

Supplemental Tables

Characterization of the mechanistic linkages between iodothyronine deiodinase inhibition and impaired thyroid-mediated growth and development in *Xenopus laevis* using iopanoic acid.

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²Retired

Table S1. Iodothyronine deiodinase in vitro enzyme assay conditions.

	hDIO1	hDIO2	hDIO3	xDIO3
Final protein concentration [containing enzyme] (µg/mL)	15.85	125	14.5	141.25
HEPES (M)	0.1	0.1	0.1	0.1
pH	7	7	8	7.5
EDTA (mM)	1	1	1	1
DTT (mM)	40	40	40	40
Substrate (µM)	10 (rT3)	5 (T4)	5 (T3)	5 (T3)
DMSO (%)	1	1	1	1
Total assay volume (µl)	200	200	200	120

Table S2. Water quality parameters summarized across all replicate tanks throughout the IOP in vivo exposure.

	Temp (°C)	D.O. (mg L ⁻¹)	% O ₂ Sat.	pH	Conductivity (μS cm ⁻¹)	Alkalinity (mg CaCO ₃ L ⁻¹)	Hardness (mg CaCO ₃ L ⁻¹)
Mean	21.3	6.8	76.5	7.3	107.1	45.1	46.3
SD	0.2	0.4	4.0	0.1	4.4	2.7	2.0
Min.	20.8	6.0	68.0	7.1	98.8	38.0	41.0
Max.	21.7	7.4	83.6	7.6	113.3	50.0	49.0
N	60	60	60	60	60	12	12

Table S3. *X. laevis* iodothyronine deiodinase gene sequence resources and QPCR assay oligonucleotide sequences.

Gene name	Gene symbol	GenBank accession (primary accession)	Primer/Probe	Sequence (5' → 3') ^a
Type I iodothyronine deiodinase	<i>dio1</i>	NM_001095667.2 (BX844453.1)	Forward	TCTCCAGGATCGGCTTGCT
			Reverse	TGTGTCTAACACTACTGGGCAAGAA
			Probe	FAM-CAGCCAAACGCTTGATGGAAGAGTCA-BHQ1 ^b
Type II iodothyronine deiodinase	<i>dio2.L</i>	NM_001353451.1 (AF354707.1)	Forward	TGTTGCTGACTGCATGGACAA
			Reverse	CAATCTTTTGCCTCTGTACAATACATACT
			Probe	FAM-TGCCAATGTTGCCTATGGTGTCTCTTTTGA-BHQ1 ^b
Type III iodothyronine deiodinase	<i>dio3.L</i>	NM_001087863.2 (L28111.1)	Forward	TGCCTGCAAGCCTATCG
			Reverse	TCTATGTACACCAGCAGGAAATCC
			Probe	FAM-CAGCCCAGCACGTTGGCATCG-BHQ1 ^b

^a All primers and probes were obtained from Integrated DNA Technologies (Corralville, IA, USA)

^b Black hole quencher-1