

**Supplementary Table S1.** Detailed information of sequences used in phylogenetic tree construction

Classification	Species	GenBank accession number
AQP0	<i>Homo sapiens</i>	NP_036196.1
AQP0	<i>Xenopus tropicalis</i>	NP_001090816.1
AQP0	<i>Danio rerio</i>	NP_001003534.1
AQP0	<i>Mus musculus</i>	NP_032626.2
AQP0	<i>Gallus gallus</i>	NP_989597.1
AQP1	<i>Aplysia californica</i>	XP_005111060.2
AQP1	<i>Mizuhopecten yessoensis</i>	XP_021364227.1
AQP1	<i>Helix pomatia</i>	AOS89753.1
AQP1	<i>Crassostrea hongkongensis</i>	AJF12150.1
AQP1	<i>Xenopus tropicalis</i>	NP_001005829.1
AQP1	<i>Sinonovacula constricta</i>	QIE08067.1
AQP1	<i>Mus musculus</i>	NP_031498.1
AQP1	<i>Gallus gallus</i>	NP_001034542.1
AQP1	<i>Danio rerio</i>	NP_996942.1
AQP1	<i>Homo sapiens</i>	CAQ51480.2
AQP2	<i>Homo sapiens</i>	CAG46821.1
AQP2	<i>Gallus gallus</i>	NP_001279001.1
AQP2	<i>Xenopus tropicalis</i>	NP_001015749.1
AQP2	<i>Alligator sinensis</i>	XP_006031788.1
AQP2	<i>Mus musculus</i>	NP_033829.3
AQP3	<i>Xenopus tropicalis</i>	NP_001016845.1
AQP3	<i>Mus musculus</i>	NP_057898.2
AQP3	<i>Gallus gallus</i>	XP_424500.3
AQP3	<i>Homo sapiens</i>	AAP35863.1
AQP3	<i>Danio rerio</i>	AAH44188.1
AQP4	<i>Homo sapiens</i>	AAH22286.1
AQP4	<i>Mus musculus</i>	AAC53155.1
AQP4	<i>Alligator sinensis</i>	XP_006016458.1
AQP4	<i>Xenopus tropicalis</i>	NP_001304775.1
AQP4	<i>Danio rerio</i>	NP_001345242.1
AQP5	<i>Homo sapiens</i>	CAG46819.1
AQP5	<i>Gallus gallus</i>	CAH25504.2
AQP5	<i>Xenopus tropicalis</i>	NP_001297041.1
AQP5	<i>Mus musculus</i>	NP_033831.1
AQP5	<i>Alligator sinensis</i>	XP_006031787.1
AQP6	<i>Homo sapiens</i>	NP_001643.2
AQP6	<i>Rattus norvegicus</i>	NP_071517.1
AQP6	<i>Mus musculus</i>	NP_780296.1
AQP6	<i>Pelodiscus sinensis</i>	XP_025044536.1
AQP6	<i>Anolis carolinensis</i>	XP_003216981.1
AQP7	<i>Mus musculus</i>	NP_031499.1

AQP7	<i>Alligator mississippiensis</i>	KYO28822.1
AQP7	<i>Danio rerio</i>	XP_021324432.1
AQP7	<i>Homo sapiens</i>	NP_001305087.1
AQP7	<i>Gallus gallus</i>	BAF76152.1
AQP8	<i>Homo sapiens</i>	NP_001160.2
AQP8	<i>Gallus gallus</i>	XP_414866.2
AQP8	<i>Danio rerio</i>	NP_001073651.1
AQP8	<i>Mus musculus</i>	NP_001102515.1
AQP8	<i>Alligator sinensis</i>	XP_006027210.1
AQP8	<i>Crassostrea gigas</i>	XP_011436665.1
AQP8	<i>Mizuhopecten yessoensis</i>	XP_021373383.1
AQP8	<i>Pomacea canaliculata</i>	XP_025088344.1
AQP8	<i>Aplysia californica</i>	XP_005094214.1
AQP8	<i>Sinonovacula constricta</i>	QIE08068.1
AQP9	<i>Mus musculus</i>	BAB03271.1
AQP9	<i>Xenopus tropicalis</i>	XP_002937719.1
AQP9	<i>Gallus gallus</i>	XP_015134380.1
AQP9	<i>Alligator sinensis</i>	XP_014377951.2
AQP9	<i>Homo sapiens</i>	CAG46824.1
AQP10	<i>Homo sapiens</i>	NP_536354.2
AQP10	<i>Alligator mississippiensis</i>	XP_019350010.1
AQP10	<i>Mus pahari</i>	XP_021052600.1
AQP10	<i>Gallus gallus</i>	XP_015154084.1
AQP10	<i>Xenopus tropicalis</i>	XP_017945847.1
AQP11	<i>Mus musculus</i>	NP_780314.1
AQP11	<i>Gallus gallus</i>	XP_015136364.2
AQP11	<i>Homo sapiens</i>	NP_766627.1
AQP11	<i>Danio rerio</i>	NP_001314822.1
AQP11	<i>Xenopus laevis</i>	XP_018103357.1
AQP11	<i>Crassostrea virginica</i>	XP_022310134.1
AQP11	<i>Crassostrea gigas</i>	XP_019923893.1
AQP11	<i>Mizuhopecten yessoensis</i>	XP_021370233.1
AQP11	<i>Biomphalaria glabrata</i>	XP_013078791.1
AQP11	<i>Sinonovacula constricta</i>	QIE08069.1
AQP12	<i>Anolis carolinensis</i>	XP_003218407.1
AQP12	<i>Homo sapiens</i>	NP_945349.1
AQP12	<i>Rattus norvegicus</i>	NP_001102479.1
AQP12	<i>Gallus gallus</i>	NP_001103149.1
AQP12	<i>Mus musculus</i>	AAI07213.1

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