

Supplemental Material: Table 1. Primers used in mouse *Cyp2* gene PCR amplifications

Primers	Target	Annealing Temperature	Sequence (5'-3')
2a4&5Ex1 F	2a4, 2a5	55	gcc acc atg ctg acc tca g
2a4&5Ex1 R	2a4, 2a5	55	tcc ctc cat gcc cca ttc g
2a4&5Ex2 F	2a4, 2a5	56	cct cca tca aga tca gcc
2a4&5Ex2 R	2a4, 2a5	56	tgt cct ctg cct cat tcc
2a4Ex6 F	2a4	60	gac cga cag aag aac att cc
2a4Ex6 R	2a4	60	cat taa ccc ctg ctt tcc tag
2a5Ex6 F	2a5	50	gaa gaa cat tta ggg cac
2a5Ex6 R	2a5	50	ctt aac tct gct ttc ctg
2a4&5Ex9 F	2a4, 2a5	54	cta ctg gca aaa act ggc
2a4&5Ex9 R	2a4, 2a5	54	tca acg gga caa gaa act c
2a12Ex3 F	2a12	49	tct ctt gct tac cac aag
2a12Ex3 R	2a12	49	cat tcc tca tgt tct tat c
2a12Ex6 F	2a12	60	cct agt gat gac atc att gaa c
2a12Ex6 R	2a12	60	atg ctc ttg tct ctg cat agc
2a20-ps &23-ps F	2a20-ps, 2a23-ps	56	tgt gct gtc atc ctc acc
2a20-ps &23-ps R	2a20-ps, 2a23-ps	56	att cca ctg cca cca tgc
2b9Ex1 F	2b9, 2b10, 2b19	50	tag tgt gct gct cct cc
2b9Ex1 R	2b9, 2b10, 2b19	50	cct cct cta tcc atc tgc
2b9Ex7 F	2b9	51	agg aat caa agc tgg tct c
2b9Ex7 R	2b9	51	agt cag taa cac agg tat ac
2b9Ex9 F	2b9	60	ctg gag tcc aca act cat gc
2b9Ex9 R	2b9	60	ctg agc cat aca tac tag gc
2b10Ex1 F	2b9, 2b10, 2b19	60	atg gag ccc agt gtg ctgc
2b10Ex1 R	2b9, 2b10, 2b19	60	ctc tgt cca tct gca aga gg
2b10Ex2 F	2b9, 2b10, 2b19	61	cga tgt gtt cac agt gca cc
2b10Ex2 R	2b9, 2b10, 2b19	61	tca acg aca gca act gtc cc
2b13Ex1 F	2b13	58	agc tcc ttc caa tga ttg ac
2b13Ex1 R	2b13	58	aac tat ggt gct cac att cc
2b13Ex4 F	2b13	53	acc ttt ttc ttc cag tgt g
2b13Ex4 R	2b13	53	atc tgg cag gag aat gac
2b19Int1 F	2b19	55	gtg gtc cta act tca agc
2b19Int1 R	2b19	55	ttg aga caa ggt tgt ccc
2b19Ex3 F	2b19	53	gtg ctt gat cca att gtt c
2b19Ex3 R	2b19	53	ttc ttc agt tcc tcc acc
2b23Ex5-6 F	2b23	52	ttg aac tct tct ctg cag
2b23Ex5-6 R	2b23	52	ata agc agg aag cca tag
2g1Ex1 F	2g1	58	atg atg ctg gga gga gcc
2g1Ex1 R	2g1	58	ctt ctg gaa gga ctg aaa tg
2g1Ex1L F	2g1	51	cat ctg tga cct tca tca c
2g1Ex1L R	2g1	51	gct att tag gca agc tct g
2g1Ex2 F	2g1	56	tat ggc tct gtg ttc act g
2g1Ex2 R	2g1	56	gtt ctt ctc tag tgt agg c
2g1Ex6 F	2g1	49	aga gtg aaa ctt acc ctc
2g1Ex6 R	2g1	49	gtt aac aac ctc ctt cac
2g1Ex9 F	2g1, 2g1-ps	54	tct tgc agt ggg cac tc
2g1Ex9 R	2g1, 2g1-ps	54	tca gag gtt ctc ctt acg
2f2Int1 F	2f2	60	acc tgc tgc agc ttc gct c
2f2Int1 R	2f2	60	gtt tgg tat ccg ctg agg ac

Supplemental Material: Table 2. *Bst* 1107 I restriction map of four BAC clones from the mouse *Cyp2* cluster, in wrapped format. Clones are oriented telomeric (left) to centromeric (right). Fragment sizes are shown in kilobases. Most fragments sizes are adapted from Kim et al. (2001)<sup>a</sup>.

RP23-430G14	8.22	12.25	7.79	7.76	5.88	5.86	21.94	12.07	22.46	16.45	5.49	5.63	6.24	3.03	1.24	8.59	18.15	
RP23-174D7																8.6	31.37	0.5
RP23-113D13																		
RP23-353B5																		

RP23-430G14																		
RP23-174D7	1.78	1.89	11.88	7.25	11.42	2.07	3.43	6.49	3.74	5.9	11.7	4.42	9.34	1.23	31.37	0.56	7.84	1.37
RP23-113D13								0.82	3.72	5.92	11.78	4.43	9.38	1.24	33.7	0.56	7.84	1.37
RP23-353B5													7.68	1.23	31.52	0.56	7.77	1.36

RP23-430G14																		
RP23-174D7	13.5	3.75	13.44	3.33														
RP23-113D13	13.65	3.77	13.39	3.33	13.14	1.03	3.04	2.94	2.3	14.82	32.18	7.28						
RP23-353B5	13.52	3.75	13.46	3.3	13.08	1.03	3.03	2.89	2.29	14.78	30.82	7.24	2.83	5.86	2.74	6.19	23.34	4.68

RP23-430G14																		
RP23-174D7																		
RP23-113D13																		
RP23-353B5	18.32	7.24	3.31	1.95	10.27													

<sup>a</sup> Kim J, Gordon L, Dehal P, Badri H, Christensen M, Groza M, et al. 2001. Homology-driven assembly of a sequence-ready mouse BAC contig map spanning regions related to the 46-Mb gene-rich euchromatic segments of human chromosome 19. *Genomics*. 2001 74(2):129-41.

Supplemental Material: Table 3. Locations of individual exons for each locus in the cluster. Accession numbers of the GenBank sequences that include the exons are in parentheses in the Exon 1 column. Locations given are the basepair numbers within the sequences that span from the first to last bases of each exon.

	Ex1	Ex2	Ex3	Ex4	Ex5
Cyp2a4	(NM_009997)98-277	278-440	441-590	591-751	752-928
Cyp2a5	(NM_007812)4-183	184-346	350-496	497-657	659-834
Cyp2a12	(NM_133657)17-193	194-356	357-506	507-667	668-844
Cyp2a22	(NW_000308)9050-8875	8594-8432	7920-7771	7559-7399	6177-6001
Cyp2b9	(NM_010000)1-196	197-359	360-509	510-670	671-847
Cyp2b10	(NM_009998)1-180	181-343	344-493	494-654	655-831
Cyp2b13	(NM_007813)1-196	197-359	360-509	510-670	671-847
Cyp2b19	(NM_007814)1-174	175-337	338-487	488-648	649-825
Cyp2b23	(NW_000307)640139-639969	635468-635306	635173-635024	633262-633102	628307-628131
Cyp2f2	(NM_007817)62-232	233-395	396-545	546-706	707-883
Cyp2g1	(NM_013809)1-180	181-343	344-493	494-654	655-831
Cyp2s1	(NM_028775)101-208	209-374	375-524	525-685	686-865
	Ex6	Ex7	Ex8a	Ex9	Ex10
Cyp2a4	929-1070	1071-1258	1259-1400	1401-1582	
Cyp2a5	835-976	977-1164	1165-1306	1307-1488	
Cyp2a12	845-983	984-1171	1172-1313	1314-1495	
Cyp2a22	4591-4453	4008-3821	3312-3171	2224-2046	
Cyp2b9	848-989	990-1177	11178-1319	1320-1501	
Cyp2b10	832-973	974-1161	1162-1303	1331-1512	1304-1330
Cyp2b13	848-985	986-1177	1178-1319	1320-1501	
Cyp2b19	826-967	968-1155	1156-1297	1298-1476	
Cyp2b23	627579-627438	626306-626119	625948-625807	619154-618976	
Cyp2f2	884-1025	1026-1213	1214-1355	1356-1534	
Cyp2g1	832-973	974-1162	1163-1303	1304-1482	
Cyp2s1	866-1107	1108-1195	1196-1337	1338-1534	

Supplemental Material: Table 4. Locations of individual introns for each locus in the cluster. GenBank supercontigs NW\_000303, NW\_000307, NW\_000308, and NW\_000310 (build of 15 November 2002) are abbreviated as 303, 307, 308, and 310 in the table. Locations given are the basepair numbers within the supercontigs that span from the first to last bases of each intron. Introns not included in the supercontig sequences are shown as blanks in the table.

	Int1	Int2	Int3	Int4	Int5
Cyp2a4	(307) 266629-266882	267046-267745	267896-268160	268322-269938	270116-271420
Cyp2a5					
Cyp2a12	(310) 33419-33698	33862-34873	35024-35239	35400-36624	36802-38163
Cyp2a22	(308) 8874-8595	8431-7921	7770-7560	7398-6178	6000-4592
Cyp2b9	(307)				159823-160271
Cyp2b10	(303) 2013023-2025412	2025575-2025727	2025878-2028038	2028199-2028921	2029099-2029565
Cyp2b13	(307)	17273-17403	17552-18160	18321-22679	22857-23308
Cyp2b19	(307) 711351-713026	713189-713342	713493-716245	716407-717345	717522-718248
Cyp2b23	(307) 639968-635469	635305-635174	635023-633263	633101-628308	628130-627580
Cyp2f2	(310) 124255-124348	124512-127367	127518-131704	131865-132230	132408-132807
Cyp2g1	(307) 763765-764341	764505-766132	766283-769184	769345-769678	769856-771995
Cyp2s1	(303) 1930867-1929595	1929428-1926101	1925950-1923621	1923459-1923381	1923200-1922208
	Int6	Int7	Int8	Int9	
Cyp2a4	271562-272000	272189-272788	272931-273936		
Cyp2a5					
Cyp2a12	38302-38748	38937-39448	39591-40602		
Cyp2a22	4452-4009	3820-3313	3170-2225		
Cyp2b9	160413-161960	162148-162318	162461-171284		
Cyp2b10	2029707-2031107	2031295-2031461	2031604-2039581	2036609-2040276	
Cyp2b13	23447-25605	25797-25965	26108-32103		
Cyp2b19	718393-720743	720930-721105	721247-725122		
Cyp2b23	627437-626307	626118-625949	625806-619155		
Cyp2f2	133082-133816	134005-135120	135263-135862		
Cyp2g1					
Cyp2s1	1922066-1920080	1919892-1918080	1917937-1917782		