

## Supplemental on-line Material

**Table S1.** Degenerate primers for amplification of CYP1B and CYP1C partial cDNAs.

Name	Sequence (5' → 3')
DVIF1	TAYGGCAAYRTNTTTCAGAT
DVIF2	CAGGAYGAYGCNGARTT
DVIF3	GATGTNATGCCITGGYTNA
DVIR1	AAYTCNGCRTCRCTCGTG
DVIR2	GGATCRTGRTTNACIGACCAITGATT

**Table S2.** Specific primers for 5' and 3' RACE reactions.

Name	Sequence (5' – 3')
5race-1B-4CMK	CCCAAAGTAAGACTGCGTCCCCT
5race-1B-17CMK	CTGCCAGCCCCACACTCCTTGT
5race-1B-32CMK	GCGTGGGGAATGGTGACAGGAAC
3race-1B-4CMK	GGACGCAGTCTTACTTTTGGGTGC
3race-1B-22CMK	TGGCTCCAGTGCTTCCCAATCC
3race-1B-38CMK	GTTCTGTCCACATTCCCCACGC
5race-1C-4CMK	GGTTTGGGAAGGTTAGAAGCCAGG
5race-1C-18CMK	CCTGCTTCTTCTGCCTGTTCTATGTGAC
5race-1C-40CMK	CCAGGTGAGGGCAGTAGCAGTGG
3race-1C-17CMK	CACCGACAGACCTACAAGCCAGAG
3race-1C-37CMK	CCACTGCTACTGCCCTCACCTGG
3race-1C-82CMK	CATTCCCCAGGACACGGTGGTCCT

**Table S3.** Specific PCR primers for amplification of CYP1B and CYP1C open reading frames

Product	Primer Name	Sequence (5' → 3')
CYP1B	F4-1BCMK	GCCCTCACATCCAAGGGAACCTAAA
	R2-1BCMK	ACTTGGTGGTCAGACTGGTGGGAAA
CYP1C	83FOR-1C	ATAGACCTCTGTTCCAGGGCTTGC
	1944REV-1C	CACAAGAATAGAGTCCGTTTGGCG

**Table S4.** Amino acid sequences used in phylogenetic analysis of *X. laevis* CYP1s.

Sequence	Accession Number
Chicken ( <i>Gallus gallus</i> ) CYP1A4	NP_990478.1
Chicken ( <i>Gallus gallus</i> ) CYP1A5	NP_990477.1
Chicken ( <i>Gallus gallus</i> ) CYP1C1	XP_001233595
<i>Fundulus heteroclitus</i> CYP2N1	AAD54015.1
Human ( <i>Homo sapiens</i> ) CYP1A1	NP_000490.1
Human ( <i>Homo sapiens</i> ) CYP1A2	NP_000752.2
Human ( <i>Homo sapiens</i> ) CYP1B1	NP_000095.2
Human ( <i>Homo sapiens</i> ) CYP2A6	NP_000753.3
Mouse ( <i>Mus musculus</i> ) CYP1A1	NP_034122.1
Mouse ( <i>Mus musculus</i> ) CYP1A2	NP_034123.1
Mouse ( <i>Mus musculus</i> ) CYP1B1	NP_034124.1
<i>Xenopus laevis</i> CYP1A6	NP_001165708.1
<i>Xenopus laevis</i> CYP1A7	NP_001090541.1
<i>Xenopus laevis</i> CYP1B	JN089388
<i>Xenopus laevis</i> CYP1C	JN089389
<i>Xenopus tropicalis</i> CYP1A	NP_001090813.1
<i>Xenopus tropicalis</i> CYP1B	ADR10204.1
<i>Xenopus tropicalis</i> CYP1C	NP_001191176.1
<i>Xenopus tropicalis</i> CYP1D	ADR10206.1
Zebrafish ( <i>Danio rerio</i> ) CYP1A	NP_571954.1
Zebrafish ( <i>Danio rerio</i> ) CYP1B	NP_001139180.1
Zebrafish ( <i>Danio rerio</i> ) CYP1C1	NP_001018446.2
Zebrafish ( <i>Danio rerio</i> ) CYP1C2	NP_001108321.1
Zebrafish ( <i>Danio rerio</i> ) CYP1D1	NP_001007311.1

**Table S5.** Quantitative PCR primers.

Transcript	Forward Primer (5' → 3')	Reverse Primer (5' → 3')
CYP1A6	GCTTGGTTGGTGATGGGAAG	TCTGCGTCGAGCTCTCCAC
CYP1A7	ATGACTTTTCAGCAGTGATTCTGGA	AAGCCTGCGTCGAGCTCTC
CYP1B	CCCCTCTCACCAGACCTAAGAA	CTGGTACTCTCAGTGGGCAGAA
CYP1C	TGCGCCTTGTGCTTTGG	GCCGATCAGGGCTTTGAAC
β-actin	GCACCCTGAATCCTAAAGC	CAATGATGAAGAAGAGGCAGC

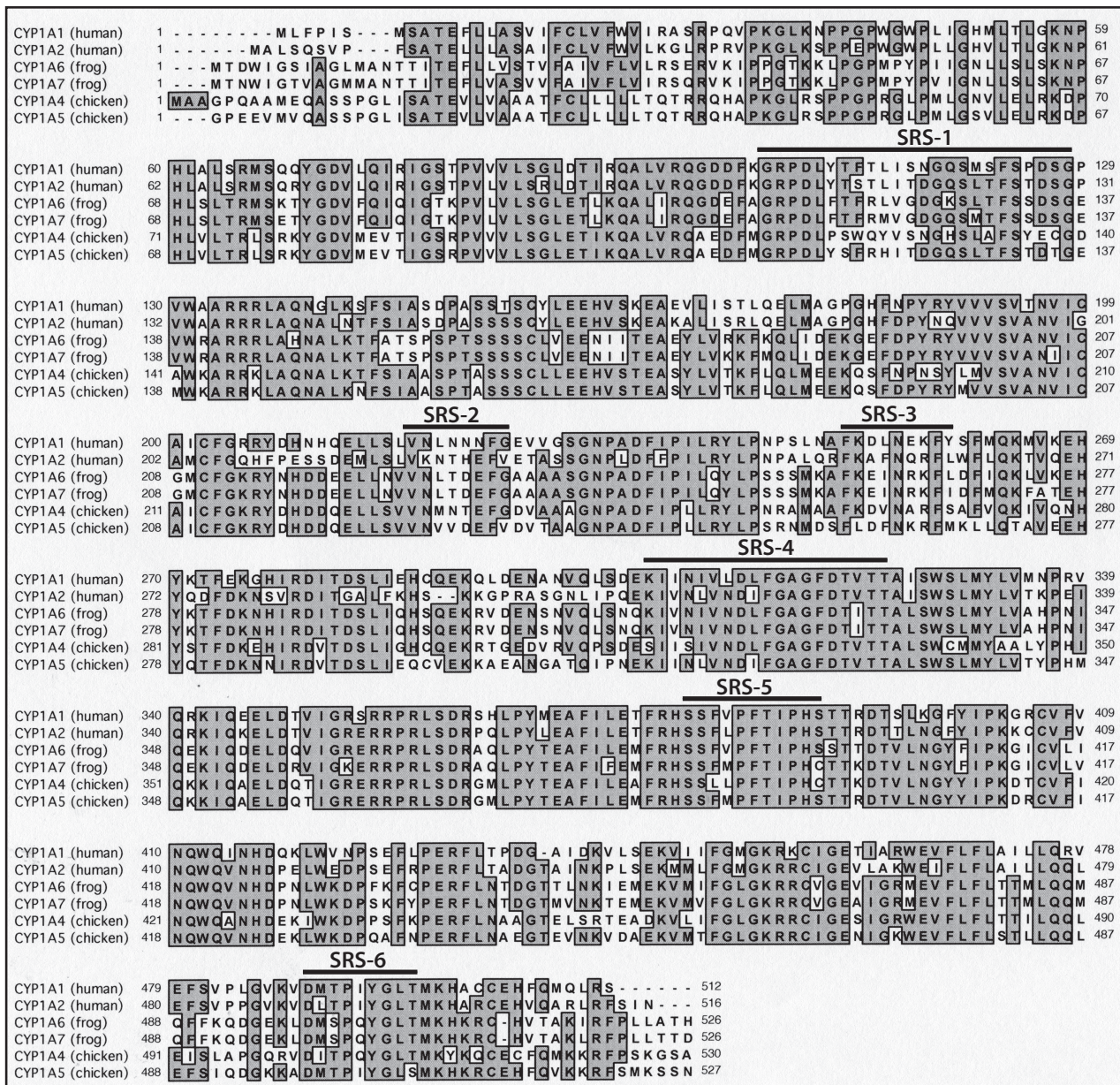


Figure S1. Alignment of full-length amino acid sequences of human, frog, and chicken CYP1As. Black bars above each line indicate positions homologous to previously defined substrate recognition sequences (SRS; Gotoh 1992).