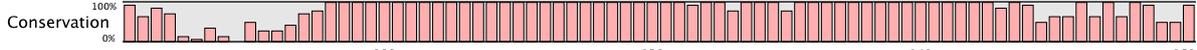


20 40 60 80

Euphausia superba --- -- -- -- -- TMEGEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPTKLEAQKELFKLIP 71  
 Penaeus monodon MVEE- --- -- -- -- -- TMS EEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLENGKDLVIRIES 75  
 Fenneraopenaeus chinensis MVEE- --- -- -- -- -- TMS EEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLENGKDLVIRIES 75  
 Metapenaeus ensis MVEE- --- -- -- -- -- TME EEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLESGKDLFKLVP 75  
 Portunus trituberculatus MPED- --- -- -- -- -- AAMEDVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLESGKELFKLIP 75  
 Eriocher sinensis MPEE- --- -- -- -- -- ATMEEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLESGKDLFKLVP 75  
 Chiromantes haematocheir MPEE- --- -- -- -- -- ATMEEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLESGKELFKLVP 75  
 Tigriopus japonicus M-TD- --- -- -- -- -- PAGGDCETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLESDQKELFKLVP 74  
 Apis mellifera MPEDVTM- -- ANAGEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLDTCLELFKLIP 78  
 Mamestra brassicae MPEE- -- MQ- TDGAEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLESGKELFKLIP 77  
 Chilo suppressalis MPEE- -- MQ- TQSGEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLESGKELFKLIP 77  
 Drosophila melanogaster MPEE- --- -- -- -- -- AETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLESGKELFKLIP 70  
 Macrocentrus cingulum MPEE- -- MD- TSSGEVETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPSKLESGKELFKLIP 77  
 Ixodus scapularis MPEEVRME- DAAGEAETFAFQAE AQLMSLIINTFYSNKEIFLRELSNSSDALDKIRYESLTDPTKLEDAQKELFKLIP 79



100 120 140 160

Euphausia superba DKNEGTLTIIDSGVGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKCNDDQYVW 151  
 Penaeus monodon DKENRTFTIIDTGMGTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKHNDDQYTW 155  
 Fenneraopenaeus chinensis NKDDRTLTIIDSGVGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSRNNDDQYIW 155  
 Metapenaeus ensis NKEDRTLTIIDSGVGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKNNDDQYVW 155  
 Portunus trituberculatus NKNDRTLTIIDSGVGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKNNDDQYVW 155  
 Eriocher sinensis NKNDRTLTIIDSGVGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKNNDDQYVW 155  
 Chiromantes haematocheir NKNDRTLTIIDSGVGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKNNDDQYVW 155  
 Tigriopus japonicus DKDAKTLTIQDSGIGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKHNDDQYIW 154  
 Apis mellifera NKNDRTLTIIDSGVGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKHNDDQYVW 158  
 Mamestra brassicae NKSEGTLTIIDTGIGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKHNDDQYVW 157  
 Chilo suppressalis NKSEGTLTIIDTGIGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKHNDDQYVW 157  
 Drosophila melanogaster NKTAGTLTIIDTGIGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKHNDDQYVW 150  
 Macrocentrus cingulum NKNDRTLTIIDSGVGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKHNDDQYVW 157  
 Ixodus scapularis NRDDRTLTIIDTGIGMTKADLVNNGTIAKSGTKAFMEALQAGADISMGGFGVGFYSAYLVADKVVVTSKHNDDQYTW 159



180 200 220 240

Euphausia superba ESSAGGSFTIRTDNSEPGRGRTKIVLHKEDMTDYCEEKTVKEIVKKSQFYGYPKLLVEKERDLESDDEE-E EEDKE 229  
 Penaeus monodon ESSAAGSFTVVRPEKNDVPRGTTKILYLKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 232  
 Fenneraopenaeus chinensis ESSAGGSFTVRHDTGEPGRGRTKIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 232  
 Metapenaeus ensis ESSAGGSFTVRHDTGEPGRGTRIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 232  
 Portunus trituberculatus ESSAGGSFTVRTDHGEPGRGTRIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 232  
 Eriocher sinensis ESSAGGSFTVRTDHGEPGRGTRIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 232  
 Chiromantes haematocheir ESSAGGSFTVRTDHGEPGRGTRIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 232  
 Tigriopus japonicus ESSAGGSFTIRTDNSEPGRGRTKIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDEADDKKE 234  
 Apis mellifera ESSAGGSFTVRPDNGEPGRGRTKIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 236  
 Mamestra brassicae ESSAGGSFTVRPDHGEPLGRGTRIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 235  
 Chilo suppressalis ESSAAGSFTIRPDQGEPLGRGRTKIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 235  
 Drosophila melanogaster ESSAGGSFTVRADNSEPGRGRTKIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVEKERDKEVSDDE-EEFEKE 228  
 Macrocentrus cingulum ESSAAGSFTVRADTGEPLGRGRTKIVLHMEEDQSEYLEENKIKELVKKKSQFYGYPKLLVQKEREKELSDDE-EEVEPE 235  
 Ixodus scapularis ESSAGGSFTIRTDNCEPLGRGRTKIVLHKEDQTEYL EERRVKEIVKKSQFYGYPKLLVQKEREKELSDDE-EEFEKE 237



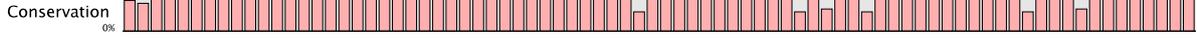
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Euphausia superba KMQ-IRKR- --- -- -- -- -- KMRINQKIKMLYRMKMQIR-MLIKT-KR-KK--TVKEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDY 290  
 Penaeus monodon E- --- -- -- -- -- KEEE- --- -- -- -- -- A EEDKPKIEDVGEDEEADK- EKGEDKKK-KK--TVKEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 292  
 Fenneraopenaeus chinensis E- --- -- -- -- -- KEEE- --- -- -- -- -- A EEDKPKIEDVGEDEEADK- EKGEDKKK-KK--TVKEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 298  
 Metapenaeus ensis E- --- -- -- -- -- KEEE- --- -- -- -- -- A EEDKPKIEDVGEDEEADK- EKGEDKKK-KK--TVKEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 292  
 Portunus trituberculatus E- --- -- -- -- -- KEEE- --- -- -- -- -- A EEDKPKIEDVGEDEEADK- EKGEDKKK-KK--TVKEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 294  
 Eriocher sinensis EE- --- -- -- -- -- KKDE- --- -- -- -- -- EEDEKPKIEDVGEDEEADK- KEGG--KK-KK--TVKEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 291  
 Chiromantes haematocheir EE- --- -- -- -- -- EKDE- --- -- -- -- -- EEDEKPKIEDVGEDEEADK- KEGG--KK-KK--TVKEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 291  
 Tigriopus japonicus DEE- --- -- -- -- -- KKEG- --- -- -- -- -- EDADKPKIEDVGEDEEADK- KDKK--KK-KK--TVKEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 294  
 Apis mellifera A- --- -- -- -- -- KEEG- --- -- -- -- -- EDTGKPKIEEVEGDEDEDKPKDE- --- -- -- -- -- KK-KKKKT-KEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 296  
 Mamestra brassicae E- --- -- -- -- -- EEKE- --- -- -- -- -- DD- --- -- -- -- -- KPKIEDVGEDEEADK- KDK- --- -- -- -- -- T-KEKYTEDDEENKTKPLWTR- --- -- -- -- NADDI 290  
 Chilo suppressalis E- --- -- -- -- -- EDKE- --- -- -- -- -- DE- --- -- -- -- -- KPKIEDVGEDEEADK- KDK- --- -- -- -- -- T-KEKYTEDDEENKTKPLWTR- --- -- -- -- NADDI 290  
 Drosophila melanogaster EGD- --- -- -- -- -- EKKE- --- -- -- -- -- METDEPKIEDVGEDEEADK- KDKDA- --- -- -- -- -- T-KEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 289  
 Macrocentrus cingulum E- --- -- -- -- -- EKKE- --- -- -- -- -- EEDGKPKIEDVGEDEEADK- KDK- --- -- -- -- -- KK-KKKKT-KEKYTEDDEENKTKPLWTR- --- -- -- -- NPDDI 294  
 Ixodus scapularis K- --- -- -- -- -- KEDKEKEDAEVDEEGKPKIEDVDEEEEEE- --- -- -- -- -- KDK- --- -- -- -- -- K-KEKYSEDEENKTKPLWTR- --- -- -- -- NPDDI 299



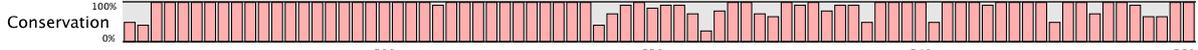
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Euphausia superba STEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEDLPEYLN 370  
 Penaeus monodon SKEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 372  
 Fenneraopenaeus chinensis SKEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 378  
 Metapenaeus ensis SKEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 372  
 Portunus trituberculatus SQEEYGEFYKSLTNDWEDHLAVRHFSVEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 374  
 Eriocher sinensis SQEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 371  
 Chiromantes haematocheir SQEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 371  
 Tigriopus japonicus SQEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 374  
 Apis mellifera SQEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 376  
 Mamestra brassicae TQEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 370  
 Chilo suppressalis TQEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 370  
 Drosophila melanogaster SQEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 369  
 Macrocentrus cingulum TQEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 374  
 Ixodus scapularis SQEEYGEFYKSLTNDWEDHLAVKHFVSEGGLEFRALLFLPRRAPFDLFENKQKNNIKLYVRRVFMENCEEELPEYLN 379



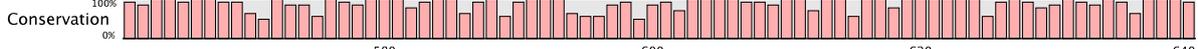
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Euphausia superba ITGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKKAMELIFEE CEDKENYTKFYENFSKNLKLGIHEDSNRRKKLAEFLR 450  
 Penaeus monodon IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKKTLELFEELVDDKESYKFFYENFSKNLKLGIHEDSTNRKKLAEFLR 452  
 Fenneraopenaeus chinensis IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKKTLELFEELVDDKESYKFFYENFSKNLKLGIHEDSTNRKKLAEFLR 458  
 Metapenaeus ensis IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKKTLELFEELVDDKESYKFFYENFSKNLKLGIHEDSTNRKKLAEFLR 452  
 Portunus trituberculatus IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKKAMELIFEELEDKKNYKFFYENFSKNLKLGIHEDSTNRKKLAEFLR 454  
 Eriocher sinensis IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKKALELFEELLEDKKNYKFFYENFSKNLKLGIHEDSTNRKKLAEFLR 451  
 Chiromantes haematocheir IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKKALELFEELLEDKKNYKFFYENFSKNLKLGIHEDSTNRKKLAEFLR 451  
 Tigriopus japonicus IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKCCMDLFEELLEDKKNYKFFYEQFSKNLKLGIHEDSTNRKKLAFLR 454  
 Apis mellifera IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKCCLELFEELLEDKESYKFFYEQFSKNLKLGIHEDSQNRKKSELLR 456  
 Mamestra brassicae IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKCCLELFEELLEDKKNYKFFYEQFSKNLKLGIHEDSQNRSKLADLLR 450  
 Chilo suppressalis IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKCCLELFEELLEDKKNYKFFYEQFSKNLKLGIHEDSQNRSKLADLLR 450  
 Drosophila melanogaster IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKCCLELFEELLEDKKNYKFFYEQFSKNLKLGIHEDSNRRAKLADLLR 449  
 Macrocentrus cingulum IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKCCLELFEELLEDKKNYKFFYEQFSKNLKLGIHEDSTNRTKLAFLR 454  
 Ixodus scapularis IGVVDSSEDLPLNLSREM LQQNKILKVI RKNLVKCCLELFDSEVSEDKEMKFFYEQFSKNLKLGIHEDSQNRKKLAEFLR 459



500 520 540 560

Euphausia superba YHTSSSGDEMTSLKDYVSRMKENQKQIYYITGESKDKQVANSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKTLVLSV 530  
 Penaeus monodon YHTSSSGDEMSSLKEYVSRMKENQKHYYITGETREQQNSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 532  
 Fenneraopenaeus chinensis YHTSSSGDEMSSLKEYVSRMKDNQKHYYITGETREQQNSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 538  
 Metapenaeus ensis YHTSSSGDEMSSLKEYVSRMKENQKHYYITGETREQQNSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 532  
 Portunus trituberculatus YHTSSSGDEMSSLKEYVSRMKENQKQIYYITGESREQQNSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 534  
 Eriocher sinensis YHTSSSGDEMSSLKDYVSRMKENQKQIYYITGESREQQNSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 531  
 Chiromantes haematocheir YHTSSSGDEMSSLKDYVSRMKENQKQIYYITGESRCHTAAAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 531  
 Tigriopus japonicus YHTSSSGDEMSSLADYVSRMKENQKQIYYITGESKQVANSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 534  
 Apis mellifera YHTSSSGDEMSSLKDYVSRMKENQKHYYITGESRQVANSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 536  
 Mamestra brassicae YHTSSSGDEACSLKEYVSRMKENQKHYYITGENRDQVANSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 530  
 Chilo suppressalis YHTSSSGDEACSLKEYVSRMKENQKHYYITGENRDQVANSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 530  
 Drosophila melanogaster YHTSSSGDEACSLKEYVSRMKENQKHYYITGESKQVANSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 529  
 Macrocentrus cingulum YHTSSSGDEACSLKEYVSRMKENQKHYYITGESKQVANSAFVERVKKRGFEVYMTPEIDEYCVQQLKEYDGKQLVSV 534  
 Ixodus scapularis YHTSSSGDETCSLKDYVSRMKENQKHYYITGESKDKQVANSAFVERVRRGLEVYMTPEIDEYCVQQLKEYDGKTLVLSV 539



580 600 620 640

Euphausia superba TKEGLEPEDEEEKKKFEEQKTKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 610  
 Penaeus monodon TKEGLEPEDEEEKKKFEEQKTKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 612  
 Fenneraopenaeus chinensis TKEGLEPEDEEEKKKFEEQKTKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 618  
 Metapenaeus ensis TKEGLEPEDEEEKKKFEEQKTKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 612  
 Portunus trituberculatus TKEGLEPEDEEEKKKLEEQKTKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 614  
 Eriocher sinensis TKEGLEPEDEEEKKKFEEQKSKFENLCKVVKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 611  
 Chiromantes haematocheir TKEGLEPEDEEEKKKLEEQKAKFENLCKVVKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 610  
 Tigriopus japonicus TKEGLEPEDEEEKKKFEEAKTKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 614  
 Apis mellifera TKEGLEPEDEEEKKKREEDKAKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 616  
 Mamestra brassicae TKEGLEPEDEEEKKKREEDKVKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 610  
 Chilo suppressalis TKEGLEPEDEEEKKKREEDKVKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 610  
 Drosophila melanogaster TKEGLEPEDEEEKKKREEDKAKFENLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 609  
 Macrocentrus cingulum TKEGLEPEDEEEKKREADKAKFEEELCKIMKTLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 614  
 Ixodus scapularis TKEGLEPEDEEEKKREELNKNKFNLCKVMKDLDRKVEKVLVSNRLETSPCCIVTSQHWGTANMERIMKAQALRDTST 619



660 680 700 720

Euphausia superba MGYMAAKKHLEINPDHSIVETLRQKADADKNDKSVKDLVMLLFETSLSGGFSLSDPGVHARSRIYRMKLGGLGDEEDLP 690  
 Penaeus monodon MGYMAAKKHLEINPDHSIVETLRQKADADKNDKSVKDLVMLLFESSLSGGFSLSDPGVHARSRIYRMKLGGLGDEEDAP 692  
 Fenneraopenaeus chinensis MGYMAAKKHLEINPDHSIVETLRQKADADKNDKSVKDLVMLLFESSLSGGFSLSDPGVHARSRIYRMKLGGLGDEEDAP 698  
 Metapenaeus ensis MGYMAAKKHLEINPDHSIVETLRQKADADKNDKSVKDLVMLLFESSLSGGFSLSDPGVHARSRIYRMKLGGLGDEEDSP 692  
 Portunus trituberculatus MGYMAAKKHLEINPDHSIVETLRQKADADKNDKSVKDLVMLLFESALSSGFTLEDPGVHAGRIYRMKLGGLGDEDDAP 694  
 Eriocher sinensis MGYMAAKKHLEINPDHSIVETLRQKADADKNDKSVKDLVMLLFESALSSGFTLEDPGVHAGRIYRMKLGGLGDEDDAP 691  
 Chiromantes haematocheir MGYMAAKKHLEINPDHSIVETLRQKADADKNDKSVKDLVMLLFESALSSGFTLEDPGVHAGRIYRMKLGGLGDEDDAP 690  
 Tigriopus japonicus MGYMAAKKHLEINPDHSIVENLRQKADADKNDKSVKDLVLLFETALLSSGFSLSDPGVHARSRIYRMKLGGLGDEDEAE 694  
 Apis mellifera MGYMAAKKHLEINPDHPIENLRQKADADKNDKSVKDLVMLLFETALLSSGFSLSDPGVHARSRIYRMKLGGLGDEDDTP 696  
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 Chilo suppressalis MGYMAAKKHLEINPDHSIVETLRQKADADKNDKAVKDLVLLYETALLSSGFSLSDPGVHARSRIYRMKLGGLGDEDEP 689  
 Drosophila melanogaster MGYMAAKKHLEINPDHPIENLRQKADADKNDKAVKDLVLLFETALLSSGFSLSDPGVHARSRIYRMKLGGLGDEDEP 688  
 Macrocentrus cingulum MGYMAAKKHLEINPDHPIENLRQKADADKNDKAVKDLVLLFETALLSSGFSLSDPGVHARSRIYRMKLGGLGDEDEP 693  
 Ixodus scapularis MGYMAAKKHLEINPDHPIENLRQKADADKNDKAVKDLVMLLFETALLSSGFSLSDPQLHADRIYRMKLGGLGDEDEP 698



740

Euphausia superba VEDSNTAE-----EMPP-----EGDDEDASRMEEVD 717  
 Penaeus monodon MEEAETLEE-----DMPP-----EGDDEDASRMEEVD 720  
 Fenneraopenaeus chinensis MEEAETLEE-----DMPP-----EGDDEDASRMEEVD 726  
 Metapenaeus ensis LEEAETQEE-----EMPP-----EGDDEDASRMEEVD 720  
 Portunus trituberculatus AEDNTESE-----EMPP-----E-DEEDTSRMEEVD 721  
 Eriocher sinensis AEDNTEAAE-----EMPP-----E-DEEDTSRMEEVD 718  
 Chiromantes haematocheir AEDNTEAAE-----EMPP-----E-DEEDTSRMEEVD 717  
 Tigriopus japonicus AII-GEONAE-----EMPE-----EGDEDDAGRMEEVD 721  
 Apis mellifera NVEDEKMDT-----EVPP-----EDDTEEASRMEEVD 724  
 Mamestra brassicae IQVEEANAG-----DVPP-----EGDADDSARMEEVD 717  
 Chilo suppressalis IQVEETSAG-----DVPP-----EGDADDSARMEEVD 717  
 Drosophila melanogaster MTTDDAQSA--G--DAPSL-----VEDTEDASHMEEVD 717  
 Macrocentrus cingulum FPDDKKMAD-----EVPTLEPSTAEESEDASRMEEVD 725  
 Ixodus scapularis AGAGDNTAAAASEDMPP-----EGDDEDASRMEEVD 731

