Supplemental figure 1

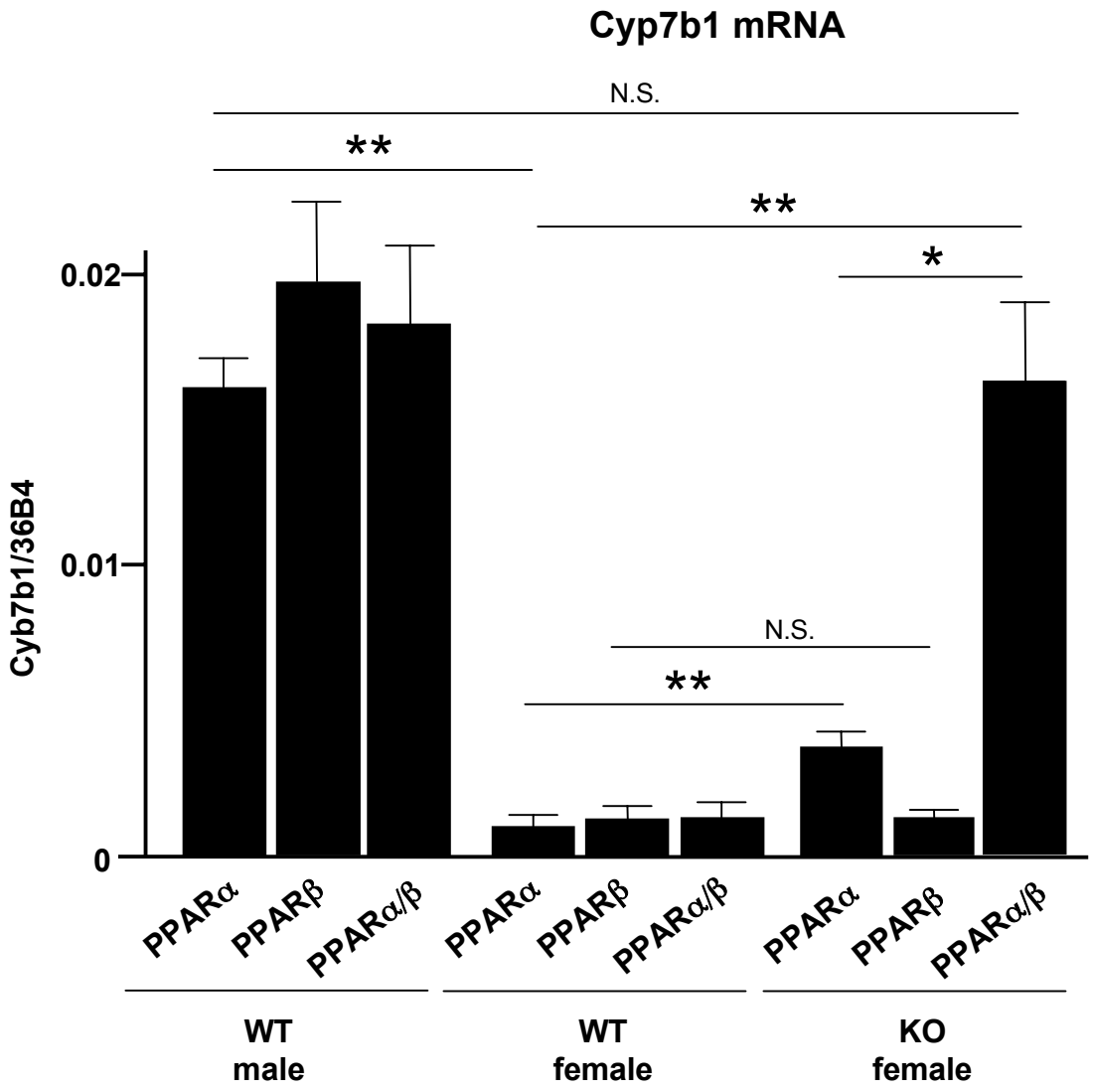

Figure S1
Compensatory role of PPARβ in the repression of *Cyp7b1*. Hepatic *Cyp7b1* expression from age and strain-matched male WT, female WT, PPARα, β and α/β-null (KO) mice was measured by quantitative real-time PCR (n=4 per group). Values are mean ± SEM. **P*≤0.05, ***P*≤0.01. N.S.: no significant.

Supplemental figure 2

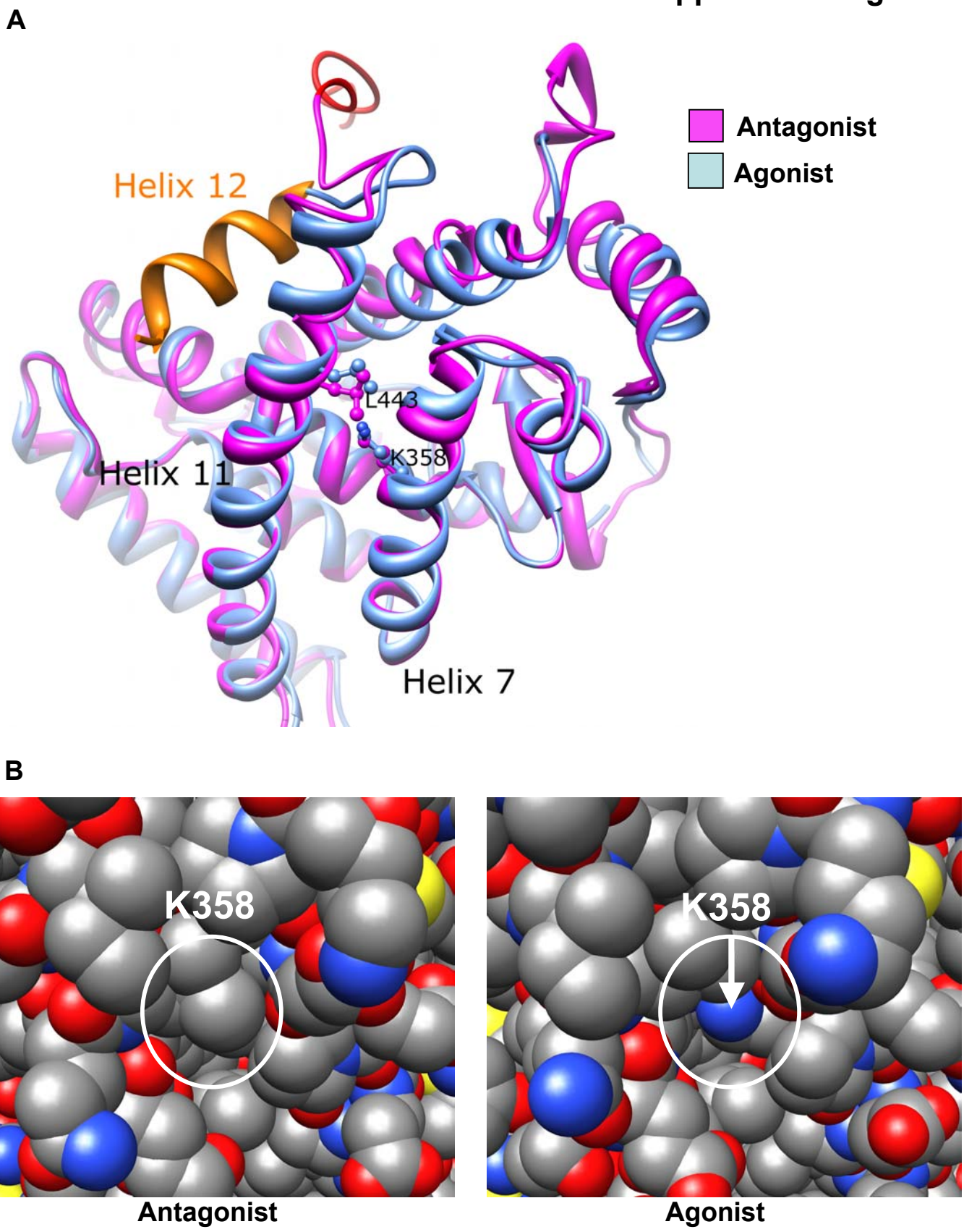

Figure S2
Lysine 358 (Lys358) is in helix 7 of the PPARα ligand binding domain and is directed toward the surface upon agonist binding. (**A**) Overlapping model of the ligand binding domain of mouse PPARα in activated conformation induced by an agonist (blue; AZ242, PDB ID 1I7G) or repressed conformation triggered by an antagonist (magenta; GW6471, PDB ID 1KKQ). The change of conformation of helix 12 induced by the agonist displaces Leu443 and increases accessibility to Lys358. (**B**) Lys358 (blue in the circle) is directed toward the surface of the activated LBD of the mouse PPARα by the agonist.

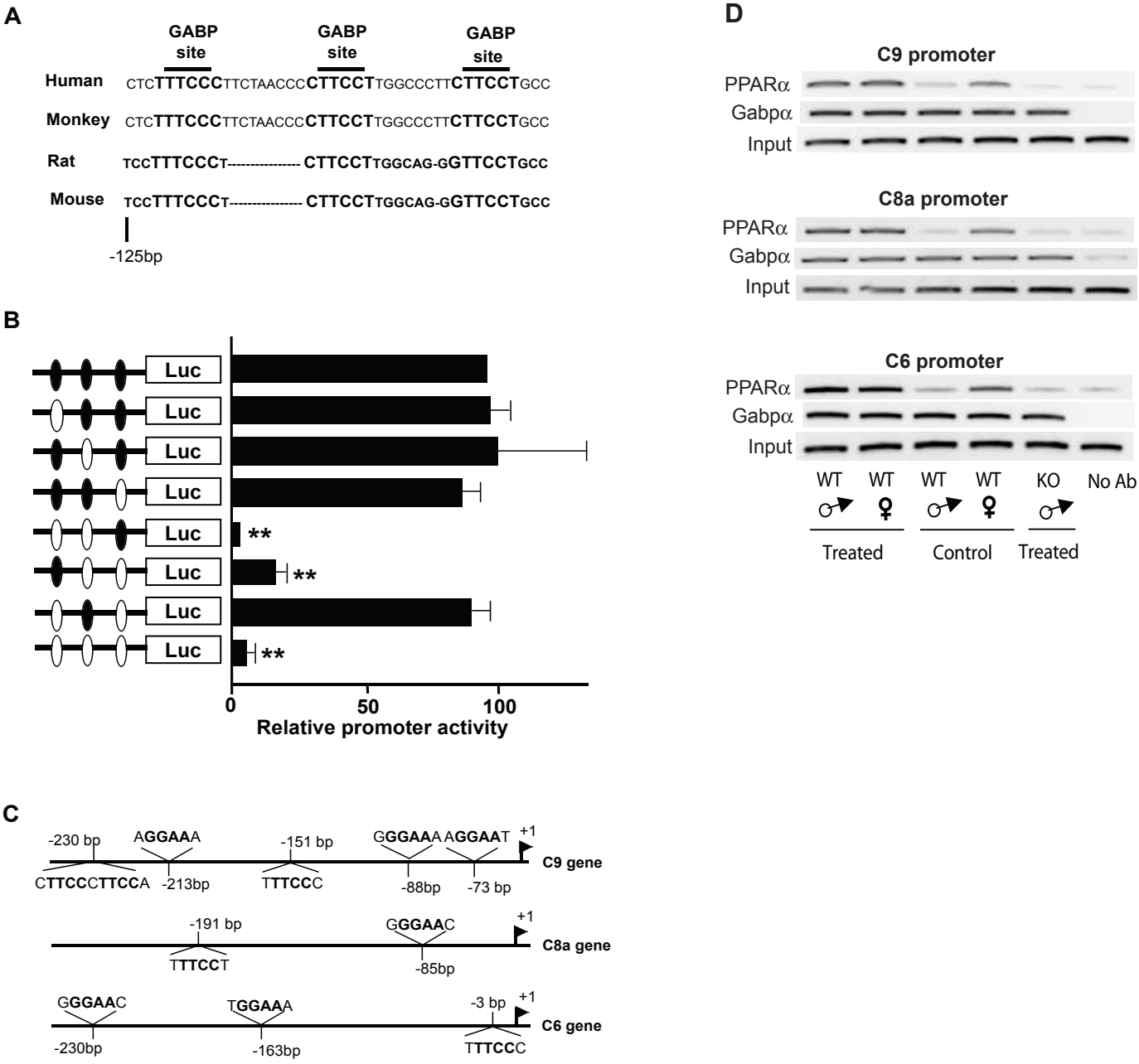

Figure S3

Conserved GABP sites are essential for basal promoter activity. (**A**) The GABP binding sites are conserved across several species. Alignment of the *Cyp7b1* promoter sequence from *Homo sapiens* (human), *Macaca mulata* (monkey), *Rattus norvegicus* (rat), and *Mus musculus* (mouse) is shown. The highlighted sequences contain the GABP binding core sites (TTCC). (**B**) The -144 *Cyp7b1* promoter plasmid was modified by site-directed mutagenesis of the GABP binding sites (white ovals) and mutated promoter activity was compared to that of the WT promoter (black ovals). Plasmids were transfected into NIH-3T3 cells with the Renilla luciferase plasmid as a control. Results are expressed as the percent of full activity (normalized firefly luciferase activity of the mutant GABP plasmid/parent plasmid X 100). Values are presented as means ± SEM (n=3 per group). $^{**}P \leq 0.01$ vs. non-mutated *Cyp7b1* promoter. (**C**) Complement genes C9, C8a, and C6 contain several GABP binding sites in their proximal promoter. (**D**) ChiP analysis for PPARα and GABPα on the indicated promoters was carried out using hepatic nuclear proteins. Primers encompassing the GABP binding sites were used for PCR.

Supplemental figure 4

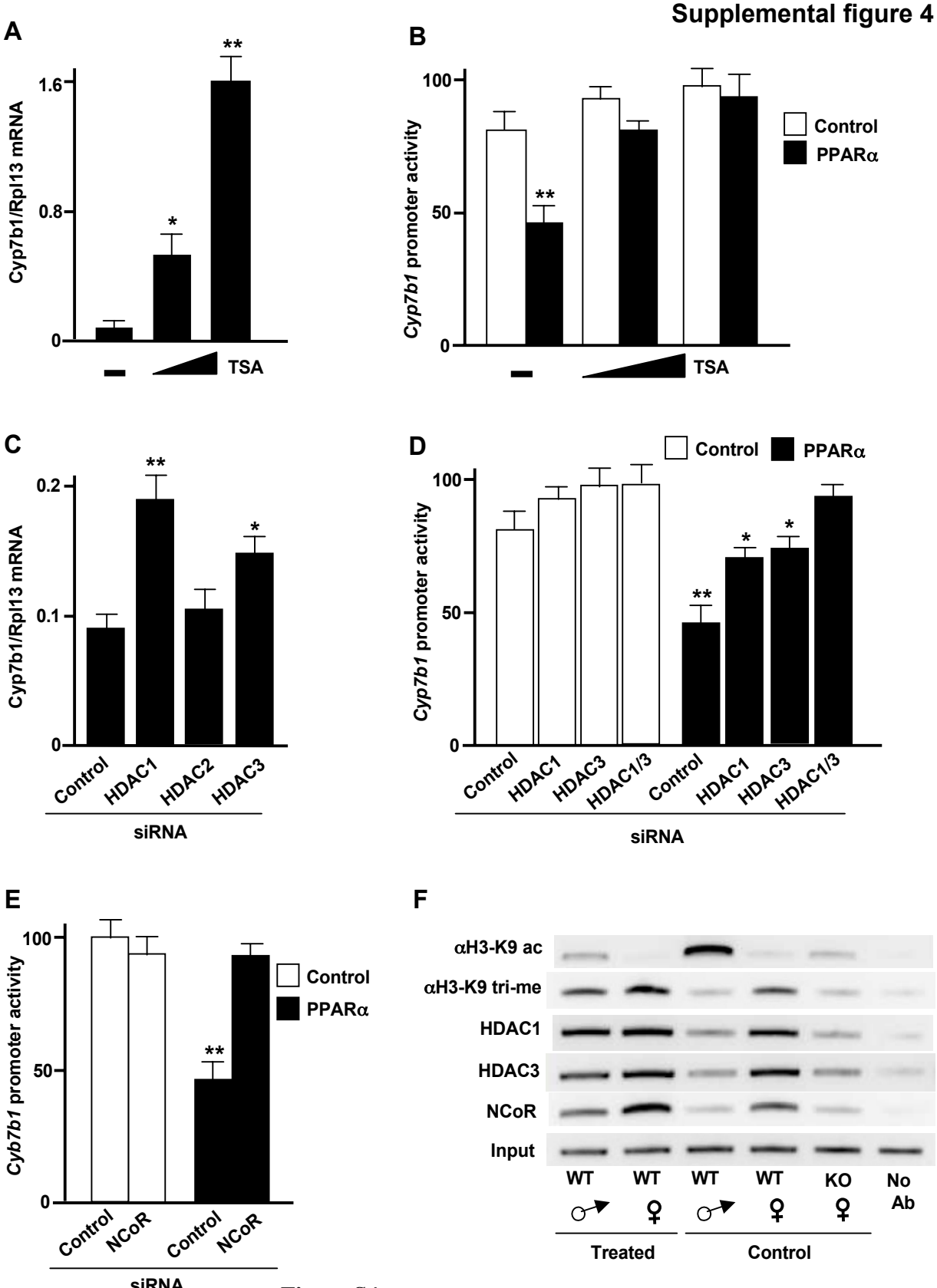

Figure S4

PPARα regulates epigenetic modifications of the *Cyp7b1* promoter. (**A**) Quantitative PCR (qPCR) shows that *Cyp7b1* is activated in human hepatic cells (HepG2) treated with the histone deacetylase inhibitor Trichostatin A (TSA; 200 nM and 400 nM) for 16 hours. (**B**) NIH-3T3 cells treated with WY-14643 and increasing concentrations of TSA (200 nM and 400 nM) were transfected with PSG5-mouse PPARα expression vector (PPARα) or the empty vector (control) and the activity of the *Cyp7b1* promoter was measured. (**C**) qPCR shows that knockdown of HDAC1 and HDAC3, but not HDAC2, activated *Cyp7b1* in HepG2 cells. (**D**) Knockdown of HDAC1 and HDAC3 abolishes PPARα repression of *Cyp7b1*. (**E**) Knockdown of NCoR abolishes PPARα repression of *Cyp7b1*. (A–E) Values are presented as means ± SEM (n=3). **P*≤0.05, ***P*≤0.01 vs. control. Cells were treated with WY-14643 during 48 hours. (**F**) ChiP assay of hepatic nuclear proteins using acetylated, trimethylated H3-K9, HDAC1, HDAC3 and NCoR antibodies. Primers encompassing the GABP and Sp1 binding sites were used for PCR. Treated, WY-14643; Untreated, control.

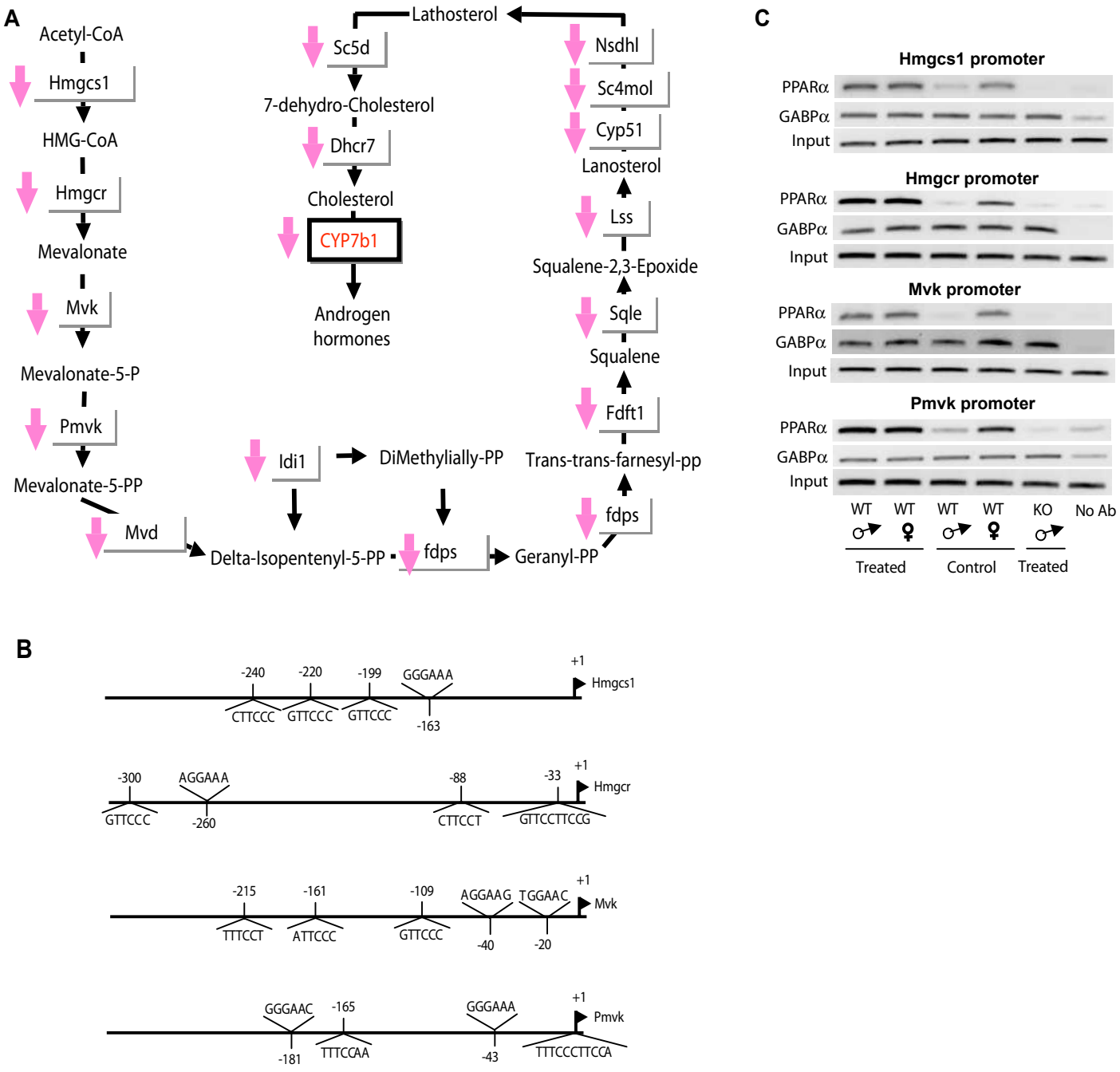

Figure S5

Hepatic steroidogenesis genes contain several GABP binding sites in their proximal promoter. (**A**) Hepatic steroidogenesis genes that are down-regulated by PPARα in females. (**B**) Hepatic steroidogenesis genes contain several GABP binding sites in the proximal promoter. The positions of these sites in the promoter of the first four genes of the pathway are shown as an example. (**C**) ChIP analysis for PPARα and GABPα on the indicated promoters was carried out using hepatic nuclear proteins. Primers encompassing the GABP binding sites were used for PCR.

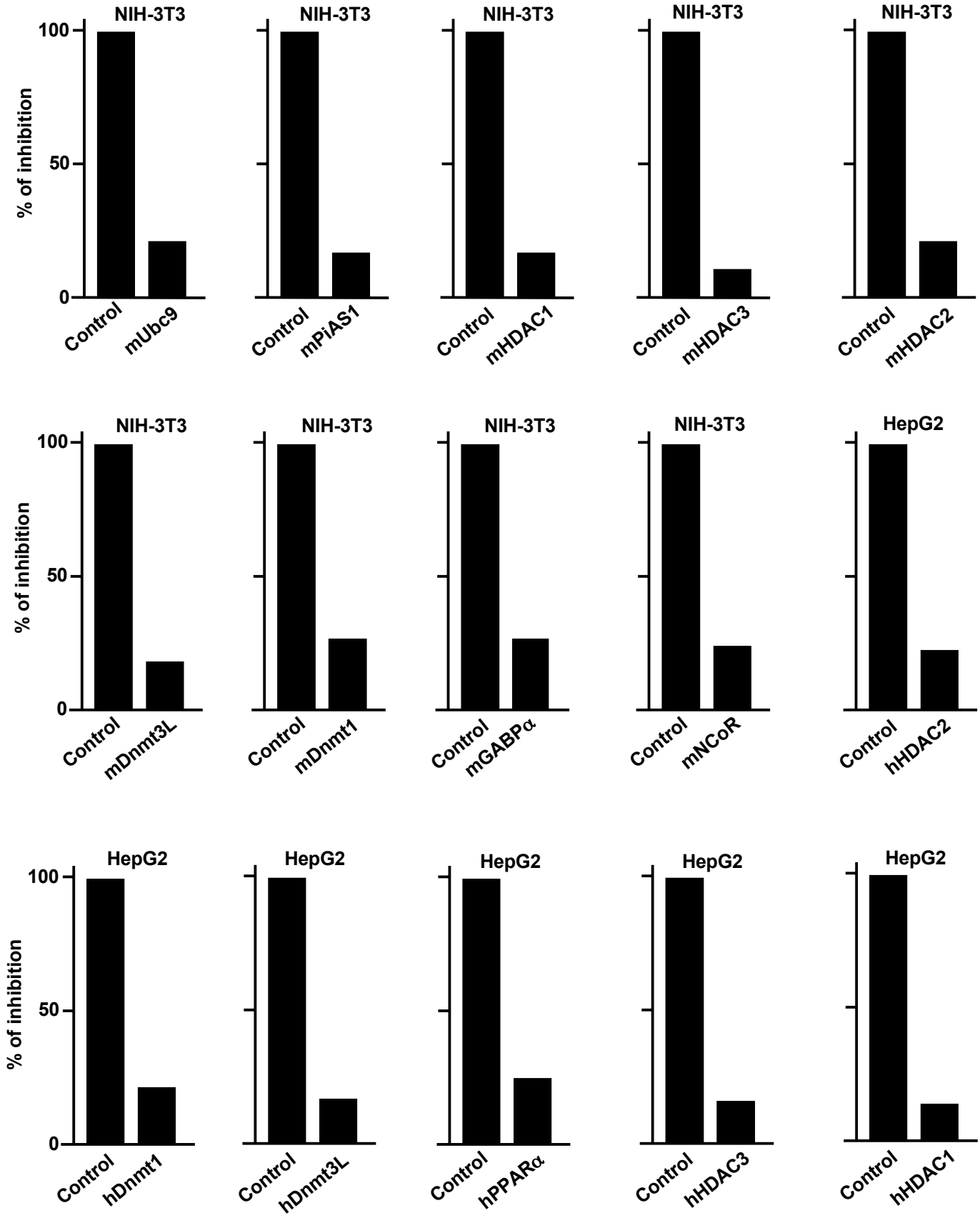

Figure S6
Efficacy of siRNAs directed against indicated mRNA. Efficiency of knockdown was evaluated in mouse (m) NIH-3T3 fibroblasts or in a human (h) HepG2 hepatoma cell line. Levels of mRNA were determined by qPCR using specific primers and 36B4 mRNA (NIH-3T3) or Rpl13 (HepG2) were used as a control.

Supplemental Table 1. Genes significantly affected by PPARα (PPARα-null vs. WT) in liver

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1418457_at	2.419082379	9.69E-09	1.87E-05	AF252873	Cxcl14
1451095_at	2.418179421	4.12E-05	0.01241855	BC005552	Asns
1452183_a_at	2.016548507	5.20E-06	0.003045479	Y13832	Gtl2
1439380_x_at	1.996149795	6.21E-09	1.36E-05	BB093563	Gtl2
1432517_a_at	1.843517602	3.74E-05	0.011747852	AK006371	Nnmt
1419520_at	1.770208275	8.99E-07	0.000737192	NM_023455	Cml4
1422230_s_at	1.673732834	6.14E-07	0.000545693	NM_007812	Cyp2a4 /// Cyp2a5 /// LOC100047711
1418287_a_at	1.633617654	0.000160703	0.033188648	NM_007769	Dmbt1
1426758_s_at	1.545535573	9.92E-08	0.000136918	Y13832	Gtl2
1448975_s_at	1.493391524	8.88E-05	0.022004202	NM_031192	LOC100038824 /// LOC100044656 /// Ren1 /// Ren2
1428547_at	1.470977852	1.03E-05	0.004777873	AV273591	Nt5e
1424245_at	1.346502195	1.65E-06	0.001195599	BC015290	Ces2 /// LOC667754
1424518_at	1.344949304	0.000168459	0.034019328	BC020489	2310016F22Rik /// BC020489
1427052_at	1.255820931	1.09E-05	0.004870803	BC022940	Acacb /// LOC100047358
1451460_a_at	1.139171727	0.000104366	0.024389559	BC026598	Slc22a7
1456377_x_at	1.134317058	6.95E-06	0.003687812	AV010467	Limd2 /// LOC632329
1420984_at	1.058879821	6.01E-06	0.003340507	AF114437	Pctp
1436504_x_at	0.970348636	4.29E-07	0.000414165	AV027367	Apoa4
1449816_at	0.961461786	4.84E-07	0.000448305	NM_020564	Sult5a1
1417761_at	0.955532425	4.38E-08	6.89E-05	BC010769	Apoa4
1455663_at	0.947049802	7.51E-05	0.019436489	BB055163	Olfml1
1452913_at	0.910025	0.000251271	0.045009965	AV337888	Pcp4l1
1451681_at	0.900311762	1.84E-06	0.001287064	BC018263	BC089597
1451260_at	0.897717893	4.09E-05	0.012367463	BC020001	Aldh1b1
1420405_at	0.854456878	0.00010473	0.024389559	NM_030687	Slco1a4
1453011_at	0.840909055	4.56E-05	0.013408651	AK007603	Bdh2
1455162_at	0.830171901	2.25E-06	0.001547663	BI147002	4922503N01Rik
1452905_at	0.829070022	2.56E-05	0.008851	AV015833	Gtl2 /// Lphn1
1455270_at	0.815609461	0.000102268	0.024148638	AV222311	Adam11
1454757_s_at	0.810603261	7.63E-05	0.019636028	AW554405	D12Ertd647e
1452975_at	0.808494578	4.39E-05	0.013002766	AK005060	Agxt2l1
1425893_a_at	0.796258963	4.82E-05	0.014037398	AF055573	Fhit
1416452_at	0.691341344	4.48E-05	0.013194859	BC008119	Oat
1422284_at	0.670447161	0.000105596	0.024492157	NM_008701	Nkx2-9
1417809_at	0.667794105	1.02E-05	0.004768069	NM_008767	Slc22a18
1422948_s_at	0.665840983	0.00012085	0.027051297	NM_013550	Hist1h4a /// Hist1h4b /// Hist1h4c /// Hist1h4h /// Hist1h4i
1420715_a_at	0.66060909	0.000242116	0.044031016	NM_011146	Pparg

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1451455_at	0.616346333	4.16E-05	0.012429963	BC025604	Thnsl2
1416414_at	0.612974857	9.37E-05	0.022648764	NM_133918	Emilin1
1418367_x_at	0.565741538	2.36E-05	0.008356494	BC010564	Hist1h2ad /// Hist1h2an /// Hist2h2aa1 /// Hist2h2aa2 /// Hist2h2ac
1418366_at	0.550492347	5.53E-05	0.015334066	BC010564	Hist1h2ad /// Hist1h2an /// Hist2h2aa1 /// Hist2h2aa2 /// Hist2h2ac
1460593_at	0.547781682	0.000135755	0.029246961	BF455403	Susd4
1426014_a_at	0.545207232	4.82E-05	0.014037398	AF462391	Mupcdh
1448241_at	0.522559152	6.61E-06	0.003595356	BC004651	Gm2a
1418808_at	0.488130809	0.000165304	0.033758211	NM_134006	Rdh5
1451255_at	0.451435003	5.55E-05	0.015344084	BC004672	Lsr
1460561_x_at	0.449237012	0.000227273	0.041951928	BB464434	Sepw1
1430078_a_at	0.448565876	0.000216229	0.040633995	AK008192	Ogg1
1428097_at	0.421730623	0.000114209	0.026058803	AK010940	2510009E07Rik
1422589_at	0.415631794	0.000187675	0.036748249	NM_009001	Rab3a
1424851_at	0.406170609	0.000114056	0.026058803	BE991735	Chchd5
1424400_a_at	0.384356627	0.000155844	0.032496499	AK007822	Aldh1l1 /// LOC100047937
1452734_at	0.325718987	0.000175188	0.034755825	BI410170	Rnaset2a /// Rnaset2b
1422576_at	-0.33750648	0.000272375	0.047539097	NM_016843	Atxn10
1455091_at	-0.337564228	0.000214483	0.040449461	AI642021	3222402P14Rik
1424120_at	-0.361105442	0.000111637	0.025601455	BC021778	LOC100048093 /// Rnf8
1416553_at	-0.386201075	0.000172277	0.034481551	NM_016665	Stra13
1452173_at	-0.41991801	2.13E-05	0.007716988	AW107842	Hadha
1419578_at	-0.424935021	0.000166881	0.033852358	NM_010775	Mbl1
1438673_at	-0.430463237	7.12E-05	0.018776714	AW555750	Slc4a7
1460726_at	-0.431372235	0.000171575	0.034391929	NM_007422	Adss
1416316_at	-0.432356457	1.31E-05	0.005622451	BC013442	Slc27a2
1425333_at	-0.438663447	6.29E-05	0.016937016	BC010248	Rab43
1435645_at	-0.438929653	0.000251491	0.045009965	AA472735	LOC676546 /// Mmd
1424908_at	-0.444354358	0.000172716	0.034518393	BC019509	Mtfmt
1433706_a_at	-0.446818129	0.000199392	0.03837605	BG075943	Ptplad1
1419257_at	-0.462358605	0.000131804	0.028625096	BC006022	Tcea1
1429369_at	-0.462528159	0.000204836	0.039100475	AV306751	Tnpo3
1435000_at	-0.465977234	5.69E-06	0.003205358	AW537663	Gspt1
1415705_at	-0.468010213	0.000201472	0.038666258	AK018610	9130011J15Rik
1454698_at	-0.468463551	4.88E-05	0.01406272	BG075943	Ptplad1
1454064_a_at	-0.477657916	7.75E-05	0.019824366	AK013419	Rnf138
1419367_at	-0.478645924	4.76E-05	0.01391655	NM_026172	Decr1
1416892_s_at	-0.480228591	0.00024802	0.044565452	BC021353	3110001A13Rik
1423149_at	-0.480354795	0.000242945	0.044063192	AV347477	Skp1a
1450643_s_at	-0.481877257	7.48E-05	0.019431041	BI413218	Acsl1

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1418915_at	-0.486993371	0.000159629	0.033075388	NM_025962	Mmachc
1433670_at	-0.492907269	0.000127638	0.027944699	BE571790	Emp2
1452703_at	-0.49406901	3.49E-05	0.011141327	BG072404	4631427C17Rik
1460216_at	-0.494327889	1.76E-05	0.006924825	NM_007383	Acads
1423883_at	-0.495642037	3.04E-05	0.009990628	BC006692	Acsl1
1416679_at	-0.49583576	6.80E-06	0.003636183	BC009119	Abcd3
1423953_at	-0.498950871	7.95E-05	0.020224935	BC016073	Cdkal1
1442593_at	-0.504616073	0.000165102	0.033758211	AW553880	---
1426522_at	-0.506804159	1.08E-05	0.004865173	BG866501	Hadhb /// LOC100048492 /// LOC623031
1448499_a_at	-0.524885484	0.000224303	0.041630826	NM_007940	Ephx2
1436706_at	-0.526104934	0.000102553	0.024163787	BB262218	Tmem32
1422032_a_at	-0.528050762	3.39E-05	0.010869695	NM_022985	Zfand6
1433457_s_at	-0.528980057	3.89E-05	0.011992083	AV090328	Grsf1
1455061_a_at	-0.530712449	1.85E-05	0.007226216	BB718075	Acaa2
1448391_at	-0.532990269	0.000142967	0.030469937	NM_019773	Rab9
1426259_at	-0.536916836	0.000152391	0.031967277	BC027089	Pank3
1453282_at	-0.540152325	0.000284784	0.048793994	BE824924	Cxadr
1423822_a_at	-0.543483285	4.88E-05	0.01406272	BC007160	Tmem168
1436186_at	-0.546347941	6.02E-06	0.003340507	BM247465	E2f8
1422906_at	-0.554852706	0.000189355	0.03702359	NM_011920	Abcg2
1435863_at	-0.572429627	0.000178381	0.035182852	BE133720	Commd6
1454956_at	-0.578034144	0.000281553	0.048652525	BM212538	Rps6kb1
1449855_s_at	-0.580711925	0.000127635	0.027944699	AB033370	Uchl3 /// Uchl4
1425141_at	-0.583512165	1.18E-05	0.005166371	BE691552	Lactb2
1452653_at	-0.583720392	2.04E-05	0.007578964	AK018760	Slc25a22
1417454_at	-0.58613609	9.51E-05	0.022860332	AW536452	Cul4b
1452659_at	-0.588384779	7.56E-05	0.019524755	AK007546	Dek
1422492_at	-0.596551182	0.000230518	0.042377328	BG067254	Cpox
1417212_at	-0.597819916	8.08E-06	0.004084021	NM_026633	9530058B02Rik
1458099_at	-0.603286035	5.99E-05	0.016313769	BB291417	---
1460178_at	-0.611237499	7.52E-06	0.003908364	NM_025827	Lonp2
1425314_at	-0.613122316	0.000283522	0.048792655	AF435926	Gpr98
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1424692_at	-0.637043053	5.92E-06	0.003309507	BC004753	2810055F11Rik
1457248_x_at	-0.646849599	0.000155586	0.032496499	BB554029	Hsd17b7
1428210_s_at	-0.65152739	1.42E-05	0.00592775	AU045682	Chuk
1434978_at	-0.652508518	0.000151432	0.031914636	BM120298	4933403F05Rik
1426894_s_at	-0.653419719	0.000223067	0.041537695	BC023470	C230093N12Rik
1437398_a_at	-0.65385438	7.30E-05	0.019143032	BB703752	Aldh9a1
1451339_at	-0.65463038	8.67E-05	0.021601486	BC027197	Suox

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1416372_at	-0.656254154	3.88E-05	0.011970798	NM_008959	LOC674712 /// Ptdss1
1423960_at	-0.660658293	2.82E-06	0.00186776	BC006753	Mboat5
1431054_at	-0.663536547	1.81E-05	0.00707015	AK019126	LOC100042253 /// LOC100044607 /// LOC100046670 /// Lsm6
1426205_at	-0.665810622	9.97E-06	0.00471759	M27073	LOC100044953 /// Ppp1cb
1453122_at	-0.666705813	0.000120958	0.027051297	AK019549	4921533L14Rik
1425243_at	-0.666784697	9.27E-06	0.004476769	AY026050	Cd207
1451383_a_at	-0.670533984	2.65E-05	0.009050919	BC018243	Chuk
1428357_at	-0.670750839	1.94E-05	0.007384653	AK011462	2610019F03Rik
1425559_a_at	-0.674595426	0.000190507	0.037087965	AB022340	Acsm3
1455376_at	-0.682361026	1.64E-05	0.006670888	BQ176060	1300010F03Rik
1424709_at	-0.682821187	5.74E-05	0.01577305	AB016248	Sc5d
1436689_a_at	-0.684989628	2.10E-06	0.001454299	AV028069	Aldh9a1
1451466_at	-0.691305285	3.79E-05	0.011807516	BC019957	D16Ertd472e
1455103_at	-0.695579385	0.000218637	0.040915939	BE952175	LOC100046698
1421872_at	-0.697997893	1.74E-05	0.006889368	NM_009000	Rab24
1452877_at	-0.701903692	8.17E-05	0.020628064	AK012304	2700029M09Rik
1427040_at	-0.703295971	0.000118214	0.026652717	U13371	Mdfic
1447926_at	-0.71307538	8.69E-05	0.021607011	BB811124	Arl5a
1422493_at	-0.729460772	1.18E-05	0.005166371	BG067254	Cpox
1424399_at	-0.732944073	0.000178845	0.035223004	BC025146	Uck1
1431032_at	-0.733954056	2.54E-05	0.008835509	AA681807	Agl
1418760_at	-0.737345323	0.000215156	0.040488505	AB030503	Rdh11
1437085_at	-0.739825293	7.18E-05	0.018894416	AV370040	D630039A03Rik
1423488_at	-0.748928599	6.17E-07	0.000545693	BC021914	Mmd
1428181_at	-0.754032378	1.64E-07	0.000197945	BI692487	Etfb
1416156_at	-0.76719841	0.00013425	0.028970279	NM_009502	Vcl
1418911_s_at	-0.769741773	5.79E-05	0.015897808	NM_019477	Acsl4
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1418858_at	-0.793473753	8.43E-06	0.004238906	NM_023617	Aox3
1428829_at	-0.793487786	7.92E-05	0.02019234	AK018353	6820401H01Rik
1454935_at	-0.794036412	1.72E-05	0.006877721	BB521491	D930001I22Rik
1415776_at	-0.800965855	8.17E-05	0.020628064	NM_007437	Aldh3a2
1456199_x_at	-0.815914651	3.12E-06	0.001999495	BB106402	LOC100045146 /// Ranbp9
1419393_at	-0.825804081	5.44E-06	0.003148292	NM_031884	Abcg5
1438175_x_at	-0.8385251	0.000126232	0.027813821	BB288010	Myom2
1450917_at	-0.841650021	4.30E-07	0.000414165	BB474208	Myom2
1434642_at	-0.849414348	2.29E-07	0.00025167	BB546344	Hsd17b11
1425140_at	-0.858717948	3.74E-06	0.00231138	BE691552	Lactb2
1423489_at	-0.859649196	1.11E-05	0.004902124	BC021914	LOC100047565 /// Mmd
1424493_s_at	-0.865410281	5.35E-05	0.015030813	BC025940	LOC100039661 /// Ugt3a1

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1443838_x_at	-0.876784338	5.72E-05	0.015757383	BB229957	Fads2
1416947_s_at	-0.881189937	2.24E-05	0.00802681	NM_130864	Acaa1a /// Acaa1b
1436047_at	-0.886863795	6.41E-06	0.003509054	BF150935	Gm672 /// LOC100048138
1431789_s_at	-0.908713472	1.97E-05	0.007403239	AK014065	Tmed5
1439675_at	-0.911631064	6.99E-06	0.003696932	AV282267	4933429D07Rik
1448943_at	-0.912076798	0.00027265	0.047539097	AK011144	Nrp1
1417369_at	-0.933468903	1.28E-07	0.000163473	NM_008292	Hsd17b4
1418989_at	-0.938251198	2.57E-05	0.008854584	NM_007799	Ctse
1428236_at	-0.951228411	9.24E-05	0.022395416	AK005001	Acbd5
1449443_at	-0.973430787	1.65E-05	0.006699949	NM_026172	Decr1
1451559_a_at	-1.000033192	4.81E-07	0.000448305	AB045132	Dhrs4
1416946_a_at	-1.024794518	0.000199198	0.03837605	NM_130864	Acaa1a /// Acaa1b
1427213_at	-1.02795593	2.07E-05	0.007591881	X98848	Pfkfb1
1424552_at	-1.029313552	8.25E-08	0.000120084	BC006737	Casp8
1426856_at	-1.049720202	3.99E-06	0.002443478	BM200015	Hsdl2
1456204_at	-1.056662184	1.40E-05	0.005859638	AV069567	Snhg8
1455008_at	-1.061738284	8.93E-06	0.004410322	BF467143	LOC100048021
1455227_at	-1.063402613	5.58E-05	0.015401136	AV369935	Aadacl1
1448944_at	-1.069388774	1.26E-05	0.005467121	AK011144	Nrp1
1460318_at	-1.082970383	2.80E-05	0.009442354	NM_013808	Csrp3
1449051_at	-1.119831938	7.03E-07	0.000605799	BC016892	Ppara
1421026_at	-1.126142647	2.94E-06	0.001930356	BF302166	Gna12 /// LOC100048021
1419382_a_at	-1.138585594	1.17E-07	0.000152533	NM_030686	Dhrs4
1424451_at	-1.144510417	3.63E-05	0.011501636	BC019882	Acaa1b
1435135_at	-1.151124868	0.000175709	0.034808222	AV369935	Aadacl1
1424715_at	-1.153043259	1.52E-06	0.001126919	BB775176	Retsat
1424184_at	-1.177812314	3.97E-10	1.28E-06	BC026559	Acadvl
1455438_at	-1.184130811	2.57E-05	0.008854584	AW495885	Pxmp4
1457721_at	-1.219880286	1.86E-05	0.007226451	AI118064	AI118064
1423331_a_at	-1.222630629	8.98E-05	0.02212373	BG070704	LOC100047693 /// Pvrl3
1418486_at	-1.250869784	2.88E-07	0.000299342	NM_011704	Vnn1
1455777_x_at	-1.254986674	2.18E-07	0.000245219	BB032410	Hsd17b4
1417991_at	-1.29498764	9.89E-07	0.000796202	NM_007860	Dio1
1416772_at	-1.301527317	1.10E-07	0.000148796	NM_009949	Cpt2
1450097_s_at	-1.306079264	1.48E-06	0.001119679	BF302166	LOC100048021
1423858_a_at	-1.324151335	1.69E-10	6.73E-07	BC014714	Hmgcs2
1426857_a_at	-1.364559009	1.25E-08	2.35E-05	BM200015	Hsdl2
1431833_a_at	-1.375118153	2.11E-07	0.000243901	AK004902	Hmgcs2
1418321_at	-1.390284634	2.09E-09	5.31E-06	NM_010023	Dci
1460258_at	-1.391223449	1.30E-07	0.000165018	NM_010701	Lect1

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1435275_at	-1.409710176	2.37E-05	0.008386177	AV013496	Cox6b2
1424574_at	-1.440457403	3.13E-08	5.05E-05	BC020076	LOC100046567 /// Tmed5
1422780_at	-1.487497591	1.09E-07	0.000148796	NM_021534	Pxmp4
1448987_at	-1.501862757	2.11E-10	8.15E-07	BB728073	Acadl
1451084_at	-1.515175477	4.56E-09	1.05E-05	BC012522	Etfdh
1424716_at	-1.632534094	6.03E-05	0.01638931	BB775176	Retsat
1438055_at	-1.7719634	2.95E-08	4.80E-05	BB035017	Rarres1
1427957_at	-1.802977847	7.32E-09	1.55E-05	AI256077	9530008L14Rik
1431012_a_at	-1.825182074	2.43E-12	2.05E-08	AK009478	Peci
1448080_at	-1.828719914	3.84E-05	0.011920322	AI256288	LOC100040465 /// LOC100046261
1448491_at	-1.83162767	4.66E-10	1.43E-06	NM_016772	Ech1
1421116_a_at	-1.864473048	6.91E-09	1.48E-05	NM_024226	Rtn4
1423108_at	-1.889267191	5.98E-11	2.81E-07	AV008091	Slc25a20
1424573_at	-1.89759882	3.00E-07	0.000306408	BC020076	Tmed5
1424937_at	-2.016244598	1.43E-06	0.001094487	BC024138	2310076L09Rik
1452649_at	-2.035592613	1.63E-07	0.000197945	AK003859	Rtn4
1428223_at	-2.403523728	2.12E-09	5.31E-06	AK006096	Mfsd2
1457435_x_at	-2.537910104	1.60E-09	4.24E-06	AV241307	Myom2
1441915_s_at	-2.585792625	5.15E-07	0.000471099	BB717485	2310076L09Rik
1423109_s_at	-2.66974217	6.51E-12	4.90E-08	AV008091	Slc25a20
1423495_at	-3.237430018	2.99E-10	1.01E-06	BE952632	Decr2
1424853_s_at	-6.284871839	3.66E-09	8.54E-06	BC010747	Cyp4a10 /// Cyp4a31 /// LOC100044218

Probe sets with a False Discovery Rate (FDR) < 5% were selected and ordered by fold change.

Supplemental Table 2. Genes significantly affected by PPARα (PPARα-null vs. WT) in heart

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1422598_at	1.577910213	1.73E-07	0.000557559	NM_009813	Casq1
1436188_a_at	1.225226455	6.17E-09	4.17E-05	AI837704	Ndrg4
1419606_a_at	1.047900034	2.00E-07	0.000601714	NM_011618	Tnnt1
1426615_s_at	1.036611529	3.00E-08	0.000134772	AV006122	Ndrg4
1436233_at	0.965194235	9.63E-07	0.00210155	BM123923	Btnl9
1451257_at	0.904147657	1.70E-05	0.023404572	BC022959	Acsl6
1426959_at	0.862677454	3.12E-05	0.039828135	BF322712	Bdh1
1452651_a_at	0.783332495	2.09E-05	0.028005329	AK003182	Myl1
1430127_a_at	0.635448497	1.83E-06	0.003633394	AK007904	Ccnd2
1418155_at	0.583123022	1.09E-05	0.016568866	NM_021484	Myot
1444429_at	0.51288628	2.95E-05	0.038058953	BB518226	Lrtm1
1416023_at	-0.463487115	2.52E-05	0.033113194	NM_010174	Fabp3
1438910_a_at	-0.474725579	2.02E-05	0.027661145	BB782444	Stom
1449632_s_at	-0.479604547	3.21E-05	0.040621227	AI325255	Fkbp10
1415947_at	-0.500586341	1.47E-05	0.021220359	BC027426	Creg1
1415984_at	-0.557970256	4.68E-06	0.00793517	NM_007382	Acadm
1419097_a_at	-0.559172254	7.84E-06	0.012627419	AF093620	Stom
1448448_a_at	-0.567979912	7.49E-06	0.01220206	NM_007692	Chkb
1422619_at	-0.593911619	3.47E-06	0.006100973	NM_008903	Ppap2a
1449964_a_at	-0.599353467	9.38E-06	0.014589075	NM_019966	Mlycd
1450884_at	-0.600946848	2.75E-06	0.004898664	BB534670	Cd36
1415948_at	-0.601918334	6.50E-07	0.001515893	BC027426	Creg1
1418321_at	-0.610002063	6.80E-07	0.001560249	NM_010023	Dci
1433983_at	-0.640469622	6.41E-06	0.010703051	AV351864	Cnksr3
1426522_at	-0.646177838	1.38E-07	0.000454964	BG866501	Hadhb /// LOC100048492 /// LOC623031
1451543_at	-0.646221511	2.49E-05	0.032989425	BC021871	Fbxo21
1416046_a_at	-0.701508685	2.36E-06	0.004381997	BM054266	Fuca2
1438657_x_at	-0.703928655	1.57E-05	0.021916963	BB043450	EG667723 /// LOC100043135 /// LOC433406 /// LOC627166 /// LOC627200 /// Ptp4a1
1450097_s_at	-0.707906946	1.47E-05	0.021220359	BF302166	LOC100048021
1436332_at	-0.709738036	1.85E-06	0.003633394	BB755506	Hspb6
1435135_at	-0.71379442	3.37E-07	0.000861378	AV369935	Aadacl1
1417220_at	-0.726193762	1.05E-05	0.016101155	NM_010176	Fah
1455002_at	-0.730107436	1.43E-05	0.021032874	AV331223	Ptp4a1
1452653_at	-0.735052943	4.19E-07	0.001012371	AK018760	Slc25a22

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1431012_a_at	-0.742223664	1.94E-07	0.000597955	AK009478	Peci
1422620_s_at	-0.74401544	1.35E-06	0.002808607	NM_008903	Ppap2a
1428146_s_at	-0.760572403	3.09E-08	0.000134772	AK002555	Acaa2
1428145_at	-0.760671266	8.55E-08	0.000304258	AK002555	Acaa2
1436689_a_at	-0.76733381	1.31E-06	0.002769798	AV028069	Aldh9a1
1438074_at	-0.777418761	1.54E-05	0.021721967	AU024481	2210010C17Rik
1460216_at	-0.784603423	2.02E-06	0.003903702	NM_007383	Acads
1451392_at	-0.787731432	1.08E-06	0.002310201	BC016193	LOC100047355 /// Rbed1
1452173_at	-0.78896789	2.31E-08	0.000111705	AW107842	Hadha
1426857_a_at	-0.795931366	7.79E-07	0.001727446	BM200015	Hsdl2
1449442_at	-0.800082224	8.26E-06	0.013142352	NM_011068	Pex11a
1455581_x_at	-0.8340678	5.47E-07	0.001299252	BQ175154	9530028C05
1416632_at	-0.834995704	1.03E-08	6.31E-05	BC011081	LOC630951 /// LOC677317 /// Mod1
1430307_a_at	-0.838210377	1.01E-07	0.000349148	AK006387	LOC630951 /// LOC677317 /// Mod1
1455061_a_at	-0.84041954	2.15E-06	0.004094032	BB718075	Acaa2
1416679_at	-0.856391621	4.24E-09	3.38E-05	BC009119	Abcd3
1416430_at	-0.858090286	3.24E-07	0.000861378	NM_009804	Cat
1419365_at	-0.870029353	1.26E-05	0.018755253	NM_011068	Pex11a
1450395_at	-0.891825991	6.92E-07	0.001561206	NM_011396	Slc22a5
1422704_at	-0.896401229	2.47E-07	0.000681272	BF683028	Gyk
1419499_at	-0.937002742	2.20E-07	0.000646951	NM_008149	Gpam
1423883_at	-0.944253089	4.14E-09	3.38E-05	BC006692	Acsl1
1426856_at	-0.949799644	2.29E-07	0.000657971	BM200015	Hsdl2
1435645_at	-0.964858984	1.51E-05	0.021506694	AA472735	LOC676546 /// Mmd
1424716_at	-0.965272874	9.29E-06	0.014589075	BB775176	Retsat
1451559_a_at	-0.968262564	4.01E-07	0.00098647	AB045132	Dhrs4
1455008_at	-0.980380291	2.29E-06	0.004294512	BF467143	LOC100048021
1428744_s_at	-1.010980767	2.42E-07	0.000681272	BB028923	Bri3bp
1448499_a_at	-1.02929879	2.77E-09	2.50E-05	NM_007940	Ephx2
1423892_at	-1.048183127	3.78E-08	0.000159637	AF206720	Apbb1
1450643_s_at	-1.058947762	1.63E-09	1.71E-05	BI413218	Acsl1
1439675_at	-1.064365883	1.94E-07	0.000597955	AV282267	4933429D07Rik
1423893_x_at	-1.08133159	3.28E-07	0.000861378	AF206720	Apbb1
1457721_at	-1.082482123	7.22E-08	0.000264201	AI118064	AI118064
1436168_at	-1.08278879	4.69E-06	0.00793517	BB428892	C730029A08Rik
1451084_at	-1.083117463	4.86E-10	7.30E-06	BC012522	Etfdh
1424715_at	-1.094116107	3.94E-07	0.000985983	BB775176	Retsat

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1422526_at	-1.099478285	1.49E-08	7.45E-05	BI413218	Acsl1
1442304_at	-1.099806342	2.76E-05	0.035966719	BB520468	LOC100042588 /// LOC100048039
1424184_at	-1.105130736	1.69E-09	1.71E-05	BC026559	Acadvl
1437398_a_at	-1.113702736	2.72E-06	0.004898664	BB703752	Aldh9a1
1436351_at	-1.124215452	9.96E-09	6.31E-05	C78422	Coq3
1421026_at	-1.154525852	4.96E-08	0.000191588	BF302166	Gna12 /// LOC100048021
1439478_at	-1.168947363	1.09E-07	0.000367448	BB500039	Acot2
1418744_s_at	-1.186802592	7.69E-10	1.04E-05	NM_021344	LOC100047138 /// Tesc
1423071_x_at	-1.197503998	1.39E-09	1.71E-05	AW549928	EG622782 /// EG625349 /// EG666200 /// EG666464 /// LOC100041709 /// LOC544983 /// LOC545175 /// LOC619711 /// LOC624831
1455025_at	-1.24982121	4.31E-08	0.000171439	AV103696	Paqr9
1449051_at	-1.251942713	2.58E-06	0.004718523	BC016892	Ppara
1455288_at	-1.25408679	1.42E-08	7.39E-05	BE951265	1110036O03Rik
1416772_at	-1.261989031	3.76E-11	6.36E-07	NM_009949	Cpt2
1418743_a_at	-1.267689926	1.77E-09	1.71E-05	NM_021344	LOC100047138 /// Tesc
1460061_at	-1.267899022	4.89E-09	3.67E-05	AV342748	---
1449088_at	-1.276887894	2.63E-08	0.000122717	NM_007994	Fbp2
1448786_at	-1.475226811	2.65E-11	5.12E-07	NM_025806	1100001H23Rik /// LOC100045163
1423072_at	-1.490660944	6.26E-08	0.000235438	AW549928	6720475J19Rik
1448491_at	-1.626070257	1.81E-12	5.40E-08	NM_016772	Ech1
1419367_at	-1.671709954	2.00E-12	5.40E-08	NM_026172	Decr1
1422997_s_at	-1.718687022	6.08E-09	4.17E-05	NM_134188	Acot1 /// Acot2 /// LOC100044830
1449443_at	-1.769574002	1.19E-08	6.99E-05	NM_026172	Decr1
1423108_at	-1.774484239	1.87E-11	4.22E-07	AV008091	Slc25a20
1423109_s_at	-1.812054656	8.25E-13	3.72E-08	AV008091	Slc25a20
1441915_s_at	-3.083887646	2.29E-14	1.55E-09	BB717485	2310076L09Rik
1424937_at	-3.086788316	7.97E-15	1.08E-09	BC024138	2310076L09Rik

Probe sets with a False Discovery Rate (FDR) < 5% were selected and ordered by fold change.

Supplemental Table 3. Genes significantly affected by the gender (female vs. male) in liver

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1421669_at	9.536289292	3.78E-19	5.11E-14	NM_020565	Sult3a1
1449525_at	8.765077531	1.52E-14	2.94E-10	NM_008030	Fmo3
1419528_at	8.42894619	1.52E-16	6.87E-12	NM_009286	C730007P19Rik
1419704_at	6.73800235	1.80E-15	6.09E-11	NM_017396	Cyp3a41a /// LOC100041375
1427262_at	6.721846721	9.36E-17	6.33E-12	L04961	Xist
1436936_s_at	4.801023201	4.57E-14	6.87E-10	BG806300	Xist
1425751_at	4.770907142	9.65E-14	1.19E-09	AJ132857	BC014805
1425752_at	4.489232272	5.45E-15	1.47E-10	AJ132857	BC014805
1418654_at	4.333732289	3.33E-13	3.47E-09	NM_019545	Hao3
1423257_at	4.101321813	7.12E-06	0.003747065	AI327006	Cyp4a14
1443147_at	4.064062115	6.92E-11	3.12E-07	BB505010	---
1422925_s_at	3.892850418	8.48E-09	1.74E-05	NM_134246	Acot3
1428547_at	3.813358752	2.68E-10	9.31E-07	AV273591	Nt5e
1418486_at	3.547354428	1.61E-12	1.46E-08	NM_011704	Vnn1
1417017_at	3.465223583	6.76E-07	0.000594057	NM_007809	Cyp17a1
1426064_at	3.392499015	2.80E-09	6.64E-06	AB039380	Cyp3a44
1421425_a_at	3.257318956	1.66E-09	4.32E-06	NM_030598	Rcan2
1447845_s_at	3.183807858	1.29E-13	1.45E-09	AV360029	Vnn1
1443889_at	2.961046369	8.68E-11	3.79E-07	AI789751	9030619P08Rik
1427747_a_at	2.929550603	4.19E-11	2.18E-07	X14607	Lcn2
1451681_at	2.660006184	7.79E-12	5.55E-08	BC018263	BC089597
1425150_at	2.573468665	8.99E-09	1.79E-05	BC010829	C730036D15Rik
1432517_a_at	2.567284428	1.33E-06	0.00103404	AK006371	Nnmt
1434473_at	2.560033589	7.85E-07	0.000663881	AI647939	Slc16a5
1424853_s_at	2.554710752	5.43E-05	0.015173062	BC010747	Cyp4a10 /// Cyp4a31 /// LOC100044218
1420447_at	2.489607132	1.55E-06	0.001131085	NM_023135	Sult1e1
1421363_at	2.398665931	3.71E-08	5.91E-05	NM_010003	Cyp2c39
1418780_at	2.397006762	2.24E-06	0.001547367	NM_018887	Cyp39a1
1450883_a_at	2.369307838	4.03E-07	0.000395174	BB534670	**Cd36**
1421430_at	2.326120968	2.21E-10	8.30E-07	NM_009014	Rad51l1
1460180_at	2.115802434	1.25E-08	2.35E-05	NM_010422	Hexb
1422230_s_at	2.08571282	5.44E-08	8.37E-05	NM_007812	Cyp2a4 /// Cyp2a5 /// LOC100047711
1419751_x_at	2.074151687	2.34E-08	4.12E-05	NM_134256	AB056442
1421382_at	2.062815424	1.59E-08	2.95E-05	NM_008932	Prlr
1448754_at	2.019625612	3.33E-05	0.010764574	NM_011254	LOC100045055 /// Rbp1
1424599_at	1.896725491	1.86E-06	0.001298487	BC021946	Fgl1
1448975_s_at	1.822959193	1.33E-05	0.005695263	NM_031192	LOC100038824 /// LOC100044656 /// Ren1 /// Ren2

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1419748_at	1.800905469	9.99E-07	0.000800187	NM_011994	Abcd2
1450226_at	1.792744411	2.28E-06	0.001554686	NM_008932	Prlr
1455400_at	1.748312279	2.21E-07	0.000245522	BB770857	Ddah1
1424133_at	1.687533175	6.00E-07	0.000537767	BC011208	Tmem98
1452501_at	1.68630704	6.17E-06	0.00340611	AF047725	Cyp2c38
1448698_at	1.681242922	1.03E-05	0.004768069	NM_007631	Ccnd1
1425853_s_at	1.672882948	4.42E-05	0.013067674	M22958	Prlr
1421116_a_at	1.656543295	2.66E-08	4.61E-05	NM_024226	Rtn4
1429298_at	1.65574216	3.01E-07	0.000306408	BE283964	Ddah1
1427263_at	1.652930562	2.27E-08	4.04E-05	L04961	Xist
1454995_at	1.650390036	3.59E-07	0.000357361	AW556888	Ddah1
1417419_at	1.645410673	5.52E-06	0.00316427	NM_007631	Ccnd1
1436643_x_at	1.618090127	9.01E-06	0.004410322	AV051678	Hamp2
1448556_at	1.615415069	2.07E-05	0.007591881	BC005555	Prlr
1422076_at	1.611958463	2.06E-05	0.007591881	AA571017	Acot4
1437397_at	1.585869082	1.48E-06	0.001119679	AW554594	Prlr
1420405_at	1.571903272	2.19E-07	0.000245219	NM_030687	Slco1a4
1423166_at	1.533506454	6.96E-07	0.000605799	BB534670	Cd36
1422974_at	1.520746921	8.16E-08	0.000119991	NM_011851	Nt5e
1452649_at	1.506717505	4.05E-06	0.002469357	AK003859	Rtn4
1417420_at	1.504550296	9.42E-05	0.022671781	NM_007631	Ccnd1
1423891_at	1.453749226	1.53E-06	0.001126919	BC003903	Gstt3
1415997_at	1.453391717	0.00014577	0.030961863	AF173681	Txnip
1436221_at	1.433574058	2.40E-05	0.008429434	BG067625	D1Ertd471e
1450489_at	1.424477171	1.72E-07	0.000205918	AB051409	Sall1
1415776_at	1.386232474	3.16E-07	0.000319508	NM_007437	Aldh3a2
1450724_at	1.377456716	9.05E-08	0.000130313	NM_053090	Drctnnb1a
1425079_at	1.339466136	9.26E-06	0.004476769	BC024498	Tm6sf2
1426452_a_at	1.334258673	0.00021731	0.040723734	BG070713	Rab30
1452913_at	1.323462664	7.54E-06	0.003908364	AV337888	Pcp4l1
1448502_at	1.312576207	1.19E-07	0.000153474	NM_011391	Slc16a7
1453435_a_at	1.298704183	0.00026305	0.046525639	AK009753	Fmo2
1420984_at	1.289960151	7.63E-07	0.000649346	AF114437	Pctp
1427963_s_at	1.23195047	2.20E-08	3.97E-05	BE979765	Rdh9
1421921_at	1.228106531	1.04E-05	0.004816903	BC011158	Serpina3m
1419094_at	1.208900981	4.16E-05	0.012429963	NM_010001	Cyp2c37
1439478_at	1.204221925	9.04E-05	0.022238433	BB500039	Acot2
1450611_at	1.196527566	9.03E-06	0.004410322	NM_013623	Orm3
1450395_at	1.183787366	1.94E-05	0.007384653	NM_011396	Slc22a5
1436293_x_at	1.167726279	8.63E-05	0.021590231	AI852300	D1Ertd471e

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1449486_at	1.164128058	3.30E-05	0.01069539	NM_021456	Ces1
1456295_at	1.16259397	7.95E-06	0.004073447	BB304874	B230114P17Rik
1428223_at	1.112662066	9.77E-06	0.004671736	AK006096	Mfsd2
1422904_at	1.099517073	1.07E-05	0.004865173	NM_018881	Fmo2
1423859_a_at	1.066827526	9.61E-05	0.022968736	AB006361	Ptgds
1448300_at	1.051970177	0.00020518	0.039100475	NM_025569	Mgst3
1421653_a_at	1.046076748	0.00023708	0.043223211	NM_134051	Igh /// Igh-2 /// Igh-VJ558 /// LOC677563
1420723_at	1.007466477	1.38E-06	0.001062892	NM_011979	Vnn3
1434096_at	1.007066343	1.35E-05	0.005735656	BB283443	Slc4a4
1438947_x_at	0.999749477	2.12E-05	0.007690847	BB459744	Sema3f
1454799_at	0.993954624	2.95E-07	0.000305045	AV300264	A230097K15Rik
1427052_at	0.990182318	0.00010472	0.024389559	BC022940	Acacb /// LOC100047358
1451260_at	0.952159063	2.33E-05	0.008279376	BC020001	Aldh1b1
1423244_at	0.949785941	3.03E-06	0.00196002	AI265721	Cyp2c68
1438007_at	0.946399604	0.00011653	0.026392046	BB432758	AI851790
1417399_at	0.935014202	0.00012257	0.027254344	NM_019521	Gas6
1447800_x_at	0.934750396	3.14E-06	0.002006871	AV085634	---
1422948_s_at	0.933163762	4.69E-06	0.002768901	NM_013550	Hist1h4a /// Hist1h4b /// Hist1h4c /// Hist1h4h /// Hist1h4i /// Hist1h4j /// Hist1h4k /// Hist1h4m /// LOC100041230
1434418_at	0.927835124	9.54E-08	0.000135395	BQ176664	Lass6
1448200_at	0.87666205	8.96E-06	0.004410322	NM_015749	Tcn2
1448550_at	0.870325835	1.90E-05	0.007285592	NM_008489	Lbp
1438431_at	0.861711951	2.10E-07	0.000243901	BB197269	Abcd2
1448752_at	0.85123476	1.69E-06	0.001210013	NM_009801	Car2
1416560_at	0.849096832	0.00020832	0.039540238	NM_054055	Slc13a3
1419059_at	0.846830131	1.31E-05	0.005622451	NM_011318	Apcs
1425567_a_at	0.839577872	3.99E-06	0.002443478	D63423	Anxa5
1424493_s_at	0.835207083	7.43E-05	0.019354544	BC025940	LOC100039661 /// Ugt3a1
1418395_at	0.833318338	1.29E-05	0.005582795	NM_026183	Slc47a1
1419759_at	0.832632264	5.68E-07	0.000512367	M30697	Abcb1a
1435228_at	0.83204257	6.78E-06	0.003636183	AW559011	BC023829 /// LOC100045774
1437343_x_at	0.830174626	5.54E-06	0.00316427	AV239773	Atad3a
1421218_at	0.829320197	0.00011665	0.026392046	NM_009738	Bche
1452071_at	0.828140181	3.91E-07	0.000386333	BE655147	Slc4a4
1436098_at	0.810776397	8.64E-07	0.000712603	BB667452	Bche
1418253_a_at	0.803594735	0.00010201	0.024130212	NM_011020	Hspa4l
1429299_at	0.802200206	1.93E-05	0.007363767	BE283964	Ddah1
1460591_at	0.799770143	5.36E-05	0.015030813	AI646838	Esr1
1426440_at	0.792651902	6.30E-05	0.016937016	AK009385	Dhrs7
1416382_at	0.791332234	0.00011705	0.026439077	NM_009982	Ctsc

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1427345_a_at	0.783487368	5.65E-06	0.00319896	AK002700	Sult1a1
1447500_at	0.782629475	0.00017946	0.035293501	BB129488	Cutl2
1417574_at	0.777708421	8.64E-06	0.004297137	NM_013655	Cxcl12
1451635_at	0.772558696	2.76E-05	0.009384556	AB056443	C730048C13Rik /// D630002G06Rik
1420715_a_at	0.752510789	7.63E-05	0.019636028	NM_011146	Pparg
1455991_at	0.745002824	6.73E-05	0.017872208	BG094881	Ccbl2
1415943_at	0.74398995	4.86E-05	0.01406272	BI788645	Sdc1
1418989_at	0.741119931	0.00022175	0.04144041	NM_007799	Ctse
1447842_x_at	0.735638952	1.21E-06	0.000948481	AV143687	---
1448382_at	0.733473856	0.0001246	0.027587917	NM_023737	Ehhadh
1426857_a_at	0.730986223	1.06E-05	0.004865173	BM200015	Hsdl2
1450181_at	0.727989032	3.64E-05	0.011519605	NM_007804	Cutl2
1460314_s_at	0.720862162	0.00025679	0.045716882	NM_019469	Hist1h3a /// Hist1h3b /// Hist1h3c /// Hist1h3d /// Hist1h3e /// Hist1h3f /// Hist1h3g /// Hist1h3h /// Hist1h3i /// Hist2h2aa1 /// Hist2h3b /// Hist2h3c1 /// Hist2h3c2
1421156_a_at	0.714731997	7.33E-05	0.01917933	NM_013505	Dsc2
1457825_x_at	0.706336733	1.08E-05	0.004865173	BB515151	Tcn2
1450243_a_at	0.706247739	9.02E-06	0.004410322	NM_030598	Rcan2
1422701_at	0.698887732	0.00010269	0.024163787	NM_009539	Zap70
1434510_at	0.698783202	2.95E-06	0.001930356	BF780807	Papss2
1435800_a_at	0.695563089	0.00019133	0.037194851	BB779100	Csda
1455640_a_at	0.692068222	2.77E-06	0.001845077	AV053127	Txn2
1423489_at	0.677317171	0.00010638	0.024566584	BC021914	LOC100047565 /// Mmd
1419738_a_at	0.665632085	3.08E-06	0.001986235	AK003186	Tpm2
1441850_x_at	0.664687203	4.00E-05	0.012215948	BB449960	Tcn2
1441958_s_at	0.651314313	1.97E-05	0.007403239	BB532535	Ager
1453171_s_at	0.65066718	0.00012479	0.027587917	C85630	Ppm1a
1450971_at	0.647866787	4.09E-05	0.012367463	AK010420	Gadd45b
1418916_a_at	0.643918043	6.63E-06	0.003595356	NM_029269	Spp2
1438629_x_at	0.639132659	6.93E-06	0.003687812	AV166504	Grn
1451814_a_at	0.634978626	0.00012899	0.028149247	AF061972	Htatip2
1444270_at	0.632032814	9.83E-06	0.004681122	BB312129	Rshl3
1451012_a_at	0.631229469	0.00024334	0.044076232	AV216648	Csda
1423396_at	0.620151118	3.66E-05	0.011543186	AK018763	Agt
1452653_at	0.615551171	1.21E-05	0.005308168	AK018760	Slc25a22
1456567_x_at	0.611302676	3.54E-05	0.011285611	BB000455	Grn
1448649_at	0.609842309	4.88E-05	0.01406272	NM_007934	Enpep
1415840_at	0.604006286	3.62E-06	0.002278693	NM_134255	Elovl5
1429737_a_at	0.602933074	0.00028342	0.048792655	AK016165	Crls1
1425882_at	0.596906824	9.58E-05	0.022935209	AF156890	Gdf2

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1416452_at	0.595437523	0.00017375	0.034623381	BC008119	Oat
1421225_a_at	0.593740164	1.45E-05	0.006011207	NM_018760	Slc4a4
1434932_at	0.588887345	0.00028288	0.048792655	BI734168	Adarb1
1448148_at	0.588302314	1.89E-05	0.007284878	M86736	Grn
1426373_at	0.585260776	1.60E-05	0.0065446	AK019148	Ski
1449078_at	0.583819059	0.0002606	0.046272829	NM_018784	St3gal6
1440167_s_at	0.581398814	3.15E-05	0.010260944	BB557975	Lpp
1418862_at	0.58040137	1.81E-06	0.00127707	NM_024208	Echdc3
1429115_at	0.577109305	9.41E-05	0.022671781	AK008077	2010003O02Rik
1417761_at	0.573999773	1.02E-05	0.004768069	BC010769	Apoa4
1424183_at	0.570673198	0.00027855	0.048328237	BG070487	Acat1
1460676_at	0.568022512	0.00015824	0.032838959	BC006928	Josd1
1455002_at	0.56499366	4.69E-06	0.002768901	AV331223	Ptp4a1
1422885_at	0.564186871	5.83E-06	0.003270522	NM_026095	Snrpd3
1451271_a_at	0.554714018	0.0002437	0.044082708	BG070487	Acat1
1418367_x_at	0.553203329	2.93E-05	0.009732846	BC010564	Hist1h2ad /// Hist1h2an /// Hist2h2aa1 /// Hist2h2aa2 /// Hist2h2ac
1449079_s_at	0.548862405	0.00010466	0.024389559	NM_018784	St3gal6
1430183_at	0.54717796	0.00012258	0.027254344	AK014695	4833414E09Rik
1429078_a_at	0.544116159	8.35E-05	0.020964737	AK010417	Cops7a
1429539_at	0.540351627	1.79E-05	0.007019468	AK012404	Bcl2l13
1416584_at	0.53521478	1.25E-05	0.005424278	NM_008550	Man2b2
1423488_at	0.534469118	1.99E-05	0.00743264	BC021914	Mmd
1420679_a_at	0.532756757	8.07E-06	0.004084021	NM_025446	Aig1
1460718_s_at	0.53262378	1.67E-05	0.006724992	AF192558	Mtch1
1460732_a_at	0.532036925	9.53E-05	0.022860332	AF126834	Ppl
1448987_at	0.531367341	1.98E-05	0.007403239	BB728073	Acadl
1451210_at	0.530977422	0.00018995	0.037085854	BC010332	Ppap2c
1427768_s_at	0.527063268	0.00010385	0.02435137	X67685	Myl3
1418787_at	0.523899104	0.00016309	0.033531113	NM_010776	Mbl2
1437211_x_at	0.520349497	1.32E-05	0.005638405	BB254141	Elovl5
1426818_at	0.517759302	0.00019198	0.037213953	BC025091	Arrdc4
1451588_at	0.51568472	9.24E-05	0.022395416	BC014724	1810022C23Rik
1436504_x_at	0.514708395	0.00022354	0.041545919	AV027367	Apoa4
1415944_at	0.511896813	0.00028061	0.04855134	BI788645	Sdc1
1448898_at	0.508331619	5.87E-05	0.016072828	AF128196	Ccl9
1430527_a_at	0.50823291	0.00026932	0.047324929	AK017523	Rnf167
1418366_at	0.501665964	0.00012889	0.028149247	BC010564	Hist1h2ad /// Hist1h2an /// Hist2h2aa1 /// Hist2h2aa2 /// Hist2h2ac
1419444_at	0.499702439	0.00018045	0.035435146	NM_009119	LOC100041953 /// LOC100047209 /// Sap18
1425665_a_at	0.498199417	0.00015587	0.032496499	BC005543	Srp54a /// Srp54b

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1434465_x_at	0.496818603	3.18E-05	0.01030394	AV333363	Vldlr
1460184_at	0.49311165	9.27E-05	0.022427264	NM_008212	Hadh
1448453_at	0.491454424	1.39E-05	0.005858775	NM_008293	Hsd3b1
1449875_s_at	0.485929381	0.00019023	0.037087587	NM_010395	H2-T10 /// H2-T22 /// H2-T9 /// LOC100044190 /// LOC100044191
1437843_s_at	0.481390464	0.00027803	0.048328237	AV303002	Nupl1
1416662_at	0.480617267	6.65E-05	0.017770411	BI217574	Sardh
1425799_at	0.478577451	3.07E-05	0.010047115	AF461145	Fmo4
1415818_at	0.477195746	0.00015737	0.032757651	NM_013472	Anxa6
1425483_at	0.46623637	2.05E-05	0.007578964	BB547854	LOC100044677 /// Tox
1443041_at	0.464878373	0.00026764	0.047212787	BB431247	Zbtb17
1418715_at	0.456805424	0.00011446	0.026071371	BC023496	Pank1
1418405_at	0.456553678	0.00017658	0.034929762	NM_019447	Hgfac
1437944_at	0.452234781	0.00010539	0.024492157	BI714008	Shc2
1448513_a_at	0.450190335	0.00027253	0.047539097	BC007190	Npc2
1419321_at	0.447032823	0.00019907	0.03837605	NM_010172	F7
1421810_at	0.435002341	4.04E-05	0.012269362	NM_010048	Dgcr2
1419204_at	0.426769824	0.00011921	0.026793814	NM_007865	Dll1
1416676_at	0.426301996	0.00017781	0.03512244	NM_023125	Kng1
1456321_at	0.421876216	0.00012233	0.027254344	AI503879	Npal1
1423744_x_at	0.421392024	9.98E-05	0.023724625	BC006682	Eif2s3x /// LOC100039419
1417227_at	0.415441883	3.99E-05	0.012208842	NM_023644	LOC100046854 /// Mccc1
1417047_at	0.412083423	7.44E-05	0.019354544	AF269062	Prom2
1422309_a_at	0.406228264	0.00015209	0.031967277	NM_020517	Lenep
1427561_a_at	0.40324307	0.00022518	0.041735841	BC026681	Afm
1439346_at	0.401188974	0.00029333	0.049860442	BF467674	Gpr135
1455093_a_at	0.355930993	0.00019473	0.037692933	AI256465	Ahsg
1441516_a_at	0.317759913	0.00026134	0.046343267	BB527707	C130050O18Rik
1452173_at	0.314970729	0.00029284	0.049839288	AW107842	Hadha
1418190_at	0.306995128	0.00027147	0.047539097	NM_011134	Pon1
1448813_at	-0.307979973	0.00024551	0.044232519	NM_023383	Aadac
1435427_x_at	-0.33427255	0.00013223	0.028671321	BB473660	BC037112
1449050_at	-0.340422366	0.00017011	0.034148111	U01222	Rfc1
1421183_at	-0.346640077	0.00020515	0.039100475	AF285582	Tex12
1448680_at	-0.347196356	0.0002441	0.044095069	NM_009245	LOC100046946 /// Serpina1c
1454704_at	-0.35613296	0.0002786	0.048328237	BI106458	Scarb2
1460171_at	-0.369880801	0.00020399	0.039038501	NM_013715	Cops5
1416984_at	-0.386996994	4.96E-05	0.014214998	NM_026768	Mrps18a
1430889_a_at	-0.393975651	7.98E-05	0.020245912	AK002335	Tpmt
1448100_at	-0.395256283	6.92E-05	0.018334399	NM_133797	4833439L19Rik
1451035_a_at	-0.397131252	0.00029445	0.049924001	BG296124	Akr1a4

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1423455_at	-0.39954388	0.00016718	0.033862434	BF787570	LOC100041948 /// LOC100043740 /// LOC100044779 /// LOC100047971 /// Ptma
1415827_a_at	-0.400819956	5.34E-05	0.015030813	BF658806	D3Ucla1
1434110_x_at	-0.401855946	0.00022988	0.042318295	BF322785	2610016E04Rik /// LOC100048884 /// Mup1 /// Mup2
1421968_a_at	-0.405695233	0.00013341	0.028835638	NM_023647	Nipa2
1418836_at	-0.410077367	0.00023142	0.042486291	AI195046	Qprt
1426219_at	-0.41147839	1.57E-05	0.00644752	M62361	Scp2
1418837_at	-0.414907625	0.0002358	0.04305598	AI195046	Qprt
1436511_at	-0.422653951	0.00026288	0.046525639	BM935102	BC031781
1451515_s_at	-0.425785502	0.00029373	0.04986522	BC010799	Glyat
1448769_at	-0.433347822	0.00014847	0.031387684	NM_016752	Slc35b1
1438176_x_at	-0.43483508	0.00016674	0.033852358	AV217222	1110031B06Rik
1435030_at	-0.43884957	7.50E-05	0.019436489	AA538567	Upf2
1426913_at	-0.439548974	0.00028381	0.048792655	AK014742	Lss
1450634_at	-0.44115473	0.00016931	0.034089219	NM_007508	Atp6v1a
1437358_at	-0.446518743	0.00024451	0.044110438	BM233251	Wdfy1
1436186_at	-0.448214664	4.20E-05	0.012500783	BM247465	E2f8
1431423_a_at	-0.4492113	0.00013869	0.029739022	AK011080	Med8
1455042_at	-0.450590511	2.88E-05	0.009613053	BF682509	Tbl1x
1418960_at	-0.452972847	0.00016597	0.033769365	BF715219	Phf20l1
1436363_a_at	-0.45503915	8.86E-05	0.022004202	AW049660	Nfix
1424903_at	-0.458269003	0.00014626	0.031017261	AF127244	Jarid1d
1424238_at	-0.459008972	0.00012518	0.027630831	BC026403	Sirt7
1415705_at	-0.461389668	0.00022782	0.04199465	AK018610	9130011J15Rik
1426123_a_at	-0.466490543	0.0002849	0.048793994	AF273691	Rrbp1
1427321_s_at	-0.471016454	1.86E-05	0.007226216	AK004908	Cxadr
1424109_a_at	-0.471359985	5.26E-06	0.003055877	BC024663	Glo1
1457793_a_at	-0.473077929	0.00027986	0.04848382	BB154130	Whsc1l1
1459133_at	-0.478098415	0.00016223	0.033410056	BB549831	Edem3
1437715_x_at	-0.478941749	3.00E-05	0.009892188	AV100480	Apex1
1436454_x_at	-0.482999705	8.46E-05	0.021185722	BB393998	Fen1
1435000_at	-0.485585557	3.73E-06	0.00231138	AW537663	Gspt1
1455391_at	-0.494031746	9.16E-05	0.022365125	BI256061	Rad23a
1418915_at	-0.494259178	0.00014008	0.029941478	NM_025962	Mmachc
1423822_a_at	-0.497413933	0.00010996	0.025346717	BC007160	Tmem168
1426395_s_at	-0.498720013	0.00027782	0.048328237	BB379268	Eif3j /// LOC100042807 /// LOC100044332
1424017_a_at	-0.49884913	0.00023342	0.042679192	U60001	Hint1
1433595_at	-0.499929209	3.94E-05	0.012087947	BB409668	LOC100047674
1426419_at	-0.500888306	2.03E-05	0.007547483	AK005802	Rbm26
1416800_at	-0.501138462	0.00019179	0.037213953	AV320241	Trpm7

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1422537_a_at	-0.502820476	0.00025733	0.045752434	NM_010496	Id2
1428085_at	-0.505221264	0.00016331	0.033531113	AK004285	1110057K04Rik
1428210_s_at	-0.510653959	0.00013991	0.029941478	AU045682	Chuk
1434524_at	-0.520859742	0.00021679	0.040683358	AI480598	Eif2b3
1418294_at	-0.521448354	1.99E-05	0.00743264	NM_019427	Epb4.1l4b
1417952_at	-0.521509933	2.62E-05	0.00897833	NM_010008	Cyp2j6
1450035_a_at	-0.522185174	0.00022674	0.041951928	BG064340	Prpf40a
1443935_at	-0.525127623	4.61E-05	0.013527116	BI683943	BC032203
1418397_at	-0.525512252	0.00023201	0.0425364	BC019962	Zfp275
1416308_at	-0.525670465	9.21E-05	0.022395416	NM_009466	Ugdh
1452919_a_at	-0.528077019	0.00013325	0.028835638	W59405	1700012G19Rik
1460357_at	-0.529684512	0.00025518	0.045549745	BB455932	Ythdf2
1453155_at	-0.530307408	8.60E-06	0.004291587	AK014282	Tmem50a
1448499_a_at	-0.531256413	0.00020213	0.038737024	NM_007940	Ephx2
1415894_at	-0.531304178	3.09E-05	0.010103288	BC003264	Enpp2
1416512_at	-0.531543029	2.56E-05	0.008851	NM_011956	Nubp2
1423883_at	-0.53410008	1.47E-05	0.006071443	BC006692	Acsl1
1450715_at	-0.536669356	9.14E-05	0.022361537	NM_009993	Cyp1a2
1437662_at	-0.539287495	0.00021138	0.040057014	BB667617	C730027J19Rik
1428282_at	-0.549249808	9.94E-05	0.023688827	AK011899	Tbce
1429369_at	-0.551285716	4.18E-05	0.012455459	AV306751	Tnpo3
1451114_at	-0.552727787	0.00024645	0.044342819	BC027248	Cmtm6
1424615_at	-0.552838827	0.00017007	0.034148111	BG063931	Frag1
1419664_at	-0.552898158	0.00016891	0.03405909	BC011164	Srr
1417493_at	-0.557515919	5.07E-05	0.014427648	M64279	Bmi1
1423840_at	-0.559087977	5.44E-05	0.015173062	BC026206	Ccdc56
1431054_at	-0.559317194	9.07E-05	0.022273395	AK019126	LOC100042253 /// LOC100044607 /// LOC100046670 /// Lsm6
1433457_s_at	-0.563941929	2.11E-05	0.007685647	AV090328	Grsf1
1449686_s_at	-0.567206967	1.01E-05	0.004739314	C76618	Scp2
1455102_at	-0.568931346	8.67E-05	0.021601486	BB213860	Larp4
1448503_at	-0.571173749	0.00017482	0.034733398	BC003839	LOC632101 /// Mcl1
1426205_at	-0.576831829	4.03E-05	0.012269362	M27073	LOC100044953 /// Ppp1cb
1423956_at	-0.577067736	0.00016366	0.033551056	BC006946	LOC100046746 /// Smap1
1424867_a_at	-0.583212978	8.11E-05	0.020559631	BC010799	Glyat
1454064_a_at	-0.586390815	1.09E-05	0.004870803	AK013419	Rnf138
1428614_at	-0.586926482	4.95E-05	0.014214998	AW105779	Ldhd
1456079_x_at	-0.587062643	7.70E-06	0.00397903	AV263745	Apex1
1447502_at	-0.592438737	6.61E-05	0.017721558	AW112184	---
1422551_at	-0.59442003	5.25E-05	0.014847231	BC007473	Zkscan3
1459871_x_at	-0.599335821	6.27E-06	0.003450905	AV349132	March2

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1429549_at	-0.599739742	3.02E-05	0.009935839	BB044654	Col27a1
1417454_at	-0.604126857	7.22E-05	0.018969349	AW536452	Cul4b
1424342_at	-0.606378416	6.73E-05	0.017872208	BC010204	Fyttd1
1439128_at	-0.607515454	0.00014463	0.030769475	AI595815	Zbtb20
1416468_at	-0.610642302	0.00025662	0.045716882	NM_013467	Aldh1a1
1455077_a_at	-0.612966891	9.64E-06	0.004626397	AU042749	A730098P11Rik /// EG627352 /// LOC433598 /// LOC433955 /// LOC626309 /// Morf4l1
1416086_at	-0.625074491	2.66E-05	0.009050919	NM_009419	Tpst2
1451240_a_at	-0.62595775	0.00017446	0.034712658	BC024663	Glo1
1418013_at	-0.628415935	3.56E-06	0.002249259	NM_023160	Cml1
1449434_at	-0.630917309	0.00017347	0.034617862	NM_007606	Car3
1419622_at	-0.632495081	1.42E-05	0.00592775	NM_009467	Ugt2b5
1442743_at	-0.633643629	3.74E-05	0.011747852	AW121332	---
1416402_at	-0.637871805	5.03E-05	0.014377722	AV382118	Abcb10
1424614_at	-0.639768094	0.00015268	0.031977716	BG063931	Frag1
1423818_a_at	-0.640256785	1.46E-07	0.000181826	AF133669	Arl6ip1
1435753_a_at	-0.643576774	0.00022706	0.041951928	BM209748	Nucks1
1448546_at	-0.645859372	0.00012382	0.02746367	BB703307	Rassf3
1450643_s_at	-0.647243382	4.21E-06	0.002553809	BI413218	Acsl1
1450954_at	-0.656156407	0.00016586	0.033769365	BB826168	Yme1l1
1425676_a_at	-0.659084308	0.00012953	0.028221857	BC006735	Elovl1
1448547_at	-0.661782358	2.77E-05	0.00938618	BB703307	Rassf3
1447776_x_at	-0.663494348	5.06E-05	0.014427648	AV334024	Rab6
1454956_at	-0.667643715	7.91E-05	0.020180921	BM212538	Rps6kb1
1453259_at	-0.669775072	2.83E-05	0.00949352	BB667513	Insc
1432647_at	-0.682113409	6.06E-05	0.016444465	AK014017	Egfr
1417071_s_at	-0.682827329	4.74E-06	0.002788465	NM_133969	Cyp4v3
1424912_at	-0.683648384	2.25E-05	0.008052473	BC011292	Slc25a17
1427042_at	-0.686266393	7.72E-05	0.019824366	BB127697	Mal2
1419950_s_at	-0.686865248	1.97E-05	0.007403239	C80427	Tnpo3
1423745_at	-0.687035206	1.09E-05	0.004870803	BC023182	1110031B06Rik
1446769_at	-0.689751969	8.29E-05	0.020851902	AV028075	2810439F02Rik
1435446_a_at	-0.690861407	0.00026875	0.047324929	BF180212	Chpt1
1418963_at	-0.691506394	2.42E-05	0.00848361	NM_024185	2310047O13Rik
1417673_at	-0.692300573	2.97E-05	0.009865327	NM_016719	Grb14
1426948_at	-0.695752759	0.00013124	0.028548845	BM214109	Tpr
1434714_at	-0.697336314	2.44E-05	0.008527031	BB234316	Ero1lb
1436519_a_at	-0.697862001	1.68E-06	0.001207886	BB534387	1110057K04Rik
1426146_a_at	-0.700631093	1.55E-05	0.006373329	BC016251	Chpt1
1418048_at	-0.707406348	0.00027239	0.047539097	NM_025419	1110059G10Rik
1453282_at	-0.712844117	2.28E-05	0.008139878	BE824924	Cxadr

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1422526_at	-0.722167693	0.00012663	0.027813821	BI413218	Acsl1
1418701_at	-0.72951665	4.33E-07	0.000414165	NM_007744	Comt
1449183_at	-0.736643881	3.74E-06	0.00231138	NM_007744	Comt
1416261_at	-0.737573705	4.35E-06	0.002604529	AK018383	Tmem19
1456199_x_at	-0.743231208	8.09E-06	0.004084021	BB106402	LOC100045146 /// Ranbp9
1436332_at	-0.751552265	1.69E-05	0.006793641	BB755506	Hspb6
1456260_at	-0.752006119	1.74E-05	0.006889368	AV251099	Rbbp4
1424275_s_at	-0.756649828	6.24E-05	0.01687339	BC020156	LOC100046003 /// Trim41
1434422_at	-0.758774178	0.00028529	0.04880043	AV027153	AI428479
1436070_at	-0.775213938	0.0001064	0.024566584	BM933153	Glo1
1423819_s_at	-0.775271092	7.31E-06	0.00383217	AF133669	Arl6ip1
1425314_at	-0.776833676	3.36E-05	0.010786073	AF435926	Gpr98
1442367_at	-0.782603977	4.74E-05	0.013867628	BB184010	Atp11c
1417651_at	-0.78305633	1.11E-06	0.000875535	NM_007815	Cyp2c29
1418979_at	-0.79270208	6.38E-05	0.017128096	NM_134072	Akr1c14
1416432_at	-0.793958754	0.00023736	0.043223211	NM_133232	Pfkfb3
1457664_x_at	-0.794476755	2.32E-05	0.008275398	AV227574	C2
1428613_at	-0.798174624	0.00011839	0.026652717	AW105779	Ldhd
1436162_at	-0.800656437	1.53E-06	0.001126919	BB667865	C730048C13Rik
1421214_at	-0.804470999	0.00024294	0.044063192	NM_007717	Cmah
1450112_a_at	-0.80630696	7.74E-05	0.019824366	NM_008087	Gas2
1447931_at	-0.807264261	2.17E-05	0.007841602	BE635000	Whsc1l1
1425525_a_at	-0.809382423	7.78E-06	0.004000478	AF089751	P2rx4
1418911_s_at	-0.810129529	3.58E-05	0.011377476	NM_019477	Acsl4
1430053_a_at	-0.812203675	0.00012659	0.027813821	AK019142	Ola1
1448623_at	-0.821240601	3.92E-05	0.012046308	NM_133739	Tmem123
1415983_at	-0.822046379	1.07E-05	0.004865173	NM_008879	Lcp1
1448136_at	-0.829433029	6.79E-06	0.003636183	BC003264	Enpp2
1434892_x_at	-0.832053185	1.08E-05	0.004865173	BB462744	Rbbp4
1422064_a_at	-0.834058803	0.00026914	0.047324929	AY028963	Zbtb20
1416051_at	-0.836319816	3.45E-06	0.002192457	NM_013484	C2
1416262_at	-0.8480591	1.36E-05	0.005735656	AK018383	Tmem19
1421872_at	-0.849377803	2.38E-06	0.001601872	NM_009000	Rab24
1423632_at	-0.85609418	4.14E-05	0.012422297	BI103049	Gpr146
1452021_a_at	-0.866265299	0.00025414	0.045423918	AF247040	Hes6
1417070_at	-0.867145397	3.35E-05	0.010786073	NM_133969	Cyp4v3
1422858_at	-0.873787631	4.13E-05	0.01241855	AV350958	Trip4
1451131_at	-0.883654746	2.44E-07	0.000262972	AF133669	Arl6ip1
1450917_at	-0.884525151	2.50E-07	0.000264168	BB474208	Myom2
1441912_x_at	-0.897525798	6.64E-06	0.003595356	AV290571	C2

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1451600_s_at	-0.899345451	5.44E-07	0.000493712	BC019147	EG13909 /// Es31
1419435_at	-0.899531697	0.00029015	0.049567817	NM_009676	Aox1
1450063_at	-0.906142475	1.53E-06	0.001126919	BM228488	Fmn2 /// LOC100044570
1456736_x_at	-0.914741877	3.75E-05	0.011747991	AV217938	5230400G24Rik
1448484_at	-0.921964488	0.00015229	0.031967277	NM_009665	Amd1
1449585_at	-0.928060194	2.88E-05	0.009605785	NM_134103	Il1rap
1436050_x_at	-0.92852762	0.00011612	0.026362287	AI326893	Hes6
1435462_at	-0.937146759	4.37E-07	0.000414165	BQ176176	Plcxd2
1436753_at	-0.937723026	0.00029093	0.049638784	BB317588	Adck5
1450852_s_at	-0.938687202	9.26E-06	0.004476769	BQ173958	F2r
1448944_at	-0.94037409	4.37E-05	0.012969428	AK011144	Nrp1
1448275_at	-0.940855841	2.19E-07	0.000245219	AK018383	Tmem19
1448792_a_at	-0.943895914	2.72E-07	0.000285334	NM_007817	Cyp2f2
1460258_at	-0.952325356	7.34E-06	0.003835871	NM_010701	Lect1
1427255_s_at	-0.965546665	0.000143	0.030469937	BI729900	Zfp445
1452703_at	-0.974125537	2.69E-08	4.61E-05	BG072404	4631427C17Rik
1416835_s_at	-0.979650386	0.00011075	0.025485106	NM_009665	Amd1 /// Amd2 /// LOC100040814 /// LOC100041585 /// LOC100043304 /// LOC100047905
1434022_at	-0.990511873	3.03E-06	0.00196002	BB146985	Zbtb33
1437308_s_at	-0.99451401	5.15E-07	0.000471099	AV024285	F2r
1454971_x_at	-0.995059216	0.0001998	0.038400494	BB357514	Tsc22d1
1440327_at	-1.002079654	3.85E-05	0.011921932	AA985897	AI195470
1428981_at	-1.008207636	1.46E-07	0.000181826	AK012685	2810007J24Rik
1422070_at	-1.016640995	5.90E-05	0.016135686	NM_011996	Adh4
1436039_at	-1.018314481	5.92E-05	0.016142482	BM245957	---
1428671_at	-1.019533414	6.78E-08	0.000100818	AK008617	2200002D01Rik
1422736_at	-1.022089969	4.07E-05	0.012357595	NM_019930	LOC100045146 /// Ranbp9
1439831_at	-1.02823604	2.24E-05	0.00802681	AW111920	---
1424934_at	-1.049493887	9.71E-08	0.000135395	BC027200	Ugt2b1
1452384_at	-1.056785537	1.80E-06	0.00127619	AV224446	Enpp3
1453191_at	-1.084562546	5.65E-06	0.00319896	BB044654	Col27a1
1460256_at	-1.093038381	0.00010571	0.024492157	NM_007606	Car3
1416156_at	-1.097909411	4.27E-06	0.002578652	NM_009502	Vcl
1425742_a_at	-1.115200533	0.00013862	0.029739022	AF201285	Tsc22d1
1454875_a_at	-1.115683864	5.50E-05	0.015276911	BF011461	Rbbp4
1460346_at	-1.116984316	2.30E-06	0.001563668	BC011284	Arsa
1431900_a_at	-1.133186322	2.45E-07	0.000262972	AK019022	Foxa3
1459948_at	-1.134676634	9.78E-07	0.000792306	BB552070	---
1454791_a_at	-1.139143118	5.37E-05	0.015030813	AU040918	Rbbp4
1439624_at	-1.149348752	1.37E-05	0.005784734	AA572504	Ugt2b35

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1458284_at	-1.162370462	2.39E-06	0.001601872	BM195499	Ptbp1
1457601_at	-1.163661315	2.81E-05	0.009442354	BB653614	---
1454758_a_at	-1.168881173	2.11E-05	0.007685647	AU016382	Tsc22d1
1438175_x_at	-1.182335558	4.63E-06	0.002759132	BB288010	Myom2
1429642_at	-1.18262422	6.74E-05	0.017872208	AK012639	Anubl1
1427254_at	-1.186768462	4.52E-07	0.000425062	BI729900	Zfp445
1449321_x_at	-1.187703815	6.24E-08	9.38E-05	NM_009246	LOC100046187 /// LOC667951 /// Serpina1a /// Serpina1b /// Serpina1c /// Serpina1d /// Serpina1e
1455892_x_at	-1.195593209	7.38E-07	0.000632149	BB794742	---
1416841_at	-1.204751772	0.00025059	0.044967873	NM_025423	1110059E24Rik
1419520_at	-1.237714359	3.40E-05	0.010870314	NM_023455	Cml4
1455118_at	-1.247519043	0.00011097	0.025491816	BM122201	D9Ertd402e
1452730_at	-1.315926298	8.28E-07	0.000691856	AK004068	Rps4y2
1453187_at	-1.325699432	2.78E-08	4.64E-05	AV062896	Ociad2
1431101_a_at	-1.325880967	2.40E-05	0.008429434	AK019597	Srd5a1
1454774_at	-1.326139969	1.81E-07	0.000214846	BF141180	Zfp445
1425702_a_at	-1.348767556	8.04E-06	0.004084021	BC011294	Enpp5
1427797_s_at	-1.36795021	1.97E-05	0.007403239	BF580235	Ctse
1423266_at	-1.370618928	2.04E-07	0.000240454	AI836168	2810405K02Rik
1427302_at	-1.380571885	2.32E-07	0.000253495	AV224446	Enpp3
1427513_at	-1.384047133	4.38E-07	0.000414165	BI144810	BC024137
1460420_a_at	-1.403521321	9.30E-06	0.004476769	AF277898	Egfr
1454649_at	-1.461245879	2.49E-07	0.000264168	AV003635	Srd5a1
1435917_at	-1.466512106	1.49E-07	0.000183673	BM937735	Ociad2
1416698_a_at	-1.485934406	8.95E-05	0.022094193	NM_016904	Cks1b
1427202_at	-1.49640788	1.14E-05	0.005044818	AV002340	4833442J19Rik
1422072_a_at	-1.541678129	1.06E-05	0.004865173	NM_008184	Gstm6
1434442_at	-1.548861203	2.81E-08	4.64E-05	BB667844	Stbd1
1444032_at	-1.589205565	0.00010116	0.023969822	AI746421	---
1457915_at	-1.67239864	2.48E-09	5.98E-06	AV288616	4833442J19Rik
1426439_at	-1.68049784	1.14E-07	0.000150074	AA210261	Ddx3y
1446368_at	-1.69794344	1.46E-05	0.006061141	AV377066	9130221J18Rik
1427472_a_at	-1.740383237	5.80E-08	8.81E-05	BC022129	C8b
1423693_at	-1.765607207	1.02E-05	0.004768069	BC011218	Ela1
1416833_at	-1.809869551	1.52E-09	4.20E-06	NM_029550	Keg1
1422906_at	-1.817488822	6.58E-10	1.94E-06	NM_011920	Abcg2
1424245_at	-1.860741763	4.84E-08	7.52E-05	BC015290	Ces2 /// LOC667754
1417210_at	-1.884568353	7.15E-10	2.06E-06	NM_012011	Eif2s3y
1450245_at	-1.887652271	1.49E-06	0.001121069	NM_011388	Slc10a2
1426223_at	-1.903660152	5.25E-11	2.63E-07	BC020021	2810439F02Rik

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1428012_at	-1.906288772	5.57E-09	1.23E-05	BC027748	C8a
1438699_at	-1.914665905	1.14E-07	0.000150074	AA530749	Srd5a1
1460593_at	-2.005607339	1.14E-10	4.68E-07	BF455403	Susd4
1441380_at	-2.068397423	2.08E-11	1.22E-07	BB044461	2810439F02Rik
1431302_a_at	-2.072392791	9.66E-08	0.000135395	AK011172	Nudt7
1460232_s_at	-2.079289197	1.06E-06	0.000840128	NM_013821	Hsd3b2 /// Hsd3b3 /// Hsd3b6
1449575_a_at	-2.080505234	1.69E-11	1.09E-07	NM_013541	Gstp1
1430896_s_at	-2.096909151	5.06E-10	1.52E-06	AK008824	Nudt7
1444296_a_at	-2.107789216	0.00014924	0.031501318	BF383739	LOC100044164 /// Serpina4-ps1
1448092_x_at	-2.164459795	9.12E-05	0.022359701	AA267743	LOC100044164 /// Serpina4-ps1
1430893_at	-2.229123729	2.05E-08	3.74E-05	AK011413	2610016E04Rik
1418858_at	-2.288262338	6.03E-11	2.81E-07	NM_023617	Aox3
1428022_at	-2.32948205	3.77E-05	0.011795032	BC027556	Lcn13
1422815_at	-2.556081534	3.50E-11	1.89E-07	NM_013485	C9
1424221_at	-2.627847666	7.99E-10	2.25E-06	BC021842	Susd4
1451675_a_at	-2.665191547	2.19E-07	0.000245219	M63244	Alas2
1433408_a_at	-2.713829469	2.29E-09	5.64E-06	AK010648	Mcm10
1457435_x_at	-2.841467765	4.27E-10	1.34E-06	AV241307	Myom2
1451827_a_at	-2.84716308	7.56E-09	1.57E-05	BC021378	Nox4
1427631_x_at	-2.906520205	3.88E-12	3.09E-08	M16359	Mup3
1444297_at	-3.17934606	8.94E-05	0.022094193	BF383739	LOC100044164 /// Serpina4-ps1
1451204_at	-3.297281517	5.26E-09	1.19E-05	BC016096	Scara5
1452077_at	-3.320146245	1.28E-12	1.24E-08	AA210261	Ddx3y
1420379_at	-3.509016545	2.51E-10	8.95E-07	AB031813	Slco1a1
1421074_at	-3.762372046	1.58E-09	4.24E-06	NM_007825	Cyp7b1
1442537_at	-3.764159478	1.77E-11	1.09E-07	BB771206	---
1425127_at	-3.872681976	9.26E-09	1.82E-05	BC026757	Hsd3b2
1449844_at	-3.909907795	2.73E-08	4.62E-05	AB031813	Slco1a1
1426438_at	-4.005231821	9.03E-11	3.82E-07	AA210261	Ddx3y
1421075_s_at	-4.090125999	2.48E-10	8.95E-07	NM_007825	Cyp7b1
1449308_at	-4.236628612	1.11E-11	7.53E-08	NM_016704	C6
1420722_at	-4.569306903	7.88E-14	1.07E-09	BC016468	Elovl3
1419349_a_at	-4.774675607	8.93E-09	1.79E-05	BC010593	Cyp2d9
1420531_at	-6.281951151	7.86E-15	1.77E-10	NM_008295	Hsd3b5
1424352_at	-8.269048977	1.96E-14	3.31E-10	BC025936	Cyp4a12a

Probe sets with a False Discovery Rate (FDR) < 5% were selected and ordered by fold change.

Supplemental Table 4. Genes significantly affected by the gender (female vs. male) in heart

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1427262_at	4.65893394	1.71E-06	0.003460206	L04961	Xist
1436936_s_at	2.845968941	3.92E-06	0.006803366	BG806300	Xist
1427672_a_at	0.794944157	7.02E-06	0.011575499	AJ002730	Utx
1422247_a_at	-0.565161068	1.65E-06	0.003381464	NM_009484	Uty
1417649_at	-0.572113587	1.11E-05	0.016620176	NM_009876	Cdkn1c
1460061_at	-0.653450634	2.07E-05	0.028005329	AV342748	---
1449038_at	-0.856020068	3.65E-05	0.045719544	NM_008288	Hsd11b1
1426439_at	-2.592014217	3.89E-08	0.000159637	AA210261	Ddx3y
1417210_at	-2.938208149	3.37E-07	0.000861378	NM_012011	Eif2s3y
1452077_at	-3.828074855	1.33E-08	7.39E-05	AA210261	Ddx3y
1426438_at	-3.882721471	1.40E-08	7.39E-05	AA210261	Ddx3y

Probe sets with a False Discovery Rate (FDR) < 5% were selected and ordered by fold change.

Supplemental Table 5. Genes with a significant PPARα-gender interaction factor in liver

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1423804_a_at	2.842385944	7.42E-05	0.019354544	BC004801	Idi1
1433444_at	2.25394388	4.34E-06	0.002604529	BB705380	Hmgcs1 /// LOC100040592
1457435_x_at	2.156442831	9.39E-07	0.000765343	AV241307	Myom2
1433445_x_at	2.151126348	8.53E-06	0.00427635	BB705380	Hmgcs1 /// LOC100040592
1433446_at	2.060044862	6.99E-07	0.000605799	BB705380	Hmgcs1 /// LOC100040592
1421075_s_at	2.054515427	3.83E-05	0.011916498	NM_007825	**Cyp7b1**
1433443_a_at	1.999204003	2.87E-05	0.009605785	BB705380	Hmgcs1 /// LOC100040592
1418760_at	1.953517092	8.25E-07	0.000691856	AB030503	Rdh11
1420379_at	1.930734001	1.61E-05	0.006544719	AB031813	Slco1a1
1421074_at	1.837266567	0.000208363	0.039540238	NM_007825	Cyp7b1
1449209_a_at	1.810482297	1.65E-06	0.001195599	AB030503	Rdh11
1422533_at	1.745277764	5.23E-06	0.003049803	NM_020010	Cyp51
1451122_at	1.723802745	2.92E-06	0.001925302	BC004801	Idi1
1422478_a_at	1.60927134	9.91E-06	0.004705485	NM_019811	Acss2
1423078_a_at	1.581392411	2.79E-05	0.009442354	AK005441	Sc4mol
1452114_s_at	1.53443054	2.34E-06	0.001584514	BF225802	Igfbp5
1448865_at	1.505828817	2.99E-05	0.009881319	NM_010476	Hsd17b7
1449816_at	1.485630592	3.50E-07	0.000351276	NM_020564	Sult5a1
1450646_at	1.467156869	0.000284864	0.048793994	NM_020010	Cyp51
1438055_at	1.461320407	1.73E-05	0.006889368	BB035017	Rarres1
1427893_a_at	1.390270256	2.11E-05	0.007685647	BI713896	Pmvk
1438322_x_at	1.387097786	0.000115152	0.026185546	BB028312	Fdft1
1448619_at	1.342105707	3.17E-05	0.010298331	NM_007856	Dhcr7
1448130_at	1.339159245	5.33E-05	0.015030813	NM_010191	Fdft1
1459948_at	1.283963092	1.76E-05	0.006924825	BB552070	---
1417991_at	1.246868541	8.20E-05	0.020658975	NM_007860	Dio1
1450545_a_at	1.206446586	1.32E-06	0.001028517	AF316014	Dntt
1420013_s_at	1.179548127	0.00029136	0.049649699	C77434	Lss
1426913_at	1.147554953	1.36E-06	0.001053767	AK014742	Lss
1426708_at	1.121096129	1.91E-05	0.007324334	BC003908	Antxr2
1427631_x_at	1.116997052	1.72E-05	0.006877721	M16359	Mup3
1424463_at	1.114432126	0.000213729	0.040388591	BF225441	2210010L05Rik
1457248_x_at	1.102400325	4.87E-05	0.01406272	BB554029	Hsd17b7
1418579_at	1.083648195	2.58E-05	0.008867932	BC013545	Cetn2
1434773_a_at	1.069226963	0.000100803	0.023928044	BM207588	Slc2a1
1422815_at	1.054013285	5.14E-05	0.014621431	NM_013485	C9
1422479_at	1.048644944	3.66E-06	0.002293501	NM_019811	Acss2
1418052_at	1.027989751	1.67E-05	0.006736186	BC005606	Mvk

Probe Set ID	Log Fold-Change	P value	FDR	Genebank ID	Gene Symbol
1422962_a_at	1.026097673	1.77E-06	0.001263456	NM_010724	Psmb8
1454930_at	1.000062653	1.34E-05	0.005697206	BB540721	Tbcel
1416527_at	0.916981446	2.54E-05	0.008835509	NM_026405	Rab32
1456195_x_at	0.906587142	1.88E-05	0.007279156	BB543979	Itgb5
1422474_at	0.905157653	6.25E-05	0.01687339	BM246564	Pde4b
1448876_at	0.880184257	0.000135964	0.029246961	NM_021292	Evc
1440916_at	0.87647899	5.54E-06	0.00316427	BE200006	2510049J12Rik
1424709_at	0.875604721	0.00023315	0.042679192	AB016248	Sc5d
1426205_at	0.84128858	5.24E-05	0.014847231	M27073	LOC100044953 /// Ppp1cb
1426259_at	0.840850303	0.000103781	0.02435137	BC027089	Pank3
1415829_at	0.833026982	0.000112558	0.025768957	NM_133815	Lbr
1428557_a_at	0.829798027	0.000207382	0.039464678	BG067251	Osgepl1
1416854_at	0.82694217	0.000168158	0.034009422	NM_011402	Slc34a2
1452703_at	0.825997271	1.22E-05	0.005308168	BG072404	4631427C17Rik
1456199_x_at	0.810169778	0.000165419	0.033758211	BB106402	LOC100045146 /// Ranbp9
1421872_at	0.776356399	0.000270553	0.047479374	NM_009000	Rab24
1424029_at	0.754268211	6.68E-05	0.01782193	BC017540	Tspyl4
1428210_s_at	0.754209224	0.000160387	0.033181797	AU045682	Chuk
1450917_at	0.7347627	9.88E-05	0.023568088	BB474208	Myom2
1431075_a_at	0.731153282	0.000147498	0.031231503	AK012082	Eif4enif1
1424908_at	0.69284653	0.000122672	0.027254344	BC019509	Mtfmt
1416354_at	0.672465798	0.000180867	0.035466417	NM_011252	Rbmx
1426419_at	0.658241526	7.11E-05	0.018776714	AK005802	Rbm26
1417010_at	0.650060061	0.000223187	0.041537695	NM_013915	Zfp238
1452050_at	0.647666617	0.000196891	0.038057054	BG071931	Camk1d
1433809_at	-0.588966207	0.000160911	0.033188648	AW536527	Ddx5
1419738_a_at	-0.705317554	9.17E-05	0.022365125	AK003186	Tpm2
1436367_at	-0.742461073	0.000264668	0.046749924	BB119527	C130094E24
1427768_s_at	-0.754144291	0.000158084	0.032838959	X67685	Myl3
1441958_s_at	-0.754789628	0.000211781	0.040076296	BB532535	Ager
1418654_at	-1.103007041	0.000119938	0.026912003	NM_019545	Hao3
1419520_at	-1.509403332	0.00022263	0.041537695	NM_023455	Cml4
1422230_s_at	-1.610178641	5.48E-05	0.015260156	NM_007812	Cyp2a4 /// Cyp2a5 /// LOC100047711
1424715_at	-1.829507575	8.39E-07	0.000696521	BB775176	Retsat
1421430_at	-2.029706622	1.11E-07	0.000148796	NM_009014	**Rad51l1**
1447845_s_at	-3.012044251	3.17E-11	1.79E-07	AV360029	Vnn1
1418486_at	-3.406681772	3.20E-10	1.06E-06	NM_011704	Vnn1

Probe sets with a False Discovery Rate (FDR) < 5% were selected and ordered by fold change.

Supplemental Table 6. Gene Sets enriched among genes with PPARα sexual dimorphism (listed according to P value)

Gene Set Name	Score	P value	Set Description
CPR_NULL-LOW_LIVER_UP	-2.32	0.0000	Up-regulated in mouse liver tissue from mice in which NADPH-cytochrome P450 reductase (CPR) was specifically deleted in the liver by cre-lox recombination, versus mice with low expression of CPR
CHOLESTEROL_BIOSYNTHESIS *	5.42	0.0004	
BIOSYNTHESIS_OF_STEROIDS	4.25	0.0005	
CPR_NULL_LIVER_DN	-2.40	0.0009	Down-regulated in mouse liver tissue from mice in which NADPH-cytochrome P450 reductase (CPR) was specifically deleted in the liver by cre-lox recombination, versus lox-only controls
SMITH_HCV_INDUCED_HCC_UP	1.31	0.0011	Genes highly expressed in hepatitis C-related hepatocellular carcinoma
PROTEASOME	1.63	0.0013	
CPR_LOW_LIVER_UP *	2.46	0.0014	Up-regulated in mouse liver tissue from mice with reduced liver expression of NADPH-cytochrome P450 reductase (CPR), versus normal controls
TGFBETA_C3_UP	1.43	0.0019	Upregulated by TGF-beta treatment of skin fibroblasts, cluster 3
IDX_TSA_DN_CLUSTER4	1.61	0.0021	Strongly down-regulated at 8-48 hours during differentiation of 3T3-L1 fibroblasts into adipocytes with IDX (insulin, dexamethasone and isobutylxanthine), vs. fibroblasts treated with IDX + TSA to prevent differentiation (cluster 4)
BLEO_MOUSE_LYMPH_HIGH_4HRS_UP	1.63	0.0023	Up-regulated at 4 hours following treatment of mouse lymphocytes (TK 3.7.2C) with a high dose of bleomycin
RETT_DN	1.23	0.0048	Downregulated by expression of mutant MeCP2 (Rett syndrome) vs. wt MeCP2 in fibroblasts
NAB_LUNG_UP	1.10	0.0071	Up-regulated in human non-small cell lung carcinoma cell line H460 following 24-hour treatment with sodium butyrate
COMPPATHWAY *	1.95	0.0091	Both the classic and alternative immune complement pathways promote inflammation, foreign cell lysis, and phagocytosis.

Top scores gene sets (absolute score > 1) with a *P* value < 0.01
Null distribution estimated from sample permutation and gene sets randomization
***** Shown in Figure 2A