

Cotesia 1 -----MCYIVVTGR
 Bufo 1 -----MVSCM
 Engystomops 1 -----MVSCM
 Mus 1 -----ME
 Homo 1 -----MLRG
 Pan 1 -----MS
 Actinia 1 -----MSAI
 Homarus 1 -----MKVRGWTW-----ATSWA
 Pogona 1 MGRPRENFQALNCHPKDRTWPRAGR-----GEAGPSRVPQSSR-GSGS
 Tyto 1 MLSV-----PVAVPGA--VAGAGAVRGAGSLPFRRTMCSGV
 Gallus 1 ML-----SVPVP--VAGAGAARTGSLPFRRTMCSGV
 Crocotalus 1 MPPRRK-----KKKKEEEEAGSGQAALLPGRPAPSLASGRLPPAAAALPTMFSGV
 Rhinatrema 1 RHNSVLD-----RKQKEA-----AGLRAARRMVGCV
 Polypteropus 1 MHSFL-----YRKKTS--V-----VVGLKVHPGTLPQDPRMFSGV
 Astyanax 1 MHSLLL-----SPKSKE--A-----GFGIDLSPGS--ARIMFSGV
 Clupea 1 MHS-LL-----DRKKKE--A-----GIGFDLSPSPFPQAARMFSGV
 Anguilla 1 MHS-LL-----DRKKKE--A-----GVGIDLSPSSLPQAPRMFSGV
 Pecten 1 -----MISFV
 Pomacea 1 -----MSPV
 Mytilus 1 -----MISPV
 consensus 1 -----m s v

Cotesia 10 SLLWSLLSLVALMAV---FSALITPKWIVGPPKTKDTQNGTEL-----YTPTAG
 Bufo 6 GSLWVTLNSFIISLIL---AFSLMSSAWFKHDKT-----TFG
 Engystomops 6 GSLWVTLNSFIISLIL---GSLMSSAWFKNDNT-----SFG
 Mus 3 VGVRAALGLSLTGMSS---GLSLISPAWFOQLSS-----SFG
 Homo 5 LRSWSMSRGASTCP-----CPSQHPSS-----
 Pan 3 SSVWVAAGLSLTCTCS---AFSLISPAWFQPTTF-----SFG
 Actinia 5 SVLWTLTVVFTTLC---SIALVSPWFENVLDPD-----FTPDNSSFAAFG
 Homarus 15 VGLWAGVTLTVALA---SLAALFTPFVVRHSP-----SPVMFG
 Pogona 43 GAFFLRVRRPWPAPARLTBEAAILSTVAAQAEVAVTTGAGASATAALGGLPGSPVSG
 Tyto 35 GCFWALLSAGLLAAC---AAAFSPAWLLPPG-----RAAAGFG
 Gallus 31 GCFWALLSAGLLAAC---AAAFSPAWLLPPG-----RAAAGFG
 Crocotalus 53 GCFWVLLSSCLLAVC---SLGFLSPAWIVRPRGGGRRWGPAPASVEAVGGVGEVSFG
 Rhinatrema 26 GCFWVLLSSCLLAVC---SFSFSPAWIVRGGGGFQ-----QREPVSG
 Polypteropus 34 SCFWVLLSSAVVAIC---SFSFSPAWIVKRLR-----NEAVSFG
 Astyanax 32 GCFWVLLSSAVVAIC---SFSFSPAWIVKDHG--R-----GEDSVSFG
 Clupea 34 GCFWVLLSSAVVAIC---SFSFSPAWIVKDHG--R-----GEDSVSFG
 Anguilla 34 GCFWVLLSSAVVAIC---SFSFSPAWIVKDHG--R-----NKDSVSFG
 Pecten 6 SYIWLITLAVAVTC---AFSLLOPFVIIHPDG-----IHSFG
 Pomacea 6 LLLWSLLSVLVAGTC---TFLLLOPFVIIHSDL-----LHAFG
 Mytilus 6 LIIWAFSLSVLVSGLT---TYAIVQVWVLLVGSNL-----LDTEG
 consensus 61 g lwvlls l gic fsfispawivh sfg

Cotesia 56 IFRNCTMLFN-----RIHCANENIDGLATDSNVFPGCWAASLFFLALGLSVMAL
 Bufo 39 VFVQCAGEISS-----PCNQTGI--T--F-RTLEIPDMWKKISAVILFICWLLLSF
 Engystomops 39 VFVQCAGEISS-----PCNQTGI--G--F-RTLEIPDVSWKISAVILFACWLLLSF
 Mus 36 IFTYCSWPPGD-----CWNQSCV--T--FG-SLKDMPSLAWKVSAAATLLGGWLLSI
 Homo 26 ---FCLFLAGL-----SCDAPRRLAP--VGLQCNFPEVSLQVSAVMLLGGWLLAF
 Pan 36 IFTYCSWPPQGN-----SWNQSC--VT--F-SLEDIPDFAWKVSAMVLLGGWLLAF
 Actinia 50 IFTYCSKHKHKSVDLMDDEWRDFETCSFYG-----SFDIPSLFQFIIIFYGVGLLFLC
 Homarus 52 VWAWCVGGLN-----EQRCAAVGQGVGDHSGALPSAVVMVGAAYVGGGALLAV
 Pogona 103 LLWHCSBTL-----QSLPDCYAFG--GLGRFSQMPSSGWSQTSAVLCAAGCALLEL
 Tyto 71 LWWRGAGPP-----RGCHGSA--GPGGEGDIPSSGWSQTSAVLCAAGCALLEL
 Gallus 67 LWWRGAGPP-----RGCHGSA--GPGGEGDIPSSGWSQTSAVLCAAGCALLEL
 Crocotalus 109 LLWHCSBAATAA-----ARHVEPCDGLG--GLGGEGRIPSSGWSQTSAVLCAAGCALLEL
 Rhinatrema 67 LLWHCSBGR-----DRTSGCYTFG--GLGQENEPSSSWQTSAVLCSGGCALLEL
 Polypteropus 73 LLWHCSBSS-----DHRYGCTFFA--GMGRFAEPSSSWQTSAVLCSGGCALLEL
 Astyanax 71 LLWHCSBSS-----DHMYRCYTFG--GLGRFAEPSSSWQTSAVLCSGGCALLEL
 Clupea 73 LLWHCSBSS-----DHMYRCYTFG--GLGRFAEPSSSWQTSAVLCSGGCALLEL
 Anguilla 73 LLWHCSBSS-----DHMYRCYTFG--GLGRFAEPSSSWQTSAVLCSGGCALLEL
 Pecten 41 IYVYCRGSELVGAASS---DLTNRMCIFYG--GQLSVVSPSGAWAATFLFLSTGCALLLA
 Pomacea 41 IYVYCRGSELVGAASS---DLTNRMCIFYG--GQLSVVSPSGAWAATFLFLSTGCALLLA
 Mytilus 41 MISLCLSRRTVFPFGG---SLKQCEIFYG--GYFNLGNFPSGAWAATFLFLSTGCALLLA
 consensus 121 ll rCs c fg g a f eips swq savl gGClllal

Cotesia 105 TVFAALLGCCVOS-IGRKSIFNLAVGVAQATAGILYLMGMILYPAQWGAAPRVRIIGDAS-
 Bufo 86 GAVLVLSWTVIPAGLCORRLCTPARHTOITIAVAVTIIGLLFPVLSRSTFAKIOICNSSL-
 Engystomops 86 GAVLVLSWTVIPAGLCORRLCTPARHTOITIAVAVTIIGLLFPVLSRSTFAKIOICNSSL-
 Mus 83 SALLLSAWALAPRRLFARTGFGPTPVQAAAASVSLVGLLVFATLASPFPAKIEICGSS-
 Homo 73 NAIFFLLSWAVAKGLCPRRSSVPMFGVQAVATAIVGLLIFPIGLASPFIVKREVEASS-
 Pan 83 NAIFFLLSWAVAKGLCPRRSSVPMFGVQAVATAIVGLLIFPIGLASPFIVKREVEASS-
 Actinia 105 SVVLAHVSCCKRTICGSRVSVFGVAGVQATAAVVCLVSVSLVLFVFGFTNFKYCGPSG-
 Homarus 101 TGMALITPVLPFTHARAALAHVAGNQAATAVSLQAVGLVLYPLGLSPPARLQCGDSAS
 Pogona 151 SLLAVVVVLFPSGQERRACFLAGYQMAAVFIMGFGLLVYFFGLSATVRYRVEDAS
 Tyto 116 SLLAVVAVLFPSCACERRVCTLAGYQMAAVFIMGFGLLVYFFGLSATVRYRVEDAS
 Gallus 112 SLLAVVAVLFPSCACERRVCTLAGYQMAAVFIMGFGLLVYFFGLSATVRYRVEDAS
 Crocotalus 161 SALLAVIVLFPSCQERRFCTLAGYQMAAVFIMGFGLLVYFFGLSATVRYRVEDAS
 Rhinatrema 115 SLLAVVTVLFPSCQERRLCTLAGYQMAAVFIMGFGLLVYFFGLSATVRYRVEDAS
 Polypteropus 121 SLLAVITVLPSPGCEKRMCTLAGYQMAAVFIMGFGLLVYFFGLSATVRYRVEDAS
 Astyanax 119 SLLAVITVLPSPGCEKRMCTLAGYQMAAVFIMGFGLLVYFFGLSATVRYRVEDAS
 Clupea 121 SLLAVITVLPSPGCEKRMCTLAGYQMAAVFIMGFGLLVYFFGLSATVRYRVEDAS
 Anguilla 121 SLLAVITVLPSPGCEKRMCTLAGYQMAAVFIMGFGLLVYFFGLSATVRYRVEDAS
 Pecten 96 SLLLGMAAMFMTD-RWLRKLSCTMTYDQTSVLLTSAVLLVYPLGMSPPFRYICGPTAE
 Pomacea 92 GALLSLCSACMPC-HCRRRVTRAGGVQVTVSVLLIAGLLIFLGLSSKFRHYCGDSAA
 Mytilus 94 GAFLAVCTSCIEG-DVVRVTVVMAGYVQFVAVLVMLIAGLFIYVPLGFSSEFIRQYCGSKSV
 consensus 181 s llall l lpsg c rriictlagyvQ aav ima glivyPfgl s fvk ycg s

Cotesia 163 PFVLCDCITLGNAFYSAAQVALTFVCAILSAQEKSTASDKVDKMNKGLTCLICLA---
 Bufo 145 SFRSGSGLGWGYMMAITVMLACFLFIIGRNNINEMKT-KVLRSLTORMLVCEEHMY
 Engystomops 145 SFRSGSGLGWGYMMAITVMLACFLFIIGRNNINEMKT-KVLRSLTORMLVCEEHMY
 Mus 142 MHSAGCRLSWSGATAILNMVLSLV-IRWQV-TTVQRAAVFSSSTORAILVPE---
 Homo 132 MYVGGKCRLLGWGYMMAILNAVALASLFIISWPHTTKVQRTIIFSSATERIIFVPEMKN
 Pan 142 MYVGGKCRLLGWGYMMAILNAVALASLFIISWPHTTKVQRTIIFSSATERIIFVPEMKN
 Actinia 164 LMPVGHQIISWAYSLAIMSALFIFCPVIAHLYVVTTPA-----KATVV-----FVPEMKN
 Homarus 161 VYASGSCGLGYAYMLALVATALAAYCPVLARLVTKDYTD-YNSNLNYM-----
 Pogona 210 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFFAKYAPKEHS---SPTPIPTIL-----
 Tyto 175 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFFAKYAPKEHI---SPTPIPTIL-----
 Gallus 171 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFFAKYAPKEHI---SPTPIPTIL-----
 Crocotalus 220 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFFAKYAPKDH---SPTPIPTIL-----
 Rhinatrema 174 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFFAKYAPKEHI---SPTPIPTIL-----
 Polypteropus 180 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFFAKYAPKENL---SPTPIPTIL-----
 Astyanax 178 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFFAKYAPKEQL---SPTPIPTIL-----
 Clupea 180 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFFAKYAPKEQM---SPTPIPTIL-----
 Anguilla 180 IYYAGDCQIGWGYMLAIVGVMLSVFLPFFFAKYAPKEHL---SPTPIPTIL-----
 Pecten 155 VYVAGDCQSMGWSYMLAVMCTALSIFFCPLWNLRDFKSEHDDYDFNL-----
 Pomacea 151 AVNSGHCLIGWSYMLGIMCTALSIFFCPLLSQFTDMKASDI-FS-----
 Mytilus 153 MHHAYDCQSMGWSYMLAVMCTALSIFFCPLLSQFTDMKGRDI-MG-----
 consensus 241 myyagdCqigwgymlaivgvmlLtiflpflakya ke ps m tvv