Supplementary Table 2. *Down-regulated genes mapped to the IPA database*

Gene	Description	Fold	*P*-like value
ABCG8	ATP-binding cassette, sub-family G (WHITE), member 8	-5.669	2.56E-03
ACACA	acetyl-Coenzyme A carboxylase alpha	-2.992	2.61E-02
ACSM1	acyl-CoA synthetase medium-chain family member 1	-1.207	1.04E-05
AGTR1	angiotensin II receptor, type 1	-1.329	5.41E-03
AHSG	alpha-2-HS-glycoprotein	-1.269	6.14E-03
AIF1L	allograft inflammatory factor 1-like	-1.751	1.33E-02
AKR1A1	aldo-keto reductase family 1, member A1 (aldehyde reductase)	-1.096	3.98E-02
ALCAM	activated leukocyte cell adhesion molecule	-1.280	4.40E-02
ALDH1A1	aldehyde dehydrogenase 1 family, member A1	-1.122	1.38E-02
AOX1	aldehyde oxidase 1	-1.595	1.82E-06
AP3S1	adaptor-related protein complex 3, sigma 1 subunit	-1.284	5.06E-03
APOH	apolipoprotein H (beta-2-glycoprotein I)	-1.161	7.41E-03
ARHGDIB	Rho GDP dissociation inhibitor (GDI) beta	-1.219	5.62E-03
ARHGEF12	Rho guanine nucleotide exchange factor (GEF) 12	-1.141	6.04E-03
ARL4D	ADP-ribosylation factor-like 4D	-1.424	1.34E-02
ASPN	asporin	-1.249	4.34E-02
ATP5G2	ATP synthase, H+ transporting, mitochondrial F0 complex, subunit C2 (subunit 9)	-1.125	1.83E-02
BEX2	brain expressed X-linked 2	-1.227	5.38E-03
BPNT1	3'(2'), 5'-bisphosphate nucleotidase 1	-1.140	3.94E-03
BTG1	B-cell translocation gene 1, anti-proliferative	-1.444	1.91E-02
C12ORF44	chromosome 12 open reading frame 44	-1.132	1.28E-02
C13ORF27	chromosome 13 open reading frame 27	-1.590	1.43E-03
C14ORF129	chromosome 14 open reading frame 129	-1.288	8.15E-04
C1GALT1	core 1 synthase, glycoprotein-N-acetylgalactosamine 3-beta-galactosyltransferase, 1	-1.391	9.59E-04
C9ORF64	chromosome 9 open reading frame 64	-1.180	1.22E-03
CA3	carbonic anhydrase III, muscle specific	-1.888	6.63E-03
CARHSP1	calcium regulated heat stable protein 1, 24kDa	-1.396	4.10E-04
CCL19	chemokine (C-C motif) ligand 19	-1.499	3.06E-02
CCNG1	cyclin G1	-1.399	6.76E-05
CD14	CD14 molecule	-1.392	1.43E-02
CDK7	cyclin-dependent kinase 7	-1.217	1.72E-03
CES2 (includes EG:8824)	carboxylesterase 2 (intestine, liver)	-1.481	3.47E-03
CHPT1	choline phosphotransferase 1	-1.276	1.59E-06
CHUK	conserved helix-loop-helix ubiquitous kinase	-1.142	3.56E-04
CIB1	calcium and integrin binding 1 (calmyrin)	-1.146	2.50E-02
CLIC1	chloride intracellular channel 1	-1.155	4.70E-02
CNIH	cornichon homolog (Drosophila)	-1.141	2.22E-02
COPB1	coatomer protein complex, subunit beta 1	-1.168	1.15E-03
COX6B1	cytochrome c oxidase subunit Vib polypeptide 1 (ubiquitous)	-1.076	3.49E-02
CYLD	cylindromatosis (turban tumor syndrome)	-1.399	5.19E-04
CYP2E1	cytochrome P450, family 2, subfamily E, polypeptide 1	-1.156	1.66E-02
CYP2U1	cytochrome P450, family 2, subfamily U, polypeptide 1	-1.331	2.48E-03
DCN	decorin	-1.116	1.08E-02
DHRS7 (includes EG:51635)	dehydrogenase/reductase (SDR family) member 7	-1.214	6.18E-04
DIRAS3	DIRAS family, GTP-binding RAS-like 3	-6.865	6.35E-07

DNAJA1	DnaJ (Hsp40) homolog, subfamily A, member 1	-1.313	8.30E-03
DSG1	desmoglein 1	-2.105	3.56E-02
DUSP10	dual specificity phosphatase 10	-1.616	2.18E-06
ECHDC2	enoyl Coenzyme A hydratase domain containing 2	-1.232	5.65E-04
EFNA1	ephrin-A1	-1.558	2.69E-02
EIF2C3	eukaryotic translation initiation factor 2C, 3	-1.143	2.47E-02
EIF3H	eukaryotic translation initiation factor 3, subunit H	-1.189	1.65E-04
EIF4EBP1	eukaryotic translation initiation factor 4E binding protein 1	-1.362	3.20E-03
ENPEP	glutamyl aminopeptidase (aminopeptidase A)	-1.298	1.02E-02
EPB41L5	erythrocyte membrane protein band 4.1 like 5	-1.249	3.33E-03
ERRFI1	ERBB receptor feedback inhibitor 1	-1.248	4.91E-02
FABP1	fatty acid binding protein 1, liver	-1.302	1.51E-03
FADS2	fatty acid desaturase 2	-19.603	7.97E-10
FAM98A	family with sequence similarity 98, member A	-1.150	8.03E-03
FARS2	phenylalanyl-tRNA synthetase 2, mitochondrial	-2.051	2.00E-03
FBXO34	F-box protein 34	-1.118	2.09E-02
FBXO9	F-box protein 9	-1.247	2.27E-02
FOXA3	forkhead box A3	-2.048	7.39E-04
FUBP1	far upstream element (FUSE) binding protein 1	-1.222	2.14E-02
FXR1	fragile X mental retardation, autosomal homolog 1	-1.259	2.30E-06
GALM	galactose mutarotase (aldose 1-epimerase)	-1.376	1.48E-03
GAMT	guanidinoacetate N-methyltransferase	-1.146	1.67E-03
GJA1	gap junction protein, alpha 1, 43kDa	-1.387	1.23E-04
GJC1	gap junction protein, gamma 1, 45kDa	-2.418	1.96E-02
GKAP1	G kinase anchoring protein 1	-1.211	1.80E-04
GNG11	guanine nucleotide binding protein (G protein), gamma 11	-1.290	4.51E-03
GNPTG	N-acetylglucosamine-1-phosphate transferase, gamma subunit	-1.190	3.47E-02
GNS	glucosamine (N-acetyl)-6-sulfatase	-1.121	2.67E-02
GPBP1	GC-rich promoter binding protein 1	-1.082	2.55E-02
GPR37	G protein-coupled receptor 37 (endothelin receptor type B-like)	-1.842	1.30E-03
GTF2H1	general transcription factor IIH, polypeptide 1, 62kDa	-1.115	4.01E-02
HAT1	histone acetyltransferase 1	-1.173	9.28E-04
HBB (includes EG:3043)	hemoglobin, beta	-4.384	3.66E-04
HDGF	hepatoma-derived growth factor (high-mobility group protein 1-like)	-1.245	3.36E-04
HEXIM1	hexamethylene bis-acetamide inducible 1	-1.392	7.68E-03
HEYL	hairy/enhancer-of-split related with YRPW motif-like	-2.270	9.35E-06
HIBADH	3-hydroxyisobutyrate dehydrogenase	-1.138	9.95E-03
HSD17B2	hydroxysteroid (17-beta) dehydrogenase 2	-1.849	2.88E-07
HSD17B4	hydroxysteroid (17-beta) dehydrogenase 4	-1.184	2.15E-02
IGFALS	insulin-like growth factor binding protein, acid labile subunit	-6.422	6.43E-05
IGFBP3	insulin-like growth factor binding protein 3	-1.680	1.43E-08
IHPK2	inositol hexakisphosphate kinase 2	-1.426	1.07E-02
INTS7	integrator complex subunit 7	-1.585	1.62E-02
ITFG1	integrin alpha FG-GAP repeat containing 1	-1.218	2.65E-04
ITM2B	integral membrane protein 2B	-1.136	1.76E-02
KIAA1191	KIAA1191	-1.316	3.99E-04
LAPTM4A	lysosomal protein transmembrane 4 alpha	-1.212	6.30E-03
LEAP2	liver expressed antimicrobial peptide 2	-1.384	1.41E-02
LIPC	lipase, hepatic	-1.385	2.49E-02

LSM8	LSM8 homolog, U6 small nuclear RNA associated (S. cerevisiae)	-1.112	3.95E-02
MCTS1	malignant T cell amplified sequence 1	-1.219	5.19E-03
MED31	mediator complex subunit 31	-1.158	3.40E-02
MIS12	MIS12, MIND kinetochore complex component, homolog (yeast)	-1.423	2.03E-04
MON1A	MON1 homolog A (yeast)	-1.124	1.85E-02
MRPL23	mitochondrial ribosomal protein L23	-1.189	2.20E-04
NFIA	nuclear factor I/A	-1.275	8.73E-03
NFYB	nuclear transcription factor Y, beta	-1.820	9.50E-13
NMNAT1	nicotinamide nucleotide adenylyltransferase 1	-1.171	2.72E-02
NPM1 (includes EG:18148)	nucleophosmin 1	-1.150	2.88E-02
NR2F1	nuclear receptor subfamily 2, group F, member 1	-1.189	2.75E-02
NRXN1	neurexin 1	-1.337	3.49E-02
OAZ1	ornithine decarboxylase antizyme 1	-1.123	2.13E-02
OLFML3	olfactomedin-like 3	-1.348	1.23E-04
OSGIN1	oxidative stress induced growth inhibitor 1	-1.244	1.70E-02
OSTF1	osteoclast stimulating factor 1	-1.206	6.19E-03
OTC	ornithine carbamoyltransferase	-1.274	2.44E-02
PAH	phenylalanine hydroxylase	-1.110	2.77E-02
PDCD4	programmed cell death 4 (neoplastic transformation inhibitor)	-1.311	8.61E-03
PHF23	PHD finger protein 23	-1.513	4.89E-02
PKLR	pyruvate kinase, liver and RBC	-1.638	2.16E-05
PNRC2 (includes EG:55629)	proline-rich nuclear receptor coactivator 2	-1.168	6.19E-03
PPM1B	protein phosphatase 1B (formerly 2C), magnesium-dependent, beta isoform	-1.105	1.98E-03
PPP1CC	protein phosphatase 1, catalytic subunit, gamma isoform	-1.215	7.65E-05
PRSS23	protease, serine, 23	-1.296	7.58E-05
PRSS35	protease, serine, 35	-1.505	2.81E-04
PSMA7	proteasome (prosome, macropain) subunit, alpha type, 7	-1.097	3.54E-02
PSMB3	proteasome (prosome, macropain) subunit, beta type, 3	-1.104	2.90E-02
PSMD5	proteasome (prosome, macropain) 26S subunit, non-ATPase, 5	-1.091	3.92E-02
PSME2	proteasome (prosome, macropain) activator subunit 2 (PA28 beta)	-1.232	5.96E-04
PTH1R	parathyroid hormone 1 receptor	-1.307	1.39E-02
PYCARD	PYD and CARD domain containing	-1.248	1.67E-02
RAB5A	RAB5A, member RAS oncogene family	-1.204	2.73E-02
RABGEF1	RAB guanine nucleotide exchange factor (GEF) 1	-1.244	3.98E-02
RAMP1	receptor (G protein-coupled) activity modifying protein 1	-1.222	2.95E-02
RAP2C	RAP2C, member of RAS oncogene family	-1.698	1.11E-06
RB1	retinoblastoma 1	-1.279	1.46E-03
RBM14	RNA binding motif protein 14	-1.162	3.46E-02
RGS5	regulator of G-protein signaling 5	-1.808	3.14E-03
RNF128	ring finger protein 128	-1.243	1.60E-03
RPAIN	RPA interacting protein	-1.301	3.49E-04
RPL10A (includes EG:4736)	ribosomal protein L10a	-1.122	1.48E-03
RPL13	ribosomal protein L13	-1.137	1.21E-03
RPL18	ribosomal protein L18	-1.140	1.36E-02
RPL24	ribosomal protein L24	-1.116	1.61E-02
RPS15	ribosomal protein S15	-1.095	1.08E-02

RPS20	ribosomal protein S20	-1.091	4.42E-02
RTCD1	RNA terminal phosphate cyclase domain 1	-1.082	4.81E-02
SAT1	spermidine/spermine N1-acetyltransferase 1	-1.188	6.68E-03
SEC16B	SEC16 homolog B (S. cerevisiae)	-1.694	5.31E-03
SELENBP1	selenium binding protein 1	-1.323	1.38E-03
SEPT4	septin 4	-1.567	1.92E-04
SEPT7	septin 7	-1.109	9.18E-03
SFTPD	surfactant protein D	-7.054	2.39E-08
SH3YL1	SH3 domain containing, Ysc84-like 1 (S. cerevisiae)	-1.408	7.00E-04
SIRT5	sirtuin (silent mating type information regulation 2 homolog) 5 (S. cerevisiae)	-1.148	2.97E-03
SLC17A2	solute carrier family 17 (sodium phosphate), member 2	-1.549	1.17E-06
SLC1A4	solute carrier family 1 (glutamate/neutral amino acid transporter), member 4	-2.198	2.79E-02
SLC37A4	solute carrier family 37 (glucose-6-phosphate transporter), member 4	-1.480	1.70E-02
SLC39A7	solute carrier family 39 (zinc transporter), member 7	-1.185	2.42E-02
SMAD2	SMAD family member 2	-1.139	1.68E-03
SNRNP40	small nuclear ribonucleoprotein 40kDa (U5)	-1.151	4.20E-03
SPARCL1	SPARC-like 1 (hevin)	-1.125	3.62E-02
SPAST	spastin	-1.121	3.85E-02
SPATA20	spermatogenesis associated 20	-1.628	3.38E-02
STAMBP	STAM binding protein	-1.096	1.12E-02
STAP2	signal transducing adaptor family member 2	-1.203	5.48E-03
STX5	syntaxin 5	-1.191	3.86E-02
SUGT1	SGT1, suppressor of G2 allele of SKP1 (S. cerevisiae)	-1.175	1.14E-02
TAF9	TAF9 RNA polymerase II, TATA box binding protein (TBP)-associated factor, 32kDa	-1.123	4.74E-02
TAGLN2	transgelin 2	-1.108	4.89E-02
TCEB2	transcription elongation factor B (SIII), polypeptide 2 (18kDa, elongin B)	-1.240	4.73E-03
TDG	thymine-DNA glycosylase	-1.192	6.32E-03
TGM2	transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase)	-1.458	3.47E-02
THOC4	THO complex 4	-1.191	2.24E-02
THOC7	THO complex 7 homolog (Drosophila)	-1.161	3.31E-04
THRSP	thyroid hormone responsive (SPOT14 homolog, rat)	-2.276	3.13E-02
TIMD4	T-cell immunoglobulin and mucin domain containing 4	-1.421	2.50E-02
TMEM128	transmembrane protein 128	-1.128	5.72E-04
TPMT	thiopurine S-methyltransferase	-1.235	1.91E-02
TRAFD1	TRAF-type zinc finger domain containing 1	-1.109	4.28E-02
TTC35	tetratricopeptide repeat domain 35	-1.120	3.44E-03
TTR	transthyretin	-1.324	7.19E-04
TXNDC1	thioredoxin domain containing 1	-1.090	2.77E-02
TXNL4A (includes EG:10907)	thioredoxin-like 4A	-1.102	3.34E-02
TXNL4B	thioredoxin-like 4B	-1.639	1.71E-03
U2AF1	U2 small nuclear RNA auxiliary factor 1	-1.130	2.74E-02
UBE2G1	ubiquitin-conjugating enzyme E2G 1 (UBC7 homolog, yeast)	-1.259	1.71E-03
VAMP5	vesicle-associated membrane protein 5 (myobrevin)	-1.154	4.45E-02
VCAM1	vascular cell adhesion molecule 1	-1.227	1.21E-02
VKORC1	vitamin K epoxide reductase complex, subunit 1	-1.136	4.65E-02
ZDHHC3	zinc finger, DHHC-type containing 3	-1.084	2.94E-02
ZNF238	zinc finger protein 238	-1.301	1.25E-03