

1 10 20 30 40 50 60 70 77

Procerodes plebeja T --- KVPBS LPHFEVVC EIKRRLTSTLNKHELLTEE -NFKLLMNFCRHHTLSMEXYGYMÖLHSDICSGMKLPT-KINNN
Dendrocoelum lacteum I --- KLPGLI EHFVVSIS ELKKMKIKVSDLDKKEYFLNTG SETVLYRYCKHVFISMVYAGFIMLSDICTS MKLDA-KFEN
Polycelis felina D --- KPPSHVHEHYVRL LLLKKIKKVNITQYL--PGNEAVLYRFCKYHLSMIOYAGFILLSDVCSAMKTEA-NYAK
Polycelis nigra K --- KMPQSVHEHYVFNGL ELKKKIKKQTDVVQYL--PKNKGITLYRFCKYVLSMIOYAGYVILLSDICTS MKVNA-NYEL
Girardia tigrina K --- IVPQST EHFVFCG EIKKKIKKINQNLDDL YLLYSCKNSILMKFCFKHLSMIDYKYYSYISLSDVCKT F KISG-NYLLK
Schmidtea lugubris K --- IVPNS IDHYQVRS ELKSOQKCNLDLDFINFS NKSITFYNHCKYVLSMAYKAYLSLSDVCKSMKINS-TCNS
Schmidtea mediterranea K --- IVPDS INHYQVRA ELKSOQKCNLDLDFLNSLNTSITFYSYCKYVLSMAYKAYLSLSDVCKSMKINS-KCNT
Dugesia benazzi K --- HVPDS VEHYNTS ELKKOQKQNLDELDFLNNRF NKSIVLKYCKHLSMYSKYYSYISLSDICTS MKINA-KKCN
Dugesia japonica Q --- RVPDS VEHYKVTET ELKKOQKQNLDELDFLNNRF NKSIVLKYCKHLSMYSKYYSYISLSDICTS MKINA-KKCN
Dugesia ryukyensis Q --- KVPNS EHFYETET ELKKOQKMFNDELDFMNSFNKSITFLKFCFKHLSMYSKYYSYISLSDICTS MKINA-KKRA
Dugesia tahitiensis Q --- QVPNS EHFYETET ELKKOQKMFNDELDFMNSFNKSITFLKFCFKHLSMYSKYYSYISLSDICTS MKINA-KKPA
Aplysia californica KNNMLSDDFLPVQSTLEL EIRCFILKVPKSA LMGKRRNFNFTLKHVQFPLSTIQKGTMSLHYLCANIKVVKVIPMIO
Biomphalaria glabrata E --- L TSDFTSANKVMLEL ERSBI L I KILVPO S MGTFRNFNFTPLSYIKDOLSMNSDHSISVQOMVQELTKTKIIMWK
Crassostrea gigas V --- L LKDCWPPQKVMLEL ERLKRVFIEVVPLOIVGCLHNRNRLPKAIKILDLVYLGRYEKMCVGDLLKGEKTKTKIIPMLK
Homo sapiens PRRRLVQLLRQHSPPWQVMG EVRACLRRLVPPGLWGRSHNERRFLRNTKRFISLGGKHKLSLQELTWTWKSIVRDCALRLR

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Procerodes plebeja HIFYDELVPLKHNYYWCOASVETNSVLYESYSOWEHRFIKLVGEANET VLKSSNMHHAASIRCVLKS-SBTND
Dendrocoelum lacteum HIFYNDELVPLKHNYYWCOSSPELCTVYYSYNSWHITFLRQVGRFVET EIRNNDERGVALVRCVLRNA-FSGD
Polycelis felina HIFYNEVPLKHNYYWCOSSISBSDSVVYFYYSNWHITFLRQVGSQRFHR THADNPPDRGVALVRFVLRNA-NNSD
Polycelis nigra RIFYNEVPLKHNYYWCOSSSLEBADTVYFYYSNWHITFLRQVGSQRFHO THANPNPICGLVRLVLRNA-ALSD
Girardia tigrina LIFYDEVLVPLKHNYYWCOSSP IENSSVYFYFYAHEHFLNQAALYFVYS EMKEIKSDNENIRVFLRNS-KTRRE
Schmidtea lugubris HIFYYDELVPLKHNYYWCOSSPANYSTVVYFYLSWHEFFOASASYYTN RIKELKYNWGTARCLVLRNA-ETRD
Schmidtea mediterranea HIFYYDELVPLKHNYYWCOSSPANSNSVVYFYLSWHEFFOASASYYTN RIKELKYNWGTARCLVLRNA-ETRD
Dugesia benazzi LIFYYDELVPLKHNYYWCOSSPMDYSTVVYFYFSWHEFFOASAAALYYTN KIKEMKDHKGTARCLVLRNA-ETRD
Dugesia japonica LIFYYDELVPLKHNYYWCOSSPIDYSTVVYFYFSWHEFFOASAAALYYTN KIKELKGYKAVTRCLVLRNA-OTYD
Dugesia ryukyensis LIFYYDELVPLKHNYYWCOSSPIDYSTVVYFYFSWHEFFOASAAALYYTN KIKELKGYKAVTRCLVLRNA-OTYD
Dugesia tahitiensis LIFYYDELVPLKHNYYWCOSSPIDYSTVVYFYFSWHEFFOASAAALYYTN KIKELKGYKAVTRCLVLRNA-OTYD
Aplysia californica FFMHKVLEFELVQSFVYVTSSTTHKKRLLFEERKKTWRLHOQSCAHEFK WVOEKRRQKGLGVCTVRFLLKKS
Biomphalaria glabrata YLVVVRIVGQFVYSFVYVTSSEMYKNNRLLFEERKKTWKLIIQFATSKLKN WVAQRKISGHCLGVSOARFLLKSG
Crassostrea gigas WLVNDELVPLKTVFVYVTEAATFRNQLLEERKKTWVSKLSHNSGKIDLRK AVTASLONGSCLGEASTRFLLKLS
Homo sapiens WLVMSVYVPLRSLRFVYVTEATFQKNNRLLFEERKKSWSKLSQSGTGRQHFHK EVROHREARPALLSRRLRFLLKPDG

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Procerodes plebeja YRLLANLRGDPNRP HSSVSTHALFMN---NQ CRQFYIVRADIKCCYDLSLRHDI LRCVFLNLLS--Q
Dendrocoelum lacteum YRLYNSLRFPQSSTTKRISSELCSSRDPIANE HCFQFFIVRADIKCYESINHSILRHFVFLNLLSQIN
Polycelis felina YRLYNSLRGFPQSVQNKGGGDI CSSHKFLENE CRQFFIVRADIKCYESIDQITLRCVFLNLLSQQO
Polycelis nigra YRLYNSLRFPQSTKINKSVTEICSSNKL FENE HRQFFIVRADVNSCYESTHDSM LRCVFLNHTSQQE
Girardia tigrina YRLYNSLRGVKKS DLRRLRTVQYKAVNP--KI CEFYIVRADVNRNCEYSLRHSLRVSFNSLTF--K
Schmidtea lugubris YRLYNSLRPKPKSHQV KYSRKKS KIVDF--KL KNRQFYIVRADVNRNCEYSLRHODLRSEFSDLS--K
Schmidtea mediterranea YRLYNSLRKTKQSHLT KYSRKKS KIVDF--KS QNRQFYIVRADVNRNCEYSLRHODLRSEFSDLS--K
Dugesia benazzi YRLYNSLRKTKQSHG-RFSRKKVKIVDF--KS KNRQFYIVRADVNRNCEYSLRHODLRSEFSDLS--K
Dugesia japonica YRLYNSLRKTKQSDNRPLRKKVKIVDF--KS KNRQFYIVRADVNRNCEYSLRHODLRSEFSDLS--K
Dugesia ryukyensis YRLYNSLRKTKQSDNRPRPSKVKVKIVDS--KL KNRQFYIVRADVNRNCEYSLRHODLRSEFSDLS--K
Dugesia tahitiensis YRLYNSLRKTKQSDNRPRPSKVKVKIVDS--KL KNRQFYIVRADVNRNCEYSLRHODLRSEFSDLS--K
Aplysia californica LRPVIVNM-----SQRSKHDVSNK--HL IKQLVYVVDHTEKCFDITNPLCYSVQVQNH--S
Biomphalaria glabrata LRPVIVNM-----SKAQGISNHN--HL VQRIYVYVVDHTEKCFDITNPLCYSLKNNHFL
Crassostrea gigas LRPVIVNLI-----GRQPPPIAKSALPINK--QL ERNHLVYVVDHTEKCFDITNPLCYSLVQVQNH--S
Homo sapiens LRPVIVNMDVYVVGARTFRREKRAERTS--RV PPELVYVYVVDHTEKCFDITNPLCYSLVQVQNH--P

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Procerodes plebeja KHVYHLKCGVPOGCSLSQFLCNYMLLHKKKKEPFDHL LHOYVDDLLFRTCSQNK AQSFLRRLKKNVYFQYGLNINENKIIIC
Dendrocoelum lacteum EYVHQCFCVPOGCSLSLPLCNYMLLHKKKKEPFDHI HFOYVDDLLFRTCSYDK ABSFLRRLKNSVYFKYGMELNENSKIIIC
Polycelis felina EYVHQCFCVPOGCSLSLPLCNYMLLHKKKKEPFDHI HFOYVDDLLFRTCSYTV ABSFLRRLKNSVYFKYGMELNENSKIIIC
Polycelis nigra EYVHQCFCVPOGCSLSLPLCNYMLLHKKKKEPFDHI HFOYVDDLLFRTCSQTV ABSFLRRLKNSVYFKYGMELNENSKIIIC
Girardia tigrina NYVYQVICVPOGCSLSVYLCGYMLLHKKKKEPFDFA HFOYVDDLLFRTCSQKY ABSFLRRLKNSVYFKYGMELNENSKIIIC
Schmidtea lugubris NYVYQVICVPOGCSLSVYLCGYMLLHKKKKEPFDHI HFOYVDDLLFRTCSQTE ABSFLRRLKNSVYFKYGMELNENSKIIIC
Schmidtea mediterranea NYVYQVICVPOGCSLSVYLCGYMLLHKKKKEPFDFA HFOYVDDLLFRTCSQTE ABSFLRRLKNSVYFKYGMELNENSKIIIC
Dugesia benazzi NYVYQVICVPOGCSLSVYLCGYMLLHKKKKEPFDFA HFOYVDDLLFRTCSQTE ABSFLRRLKNSVYFKYGMELNENSKIIIC
Dugesia japonica NYVYQVICVPOGCSLSVYLCGYMLLHKKKKEPFDFA HFOYVDDLLFRTCSQTE ABSFLRRLKNSVYFKYGMELNENSKIIIC
Dugesia ryukyensis SYVYQVICVPOGCSLSVYLCGYMLLHKKKKEPFDFA HFOYVDDLLFRTCSQTE ABSFLRRLKNSVYFKYGMELNENSKIIIC
Dugesia tahitiensis NYVYQVICVPOGCSLSVYLCGYMLLHKKKKEPFDFT HFOYVDDLLFRTCSQTE ABSFLRRLKNSVYFKYGMELNENSKIIIC
Aplysia californica QHVYQVSMGCEPOGCSLSVYLCGYMLLHKKKKEPFDFA HFOYVDDLLFRTCSQTE ABSFLRRLKNSVYFKYGMELNENSKIIIC
Biomphalaria glabrata QHVYQVTLGTAQSGSLSVYLCGAYGYMLLHKKKKEPFDFA HFOYVDDLLFRTCSQTE ABSFLRRLKNSVYFKYGMELNENSKIIIC
Crassostrea gigas QVYKQVCGIISOGSFLSLLTLCNAYGGMERT--FMPP VM-RMIDDDLLFVSPSRKR ABAFFMTMTEGVEFENKSNLKKCA
Homo sapiens KSVYVOCGICVPOGCSLSLTLCSGCGDMENK-IFAGI VM-RVDDDLFVTPSRER AKAILKLFLEGFPFONKSTNLMKTCV
 LMLR-LVDDDLFVTPHLTH AAFMLCKMIKGNSEYFNPSLNADKILV
 AKFELRTRVVRGVSEYFCVNNLRFKIV

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Procerodes plebeja YSTLSWLGWQI
Dendrocoelum lacteum RTLPWLGYNL
Polycelis felina RTLPWLGYNF
Polycelis nigra RTLPWLGYNF
Girardia tigrina CRTLPWLGWYI
Schmidtea lugubris SFLPWLGYNL
Schmidtea mediterranea SVLPWLGYNL
Dugesia benazzi SVLPWLGYNL
Dugesia japonica SITLPWLGYNL
Dugesia ryukyensis PITLPWLGYNL
Dugesia tahitiensis PITLPWLGYNL
Aplysia californica SEPTLTFCLGAT
Biomphalaria glabrata NGLTFSCGLGF
Crassostrea gigas DWPLWGLLF
Homo sapiens HGLFVWGLLL

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