

Table S1. Accession numbers of sequences used in the study

Accession #	Ortholog	Animal	Species	Class/Rank	Order	Family
Aqp8aa						
ENSONIP00000024898	Aqp8aa	Nile tilapia	<i>Oreochromis niloticus</i>	Acanthomorpha	Perciformes	Cichlidae
ENSGACP00000012041	Aqp8aa	Three-spined stickleback	<i>Gasterosteus aculeatus</i>	Acanthomorpha	Gasterosteiformes	Gasterosteidae
ENSGMOP00000001261	Aqp8aa	Atlantic cod	<i>Gadus morhua</i>	Acanthomorpha	Gadiformes	Gadidae
CU071487	Aqp8aa	Rainbow trout	<i>Oncorhynchus mykiss</i>	Protacanthopterygii	Salmoniformes	Salmonidae
SsAqp8aa1	Aqp8aa1	Atlantic salmon	<i>Salmo salar</i>	Protacanthopterygii	Salmoniformes	Salmonidae
DW573347	Aqp8aa2	Atlantic salmon	<i>Salmo salar</i>	Protacanthopterygii	Salmoniformes	Salmonidae
EV367413	Aqp8aa	Lake whitefish	<i>Coregonus clupeaformis</i>	Protacanthopterygii	Salmoniformes	Salmonidae
ENSDARP00000066381	Aqp8aa	Zebrafish	<i>Danio rerio</i>	Ostariophysi	Cypriniformes	Cyprinidae
FJ655386	Aqp8aa	Zebrafish	<i>Danio rerio</i>	Ostariophysi	Cypriniformes	Cyprinidae
CK402738	Aqp8aa	Blue catfish	<i>Ictalurus furcatus</i>	Ostariophysi	Siluriformes	Ictaluridae
BAH89254	Aqp8aa	Japanese eel	<i>Anguilla japonica</i>	Elopomorpha	Anguilliformes	Anguillidae
Aqp8ab						
ENSONIP00000024897	Aqp8ab	Nile tilapia	<i>Oreochromis niloticus</i>	Acanthomorpha	Perciformes	Cichlidae
EB039337	Aqp8ab	Atlantic halibut	<i>Hippoglossus hippoglossus</i>	Acanthomorpha	Pleuronectiformes	Pleuronectidae
ACQ57933	Aqp8ab	Sablefish	<i>Anoplopoma fimbria</i>	Acanthomorpha	Scorpaeniformes	Anoplopomatidae
ENSGACP00000019141	Aqp8ab	Three-spined stickleback	<i>Gasterosteus aculeatus</i>	Acanthomorpha	Gasterosteiformes	Gasterosteidae
ENSORLP00000003812	Aqp8ab	Medaka	<i>Oryzias latipes</i>	Acanthomorpha	Beloniformes	Adrianichthyidae
ENSGMOP00000016961	Aqp8ab	Atlantic cod	<i>Gadus morhua</i>	Acanthomorpha	Gadiformes	Gadidae
CU071568	Aqp8ab	Rainbow trout	<i>Oncorhynchus mykiss</i>	Protacanthopterygii	Salmoniformes	Salmonidae
SsAqp8ab1	Aqp8ab	Atlantic salmon	<i>Salmo salar</i>	Protacanthopterygii	Salmoniformes	Salmonidae
ENSDARP00000096730	Aqp8ab	Zebrafish	<i>Danio rerio</i>	Ostariophysi	Cypriniformes	Cyprinidae
EU341834	Aqp8ab	Zebrafish	<i>Danio rerio</i>	Ostariophysi	Cypriniformes	Cyprinidae
DT136626	Aqp8ab	Fathead minnow	<i>Pimephales promelas</i>	Ostariophysi	Cypriniformes	Cyprinidae
DT342244	Aqp8ab	Fathead minnow	<i>Pimephales promelas</i>	Ostariophysi	Cypriniformes	Cyprinidae
ADO28238	Aqp8ab	Blue catfish	<i>Ictalurus furcatus</i>	Ostariophysi	Siluriformes	Ictaluridae
Aqp8b						
ENSTRUP00000007329	Aqp8b	Torafugu	<i>Takifugu rubripes</i>	Acanthomorpha	Tetraodontiformes	Tetraodontidae
BAL44700	Aqp8b	Mefugu	<i>Takifugu obscurus</i>	Acanthomorpha	Tetraodontiformes	Tetraodontidae
ENSTNIP000000021161	Aqp8b	Green-spotted pufferfish	<i>Tetraodon nigroviridis</i>	Acanthomorpha	Tetraodontiformes	Tetraodontidae
DQ889225	Aqp8b	Gilthead seabream	<i>Sparus aurata</i>	Acanthomorpha	Perciformes	Sparidae
GO620173	Aqp8b	Sablefish	<i>Anoplopoma fimbria</i>	Acanthomorpha	Scorpaeniformes	Anoplopomatidae
ENSGACP00000015550	Aqp8b	Three-spined stickleback	<i>Gasterosteus aculeatus</i>	Acanthomorpha	Gasterosteiformes	Gasterosteidae
GE808463	Aqp8b	Copper rockfish	<i>Sebastes caurinus</i>	Acanthomorpha	Scorpaeniformes	Sebastidae
EB038315	Aqp8b	Atlantic halibut	<i>Hippoglossus hippoglossus</i>	Acanthomorpha	Pleuronectiformes	Pleuronectidae
DV567193	Aqp8b	European flounder	<i>Platichthys flesus</i>	Acanthomorpha	Pleuronectiformes	Pleuronectidae
FE950965	Aqp8b	Turbot	<i>Scophthalmus maximus</i>	Acanthomorpha	Pleuronectiformes	Scophthalmidae
AFQ36924	Aqp8b	Sockeye salmon	<i>Oncorhynchus nerka</i>	Protacanthopterygii	Salmoniformes	Salmonidae
AFQ36926	Aqp8b	Chum salmon	<i>Oncorhynchus keta</i>	Protacanthopterygii	Salmoniformes	Salmonidae
SsAqp8b	Aqp8b	Atlantic salmon	<i>Salmo salar</i>	Protacanthopterygii	Salmoniformes	Salmonidae
ENSDARP00000005510	Aqp8b	Zebrafish	<i>Danio rerio</i>	Ostariophysi	Cypriniformes	Cyprinidae
FJ695516	Aqp8b	Zebrafish	<i>Danio rerio</i>	Ostariophysi	Cypriniformes	Cyprinidae