

SNP	Gene	P
rs3828599	GPX3	0.0018
rs1925860	ABCC4	0.0020
rs10508010	ABCC4	0.0025
rs1925856	ABCC4	0.0040
rs17310467	GSS	0.0042
rs7987903	ABCC4	0.0048
rs1751043	ABCC4	0.0060
rs1189434	ABCC4	0.0060
rs4715359	GSTA3	0.0068
rs2074451	GPX4	0.0079
rs1377392	GCLC	0.0088
rs1189436	ABCC4	0.0090
rs1189437	ABCC4	0.0111
rs766606	ABCC4	0.0121
rs16950190	ABCC4	0.0127
E4p254	GSTM1	0.0130
rs9367532	GCLC	0.0157
rs707148	GPX3	0.0173
rs1766908	ABCC4	0.0188
rs8177426	GPX3	0.0194
rs2748991	GSTA2	0.0208
rs1356553	GCLC	0.0212
rs1925851	ABCC4	0.0228
rs7329514	ABCC4	0.0239
rs6922172	GCLC	0.0260
rs8191438	GSTP1	0.0270
rs3746165	GPX4	0.0278
rs9590150	ABCC4	0.0278
rs2397132	GSTA3	0.0280
rs9590154	ABCC4	0.0280
rs2737844	GPX2	0.0297
rs1189439	ABCC4	0.0309
rs1764425	ABCC4	0.0320
rs4773861	ABCC4	0.0334
rs8001657	ABCC4	0.0334
rs8191439	GSTP1	0.0340
rs4148411	ABCC3	0.0341
rs11070109	ABCC4	0.0380
rs1989983	ABCC3	0.0384
rs12120268	GPX7	0.0398
l6m18	GSTP1	0.0400
rs16950155	ABCC4	0.0416
rs3957358	GCLC	0.0418
rs12584534	ABCC4	0.0437
rs2397105	GSTA1	0.0480

Supplemental Table 1. Association between “glutathione pathway” SNPs and NAPQI IC50. SNPs with $p < 0.05$ are listed.

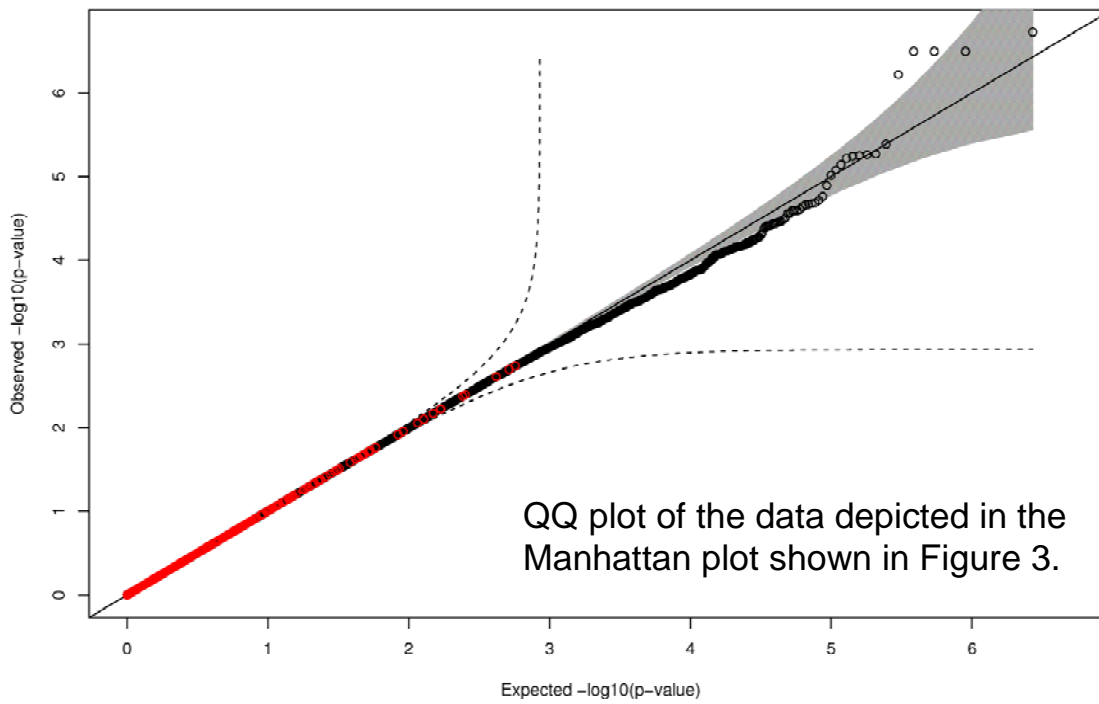
"Glutathione Pathway" Basal Expression vs. NAPQI IC50			
Probeset ID	Gene	p	r
202967_at	<i>GSTA4</i>	0.001	-0.24
235405_at	<i>GSTA4</i>	0.006	-0.21
222102_at	<i>GSTA3</i>	0.020	-0.17
211630_s_at	<i>GSS</i>	0.034	-0.16
205439_at	<i>GSTT2</i>	0.046	-0.15

Supplemental Table 2. Association between basal expression of "glutathione pathway" mRNA expression and NAPQI IC₅₀, for probes with p<0.05. The Affymetrix U133 Plus 2.0 probeset ID is listed, together with the gene name, unadjusted p-value and Pearson's correlation.

SNP ID	Chromosome	Gene	Position	MAF	p-value	q-value	Correlation
rs3825924	15	ALDH1A3	99263423	0.24	1.73E-5	0.991	-0.34
rs1343151	1	IL23R	67491717	0.34	1.91E-5	0.991	-0.33
rs11766607	7	LOC100130122	49490165	0.13	2.06E-5	0.991	-0.34
rs17640676	2	KCNJ3	155356065	0.22	2.09E-5	0.991	-0.33
rs10110651	8	KCNU1	36966273	0.28	2.14E-5	0.991	0.33
rs7665426	4	KIAA1712	175562261	0.26	2.17E-5	0.991	-0.33
rs4869233	5	MCTP1	94451298	0.28	2.28E-5	0.991	-0.33
rs16851554	2	SPAG16	214732637	0.17	2.46E-5	0.991	-0.33
rs3208829	6	LAMA4	112679982	0.15	2.54E-5	0.991	-0.33
rs11153350	6	LAMA4	112685077	0.15	2.54E-5	0.991	-0.33
rs3746923	21	UBASH3A	42699413	0.48	2.56E-5	0.991	-0.33
rs9784215	21	UBASH3A	42696805	0.48	2.73E-5	0.991	-0.33
rs319590	5	PCBD2	134282687	0.17	2.76E-5	0.991	-0.33
rs6502555	17	GARNL4	2676402	0.33	3.11E-5	0.991	0.32
rs9473932	6	FTHP1	50965954	0.32	3.26E-5	0.991	0.33
rs3744198	17	C17orf28	70467719	0.24	3.40E-5	0.991	0.32
rs2082603	4	LOC391719	179912389	0.32	3.43E-5	0.991	0.32
rs17469886	8	CCDC25	27639247	0.06	3.52E-5	0.991	-0.32
rs11909987	21	UBASH3A	42695471	0.47	3.62E-5	0.991	-0.32
rs6789170	3	LOC285205	109072241	0.06	3.63E-5	0.991	0.32
rs908262	2	HDAC4	239882459	0.17	3.71E-5	0.991	0.32
rs9997440	4	LOC645716	30817709	0.10	3.83E-5	0.991	0.32
rs7526132	1	MFSD4	203820708	0.35	3.87E-5	0.991	0.32
rs4563418	3	LOC344653	88562476	0.26	3.87E-5	0.991	0.32
rs10485114	6	FRK	116235599	0.22	4.01E-5	0.991	-0.32
rs10849421	12	CD9	6197269	0.37	4.15E-5	0.991	0.32
rs10515465	5	PCBD2	134295456	0.16	4.69E-5	0.991	-0.32
rs11129122	3	UBE2E2	23687620	0.21	4.97E-5	0.991	-0.32
rs718068	8	LOC100129163	21147176	0.25	5.25E-5	0.991	-0.32
rs4764486	12	CD9	6198250	0.38	5.27E-5	0.991	0.32
rs7726138	5	LOC728979	86158523	0.33	5.44E-5	0.991	-0.32
rs6737742	2	HDAC4	239880958	0.13	5.53E-5	0.991	0.32
rs2720667	8	PVT1	129152766	0.27	5.73E-5	0.991	0.31
rs777952	3	ALCAM	105929378	0.31	5.73E-5	0.991	0.31
rs1372940	18	DSC3	26271917	0.07	5.74E-5	0.991	-0.31
rs4585742	8	CPA6	68897323	0.24	6.05E-5	0.991	-0.31
rs11248859	16	CACNA1H	1181998	0.27	6.18E-5	0.991	0.32
rs2524290	11	RAB3IL1	61444250	0.36	6.19E-5	0.991	0.31
rs12700386	7	LOC541472	22729534	0.12	6.20E-5	0.991	-0.31
rs6032545	20	DNTTIP1	43856112	0.45	6.48E-5	0.991	0.32
rs3799732	6	TPD52L1	125616208	0.48	6.49E-5	0.991	-0.31
rs319594	5	PCBD2	134278045	0.16	6.51E-5	0.991	-0.31
rs2567513	17	SLC39A11	68204335	0.18	6.66E-5	0.991	-0.31
rs12267329	10	ADARB2	1665548	0.38	6.71E-5	0.991	0.31
rs6878801	5	RPS17P2	116235804	0.50	6.77E-5	0.991	-0.31
rs9508207	13	KIAA0774	28456694	0.22	6.79E-5	0.991	0.31

rs1599096	8	LOC100129163	21162504	0.28	6.86E-5	0.991	-0.31
rs10186482	2	NEB	152190223	0.47	6.87E-5	0.991	0.31
rs2720666	8	PVT1	129152641	0.28	6.93E-5	0.991	0.31
rs948999	11	hCG_2032978	130203749	0.40	6.95E-5	0.991	0.31
rs16900696	5	LOC100128783	31149171	0.07	7.12E-5	0.991	0.31
rs4289753	7	VWC2	49527140	0.16	7.19E-5	0.991	-0.31
rs1536343	13	NHLRC3	38573421	0.05	7.28E-5	0.991	0.31
rs2209631	13	NHLRC3	38573022	0.05	7.28E-5	0.991	0.31
rs8081984	17	FBXO39	6627290	0.08	7.46E-5	0.991	-0.32
rs10852886	17	FBXO39	6633565	0.48	7.50E-5	0.991	-0.31
rs6083315	20	CST5	23811795	0.43	7.52E-5	0.991	-0.31
rs1380292	8	LOC100129163	21148688	0.24	7.64E-5	0.991	-0.31
rs3857596	6	FTHP1	51013026	0.15	7.75E-5	0.991	0.31
rs4715210	6	FTHP1	51005210	0.15	7.75E-5	0.991	0.31
rs943005	6	FTHP1	50973779	0.14	7.78E-5	0.991	0.31
rs1354510	1	LMX1A	163442139	0.30	7.78E-5	0.991	0.31
rs13204006	6	LOC729177	22054591	0.15	7.85E-5	0.991	-0.31
rs13326165	3	STAB1	52507158	0.15	7.92E-5	0.991	-0.31
rs6553786	4	KIAA1712	175537179	0.24	8.16E-5	0.991	-0.31
rs6810790	4	SLIT2	20124768	0.13	8.17E-5	0.991	-0.31
rs6124741	20	WFDC3	43838054	0.46	8.31E-5	0.991	0.31
rs4710625	6	NUFIP1P	67554551	0.46	8.39E-5	0.991	0.31
rs9473924	6	RPS17L4	50942116	0.32	8.49E-5	0.991	0.31
rs17413355	7	MAGI2	77823519	0.10	8.50E-5	0.991	-0.31
rs7738812	6	CNR1	88973322	0.07	8.52E-5	0.991	-0.31
rs2064504	20	WFDC3	43837117	0.46	8.52E-5	0.991	-0.31
rs6949916	7	LOC100130122	49504790	0.13	8.53E-5	0.991	-0.31
rs9984523	21	TMPRSS2	41805901	0.08	8.76E-5	0.991	0.31
rs10144421	14	C14orf49	94981588	0.41	8.77E-5	0.991	-0.31
rs11611637	12	MIRN135A2	96209495	0.26	8.78E-5	0.991	-0.31
rs279874	9	DMRT1	943057	0.41	9.13E-5	0.991	-0.31
rs4495049	4	LOC645841	127158603	0.08	9.43E-5	0.991	-0.31
rs13015146	2	LOC645805	202770348	0.38	9.49E-5	0.991	0.31
rs2218988	7	CALD1	134214903	0.23	9.50E-5	0.991	0.31
rs2089515	8	IMPAD1	58089280	0.21	9.91E-5	0.991	0.30

Supplemental Table 3. SNPs associated with NAPQI IC₅₀ with p < 10⁻⁴.



Supplemental Figure 1