Supplemental Data 1. List of f*oxR1* -related protein sequences used in the phylogenetic analysis.

Species common name	Species latin name	Database	Sequence ID	Annotation	
Human	*Homo sapiens*	ENSEMBL v.91	ENSG00000176302	*foxr1*	MGNELFLAFTTSHLPLAEQKLARYKLRIVKPPKLPLEKKPNPDKDGPDYEPNLWMWVNPNIVYPPGKLEVSG RRKREDLTSTLPSSQPPQKEEDASCSEAAGVESLSQSSSKRSPPRKRFAFSPSTWELTEEEEAEDQEDSSSMAL PSPHKRAPLQSRRLRQASSQAGRLWSRPPLNYFHLIALALRNSSPCGLNVQQIYSFTRKHFPFFRTAPEGWK NTVRHNLCFRDSFEKVPVSMQGGASTRPRSCLWKLTEEGHRRFAEEARALASTRLESIQQCMSQPDVMPFL FDL
Human	*Homo sapiens*	ENSEMBL v.91	ENSG00000189299	*foxr2*	MDLKLKDCEFWYSLHGQVPGLLDWDMRNELFLPCTTDQCSLAEQILAKYRVGVMKPPEMPQKRRPSPDG DGPPCEPNLWMWVDPNILCPLGSQEAPKPSGKEDLTNISPFPQPPQKDEGSNCSEDKVVESLPSSSSEQSPL QKQGIHSPSDFELTEEEAEEPDDNSLQSPEMKCYQSQKLWQINNQEKSWQRPPLNCSHLIALALRNNPHCG LSVQEIYNFTRQHFPFFWTAPDGWKSTIHYNLCFLDSFEKVPDSLKDEDNARPRSCLWKLTKEGHRRFWEET RVLAFAQRERIQECMSQPELLTSLFDL
Human	*Homo sapiens*	ENSEMBL v.91	ENSG00000139445	*foxN1*	MIESDTSSIMSGIIRNSGQNHHPSPQEYRLLATTSDDDLPGDLQSLSWLTAVDVPRLQQMASGRVDLGGPC VPHPHPGALAGVADLHVGATPSPLLHGPAGMAPRGMPGLGPITGHRDSMSQFPVGGQPSSGLQDPPHLY SPATQPQFPLPPGAQQCPPVGLYGPPFGVRPPYPQPHVAVHSSQELHPKHYPKPIYSYSCLIAMALKNSKTG SLPVSEIYSFMKEHFPYFKTAPDGWKNSVRHNLSLNKCFEKVENKMSGSSRKGCLWALNLARIDKMEEEMH KWKRKDLAAIHRSMANPEELDKLISDRPESCRRPGKPGEPEAPVLTHATTVAVAHGCLAVSQLPPQPLMTLS LQSVPLHHQVQPQAHLAPDSPAPAQTPPLHALPDLSPSPLPHPAMGRAPVDFINISTDMNTEVDALDPSIM DFALQGNLWEEMKDEGFSLDTLGAFADSPLGCDLGASGLTPASGGSDQSFPDLQVTGLYTAYSTPDSVAAS GTSSSSQYLGAQGNKPIALL
Human	*Homo sapiens*	ENSEMBL v.91	ENSG00000053254	*foxN3*	MGPVMPPSKKPESSGISVSSGLSQCYGGSGFSKALQEDDDLDFSLPDIRLEEGAMEDEELTNLNWLHESKNL LKSFGESVLRSVSPVQDLDDDTPPSPAHSDMPYDARQNPNCKPPYSFSCLIFMAIEDSPTKRLPVKDIYNWIL EHFPYFANAPTGWKNSVRHNLSLNKCFKKVDKERSQSIGKGSLWCIDPEYRQNLIQALKKTPYHPHPHVFNT PPTCPQAYQSTSGPPIWPGSTFFKRNGALLQDPDIDAASAMMLLNTPPEIQAGFPPGVIQNGARVLSRGLFP GVRPLPITPIGVTAAMRNGITSCRMRTESEPSCGSPVVSGDPKEDHNYSSAKSSNARSTSPTSDSISSSSSSAD DHYEFATKGSQEGSEGSEGSFRSHESPSDTEEDDRKHSQKEPKDSLGDSGYASQHKKRQHFAKARKVPSDTL PLKKRRTEKPPESDDEEMKEAAGSLLHLAGIRSCLNNITNRTAKGQKEQKETTKN

Mouse	*Mus musculus*	ENSEMBL v.91	ENSMUSG00000074397	*foxr1*	MGNESFLAFTTAHLPLAEQNLARYKLRVVDPPKLPLEKKPNSEDDGPEFEPNLWMWVNPNVVFPPGKLEV PESSKREDVASTLPSPQPPQEEEDANGSEATGVESLPLSSSEQSPSQKHFASSPSTLELTEEEEAEDQDDGSSV ALPSPHKRAPLQNRRLRQANNQAGRLWSRPPLNYFHLIALALRNSSPCGLNVQQIYSFTRHHFPFFRTAPEG WKNTVRHNLCFRDSFEKVPVSAQGGANTRPRSCLWKLTEEGHRRFEEEARALASTRLQSIQQCMSQPDVM PFLFDL
Mouse	*Mus musculus*	ENSEMBL v.91	ENSMUSG00000071665	*foxr2*	MDVKVKNRDFWYSLHGQVPGMLDWDMGNEFFLPCTMDQCSFAEQSLAKYKIQLTKPPALPQKKKSNFD DDGPPAEPSLWMWVNPNIVCPINSKEAPNTIHKILPSAPFPQTGESDYLGTQRMVQSLSVLHTEHHQQQKL LIYSTAPDFIEEETKEQECTSSKKYSKKHTVCHGPHREKESWPRPPLNYSHLVALALKSSPSCGLNVQQIYNFTR QHFPYFRTAPEGWKNTIRHNLCSLTCFEKVPVDLEDEPDGKPRSFLWKLTDEGNRFFQEDTRVLAYARRESIK QSMRQPELIDLLFHL
Rat	*Ratus norvegicus*	ENSEMBL v.91	ENSRNOG00000029089	*foxr1*	MGNECFLSFTTSHLSEAEQKLALYRLRIVEPPKLPLEKIPNPDKDGPDIKPNLWMWVNPNIVYPPGKLEVAVK KEDSSSAPPASQSALKEEDSCSEASEIPAQQPPPPRKQKRKQRRNTLPLPLASGRRAPLQNRWRLRQAISPEG RLWSRPPLHYFHLIALALRNSPPCGLSVQQIYNFTREHFPFFRTAPEAWKNTVRHNLCFRDSFEKVPVSKQGE ASTRPRSCLWKLTEEGHRRFSEEARTLASTRLQSIQQCMSQPGVKP
Rat	*Ratus norvegicus*	ENSEMBL v.91	ENSRNOG00000030619	*foxr2*	MNVKVKNRDFWYSLHGQVPGMLDWDMGNEFFLPCTMDQCSFAEQSLAKYKIQLTKPPTLPQEKKSSFDN DGPPTEPSLWMWVNPNIVCPVNSKEPPNPIHKVLPSAAFPQTGESECFGTQRVAQSLSVIHTEYHQQQKLP IYSTVPHFMEEETKEQECASSKKYSKKYTMYHGPHREREAWPRPPLNYSHLVALALKSSPSCGLNVQQIYNFT RQHFPYFRTAPEGWKNTIRHNLCSLTCFEKVPADLEDEPDGKPRSFLWKLTEEGNRFFQEDTRVLAYARRESI KQSMRQPELIDLLFHL
Guinea_Pig	*Cavia porcellus*	ENSEMBL v.91	ENSCPOG00000001855	*foxr1*	MILHCFLYFLTLFIYFFLYKLRIVDPPVLPLEKKPNSDGDGPDIEPNLWMWVNPNIVYPPGKLEVSDPTSVADE TSEVPCPQPPLEKQDHSPPRKQKRKQSFSWPAPLPFTRCTLEWRLQPTISPEGRLWSRPPLNYFHLIALALSN SPPCGLNVQQIYSFTRYVPGFPHLGLRMSTLPGQCVNRVPTGTHRCT
Pig	*Sus scrofa*	ENSEMBL v.91	ENSSSCG00000015101	*foxr1*	MGNESFLAFTTTHLPLAEQNLARYKLRIVEPPKLPLGKKPNPDNDGPDFEPNLWMWVDPNIVLPPGKLEVP QPSKGENLTSTVPSPQLSPKEEDFARYAEATVVESPSPSREQSPPRKRFASSPSTWELTEEEEAENQDDSSSV ALPSPHKRAPLQSRRLRQTNSQAGRLWSRPPLNYFHLIALALRNSSPCGLNVQQIYSFTRQHFPFFRTAPEG WKNTVRHNLCFRDCFEKVPVSMQGGAPTRPRSCLWKLTEEGHRRFVEEVRALASTRLESIQQCMSQPDVM PFLFDL

Pig	*Sus scrofa*	ENSEMBL v.91	ENSSSCG00000020805	*foxr2*	MDLKLKNPDFWYSLHGQVPGLLDWDMGNEFFLPCTTDQCPLAEQNLAKYRLRVMESPKVPQEKRPSPGK DGPNSEPNLWMWVNPNIVCPFGSQEASKPSKRKNVASIFPSPQLLPKDEESNCSEAIVMESLPSSSGKQSPP QKRLTSSPSDWELTEEETGEQDNNSSVALKSPNKECFHSQKLWQGDSQERKSWPRPPLNYSHLIALALRNSP PCGLNVQEIYSFTQQHFPFFWTAPDGWKNTIRHNLCFLGSFEKVPVSLPDGANAKPRSGLWRLTEEGHRRF QEETRALASARRESIQQCMSQPDVMTSLFGL
Horse	*Equus caballus*	ENSEMBL v.91	ENSECAG00000016285	*foxr1*	MGNECFLAFTTAHLPAEKNIARYRLRIIPQLKLPLEKKPNPDKDGPDFEPNLWMWVNPNIVLPPGKLEVPEP SKGEDLTNTLPSPQSPRKEEDFANFSEATVVESLPPSSSEQSPAWKRFASSSSNWELTEEEEAEDQDDSSSVA LPSPHKRAPLQSRRLRQANSQEGRLWSRPPLNYFHLIALALRNSSPCGLNVQQIYSFTRQHFPFFRTAPEGW KNTVRHNLCFRDSFEKVPVSMQGGASTRPRSCLWKLTEEGHRRFAEEARALASTRLESIQRCMSQPDVMPF LFDL
Horse	*Equus caballus*	ENSEMBL v.91	ENSECAG00000026859	*foxr2*	MDLKLKTPKFLYSLHGQVPGLMDWDMANKILLLCTTDQPVAEQDLTKYRLQVTEPRKVPQERRPSLNKDGP DVEANLWMSPNIVYSLGSQEAARPSKKTDLTSMFPSPQPLPKDKESNCSEATVMESLPSSSSESPQKQFTSS PSNWELTEEDTEEQDSNPSMTLQPPNKGECFQSQKLWQGNSQERRSWPPLNYSHLIALVSRNSPPCDLRV QEVSITQHFLFFWTAPNGWKNTISHNLCFLGSFEKATVSFQDGANARPWSGLWRLTEKHHHFQEETRALAS ARESIQQMRQPGVMTSLFDL
Cow	*Bos taurus*	ENSEMBL v.91	ENSBTAG00000014606	*foxr1*	VDLKLQHVDFWASLHGQVPGLLDWDMGNESFLAFATSHLPLAEQNLARYKLRIVEPPMLPLEKKPNPDKD GPDFEPNLWMWVDPNIMFPPGKLEVPEPSKGKNLTTTAPSPQPVPKEDFAKCPEATEVELLSPPGDQCSP WKRFATSLSNWELTEEKEAEDQDDRSSVALPSSHKPAPLQSRRLRQANSQEGRLWSRPPLNYFHLIALALRN SAPCGLNVQQIYSFTRQHFPFFRTAPEGWKNTVRHNLCFRDSFEKVPVSMQGGVSSRPRSCLWKLTDEGHR RFAEEARALASTRLERIQQCMSQPDVMSSLFDL
Cow	*Bos taurus*	ENSEMBL v.91	ENSBTAG00000046659	*foxr2*	MDLKLKNPEFWYSFHGQIPGLLDWDMGNEFFLPCTTDQCPLAEQNLAKYRLQVMETPKVPQERGSSPGKD RPNSEPNLWMWVNPNIACSLGSQETPEPSKKKDLAHILLSPQLLAKDEVPNCSEATVMQSLPSSSSKQSPLQ KQITSFSSDRELTEDETKEKDSNSSVALQSPNKGECFQSQNLWQGNSQERKSWPRPPLNYSHLIALALRNSP PCGLNVQEIYSFTQQHFPFFWTAPYGWKNTIRHNLCFLDSFEKAPVSLQDGASARPRPGLWRLTEEGHRRF QEETRALASARRESIQQCMSHPDVMTSLFDL
Panda	*Ailuropoda melanoleuca*	ENSEMBL v.91	ENSAMEG00000000053	*foxr1*	VDLKLQHLDLWASLHGQVPGLLDWDMGNESFLAFTRCDPCSFCLLLHIIARYRLRIVEPPKVPVEKNPSPDN DGPTVEPNLWMWVNPNIVFPPGKLEVPEPRKGEDQPSTLPSPQPPPKEEDLADCSSEATAGESESLPSSSEQ SPPRKRMRFASSPSTWELAEEEAADQDDSSSVALPSPHKRAPLQSQRPRQASSQEGRLWSRPPLNYFHLIAL ALRNSSPCGLNVQQIYNFTRQHFPFFRTAPEGWKNTVRHNLCFRDSFEKVPVSMQAGASVRPRSCLWKLTK EGHRRFAEEARALASTHLESIQQCMSQPDVMPFLFDL

Panda	*Ailuropoda melanoleuca*	ENSEMBL v.91	ENSAMEG00000018997	*foxr2*	MDIKLKNPEFWYSLHGRVPGLLDWDMGNEFFLPCTTDQCHLAEQNLAKYRLRVMEPPKVPQESRPSPDKD GPDCESNLWMWVNPNIMCPLGSQETLKPSKEKNLTRMLPYPQPLPRDEESNCSKATVMESLPTSSNKKSSP QKQCTYSPSDWEITEEKTEEQDDNCSVSLQSPNKGECFQNQKLWQGNSQERRSWPRPPLNYSHLIALALRN SPPCGLNVQEIYNFTRQHFPFFWTAPNGWKNTIRHNLCFLGSFEKAPVNLQDGTNAKPRSGLWRLTEEGHR CFQEKTRALASARRESIQQCMSQPDVMTALFGL
Opossum	*Monodelphis domestica*	ENSEMBL v.91	ENSMODG00000013351	*foxr1*	VSLLSPHKMNPKLQNREFWESLHGKVPGLLDWKMNEELKLATTTDQLPRGEMKCLNPFPISFRVKYPKPPR LSTQYVKQSYPDKNHTALEPNLWMWVDLNIVCPPPKRQTSKEPDSSQNPPSLKEEENASCSEDSVQLQPSIS EQPQASTSEQELTDEEEENTSTTLPTPHTKELRQGFRRHKSTQVGVRWPRPPLNYCHLIALALKNSPPGGLN VQEIYNFTRKHFPFFQTAPEGWKNTVRHNLCFRGSFEKAPVSPDGETSRPRSYRWRLTEEGHRRFSQEARAL EAAQLHSIQKCMSHPEMMSVLFDL
Bald eagle	*Haliaeetus leucocephalus*	NCBI	XP_010573382.1	*foxr1*	MYLSFQNKSFWESLHLQNGLEDWDMAEELKLTVTAEEFLQAPDQTLRHHMLKWQADPSAHGCSLPGALP DAREPGVQPHLWMWVNPSLVCPIPRTPGVDPARSNSLKALTGGATEPSSPNTSCDYSDLDCSEEDVLSSSSE GGKLTEDEDTLHVDVPVPQEMPETPELKTMPMPWKSTVLRPQSVKLKSPRQMSTEIEGGWPRPPLNYCILI TLALCNSTSGSLTVQQIYQFMRQHFPFFQTAPEGWKNTIRHNLCFSSCFEKTTNFMCSEGNRKSCLWKLTPE GHRKFQEEAQALPREALDLVCQSMSEPDLMRTLFGL
Penguin	*Pygoscelis adeliae*	NCBI	XP_009321672.1	*foxr1*	MYLSFQNKSFWESLHLKNGLEDWDMAEELKLAITTEELLQALDEILRRRTLKWQADPLAHGCSLPGALPDAR DKFGTWSPGVGPDGSDSPVASVAGATETSSPNTSWDYSDLDCSEEDVLSSSSEAGKLTEDEDSSRVDIPVLQ EMPETPKLKAMLMPRKSAVLRPQSVKLKCPRQTSTKIEGRWPRPPLNYCILITLALCNSASGSLTVQQIYQFT RQHFPFFQTAPEGWKNTIRHNLCFSSCFEKTTGFVCGEGNRKSCLWKLTPEGRRKFQEEAQALPKEALDLVR QSMSEPELMRSLFGL
Crested ibis	*Nipponia nippon*	NCBI	XP_009467360.1	*foxr1*	MYLSFQNKSFWESLHLKNGLEDWDMAEELKLTVTTEEFLQEPGLQPHLWMWVNPSLVCPIPGSPGVEPAG SDSPVASVAGATETSSPNTSWDYSDPDCSEEDALSSSGEAGKLMEGEDASCVDIPVPQETPETPELKATLMP RKSAVLRPQSVKLKCPREMSAKIEGGWPRPPLNYCILIALALCNSASGSLTVQQIYQFTRQHFPFFQTAPEGW KNTIRHNLCFSSCFEKNTGFVCGEGNRKSCLWKLTPEGRRKFQEEAQALPKEALDLVRQSMSEPDLMRSLFG L
swan goose	*Anser cygnoides domesticus*	NCBI	XP_013042577.1	*foxr1*	MLETPKLKAMPLPQKSEIHRSQSMKLKHTRQISTKIEGGWPRPPLNYSILITLALCNSTNGSLTVQQIYQFTRQ HFPFFQTAPAGWKNTIQHNLCFSSSFEKTTCFVCRNGNHKSQLWKLTPKGHQKFHEPPVPKEALDLVRIRRG PS

Chinese alligator	*Alligator sinensis*	NCBI	XP_006037673.1	*foxr1*	MATVDYKTVFLSLNKNTFWESLHLKSGLEDWDMEEELKLTNTCDQLPQAADKEVNHHMLKWQCDQQAC KQSLPRERSDAPPDESNVQPHLWMWVNPNVVCPTARHLGTDATEDRSLSSSTAADISFSSPSPSLDYSNLD CSEEDLLSSASEAEKFTEDEDAASVDIQLSQKMVETPKFKANLAPWKAKVSRSQSRKLKYTLQAKAKTKEIWP RPPLNYCILITLALYNSAEGSLTVQQIYQFTRHHFPFFQTAPDGWKNTIRHNLCFSRSFEKTTRFVCSEGKRKA RLWKLTTDGRRKFEEEMQALPTEALALVHQSMNEPELMSSLFCL
American alligator	*Alligator mississippiensis*	NCBI	XP_006266901	*foxr1*	MATVDYKTVFLSLNKSTFWESLHLKSGLEDWDMEEELKLTNTCDQLPQAADKEVNYHMLKWQCDQQACK QSLPRERSDAPPDESNVQPHLWMWVNPNVVCPTARHLGTDATEDRSLSSSTAADISFSSPSPSLYYSNLDCS EEDLLSSASEAGKFTEDEDAASVDIQLSQKMVETPKFKANLAPWKAKVSRSRSRKLKYTLQAKAKTKEIWPRP PLNYCILITLALYNSAEGSLTVQQIYQFTRHHFPFFQTAPDGWKNTIRHNLCFSRSFEKTTRFVCSEGKRKARL WKLTTDGRRKFEEEMQALPTEALALVHQSMNEPELMSSLFCL
Chinese softshell turtle	*Pelodiscus sinensis*	ENSEMBL v.91	ENSPSIG00000011857	*foxr1*	MYLNFQNKMFWESLHLKSGLEDWDMEEELKLTTTTDQFPQGSEAVRSVLMGVLHPTFSIGCCRPAARGKG VKTQKSHLWMWVNPNVVCPISGCPSVDLPAPSNPEFSVADAPGFSSPSSSLNYSNLDCSEEDLLSSSSETEKF TEDEAASMMDTSLFQKMKISKPKAAVTPQKPKMPRSQSKKLKYILQASTKIKGGWPRPPLNYCILITVALRNS AEGSMTVQQIYQFTRQHFPFFQTAPDGWKNTIRHNLCFSSSFEKTMHFVCNEGNRKSRLWKLTPEGCRKF QEEVQTLSEEALDLVSQSLSQPEQMRSLFSL
Python	*Python bivittatus*	NCBI	XP_007441556.1	*foxr1*	MLPKEDSQSSPQACRNVKVFRSRSRKLKRAQGGWPRPPLNYCILISLALSSSVDSSLTVQEIYKFTRHHFPFFR TAPEGWKNTVRHNLCFSSSFEKTTDFVCLEGNRKSRLWKLTTEGRRKFQEEAQALPEDMMGLVHQSMDKP ELMRSLFGL
Central bearded dragon	*Pogona vitticeps*	NCBI	XP_020649591.1	*foxr1*	MLGLPRWAVAPPSEASHAEGPGVESTMQPHLWTWVNPSLVCPIPGPVLFPPAGQEAPPAAHLLCLQEEQL CSSLASQAEERGGEAPQPVLADLPQAEDAQRGQTPASRKAKTLRSRGRKLKRIQGGWARPPLNYCILISLALS SSADGSLTVQEIYQFTRQHFPFFRTAPEGWKNTVRHNLCFSSSFEKTTDFVCLEGNRKSRLWKLTSEGRRKFQ EEMQVLTEEVMGLVHQSMDRPELMSSLFGL
Armadillo	*Dasypus novemcinctus*	ENSEMBL v.91	ENSDNOG00000041022	*foxr1*	LPESEPETLTSRLHGQVPRLLDWDMGTSASCLLLPPLAEQKLARYRLQRVEPPKRLPEKNPRPDNDGPNIEPN LWMWVNSNIMYPPEKLEATARPDKHTLLSVTPKEGDSNCSTSSWWWSHCHLSPSHLPLPQATGRQHFPF FQTAPEGWKNTIHQHLCFHHSFEKVPVTMQGGSSVRPPSCLWKVTEEGHQRFEEEAGAAASTRLENIQQC MSWPDMMPFLFAL

Armadillo	*Dasypus novemcinctus*	ENSEMBL v.91	ENSDNOG00000019290	*foxr2*	MDLKLKNLEFWYSLHGQVPGLLDWDMGNEFFLPHTTDQHPLAEQNLAKYQLQIMESPKLPLERRPNPDKD GPDYDPNLWMWVNPNIVCSLSIQEAPNRNKEKDLTSVLPSLQPPSKDEEFTCLEATVVESLPSSSSEQYPLQK RFTSFPSDWELTEEKAEEQDGNSSAALRSPDKGKCYQSQKLWQANSQERRSWPRPPLNYSHLIALALRNSP PCGLNVQEIYNFTRQHFPFFWTAPDGWKNTIRHNLCFLGSFEKVPVSLQDRANARPRSCLWRLTEEGHRRF QEETRALASARRESIQQCMSRPDVMTFLFDL
Xenopus	*Xenopus tropicalis*	ENSEMBL v.91	ENSXETG00000021565	*foxr1*	MLLPNPLDVALRAPKPECTFRPSLWLVVDPNLVIPCPEWINRIPPEPELTSPPLQLQRQLSNDYSTVEDSEDE APTSCSDVLTDDDDSYNPWQPKHKRKKAKCLGKKLRVQKGLTQLESWPRPPLNYCNLISLALRNSEDGSLNV QQIYSFVREHFPFFRIAPDGWKNTVRHNLCFSSSFEKSSGWVCADGHRRSCLWKLTRQGRRKFRNEMHALS DDLLHVLRKSMKKPALMELMFGM
Xenopus	*Xenopus tropicalis*	NCBI	NP_001037918.1	*foxr1*	MYLRFANRKPYEKLHLSTALEDWDMSEELKLSITADQYFAGADDKVERYTLRRQHSTEVSPTRSEEGDYQEC TFRPSLWLVVDPNLVIPCPEWINRIPPEPELTSPPLQLQRQLSNDYSTVEDSEDEAPTSCSDVLTDDDDSYNP WQPKHKRKKAKCLGKKLRVQKGLTQLESWPRPPLNYCNLISLALRNSEDGSLNVQQIYSFVREHFPFFRIAPD GWKNTVRHNLCFSSSFEKSSGWVCADGHRRSCLWKLTRQGRRKFRNEMHALSDDLLHVLRKSMKKPALM ELMFGM
Xenopus	*Xenopus laevis*	NCBI	AAI55352.1	*foxr1*	MYLRFANRKPYEKLHLSTALEDWDMSEELKLSITADQYFAGADDKVERYTLRRQHSTELSPTRSEEGDFQEC KFRPSLWLVVDPNLVIPCPEWINRIPPAPELTSPPLQLQRQLSVEYSTVEDSEDEAPTSCSDLMTDDDNDDSY NPCQPKNKHKRAKCLGKKLRVQKGLTELESWARPPLNYCNLISLALRNSEDGCLNVQQIYSFVRDHFPFFRIA PDGWKNTVRHNLCFSSSFEKSSGWVCADGHRRSCLWKLTRQGRRKFRNEMHALSDDLLHVLRRSMKKPAL MELMFGM
Fruitfly	*Drosophila melanogaster*	ENSEMBL v.91	FBgn0015396	*jumu*	MFELEDYSSGIHEGFFSKYADAAGPSLDFYVSDSMQEMLNVDIRAEIANVVGSSSSDLTSSLDQTLEAISAINN NQSNGNSSQSASYNANANFLTSSGLHASPTAKWMGSSANFWSNSDYYADLGACVNPISVMPLINSTSAG MFSPKKNKTASSTQGRSGAVPSSPSAERDQHKSHLTFSPAQMKVSAGSMRRDQVMAHIPKQISVVTGTGT TAPATMATNSVLQRRNSSAVDAVRKDLVTELRKAQSSPVPNSLEELGKGKGSTLLNASVGATNTIKLAPGIG GLTFANSAAYQKLKQTSLVKSPGGISPGAGSNMGLKREDSNKRGLQASTTPKSIASAANSPHHQMQSNYSL GSPSSLSSSSASSPLGNVSNLVNIANNNTSGAGSGLVKPLQQKVKLPPVGSPFPKPAYSYSCLIALALKNSRAG SLPVSEIYSFLCQHFPYFENAPSGWKNSVRHNLSLNKCFEKIERPATNGNQRKGCRWAMNPDRINKMDEEV QKWSRKDPAAIRGAMVYPQHLESLERGEMKHGSADSDVELDSQSEIEESSDLEEHEFEDTMVDAMLVEEE DEEEDGDDDEQIINDFDAEDERHANGNQANNLPINHPLLGQKSNDFDIEVGDLYDAIDIEDDKESVRRIISND QHIIELNPADLNATDGYNQQPALKRARVDINYAIGPAGELEQQYGQKVKVQQVIQPQQHPPTYNRRKMPL VNRVI

Nematode	*Caenorhabditis elegans*	ENSEMBL v.91	WBGene00003976	*pes-1*	MTSSIKSDAPQFLLDLDNCSSLPPTPPKTASPGNSKMKGFNISDLCLDLDSSTSSSCSVSPASSFHTRSESVGQQQSGRNSPVSSSTESPTKRPKYSYNALIAMAIQSSPFKSLRVSEIYKYISSNFSYYKNQKPLQWQNSVRHNLSLHKEFRKVRTLDGKGSYWAMTADLGTDVYISNNCGKLRRQKSKVAKFPPMQQHFPIPQLPTQNIHQLCMQNPQILATLLQNMYLQNMQNLQNIPMVPGFPIIPVPINPTSFHFPKSS
Sea squirt	*Ciona intestinalis*	ENSEMBL v.91	ENSCING00000018677		MLHPTQQHGVTHRTLLPMQQYPYHPYPPPPYGASSGYEGFPHQRYQQQQQQPKVFPKPVYSYSCLIAMSLRNSKSGCLPVADIYSFMMENFPYFKTAPDGWKNSVRHNLSLNKCFEKVGV
Lamprey	*Petromyzon marinus*	ENSEMBL v.91	ENSPMAG00000004307		CACPSVSQPYPAMRPYSNGYASHQYSPHKIHTMQGRQQKVYPKPIYSYSCLIAMALKNSKNGSLPVSDIYHFMTENFPYFKTAPDGWKNSVRHNLSLNKCFEKIENKASGGSSRKGCLWTLNPAKVDKMDEEMQKWKRKDPVAIRRSMANP
Coelacanth	*Latimeria chalumnae*	ENSEMBL v.91	ENSLACG00000017498		MELQVQNTVVFASLHLQTCLQDWDMDEELNLATTTDQYFQGKEDEKIRLYGRTCARRMSSPFHSPWKKMYTGLHKESNVQSNLWLMVDPNLACPIGYPKVEQSTSFPVQPNPLSTATAAECPPQPSQVYPNTDDLDTDVSSSISNFSDDCRKVEANPKRKNPANEDLKKNPAKPLSKKMQCLLQSSGSRKGWPRPPINYCILIALALKNSKNDSLNVQQIYNFTNCREHFPFFQTAPDGWKNTIRHNLCFSNSFEKTSHFVSSGRNRKSCLWRLTPEGRRKLHEEIEAFPQEVLAIIQRSMNEPKMMNVMFDL
Spotted gar	*Lepisosteus oculatus*	ENSEMBL v.91	ENSLOCG00000003199		MYVQVQNRTKFLDLHLATCLKDWDMSEEIKLTTTTDQLCQDDKISSTWLCGSMWFSRCSSRQTPFGSSRSTLSPHLKPLFEPSLWLVVNPNLACPIKYPSPKTQPSPPGASVGIPQAPRPTRCLPPSSLSPPERAGHDDSPNSPSSSSSSSSDYLLTDEEDASSPDLPAPQKPKAAKERGRRTGLAQSKRLQRILQESCNLKSGCWPRPPVNYCILIAMALSSSRAGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFEKTPQLVCSQGKRKSCLWHLTADGRRRLRNEIHLLTGDSIAVLERSMTNPGMIRTLFEL
Spotted gar	*Lepisosteus oculatus*	SIGENAE	predicted in this study		MYVQVQNRTKFLDLHLATCLKDWDMSEEIKLTTTTDQLCQEPLFEPSLWLVVNPNLACPIKYPSPKTQPSPPGASVGIPQAPRPTRCLPPSSLSPPERAGHDDSPNSPSSSSSSSSDYLLTDEEDASSPDLPAPQKPKAAKERGRRTGLAQSKRLQRILQESCNLKSGCWPRPPVNYCILIAMALSSSRAGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFEKTPQLVCSQGKRKSCLWHLTADGRRRLRNEIHLLTGDSIAVLERSMTNPGMIRTLFEL

Cod	*Gadus morhua*	ENSEMBL v.91	ENSGMOG00000009491		FFQDKKSLKMGGWPRPPVNYCILIAMALSSSHTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSSSFCKTPYQLCREGKRKSCLWHLTLDGRHRLGDEIRTLTGESFQQLKGSMSHP
Cod	*Gadus morhua*	SIGENAE	predicted in this study		MALQFQNSSRFFELHCSTGLTDWDMDEEMKLTTTTDQFFQDEKLNDQYLAQWHYARISRRKNKYVHDQKSESFVKSNLWLMVNPNLACPIKYMKRSVHVPSVVNVPVELKTPRHATERPDHSTLCTSSAAAPSCRARCAHASSSTTGFMLGDEEKAVLLDSPLYRKGPSRRKARIAKDKKSLKMGGWPRPPVNYCILIAMALSSSHTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSSSFCKTPYQLCREGKRKSCLWHLTLDGRHRLGDEIRTLTGESFQQLKGSMSHPDVIHTLFVL
Fugu	*Takifugu rubripes*	ENSEMBL v.91	ENSTRUG00000014847		MTLQLRTKARLFDLHCSVGLTDWDMDKELKLATTTDQIYHGDDKLNEQYVVQRPAARASRRKDEFVWYDKMSDTFVKPNLWLLVNPSIACPIQYGEMSSDLQTASEPAGEIQTDPAQNRVPVVQEVLLSSEYTVDPMRPNGRFKSRRKGRTMAIKDFKNLKPGCWPRPPVNYCILIALALKSSHTGSLKVQQIYQFTRENFPFFQTAPDGWKNTIRHNLCFNSSFRKTCNQMCRDGKRKSCFWHLTSDGQRRLLDEISTLPGETFKQLERSMSHPDVIRTLLSL
Medaka	*Oryzias latipes*	ENSEMBL v.91	ENSORLG00000019674		MTLELKTSARLLDLHCSVGLMDWDMHRELKLPTTTDQLLLDEKLKDQHAAERPSAGTLRKSDPFVWNQKTPDGFKPSLWLLVNPNLVCPVQYERGAAEAVRGVAEAAERLFTDQPSSAQRETKKAEAFRRPAKSRRMGRTTKVMDVSALKPGCWPRPPVNYCILIALALKSSHTGCLKVQQIYNFTRENFPFFQTAPDGWKNTIRHNLCFNSSFRKTCNQLCRDGKRKSCFWHLTLDGHRRLKDEVHLLTGDTLKQLQRSMSQPDTVWSL
Medaka	*Oryzias latipes*	NCBI	NP_001153940.1	*foxr1*	MTLELKTSARLLDLHCSVGLMDWDMHRELKLPTTTDQLLLDEKLKDQHAAERPSAGTLRKSDPFVWNQKTPDGFKPSLWLLVNPNLVCPVQYERGAAEAVRGVAEAAERLFTDQPSSAQRETKKAEAFRRPAKSRRMGRTTKVMDVSALKPGCWPRPPVNYCILIALALKSSHTGCLKVQQIYNFTRENFPFFQTAPDGWKNTIRHNLCFNSSFRKTCNQLCRDGKRKSCFWHLTLDGHRRLKDEVHLLTGDTLKQLQRSMSQPARPHESDPYVIDTLQTTSFCVEVGGNENINSNHGGRCC
Platyfish	*Xiphophorus maculatus*	ENSEMBL v.91	ENSXMAG00000018797		QDLKSLKPGCWPRPPVNYCVLVALALKSSQTGSLKVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSSSFRKTCNQLCKEGKRKSCFWHLTLDGHRRLQDELHTLTGETLKMLKRSMSNP

Stickleback	*Gasterosteus aculeatus*	ENSEMBL v.91	ENSGACG00000017356		SFQDSKTLKPGCWPRPPVNYCILIALALKSSHTGGLKVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFNSSFRKTCNQLCRDGKRKSCFWHLTLDGQRRLRDEIRALTGDSSRQLERSMSRP
Tetraodon	*Tetraodon nigroviridis*	ENSEMBL v.91	ENSTNIG00000018790		MTLQLRTRARLLDLHCSVGLTDWDMDKELRLATTTDQMYPDDRLSDQYVVQRPSARASRRKDEFVWYDKMSDTFVKPNLWLLVNPSIACPIQYGETSSDLQTVSEPAGGTRTDPAETRNPSPTEPRPPRFQEGLPGSEYPVPPTHKSPRNRFCPLSVAFQDFKNLNPGCWPRRPVNYCILIALALRSSHSGSLKVQQIYHFTRSRRTSPSYQTAPDGWKNTIRHNLCFNSSFRKTCNQMCRDGKRKSCFWHLTPDGQRRLMDEISTLPRETFRQLERSMSHPVIRNVIFGF
Tilapia	*Oreochromis niloticus*	ENSEMBL v.91	ENSONIG00000006931		MTLQLKTKAQLFNLHCSVGLTDWDMDKELKLASTTDQLYHGDQYVVQRPSVRTSKRKALDTEYTRMQFCHRTEIICMHLHPSLIVPVHSDGQTQQMPACQNFAPPLCFLMLLFFLSCLENEHPHDTFASDFFFFFVKNDVVSCQPVKSRRKARTIKPRVRTIALTWTSFLQQAFLQDTKPLKPGCWPRPPVNYCILIALALKSSHTGSLKVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFNSSFRKTCNQLCRDGKRKSCFWHLTLDGQRRLKDEIHMLTGESLKQLEKSMSHPVSDIIRSLFPM
Bowfin	*Amia calva*	SIGENAE	predicted in this study		MFLQLQNRDSFLDLHQTTCLNDWDMNEEIKLATTTDQFYQDEKRNDQYLVQWHYARFSRRSSSGKDDSPSQSPSEMDEPQIQPSLWLVVNPCLVCPIKYPCQMTQVSPPAVTTWSPLTPSPALSPLPPLEEPSLDESLLSGSSSSEFMFTDDDDTSSVDVPVPRKPKTTRKPKAPKERGRKPGPAQSRRLARVLQESGNLNKGGWPRPPVNYCILIAMALNSSRCGSLNVQQIYNFMREHFPFFQTAPDGWKNTIRHNLCFSNSFEKTPQLVSSQGKRKSCLWHLTLDGRRRLRNEIHTLTGDSLRVLRRSMAEPDMISTLFEL
European eel	*Anguilla anguilla*	SIGENAE	predicted in this study		MFLHLQNRSNFLDLHLKTCLNDWDMNEEIKLTTTTDQFFQDEKRNDQYLVQWHYARIARRTSSGKDDLSCLPSQESEEPQVQPNLWLMVNPTLACPIKYPKGSPTLTETSTIPEQHPPVMPVPAPTLAPVPSAHPPSPVVERALDESIHDASSSSEYLLTDEDDASSVDVPICRKVKSGGRKGKSPKDRVRKLNLAQNKRLQRVLQESNNLKSGAWPRPPVNYCILIAMALNSSRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVSSEGKRKSCLWHLTVDGRRRLRNEIHTLTGESFTVLRMSMNNPGTVL
Butterflyfish	*Pantodon buchholzi*	SIGENAE	predicted in this study		MTRSWQRDAPRGFHKGHARLRHLWLCLELGGAARTGDGKMFLQVQNRSTFLDLHLTTALSDWDMSEEVKLATTTDQYCHDEKCGDQYLAQWHYARNSRRASGTEEGAGQQSEPQVQPNLWLMVNPNLACPIKYPDNVLGARARVSPSPKLSPIGSAPPGNVVCTRPLSPTDRLTLDSPLQDASSSSEYMLTDEDDASSVDVPICRKVKSCWRARVPKERVRKLGLAQSKRLQRVLQESNNLKNGGWPRPPVNYCILIAMALSSSHSGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFKKTPQQVPSEGKRKSCLWHLTGDGRQRLRDEIQTLTGESFRVLKRSMHDPDMIQTLFDL

Sweetfish	*Plecoglossus altivelis*	SIGENAE	predicted in this study		MSLQFQARRRFLELHLSTGLNDWDMSEEINLTTTTDQFYQDNKWNDQYIVQWHYARIARRKEDLLSQNTH KSETQVHPNLWLMVNPNLACSIEYPKALKAPSRPKMQAQQTRPNPQSMGTPIQPRQIPQEISPIDIACLEDS HHEVASSSEYMMTDEDDASSVDVPIYRKAKSTRKGKVPTKAGMRKLILAQNKRLQRVLQDSNNLKSGAWP RPPVNYCILIAMALSSSHAGSLNVQQIYNFTREHFPFFQTAPEGWKNTIRHNLCFSSSFRKTPQQVCSEGKRK SCLWHLTLDGHRRLRHEIHTLNVDSFRVLKRSMNDPDMIRTLFEL
Allis shad	*Alosa alosa*	SIGENAE	predicted in this study		MFLRFGNIDRFLDLHLTTGLTDWDINEEINLTTTTDQYHQDGQRNEYLIQWHYARMSRRTSTAEIPCQYSKQ SDENDIEPNLWLIVNPNLVCPMHPSRLTPTKAYVGTPNIDHQFINTHLPYEPLTPVSPEVLDKSPSDTFFTSKR MVSDDESSAGLEICRKMKVTRQSRVPKEGERACRTGQTRGRGRGRPPRRVHKDSDSFAFRSWAWPRPPV NYCLLIAMALGSCRTGSLNVQQIYSFTREHFPFFQTAPDGWKNTIRHNLCFSTSFKKTPQQVSSGGERKSCL WHLTSDGRMRHRSEIQMLSDDAIKQLTRSMKYPDLIQELLDL
Arowana	*Osteoglossum bicirrhosum*	SIGENAE	predicted in this study		MFLHIENRSSFLELHLKMRLADWDMSEEVKFATTTDQFCQDGTQSEQGAARWDGAKLSKRDDDDDKEEE EARGEPHEGSGSQVEPSLWLMVNPNVACPIKYPKQAARDPTPAWPMHKGPPGVSSAVFSQSLIPHVRPPS PAEEAFPDASLHEASSSSEYLATDEDSASPLDVQVCCEAKWSRGLKLPKEKIRKLGMAQSKRLQRVLQESNYL KNGEWPRPPVNYCILIAMALNSSHCGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFKKTPQQ VSSEGKRKSCLWHLTLDGRRRLRDEIYTLSGESFRVLKRSMNNPDLIQTLFDL
Zebrafish	*Danio rerio*	ENSEMBL v.91	ENSDARG00000004864	*foxr1*	MFLQLQSKSKFLELHLTSGLHDWDMNEEIKLTTTTDQFYHDEKRTDQYLAQWHYARISRRSSLPAAHRSLEL PHRDPEIQPNLWLMVNPSLACPIKYPSNLPKMTTPPKPAVPRSSTPVSDPPLLPDETCLNESVQDTSVSSEYQ LTDEDDASSVDVPICRKVKGTRKGRTPKANTRRLGLTQSRRLQRALQDSMSLKSGVWPRPPVNYCILIAMAL SSSRSGSLNVQQIYNFTREHFPFFLTAPDGWKNTIRHNLCFSNSFKKTPQQVSGDGKRKSCLWHLTLDGRQR LRDEIHTLTEDSFRLLRRSMNYPDMIPALLEL
Zebrafish	*Danio rerio*	NCBI	NP_001096594.1	*foxr1*	MFLQLQSKSKFLELHLTSGLHDWDMNEEIKLTTTTDQFYHDEKRTDQYLAQWHYARISRRSSLPAAHRSLEL PHRDPEIQPNLWLMVNPSLACPIKYPSNLPKMTTPPKPAVPRSSTPVSDPPLLPDETCLNESVQDTSVSSEYQ LTDEDDASSVDVPICRKVKGTRKGRTPKANTRRLGLTQSRRLQRALQDSMSLKSGVWPRPPVNYCILIAMAL SSSRSGSLNVQQIYNFTREHFPFFLTAPDGWKNTIRHNLCFSNSFKKTPQQVSGDGKRKSCLWHLTLDGRQR LRDEIHTLTEDSFRLLRRSMNYPDMIPALLEL

Zebrafish	*Danio rerio*	ENSEMBL v.91	ENSDARG00000011879	*foxN1*	MSSEPQGLSFLSISSSSSSPSPSAGQLQSFDSLESPCFQMPESQCHQSNGGEGFVPYSQRKSDPYSQKSAERF RRHSVDGSPVGRDCDLTENSHYHPYRRQCSEGAISEGQPFSCVRRAGLAREIASADGLEEQSSWTTLGTDVE TTSIMGTRRPYSEPQESSEEPPGYTTVNHQAYSAISPLQHQYYPSRGIDTVSHYYNQSLSTQTSQDSSPQPLY PKPVYSYSILIFLALRNSKTGSLPVSEIYSFMTEHFPYFKTAPDGWKNSVRHNLSLNKCFEKVENKNGNSSRKG CLWALNPAKVEKMQEELHKWRRKDPLTVRRSMARPEELERLLGERPEKLKSHFSLPSSHTHSQPFRVNMHP AYGHQPVHENRILNQKALYNPLTSQNAVLPPPYISPDPLAFQYYSPATHQPSVGHPSSPRTGSLDSPLPAHTP PSYSTALQAGHSGTASMQELLLDGEINNDVDALNPSLTDLQLHGSLWEELRNDSLAPDSLIVMDSASSLAQL SPPPARDSAGVCAETEDGVQGSISELYLSSFYTTAFTSAENMPGLISSSANTAIPLL
Zebrafish	*Danio rerio*	ENSEMBL v.91	ENSDARG00000012833	*foxN3*	MGPVMPPSKKPESSGVSVASGLSQFYQASSITRALQEAEEMDLALPTIKLEKGSVEDEELTNLNWLHESKNLL NSFGDPVLRSVSPVQDLDDDTPPSPAHSDLPYDAKQNPNCKPPYSFSCLIFMAIEDAPSKRLPVKDIYNWILE HFPYFANAPTGWKNSVRHNLSLNKCFKKVDKDRSQSIGKGSLWCIDPEYRQNLIQALKKTPYHPYSQVFTTP PTSPQAYQSMSSPPIWPGSPFYRKNKGVLLQVPQGVIQNGARMMSQGLFPGIRPLPINPIVSRTAAVRSVL GYRITSDTEPTQNSPLATSDPKEDHTYSFAKSSGSDAEEEAQCDGSELNFHTNETGSDAEDDDKSKIKKEPKE WSVDALALAQHKKRQLLTKVKQRVASDTLPLKKRRTEKPPESDDEEMKEAAGSLLHLAGVRACLNNITNRTA KGQKEQK
Cave fish	*Astyanax mexicanus*	ENSEMBL v.91	ENSAMXG00000007405	*Predicted foxr1*	LQARERFLSLHLSTGLHEWDMSEEIKLSTTTDQFHRDDKRNEQYLAQWHYARISRRTLAGADSTHLAQPEDC TESIIQPSLWLIVNPNLACPIKYPTVKKSSLLKLTVDTPVPSPSPPVPVQNLHILPLPDQTCLNESLHDTSLSSEY QLTDDDTSSVDVPICRKVKGARKGRVPKEPSSRRLGLAQSRRLQRVLQDSCNLKNGAWPRPPVNYCILIAMA LSSSRSGSLNVQQIYNFTRDHFPFFITAPDGWKNTIRHNLCFSNSFKKTPQQVTGEGKRKSCLWYLTLDGRRR LRNEIHTLTVDSFRMLKRSMNYPDMIQALFEL
Panga	*Pangasius hypophthalmus*	SIGENAE	predicted in this study		MFLKLRASEKFLDLHLTTGLHDWDMNEEINLTTTTDQFSQDEMRNEQYLAQWHYARISRRTLPEELHQLSP ANCEESVIQPNLWLMVNPCLACPIKYPVRDKKPSLPKLTIDRSASGPALAVPGQNLHLLPLSDETGLDESLHD ASLSSEYQLTDDDASSEDVAIRHKVKGTRRGRAPKEPSSHRLGLAQSRRLQRVLQDSRNLKSGAWPRPPVNY CILIAMALSSSRSGSLNVQQIYNFTREHFPFFLTAPEGWKNTIRHNLCFSNSFRKTPQQVTGDGKRKSCLWHL TLDGRRRLRNEIHTLTADSFRMLKRSMNYPDMIQALFEL
Northern pike	*Esox lucius*	NCBI	XP_019904158.1	*foxr1*	MSLHFQTRSRFLELHLSTRLYDWDMEEEIKLTTTTDQFFQDDKRNDQYLVQWHYARISRRKEDLSYQNREKT ESPVEPNLWLMVNPNLACPIKYPKKVTKILSPKTPLEHPAPVQPTVNHVKRMSAQNVFPASHIEGTCLEESL HDASSSSEYMLTDEDDTSSVDLPICRKLKTARKAKASKREPRKLSLAHSKRLQQVLQDNNNMKNGAWPRPP VNYCILIAMALSSSRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVCSEGKRKSCL WHLTPDGRRRLRDEIHTLTGDSYKVLKRSMNNPEMIQTLFEL

Northern pike	*Esox lucius*	SIGENAE	predicted in this study		MSLHFQTRSRFLELHLSTRLYDWDMEEEIKLTTTTDQFFQDDKRNDQYLVQWHYARISRRKEDLSYQNREKT ESPVEPNLWLMVNPNLACPIKYPKKVTKILSPKTPLEHPAPVQPTVNHVKRMSAQNVFPASHIEGTCLEESL HDASSSSEYMLTDEDDTSSVDLPICRKLKTARKAKASKREPRKLSLAHSKRLQQVLQDNNNMKNGAWPRPP VNYCILIAMALSSSRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTAQQVCSEGKRKSCL WHLTPDGRRRLRDEIHTLTGDSYKVLKRSMNNPEMIQTLFEL
Eastern mudminnow	*Umbra pygmae*	SIGENAE	predicted in this study		MSLHFRTRSRFLELHLSTRLYDWDMDEEIKLTTTTDQFYQDDKRNDQYLVQWHYARISRRKDDLSCQNRVK TESPIQPNLWLMVNPNLACPIKYPKTVTKILSPKIRLEHPEPVQPPDNHGKINSIANVLPALPFDAESLPGAISS SEYMQTDEETSSVDIPICRKVKTTRKAKVPKYGPRKLSLAQSKRLQRILQDKNILKSGAWPRPPVNYCILIAMA LSSCRSGSLNVQQIYKFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVSSQGKRKSCLWHLTLDGRQ RLRDEIHTLTGDSYRVLKRSMNNPDMIRALFDL
American whitefish	*Coregonus clupeaformis*	SIGENAE	predicted in this study		MCLQFQTRSRFLELHLSTSLNDWDMDEEIKLTTTTDQFYQGDKRNDQYLVQWHYAKISRRKDDLSCQNYQ KSESPMQPNLWLMVNPNLACPIKYPKTVTKILSPKMPLKHLAPVPKPTVTHVKPKSIPNVLPVSPTADTCLAD SLHDASSSEYMLTDEDDSSSVDVSVCRKAKTVHKAKALKGGPRKLSLAQSKRLQRVLQDSNNLKSGAWLRPP VNYCILIAMAIGSNRTGSLNVQQIYNFTREHFPFFQTAPDGWKNPIRHNLCFSNSFRKTPQQVCSEGKRKSCL WHLTLEGRRRLRDEIHTLTGDSYRVLKRSMNNPDMIQTLFEL
Brook trout	*Salvelinus fontinalis*	SIGENAE	predicted in this study	*foxr1*	MSLQFQTRSRFLELHLSNSLNDWDMDEEIKLTTTTDQFYQAEDKRNDQYLVQWQYARISRRKDDLSFQNY QKSDSPIQPNLWLMVNPNLACPIKYPKKVTKAPVPKLTVTHVKPKSIPNVLPVSPTEDTCLADSLHDASSSEY MLTDEDDASSLDVPICRKVKTARKAKAPKGGPRKLSLAQSKRLQRVLQDSNNLKSGAWLRPPVNYCILIAMA IGSSRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVCSEGKRKSCLWHLTLEGRR RLRDEIHTLTGDSYKVLKRSMNNPDMIQTLFAL
Brook trout	*Salvelinus fontinalis*	SIGENAE	predicted in this study		MSLQFQTRSRFLELHLSNSLNDWDMDEEIKLTTTTDQFYQEDKRNDQYLVQWQYARISRRKDDLSFQNYQ KSDSPIQPNLWLMVNPNLACPIKYPKKVTKAPVPKLTVTHVKPKSIPNVLPVSPTEDTCLADSLHDASSSEYM LTDEDDASSLDVPICRKVKTARKAKAPKGGPRKLSLAQSKRLQRVLQDSNNLKSGAWLRPPVNYCILIAMAIG SSRTGSLNVQQIYNFTSNSFRKTPQQVCSEGKRKSCLWHLTLEGRRRLRDEIHTLTGDSYKVLKRSMNNPDM IQTLFAL
Brown trout	*Salmo trutta*	SIGENAE	predicted in this study		MRMSLQFQTRSRFLELHLSNSLNDWDMDEEIKLTTTTDQFYQGDKQNDQYLVQWQYARISRRKDDLSFQ NYQKSSDSPIQPNLWLMVNPNLACPIKYPKKVTKILSPKVPLKHLAPVPKPTVPHVKPKSIPNVLPVSPTEDTC LADSLHDVSCSEYMLTDEDDASSVDVPVCRKVKTARNAKAPKGGPRKLSLAQSKRLQRVLQDSNNLKSGAW LRPPVNYCVLIAMAIGSSRTGSFNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVCSEGK RKSCLWHLTLEGRRRLRDEIHTLTGDSYKVLKRSMNNPDMIQTLFAL

Rainbow trout	*Oncorhynchus mykiss*	NCBI	XP_021479605.1	*foxr1-like*	MSLQFQTRSRFLELHLSNSLNDWDMDEEIKLTTTTDQFYQAGDKRNDQYLVQWQCARISRRKDDLSFQNY QKSVEDSPIQPNLWLMVNPNLACPIKYPKKVTKILSPKVPLKHMAPVPKPTVTHVKPKSIPNVLPVSPPEDTC LADSRHDVSSSEYMLTDEDDASSVDVPVCRKVKTARKAKAPKGGPRKLSLAQSKRLQRVLQDSNNLKSGAW LRPPVNYCILIAMAIGSSRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVCSEGKR KSCLWHLTLEGRRRLRDEIHTLTGDSYKVLKRSMNNPDMIQTLFAL
Rainbow trout	*Oncorhynchus mykiss*	SIGENAE	predicted in this study		MSLQFQTRSRFLELHLSNSLNDWDMDEEIKLTTTTDQFYQGDKRNDQYLVQWQCARISRRKDDLSFQNYQ KSVEDSPIQPNLWLMVNPNLACPIKYPKKVTKILSPKVPLKHLVPVPKPTVTHVKPKSIPNVLPVSPPEDTCLA DSRHDASSSEYMLTDEDDASSVDVPVCRKVKTARKAKAPKGGPRKLSLAQSKRLQRVLQDSNNLKSGAWLR PPVNYCILIAMAIGSSRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVCSEGKRKS CLWHLTLEGRRRLRDEIHTLTGDSYKVLKRSMNNPGEFQGGTVVELHTEPLN
European whitefish	*Coregonus lavaretus*	SIGENAE	predicted in this study		MCLQFQTRSRFLELHLSTSLNDWDMDEEIKLTTTTDQFYQGDKRNDQYLVQWHYAKISRRKDDLSCQNYQ KSESPMQPNLWLMVNPNLACPIKYPKTVTKILSPKMPLKHLAPVPTPTVTHVKPKSIPNVLPVSPTADTCLAD SLHDASSSEYMLTDEDDSSSVDVSVCRKAKTVHKAKALKGGPRKLSLAQSKRLQRVLQDSNNLKSGAWLRPP VNYCILIAMAIGSNRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVCSEGKRKSCL WHLTLEGRRRLRDEIHTLTGDSYRVLKRSMNNPDMIQTLFEL
Coho salmon	*Oncorhynchus kisutch*	NCBI	XP_020340186.1	*foxr1-like*	MSLQFQTRSRFLELHLSNSLNDWDMDEEIKLTTTTDQFYQAGDKRNDQYLVQWQYARISRRKDDLPFQNY QKSVEDSPIQPNLWLMVNPNLACPIKYPKKVTKLLSPKVPLKHLAPVPKPTVTHVKPKSIPNVLPVSPTEDTCL ADSPHDASSSEYMLTDEDDTSSVDVPVCRKVKTARKAKAPKGGPRKLSLAQSKRLQRVLQDSNNLKSGAWL RPPVNYCILIAMAIGSSRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVCSEGKRK SCLWHLTLEGRRRLRDEIHTLTGDSYKVLKRSMNNPDMIQTLFAL
Grayling	*Thymallus thymallus*	SIGENAE	predicted in this study		MSLQFQTRSRFLELHLSTSLNDWDMDEEIKLTTTTDQFYQGAKRNDQYLVQWHYARISRRKDDISCQNYQK SESPMQPNLWLMVNPNLACPIKYPKKVTKILSPKMPLKHLAPVPKSIPNVLPVSPTEDTCLANSVHDASSSEY MLTDEDDASSVDVPVCRKVKTARKAKAAKGGPRKLSLAQSKRLQRVLQDSNNLKSGAWLRPPVNYCILIAM AISSSRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVCSEGKRKSCLWHLTLEGR RRLRDEIHPLTGDSYRVLKRSMNNPDLIQTLFAL
Atlantic salmon	*Salmo salar*	NCBI	XP_013992597.1	*Predicted foxr1-like*	MRMSLQFQTRSRFLELHLSNSLNDWDMDEEIKLTTTTDQFYQAGDKQNDQYLVQWQYARISRRKDDLSFQ NYQKSDSPIQPNLWLMVNPNLACPIKYPKKVTKILSPKVPLKHLAPVPKSTVPHVKPKSIPNVLPVSPTEDICL ADSLHDASSSECMLTDEDDASSVDVHVCRKVKTARNAKAPKGGPRKLSLAQSKRLQRVLQDSNNLKSGAW LRPPVNYCVLIAMAIGSSRTGSLNVQQIYNFTREHFPFFQTAPDGWKNTIRHNLCFSNSFRKTPQQVCSEGK RKSCLWHLTLEGRRRLRDEIHTLTGDSYKVLKRSMNNPDMIQTLFAL

European perch	*Perca fluviatilis*	SIGENAE	predicted in this study		MTLQLKTKARLLDLHCSVGLTDWDMDKELRLATTTDQFYHDDKLNDQYVVQRPSARASRRKDEFIWYDKT SDTFVKPNLWLLVNPSIACPIQYGENTADLQTLCEPAEEIQTPLLNPAETQRQLATELHMFDPHGAPLQEELL HSTEYMNEDVSCRPAKNRRKGRNTKAKDNKILKPGCWPRPPVNYCILIALALKSSHTGSLKVQQIYNFTREHF PFFQTAPDGWKNTIRHNLCFNNSFRKTCNQVFRDGKRKSCFWHLTLDGHRRLKDEIRTLTGESLKQLERSMS RPDVIQSLFAL