

Supplementary File S1: Human Phafin2 orthologues retrieved from Ensembl genome browser.

>*Homo_sapiens*(Human)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSAGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Ficedula_albicollis*(Collared_flycatcher)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMTACQSTRSDSYSQSPKSPLNDVSD
DDDDDEDSSD

>*Ciona_savignyi*(Pacific_transparent_sea_squirt)

MVERLANTEINARRISHVEACFGSSGKPLFHPTRVLVGEGVLTKLCRKKPKQRQFFLFND
VLVYGNIVISKRYNKQNVLSLRNVREEIPDSDTNGGAEGTEVLKNGWLIISTSKSFAV
YAQTAMEKQEWLTHMNRCIEEEKKSGPSIDVTEQFAPAWVPDSEAECEMRCKKTRFTAL
QRRHHCRRCGFVVCQGCSKKVVIKNQSAKPLRVCDTCLTSLANKKDNSPPQNNKLAFGD
TSISDSESSDDTRT

>*Latimeria_chalumnae*(Coelacanth)

MVDRLANSEANSRRIAMVESCFGAAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVADLLMKSGKTPNSEHAAVWVPDSEASVCMRCQRVKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRVCNFCYDLLFSAGPMSASLPSKSDSYRRSPKSSIDNVS
DEDEDEDSSD

>*Petromyzon_marinus*(Sea_lamprey)

MAEPLASSEENCRIARIESCFGAAGRPLMAPGRVLVGEGTLTKLCRKGPKPRQFFLFDD

MVVYGA AVLGNRRYANQ RVLAL EAVTICTLPDEGELSNGWLMQTPAKSFKVFAATESERA
EWIGHIERCVRELRAKRGLPPHGLEPAAWWVPDSSASACMRRQRSRFNALNRRHHCRKCG
IVVCGACSDRRFLLPGQSSRPLRVCIDCFDSLAAAAAAAAAVTAPAGPLSSSSSDDLDSDE
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>*Lepisosteus_oculatus*(Spotted_gar)

MVDRLANSEANSKRIALVEGCFGTAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIEDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLEKSGKSPSSEHA AVWVPDSEATVCMRCQKIKFTPVSRRHHCRKCGF
VVCGPCSEKKFLLPSQSSKPVRVCEFCYEQLAGGQAASLPARSDSYSRSSKFPAPSVSDD
DDEDDSSD

>*Myotis_lucifugus*(Little_brown_bat)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
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EWMNHINKCVTDLLSKSGKTPSNEHA AVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMASCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Pongo_pygmaeus*(Bornean_orangutan)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHA AVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Dichotomycere_nigroviridis*(Green_spotted_puffer)

MVDRLANSEANSKRIAFVESCFGAAGQPLAIPGRVLIGEGILTCLCRKKPKTRQFFLFND
ILVYGNILIQKKKYNKQHIIPLLEGVTIDTVPDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVNDLLQKSGKAPTGEHA AVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGL
VVCGPCSEKKFLLPSQSSKPVRVCEFCYVQLMAGGVAPRSDSMSRPAATFSSSNLCWDEG
SSSSSD

>*Pteropus_vampyrus*(Large_flying_fox)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND

ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDLATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Loxodonta_africana*(African_bush_elephant)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMDCQPTRSDSYSQSLKSPLNDVSD
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>*Procavia_capensis*(Rock_hyrax)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMASRSDSYSQSLKSPLNDVSDDDDD
DDSSD

>*Ciona_intestinalis*(Vase_tunicate)

MVERLANTEINARRISHVESCFGSSGKPLFHPSRVLVGEGVLTCLCRKKPKARQFFLFND
VLVYGNIVINKKRYNKQSVLSLRNVREEIPDNEETAADGSDTLKNGWLIISPSKSFAV
YAQTAMEKEEWLTHMTRCIDEEKKSGPSISVTDQFAPTWVPDSEAVVCMRCKKTRFTTL
QRKHHCRKCGLVVCNACSTKKCIHQHSAKPLRVCDVCYQSLQNGSNTPEVTASNVPNNK
LAFGDTSYSSDSESSNEA

>*Gasterosteus_aculeatus*(Three_spined_stickleback)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIMIQKKKYNKQHIIPLESVTIDKVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVEDLLLKSGKAPTGEHAAVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSERKHLLPSQSSKPVRVCEFCFVQLTAEGAAARSDSLGRLGSKFHNMSDDDDDD
DSSD

>*Tursiops_truncatus*(Bottlenose_dolphins)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND

ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSTLNDVSD
DDDDDDSSD

>*Poecilia_formosa*(Amazon_molly)

MVDRLANSEANSKRIGLVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLLEGVTIDTVPDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVRELLQKSGKSPTGEHAAVWVPDSEATVCMRCKKVKFTPVSRRHHCRKCGY
VVCGPCSEKKFLFPSQSSKPVRVCEHCYGMLSGSLGPRSEMSRPGANFNNTLSDDDDD
DDSSD

>*Mustela_putorius*(Ferret)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
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>*Otolemur_garnettii*(Northern_greater_galago)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDLATCQPTRSDSYGQSLKSSLNDVSD
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>*Chlorocebus_sabaeus*(Green_monkey)

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ILVYGNIVIQKKNYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDDSYSQSLKSPLNDMSD
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>*Dasypus_novemcinctus*(Nine_banded_armadillo)

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ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPSSKPVRICDFCYDLLSTGDMAACQPNRSDSYSHSLKSPLNDVSD
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>*Tupaia_belangeri*(Northern_treeshrew)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPSSKPVRICDFCYDLLSTGDMATCQQPTRSDSYSQSLKSPLNDVS
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>*Anolis_carolinensis*(Carolina_anole)

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EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATICMRCQKAKFTPVNRRHHCRKCGF
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>*Pelodiscus_sinensis*(Chinese_softshell_turtle)

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EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPNQSSKPVRICDFCYDLLSTGEMTACQPTRSDSYSQSPKSPINDVSD
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>*Ochotona_princeps*(American_pika)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDVSD
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>*Erinaceus_europaeus*(European_hedgehog)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND

ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDVSD
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>*Vicugna_pacos*(Alpaca)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
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EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSAGDMATCQPARSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Sorex_araneus*(Common_shrew)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVSRRHHCRKCGF
VVCGSCSEKRFLFPSQSSKPVRICDFCYDLLSTGDSGLGQPTRSDSYSQSLKSPLNDASD
DDDDDDSSD

>*Choloepus_hoffmanni*(Hoffmann's_two-toed_sloth)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHA

>*Macropus_eugenii*(Tammar_wallaby)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCDLLSSGDLATCQPSRSDSYSQSPKSPLNNVSD
DEDDDEDSSD

>*Heterocephalus_glaber_1_*(Naked_mole-rat)

MVDRLANSEANTRRIGIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPVNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGY

VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQGRSDSYSQSLKSSLNNVSD
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>*Heterocephalus_glaber_2_*(Naked_mole-rat)

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EKKYNKQHIIPLQNVITIDSVKDEGDLRNGWLIKTPTKLFAVYAATATEKSEWMNHINKCV
TDLLSKSGKTPINEHTAVWVPDSEATVCMRCQKAKFTPVNPLHHCRKCGHVVCGPCSEKR
FLLPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSVYSQSLKSSLNNVSDDEDDDDSSA

>*Chinchilla_lanigera*(Long-tailed_chinchilla)

MVDRLANSEANTRRIGIVENCFAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPINEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMAACQPARSDSYSQSLKSPLNDVSD
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>*Cavia_porcellus*(Guinea_pig)

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EWMNHINKCVTDLLSKSGKTPINEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNNVSD
DDDDDDSSD

>*Ictidomys_tridecemlineatus*(Thirteen-lined_ground_squirrel)

MVDRLANSEANTRRISIVENCFAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
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EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
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>*Heterocephalus_glaber*(Naked_mole-rat)

MVDRLANSEANTRRIGIVENFVIGEGVLTKLCRKKPKARQFFLFNDIFVYGNIVIQKKKY
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SKSGKTPINERAAVWVPDSEAPVCMRCQKAKFTPVSRRHHCRKCGYVVCGPCSEKRFLLP
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>*Rattus_norvegicus*(Brown_rat)

MVDRLANSEANTRRISIVESCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
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EWMNHINKCVSDLLSKSGKTPSNEHAADVVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMACQPTRSDSYSQSLKSPLNDASD
DDDDDDSSD

>*Clethrionomys_glaireolus*(Vole)

MVDRLANSEANSRRISIVESCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSSEHAADVVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYELLSTGDMACQPARSDDSYSQSLKPPLNDVSD
DDDDDDSSD

>*Cricetulus_griseus*(Chinese_hamster)

MVDRLANSEANTRRISIVENCFAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
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EWMNHINKCVTDLLSKSGKTPSSEHAADVVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPNQSSKPVRICDFCYDLLSTGDMSSGQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Cercocebus_atys*(Sooty_mangabey)

MVDRLANSEANTRRISIVENCFAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Cebus_imitator*(White-faced_capuchin)

MVDRLANSEANTRRISIVENCFAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Macaca nemestrina*(Southern_pig-tailed_macaque)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Nomascus leucogenys*(Northern_white-cheeked_gibbon)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Capra aegagrus*(Goat)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDVAACQPARSDSYSQSLQPPLNDVSD
DDDDDDSSD

>*Sorex araneus*(Shrews)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMAACQPTRSDSYSQSLKSPLNDASD
DDDDDDSSD

>*Mus spretus*(Algerian_mouse)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
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EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMAACQPTRSDSYSQSLKSPLNDASD
DDDDDDSSD

>*Mus_caroli*(Ryukyu_mouse)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
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EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMACQPTRSDSYSQSLKSPLNDASD
DDDDDDSSD

>*Eptatretus_burgeri*(Inshore_hagfish)

MVDRLVNSEGNRRIAAVESCFGAAGQPLAAPGRVLVGEGLTKQCRKGPKPRQFFLFND
LLVYGAVVLSRRRYAGQRIIPLEQVSIRAVPDEGDLHNGWLIQTPAKSFKVFAATALERT
EWMSHIERCVRDQLDRKRRDKSTVDEPAADVWVPDASASTCMRCHRTFTALNRRHHCRKC
GFVVCAACSEHRHLIPQQSSRPLRVCQPCYEDLSANSHNSSHNTSRRGSDGPVPCPGGLD
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>*Panthera_tigris*(Tiger)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Danio_rerio*(Zebrafish)

MVDRLANSEANSKRIGVVEACFGTAGQPLAIPGRVLIGEGVLTKLCRKRPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVEDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMSHINKCVSDLLEKSGKSPTGEHAADVWVPDSEATVCMRCQKMKFTPVNRRHHCRKCGF
VVCGPCSEKKFLLFPSQSSKPVRVCEFCYKQLSTGATLPPRSDSYSRQGSDFGSNNISDDD
DDDDSSD

>*Cyprinodon_variegatus*(Sheepshead_minnow)

MVDRLANSEANSKRIGLVESCFGAAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVRELLQKSGKSPTGEHAADVWVPDSEATVCMRCKKVKFTAVSRRHHCRKCGY
VVCGPCSDKKFLLFPSQSSKPVRVCEHCYAMLGSLGPRSDSITRPGANFNNTLSDDDEDE
DDSSD

>*Amphilophus_citrinellus*(Midas_cichlid)

MVDRLANSEANSKRIALVENCFGAAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCKKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEYCYEQLTSVNLQQHSDTITRPGSKFNSSNLSDDDD
DDSSD

>*Oryzias_dancena*(Indian_medaka)

MQPDDLDTLQSVIFEYEREIYLSNIKKEPEQCEVKMVDRLANSEANSKRIGMVESCFGAA
GQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFNDILVYGNIVIQKKKYNKQHIIPLESV
TIDTVPDEGDLRNGWLIKTPTKSFAVYAATGTEKCEWMNHIGKCVRDLLQKSGKSPTGEH
AAVWVPDSEAPICMRCEKVKFTPVIRRHCRKCGYVVCGPCSEKKYLIPSQSSKPVRVCE
YCYSQLTSGSHAPRSDSNNWGESRYNNHLSDDDEDEDSSD

>*Stegastes_partitus*(Bicolor_damselfish)

MVDRLANSEANSKRIAVVEGCFGAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEYCYVQLTSGSLAPRSDSISRSKFNSNNLSDDDED
DSSD

>*Amphiprion_percula*(Orange_clownfish)

MVDRLANSEANSKRIAVVESCFGAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEYCYLQLTSGSLGPRSDSISRPGSKFNSNNLSDDDED
EDSSD

>*Fundulus_heteroclitus*(Mummichog)

MVDRLANSEANSKRIGLVESCFGAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVQDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVRELLQKSGKSPTGEHAAVWVPDSEATVCMRCKKVKFTPVSRRHHCRKCGY
VVCGPCSEKKFLLPSQSSKPVRVCEHCYGVLSGSLGPNADSLSRPGLNFNNTLSDDDDDD
DSSD

>*Maylandia_zebra*(Zebra_mbuna)

MVDRLANSEANSKRIAVVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCKKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEHCYEQLTSVNQARSDSITRPGSKFHSNNLSDDDDDD
DDSSD

>*Astatotilapia_calliptera*(Eastern_happy)

MVDRLANSEANSKRIAVVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCKKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEHCYEQLTSVNQARSDSITRPGSKFHSNNLSDDDDDD
DDSSD

>*Oryzias_latipes*(Japanese_rice_fish)

MVDRLANSEANSKRIGMVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKC
EWMNHIGKCVKDLLQKSGKSPTGEHAAVWVPDSEASVCMRCLKVKFTAVNRRHHCRKCGY
VVCNPCSEKKYLLPSQSSKPVRVCEFCYAQLTSGSLAPCSDSNSWSESRYNNNHLSDDED
EDDSSD

>*Amphiprion_ocellaris*(Clownfish)

MVDRLANSEANSKRIAVVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEYCYLQLTSGSLGPRSDSISRPGSKFNSNNLSDDDED
EDDSSD

>*Xiphophorus_maculatus*(Southern_platyfish)

MVDRLANSEANSKRIGLVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLEGVTIDTVPDDGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVRELLQKSGKSPTGEHAAVWVPDSEATVCMRCKKVKFTPVSRRHHCRKCGY
VVCGPCSEKKFLLPSQSSKPVRVCEHCYGMLSGSLGRQSEMSRSGANFNNTLSDDDDDD
DSSD

>*Neolamprologus brichardi*(Lyretail_cichlid)

MVDRLANSEANSKRIAVVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCKKVKFTPVSRRHHCRKCGY
VVCGPCSEKKYLLPSQSSKPVRVCEHCYDQLTSVNQARSDSITRPGSKFHSNNLSDDDDDD
DDSSD

>*Scophthalmus maximus*(Turbot)

MVDQLAKSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKAPTGEHAAVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGY
VVCGPCSEKKYLLPSQSSKPVRVCEYCFVQLTSGGLAVRSDSFGRMGSKFNNLSDDDDDED
DSSD

>*Pundamilia nyererei*(Makobe_Island_cichlid)

MVDRLANSEANSKRIAVVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCKKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEHCYEQLTSVNQARSDSITRPGSKFHSNNLSDDDDDD
DDSSD

>*Vulpes vulpes*(Red_fox)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Gallus gallus*(Chicken)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGEMTACQSTRSDSYSQSPKSSLNDASD
DDDDDEDSSD

>*Sphenodon_punctatus*(Tuatara)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIESIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAADVWVPDSEASVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQASKPVRICDFCYDLLSSGEMTTCLPTRSDSYSQSPKSPLNNVSD
DDDDDDSSD

>*Equus_asinus*(Donkey)

MVDRLANSEANTRRINIVEHCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPPRSDTYSQSLKSPLNDVSD
DDDDDDSSD

>*Notechis_scutatus*(Tiger_snakes)

MVDRLANSEANTRRISVVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIESIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLIPSQSSKPVRICDFCYEFLSMGEMSTCQPTRSDSFSQSPKPPLNDISD
DDDDDDSSD

>*Phascolarctos_cinereus*(koala)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCFDLLSSGDLATCQPTRSDSYSQSPKSPLNNVSD
DEDDDEDSSD

>*Bos_mutus*(Wild_yak)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKPPLNDVSD
DDDDDDSSD

>*Anser_brachyrhynchus*(Pink-footed_goose)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMTACQSTRSDSYSQSPKSSLNDASD
DDDDDEDSSD

>*Mus_spicilegus*(Steppe_mouse)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMAACQPARSDSYSQSLKSPLNDASD
DDDDDDSSD

>*Neovison_vison*(American_mink)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Chelonoidis_abingdonii*(Abingdon_island_giant_tortoise)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMTTCQPTRSDSYSQSPKSPLNDVSD
DDDDDDSSD

>*Peromyscus_maniculatus*(Northern_American_deer_mouse)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSSEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMAACQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Parus_major*(Great_tit)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMTACQSSRSDSYSQSPKSSLNDVSD
DDDDDEDSSD

>*Crocodylus_porosus*(Australian_saltwater_crocodile)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSSGEMTTCQPTRSDSYSQSPKSSLNDISD
DDDDDDDDSSD

>*Coturnix_japonica*(Japanese_quail)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYELLSTGEMTACQSTRSDSYSQSPKCSLNDASD
DDDDDEDSSD

>*Bos_taurus*(Cattle)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKPPLNDVSD
DDDDDDDDSSD

>*Electrophorus_electricus*(Electric_eel)

MVDRLANSEANSKRIAVVESCFGTAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLEKSGKAPSGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKFLLFPSQSSKPVRVCEFCYEQLSTGATLPPRSNSYSRQPCSTNVSDDDDED
DSSD

>*Callorhinchus_milii*(Elephant_shark)

MVDRLANSEANARRIGMVESCFGAAGQPLTVTGRVLIGEGVLTKLCRKKAKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDTIEDDGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHITKCVADLLSKSGKIPSNEHAAVWVPDSEATICMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRVCSFCYDLLSSGQLNATLSNRSEFYHGALQSPGNLSDE
DEDDSSSD

>*Caenorhabditis_elegans*(Roundworm)

MVDRLVNSEVNSRRMANVEQCFGKMGEQLSVFGRVLVGEGVLVKMCRKKPKQRQFFLFND
ILVYGNIVISKKRYNKQRILRLEGVQVEDLEDDGIEKHGWIIKTPAKSFAVYAATETEKR
EWMLHIERCVTDLLERGNKQAATAHAAVWVPDGEAVKCMVCGKTQFNLVQRRHHCRNCGR
VVCGACSSRTFRIDNVHKKPVRVCDHCFDSLSSATPGQEESEPKTGNRLHHEDSSSDSED
EVNGSGRSSNESRPTFYREDVQQPAT

>*Bos_taurus*(Hybrid_cattle)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKPPLNDVSD
DDDDDDSSD

>*Aquila_chrysaetos*(Golden_eagle)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMSACQSTRSDSYSQSPKSSLNDVSD
DDDDDEDSSD

>*Taeniopygia_guttata*(Zebra_finch)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEAAVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSSGEMTACQSTRSDSYSQSPKSSLNDVSD
DDDDDEDSSD

>*Strigops_habroptilus*(Kakapo)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMTACQSTRSDSYSQSPKSSLNDVSD
DDDDDEDSSD

>*Jaculus_orientalis*(Egyptian_jerboa)

VENCFGAAGQPLTIPGRVLIGEGALTKLCRSLRQGSFSYLMTVLNTKKKYNKQHIIPLENV
TIGSIKDEGELRNGWLTKTPTKSFAKSERMNPISKSAADFLSQSGKTASDDEICTCS
SSSPGQKCGFVVRGPCSEKRFLFPSQSSKPVRICDFCDDPLSTGAMATCQPTRSHSLSLK
SPL

>*Prolemur_simus*(Greater_bamboo_lemur)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDDDSSD

>*Serinus_canaria*(Common_canary)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMTACQSTRSDSYSQSPKSSLNDVSD
DDDDDEDSSD

>*Gorilla_gorilla*(Western_lowland_gorilla)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSAGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Hippocampus_comes*(Tiger_tail_seahorse)

MVDRLANSEANSKRISVVEGCFGAAGQPLAIPGRVLIGEVLTCLCRKKPKARQFFLFND
ILVYGNIVLQKKKYNKQHIIPLESVTIDTVPDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVQELLQKSGKAPAGEHAAVWVPDSEAAVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCQFCYQQLVAGGRSDTVCGRAGDFRDVSDDDDDDDDSD
SD

>*Propithecus_coquereli*(Coquerel's_sifaka)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Poecilia_latipinna*(Sailfin_molly)

MVDRLANSEANSKRIGLVESCFGAAGQPLAIPGRVLIGEVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLEGVTIDTVPDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVRELLQKSGKSPTGEHAAVWVPDSEATVCMRCKKVKFTPVSRRHHCRKCGY
VVCGPCSEKKFLLPSQSSKPVRVCEHCYGMLSGSLGRSEMSRPGANFNNTLSDDDDDD
DDSSD

>*Astyanax_mexicanus*(Mexican_tetra)

MVDRLANSEANSKRIAVVEGCFGTAGQPLAIPGRVLIGEVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHISKCVSDLLEKSGKSPTGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKFLLPSQSSKPVRVCEFCYQLSTEASLPVRSNSYSRTPTSKFLTNNVSDD
DDEDDSSD

>*Aotus_nancymae_1*_(Ma's_night_monkey)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Poecilia_reticulata*(Guppy)

MVDRLANSEANSKRIGLVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
IMVYGNIVIQKKKYNKQHIIPLEGVTIDTVPDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVRELLQKSGKSPTGEHAAVWVPDSEATVCMRCKKVKFTPVSRRHHCRKCGY
VVCGPCSEKKFLLPSQSSKPVRVCEHCYGMLSGSLGPRSEMSRPGANFNNTLSDDDDD
DDSSD

>*Pygocentrus_nattereri*(Red-bellied_piranha)

MVDRLANSEANSKRIAVVESCFGTAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHISKCVSDLLEKSGKSPTGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKFLLPSQSSKPVRVCEFCYDQLSTGATLPVRSNSYSLLPPSCKFGSNVSDD
EDEDSSD

>*Anas_platyrhynchos*(Common_mallard)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGEMTACQSARPSGSSNRGIWRVEM

>*Labris_bergylta*(Ballan_wrasse)

MISRPWLYFRTVQQVRERVSALRCHIVSVSPQLQQLVGVCLSSSCSVSCLRTLRLRRA
APASTDSIWNTTELQVAAKVSRGREEPSGEVKMVDRLANSEANSKRIAVVEGCFGAAGQP
LAIPGRVLIGEGVLTCLCRKKPKARQFFLFNDILVYGNIVIQKKKYNKQHIIPLESVTID
TVPDEGDLHNGWLIKTPTKSFAVYAATATEKSEWMNHIGKCVGDLLQKSGKSPTGEHAAV
WVPDSEATVCMRCQKVKFTPVSRRHHCRKCGYVVCGPCSDKKYLLPSQSSKPVRVCEFCF
VQLTSGGLSIRSDSISRPGSKFNSSNMSDDDDDEDSSD

>*Aotus_nancymae_2_*(Ma's_night_monkey)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVPIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWDPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGNMATCQPTRSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Spalax_galili*(Upper_Galilee_Mountains_blind_mole-rat)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIKDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYELLSAGDMATCQPARSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Chrysemys_picta*(Western_painted_turtle)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMTTCQPTRSDSYSQSPKSPLNDVSD
DDDDDDSSD

>*Astatotilapia_burtoni*(Burton's_mouthbrooder)

MVDRLANSEANSKRIAVVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCKKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLFPSQSSKPVRVCEHCYEQLTSSLLPPQDCLYSVILLQSEP

>*Pan_troglodytes*(Chimpanzee)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSAGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Bison_bison*(American_bison)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKPPLNDVSD
DDDDDDSSD

>*Saimiri_sciureus*(Squirrel_monkeys)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND

ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNDHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Ictalurus_punctatus*(Channel_catfish)

MVDRLANSEANSKRIAVVEGCFGTAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLEKSGKSPTGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKFLFPSQSSKPVRVCEFCYQLSTGATLPPRSNSYSRTNNISEDEDEDSS
D

>*Papio_anubis*(Olive_baboon)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSAGDMATCQPARSDSYSQSLKSSLNDMSD
DDDDDDSSD

>*Seriola_lalandi*(Yellowtail_amberjack)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKAPTGEHAAVWVPDSEAAVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLFPSQSSKPVRVCEYCYVQLTSGSLAPRSDSISRPGSKFNNLSDDDED
DSSD

>*Mesocricetus_auratus*(Golden_hamster)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSSEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMAACQPARSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Ursus_maritimus*(Polar_bear)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND

ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMSCAQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Seriola_dumerili*(Greater_amberjack)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKAPTGEHAAVWVPDSEAAVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEYCYVQLTSGSLAPRSDSISRPGSKFNNLSDDDED
DSSD

>*Marmota_marmota*(Alpine_marmot)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Rhinopithecus_roxellana*(Golden_snub-nosed_monkey)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Paramormyrops_batesii*(Paramormyrops)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVEDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLEKSGKLPSEHAAVWVPDSEASVCMRCQKIKFTPVSRRHHCRKCGF
VVCQCSEKKFLLPSQSSKPVRVCEFCYDQLSVGQPGVPGGLSARSDSYSLSSNKFCGNN
MSDDEDEDSSD

>*Rhinopithecus_bieti*(Black_snub-nosed_monkey)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND

ILVYGNIVIQKKKYNKQHIIPLNVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Microcebus_murinus*(Gray_mouse_lemur)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Panthera_pardus*(Leopard)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Hucho_hucho_1_*(Huchen)

MVDRLANSEANSKRIQVVEGCFGTAGQPLVIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHHCRKCGY
VVCGPCSDKKFLLFPSQSSKPVRVCEFCYLQLASTGGGMGLGPRSDSYSRSVSKFNNVSD
EDEEDSSD

>*Geospiza_fortis*(Medium_ground_finch)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLNVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGEMTACQSTRSDSYSQSPKSSLNDVSD
DDDEDEDSSD

>*Hucho_hucho_2_*(Huchen)

MSEAKMVDRLANSEANSKRIQVVEGCFGAAGQPLVIPGRVLIGEGVLTCLCRKKPKARQF

FLFNDILVYGSIVIQKKKYNKQHIIPLESITIDTVADEGDLRNGWLIKTPTKSFAVYAAT
ATEKSEWMSHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHHC
RKCGYVVCGPCSDKKFLLPSQSSKPVRVCEFCYLQLASAGGGTGLGPRSDSYSRSGSKFN
NVSDDEDEEDSSD

>*Ursus_americanus*(American_black_bear)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMAACQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Symphurus_thermophilus*(Tonguefish)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLQKSGKSPSGEHAAVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGY
VVCGPCSEKKYLLPSQSSKPVRVCEYCYIQLTSGPRSDSIGRPGLKFGNNLTDDDDDDDD
SSD

>*Octodon_degus_1_*(Common_degu)

MLDRLANSEANTRRIGIVENCVGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPVNEHAAVWVPDSEATVCMRCQKVKFTPVTRRRHHCRKCGF
VVCGPCSEKGFLLPSQSSKPVRICDFCYDLISTGDMAACQPAWSDSYSQSVKSPLNDVSD
DDEEDSSD

>*Dipodomys_ordii*(Ord's_kangaroo_rat)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPNNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDLATCQPTRSDSYSQSLKSPLNDGSD
DDDDDDSSD

>*Mandrillus_leucophaeus*(Drill)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND

ILVYGNIVIQKKKYNKQHIIPLENTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>Octodon_degus_2_(Common_degu)

MVDQLANSEANTRRIGIVENCFGAAGQPFTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNTVIQKKKYNKQHIIPLENTIDSIKDETPTKSFAVYAAAATEKSEWMNHINKCV
TDLLSKSGKTPVNEHAAVWVPDSEATKVKFTPVNRHHHCHKCGFVVCGPCSEKRFLFPSQ
FSKPVQICEFCYDLLSTVDMACQPARSDSYSQSLKSPLNDVSDDDEEDNEKND

>*Kryptolebias_marmoratus*(Mangrove_rivulus)

MVDRLANSEANSKRIALVESCFAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDTVPDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVRELLQKSGKSPTGEHAAVWVPDSEATVCMRCHKVKFTPVSRRHHCRKCGF
VVCGPCSEKKFLFPSQSSKPVRVCGHCYSLLMSGSLGPRSDSITLGPNNFNNNTLSDDDED
DDSSD

>*Acanthochromis_polyacanthus*(Spiny_chromis)

MVDRLANSEANSKRIAVVESCFAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLFPSQSSKPVRVCEYCYLQLTSGSLGPRSDSISRPGSKFNNLSDDDED
DSSD

>*Pan_paniscus*(Bonobo)

MVDRLANSEANTRRISIVENCFAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSAGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Sinocyclocheilus_grahami_1*_(Golden-line_barbel)

MVDRLANSEANSKRIGVVEVCFGTAGQPLVIPGRVLIGEGVLTCLCRKRPKARQFFLFND
ILVYGNIIIQKKKYNKQHIIPLESVTIDTVEDEGDLRNGWLIKTPTKSFAVYAATATEKS

EWMSHISKCVSDLLEKSGKSPTGDHAAVWVPDSEATVCMRCQKTKFTPVSRRHHCRKCGF
VVCGPCSEKKFLLPSQSSKPVRVCEFCYKQLFSGATLPSHSDSYSHPEISSNISDDDDDD
DDSSD

>*Lates_calcarifer*(Barramundi)

MVDRLANSEANSKRIAVVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKAPTGEHAAVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEYCYVQLTSGSLPPRSDSMSRLGSKFNSNNLSDDDED
EDDSSD

>*Sinocyclocheilus_grahami_2_*(Golden-line_barbel)

MVDRLANSEANSKRIGVVEACFGTAGQPLAIPGRVLIGEGVLTCLCRKRPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVEDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMSHISKCVSDLLEKSGKSPTGEHAAVWVPDSEATVCMRCQKMKFTPMNRRHHCRKCGF
VVCGPCSEKKFLLPSQSSKPVRVCEFCYKQLSTGGTLPSHSDSYSRSEFSSNNISDDDDDD
DDSSD

>*Carlito_syrichtha*(Philippine_tarsier)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Canis_lupus*(Dingo)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Cyclopterus_lumpus*(Lumpfish)

MVDRLANSEANSKRIAVVEGCFGAAGQPLVIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLEAVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS

EWMNHIGKCVEDLLQKSGKAPAGEHAAVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKHLLPSQSSKPVRVCEYCFLQLTAGGLAPRSDSLGSKFNNLSDDDDDED
DSSD

>*Sander_lucioperca*(Zander)

MVDRLANSEANSKRIGVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLHNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKAPTGEHAAVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGY
VVCGPCSEKKHLLPSQSSKPVRVCEYCYVQLTSGGLAQRSDSISRLGSKFNNLSDDDDDD
DSSD

>*Nothobranchius_furzeri*(Turquoise_killifish)

MVDRLANSEANSKRIGLVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVRELLQKSGKSPTGEHAAVWVPDSEAPLCMCCHKVKFTPVSRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRVCEHCYTVLMSGGLGPHDSISRPTSNFNNNTLSDDDED
DNSSD

>*Monodon_monoceros*(Narwhal)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSAGDMATCQPTRSDSYSQSLKSTLNDVSD
DDDDDDSSD

>*Cervus_elaphus_1*_(Yarkand_deer)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKPPLNDVSD
DDDDDDSSD

>*Cervus_elaphus_2*_(Yarkand_deer)

MPTVDPLAKSEANTRRINIVENGFGAAGGLTELCRKKPKVRQFFLLNDILVYGNIVIQKK
KYIKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSLAVYAATATEKSEWMNPINKCVTD

LLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGFVVCGPCSEKRFL
LPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKPPLNDVSDDDSSD

>*Balaenoptera_musculus*(Blue_whale)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQRAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Leptobrachium_leishanense*(Leishan_spiny_toad)

MVDRLANSEANARRINLVESCFGTAGQPLAIHGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIEDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVYDLISKSGKTPNSEHAAVWIPDSEATVCMRCSKVKFTPVSRRHHCRKCGF
VICGPCSEKKFLLPNQSSKPVRVCDFCYDVLASGDLQCQAGRSDSLSSSPKFGHNLSND
DDDDSSD

>*Naja_naja*(Indian_cobra)

MVDRLANSEANTRRISVVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIESIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATACMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLIPSQSSKPVRICDFCYEFLSMGEMPACQPTRSDSFSQSPKPPLNDISD
DDDDDDSSD

>*Phocoena_sinus*(Vaquita)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSTLNDVSD
DDDDDDSSD

>*Sciurus_vulgaris_1_*(Eurasian_red_squirrel)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF

VVCGPCSEKRFLLPSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSSKSPLNDVSD
DDDDDDSSD

>*Oncorhynchus_kisutch*(Coho_salmon)

MGGEAKMVDRLANSEANSKRIQVVEGCFGAAGQPLVIPGRVLIGEGVLTCLCRKKPKARQ
FFLFNDILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAA
TATEKSEWMSHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHH
CRKCGYVVCGPCSDKKFLLPSQSSKPV RVCEFCYLQLASAGGGMGLGPHSDSYSRSGSKF
NNVSDDDEEDSSD

>*Sciurus_vulgaris_2_*(Eurasian_red_squirrel)

MVDRLANSEANTRRLSIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHTAIWVPDSEATVCMHCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPNQSSKPV RICDFCYDLLSTGDMATCQPTRSDSYSQSSKSPLNNVSD
DDDDDDSSD

>*Terrapene_carolina*(Three-toed_box_turtle)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPSSKPV RICDFCYDLLSTGEMTTCQPTRSDSYSQSPKSPLNDVSD
DDDDDDSSD

>*Salmo_salar_1_*(Atlantic_salmon)

MVDRLANSEANSKRIQVVEGCFGTAGQPLVIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHHCRKCGY
VVCGPCSDKKFLLPSQSSKPV RVCEFCYLQLASAGGGMGLGPRSDSYSRSGSKFNNVSDD
EDEDSSD

>*Catagonus_wagneri*(Chacoan_peccary)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF

VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKAPLNDVSD
DDDDDDSSD

>*Pseudonaja_textilis*(Eastern_brown_snake)

MVDRLANSEANTRRISVVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIESIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLIPSQSSKPVRICDFCYEFLSMGEMSTCQPTRSDSFSQSPKPPLNDISD
DDDDDDSSD

>*Tetraodontidae*(Fugu)

MVDRLANSEANSKRIAIVEGCFGTAGQPLAIPGRVLIGEGILTKVCRKKPKTRQFFLFND
ILVYGNILIQKKKYNKQHIIPLESVTIDTVPDDGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVNDLVQKSGKAPTGEHAAVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGL
VVCGPCSEKKYLLPSQSSKPVRVCEFCYMQLTSGGLAPRSDSLSRPGSKFNNTSNLSDDDD
DDDSSD

>*Moschus_moschiferus*(Siberian_musk_deer)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKPPLNDVSD
DDDDDDSSD

>*Equus_caballus*(Horse)

MVDRLANSEANTRRINIVEHCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMAACQPPRSDTYSQSLKSPLNDVSD
DDDDDDSSD

>*Salmo_salar_2_*(Atlantic_salmon)

MVDRLANSEANSKRIQVVEGCFGAAGQPLVIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHHCRKCGY

VVCGPCSDKKFLLPSQSSKPVRVCEFCYLQLASAGGGTGLGPRSDSYSRSGSKFNNVSDD
EDEEDSSD

>*Larimichthys_crocea*(Large_yellow_croaker)

MVDRLANSEANSKRIAVVEGCFGTAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKAPTGEHAADVVPDSEATVCMRCQKVKFTPVSRRHHCRKCGY
VVCGPCSEKKYLLPSQSSKPVRVCEYCFVQLTSGSLGPRSDSISRPGSKFNNLSDDDDDED
DSSD

>*Cottoperca_gobio*(Channel_bull_blenny)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKAPTGEHAADVWIPDSEATVCMRCQKVKFTPVSRRHHCRKCGY
VVCGPCSEKKYLLPSQSSKPVRVCEYCFVQLTSGGPRSDSITRLGSKFNNLSDDDDDEDSD
SD

>*Xenopus_tropicalis*(Western_clawed_frog)

MVDRLANSEANSKRINLVESCFGTAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDTIEDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVCDLISKSGKTPNSEHAADVWIPDSEATICMRCKKVKFTPVNRRHHCRKCGY
VICGPCSEKRYLLPSQSSKPVRVCDFCYDLLSNGDFSSCLPSRSDSFHPSKSKNNLSDD
DDDEDSSD

>*Sus_scrofa*(Pig)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Erpetoichthys_calabaricus*(Reedfish)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHISKCVTDLLEKSGKAPNNEHAADVVPDSEASVCMRCQKIKFTPVNRRHHCRKCGF

VVCGPCSEKKFLLPSQSSKPVRVCDFCYHQLSSGQLSASLPTRSDSYSRASKFSTNNMSD
DDDDDDSSD

>*Sparus_aurata*(Gilt-head_bream)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKAPTGEHAADVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEYCFVQLTSGGLAPRSDSISRPGSKFNSNNLSDDDD
EDDSSD

>*Struthio_camelus*(Ostrich)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGEMTTCQSTRSDSYSQSPKSPLNDVSD
DDEDEDSSD

>*Salmo_trutta_1*_(Brown_trout)

MSAGEAKMVDRLANSEANSKRIQVVEGCFGAAGQPLVIPGRVLIGEGVLTCLCRKKPKAR
QFFLFNDILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYA
ATATEKSEWMHIGKCVGDILLEKSGKAPTGEHAADVWIPDSEATLCMRCQKIKFTPLSRRH
HCRKCGYVVCGPCSDKKFLLPSQSSKPVRVCEFCYLQLASAGGGTGLGPRSDSYSRSGSK
FNNVSDDEDEEDSSD

>*Panthera_leo*(Lion)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Camelus_dromedarius*(Arabian_camel)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF

VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSAGDMATCQPARSDSYSQSLKSPLNDVSD
DDDDDDSSD

>*Denticeps_clupeioides*(Denticle_herring)

MVDRLANSEANSKRIAVVEGCFGTAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWM SHINKCVSDLLEKSGKSPSGEHAADVVPDSEATVCMRCQKVRFTPVNRRHHCRKCGF
VVCGPCSEKKFLFPSQSSKPVRVCEFCHEQLSSASGLPPRSDSYSRPRSNFGSNNVSEDD
DDDDSSD

>*Ornithorhynchus_anatinus*(Platypus)

MVDRLANSEANTRRISIVESCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIQDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAADVWIPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCHELLSSGEMTACQPTRSDPYSQSPKSPLNNTSD
DDDDDDSSD

>*Macaca_mulatta*(Macaque)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAADVVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Oreochromis_niloticus*(Nile_tilapia)

MVDRLANSEANSKRIAVVESCFGAAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKSPTGEHAADVVPDSEASVCMRCKKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLFPSQSSKPVRVCEHCYEQLTSVNLQARSDSITRGSKFHSNNLSDDDDDD
DDSSD

>*Monodelphis_domestica*(Gray_short-tailed_opossums)

MAAPTLALAWAPILRGGHNCCLRGHAPLGLSAPRKGFPVGLGRRATASSRTEVPGNDRYC
VELLRKRDIYEGYLCCLLLPTEARSSAFALRAFNAELAQVKDSISQKTIGQMRMQFWRKAV
EDMYSDNPPHQPVAIELWKAVKRHNLTKRWLVKIIDEREKNLDDKAYRNIQELEAYAENT

QSSLLYLTLVLGVRNVHADHAASHIGKAQGIITCLRATPYHSSRRKVFLPMDICMLHGV
SQEDFLRKNQDKNVRDVIYDIASQGHLHLIHARSFQKSVPVKAFFAFLQTATKQKMVDRL
ANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFNDILVYG
NIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKSEWMNH
INKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGFVVCGP
CSEKRFLFPSQSSKPVRICDFCFDILLSTGDLATCQPTRSDSYSQSPKSLNNVSDDEDDED
SSD

>*Cyprinus_carpio_1_*(Common_carp)

MVDRLANSEANSKRIGVVEACFGTAGQPLAIPGRVLIGEGVLTCLCRKRPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVEDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMISHISKCVSDLLEKSGKSPTGEHAAVWVPDSEATVCMRCQKVKFTPVNRRHHCRKCGF
VVCGPCSEKKFLLPSQSSKPVRVCEFCYKQLSSDSYSHSEISGNNISDDDDDDDDSSD

>*Callithrix_jacchus*(Common_marmoset)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDMSD
DDEDDDSSD

>*Cyprinus_carpio_2_*(Common_carp)

MVDRLANSEANSKRIGVVEACFGTAGQPLAIPGRVLIGEGVLTCLCRKRPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVEDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMISHISKCVSDLLEKSGKSPTGEHAAVWVPDSEATVCMRCQKIKFNPVNRRHHCRKCGF
VVCGPCSEKKFLLPSQSSKPVRVCEFCYKQLSTGGTLPARSDSYSRSEFSSNNISDDDDDD
DDSSD

>*Scleropages_formosus*(Asian_aronana)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVEDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLLKSGKSPSNEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKFLLPSQSSKPVRVCEFCYEQLSAGQMSGGLPPRSDSYSRSSSRFPGSNVS
EDEEEEDSSD

>*Oryzias_sinensis*(Chinese_rice_fish)

MVDRLANSEANSKRIGMVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKC
EWMNHIGKCVKDLLQKSGKSPTGEHAAVWVPDSEASVCMRCLKVKFTAVNRRHHCRKCGY
VVCNPCSEKKYLLPSQSSKPVRVCEFCYAQLTSGSLAPCSDSNNWSESRYNNNHLSDDDED
EDDSSD

>*Clupea_harengus*(Atlantic_herring)

MVDRLANSEANNKRIGVVEGCFGTAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVTDLLSKSGKAPSGEHAAVWVPDSEATICMRCLKVKFTPVSRRHHCRKCGF
VVCGPCSDKKFLPSQSSKPVRVCEFCYEQLSLGTGLHTGRPDYPYGRSPGNNVSDDDDDED
DSSD

>*Gopherus_evgoodei*(Goode's_thornscrub_tortoise)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGEMTTCQPTRSDSYSQSPKSPLNDVSD
DDDDDDSSD

>*Physeter_macrocephalus*(Sperm_whale)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSRSLKSPLNDVSD
DDDDDDSSD

>*Laticauda_laticaudata*(blue-lipped_sea_krait)

MVDRLANSEANTRRISVVENCFGAAGQPLTIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIESIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLIPSQSSKPVRICDFCYEFLSMGEMSTCQPTRSDSFSQSPKPPLNDISD
DDDDDDSSD

>*Podarcis muralis*(Common_wall_lizard)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIESIQDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVSDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLIPSQSSKPVRICDFCYDLLSTGEMPTCQPTRSDSYSHPPKLPLNDMSD
DDDDDDSSD

>*Delphinapterus leucas*(Beluga_whale)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLIPSQSSKPVRICDFCYDLLSAGDMATCQPTRSDSYSQSLKSTLNDVSD
DDDDDDSSD

>*Oncorhynchus tshawytscha*_I_(Chinook_salmon)

MSPAASICLLHEDKGFAMVTHLGKPWVIFRCTVSQFETERRLFCIGCLFCSTLQEGEAKM
VDRLANSEANSKRIQVVEGCFGAAGQPLVIPGRVLIGEGVLTKLCRKKPKARQFFLFNDI
LVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKSE
WMSHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHHCRKCGYV
VCGPCSDKKFLLPSQSSKPVRVCEFCYLQLASAGGGMGLGPRSDSYSRSGSKFNNDVSDDE
DEEDSSD

>*Betta splendens*(Siamese_fighting_fish)

MKETHRFFRLIWTTTQIRATKSYHRTPEVKMVDRLANSEANSKRIAVVESCFAAGQPL
AIPGRVLIGEGVLTKLCRKKPKSRQFFLFNDILVYGNIVIQKKKYNKQHIIPLESVTIDT
VPDEGDLRNGWLIKTPTKSFAVYAATATEKSEWMNHIGRCVEELLQKSGKAPIGEHAAVW
VPDSEASVCMRCQKVKFTPVSRHHCRKCGFVVCGPCSDKRHLLPSQSSKPVRVCEYCYL
QLTSGNHTPRSECISRP GSKFNNDNL TDEEEEDDSSD

>*Oncorhynchus mykiss*_I_(Rainbow_trout)

MVDRLANSEANSKRIQVVEGCFGAAGQPLVIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHHCRKCGY
VVCGPCSDKKFLLPSQSSKPMNLGVHASMLIFLQGEAISIQSHVTWSTYSFYFR

>*Oncorhynchus_mykiss_2_*(Rainbow_trout)

MVDRLANSEANSKRIQVVEGCFGAAGQPLVIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMSHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHHCRKCGY
VVCGPCSDKKFLLPSQSSKPVRVCEFCYLQLASAGGGMGLGPRSDSYSRSGSKFNNVSDD
EDEEDSSD

>*Salmo_trutta_2_*(Brown_trout)

MVDRLANSEANSKRIQVVEGCFGTAGQPLVIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMSHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHHCRKCGY
VVCGPCSDKKFLLPSQSSKPVRVCEFCYLQLASAGGGMGLGPRSDSYSRSGSKFNNVSDD
EDEEDSSD

>*Dicentrarchus_labrax*(European_bass)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMSHIGKCVGDLQKSGKAPTGEHAAVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGY
VVCGPCSEKKYLLPSQSSKPVRVCEYCFVQLTSGGLGPRSDSIGRPVSKFNSNNLSDDDD
EDDSSD

>*Oryzias_javanicus*(Javanese_Ricefish)

MVDRLANSEANSKRIAMVESCFGAAGQPLAIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATGTEKC
EWMNHIGKCVRDLLQKSGKSPTGEHAAVWVPDSEAPICMRCEKVKFTPVIRRHCRKCGY
VVCGPCSEKKYLIPSQSSKPVRVCEYCYSQLTSGSHAPRSDSNNWAESRYNNNHLSDDED
EDDSSD

>*Salmo_salar_3_*(Atlantic_salmon)

MVDRLANSEANSKRIQVVEGCFGAAGQPLVIPGRVLIGEGVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVADEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMSHIGKCVGDLLEKSGKAPTGEHAAVWIPDSEATLCMRCQKIKFTPLSRRHHCRKCGY
VVCGPCSDKKFLLPSQSSKPVRVCEFCYLQLASIHSLHSSVLGKSNFFF

>*Myripristis_murdjan*(Pinecone_soldierfish)

MVDRLANSEANSKRIAVVESCFGAAGQPLAIPGRVLIGEVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVGDLLQKSGKTPTGEHAAVWVPDSEATVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEYCYVQLTSSGGGLAPRFDsisRTGSKFNSNNVSDD
EDEDSSD

>*Sarcophilus_harrisii*(Tasmanian_devil)

MVDRLANSEANTRRISIVENCFAAGQPLTIPGRVLIGEVLTCLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLPSQSSKPVRICDFCFDLLSSGDLATCQPTRSDSYSQSTKSPLNNVSDD
DEDEDSSD

>*Carassius_auratus_1_*(Goldfish)

MVDRLANSEANSKRIGVVETCFGTAGQPLAIPGRVLIGEVLTCLCRKRPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVEDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHISKCVSDLLEKSGKSPTGEHAAVWVPDSEATVCMRCQKIKFNPVNRRHHCRKCGF
VVCGPCSEKKFLLPSQSTKPVRVCEFCYKQLSTGGTLPSRSDSLLSSNNISDDDDDDSS
D

>*Oncorhynchus_tshawytscha_2_*(Chinook_salmon)

MSEAKMVDRLANSEANSKRIQVVEGCFGAAGQPLVIPGRVLIGEVLTCLCRKKPKARQF
FLFNDILVYGNIVIQKKKYNKQHIIPLESVTIDTVAEEGDLRKGWLIKTPTKSFAVYAAT
ATEKSEWMNHIGKCVGDLLKSGKAPTGEHAAVWVPDSEATLCMRCQKIKFTPLSRRHHC
RKCGYVVCGPCSDKKFLLPSQSSKPVRVCEFCYLQLASAGGGMGLGPRSDSYSRSGSKFN
NVSDDEDEEDSSD

>*Carassius_auratus_2_*(Goldfish)

MVDRLANSEANSKRIGVVEACFGTAGQPLAIPGRVLIGEVLTCLCRKRPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVEDEGDLRNGWLIKTPTKSFAVYAATASEKS
EWMNHISKCVSDLLEKSGKSPTGEHAAVWVPDSEATVCMRCQKIKFNPVNRRHHCRKCGF
VVCGPCSEKKFLLPSQSTKPVRVCEFCYKQLSSGSYTHLEISGNNISDDDDDDSSD

>*Mus_musculus*(Mouse)

MVDRLANSEANTRRISIVESCFGAAGQPLTIPGRVLIGEVLTCLCRKKPKARQFFLFND

ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGELRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPSSQSSKPVRICDFCYDLLSTGDMAACQPTRSDSYSQSLKSPLNDASD
DDDDDDSSD

>*Gadus_morhua*(Atlantic_cod)

MVDRLANSEANSKRIGVVEGCFGAAGQPLVIPGRVLIGEGVLTKLCRKRPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIAKCVADLLSKSGKSPTGEHAAVWVPDSEATVCMRCLKVKFTPVSRRHHCRKCGF
VVCGPCSDKKYLLPSQSSKPVRVCEFCYVHLTSAVGGYAQRADSFGRQGFNLSDDDEDED
SSD

>*Drosophila_melanogaster*(Fruit_fly)

MVDRLVNSEANTRRIASVENCFGSSGVPLAMQGRVLVGEGVLTKMCRKRPKSRQFFLFND
ILVYGNIVIGKKKYNKQHIMPLEEVSLESIADNQTYRNGWYIRTTTKSFVVF AATSTEKQ
EWMAHINKCVEDLLRKSGKKPVENHAAVWVPD TDASVCMHCKKTQFTFIQRRHHCRNCGA
VVCAGCSAKKFLLPQQSTKALRVCDACYERLKHVPSSLGSGEDSAAATGAASGNKLNTTA
GDSSNDEDSDEETASPGGESHDEPRFYGDNSVLSAVEDSSTITSPSSATTGSLEAPQVTP
SVQSSPAAVATTGSHC

>*Ailuropoda_melanoleuca*(Giant_panda)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLLPSSQSSKPVRICDFCYDLLSTGDMAACQPTRSDSHSQSLKSPLNDVSD
DDDDDDSSD

>*Mastacembelus_armatus*(Zig-zag_eel)

MVDRLANSEANSKRIAVVESCFGTAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVEDLLQKSGKTPTGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKYLLPSQSSKPVRVCEYCFQLTAGSLAPRSDSISRPGSKFHSSNNLSDDDED
EDDSSD

>*Macaca_fascicularis*(Crab-eating_macaque)

MVDRLANSEANTRRISIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPARSDSYSQSLKSPLNDMSD
DDDDDDSSD

>*Anabas_testudineus*(Climbing_perch)

MVDRLANSEANSKRIAVVEGCFGAAGQPLAIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLESVTIDTVPDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHIGKCVEDLLQKSGKAPTGEHAAVWVPDSEASVCMRCQKVKFTPVSRRHHCRKCGF
VVCGPCSEKKHLLPSQSSKPVRVCEYCYVQLTSGNHAPRSDCISRSKFNSNNLSDDDED
DSSD

>*Felis_catus*(Cat)

MVDRLANSEANTRRINIVENCFGAAGQPLTIPGRVLIGEGVLTKLCRKKPKARQFFLFND
ILVYGNIVIQKKKYNKQHIIPLENVTIDSIKDEGDLRNGWLIKTPTKSFAVYAATATEKS
EWMNHINKCVTDLLSKSGKTPSNEHAAVWVPDSEATVCMRCQKAKFTPVNRRHHCRKCGF
VVCGPCSEKRFLFPSQSSKPVRICDFCYDLLSTGDMATCQPTRSDSYSQSLKSPLNDVSD
DDDDDDSSD