

Supplemental Materials

**Supplemental Figure 1.** Design for fadrozole (FAD,  $\mu\text{g/L}$ )-trenbolone (TRB,  $\text{ng/L}$ ) mixture study with female fathead minnows aimed at assessing the predictive ability of an AOP network.

**Supplemental Table 1.** Fish loading and sampling scheme for the 48 and 96 h exposures to  $17\beta$ -trenbolone and fadrozole.

Test Day	Fish Loading	48 h Samples	96 h Samples
1	Load 8 fish per tank (4 on each side of divider) into rep 1 (AM)		
2	Load 8 fish per tank (4 on each side of divider) into reps 2 (AM) and 3 (PM)		
3		Sample half of the fish (n=4/tank) from rep 1 (AM)	
4		Sample half of the fish (n=4/tank) from reps 2 (AM) and 3 (PM)	
5			Sample remaining fish (n=4/tank) from rep 1 (AM)
6			Sample remaining fish (n=4/tank) from reps 2 (AM) and 3 (PM)

**Supplemental Table 2.** Fathead minnow gene-specific primer and probe sequences for quantitative polymerase chain reaction analyses. *vtg* = vitellogenin; *cyp19a1a* = aromatase; *cyp11a* = cholesterol side chain cleavage; FW = forward primer; RV = reverse primer; PB = probe

Gene	Amplicon size (bp)	Accession #	Primer /Probe	Sequence (5'→3')	Reference
<i>vtg</i>	69	AF130354	FW	TCACCACATACGCCAAAAAGC	Cavallin et al. 2016
			RV	CAAGTCTAAAGCCCGTCTGGTT	
			PB <sup>a</sup>	TCTAAGCACATTCTATGGCGGCT	
<i>cyp19a1a</i>	77	AF288755	FW	TGCTGACACATGCAGAAAACTC	Villeneuve et al. 2006
			RV	CAGCTCTCCGTGGCTCTGA	
			PB <sup>b</sup>	CCAGCTCGACTTCACAGCAGAGTTGATATTC	
<i>cyp11a</i>	72	DQ360498	FW	CGACACCCGGACTTGCA	Villeneuve et al. 2007
			RV	CACGTCTCCTTTAGAGGTGATACG	
			PB <sup>b</sup>	CCGTGCGGAAATCTCGGCTGC	

<sup>a</sup> Dual-labeled DNA probe with 5' 6-FAM<sup>TM</sup>/ZEN/3' Iowa Black® FQ Quencher (Integrated DNA Technologies)

<sup>b</sup> Dual-labeled DNA probe with 5'-FAM<sup>TM</sup> (6-carboxyl-fluorescein), 3'-Black Hole Quencher-1® (Integrated DNA Technologies)

## References

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