


```

** * : : :
Chicken ENSGALP0000001713 NLRKPIVEKLRDRINSIEOLKLLLEKEFORHQ-----PNSKLEKADILEMIVSYLK-YSRQDYCEGYAWCLKEALQFLS-----LHSANTEQMKLICHFORSQAMPKD--- 101
Chicken ENSGALP0000001706 NKLRKPVVEKMRRDRINSIEOLKLLLEKEFORHQ-----PNSKLEKADILEMAVSYLK-QQSFDFREGYSRCLQEAHFHFLS-----LHKVRETEQTKLLSHFQKSQSAABE--- 101
Chicken ENSGALP0000001712 NKLRKPVVEKMRRDRINSIEOLKLLLEKEFORHQ-----PNSKLEKADVLEVAVSYLK-QQSQDFNSGYLRCLREAMHFLS-----YYEPKRETAQOLIKHFCKAQIKQPA--- 101
Anole Lizard ENSACAP00000003080 LQLRKPVVEKMRRDRINSIEOLKLLLEKEFORHQ-----PNSKLEKADILEMIVSYLK-QQSVDFKQGYSKCLHBAFQFMS-----HHKVHAEQAQKLVNHFQRSQSPD--- 101
Frog ENSXETP00000026362 NKLRKPIVEKMRRDRINSIEOLKALLEKEFHKEQE-----PNVKLEKADILEMAVSYLQ-QQKQDKQGFSSCLREAVQFLC-----YYPESGETQMKLLKHLQABPKLSVA--- 101
Frog ENSXETP00000024266 NKIRKPMVEKMRRDRINSINOLQNLLEKEFQLLQ-----PDSKPEKADILELAVKFLK-QQIQDFSGQYSNCLHETFAFLS-----FHRTEEMQLKLMNHFCCLDSQPRG--- 101
Frog ENSXETP00000061549 RQIRKPVVEKMRRDRINSIKOLRMLLEKEFORHQ-----PNSKLEKADILEMIVSYLK-EHQQDYNGQYSRCLFETLQFLS-----HTEMQKPAKLVKLVQHFNRVTPADNN--- 101
Frog ENSXETP00000026359 NKLRKPVVEKMRRDRINSIEOLKGLLETVVFHQQ-----PNVKLEKADILEMIVSYLK-QQTMQDKDYSRCLFEVIDFLS-----LHQKQPEETA-KLISHFHSHKATASSI--- 100
Zebrafish ENSDARP00000055705 HKLRKPVVEKMRRDRINNCIEOLKSMLEKEFQOQD-----PNAKLEKADILEMIVSYLK-QQLNAQIEGYSQWRETIISFLS-----VGSEA-VAQRLQQAARRSAAPELTH--- 100
Zebrafish ENSDARP00000055706 HKLRKPVVEKMRRDRINNCIEOLKSMLEKEFQOQD-----PNAKLEKADILEMIVSYLK-QQLNAQIEGYSQWRETIISFLS-----VGSEA-VAQRLQQAARRSAAPELTH--- 100
Zebrafish ENSDARP00000044079 IKLRKPIVEKMRRDRINTCIDOLKSLLEKEFHSHD-----PNSKLEKADILEMIVSYLK-QQIRDFNEGYSHCWRESVHFLS-----LHSNAGELQHLHSGPKTNSIMGSTP--- 101
Frog ENSXETP00000048128 RKIRKPVVEKMRRDRINSIEOLRMLLEKEFEKHN-----LPSKPEKADILEVAVGFLQ-QHIKSYKEGYSKCVEDSVHFLS-----AHNQH--SQGNLLSFHGHQFSSGE--- 99
Zebrafish ENSDARP00000055708 -----MRRDRINKCIEOLKILLKTEIKASQ-----PCSKLEKADILEMAVSYLK-NLAQSVADGYSRCLFETARFLS-----AHKQTKHKSQKPVDSQOITSEIAKHG--- 91
Zebrafish ENSDARP00000073721 NKLRKPMVEKIRRRERINSIEKLLTLLAQEFVQOQ-----PDSRQEKADILEMIVSYLK-RSQSAGDGRSRCVQEAHSVFLS-----QCPVQTSHTRLMKLFLHMOTPADQ--- 101
Zebrafish ENSDARP00000094981 NKLRKPMVEKIRRRERINSIEKLLTLLAQEFVQOQ-----PDSRQEKADILEMIVSYLK-RSQSAGDGRSRCVQEAHSVFLS-----QCPVQTSHTRLMKLFLHMOTPADQ--- 101
Zebrafish ENSDARP00000073730 NKLRKPMVEKIRRRERINSIEKLLTLLAQEFVQOQ-----PDSRQEKADILEMIVSYLK-RSQSAGDGRSRCVQEAHSVFLS-----QCPVQTSHTRLMKLFLHMOTPADQ--- 101
Zebrafish ENSDARP00000094985 NKLRKPMVEKIRRRERINSIEKLLTLLAQEFVQOQ-----PDSRQEKADILEMIVSYLK-RSQSAGDGRSRCVQEAHSVFLS-----QCPVQTSHTRLMKLFLHMOTPADQ--- 101
Zebrafish ENSDARP0000007386 NKLRKPMVEKIRRRERINSIEKLLTLLAQEFVQOQ-----PDSRQEKADILEMIVSYLK-RSQSAGDGRSRCVQEAHSVFLS-----QCPVQTSHTRLMKLFLHMOTPADQ--- 101
Amphioxus_271445 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-YLKLADYRIGIFRECAEVARVMTIEGLDI-----QDPLRIRLNMHLQCTIAAQREA--- 103
Sea urchin GLEAN3_09465 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKYLDHYRVLGFRCAEVARVLTVEGMDI-----QDPLRIRLNMHLQCYVAQREF--- 103
Earthworm k 16581_Q66KK8 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKYLDHYRVLGFRCAEVARVLTVEGMDI-----QDPLRIRLNMHLQCYVAQREF--- 103
Fruitfly FBpp0087945 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKYLDHYRVLGFRCAEVARVLTVEGMDI-----QDPLRIRLNMHLQCYVAQREF--- 103
Sponge XP_003387453.1 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKYLDHYRVLGFRCAEVARVLTVEGMDI-----QDPLRIRLNMHLQCYVAQREF--- 103
Zebrafish ENSDARP00000002357 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
Frog ENSXETP00000047237 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
HEY2 ENSP00000357348 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCATQREA--- 103
Anole Lizard ENSACAP00000001749 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
Chicken ENSGALP00000025335 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
HEY1 ENSP00000338272 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
Anole Lizard ENSACAP00000013195 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
Frog ENSXETP00000017194 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
Zebrafish ENSDARP00000094416 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
HEYL ENSP00000361943 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
Zebrafish ENSDARP00000072659 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----QGSAKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----SDPLRVRLVSHLSTSCASQREA--- 103
Earthworm k 4183_Q9WV93 FKLLPAIEKRRDRINNCIAELRLVPTAFEK-----QGSKLEKAEILOMTVD-HLKMQLDFMSIGFRECLTEVARVLTVEGLDS-----HDPLCVRLLSHLHYYPSTAPT--- 103
Sea squirt ENSCINP00000013234 RKKRRGIEKRRDRINNCIAELRLVPTAFEK-----HGSKLEKAEILOMTVD-HLKTLDYHSGFRECSEVARVMTISMDGIQS-----SVRENLLSHLQNMVTHKPT--- 101
Amphioxus_99475 EISSHKIVERRRRHRINTCIAQLSQAIPAAFSKSVNRR-----RGLSGKLEKAEVLEMAVS-YVKHQRHFEEGYRECCKEVARVLAEEVGMNP-----QDVRFLRLLCHLQTRGPAARG--- 109
Amphioxus_103572 EISSHKIVERRRRHRINTCIAQLSQAIPAAFSKSVNRR-----RGLSGKLEKAEVLEMAVS-YVKHQRHFEEGYRECCKEVARVLAEEVGMNP-----QDVRFLRLLCHLQTRGPAARG--- 109
Sea anemone 246249 SECSSHVIEKRRDRINNCIAELRLVPTAFEK-----NGK-----QG-SGKLEKAEILELTV-YVKKNLRKFWMGYSDCAEVLRFVVAEAMDP-----QDPCFRLMAHLRHRHNLVME--- 104
Anole Lizard ENSACAP00000002279 TPVSHKVIKRRDRINRCLNELGKIVPMALAK-----QSSGKLEKAEILEMTVQ-YLRALHNYPHYGYHECMKNLVHVLTTVERMET-----KDTKYARILAFLOSKARFVTE--- 103
HESL ENSP00000426033 TPVSHKVIKRRDRINRCLNELGKIVPMALAK-----QSSGKLEKAEILEMTVQ-YLRALHNYPHYGYHECMKNLVHVLTTVERMET-----KDTKYARILAFLOSKARLCAE--- 103
Zebrafish ENSDARP000000073348 TPVSHKVIKRRDRINRCLNELGKIVPMALAK-----QSSGKLEKAEILEMTVQ-YLRALHNYPHYGYHECMKNLVHVLTTVERMET-----KDTKYARILAFLOSKVVTEPV--- 103
Frog ENSXETP00000062321 APVSHKVIKRRDRINRCLSELGKIVPMALAK-----QNSGKLEKAEILEMTVQ-YLRALHNYPHYGYHECMKNLVHVLTTVERMET-----KDNKYARIVAFLOSKAHLSTE--- 103
Amphioxus_103107 QDLHRIVEKRRDRINDCLANIRELLPEELVRQ-----KSCG---KAEILELTM-HMKHLQDGFVLAGYRECLGEAIRVMS-----QSPV-----DGVSEKIESHLRRHCQRSLP--- 98
Fruitfly FBpp0081723 DPLSHRIIEKRRDRINNCIAELRLVPTAFEK-----KGRGRIEKTETIEMAIR-HLKHLDQSDYRSGYMDCKEAAKFLY---DVHM-----QDF-CHRLLRQLQEHIDEMFK--- 99
Amphioxus_132230 EPTPHKVIKRRDRINRQFEELRGLVPTARNSQ-----GVKN---DKVDLHMTIE-HLKTITDAVLGAFSECAEALQYLLHEHME-----DSELVYSLRSLHRLNSQMSLDV--- 102
Anole Lizard ENSACAP00000012353 YKLPHRLIEKRRDRINECTAQLKDLLP-EHLKL-----TTLGHLEKAVVLELTLK-HVKALTEVFRSGFQCAKEVLQVVAKHENA-----KELKSSOLISHLHRVASEVLQ--- 101
Chicken ENSGALP00000013509 YKLPHRLIEKRRDRINECTAQLKDLLP-EHLKL-----TTLGHLEKAVVLELTLK-HVKALTEVFRSGFQCAKEVLQVVAKHEN-----KELKAAOLVGHHRVAEALLP--- 100
DEC1 ENSP00000256495 YKLPHRLIEKRRDRINECTAQLKDLLP-EHLKL-----TTLGHLEKAVVLELTLK-HVKALTEVFRSGFQCAKEVLQVVAKHEN-----KELKAAOLVGHHRVAEALLP--- 100
Zebrafish ENSDARP000000023917 YKLPHRLIEKRRDRINECTAQLKDLLP-EHLKL-----TTLGHLEKAVVLELTLK-HVKALTEVFRSGFQCAKEVLQVVAKHEN-----KELKAAOLVGHHRVAEALLP--- 101
Frog ENSXETP00000011372 YKLPHRLIEKRRDRINECTAQLKDLLP-EHLKL-----TTLGHLEKAVVLELTLK-HVKALTEVFRSGFQCAKEVLQVVAKHEN-----KELKAAOLVGHHRVAEALLP--- 101
DEC2 ENSP00000242728 YKLPHRLIEKRRDRINECTAQLKDLLP-EHLKL-----TTLGHLEKAVVLELTLK-HVKALTEVFRSGFQCAKEVLQVVAKHEN-----KELKAAOLVGHHRVAEALLP--- 101
Anole Lizard ENSACAP00000000427 YKLPHRLIEKRRDRINECTAQLKDLLP-EHLKL-----TTLGHLEKAVVLELTLK-HVKALTEVFRSGFQCAKEVLQVVAKHEN-----KELKAAOLVGHHRVAEALLP--- 103
Frog ENSXETP00000050690 YKLPHRLIEKRRDRINECTAQLKDLLP-EHLKL-----TTLGHLEKAVVLELTLK-HVKALTEVFRSGFQCAKEVLQVVAKHEN-----KELKAAOLVGHHRVAEALLP--- 103
Zebrafish ENSDARP00000061105 YKLPHRLIEKRRDRINECTAQLKDLLP-EHLKL-----TTLGHLEKAVVLELTLK-HVKALTEVFRSGFQCAKEVLQVVAKHEN-----KELKAAOLVGHHRVAEALLP--- 103
1.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100.....110.....120....

```

