

Table S1 List of taxa used in this study.

Organism Name	Common Name	Assembly ID	Gene	Accession No.
<i>Homo sapiens</i>	human	GRCh38	<i>Ddx3X</i>	NM_001356.3
			<i>Ddx3Y</i>	NM_001122665.1
<i>Mus musculus</i>	house mouse	GRCm38.p2	<i>Ddx3X</i>	XM_006527566.1
			<i>Ddx3Y</i>	XM_006531605.1
<i>Bos taurus</i>	cattle	Bos_taurus_UMD_3.1.1	<i>Ddx3X</i>	XM_005228286.2
			<i>Ddx3Y</i>	XM_005228498.2
<i>Pan troglodytes</i>	chimpanzee	Pan_troglodytes-2.1.4	<i>Ddx3X</i>	XM_009438962.1
			<i>Ddx3Y</i>	XM_009439896.1
<i>Monodelphis domestica</i>	gray short-tailed opossum	MonDom5	<i>Ddx3</i>	XM_007493339.1
<i>Ornithorhynchus anatinus</i>	platypus	Ornithorhynchus_ anatinus-5.0.1	<i>Ddx3</i>	XM_007667286.1
<i>Gallus gallus</i>	chicken	Gallus_gallus-4.0	<i>Ddx3</i>	NM_001030800.1
<i>Anolis carolinensis</i>	green anole	AnoCar2.0	<i>Ddx3</i>	XM_008107404.1
<i>Xenopus tropicalis</i>	western clawed frog	Xtropicalis_v7	<i>Ddx3</i>	NM_203865.1
<i>Latimeria chalumnae</i>	coelacanth	LatCha1	<i>Ddx3</i>	XM_006005839.1
<i>Callorhynchus milii</i>	elephant shark	Callorhynchus_ milii-6.1.3	<i>Ddx3</i>	XM_007901579.1
<i>Lepisosteus oculatus</i>	spotted gar	LepOcu1	<i>Ddx3</i>	XM_006638889.1
<i>Danio rerio</i>	zebrafish	GRCz10	<i>Ddx3a</i>	NM_130941.2
			<i>Ddx3b</i>	NM_001126423.1
<i>Astyanax mexicanus</i>	Mexican tetra	Astyanax_ mexicanus-1.0.2	<i>Ddx3a</i>	XM_007227851.1
			<i>Ddx3b</i>	XM_007244224.1
<i>Esox lucius</i>	northern pike	EsoLuc1.0	<i>Ddx3a</i>	XM_010889977.1
			<i>Ddx3b</i>	XM_010886335.1
<i>Stegastes partitus</i>	bicolor damselfish	Stegastes_partitus-1.0.2	<i>Ddx3a</i>	XM_008279959.1
			<i>Ddx3b</i>	XM_008292391.1
<i>Poecilia reticulata</i>	guppy	Guppy_female_1.0+MT	<i>Ddx3a</i>	XM_008437108.1

			<i>Ddx3b</i>	XM_008426133.1
<i>Oreochromis niloticus</i>	Nile tilapia	Orenil1.1	<i>Ddx3a</i>	XM_005475255.1
			<i>Ddx3b</i>	NT_167568.1
<i>Cynoglossus semilaevis</i>	tongue sole	Cse_v1.0	<i>Ddx3a</i>	XM_008327813.1
			<i>Ddx3b</i>	XM_008324681.1
<i>Takifugu rubripes</i>	torafugu	FUGU5	<i>Ddx3a</i>	XM_003961572.1
			<i>Ddx3b</i>	XM_003966411.1
<i>Oryzias latipes</i>	Japanese medaka	ASM31367v1	<i>Ddx3a</i>	XM_004081602.1
			<i>Ddx3b</i>	XM_004085517.1
<i>Paralichthys olivaceus</i>	Japanese flounder	unpublished	<i>Ddx3a</i>	KP205082
			<i>Ddx3b</i>	KP205083
<i>Poecilia formosa</i>	Amazon molly	Poecilia_formosa-5.1.2	<i>Ddx3a</i>	XM_007571428.1
			<i>Ddx3b</i>	XM_007572225.1
<i>Xiphophorus maculatus</i>	southern platyfish	Xiphophorus_ maculatus-4.4.2	<i>Ddx3a</i>	XM_005803788.1
			<i>Ddx3b</i>	XM_005813094.1
<i>Maylandia zebra</i>	zebra mbuna	MetZeb1.1	<i>Ddx3a</i>	XM_004566279.1
			<i>Ddx3b</i>	XM_004573843.1
<i>Tetraodon nigroviridis</i>	tetraodon	TETRAODON 8.0	<i>Ddx3a</i>	ENSTNIG00000011569
			<i>Ddx3b</i>	ENSTNIG00000014514
<i>Gasterosteus aculeatus</i>	stickleback	BROAD S1	<i>Ddx3a</i>	ENSGACG00000008206
			<i>Ddx3b</i>	ENSGACG00000014407
