

*B. lanceolatum* BL03504 D-----E EEFGGPVFSPPLYRQRYQTVADLVK----KYRPKR  
*N. vectensis* AGW15602 -----REQLGPKFDPPVYRQRYHRVIEVVK----EHKAKR  
*D. rerio* NP\_001017842 -----ATPFSPPLYMQRYQFVIDYVK----TYRPRK  
*M. musculus* NP\_001072114 E-----VSPEKVIRFKPPLYKQRYQFVRDLVD----RHEPKK  
*A. thaliana* NP\_567616 IRSLLSERPCLNYNILLGKVPSEERMEAAFFKPLSKQRYVEYALKHIR----ESSAST  
*D. melanogaster* NP\_610732 -----KMTETGITFDPPVYEQRRCATIQILEDARWKDQIKK

R701

*B. lanceolatum* BL03504 LVDFGCAEGKLIRFLK-PEESLEQLTGIDLEGEVLESIRGIIKPLLSDYVQPRPRPFTVS  
*N. vectensis* AGW15602 VLDFGCAEAKMLRSLINSTTNI EELVGVDIDRDLL EDSIFRIRPLTTDYLT PRPHPLAVS  
*D. rerio* NP\_001017842 VIDFGCAECCLLKKLKFHRNGIQLLVGVDINSVLLKRMHSLAPLVSDYLQPSDGPLTIE  
*M. musculus* NP\_001072114 VADLGC GDAKLLKLLKI-YPCIQLLVGVDINEEKLHSNGHRLSPYLGEFVKPRDLDLT VT  
*A. thaliana* NP\_567616 LVDFGCGSGSLLDSLLDYPTSLQTIIGVDISP KGLARAAKMLHVKLN---KEACNVKSAT  
*D. melanogaster* NP\_610732 VVEFGCAEMRFFQLMR-RIETIEHIGLVDIDKSLLMRNLT SVNPLVSDYIRSRASPLKVQ

E796 E799, H800

*B. lanceolatum* BL03504 LYQGSIAECDDRFKSYDMVTCVEVIEHLDPPVLDAMP SNVFGHMRPSV VVVVTTPNSEFNV  
*N. vectensis* AGW15602 LYQGSISKADDRFCDFDVVACIEIVEH LVP EHL EAMP AVLLGQLSPLVAIVTT PNADFNV  
*D. rerio* NP\_001017842 LYQGSVMERE PCTKGF DLVTCVELIEHLELEEVERFSEV VFGYMAPGAVIVTT PNAEFNP  
*M. musculus* NP\_001072114 LYHGSVVERDSRLLGFDLITCIELEI EHLDSDDLARFPDVVFGYLS PAMVVI STPNAEFNP  
*A. thaliana* NP\_567616 LYDGSILEFDSRLHDVDIGTCLEVIEHMEEDQACEFGEKVLSL FHPKLLIVSTPNYEFNT  
*D. melanogaster* NP\_610732 ILQGNVADSSEELRDTDAVIAIELEI EHVYDDVLAKIPVNI FGF MQPKLVVFSTPN SDFNV

H860

*B. lanceolatum* BL03504 LFPN-----F-----SGFRNADH RFEWTRQEFQTWAE GVAQRF-SYDVTFH  
*N. vectensis* AGW15602 LFPD-----L-----VGFRHWDH KFEWTRAEFKDWATS QADKF-GYSVTFE  
*D. rerio* NP\_001017842 LLPG-----L-----RGFRNYGH KFEWTRAEFQTWAHRV CREH-GYSVQFT  
*M. musculus* NP\_001072114 LFPT-----V-----TLRDADH KFEWSRMEFQTWALHV ANCY-NYRVEFT  
*A. thaliana* NP\_567616 ILQRSTPETQEENNEPQL-----PKFRNHDH KFEWTREQFNQWASKLGKRH-NYSVEFS  
*D. melanogaster* NP\_610732 IFTR-----FNPLLPNGFRHEDH KFEWSRDEFKNWCLGIVEKY PNYMFSLT

*B. lanceolatum* BL03504 GIGTGPEGTEHLGCCTQMAIFERKQTPYDE-----N-STVLWGTPYELIAEAVFPYR  
*N. vectensis* AGW15602 GIGSGPSGTEHLGCCSQMALFIKQNTAPA-----G-RQTGFGE PYNLIARVEHPYR  
*D. rerio* NP\_001017842 GVGEAAGHWRDVGFCTQIAVFQRNFDGVNRSMS-----N-AEHLEPSVYRLLYRVVYPSL  
*M. musculus* NP\_001072114 GVGTPPAGSEHVG YCTQIGVFTKNGGKLSK-PS-----V-SQQCDQH VYKPVYTTSYPSL  
*A. thaliana* NP\_567616 GVGGs--GEVEPGFASQIAIFRREASSVE-----N-VAESSMQPYKVIWEWKKEDV  
*D. melanogaster* NP\_610732 GVG NPPKEYESVGPVSQIAIFVRKDMLEMQ-LVNPLVSKPNIDKESIPYKLIHTVEYPFY

*B. lanceolatum* BL03504 ENTLSKEQQILQEVQYYIRQIM--QRRVHGEDEEKD---NADDDDSAPE-----  
*N. vectensis* AGW15602 KCTLTEEEKILIELDRTLWFLS--QPSA-YEDDEISD--SEDLGD--DK-----  
*D. rerio* NP\_001017842 CDNNIYQKTLIN EVL YEAOHLR--QQWL-IRENMNNN----AHFYS---P-PLMEALHHG  
*M. musculus* NP\_001072114 QQEKVLK FVLVGELLIQVDRLRLRYQRM-LRDREKDRGPKPGDM DSCPAPHLLL GAVFTE  
*A. thaliana* NP\_567616 -----EKKK-----  
*D. melanogaster* NP\_610732 VDTRTEKEK L WTEVQIELQRFK--RQF---ESSEIEE---GT YQDT-----