

SUPPLEMENTARY INFORMATION for:

The cytochrome P450 2AA gene cluster in zebrafish (*Danio rerio*); expression of *CYP2AA1* and *CYP2AA2* and response to phenobarbital-type inducers

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Table S1. Gene specific primers for quantitative real time PCR

Gene	Primer sense	Primer antisense
<i>CYP2AA1</i>	5'-TTCCATTTTCACTGGGACCG-3'	5'-CGAACAAGACCCATGATGCC-3'
<i>CYP2AA2</i>	5'-GCCTTTTGTGGGAAACTTAC-3'	5'-AGCCAGTTGGATTGTATTGATGC-3'
<i>ARNT2</i>	5'-CACCTTTGGATCACATCTCATTG-3'	5'-TCACCCTCCTTAGACGGACC-3'
<i>EF1α</i>	5'-CAACCCCAAGGCTCTCAAATC-3'	5'-AGCGACCAAGAGGGTAGGT-3'

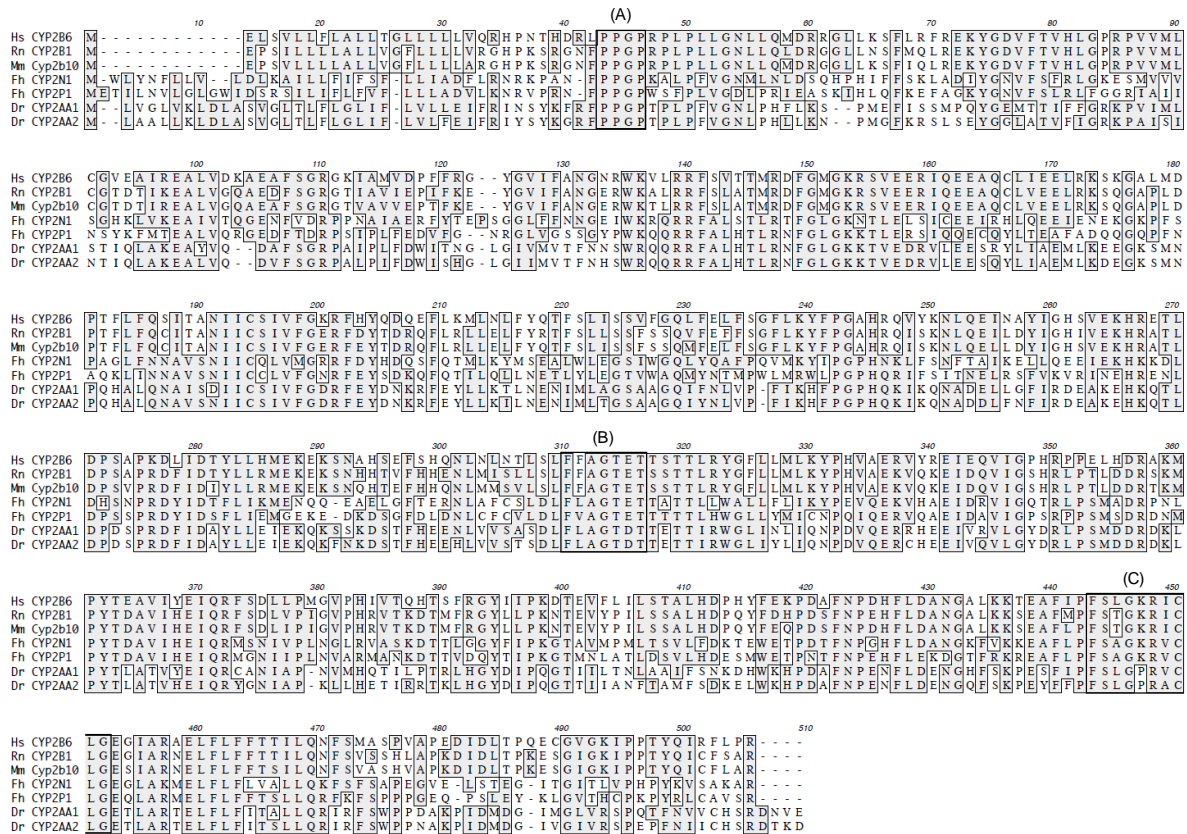


Fig. S1. Alignment of the zebrafish CYP2AA1, CYP2AA2, and other representative CYP2 deduced amino acid sequences using ClustalW. The (A) proline-rich region, (B) center of α -helix I which contains threonine residue, and (C) heme-binding motif are boxed. Accession numbers for sequences used are as follows: human CYP2B6 (ENSP00000324648), mouse Cyp2b10 (ENSMUSP00000072264), rat CYP2B1 (ENSRNOP00000045196), killifish CYP2P1 (AF117341), and killifish CYP2N1 (AF090434). Prefixes used: Dr; *Danio rerio*, Hs; *Homo sapiens*, Mm; *Mus musculus*, Rn; *Rattus norvegicus*, and Fh; *Fundulus heteroclitus*.

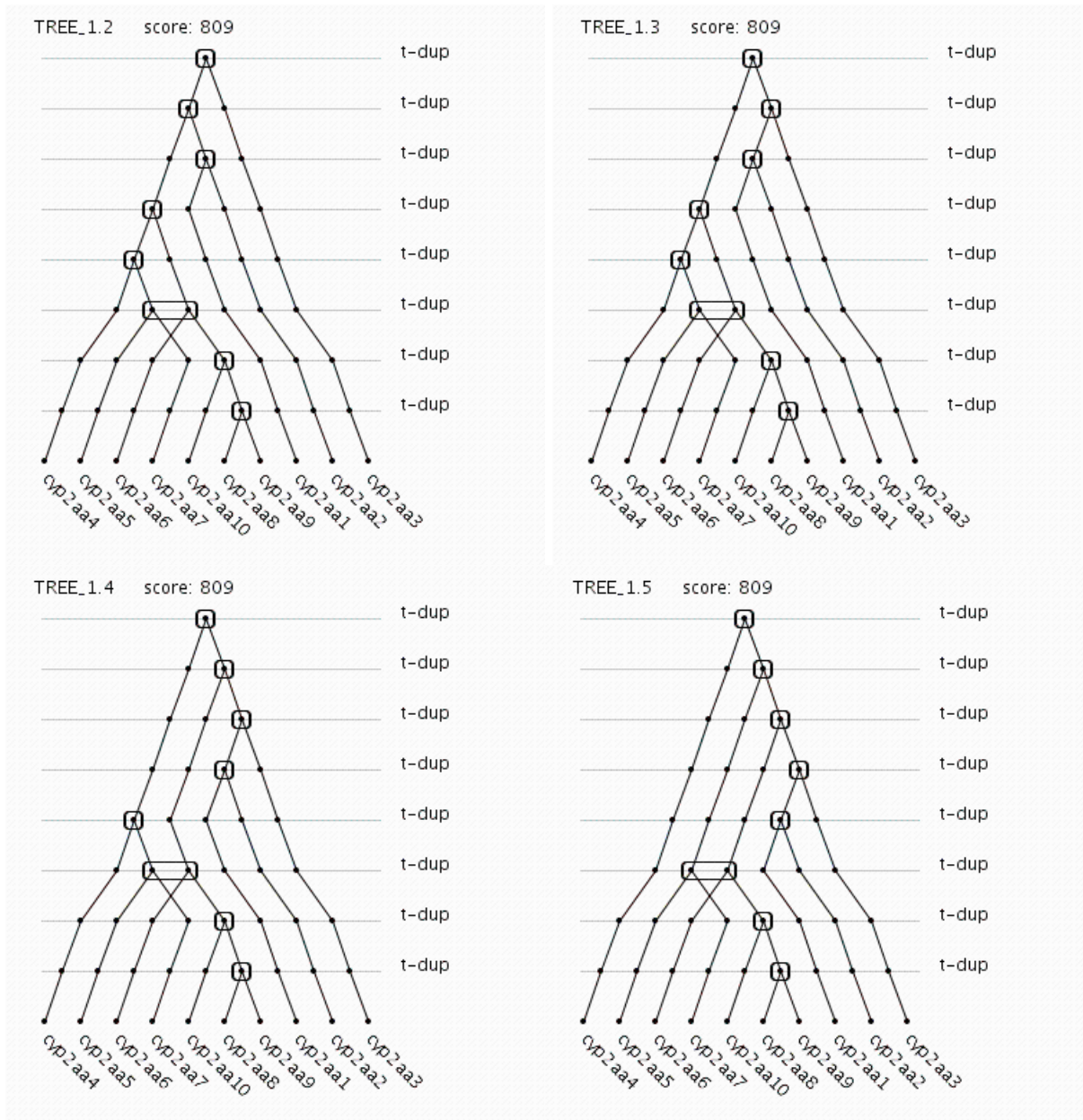


Fig. S2. The four most parsimonious reconstructions of the tandem duplication pattern for the CYP2AA cluster. Duplication patterns were computed using DILTAG (see Methods).

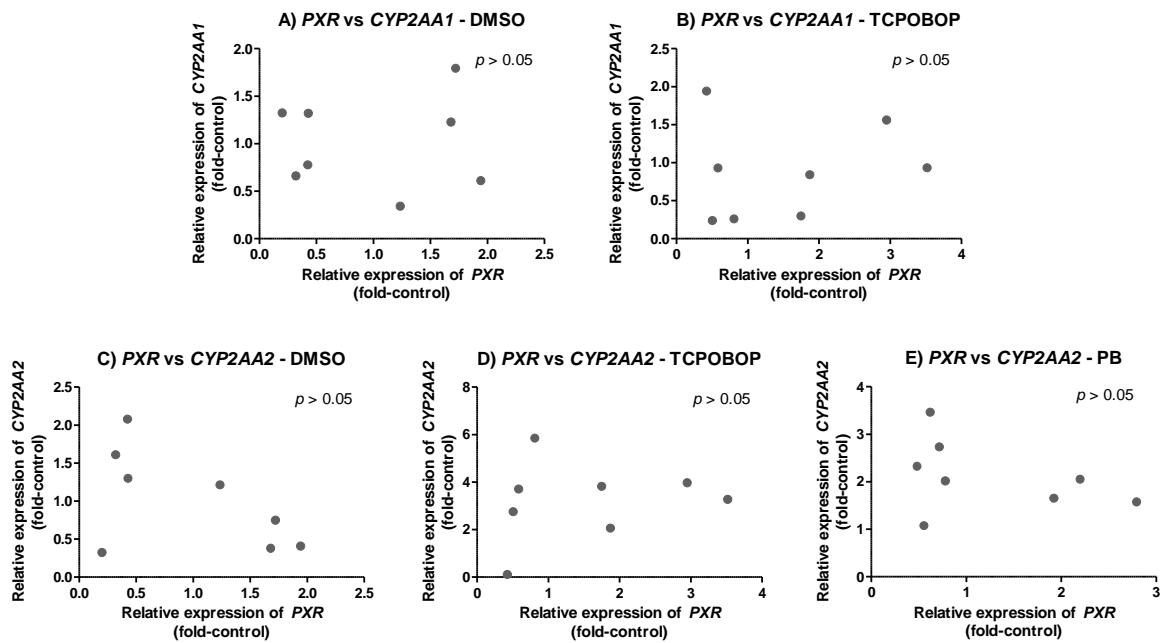


Fig. S3. Spearman's rank correlations of gene expression between *PXR* and *CYP2AA1* (A, B) and between *PXR* and *CYP2AA2* (C-E) in liver of zebrafish treated with DMSO, TCPOBOP or PB.