVLVLSWTVIPAGLCORRLCTPARHTQIIAVAVTIIIGLLFPVSLRSTFAKQICNSSL-  
 Engystomops 86 GALLVLSWTVIPAGLCORRKICTPARHTQIIAVAATILGLLFPISLRSTFAKQICNSSL-  
 Mus 83 SALLLSAWALAPRRLEFARTGFGPTPVVQAAAASVSLVGLLVFPATLASPFKEICEGSS-  
 Homo 73 NAIFLLSWAVAPKGLCPRRSSVPMGPVQAVAATAMIVGLLIFPIGLASPFKEICEASS-  
 Pan 83 NAIFLLSWAVAPKGLCPRRSSVPMGPVQAVAATAMIVGLLIFPIGLVSPFVKEICEASS-  
 Actinia 105 SVVLAHVSCCRKTCIGSRSVFVAGVLOAIAVVCLVVSLLLPFGFGTINFEVKEYCGPSG-  
 Homarus 101 TGLAALLTPVLPHTHARAALAHVAGNIQAAVSLQAVGLVLYPLGLGSPFARLQCGDSAS  
 Pogona 151 SLLAVVVLFLPSGQCERRACFLAGYIQMAAVFIMGFLLVYPPFGLSATVRRYCEDAS-  
 Tyto 116 SLLAIVAVLLPGGACERRVCTLAGYMQTAAVFIMASGLLVYPPFGFNSATVKRF CENS-  
 Gallus 112 SLLAIVAILLPSGACERKVCTLAGYMQTAAVFIMASGLLVYPPFGFNSATVKRF CENS-  
 Crotalus 161 SALLAVIVLFLPSGQCERRFCTLAGYIQTAAVFIMGFLLVYPPFGLGSSAVRTHCEDSS-  
 Rhinatrema 115 SLLAVVTVFLPSGLCEKRLCTLAGYMQMAAVFIMASGLLVYPPFGLNSATVKRY CENS-  
 Polypterus 121 SLLAIIITVFLPSGCEKRMCTLAGYMQMAAVFIMATGLLIFPFGLNSTFVKSFCGNS-  
 Astyanax 119 SLLAIIITIFLPSGCERRICTLAGYMQMAAVFIMASGLLVYPPFGLNSLVKSF CENS-  
 Clupea 121 SLLAIIITIFLPGGTERRVCTLTGYMQMAAVFIMASGLLVYPPFGLNSLVKSF CENS-  
 Anguilla 121 SLLAIIITIFLPSGTCERRICTLAGYMQMAAVFIMASGLLVYPPFGLNSLVKSF CENS-  
 Pecten 96 SLILGMAAMFMTD-RWLRLKLSCTMTYLQTSAVLILTSALLVYPLGMTSPFFRYYCGPTAE  
 Pomacea 92 GALLSLCSACMPG-HCRRRVTRAGGYVQTVSVLIMIAGLLIFPLGLSSKFFRHYCGDSAA  
 Mytilus 94 GAFLAVCTSCIPC-DVVRTVTVMAGYVQFVAVLVMIAGLFTYPLGFGSSFIRQYCGSKSV  
 consensus 181 s llall l lpsg c rricltagyvq aav ima gllvyPfgl s fvk yCg s

Cotesia 163 PFYLGDC T L G W A F Y S A A I G V A L T F V C A I L S A Q A E K S T A S D K V Q D K M N E G K T L I C L A ---  
 Bufo 145 SYRSGSCSLGWGYMMAIITVMLACFLPIIGRYNINEMKT-KVLRSLRQRMVCEEHMY  
 Engystomops 145 SYRSGSCSLGWGYMMAIITVMLSCFLPIIGRYNINEMRT-KVLRSKLQRMVCEEHMH  
 Mus 142 MYHSGACRLSWGYATAILNMVLTSLLV-IRWQV-TTVQRAAVPFSSETQRAILVPE---  
 Homo 132 MYYGKCRLLGWGYMTAILNAVLASLLPIISWPHTTKVQGRITIIIFSSATERIIFVPEMKN  
 Pan 142 MYYGKCRLLGWGYMTAILNAVLASLLPIINWPHTTKVQGRITIIIFSSATERIIFVPEMKN  
 Actinia 164 LFYPGHCOISWAYSLAIMSSALFIFCPVIAKHLYVVTTPRA-----KATVV-----  
 Homarus 161 VYASGSCSELGYAYMLALVATALAAYCPVLARLVTYKDYTD-YWSNLNYM-----  
 Pogona 210 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFAKYAPKEHS---SPTPIPTIL-----  
 Tyto 175 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFAKYAPKEHI---SPTPIPTIL-----  
 Gallus 171 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFAKYAPKEHI---SPTPIPTIL-----  
 Crotalus 220 IYYAGSCQLGWGYMLAIVGVMLSVFLPFFAKYAPKDHP---YPTPIPTIL-----  
 Rhinatrema 174 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFAKYAPREHI---SLTPIPTIL-----  
 Polypterus 180 IYYAGDCQIGWGYMLAIVGVMLTLFLPFFAKYAPKENL---SPTPLPTIL-----  
 Astyanax 178 IYYAGECQIGWGYMLAIVGVMLTLFLPFFAKYAPKEQL---SPTPLPTLL-----  
 Clupea 180 IYYAGECQIGWGYMLAIVGVMLTLFLPFFAKYAPKEQM---SPTPLPTLL-----  
 Anguilla 180 IYYAGECQIGWGYMLAIVGVMLTLFLPFFAKYAPKEHL---SPTPLPTIL-----  
 Pecten 155 VYNAGQCSMGWSYMLAVMGTALSIFCPILWNLRFKSEHDDYPFNL-----  
 Pomacea 151 AYNSGHCLIGWSYMLGIMGTALSIFCPFLSQFTDMKASDI-FS-----  
 Mytilus 153 MYHAYDCSMGWSFVLAVTGTCLAMFCPVLRSFTDMKGRDI-MP-----  
 consensus 241 myyagdCqigwgymlaivgvmltflpflakya ke ps m tvv