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Whole Genome Analysis and MicroRNAs Regulation in HepG2 Cells Exposed to Cadmium

Supplementary Data

Tab. S1: KEGG enrichment for downregulated genes

Genes identified in Figure 1 were analyzed by DAVID for associations with particular KEGG pathways. KEGG Entry is KEGG identifier, Name is name of the KEGG pathway, Genes shows the number of genes associated with the specific pathway, the PValue refers to how significant an association a particular KEGG pathway has with the gene list.

KEGG Entry	Name	Genes	PValue
hsa04610	Complement and coagulation cascades	22	1.11E-14
hsa00260	Glycine, serine and threonine metabolism	11	8.50E-08
hsa00071	Fatty acid metabolism	11	9.41E-07
hsa00650	Butanoate metabolism	9	1.89E-05
hsa00100	Steroid biosynthesis	7	2.09E-05
hsa00280	Valine, leucine and isoleucine degradation	10	2.47E-05
hsa00380	Tryptophan metabolism	9	8.40E-05
hsa00330	Arginine and proline metabolism	10	1.16E-04
hsa00900	Terpenoid backbone biosynthesis	6	1.46E-04
hsa00980	Metabolism of xenobiotics by cytochrome P450	10	2.71E-04
hsa00010	Glycolysis / Gluconeogenesis	10	2.71E-04
hsa00982	Drug metabolism	10	3.98E-04
hsa03320	PPAR signaling pathway	10	7.98E-04
hsa00620	Pyruvate metabolism	7	0.003185725
hsa00561	Glycerolipid metabolism	7	0.005184764
hsa00640	Propanoate metabolism	6	0.005876295
hsa00910	Nitrogen metabolism	5	0.009266837
hsa00480	Glutathione metabolism	7	0.009722623
hsa04950	Maturity onset diabetes of the young	5	0.012498995
hsa00903	Limonene and pinene degradation	4	0.013441968
hsa00680	Methane metabolism	3	0.018538005
hsa00120	Primary bile acid biosynthesis	4	0.01958794
hsa00340	Histidine metabolism	5	0.020928876
hsa00310	Lysine degradation	6	0.022199526
hsa00250	Alanine, aspartate and glutamate metabolism	5	0.026189764
hsa00410	beta-Alanine metabolism	4	0.04583419
hsa01040	Biosynthesis of unsaturated fatty acids	4	0.04583419

Tab. S2: KEGG enrichment for upregulated genes

Genes identified in Figure 1 were analyzed by DAVID for associations with particular KEGG pathways. KEGG Entry is KEGG identifier, Name is the name of the KEGG pathway, Genes shows the number of genes associated with the specific pathway. The PValue refers to how significant an association a particular KEGG pathway has with the gene list.

KEGG Entry	Name	Genes	PValue
hsa04510	Focal adhesion	15	0.001731074
hsa05200	Pathways in cancer	19	0.00558791
hsa04060	Cytokine-cytokine receptor interaction	16	0.00773864
hsa04010	MAPK signaling pathway	16	0.009151857
hsa04512	ECM-receptor interaction	8	0.009966174
hsa04360	Axon guidance	9	0.031302223
hsa05222	Small cell lung cancer	7	0.032837551

Tab. S3: KEGG enrichment for predicted target of downregulated miRNAs

MiRNAs, identified as down-regulated were analysed with the DIANA-mirpath algorithm. This process is a two-steps process: first the targets of miRNA are predicted and then the gene targets are analysed for KEGG pathway enrichment.

KEGG Entry	Name	Targets	PValue
hsa04510	Focal adhesion	67	0.000000000032
hsa04010	MAPK signaling pathway	76	0.000000012100
hsa05215	Prostate cancer	34	0.000000294000
hsa05214	Glioma	27	0.000000348000
hsa04310	Wnt signaling pathway	48	0.000000447000
hsa04115	p53 signaling pathway	28	0.000000475000
hsa04360	Axon guidance	41	0.000003140000
hsa05211	Renal cell carcinoma	27	0.000003800000
hsa05212	Pancreatic cancer	28	0.000004550000
hsa04350	TGF-beta signaling pathway	32	0.000007360000
hsa05030	Amyotrophic lateral sclerosis (ALS)	11	0.000017700000
hsa05210	Colorectal cancer	30	0.000025200000
hsa05218	Melanoma	26	0.000052200000
hsa04520	Adherens junction	26	0.000052222300
hsa05219	Bladder cancer	17	0.000239000000
hsa00190	Oxidative phosphorylation	5	0.000251000000
hsa00471	D-Glutamine and D-glutamate metabolism	4	0.000259000000
hsa05040	Huntington's disease	13	0.000332000000
hsa04920	Adipocytokine signaling pathway	24	0.000346000000
hsa04916	Melanogenesis	31	0.000349000000
hsa04150	mTOR signaling pathway	18	0.000435000000
hsa04810	Regulation of actin cytoskeleton	54	0.000531000000
hsa04512	ECM-receptor interaction	26	0.000636000000

Tab. S3: continued

KEGG Entry	Name	Targets	PValue
hsa05220	Chronic myeloid leukemia	25	0.000636000000
hsa04660	T cell receptor signaling pathway	28	0.000793000000
hsa04012	ErbB signaling pathway	27	0.001330000000
hsa05223	Non-small cell lung cancer	19	0.001370000000
hsa00010	Glycolysis / Gluconeogenesis	1	0.001645025000
hsa04120	Ubiquitin mediated proteolysis	36	0.001840000000
hsa04710	Circadian rhythm	7	0.002290000000
hsa00500	Starch and sucrose metabolism	3	0.006160000000
hsa01040	Polyunsaturated fatty acid biosynthesis	9	0.006280000000
hsa04130	SNARE interactions in vesicular transport	13	0.007370000000
hsa04610	Complement and coagulation cascades	3	0.007670000000
hsa04370	VEGF signaling pathway	21	0.008650000000
hsa04020	Calcium signaling pathway	41	0.009190000000
hsa04664	Fc epsilon RI signaling pathway	22	0.010200000000
hsa00590	Arachidonic acid metabolism	2	0.011200000000
hsa05222	Small cell lung cancer	24	0.013000000000
hsa04742	Taste transduction	1	0.014000000000
hsa04930	Type II diabetes mellitus	13	0.018700000000
hsa00380	Tryptophan metabolism	3	0.018873433000
hsa04912	GnRH signaling pathway	25	0.028200000000
hsa04720	Long-term potentiation	18	0.029600000000
hsa04620	Toll-like receptor signaling pathway	26	0.034400000000
hsa00650	Butanoate metabolism	2	0.035400000000
hsa00280	Valine, leucine and isoleucine degradation	2	0.040000000000
hsa00620	Pyruvate metabolism	2	0.044600000000
hsa04910	Insulin signaling pathway	33	0.044600000000

Tab. S4: Differentially expressed genes in response to 10 μM Cd

Genes regulated by Cd 10 μM with fold change greater than 2 and a false discovery rate corrected p-value smaller than 0.05. Fold change (FC) expresses the difference of the mean log control and mean log Cd stimulated data measured by Whole Human Genome Oligo Microarray (Agilent).

probe	symbol	entrez	FC Cd2	FC Cd10
A_24_P74828	MT1JP	4498	7.0	7.2
A_23_P114903	HSPA6	3310	1.7	5.3
A_24_P120934	GADD45G	10912	0.9	5.0
A_23_P88849	RRAD	6236	1.3	4.7
A_23_P206707	MT1G	4495	3.9	4.2
A_23_P118854	KRT37	8688	1.8	4.1
A_23_P395438	HTRA3	94031	0.9	4.1
A_23_P206724	MT1E	4493	3.7	3.8
A_24_P206776	CRYAB	1410	2.2	3.8
A_24_P125096	MT1X	4501	3.6	3.8
A_24_P239606	GADD45B	4616	0.8	3.7
A_23_P66241	MT1M	4499	3.5	3.7
A_23_P37983	MT1B	4490	3.5	3.7
A_32_P24376	LOC730755	730755	1.1	3.7
A_23_P131846	SNAI1	6615	0.6	3.6
A_23_P414343	MT1H	4496	3.4	3.5
A_23_P215484	CCL26	10344	1.6	3.5
A_23_P86012	LAMB3	3914	0.8	3.4
A_23_P211680	MLC1	23209	0.7	3.4
A_23_P365738	ARC	23237	0.7	3.4
A_23_P427703	MT1L	4500	3.2	3.3
A_23_P62752	NPPB	4879	1.0	3.3
A_23_P15174	MT1F	4494	3.4	3.2
A_23_P67169	IL11	3589	0.8	3.2
A_23_P214080	EGR1	1958	1.7	3.1
A_23_P205370	ASB2	51676	1.1	3.1
A_23_P54840	MT1A	4489	3.1	3.1
A_23_P111132	HSPA1A	3303	0.6	3.0
A_23_P132956	UCHL1	7345	2.1	3.0
A_23_P107454	KRTAP3-1	83896	1.2	3.0
A_23_P214821	EDN1	1906	0.8	2.9
A_23_P207850	TNS4	84951	0.8	2.9
A_23_P114947	RGS2	5997	0.5	2.9
A_32_P152437	AKAP12	9590	1.2	2.9
A_24_P23979	VCX3A	51481	0.8	2.9
A_23_P150789	PRSS23	11098	0.4	2.8
A_23_P138194	NCF2	4688	0.8	2.8
A_23_P106194	FOS	2353	0.8	2.8
A_23_P90172	PPP1R15A	23645	0.6	2.8
A_23_P354387	MYOF	26509	0.5	2.8

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P161698	MMP3	4314	0.8	2.8
A_23_P380318	EGR4	1961	1.0	2.8
A_23_P42868	IGFBP1	3484	1.2	2.8
A_23_P116286	AMPD3	272	0.5	2.8
A_24_P221551	LOC100129113	100129113	2.2	2.8
A_23_P112481	AQP3	360	1.0	2.7
A_23_P201706	S100A2	6273	0.6	2.7
A_23_P431388	SPOCD1	90853	0.7	2.7
A_24_P917123	MYLIP	29116	0.2	2.7
A_23_P128974	BATF	10538	0.6	2.7
A_24_P245976	VCX	26609	0.8	2.6
A_23_P111995	LOXL2	4017	0.3	2.6
A_24_P13190	ESAM	90952	0.8	2.6
A_23_P364024	GLIPR1	11010	0.9	2.6
A_32_P33083	VCX2	51480	0.8	2.6
A_24_P143189	TMSL3	7117	0.2	2.6
A_23_P259071	AREG	374	0.6	2.6
A_23_P58835	F2RL1	2150	0.7	2.5
A_24_P295245	ASPH	444	0.7	2.5
A_23_P24104	PLAU	5328	0.2	2.5
A_23_P118392	RASD1	51655	0.9	2.5
A_23_P10591	METRNL	284207	0.7	2.5
A_23_P19102	FLJ38109	386627	0.5	2.4
A_24_P62469	PLCH2	9651	0.7	2.4
A_23_P393620	TFPI2	7980	0.5	2.4
A_24_P235266	GRB10	2887	0.4	2.4
A_23_P1691	MMP1	4312	1.0	2.4
A_23_P374082	ADAM19	8728	0.4	2.4
A_23_P23346	MLLT11	10962	0.6	2.4
A_23_P163402	CYP1A1	1543	0.6	2.4
A_23_P398854	DOK7	285489	0.5	2.4
A_24_P361896	MT2A	4502	2.2	2.4
A_23_P144916	GFPT2	9945	0.3	2.3
A_23_P425681	CCK	885	0.4	2.3
A_23_P102000	CXCR4	7852	0.0	2.3
A_23_P152002	BCL2A1	597	0.4	2.2
A_24_P158089	SERPINE1	5054	0.5	2.2
A_23_P61886	TSPAN5	10098	0.4	2.2
A_23_P47614	PHLDA2	7262	0.9	2.2
A_23_P208389	AXL	558	0.5	2.2

probe	symbol	entrez	FC Cd2	FC Cd10
A_24_P133171	ELK3	2004	0.6	2.2
A_23_P163467	C15orf52	388115	0.4	2.2
A_23_P108751	FHL2	2274	0.6	2.2
A_23_P201538	JUN	3725	0.8	2.2
A_24_P51061	DCBLD2	131566	0.6	2.2
A_23_P104073	S100A3	6274	0.3	2.2
A_23_P128230	NR4A1	3164	0.6	2.2
A_24_P331704	KRT80	144501	0.5	2.2
A_24_P374516	TMSB4X	7114	0.0	2.2
A_24_P122137	LIF	3976	0.7	2.2
A_23_P24843	MICAL2	9645	0.5	2.2
A_23_P343398	CCR7	1236	0.2	2.2
A_23_P50919	SERPINE2	5270	0.8	2.2
A_23_P360240	MYEOV	26579	0.5	2.1
A_32_P18668	RAB3B	5865	0.6	2.1
A_24_P314477	TUBB2B	347733	0.3	2.1
A_24_P686965	SH2D5	400745	0.8	2.1
A_23_P209129	LAIR2	3904	0.5	2.1
A_23_P41344	EREG	2069	0.4	2.1
A_23_P397293	LY6K	54742	0.4	2.1
A_23_P208788	C19orf33	64073	0.0	2.1
A_23_P360754	ADAMTS4	9507	0.5	2.1
A_23_P141345	MPP3	4356	0.4	2.1
A_23_P154065	TUBA4A	7277	0.6	2.1
A_23_P82402	GLCCI1	113263	0.8	2.1
A_23_P4821	JUNB	3726	0.6	2.1
A_23_P120227	LBH	81606	0.2	2.1
A_23_P138717	RGS10	6001	0.3	2.1
A_23_P23924	CAPN2	824	0.5	2.0
A_23_P25194	HRK	8739	0.3	2.0
A_23_P46426	CYR61	3491	0.6	2.0
A_23_P331928	CD109	135228	0.3	2.0
A_23_P26037	FRMD5	84978	0.5	2.0
A_23_P4561	SERPINB8	5271	0.6	2.0
A_23_P315815	NRG1	3084	0.2	2.0
A_23_P86330	IER5	51278	0.4	2.0
A_23_P46928	PFKP	5214	0.8	2.0
A_23_P117782	LARP6	55323	0.3	2.0
A_23_P119916	WNT6	7475	0.1	2.0
A_23_P348257	NUAK1	9891	0.7	2.0
A_23_P59388	DST	667	0.6	2.0
A_23_P58960	AGPAT4	56895	0.4	2.0
A_32_P96752	SOX4	6659	0.3	2.0
A_23_P154367	STK17B	9262	0.1	2.0

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P28815	CYP24A1	1591	0.7	2.0
A_23_P4052	LOC79999	79999	0.7	2.0
A_24_P305784	SPANXB2	100133171	0.4	2.0
A_23_P12463	QSOX1	5768	0.5	2.0
A_23_P119362	EMP3	2014	0.6	2.0
A_23_P201711	S100A6	6277	0.3	1.9
A_24_P879740	MAP1B	4131	0.4	1.9
A_32_P9753	TMEM49	81671	0.4	1.9
A_23_P51376	NKAIN1	79570	0.2	1.9
A_23_P16469	PLAUR	5329	0.4	1.9
A_23_P1102	ACTA1	58	1.1	1.9
A_24_P923251	TGM2	7052	0.8	1.9
A_32_P200238	UCA1	652995	0.6	1.9
A_23_P80040	PROCR	10544	0.4	1.9
A_24_P373562	ADAP2	55803	0.5	1.9
A_23_P107401	TIMP2	7077	0.7	1.9
A_23_P3866	COTL1	23406	0.5	1.9
A_32_P215938	GPSM1	26086	0.3	1.9
A_32_P62863	SCHIP1	29970	0.1	1.9
A_23_P118203	ZG16B	124220	0.2	1.9
A_23_P128215	SOCS2	8835	0.4	1.9
A_23_P144796	PDLIM4	8572	0.2	1.9
A_23_P150693	FJX1	24147	0.5	1.9
A_24_P297182	GGT5	2687	0.7	1.9
A_23_P121716	ANXA3	306	0.4	1.8
A_32_P87013	IL8	3576	0.2	1.8
A_23_P139704	DUSP6	1848	0.9	1.8
A_32_P208076	ITGA2	3673	0.6	1.8
A_23_P254271	TUBB6	84617	0.7	1.8
A_23_P142849	RND3	390	0.3	1.8
A_23_P65481	TEP1	7011	0.5	1.8
A_23_P312358	BEND7	222389	0.4	1.8
A_23_P207520	COL1A1	1277	0.3	1.8
A_23_P69810	AGPAT9	84803	0.5	1.8
A_23_P98350	BIRC3	330	0.6	1.8
A_23_P426021	SEL1L3	23231	0.3	1.8
A_24_P20292	B3GNT7	93010	0.2	1.8
A_23_P144959	VCAN	1462	0.2	1.8
A_23_P218523	C19orf28	126321	0.6	1.8
A_23_P73835	MOSPD1	56180	0.3	1.7
A_23_P36825	GPRC5A	9052	0.3	1.7
A_23_P207999	PMAIP1	5366	0.3	1.7
A_23_P125233	CNN1	1264	0.6	1.7
A_23_P420209	GCNT3	9245	0.4	1.7

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P126844	TNFRSF25	8718	0.2	1.7
A_23_P390068	C19orf21	126353	0.6	1.7
A_24_P179504	WDR66	144406	0.4	1.7
A_23_P149626	PLEKHG5	57449	0.4	1.7
A_23_P154972	ZNF280A	129025	0.3	1.7
A_23_P73097	RGS20	8601	0.2	1.7
A_23_P27734	NPAS1	4861	0.7	1.7
A_23_P27133	KRT15	3866	0.4	1.7
A_24_P100551	SH3RF1	57630	0.5	1.7
A_23_P161218	ANKRD1	27063	0.9	1.7
A_23_P42257	IER3	8870	1.0	1.7
A_23_P63798	KLF6	1316	0.4	1.7
A_23_P337934	FBLIM1	54751	0.4	1.7
A_24_P307964	SOHLH1	402381	0.9	1.7
A_23_P20494	NDRG1	10397	0.1	1.7
A_23_P39237	ZFP36	7538	0.7	1.7
A_24_P410453	SYNE1	23345	0.3	1.7
A_23_P137016	SAT1	6303	0.8	1.7
A_23_P103110	MAFF	23764	0.6	1.7
A_23_P252541	RAB7B	338382	0.3	1.7
A_23_P126593	S100A11	6282	0.5	1.7
A_23_P104471	DUSP13	51207	0.5	1.7
A_24_P283341	MICAL1	64780	0.6	1.6
A_23_P329198	OBFC2A	64859	0.3	1.6
A_24_P362540	ASAP2	8853	0.4	1.6
A_23_P78980	B3GNT3	10331	0.6	1.6
A_23_P35349	SVIL	6840	0.3	1.6
A_23_P103672	NES	10763	0.5	1.6
A_23_P404667	BIK	638	0.3	1.6
A_24_P46417	STK10	6793	0.6	1.6
A_23_P253221	ARHGEF4	50649	0.4	1.6
A_23_P127948	ADM	133	0.0	1.6
A_23_P5875	POMC	5443	0.3	1.6
A_23_P149892	CSGALNACT2	55454	0.3	1.6
A_24_P124875	OTUB2	78990	0.3	1.6
A_23_P49338	TNFRSF12A	51330	0.5	1.6
A_23_P338919	SPEG	10290	0.2	1.6
A_24_P734060	LOC284454	284454	0.1	1.6
A_23_P166459	LGALS1	3956	0.3	1.6
A_23_P140748	NDRG4	65009	0.3	1.6
A_23_P27795	SPINT2	10653	0.3	1.6
A_23_P153964	INHBB	3625	0.4	1.6
A_23_P375165	TEX19	400629	1.0	1.6
A_23_P62115	TIMP1	7076	0.6	1.6

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P96302	SPANXA1	30014	0.3	1.6
A_23_P76078	IL23A	51561	0.3	1.6
A_23_P170986	TMCC1	23023	0.4	1.6
A_23_P169017	DEFB103B	55894	0.2	1.6
A_32_P47643	FAM110C	642273	0.2	1.6
A_23_P145584	UBE2H	7328	0.4	1.6
A_23_P385295	AP1S3	130340	0.3	1.6
A_23_P103981	HIST2H2AA4	723790	0.1	1.6
A_23_P207911	TRPV2	51393	0.3	1.5
A_23_P120325	KIF3C	3797	0.2	1.5
A_24_P96961	SPSB1	80176	0.1	1.5
A_23_P340333	ITPRIP	85450	0.5	1.5
A_23_P204937	C13orf15	28984	0.5	1.5
A_23_P326319	C16orf45	89927	0.1	1.5
A_23_P218774	RAC2	5880	0.3	1.5
A_24_P359191	SLC6A6	6533	0.6	1.5
A_24_P943393	AHNAK	79026	0.3	1.5
A_23_P53891	KLF5	688	0.5	1.5
A_23_P40866	ZBTB20	26137	0.2	1.5
A_24_P383450	IER5L	389792	0.4	1.5
A_24_P275073	ADAMTS14	140766	0.1	1.5
A_23_P400847	IDS	3423	0.4	1.5
A_23_P52676	CATSPER1	117144	0.5	1.5
A_23_P119502	S1PR4	8698	0.2	1.5
A_23_P154526	GRB14	2888	0.5	1.5
A_23_P152655	ICAM2	3384	0.4	1.5
A_23_P151895	CILP	8483	0.2	1.5
A_23_P51646	PLK3	1263	0.4	1.5
A_23_P64828	OAS1	4938	0.7	1.5
A_23_P138760	CLCF1	23529	0.4	1.5
A_24_P731648	SLC16A6	9120	0.6	1.5
A_23_P431268	PLEKHA6	22874	0.7	1.5
A_23_P200579	CELA3B	23436	0.6	1.5
A_23_P64102	RIN1	9610	0.5	1.5
A_24_P938293	HES1	3280	0.1	1.5
A_23_P147805	UPP1	7378	0.5	1.5
A_23_P49610	C17orf91	84981	0.2	1.5
A_23_P42718	NFE2L3	9603	0.5	1.5
A_23_P394064	PTRF	284119	0.3	1.5
A_23_P162579	HSPB8	26353	0.4	1.5
A_24_P784765	CD59	966	0.3	1.5
A_23_P108170	PSG6	5675	0.3	1.5
A_23_P250274	LRRC8A	56262	0.5	1.5
A_23_P143906	MLF1	4291	0.6	1.5

probe	symbol	entrez	FC Cd2	FC Cd10
A_32_P12994	LOC440900	440900	0.5	1.4
A_23_P257649	RBP1	5947	0.3	1.4
A_24_P943597	PHLDA1	22822	0.3	1.4
A_23_P34597	CDA	978	0.4	1.4
A_23_P359245	MET	4233	0.4	1.4
A_23_P329870	RHBDF2	79651	0.5	1.4
A_23_P83339	RNF183	138065	0.3	1.4
A_23_P218463	SERTAD1	29950	0.3	1.4
A_23_P406385	FBXL16	146330	0.7	1.4
A_23_P66137	SOX8	30812	0.1	1.4
A_23_P69586	FAT1	2195	0.4	1.4
A_23_P58009	C3orf52	79669	0.2	1.4
A_23_P141055	TGFB1I1	7041	0.4	1.4
A_23_P161624	FOSL1	8061	0.6	1.4
A_24_P385739	EIF5A2	56648	0.5	1.4
A_23_P19517	ITPR3	3710	0.4	1.4
A_23_P19291	TUBB2A	7280	0.5	1.4
A_24_P269062	SPRY4	81848	0.7	1.4
A_23_P34915	ATF3	467	0.1	1.4
A_23_P16523	GDF15	9518	0.6	1.4
A_23_P32175	LHX6	26468	0.3	1.4
A_23_P348264	LETM2	137994	0.5	1.4
A_24_P145134	OSMR	9180	0.7	1.4
A_32_P69149	STEAP1	26872	0.1	1.4
A_23_P214766	HIVEP2	3097	0.3	1.4
A_23_P12514	RHOC	389	0.6	1.4
A_23_P30254	PLK2	10769	0.1	1.4
A_32_P160972	C6orf115	58527	0.1	1.4
A_23_P149281	EPHA2	1969	0.7	1.4
A_23_P369899	TMEM158	25907	0.3	1.4
A_23_P8452	LFNG	3955	0.3	1.4
A_23_P142714	SLC25A12	8604	0.5	1.4
A_23_P571	SLC2A1	6513	0.4	1.4
A_23_P503182	ABR	29	0.5	1.4
A_23_P76488	EMP1	2012	0.2	1.4
A_23_P110712	DUSP1	1843	0.2	1.4
A_23_P434890	CARD10	29775	0.5	1.4
A_23_P103361	LCK	3932	0.3	1.4
A_23_P55706	RELB	5971	0.4	1.4
A_24_P184555	PXN	5829	0.4	1.4
A_23_P157117	CREB5	9586	0.2	1.4
A_23_P428184	HIST1H2AD	3013	0.2	1.4
A_23_P390504	FOXC1	2296	0.4	1.4
A_23_P73501	SPANXD	64648	0.2	1.4

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P209904	GPC1	2817	0.1	1.4
A_23_P344421	ROBO4	54538	0.0	1.4
A_23_P108200	RAB3A	5864	0.4	1.4
A_23_P360605	KIAA0802	23255	0.4	1.4
A_23_P205031	COL4A2	1284	0.4	1.4
A_23_P60610	CLTB	1212	0.3	1.4
A_23_P339818	ARRDC4	91947	0.4	1.4
A_23_P62768	TMEM54	113452	0.7	1.4
A_23_P144071	COL7A1	1294	0.0	1.3
A_24_P835500	ITPRIPL2	162073	0.3	1.3
A_23_P39955	ACTG2	72	0.2	1.3
A_23_P43810	LTBP1	4052	0.2	1.3
A_23_P167276	PAQR3	152559	0.3	1.3
A_23_P217958	HK1	3098	0.2	1.3
A_23_P171237	ACRC	93953	0.1	1.3
A_23_P116602	USP35	57558	0.2	1.3
A_24_P390060	IQCD	115811	0.6	1.3
A_23_P109034	SDC4	6385	0.4	1.3
A_23_P109320	DSCR6	53820	0.9	1.3
A_23_P213102	PALLD	23022	0.4	1.3
A_23_P63521	LCE2C	353140	0.2	1.3
A_23_P35114	PLEKHO1	51177	0.3	1.3
A_23_P162640	GABARAPL1	23710	0.3	1.3
A_23_P374844	GAL	51083	0.3	1.3
A_23_P395609	FAM110B	90362	0.4	1.3
A_23_P13740	NAV3	89795	0.1	1.3
A_23_P79360	NOSTRIN	115677	0.3	1.3
A_23_P50368	OSCAR	126014	0.2	1.3
A_32_P170547	CT45A5	441521	0.4	1.3
A_23_P259272	WSB2	55884	0.4	1.3
A_23_P78265	KRT33A	3883	0.3	1.3
A_24_P272290	C6orf145	221749	0.4	1.3
A_23_P301942	NPPC	4880	0.2	1.3
A_23_P87013	TAGLN	6876	0.5	1.3
A_24_P252497	TRIB1	10221	0.7	1.3
A_24_P295010	SERPINB9	5272	0.2	1.3
A_24_P623782	FRG2	448831	0.0	1.3
A_23_P147918	S100A16	140576	0.4	1.3
A_32_P37474	LOC645954	645954	0.2	1.3
A_23_P334870	TMEM217	221468	0.1	1.3
A_32_P32739	NAGS	162417	0.3	1.3
A_32_P130999	LOC285986	285986	0.3	1.3
A_24_P135322	NRP1	8829	0.4	1.3
A_23_P200015	AK5	26289	0.1	1.3

probe	symbol	entrez	FC Cd2	FC Cd10
A_24_P409971	NEXN	91624	0.3	1.3
A_23_P258612	ATP8A2	51761	0.1	1.3
A_23_P69908	GLRX	2745	0.2	1.3
A_23_P83388	EPPK1	83481	0.0	1.3
A_24_P11506	KYNU	8942	0.5	1.3
A_24_P336754	MCL1	4170	0.5	1.3
A_24_P129326	VGF	7425	0.2	1.3
A_23_P71810	BAAT	570	0.8	1.3
A_23_P99540	ZFP36L1	677	0.5	1.3
A_23_P134935	DUSP4	1846	0.0	1.3
A_23_P153905	IER2	9592	0.4	1.3
A_23_P316601	RIT1	6016	0.2	1.3
A_23_P55251	ITGA3	3675	0.1	1.3
A_23_P168556	STX1A	6804	0.0	1.3
A_23_P104199	ITGB1	3688	0.0	1.3
A_24_P38951	RELT	84957	0.2	1.3
A_23_P7706	GALNT10	55568	0.3	1.3
A_23_P137751	FAM46C	54855	0.1	1.3
A_23_P110345	CHIC2	26511	0.1	1.3
A_23_P53176	FOLR1	2348	0.1	1.3
A_23_P324340	DISP2	85455	0.3	1.3
A_23_P77612	KREMEN2	79412	0.3	1.3
A_23_P118842	KRTAP1-5	83895	0.2	1.3
A_24_P120537	SH3RF2	153769	0.6	1.3
A_23_P80817	TAGLN3	29114	0.1	1.3
A_23_P49638	GRAP	10750	0.6	1.3
A_23_P429998	FOSB	2354	0.0	1.2
A_23_P251937	CPEB4	80315	0.2	1.2
A_23_P165778	MLPH	79083	0.3	1.2
A_23_P371039	NTSR1	4923	0.3	1.2
A_23_P353865	KRT19P2	160313	0.4	1.2
A_23_P252052	FILIP1L	11259	0.7	1.2
A_32_P780817	CT45A1	541466	0.5	1.2
A_23_P38334	WNK4	65266	0.5	1.2
A_23_P331479	KIAA1949	170954	0.3	1.2
A_23_P78248	KRT23	25984	0.4	1.2
A_23_P12199	FAM46B	115572	0.4	1.2
A_23_P111593	CYTH3	9265	0.3	1.2
A_23_P141893	PPM1N	147699	0.2	1.2
A_24_P115762	CTSC	1075	0.4	1.2
A_23_P103996	GCLM	2730	0.1	1.2
A_24_P201360	ACSL5	51703	0.4	1.2
A_23_P50357	ARHGEF18	23370	0.3	1.2
A_24_P376391	PLXND1	23129	0.3	1.2

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P205894	ACTC1	70	0.3	1.2
A_23_P373724	PPFIBP1	8496	0.4	1.2
A_23_P300150	NFATC1	4772	0.2	1.2
A_23_P126388	SH3BGRL3	83442	0.4	1.2
A_23_P40975	EDEM1	9695	0.5	1.2
A_24_P192914	AMICA1	120425	0.5	1.2
A_23_P48550	KIAA0284	283638	0.6	1.2
A_23_P147397	DYNC2H1	79659	0.4	1.2
A_23_P119095	PPP1R13L	10848	0.5	1.2
A_32_P157945	DSP	1832	0.7	1.2
A_23_P24192	RRP12	23223	0.7	1.2
A_24_P295963	SLC38A2	54407	0.3	1.2
A_23_P92860	CCNO	10309	0.4	1.2
A_23_P332399	GULP1	51454	0.4	1.2
A_23_P202658	GSTP1	2950	0.0	1.2
A_23_P12082	CHI3L2	1117	0.1	1.2
A_23_P314101	SUSD2	56241	0.3	1.2
A_23_P393034	HAS3	3038	0.3	1.2
A_23_P159125	SLC16A5	9121	0.4	1.2
A_24_P268676	BHLHE40	8553	0.3	1.2
A_23_P119778	SLC39A10	57181	0.7	1.2
A_23_P413641	PREX1	57580	0.4	1.2
A_23_P353056	C2CD2L	9854	0.3	1.2
A_32_P222751	LOC100289494	100289494	0.3	1.2
A_23_P70915	ORAI2	80228	0.5	1.2
A_24_P71280	GPR157	80045	0.1	1.2
A_32_P44453	INPP1	3628	0.4	1.2
A_23_P160167	TSPAN1	10103	0.2	1.2
A_24_P383523	SAMD4A	23034	0.2	1.2
A_24_P280846	GOLT1A	127845	0.4	1.2
A_23_P251825	IFRD1	3475	0.3	1.2
A_23_P72651	ECSCR	641700	0.0	1.2
A_23_P20722	SNAPC4	6621	0.3	1.2
A_23_P2181	CYB5R2	51700	0.6	1.2
A_23_P30666	TNFRSF21	27242	0.2	1.2
A_23_P218555	FOSL2	2355	0.2	1.2
A_23_P96008	MALT1	10892	0.4	1.2
A_23_P64404	FADS3	3995	0.4	1.1
A_23_P51986	MTMR11	10903	0.3	1.1
A_24_P296508	SLC43A2	124935	0.4	1.1
A_23_P102731	SMOX	54498	0.4	1.1
A_24_P411749	GPR126	57211	0.5	1.1
A_32_P157846	DUSP5P	574029	0.4	1.1
A_23_P86164	UBR4	23352	0.2	1.1

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P132619	OXTR	5021	0.1	1.1
A_23_P75989	PAK1	5058	0.3	1.1
A_23_P67529	KCNN4	3783	0.3	1.1
A_23_P360215	POLD4	57804	0.2	1.1
A_23_P132644	NCEH1	57552	0.3	1.1
A_24_P941947	LPCAT1	79888	0.2	1.1
A_23_P311912	AHNAK2	113146	0.1	1.1
A_24_P83118	DUSP18	150290	0.2	1.1
A_23_P99906	HOMER2	9455	0.3	1.1
A_23_P11390	VCY	9084	0.3	1.1
A_23_P315571	RFTN1	23180	0.4	1.1
A_23_P343935	EGLN1	54583	0.3	1.1
A_24_P76898	PPP2R5C	5527	0.4	1.1
A_23_P119102	VASP	7408	0.6	1.1
A_23_P113793	ZBED2	79413	0.1	1.1
A_23_P1602	CDC42EP2	10435	0.2	1.1
A_23_P131899	SDCBP2	27111	0.3	1.1
A_23_P138099	ABL2	27	0.3	1.1
A_23_P61371	TMEM173	340061	0.1	1.1
A_23_P126416	TIE1	7075	0.1	1.1
A_24_P174367	PPP1R2	5504	0.5	1.1
A_23_P97394	BCAR3	8412	0.2	1.1
A_24_P636332	CCDC84	338657	0.1	1.1
A_23_P58862	FAM135A	57579	0.4	1.1
A_23_P170733	ANTXR2	118429	0.1	1.1
A_23_P214908	MTHFD1L	25902	0.8	1.1
A_23_P300070	IQCG	84223	0.2	1.1
A_23_P52451	HKDC1	80201	0.5	1.1
A_23_P414913	GLIPR2	152007	0.0	1.1
A_23_P40926	DGKG	1608	0.3	1.1
A_23_P141688	RAB31	11031	0.4	1.1
A_23_P365685	LIMS3	96626	0.3	1.1
A_24_P139899	SYT11	23208	0.2	1.1
A_32_P103291	SMYD3	64754	0.3	1.1
A_23_P372946	TM4SF19	116211	0.3	1.1
A_23_P55448	KRT12	3859	0.3	1.1
A_23_P16683	TRMT1	55621	0.5	1.1
A_23_P210176	ITGA6	3655	0.2	1.1
A_23_P211561	MEI1	150365	0.2	1.1
A_23_P97339	SLC16A4	9122	0.1	1.1
A_23_P167812	RBM24	221662	0.4	1.1
A_23_P144896	PDLIM7	9260	0.5	1.1
A_23_P117694	CORO2B	10391	0.2	1.1
A_23_P304716	HES2	54626	0.2	1.1

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P66948	FAM59A	64762	0.2	1.1
A_24_P917819	ANKRD30BP2	149992	0.1	1.1
A_23_P148541	CTAG1A	246100	0.3	1.1
A_32_P155460	NCRNA00162	378825	0.1	1.1
A_23_P425880	TRIO	7204	0.4	1.1
A_24_P922261	SRGAP1	57522	0.1	1.1
A_23_P90311	TICAM1	148022	0.3	1.1
A_32_P456318	SRSF12	135295	0.3	1.1
A_23_P29754	BDH1	622	0.2	1.1
A_23_P31407	AGR2	10551	-0.1	1.1
A_23_P134527	YKT6	10652	0.6	1.1
A_24_P303524	MICALL2	79778	0.3	1.1
A_23_P5903	SLCO4A1	28231	0.5	1.1
A_23_P100754	SMURF2	64750	0.2	1.1
A_24_P192933	UBASH3B	84959	0.4	1.1
A_23_P53476	LDHB	3945	0.9	1.1
A_24_P829183	FLJ32255	643977	0.2	1.1
A_24_P55437	TES	26136	0.3	1.1
A_23_P205499	LRP10	26020	0.3	1.1
A_32_P231617	TM4SF1	4071	0.5	1.1
A_24_P42501	ACOT9	23597	0.3	1.0
A_23_P209167	FSTL3	10272	0.1	1.0
A_23_P30315	TRIM7	81786	0.5	1.0
A_23_P88580	ARID3B	10620	0.3	1.0
A_24_P97703	PAM	5066	0.3	1.0
A_24_P89457	CDKN1A	1026	0.4	1.0
A_24_P337796	STK17A	9263	0.4	1.0
A_23_P379034	BAIAP2L2	80115	0.6	1.0
A_24_P340066	ELF4	2000	0.3	1.0
A_23_P131176	LOC151146	151146	0.4	1.0
A_23_P369210	CLCN5	1184	0.2	1.0
A_23_P39251	PLIN5	440503	0.0	1.0
A_23_P257043	GEM	2669	0.1	1.0
A_23_P251104	SGCB	6443	0.2	1.0
A_23_P11774	UTP11L	51118	0.5	1.0
A_23_P208779	EPS8L1	54869	0.4	1.0
A_23_P337242	TGFBR2	7048	0.3	1.0
A_23_P343366	C1orf161	126868	0.4	1.0
A_32_P70273	RHOQ	23433	0.3	1.0
A_24_P261259	PFKFB3	5209	0.2	1.0
A_23_P140029	UBL3	5412	0.0	1.0
A_24_P13682	TLE3	7090	0.4	1.0
A_24_P145653	MAP3K6	9064	0.3	1.0
A_24_P408424	MYH9	4627	0.3	1.0

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P207319	MAP3K14	9020	0.2	1.0
A_32_P138557	RRN3P3	100131998	0.3	1.0
A_23_P170761	PDLIM5	10611	0.4	1.0
A_23_P59637	DOCK4	9732	0.1	1.0
A_23_P391778	MACF1	23499	0.1	1.0
A_23_P148345	RNF128	79589	0.0	1.0
A_23_P140928	TMC7	79905	0.5	1.0
A_24_P916586	BICD1	636	0.3	1.0
A_23_P22119	PLEC	5339	0.0	1.0
A_23_P39454	ZNF556	80032	0.3	1.0
A_24_P316154	CSNK1A1	1452	0.2	1.0
A_23_P97780	LOC338620	338620	0.1	1.0
A_23_P161280	SPOCK2	9806	0.2	1.0
A_23_P320883	CDC42SE1	56882	0.1	1.0
A_23_P250118	HSPBAP1	79663	0.4	1.0
A_23_P156284	DBN1	1627	0.2	1.0
A_23_P34537	EPHX1	2052	-0.1	-1.0
A_32_P52282	HSD17B7	51478	-0.5	-1.0
A_24_P677734	LOC729082	729082	-0.3	-1.0
A_24_P149124	C5orf13	9315	-0.2	-1.0
A_23_P215669	POLR2J2	246721	-0.5	-1.0
A_24_P208704	CYP8B1	1582	-0.3	-1.0
A_23_P83098	ALDH1A1	216	0.0	-1.0
A_24_P396660	GSTM4	2948	-0.1	-1.0
A_24_P384839	LSS	4047	-0.6	-1.0
A_23_P350555	TCP10L	140290	-0.3	-1.0
A_23_P208373	CYP2B6	1555	-0.6	-1.0
A_23_P120776	SLC25A1	6576	-0.3	-1.0
A_24_P399888	CENPM	79019	-0.1	-1.0
A_23_P96087	H1FX	8971	-0.1	-1.0
A_23_P210015	PTPN18	26469	-0.1	-1.0
A_23_P44149	CTDSP2	10106	-0.1	-1.0
A_23_P144872	GM2A	2760	-0.3	-1.0
A_24_P367776	ACSM5	54988	-0.4	-1.0
A_23_P257803	DMGDH	29958	-0.4	-1.0
A_23_P101407	C3	718	-0.2	-1.0
A_32_P62997	PBK	55872	-0.3	-1.0
A_23_P10559	AATK	9625	-0.2	-1.0
A_23_P127054	PANK1	53354	-0.3	-1.0
A_23_P403445	CGREF1	10669	-0.4	-1.0
A_23_P130753	DBP	1628	-0.3	-1.0
A_23_P344481	STOX1	219736	-0.2	-1.0
A_23_P259707	LPPR1	54886	-0.2	-1.0
A_24_P347566	TLN2	83660	-0.3	-1.0

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P133263	HMGCS1	3157	-0.5	-1.0
A_23_P8640	GPER	2852	-0.3	-1.0
A_24_P218979	CDCA3	83461	-0.2	-1.0
A_24_P314515	NCRNA00262	283460	-0.4	-1.0
A_24_P412976	TMEM143	55260	-0.2	-1.0
A_23_P70231	ALDH7A1	501	-0.2	-1.0
A_23_P203698	MOGAT2	80168	-0.2	-1.0
A_23_P18692	ADH5	128	-0.5	-1.0
A_32_P23125	NCRNA00261	140828	-0.2	-1.1
A_24_P375482	TNFAIP8L3	388121	-0.4	-1.1
A_24_P3761	ALDH5A1	7915	-0.2	-1.1
A_23_P403745	MTSS1L	92154	-0.1	-1.1
A_23_P109452	CHEK2	11200	-0.1	-1.1
A_23_P169197	HSDL2	84263	-0.3	-1.1
A_24_P168495	CYP4F2	8529	-0.1	-1.1
A_24_P197196	ABCB6	10058	-0.2	-1.1
A_23_P155514	AHSG	197	-0.3	-1.1
A_23_P144126	FETUB	26998	-0.5	-1.1
A_23_P54709	RAB26	25837	-0.4	-1.1
A_24_P10751	HNF4A	3172	-0.3	-1.1
A_23_P169494	ORM1	5004	-0.3	-1.1
A_23_P150768	SLCO2B1	11309	-0.2	-1.1
A_23_P5018	LOC80054	80054	-0.1	-1.1
A_23_P25835	FNTB	2342	-0.3	-1.1
A_23_P15305	PRPSAP1	5635	-0.3	-1.1
A_23_P436526	SLC25A42	284439	-0.2	-1.1
A_23_P395566	FBXO31	79791	-0.3	-1.1
A_23_P256084	ARSE	415	-0.3	-1.1
A_23_P71319	FDFT1	2222	-0.4	-1.1
A_23_P218111	SERPINA1	5265	-0.3	-1.1
A_24_P392925	GLTPD2	388323	-0.6	-1.1
A_24_P916195	GTSE1	51512	0.0	-1.1
A_24_P176374	CDT1	81620	0.0	-1.1
A_32_P89691	SORD	6652	-0.4	-1.1
A_23_P18684	CLGN	1047	-0.4	-1.1
A_23_P20852	AUH	549	-0.4	-1.1
A_23_P168551	SLC29A4	222962	-0.3	-1.1
A_24_P131522	ANTXR1	84168	-0.3	-1.1
A_24_P33156	AFMID	125061	-0.3	-1.1
A_23_P300714	SORBS3	10174	-0.1	-1.1
A_23_P134237	RARRES2	5919	-0.4	-1.1
A_23_P251987	PSPH	5723	-0.6	-1.1
A_23_P37359	CIDEB	27141	-0.4	-1.1
A_23_P208900	SEMA6B	10501	-0.2	-1.1

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P108157	TJP3	27134	-0.5	-1.1
A_24_P140475	SORBS2	8470	-0.1	-1.1
A_24_P212539	GALM	130589	-0.3	-1.1
A_23_P146284	SQLE	6713	-0.4	-1.1
A_23_P21316	PRUNE	58497	-0.3	-1.1
A_23_P105138	CAT	847	-0.4	-1.1
A_23_P27279	NEDD4L	23327	-0.1	-1.1
A_24_P237270	ADORA2A	135	-0.1	-1.1
A_24_P123119	EHHADH	1962	-0.3	-1.1
A_23_P5845	KHK	3795	-0.3	-1.1
A_24_P46953	SGK3	23678	-0.2	-1.1
A_23_P126706	ANGPTL1	9068	-0.1	-1.1
A_23_P143173	SLA2	84174	-0.1	-1.1
A_24_P195831	CCDC34	91057	-0.2	-1.1
A_23_P128375	C12orf34	84915	-0.2	-1.1
A_24_P227091	KIF11	3832	-0.1	-1.1
A_23_P61987	TMEM121	80757	-0.2	-1.1
A_23_P37410	CYP19A1	1588	-0.4	-1.1
A_23_P424712	CCDC142	84865	-0.5	-1.1
A_23_P252163	DAPK1	1612	-0.1	-1.1
A_24_P314571	SPC24	147841	-0.2	-1.1
A_23_P310350	SHPK	23729	-0.4	-1.1
A_23_P139635	DAO	1610	-0.1	-1.1
A_23_P356585	HLF	3131	-0.2	-1.1
A_32_P174303	MPV17L	255027	-0.1	-1.1
A_23_P153867	LASS4	79603	-0.3	-1.1
A_23_P94591	TMEM141	85014	-0.4	-1.1
A_23_P344673	LOC401022	401022	-0.2	-1.1
A_23_P70249	CDC25C	995	-0.1	-1.1
A_23_P92954	HSD17B4	3295	-0.2	-1.1
A_23_P257307	SERPINA7	6906	0.0	-1.1
A_23_P25475	SOAT2	8435	-0.3	-1.1
A_23_P51002	SULT1C2	6819	-0.2	-1.1
A_23_P89762	PHLPP1	23239	-0.2	-1.1
A_23_P3274	IGDCC3	9543	-0.1	-1.1
A_24_P68814	DQX1	165545	-0.1	-1.1
A_23_P131060	CYP4F8	11283	-0.4	-1.1
A_23_P142424	TMEM149	79713	-0.2	-1.1
A_24_P100228	XBP1	7494	-0.1	-1.1
A_32_P86739	C10orf114	399726	-0.5	-1.1
A_24_P227069	GPAM	57678	-0.3	-1.1
A_24_P379858	ACAA1	30	-0.1	-1.1
A_23_P75071	KIF20B	9585	-0.1	-1.1
A_24_P205364	SHMT1	6470	-0.1	-1.1

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P95640	C1orf186	440712	-0.6	-1.2
A_23_P233	FMO5	2330	0.0	-1.2
A_24_P135748	GRTP1	79774	-0.1	-1.2
A_23_P156310	SKP2	6502	-0.1	-1.2
A_23_P38244	APOH	350	-0.2	-1.2
A_24_P237624	C16orf79	283870	-0.7	-1.2
A_23_P152125	MVD	4597	-0.5	-1.2
A_24_P237278	NIPSNAP1	8508	-0.2	-1.2
A_24_P942328	DHFR	1719	-0.2	-1.2
A_23_P51690	RHBG	57127	-0.5	-1.2
A_23_P335695	OBSL1	23363	-0.3	-1.2
A_23_P128817	PCK2	5106	-0.2	-1.2
A_23_P254648	FBXW2	26190	-0.3	-1.2
A_23_P216517	C9orf100	84904	-0.3	-1.2
A_23_P421011	KAZALD1	81621	-0.4	-1.2
A_23_P153853	ECH1	1891	-0.3	-1.2
A_24_P190168	TMEM97	27346	-0.4	-1.2
A_23_P12784	FRAT2	23401	-0.2	-1.2
A_23_P162746	CRYL1	51084	-0.6	-1.2
A_23_P83277	IL11RA	3590	-0.4	-1.2
A_23_P18447	PPARGC1A	10891	-0.1	-1.2
A_23_P155765	HMGB2	3148	-0.2	-1.2
A_23_P115261	AGT	183	-0.5	-1.2
A_23_P163666	WFIKKN1	117166	-0.3	-1.2
A_32_P80901	RPS15A	6210	-0.3	-1.2
A_23_P301971	MASP2	10747	-0.3	-1.2
A_23_P54622	KIF22	3835	-0.2	-1.2
A_24_P236251	DLK1	8788	-0.3	-1.2
A_23_P2990	CEBPE	1053	-0.3	-1.2
A_23_P68155	IFIH1	64135	-0.3	-1.2
A_23_P108280	CYP4F12	66002	-0.5	-1.2
A_23_P203419	FADS1	3992	-0.4	-1.2
A_23_P132159	USP18	11274	-0.2	-1.2
A_23_P212497	ACAD11	84129	-0.3	-1.2
A_32_P517749	RPS6KA3	6197	0.0	-1.2
A_23_P428875	TNFAIP8L1	126282	-0.2	-1.2
A_23_P217564	ACSL4	2182	-0.2	-1.2
A_23_P141126	GALK1	2584	-0.4	-1.2
A_23_P127068	SEMA4G	57715	-0.2	-1.2
A_23_P203191	APOA1	335	-0.4	-1.2
A_24_P53976	GLUL	2752	-0.5	-1.2
A_23_P379475	DHCR24	1718	-0.3	-1.2
A_24_P524452	HIST3H2BB	128312	-0.2	-1.2
A_23_P100660	SERPINF1	5176	-0.4	-1.2

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P86021	SELENBP1	8991	-0.3	-1.2
A_23_P144639	TMCO6	55374	-0.2	-1.2
A_24_P318593	SCRN2	90507	-0.4	-1.2
A_24_P48204	SECTM1	6398	-0.4	-1.2
A_23_P156907	SOBP	55084	-0.1	-1.2
A_23_P80902	KIF15	56992	-0.1	-1.2
A_23_P257164	AMT	275	-0.2	-1.2
A_23_P410587	PHF17	79960	-0.1	-1.2
A_24_P238499	C18orf56	494514	-0.4	-1.2
A_24_P896205	LOC645722	645722	-0.3	-1.2
A_23_P28697	HAAO	23498	-0.4	-1.2
A_32_P15544	PRIMA1	145270	-0.2	-1.2
A_23_P116898	A2M	2	-0.2	-1.2
A_23_P258018	MYL5	4636	-0.4	-1.2
A_23_P202053	ITIH2	3698	0.0	-1.2
A_23_P307761	CABLES2	81928	-0.3	-1.2
A_23_P388150	PLA2G12B	84647	-0.7	-1.2
A_23_P12405	ESPN	83715	-0.1	-1.2
A_23_P86874	KCNK7	10089	-0.6	-1.2
A_23_P3038	GPX2	2877	0.0	-1.2
A_23_P52031	PGM1	5236	-0.3	-1.3
A_32_P103633	MCM2	4171	0.0	-1.3
A_23_P147641	TCEA2	6919	-0.4	-1.3
A_24_P936171	AGMAT	79814	-0.2	-1.3
A_23_P252335	C21orf45	54069	-0.3	-1.3
A_23_P250122	FAM20C	56975	-0.3	-1.3
A_23_P41314	F11	2160	-0.6	-1.3
A_23_P86171	FOXD2	2306	-0.5	-1.3
A_23_P364613	DHDPSL	112817	-0.4	-1.3
A_23_P13753	NFE2	4778	-0.2	-1.3
A_23_P120822	UPB1	51733	-0.2	-1.3
A_23_P337168	C5orf33	133686	-0.5	-1.3
A_23_P90359	NRTN	4902	-0.3	-1.3
A_23_P344515	C16orf3	750	-0.5	-1.3
A_23_P1492	AVPI1	60370	-0.2	-1.3
A_23_P156185	SHROOM1	134549	-0.4	-1.3
A_23_P382000	AKR1D1	6718	-0.1	-1.3
A_23_P501831	C5orf4	10826	-0.2	-1.3
A_32_P122226	AMDHD1	144193	-0.4	-1.3
A_23_P87036	APOA4	337	-0.6	-1.3
A_24_P19228	GAMT	2593	-0.4	-1.3
A_24_P103886	IDI1	3422	-0.6	-1.3
A_23_P6822	ITIH3	3699	-0.2	-1.3
A_23_P103617	ANXA9	8416	-0.1	-1.3

probe	symbol	entrez	FC Cd2	FC Cd10
A_24_P655849	SMAD9	4093	0.0	-1.3
A_23_P29621	GLYCTK	132158	-0.3	-1.3
A_32_P152348	HIST1H2BD	3017	-0.2	-1.3
A_23_P212284	POC1A	25886	-0.3	-1.3
A_23_P19733	SLC22A3	6581	-0.4	-1.3
A_23_P36226	SLC25A33	84275	-0.3	-1.3
A_23_P217704	GYG2	8908	-0.2	-1.3
A_23_P201022	PKLR	5313	-0.2	-1.3
A_23_P421379	IGF2	3481	-0.2	-1.3
A_23_P353717	C16orf75	116028	0.0	-1.3
A_24_P270728	NUPR1	26471	-0.7	-1.3
A_23_P119254	ASF1B	55723	-0.2	-1.3
A_23_P78053	FAM117A	81558	-0.3	-1.3
A_24_P540057	CA5A	763	-0.2	-1.3
A_23_P35871	E2F8	79733	-0.2	-1.3
A_23_P315451	KIRREL2	84063	-0.2	-1.3
A_23_P100539	ABCC6	368	-0.3	-1.3
A_23_P110961	BRP44L	51660	-0.4	-1.3
A_23_P2492	C1S	716	-0.5	-1.3
A_24_P491397	LDLRAD1	388633	-0.1	-1.3
A_23_P31437	CYP2W1	54905	-0.3	-1.3
A_23_P21990	SLC23A1	9963	-0.2	-1.3
A_23_P133799	KLC4	89953	-0.2	-1.3
A_23_P56734	HNMT	3176	-0.6	-1.3
A_23_P162918	SERPINA3	12	-0.1	-1.3
A_23_P251499	PCOLCE	5118	-0.5	-1.3
A_23_P433865	C2	717	-0.3	-1.3
A_24_P116242	KLHDC2	23588	-0.3	-1.4
A_23_P30495	HMGCR	3156	-0.5	-1.4
A_23_P202334	FGFR2	2263	-0.1	-1.4
A_23_P415663	TIGD3	220359	-0.3	-1.4
A_23_P80473	CHST13	166012	-0.5	-1.4
A_23_P78099	VTN	7448	-0.4	-1.4
A_23_P420326	FNDC5	252995	-0.3	-1.4
A_23_P214281	PAQR8	85315	-0.3	-1.4
A_24_P372901	MVK	4598	-0.4	-1.4
A_24_P175612	SFXN2	118980	-0.3	-1.4
A_23_P14892	IGFALS	3483	-0.4	-1.4
A_23_P26154	PLIN1	5346	-0.4	-1.4
A_23_P75283	RBP4	5950	-0.4	-1.4
A_24_P301195	ACOT2	10965	-0.3	-1.4
A_23_P50081	IMPA2	3613	-0.3	-1.4
A_23_P125643	ASB9	140462	-0.5	-1.4
A_23_P116037	TM7SF2	7108	-0.5	-1.4

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P67799	TMEM37	140738	-0.6	-1.4
A_23_P151907	PCSK6	5046	-0.6	-1.4
A_23_P61960	ATP6V0E2	155066	-0.4	-1.4
A_24_P364381	MMAB	326625	-0.7	-1.4
A_23_P401098	TTC39C	125488	-0.4	-1.4
A_23_P170857	IL1RAP	3556	-0.4	-1.4
A_23_P407695	FAM151A	338094	-0.6	-1.4
A_23_P19657	LRP11	84918	-0.4	-1.4
A_23_P163992	GRB7	2886	-0.3	-1.4
A_23_P157333	EPHA1	2041	-0.4	-1.4
A_23_P121030	CPN2	1370	-0.2	-1.4
A_23_P215900	SCARA3	51435	-0.5	-1.4
A_23_P205355	SERPINA5	5104	-0.6	-1.4
A_23_P125579	MID1IP1	58526	-0.2	-1.4
A_32_P43084	ST6GAL1	6480	-0.3	-1.5
A_23_P383835	ACAT2	39	-0.6	-1.5
A_23_P35970	SLC37A4	2542	-0.4	-1.5
A_23_P80954	SLC26A1	10861	-0.5	-1.5
A_23_P40761	OSTalpha	200931	-0.8	-1.5
A_23_P139682	PZP	5858	-0.2	-1.5
A_23_P203751	TMEM135	65084	-0.3	-1.5
A_32_P31945	ACADSB	36	-0.5	-1.5
A_23_P54918	LDHD	197257	-0.6	-1.5
A_23_P38816	A1BG	1	-0.4	-1.5
A_24_P92472	CFI	3426	-0.4	-1.5
A_23_P131308	CYP27A1	1593	-0.3	-1.5
A_23_P91140	PECR	55825	-0.5	-1.5
A_23_P212508	TF	7018	-0.3	-1.5
A_23_P88559	LIPC	3990	-0.5	-1.5
A_23_P319640	LOC151534	151534	-0.4	-1.5
A_23_P35252	C8B	732	-0.2	-1.5
A_24_P404245	PCYT2	5833	-0.2	-1.5
A_24_P347431	FOXA1	3169	-0.2	-1.5
A_23_P70785	AIM1	202	-0.2	-1.5
A_24_P220548	ACSM2A	123876	-0.5	-1.5
A_23_P118894	PRR15L	79170	-0.4	-1.5
A_23_P85783	PHGDH	26227	-0.2	-1.5
A_32_P224157	C18orf1	753	-0.5	-1.5
A_23_P254512	EFNA1	1942	-0.5	-1.5
A_23_P97541	C4BPA	722	-0.2	-1.5
A_24_P141707	INHBE	83729	-0.7	-1.5
A_23_P23996	MAT1A	4143	-0.2	-1.5
A_23_P105939	C14orf73	91828	-0.4	-1.5
A_23_P164258	PIPOX	51268	-0.2	-1.5

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P30098	ADH4	127	-0.2	-1.6
A_24_P365442	SLC2A4RG	56731	-0.4	-1.6
A_24_P97825	CCDC69	26112	-0.6	-1.6
A_23_P98876	SLC39A5	283375	-0.4	-1.6
A_23_P67669	PGLYRP2	114770	-0.7	-1.6
A_23_P36129	DAK	26007	-0.2	-1.6
A_23_P85460	CDKN2C	1031	-0.6	-1.6
A_23_P47034	HHEX	3087	-0.4	-1.6
A_23_P349416	ERBB3	2065	-0.1	-1.6
A_23_P37205	NDRG2	57447	-0.3	-1.6
A_23_P120594	ACSS1	84532	-0.5	-1.6
A_23_P105973	SERPINA11	256394	-0.2	-1.6
A_23_P24784	TNNI2	7136	-0.6	-1.6
A_23_P340717	ONECUT1	3175	-0.3	-1.6
A_23_P49145	ZG16	653808	-0.9	-1.6
A_23_P120243	HOXD1	3231	-0.3	-1.6
A_23_P25720	SERPINA4	5267	-0.4	-1.6
A_23_P52266	IFIT1	3434	-0.6	-1.6
A_24_P233995	MOSC1	64757	-0.5	-1.6
A_24_P142503	SLC47A1	55244	-0.5	-1.6
A_32_P126222	LRRC47	57470	-0.3	-1.6
A_23_P8571	SRCRB4D	136853	-0.6	-1.6
A_24_P941773	METTL7A	25840	-0.3	-1.7
A_23_P30294	CDO1	1036	-0.7	-1.7
A_23_P82503	PEG10	23089	-0.3	-1.7
A_23_P104224	A1CF	29974	-0.4	-1.7
A_23_P167227	HADH	3033	-0.6	-1.7
A_23_P4190	ACSF2	80221	-0.6	-1.7
A_23_P156687	CFB	629	-0.4	-1.7
A_23_P130027	EPN3	55040	-0.1	-1.7
A_23_P155487	SLC38A3	10991	-0.4	-1.7
A_23_P17914	PNPLA3	80339	-0.7	-1.7
A_24_P40306	SERPIND1	3053	-0.7	-1.7
A_23_P139687	ERP27	121506	-0.7	-1.7
A_23_P8981	STAR	6770	-0.7	-1.7
A_23_P138665	GLUD1	2746	-0.4	-1.7
A_23_P62607	IL22RA1	58985	-0.5	-1.7
A_23_P20484	FGL1	2267	-0.3	-1.7
A_23_P71855	C5	727	-0.2	-1.7
A_23_P7965	PGC	5225	-0.3	-1.7
A_23_P35414	PPP1R3C	5507	-0.5	-1.7
A_24_P115932	GPR44	11251	-0.4	-1.7
A_23_P207445	MAP2K6	5608	-0.5	-1.7
A_32_P465742	PIP5K1B	8395	-0.3	-1.7

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P313588	TMPRSS6	164656	-0.5	-1.8
A_24_P109375	TRIM74	378108	-0.5	-1.8
A_23_P45361	GLUD2	2747	-0.4	-1.8
A_32_P45009	IDH1	3417	-0.5	-1.8
A_23_P121926	SEPP1	6414	-0.6	-1.8
A_23_P34376	TCEA3	6920	-0.4	-1.8
A_23_P129896	ALDH3A2	224	-0.5	-1.8
A_23_P406782	HPN	3249	-0.5	-1.8
A_23_P160433	C1orf115	79762	-0.6	-1.8
A_23_P31921	ASS1	445	-0.5	-1.8
A_23_P202978	CASP1	834	-0.6	-1.8
A_23_P87401	GDPD5	81544	-0.5	-1.8
A_24_P164549	RAB11FIP4	84440	-0.4	-1.8
A_23_P41498	ADH6	130	-0.1	-1.8
A_23_P135417	GSTA1	2938	-0.6	-1.8
A_24_P365721	SLC6A14	11254	-0.1	-1.8
A_23_P166269	FAM3B	54097	-0.6	-1.8
A_23_P253495	GSTA3	2940	-0.7	-1.8
A_23_P114423	RGN	9104	-0.4	-1.8
A_23_P81581	BHMT	635	-0.7	-1.9
A_23_P161998	HPX	3263	-0.4	-1.9
A_24_P126210	MRAP	56246	-0.9	-1.9
A_32_P154342	SLCO4C1	353189	-0.6	-1.9
A_23_P308136	TRIM50	135892	-0.5	-1.9
A_23_P108054	TMEM86B	255043	-0.6	-1.9
A_24_P224727	CEBPA	1050	-0.3	-1.9
A_23_P212258	KNG1	3827	-0.9	-1.9
A_23_P120902	LGALS2	3957	-1.1	-1.9
A_23_P57417	MMP11	4320	-0.9	-1.9
A_24_P417189	DUSP9	1852	-0.3	-1.9
A_23_P128967	ALDH6A1	4329	-0.4	-1.9
A_23_P304110	ANKRD43	134548	-0.4	-1.9
A_23_P165201	PRODH2	58510	-0.6	-1.9
A_24_P623734	C2orf72	257407	-0.2	-1.9
A_23_P145786	MLXIPL	51085	-0.4	-2.0
A_32_P134290	ZCCHC2	54877	-0.1	-2.0
A_23_P93141	GSTA5	221357	-0.7	-2.0
A_24_P402510	SAMD11	148398	-0.4	-2.0
A_23_P64617	FZD4	8322	-0.3	-2.0
A_23_P404536	ENPP3	5169	-0.4	-2.0
A_23_P117298	F7	2155	-0.6	-2.0
A_23_P8834	EPHX2	2053	-0.3	-2.0
A_23_P428738	ANG	283	-0.4	-2.0
A_23_P376088	LIME1	54923	-0.5	-2.0

probe	symbol	entrez	FC Cd2	FC Cd10
A_23_P11739	MIXL1	83881	0.1	-2.0
A_32_P228341	LOC149703	149703	-0.4	-2.1
A_23_P94338	ENPP2	5168	-0.5	-2.1
A_23_P125303	IGSF1	3547	-0.5	-2.1
A_23_P203183	APOC3	345	-0.6	-2.1
A_24_P356916	SLC13A3	64849	-0.3	-2.1
A_32_P147651	LOC100289632	100289632	-0.6	-2.1
A_23_P250444	GJB1	2705	-0.5	-2.2
A_23_P114626	SERPINC1	462	-0.4	-2.2
A_23_P66739	SLC13A5	284111	-0.4	-2.2
A_23_P130677	LOC55908	55908	-0.6	-2.2
A_32_P142440	PCSK9	255738	-0.6	-2.2
A_23_P66328	ACSM2B	348158	-0.8	-2.2
A_23_P46639	C8A	731	-0.5	-2.2
A_24_P224684	SULT2A1	6822	-0.6	-2.3
A_24_P242581	SLC5A9	200010	-0.4	-2.3
A_23_P201551	VAV3	10451	-0.3	-2.3
A_24_P49260	SPTLC3	55304	-0.6	-2.3
A_23_P7957	GNMT	27232	-1.1	-2.3
A_23_P145644	DDC	1644	-0.6	-2.3
A_23_P18223	ITIH1	3697	-0.6	-2.3
A_23_P145669	EPO	2056	-0.5	-2.3
A_23_P165162	HAMP	57817	-0.7	-2.4
A_23_P45811	DIO1	1733	-0.7	-2.4
A_23_P213171	MTTP	4547	-0.6	-2.4
A_24_P926410	PAH	5053	-0.4	-2.4
A_24_P300394	GSTA2	2939	-0.9	-2.4
A_23_P53417	PPP1R1A	5502	-1.1	-2.4
A_23_P75630	APOA5	116519	-0.6	-2.4
A_23_P66891	CDC42EP4	23580	-0.4	-2.5
A_23_P136125	FGB	2244	-0.4	-2.5
A_23_P350617	KLB	152831	-0.8	-2.5
A_23_P89270	SERPINF2	5345	-0.5	-2.5
A_23_P93213	SLC22A7	10864	-0.5	-2.6
A_24_P282251	FGA	2243	-0.4	-2.6
A_32_P51237	KANK4	163782	-0.6	-2.6
A_23_P86242	SLC30A10	55532	-0.9	-2.7
A_23_P117363	SERPINA6	866	-1.0	-2.7
A_23_P148088	FGG	2266	-0.5	-2.8
A_24_P268993	LEAP2	116842	-1.0	-2.8
A_23_P206760	HP	3240	-0.5	-3.0
A_23_P421493	HPR	3250	-0.5	-3.0
A_23_P25396	NR1H4	9971	-0.7	-3.1
A_24_P283324	ALDH8A1	64577	-1.0	-3.1