

me_Sox9a	F-----YSPAGAGQGSGLYSTFSYMSSPSQRPMYTPADNAGVPSIPQGSP-QHWEQAP	479
Ntil_Sox9a	TATASSYYSHAGAGQSSGLYSTFSYMSSPTQRPMYTPADNTGVPSIPQNSP-QHWD PAP	492
plf_Sox9a	ASYSSHAGAG--AGQGSGLYSTFSYMGSFNQRPMYTPADNAGVPSIPQGSPQQHWEQAP	487
gup_Sox9a	ASYSSHAGAGAGAGQGSGLYSTFSYMGSFNQRPMYTPADNAGVPSIPQGSPQQHWEQAP	488
Am_Sox9a	ASYSSHAGAGAGSGQGSGLYSTFSYMGSFNQRPMYTPADNAGVPSIPQGSPQQHWEQAP	488
me_Sox9b	NSYYSHA-----AGQGSNMYSTFSYMS-PSQRPMYTPADSTGVPSVPTHTSPQHWEQQP	468
Ntil_Sox9b	NSYYSHA-----GGQGSLLYSTFSYMS-PNQRPMYTPADTTGVPSVPTHTSPQHWEQQP	476
Ghol_Sox9bX	NSYYSHA-----AGQGSLLYSTFSYMS-PSQRPMYTPADSTGVPSVPTHTSPQHWEQQP	471
Ghol_Sox9bY	NSYYSHA-----AGQGSLLYSTFSYMS-PSQRPMYTPADSTGVPSVPTHTSPQHWEQQP	471
gup_Sox9b	NSYYSHA-----AGQGSLLYSTFSYMS-PSQRPMYTPADSTGVPSVPTHTSPQHWEQQP	472
plf_Sox9b	NSYYSHA-----AGQGSLLYSTFSYMS-PSQRPMYTPADSTGVPSVPTHTSPQHWEQQP	470
Am_Sox9b	NSYYSHA-----AGQGSLLYSTFSYMS-PSQRPMYTPADSTGVPSVPTHTSPQHWEQQP	471
chick_Sox9	GSYYSHA-----AGQSGGLYSTFTYMN-PTQRPMYTPADTSGVPSIPQTHSPQHWEQQP	486
mouse_Sox9	GSYYSHA-----AGQSGGLYSTFTYMN-PAQRPMYTPADTSGVPSIPQTHSPQHWEQQP	499
human_Sox9	SSYYSHA-----AGQGTGLYSTFTYMN-PAQRPMYTPADTSGVPSIPQTHSPQHWEQQP	501

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me_Sox9a	VYTQLTRP	487
Ntil_Sox9a	VYTQLTRP	500
plf_Sox9a	VYTQLTRP	495
gup_Sox9a	VYTQLTRP	496
Am_Sox9a	VYTQLTRP	496
me_Sox9b	IYTQLSRP	476
Ntil_Sox9b	IYTQLSRP	484
Ghol_Sox9bX	IYTQLSRP	479
Ghol_Sox9bY	IYTQLSRP	479
gup_Sox9b	VYTQLTRP	480
plf_Sox9b	IYTQLSRP	478
Am_Sox9b	IYTQLSRP	479
chick_Sox9	VYTQLTRP	494
mouse_Sox9	VYTQLTRP	507
human_Sox9	VYTQLTRP	509

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Figure S5 Multiple species alignments of Gipc1 and Sox9 protein sequences.

(A) Gipc1 and (B) Sox9 protein alignment. The yellow shading in (B) highlights Sox9a and the blue one Sox9b sequences. The sequences were aligned with Clustal Omega. Am, Amazon molly; chick, chicken (*Gallus gallus*); Ghol, *Gambusia holbrooki*; gup, guppy; me, medaka; mol, Atlantic molly (*Poecilia mexicana*); Ntil, Nile tilapia; plf, platyfish. GenBank accession numbers: XP_007572354.1 (Am Gipc1); XP_007560319.1 (Am Sox9a); XP_007556425.2 (Am Sox9b); XP_025001585.1 (chick Gipc1); BAA25296.1 (chick Sox9); XP_008436174.1 (gu Sox9a); NP_001284373.1 (gu Sox9b); NP_005707.1 (human (*Homo sapiens*) Gipc1); CAA86598.1 (human Sox9); XP_023813268.1 (me Gipc1); AAX62152.1 (me Sox9a); AAX62151.1 (me Sox9b); XP_014866717.1 (mol Gipc1); NP_061241.1 (mouse Gipc1); NP_035578.3 (mouse Sox9); XP_003442153.1 (Ntil Gipc1); XP_005448042.1 (Ntil Sox9a); XP_003450167.1 (Ntil Sox9b); XP_005801543.1 (plf Gipc1); XP_005807407.1 (plf Sox9a); XP_005801494.1 (plf Sox9b). Note that the NCBI databank refers to Sox9b as Sox9 in all of the used sequences except for medaka.