

Table S1

SYMBOL	ENTREZID	ENSEMBL	GENENAME
MMP2	4313	ENSG00000	matrix metalloproteinase 2
ADCY2	108	ENSG00000	adenylate cyclase 2
APP	351	ENSG00000	amyloid beta precursor protein
AR	367	ENSG00000	androgen receptor
XAF1	54739	ENSG00000	XIAP associated factor 1
BIRC5	332	ENSG00000	baculoviral IAP repeat containing 5
BCL2L1	598	ENSG00000	BCL2 like 1
CASP3	836	ENSG00000	caspase 3
CASP7	840	ENSG00000	caspase 7
CASP9	842	ENSG00000	caspase 9
CD40LG	959	ENSG00000	CD40 ligand
CDK4	1019	ENSG00000	cyclin dependent kinase 4
TP53	7157	ENSG00000	tumor protein p53
CDKN1A	1026	ENSG00000	cyclin dependent kinase inhibitor 1A
DPP4	1803	ENSG00000	dipeptidyl peptidase 4
TOP1	7150	ENSG00000	DNA topoisomerase I
TOP2A	7153	ENSG00000	DNA topoisomerase II alpha
MDM2	4193	ENSG00000	MDM2 proto-oncogene
EGFR	1956	ENSG00000	epidermal growth factor receptor
CCND1	595	ENSG00000	cyclin D1
CCNB1	891	ENSG00000	cyclin B1
GSTP1	2950	ENSG00000	glutathione S-transferase pi 1
HSP90	3320	ENSG00000	Heat Shock Protein 90 Alpha Family Class A Member?
HMOX1	3162	ENSG00000	heme oxygenase 1
MET	4233	ENSG00000	MET proto-oncogene, receptor tyrosine kinase
MCL1	4170	ENSG00000	MCL1 apoptosis regulator, BCL2 family member
INSR	3643	ENSG00000	insulin receptor
ICAM1	3383	ENSG00000	intercellular adhesion molecule 1
IFNG	3458	ENSG00000	interferon gamma
IL10	3586	ENSG00000	interleukin 10
IL2	3558	ENSG00000	interleukin 2
IL4	3565	ENSG00000	interleukin 4
IL6	3569	ENSG00000	interleukin 6
MMP1	4312	ENSG00000	matrix metalloproteinase 1
NUF2	83540	ENSG00000	NUF2 component of NDC80 kinetochore complex
MMP9	4318	ENSG00000	matrix metalloproteinase 9
MAPK1	5594	ENSG00000	mitogen-activated protein kinase 1
PRKACA	5566	ENSG00000	protein kinase cAMP-activated catalytic subunit alpha
NFKBIA	4792	ENSG00000	NFKB inhibitor alpha
NCOA2	10499	ENSG00000	nuclear receptor coactivator 2
PPARG	5468	ENSG00000	peroxisome proliferator activated receptor gamma
PIK3CG	5294	ENSG00000	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma
PCNA	5111	ENSG00000	proliferating cell nuclear antigen
PTGES	9536	ENSG00000	prostaglandin E synthase
PTGS1	5742	ENSG00000	prostaglandin-endoperoxide synthase 1
PTGS2	5743	ENSG00000	prostaglandin-endoperoxide synthase 2
AKT1	207	ENSG00000	AKT serine/threonine kinase 1
ERBB2	2064	ENSG00000	erb-b2 receptor tyrosine kinase 2
RB1	5925	ENSG00000	RB transcriptional corepressor 1
SLC2A4	6517	ENSG00000	solute carrier family 2 member 4
JUN	3725	ENSG00000	Jun proto-oncogene, AP-1 transcription factor subunit
RELA	5970	ENSG00000	RELA proto-oncogene, NF-kB subunit
PRSS1	5644	ENSG00000	serine protease 1
TNF	7124	ENSG00000	tumor necrosis factor

TYR	7299	ENSG00000	tyrosinase
VEGFA	7422	ENSG00000	vascular endothelial growth factor A
XDH	7498	ENSG00000	xanthine dehydrogenase
PSMD3	5709	ENSG00000	proteasome 26S subunit, non-ATPase 3
CL6EHI_001NA		ECK120002	hypothetical protein
ACHE	43	ENSG00000	acetylcholinesterase (Cartwright blood group)
ACACA	31	ENSG00000	acetyl-CoA carboxylase alpha
AHSA1	10598	ENSG00000	activator of HSP90 ATPase activity 1
AKR1B10	57016	ENSG00000	aldo-keto reductase family 1 member B10
MAOB	4129	ENSG00000	monoamine oxidase B
BAX	581	ENSG00000	BCL2 associated X, apoptosis regulator
BCL2	596	ENSG00000	BCL2 apoptosis regulator
ALOX5	240	ENSG00000	arachidonate 5-lipoxygenase
AHR	196	ENSG00000	aryl hydrocarbon receptor
ABCA2	20	ENSG00000	ATP binding cassette subfamily A member 2
ADRB2	154	ENSG00000	adrenoceptor beta 2
CASP8	841	ENSG00000	caspase 8
CTSD	1509	ENSG00000	cathepsin D
CAV1	857	ENSG00000	caveolin 1
CCL2	6347	ENSG00000	C-C motif chemokine ligand 2
CDK1	983	ENSG00000	cyclin dependent kinase 1
CLDN4	1364	ENSG00000	claudin 4
F7	2155	ENSG00000	coagulation factor VII
F10	2159	ENSG00000	coagulation factor X
COL19A1	1310	ENSG00000	collagen type XIX alpha 1 chain
COL3A1	1281	ENSG00000	collagen type III alpha 1 chain
CRP	1401	ENSG00000	C-reactive protein
CXCL10	3627	ENSG00000	C-X-C motif chemokine ligand 10
CXCL11	6373	ENSG00000	C-X-C motif chemokine ligand 11
CXCL2	2920	ENSG00000	C-X-C motif chemokine ligand 2
CDKN2A	1029	ENSG00000	cyclin dependent kinase inhibitor 2A
CYP1A1	1543	ENSG00000	cytochrome P450 family 1 subfamily A member 1
CYP1A2	1544	ENSG00000	cytochrome P450 family 1 subfamily A member 2
CYP1B1	1545	ENSG00000	cytochrome P450 family 1 subfamily B member 1
CYP3A4	1576	ENSG00000	cytochrome P450 family 3 subfamily A member 4
DCAF5	8816	ENSG00000	DDB1 and CUL4 associated factor 5
gyrB	NA	ECK120002	DNA gyrase subunit B
TOP2	7153	ENSG00000	DNA Topoisomerase II Alpha
DUOX2	50506	ENSG00000	dual oxidase 2
SELE	6401	ENSG00000	selectin E
SULT1E1	6783	ENSG00000	sulfotransferase family 1E member 1
ELK1	2002	ENSG00000	ETS transcription factor ELK1
EIF6	3692	ENSG00000	eukaryotic translation initiation factor 6
GABRA1	2554	ENSG00000	gamma-aminobutyric acid type A receptor subunit alpha1
GJA1	2697	ENSG00000	gap junction protein alpha 1
GSTM1	2944	ENSG00000	glutathione S-transferase mu 1
GSTM2	2946	ENSG00000	glutathione S-transferase mu 2
HSF1	3297	ENSG00000	heat shock transcription factor 1
HSPB1	3315	ENSG00000	heat shock protein family B (small) member 1
HK2	3099	ENSG00000	hexokinase 2
NKX3-1	4824	ENSG00000	NK3 homeobox 1
HAS2	3037	ENSG00000	hyaluronan synthase 2
HIF1A	3091	ENSG00000	hypoxia inducible factor 1 subunit alpha
CHUK	1147	ENSG00000	component of inhibitor of nuclear factor kappa B kinase complex
IGFBP3	3486	ENSG00000	insulin like growth factor binding protein 3
IGF2	3481	ENSG00000	insulin like growth factor 2
IRF1	3659	ENSG00000	interferon regulatory factor 1

IL1A	3552	ENSG000000000000	interleukin 1 alpha
IL1B	3553	ENSG000000000000	interleukin 1 beta
CXCL8	3576	ENSG000000000000	C-X-C motif chemokine ligand 8
MGAM	8972	ENSG000000000000	maltase-glucoamylase
MYC	4609	ENSG000000000000	MYC proto-oncogene, bHLH transcription factor
MPO	4353	ENSG000000000000	myeloperoxidase
NQO1	1728	ENSG000000000000	NAD(P)H quinone dehydrogenase 1
POR	5447	ENSG000000000000	cytochrome p450 oxidoreductase
NCF1	653361	ENSG000000000000	neutrophil cytosolic factor 1
NOS3	4846	ENSG000000000000	nitric oxide synthase 3
NFE2L2	4780	ENSG000000000000	NFE2 like bZIP transcription factor 2
NR1I2	8856	ENSG000000000000	nuclear receptor subfamily 1 group I member 2
NR1I3	9970	ENSG000000000000	nuclear receptor subfamily 1 group I member 3
ODC1	4953	ENSG000000000000	ornithine decarboxylase 1
SPP1	6696	ENSG000000000000	secreted phosphoprotein 1
PRXC1A	839477	AT3G11630	Peroxidase
PPARA	5465	ENSG000000000000	peroxisome proliferator activated receptor alpha
PPARD	5467	ENSG000000000000	peroxisome proliferator activated receptor delta
PTEN	5728	ENSG000000000000	phosphatase and tensin homolog
SERPINE1	5054	ENSG000000000000	serpin family E member 1
PARP1	142	ENSG000000000000	poly(ADP-ribose) polymerase 1
KCNH2	3757	ENSG000000000000	potassium voltage-gated channel subfamily H member 2
HERC5	51191	ENSG000000000000	HECT and RLD domain containing E3 ubiquitin protein ligase 5
PCOLCE	5118	ENSG000000000000	procollagen C-endopeptidase enhancer
EGF	1950	ENSG000000000000	epidermal growth factor
PTGER3	5733	ENSG000000000000	prostaglandin E receptor 3
ACP3	55	ENSG000000000000	acid phosphatase 3
RUNX1T1	862	ENSG000000000000	RUNX1 partner transcriptional co-repressor 1
PRKCA	5578	ENSG000000000000	protein kinase C alpha
PRKCB	5579	ENSG000000000000	protein kinase C beta
FOS	2353	ENSG000000000000	Fos proto-oncogene, AP-1 transcription factor subunit
NPEPPS	9520	ENSG000000000000	aminopeptidase puromycin sensitive
RAF1	5894	ENSG000000000000	Raf-1 proto-oncogene, serine/threonine kinase
RASSF1	11186	ENSG000000000000	Ras association domain family member 1
RASA1	5921	ENSG000000000000	RAS p21 protein activator 1
ERBB3	2065	ENSG000000000000	erb-b2 receptor tyrosine kinase 3
RXRA	6256	ENSG000000000000	retinoid X receptor alpha
RUNX2	860	ENSG000000000000	RUNX family transcription factor 2
CHEK2	11200	ENSG000000000000	checkpoint kinase 2
PON1	5444	ENSG000000000000	paraoxonase 1
STAT1	6772	ENSG000000000000	signal transducer and activator of transcription 1
SCN5A	6331	ENSG000000000000	sodium voltage-gated channel alpha subunit 5
MMP3	4314	ENSG000000000000	matrix metalloproteinase 3
SOD1	6647	ENSG000000000000	superoxide dismutase 1
F2	2147	ENSG000000000000	coagulation factor II, thrombin
THBD	7056	ENSG000000000000	thrombomodulin
F3	2152	ENSG000000000000	coagulation factor III, tissue factor
PLAT	5327	ENSG000000000000	plasminogen activator, tissue type
E2F1	1869	ENSG000000000000	E2F transcription factor 1
E2F2	1870	ENSG000000000000	E2F transcription factor 2
TGFB1	7040	ENSG000000000000	transforming growth factor beta 1
DIO1	1733	ENSG000000000000	iodothyronine deiodinase 1
PLAU	5328	ENSG000000000000	plasminogen activator, urokinase
VCAM1	7412	ENSG000000000000	vascular cell adhesion molecule 1
BBC3	27113	ENSG000000000000	BCL2 binding component 3
CALM	801	ENSG000000000000	Calmodulin 1
CDK2	1017	ENSG000000000000	cyclin dependent kinase 2

PDE3A	5139	ENSG00000	phosphodiesterase 3A
ESR1	2099	ENSG00000	estrogen receptor 1
FN1	2335	ENSG00000	fibronectin 1
GSK3B	2932	ENSG00000	glycogen synthase kinase 3 beta
MAPK14	1432	ENSG00000	mitogen-activated protein kinase 14
NOS2	4843	ENSG00000	nitric oxide synthase 2
PRKCD	5580	ENSG00000	protein kinase C delta
CHEK1	1111	ENSG00000	checkpoint kinase 1
TEP1	7011	ENSG00000	telomerase associated protein 1
KDR	3791	ENSG00000	kinase insert domain receptor
CCNA2	890	ENSG00000	cyclin A2
PIM1	5292	ENSG00000	Pim-1 proto-oncogene, serine/threonine kinase
ADRA1A	148	ENSG00000	adrenoceptor alpha 1A
ADRA1B	147	ENSG00000	adrenoceptor alpha 1B
PKIA	5569	ENSG00000	cAMP-dependent protein kinase inhibitor alpha
DRD1	1812	ENSG00000	dopamine receptor D1
CHRM1	1128	ENSG00000	cholinergic receptor muscarinic 1
CHRM3	1131	ENSG00000	cholinergic receptor muscarinic 3
CHRNA7	1139	ENSG00000	cholinergic receptor nicotinic alpha 7 subunit
SLC6A3	6531	ENSG00000	solute carrier family 6 member 3
SLC6A4	6532	ENSG00000	solute carrier family 6 member 4
ADRB1	153	ENSG00000	adrenoceptor beta 1
LTA4H	4048	ENSG00000	leukotriene A4 hydrolase
ESR2	2100	ENSG00000	estrogen receptor 2
DPEP1	1800	ENSG00000	dipeptidase 1
GABRA6	2559	ENSG00000	gamma-aminobutyric acid type A receptor subunit alpha6
GRIA2	2891	ENSG00000	glutamate ionotropic receptor AMPA type subunit 2
CHRM5	1133	ENSG00000	cholinergic receptor muscarinic 5
ADRA1D	146	ENSG00000	adrenoceptor alpha 1D
KCNMA1	3778	ENSG00000	potassium calcium-activated channel subfamily M alpha 1
HTR2A	3356	ENSG00000	5-hydroxytryptamine receptor 2A
camC	NA	BSU16650	Calmodulin-Like Protein
GABRA2	2555	ENSG00000	gamma-aminobutyric acid type A receptor subunit alpha2
GABRA3	2556	ENSG00000	gamma-aminobutyric acid type A receptor subunit alpha3
GABRA5	2558	ENSG00000	gamma-aminobutyric acid type A receptor subunit alpha5
MAP2	4133	ENSG00000	microtubule associated protein 2
CHRM2	1129	ENSG00000	cholinergic receptor muscarinic 2
CHRM4	1132	ENSG00000	cholinergic receptor muscarinic 4
OPRM1	4988	ENSG00000	opioid receptor mu 1
CHRNA2	1135	ENSG00000	cholinergic receptor nicotinic alpha 2 subunit
PGR	5241	ENSG00000	progesterone receptor
NR3C2	4306	ENSG00000	nuclear receptor subfamily 3 group C member 2
ADH1C	126	ENSG00000	alcohol dehydrogenase 1C (class I), gamma polypeptide
ADRA2A	150	ENSG00000	adrenoceptor alpha 2A
MAOA	4128	ENSG00000	monoamine oxidase A
CTRB1	1504	ENSG00000	chymotrypsinogen B1
IGHG1	3500	ENSG00000	immunoglobulin heavy constant gamma 1 (G1m marker)
NCOA1	8648	ENSG00000	nuclear receptor coactivator 1
SLC6A2	6530	ENSG00000	solute carrier family 6 member 2
NR3C1	2908	ENSG00000	nuclear receptor subfamily 3 group C member 1
HTR2C	3358	ENSG00000	5-hydroxytryptamine receptor 2C
OPRD1	4985	ENSG00000	opioid receptor delta 1
HRH1	3269	ENSG00000	histamine receptor H1
fhuA	NA	ECK120003	Ferrichrome-Iron Receptor
RHO	6010	ENSG00000	rhodopsin
APOD	347	ENSG00000	apolipoprotein D
ALOX12	239	ENSG00000	arachidonate 12-lipoxygenase, 12S type

Table S2

SYMBOL	ENTREZID	ENSEMBL	GENENAME
BCL2L1	598	ENSG00000108110	BCL2 like 1
CCNB1	891	ENSG00000108110	cyclin B1
MET	4233	ENSG00000108110	MET proto-oncogene, receptor tyrosine kinase
ICAM1	3383	ENSG00000108110	intercellular adhesion molecule 1
PIK3CG	5294	ENSG00000108110	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma
PTGS2	5743	ENSG00000108110	prostaglandin-endoperoxide synthase 2
XDH	7498	ENSG00000108110	xanthine dehydrogenase
AKR1B10	57016	ENSG00000108110	aldo-keto reductase family 1 member B10
CLDN4	1364	ENSG00000108110	claudin 4
EIF6	3692	ENSG00000108110	eukaryotic translation initiation factor 6
NQO1	1728	ENSG00000108110	NAD(P)H quinone dehydrogenase 1
ERBB3	2065	ENSG00000108110	erb-b2 receptor tyrosine kinase 3
MMP3	4314	ENSG00000108110	matrix metalloproteinase 3
ADRA1D	146	ENSG00000108110	adrenoceptor alpha 1D
HRH1	3269	ENSG00000108110	histamine receptor H1
NFATC1	4772	ENSG00000108110	nuclear factor of activated T cells 1