

Microarray analysis of ox-LDL (oxidized low-density lipoprotein)-regulated genes in human coronary artery smooth muscle cells

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Keywords: microarray; oxidized low-density lipoprotein; quantitative PCR; transcriptome; vascular smooth muscle cell

Table S1 Functional categories

Accession number	Gene title	3 h	21 h	Function
Apoptosis				
AF095192	BAG-family regulator-2; BCL2-associated athanogene 2	1.9	NC	Protein folding; apoptosis
NM_001348	Death-associated protein kinase 3	1.8	NC	Induction of apoptosis
U83981	Apoptosis-associated protein (GADD34)	1.8	1.8	Cell cycle arrest
AF083421	Immediate early response 3 (IER3)	-2.1	NC	Apoptosis inhibitor activity
NM_005178	B-cell CLL/lymphoma 3 (BCL3)	-2.4	NC	Cell cycle regulation
AF069073	p8 protein homologue (COM1)	NC	2.9	Induction of apoptosis
NM_002342	Lymphotoxin beta receptor (LTBR) (TNFRSF3)	NC	2.8	TNFR-related protein
NM_005380	Neuroblastoma, suppression of tumourigenicity 1 (NBL1)	NC	2.2	Negative regulation of cell cycle
NM_006765	N33; Putative prostate cancer tumour suppressor	NC	-1.9	Tumour suppressor
NM_022121	p53-induced protein (PIGPC1)	NC	-2	
Z70519	FASAp0 1 protein (TNFRSF6)	NC	-2.2	Induction of apoptosis
NM_014452	Death receptor 6	NC	-2.4	Induction of apoptosis
NM_002583	PRKC, apoptosis WT1 regulator (PAWR)	NC	-2.6	Negative regulation of proliferation
NM_003842	TNFR superfamily, member 10b (TNFRSF10B)	NC	-3.4	Induction of apoptosis
NM_013437	Potential tumour suppressor (ST7)	NC	-3.6	Tumour suppressor
NM_021960	Myeloid cell leukaemia sequence 1 (BCL2-related)	NC	-6	Apoptotic program
Cell adhesion and cell-cell signalling				
NM_001200	Bone morphogenetic protein 2 (BMP2)	6.7	NC	Skeletal development
NM_013372	Cysteine knot superfamily 1 (CKTSF1B1)	2.8	NC	Block BMP signalling
AF154054	DRM; cysteine knot superfamily 1	2.4	NC	Antagonist of bone morphogenetic protein
U73936	Jagged 1 (HJ1)	1.9	NC	Cell communication
NM_016157	Trophinin (TRO)	-3.7	NC	Embryo implantation
NM_016223	PKC and casein kinase substrate in neurons 3 (PACSIN3)	NC	7.3	Kinesin complex; focal adhesion
NM_004952	Ephrin-A3	NC	7	Cell-cell signalling
AI692180	Liprin beta 2	NC	6.3	Cell adhesion
NM_002587	Protocadherin 1 (cadherin-like 1) (PCDH1)	NC	3.9	Calcium-dependent cell-cell adhesion
NM_002204	Integrin, alpha 3; CD49C (ITGA3)	NC	2.2	Cell matrix adhesion
NM_002087	Granulin (grn)	NC	2.1	Cell-cell signalling; signal transduction
BC004542	Plexin b2	NC	2.1	Cell adhesion molecule
NM_013231	Fibronectin leucine-rich transmembrane protein 2	NC	2	Cell adhesion
NM_001627	Activated leucocyte cell adhesion molecule (ALCAM)	NC	1.8	Cell adhesion molecule
NM_000201	Intercellular adhesion molecule 1 (CD54) (ICAM1)	NC	1.8	Ligand for LFA antigens
NM_004357	CD151 antigen (CD151)	NC	1.7	Cell adhesion

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Abbreviations used: hr, human recombinant; LDL, low-density lipoproteins; MDA, malondialdehyde; n-LDL, non-oxidized LDL; ox-LDL, oxidized low-density lipoproteins; SmBM, SMC basal medium; SMCs, smooth muscle cells; TBARS, thiobarbituric acid-reactive substance.

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
AL037557	Laminin receptor 1	NC	1.6	Receptor for basement membrane laminin
AB002382	Catenin (cadherin-associated protein), delta	NC	-1.6	Cell-cell adhesion
NM_001792	Cadherin 2, type 1 (CDH2)	NC	-2.1	Cell adhesion
NM_001078	Vascular cell adhesion molecule 1 (VCAM1)	NC	-2.1	Adhesion of monocytes and lymphocytes
NM_000885	Alpha 4 subunit of VLA-4 receptor CD49D (ITGA4)	NC	-2.6	Cell-matrix adhesion; integrin-mediated signalling pathway
AF152501	Protocadherin beta 8 (PCDHB8)	NC	-2.6	Homophilic cell adhesion; cell adhesion
NM_005506	CD36	NC	-2.8	Cell adhesion
AF263279	Sialomucin CD164	NC	-3.3	Regulation of haematopoiesis; cell adhesion
AU135154	A disintegrin and metalloproteinase domain 10	NC	-3.4	Cell-cell signalling
Cell motility and cytoskeleton				
NM_004817	Tight junction protein 2 (zona occludens 2) (TJP2)	6.7	NC	Links junctional membrane proteins to actin
NM_012134	Leiomodin 1 (LMOD1)	3.1	NC	Tropomyosin binding
AI688418	Plexin A2 (PLXNA2)	1.6	NC	Signal transduction; cell proportion
AF043337	Interleukin 8 C-terminal variant (IL8)	-1.8	-8.1	Cell motility; intracellular signalling cascade
D49372	Eotaxin	-2.2	-2.5	Chemokine; signal transduction
U88321	Beta chemokine Exodus-3	-3	-4.1	Chemotaxis; cell communication
NM_004999	Myosin VI	NC	6.1	Myosin ATPase activity; motor activity
NM_006709	HLA-B-associated transcript 8 (BATS8)	NC	5	Histone-lysine <i>N</i> -methyltransferase activity
M13452	Lamin A	NC	4.8	Interacts with intermediate filaments
BG475299	ems1 (cortactin) p8085 src substrate	NC	3.1	Actin-binding protein
NM_020987	Ankyrin 3 (ANK3)	NC	2.7	Cytoskeletal anchoring
NM_004395	Drebrin 1 (DBN1)	NC	2.4	Actin binding
NM_006848	Hepatitis delta antigen-interacting protein A (DIPA)	NC	2.4	Kinesin complex
M86406	Skeletal muscle alpha 2 actinin (ACTN2)	NC	2.4	Anchor myofibrillar actin filaments
NM_002373	Microtubule-associated protein	NC	2.1	Modulate the assembly of microtubules
BC005338	Capping protein muscle Z-line, alpha 2	NC	-1.4	Actin binding
NM_004342	Caldesmon 1	NC	-1.5	Tropomyosin and actin binding
BC005838	Tubulin, beta 5	NC	-1.6	Microtubule-based movement
NM_005721	Actin-related protein 3, yeast homologue (ACTR3)	NC	-1.7	Cell motility
X00351	Beta-actin	NC	-1.7	Cell motility
AF141349	Beta-tubulin	NC	-1.8	Cell motility
NM_006870	Destrin (actin-depolymerizing factor)	NC	-1.9	Actin polymerization and/or depolymerization
NM_002480	Myosin phosphatase, target subunit 1 (MYPT1)	NC	-2.1	Regulation of muscle contraction
NM_000366	Tropomyosin 1 (alpha) (TPM1)	NC	-2.5	Regulation of muscle contraction
AI214061	Tropomyosin 4	NC	-2.9	Constituent of muscle
NM_005722	Actin-related protein 2, yeast homologue (ACTR2)	NC	-3	Cell motility
BE675337	Gelsolin	NC	-6.4	Actin filament polymerization
BC001352	Tubulin, beta polypeptide	NC	-6.5	Microtubule-based movement
AJ276395	Migration stimulation factor FN70	NC	-8.4	Cell motility
Cell proliferation				
U66838	Cyclin A1 (CCNA1)	7.6	NC	Regulates cell cycle CDK2 and CDC2
AA166684	Cell division cycle 27 (CDC27)	5.4	8.2	Mitotic metaphase/anaphase transition
NM_021120	Discs, large homolog 3 (DLG3)	4.6	NC	Negative regulation of cell proliferation
AI770084	Dihydropyrimidinase-like 2	3.8	NC	Regulates axonal growth and branching
AW189518	Piwi (<i>Drosophila</i>)-like 1	3.2	NC	Oogenesis; spermatogenesis
D84212	Serine/threonine kinase 6 (STK6)	2.9	NC	Cell growth
NM_001423	Epithelial membrane protein 1 (EMP1)	2.3	NC	Cell proliferation; epidermal differentiation
AF188298	Disabled 2 p93 (DAB2)	2.2	NC	Cell proliferation; tumour suppressor
BF514079	Gut-enriched Kruppel-like factor (Gklf)	2.1	NC	Inhibition of DNA synthesis
NM_002510	Glycoprotein transmembrane nmb (GPNMB)	2	4.9	Negative regulation of cell proliferation

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
NM_002048	Growth arrest-specific 1 (GAS1)	−3.3	NC	Cell cycle arrest
D64109	Tob family; transducer of ERBB2	NC	10.5	Negative regulation of cell proliferation
NM_003308	Testis-specific protein, Y-linked (TSPY)	NC	5.5	Spermatogenesis
NM_016195	M-phase phosphoprotein 1 (MPHOSPH1)	NC	3.4	Microtubule disassembly at G2 to M phase
NM_000820	Growth arrest-specific 6 (GAS6), mRNA	NC	2.7	Negative regulation of cell proliferation
M73554	Bcl-1; cyclin D1 (PRAD1)	NC	2.5	G1/S transition of mitosis
L13720	Growth-arrest-specific protein (gas)	NC	2.5	Negative regulation of cell proliferation
NM_021873	Cell division cycle 25B (CDC25B)	NC	2.3	Positive regulation of cell cycle
BC000076	Cyclin D1 (PRAD1)	NC	2.3	Activates cdc2 (p34)
NM_004864	Prostate differentiation factor	NC	2.2	
AK023348	Clone 24720 epithelin 1 and 2; granulin	NC	2	Growth modulatory activity
NM_015392	Neural proliferation differentiation and control 1 (NPDC1)	NC	2	
NM_001425	Epithelial membrane protein 3 (EMP3)	NC	1.9	Negative regulation of cell proliferation
L49506	Cyclin G2	NC	−2	Regulates specific cell cycle CDKs
AV700514	Ceroid-lipofuscinosis, neuronal 5	NC	−2.4	Cell growth and/or maintenance
NM_012325	Microtubule-associated protein, RPEB family, member 1	NC	−2.5	Regulation of cell cycle
NM_004404	Neural precursor cell expressed, developmentally down-regulated 5	NC	−2.8	Cell cycle; cytokinesis
NM_006431	Chaperonin-containing TCP1, subunit 2 (beta)	NC	−3.2	Cyclin E maturation
M27281	Vascular endothelial growth factor (VEGF)	NC	−3.9	Mitogen that specifically acts on endothelial cells
NM_078487	Cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4) (CDKN2B)	NC	−4.1	Inhibits CDK4 and induces G1-phase cell cycle arrest
Extracellular matrix				
AK023795	Disintegrin-like and MMP with thrombospondin type 1 motif	1.9	NC	Collagen catabolism
NM_004659	Matrix metalloproteinase 23A (MMP23A)	−4.7	NC	Peptidase
R72286	Microfibrillar-associated protein 4	−6.4	NC	Cell adhesion
AK023365	Liprin-alpha4	−8.6	NC	Regulation of cell-matrix interactions
U48734	Non-muscle alpha-actinin	NC	2.3	Attachment of microfilament bundles to adherens-type junctions
NM_002421	Matrix metalloproteinase 1 (MMP1)	NC	2.1	Collagen I, II and III catabolism
NM_004995	Matrix metalloproteinase 14 (MMP14)	NC	1.8	Activator of progelatinase A
NM_000495	Collagen, type IV, alpha 5	NC	−1.7	Basement membrane component
NM_001845	Collagen, type IV, alpha 1 (COL4A1)	NC	−1.9	Cell-cell interactions
NM_000362	Tissue inhibitor of metalloproteinase-3	NC	−2	Metalloendopeptidase inhibitor
BE350145	Collagen, type VI, alpha 1	NC	−2.6	Component of microfibrillar structures
NM_000138	Fibrillin 1	NC	−3	Component of extracellular microfibrils
U77706	Laminin alpha 4 chain (LAMA4)	NC	−4	Non-collagenous constituent of basement membranes
AV721177	Phosphatidylinositol-binding clathrin assembly protein	NC	−4.5	Protein complex assembly; vesicle-mediated transport
NM_003246	Thrombospondin 1	NC	−8.2	Angiogenic activity
Receptors and membrane proteins				
NM_004334	Bone marrow stromal cell antigen 1 (BST1)	5.4	NC	Facilitates pre-B-cell growth
U01157	Glucagon-like peptide-1 receptor	3.4	NC	Stimulator of glucose-induced insulin secretion
M90657	Transmembrane 4 superfamily member 1 (TM4SF1)	2.8	2.1	Protein complex assembly; tumour metastasis
AF043498	Prostate stem cell antigen (PSCA)	2.7	NC	Prostrate cancer progression
NM_000527	Low-density lipoprotein receptor (LDLR)	1.9	NC	Lipoprotein metabolism
NM_000916	Oxytocin receptor (OXTR)	1.5	NC	Binds oxytocin and vasopressin; uterine contraction
NM_000794	D-1 dopamine receptor	−1.4	NC	Modulate NMDA glutamate receptor gated currents
NM_031220	PYK2 N-terminal domain-interacting receptor 1 (NIR1)	−5.6	NC	Receptor PTK; phosphoinositide transporter
BC000069	Retinoic acid receptor responder 2	−7.4	NC	Retinoid metabolism
NM_002081	Glypican 1 (GPC1)	NC	9.4	Important in endostatin-mediated inhibition of angiogenesis
AF020314	Leukocyte membrane antigen (CMRF-35H)	NC	4.7	May play a regulatory role in leukocyte function

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
U72069	Karyopherin (importin) beta 2	NC	3.7	Targets cytoplasmic proteins to the nucleus
NM_000319	Peroxisome receptor 1 (PXR1)	NC	3.4	Protein-peroxisome targeting
AK022910	Nuclear transport receptor; transportin-SR	NC	2.8	Nucleocytoplasmic transport
NM_004616	Transmembrane 4 superfamily member 3 (TM4SF3)	NC	2.5	Protein complex assembly
AI859060	Cholinergic receptor, epsilon polypeptide	NC	2.1	Synaptic transmission
NM_003801	GPI anchor attachment protein 1 (GPAA1)	NC	2.1	Links proteins to cell membrane
NM_014045	Low-density lipoprotein receptor-related protein 10 (LRP10)	NC	2	Lipoprotein metabolism
BC000389	Transmembrane 4 superfamily member 7 (TM4SF7)	NC	2	Protein complex assembly
NM_004639	HLA-B-associated transcript-3 (BAT3)	NC	1.8	MHC-interacting protein
NM_000376	Vitamin D (1,25-dihydroxyvitamin D3) receptor (VDR)	NC	1.7	Regulation of transcription; cell cycle arrest and apoptosis
NM_000176	Nuclear receptor subfamily 3, group C, member 1	NC	-1.7	Glucocorticoid receptor; regulation of transcription, DNA-dependent
NM_003999	Oncostatin M receptor (OSMR)	NC	-2.4	IL6 cell surface receptor-linked signal transduction
NM_003144	Signal sequence receptor, alpha (SSR1)	NC	-2.7	Cotranslational membrane targeting
U50748	Leptin receptor short form (db)	NC	-2.8	Gene transcription via activation of STAT
U52914	Leptin receptor	NC	-5.3	Gene transcription via activation of STAT
NM_002888	Retinoic acid receptor responder 1 (RARRES1)	NC	-5.3	Negative regulation of cell proliferation
Signal transduction				
NM_003979	Retinoic acid-induced 3 (RAI3)	9.8	NC	Metabotropic glutamate, GABA-B-like receptor
BC000737	Regulator of G-protein signalling	6.6	NC	Regulates G-protein-coupled receptor signalling
BC001051	ADP-ribosylation factor-like 7	4.7	4.6	Small GTPase-mediated signalling
AF091395	Triple functional domain (PTPRF interacting)	3.2	NC	Receptor protein tyrosine phosphatase signalling
AY00716	EH domain-containing 1 (EHD1)	3	NC	Endocytosis of IGF1 receptors
M16591	Haemopoietic cell kinase (HCK)	2.9	NC	Protein tyrosine kinase activity
BE737620	Myosin phosphatase, target subunit 1	2.9	NC	Regulates phosphatidylinositol signalling system
BE466525	Ecotropic viral integration site 1(EV1)	2.8	NC	JUN kinase-binding; protein kinase inhibitor
NM_005544	Insulin receptor substrate 1 (IRS1)	2.8	NC	Stimulates mitogenesis
NM_006482	Dual-specificity tyrosine-(Y)-phosphorylation-regulated kinase 2	2.7	NC	Protein phosphorylation
AF238083	Sphingosine kinase 1 (SPHK1)	2.7	NC	Sphingosine metabolism
AB026436	Dual-specificity phosphatase 10	2.3	NC	Inactivate MAPKs
AA780381	MAP2 kinase 3 (ERK kinase 3)	2.3	NC	Protein phosphorylation
NM_003749	Insulin receptor substrate-2 (IRS2)	2.2	NC	Stimulates mitogenesis
AB023137	A kinase (PRKA) anchor protein 2 (AKAP2)	2.2	1.8	Activates adenylate cyclase
AF015043	SH3-domain-binding protein 4 (SH3BP4)	2.1	NC	Signal transducer activity
NM_005104	Bromodomain-containing 2 (BRD2)	2	NC	Protein serine/threonine kinase activity
AB003476	Gravin; A kinase (PRKA) anchor protein 12	2	NC	G-protein-coupled receptor protein signalling
U77914	Jagged 1 (JAG1)	2	NC	G-protein-coupled receptor protein signalling
BC000370	MKP-1-like protein tyrosine phosphatase (MKP-L)	1.9	NC	Protein dephosphorylation
NM_004414	Down syndrome critical region gene 1 (DSCR1)	1.8	NC	Regulates calcineurin-mediated signalling
NM_002053	Interferon-inducible guanylate-binding protein 1 (GBP1)	1.8	NC	GTPase activity
AL137750	Ethanolamine kinase	1.4	NC	Glycerolipid metabolism
NM_002648	Protein kinase-related oncogene (PIM1)	-2.9	NC	Haematopoietic development
L37882	Frizzled homology 2 (FZD2)	-2.9	2.2	Signal transduction; intracellular Ca release
NM_005204	MAP3 kinase 8 (MAP3K8)	-3	NC	Ser/thr kinase; regulation of cellular transformation
NM_004842	A kinase (PRKA) anchor protein 7 (AKAP7)	-3.9	NC	Protein kinase A anchor protein activity
NM_003745	Suppressor of cytokine signalling-1 (SOCS-1)	-4	NC	JAK-STAT cascade inhibitor
NM_002224	Inositol 1,4,5-triphosphate receptor, type 3 (ITPR3)	NC	16.8	IP3-sensitive calcium-release channel activity

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
U93181	Nuclear dual-specificity phosphatase (SBF1)	NC	11.4	Protein dephosphorylation
NM_004672	MAP 3 kinase 6 (MAP3K6)	NC	8.4	Protein kinase activity
NM_003646	Diacylglycerol kinase, zeta (DGKZ)	NC	6.8	Phosphatidylinositol signalling
NM_030981	Small GTP-binding protein (RAB1B)	NC	4.3	Ras; small monomeric GTPase activity
AF272035	Rag C protein (GTR2)	NC	3.4	Small monomeric GTPase activity
U96922	Inositol polyphosphate-4-phosphatase, type II alpha	NC	3.3	Regulates phosphatidylinositol signalling system
BF062886	Vaccinia-related kinase 3 (VRK3)	NC	3.3	Protein phosphorylation
AV700224	Casein kinase 1, delta	NC	3.1	Protein phosphorylation
NM_017572	G-protein-coupled receptor kinase 7 (GPRK7)	NC	2.7	Protein phosphorylation
BE138888	GTP-binding protein Rac2	NC	2.6	Small GTPase-mediated signal transduction
AF022212	Rho GTPase activating protein 6 isoform 2	NC	2.6	Actin filament polymerization
NM_002547	Oligophrenin 1 (OPHN1)	NC	2.5	Rho GTPase activating protein; cell migration
M55268	Casein kinase 2, alpha prime polypeptide (CSNK2A2)	NC	2.3	Protein phosphorylation
NM_016602	CC chemokine receptor 10 (CCR10)	NC	2.3	G-protein-coupled receptor protein signalling
NM_006182	Discoidin domain receptor family, member 2 (DDR2)	NC	2.3	Receptor protein tyrosine kinase
NM_002712	Protein phosphatase 1, regulatory subunit 7 (PPP1R7)	NC	2.2	Protein dephosphorylation
NM_001569	Interleukin-1 receptor-associated kinase 1 (IRAK1)	NC	1.8	NF-kappaB-inducing kinase activity
BC000265	Rho/rac guanine nucleotide exchange factor (GEF) 2	NC	1.8	Cell shape and cell size control
AF179867	STE20-like kinase (JIK)	NC	1.8	Inhibits JNK pathway
M29893	V-ras simian leukaemia oncogene homologue A (ras related) (RALA)	NC	1.8	Small GTPase-mediated signalling; chemotaxis
NM_021106	Regulator of G-protein signalling 3 (RGS3)	NC	1.7	Inactivation of MAPK
U48705	Receptor tyrosine kinase (DDR)	NC	1.6	Receptor protein tyrosine kinase signalling
NM_004126	Guanine nucleotide-binding protein 11 (GNG11)	NC	1.5	Heterotrimeric G-protein GTPase
AF004222	Reticulon 2 (RTN2)	NC	1	Signal transducer activity
AF084943	Multiple inositol polyphosphate phosphatase	NC	-1.6	Inactivates inositol polyphosphates
NM_002595	PCTAIRE protein kinase 2 (PCTK2)	NC	-1.6	Regulation of cell cycle
NM_004087	Discs, large (<i>Drosophila</i>) homologue 1	NC	-1.7	Intracellular signalling cascade
NM_002074	Guanine nucleotide-binding protein, beta polypeptide 1	NC	-1.7	Signal transduction; protein kinase C activation
NM_005813	Protein kinase C, nu (PRKCN)	NC	-1.7	PKC activity; regulates differentiation and proliferation
D13988	GDP dissociation inhibitor 2 (GDI2)	NC	-1.8	Rab GTPase activator activity
AB000888	Phosphatidic acid phosphatase 2a	NC	-1.8	Formation of DAG from phosphatidic acid; PLD1 signalling
NM_002709	Protein phosphatase 1, catalytic subunit, beta isoform	NC	-1.8	Protein dephosphorylation
AB009358	MAP2 kinase 7; JNK-activating kinase 2	NC	-2	Specific activator of JNK1 and JNK2
NM_002356	Myristoylated alanine-rich protein kinase C substrate (MARCKS)	NC	-2	A filamentous actin cross-linking protein
NM_012250	Oncogene TC21 (TC21)	NC	-2	Small GTPase-mediated signal transduction
NM_000291	Phosphoglycerate kinase 1 (PGK1)	NC	-2	Phosphoglycerate kinase activity
NM_005607	PTK2 protein tyrosine kinase 2 (PTK2)	NC	-2	Protein kinase activity
NM_003022	SH3 domain-binding glutamic acid-rich protein-like (SH3BGR1)	NC	-2	SH3/SH2 adaptor protein activity
NM_022650	GTPase-activating protein (GAP)	NC	-2.1	Bind-activated Rho GTPases and stimulate GTP hydrolysis
NM_005261	GTP-binding protein overexpressed in skeletal muscle (GEM)	NC	-2.1	Small GTPase-mediated signal transduction
NM_004578	Ras-associated protein (RAB4)	NC	-2.1	Rho small monomeric GTPase activity
AI571798	Rho GDP dissociation inhibitor (GDI) alpha	NC	-2.1	Negative regulation of cell adhesion
NM_006241	Protein phosphatase 1, regulatory (inhibitor) subunit 2 (PPP1R2)	NC	-2.2	Ser-/thr-specific protein phosphatase inhibitor
AL136139	Enhancer of filamentation 1 (HEF1)	NC	-2.3	Integrin-initiated cytoskeleton-linked signalling
NM_016322	GTPase Rab14	NC	-2.3	Ras; small monomeric GTPase activity
BC005122	ADP-ribosylation factor GTPase activating protein 1	NC	-2.4	Regulation of signalling, growth by hydrolysis of GTP

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
AF218074	MAP3 kinase 7	NC	-2.4	Phosphorylates MKK6 to stimulate JNK; NFkB translocation
AF001362	Jak2 kinase (JAK2)	NC	-2.5	Protein tyrosine kinase activity; JAK-STAT cascade
NM_002731	Protein kinase, cAMP-dependent, catalytic, beta (PRKACB)	NC	-2.6	Protein kinase activity
NM_002716	Protein phosphatase 2 regulatory subunit A beta isoform	NC	-2.6	Regulation of proliferation, contraction, transcription
AF002280	Alpha-actinin-2-associated LIM protein alternatively spliced	NC	-2.7	Interacts with alpha-actinin-2 in cytoskeletal assembly
NM_003507	Frizzled (<i>Drosophila</i>) homologue 7 (FZD7)	NC	-2.7	Fz7-mediated signalling controls cell-sorting in mesoderm
NM_004161	RAB1, member RAS oncogene family	NC	-2.7	Small GTPase-mediated signalling; vesicle-mediated transport
J03005	G-protein alpha-inhibiting activity polypeptide 3 (GNAI3)	NC	-2.8	G-protein coupled-receptor protein signalling pathway
NM_003463	Protein tyrosine phosphatase type IVA, member 1	NC	-2.9	Protein dephosphorylation; oncogenesis
NM_006575	MAP 4 kinase 5	NC	-3	activates JNK but not ERK1
M18468	Protein kinase, cAMP-dependent, regulatory, type I, alpha	NC	-3.1	cAMP-dependent protein kinase
NM_001506	G-protein-coupled receptor 32 (GPR32)	NC	-3.2	G-protein-coupled receptor protein signalling
NM_005242	Coagulation factor II (thrombin) receptor-like 1 (F2RL1)	NC	-3.3	G-protein-coupled receptor protein signalling pathway
AF092132	p21 (CDKN1A)-activated kinase 2 (PAK2)	NC	-3.5	Negative regulation of protein kinase activity
NM_000945	Calcineurin B, type I (CNB1)	NC	-3.6	Ca-dependent Ser/Thr phosphatase activity; calcium binding
NM_004162	RAB5A, member RAS oncogene family	NC	-3.6	Bind GTP and exhibits GTPase activity; regulation of endocytosis
X75208	HEK2 protein tyrosine kinase receptor	NC	-3.7	Receptor tyrosine kinase signalling
NM_006654	FGF receptor substrate 2 (FRS2)	NC	-3.8	FGF signalling; cell growth and differentiation
NM_003688	Calcium Calmodulin-dependent serine protein kinase (CASK)	NC	-4.2	Cytoskeletal membrane scaffold; cortical cytoskeleton signalling
AF127481	Dual-specificity phosphatase 1 (DUSP1)	NC	-4.4	Dephosphorylate and inactivates p44MAPK (ERK1)
AW665024	Protein tyrosine kinase 9	NC	-4.7	Protein phosphorylation
NM_016277	RAB23, member RAS oncogene family	NC	-4.9	Small GTPase-mediated signalling; intracellular protein transport
S69182	Protein tyrosine phosphatase (PTPG1); non-receptor type 12	NC	-5.5	Protein dephosphorylation
NM_001346	Diacylglycerol kinase, gamma (DGKG)	NC	-5.6	PKC activation
Z25435	Protein-ser/thr kinase gene	NC	-5.8	Protein phosphorylation
AF051311	Ras-GTPase-activating protein SH3 domain-binding protein 2	NC	-6.1	RAS protein signal transduction
NM_002184	gp130, oncostatin M receptor	NC	-7	Cell surface receptor-linked signal transduction
NM_002869	RAB6, member RAS oncogene family	NC	-7.4	Small GTPase-mediated signalling; non-selective vesicle transport
AF021233	TRAIL-R4-B TNFR superfamily, member 10d	NC	-8	Decoy with truncated death domain; apoptosis
Transcription and translation				
U12767	Mitogen-induced nuclear orphan receptor (MINOR)	37.9	NC	Regulation of transcription, DNA-dependent
N32859	Nuclear receptor subfamily 1, group D, member 2	8	NC	Regulation of transcription, DNA-dependent
NM_004405	Distal-less homoeobox 2 (DLX2)	5.1	-1.6	Regulation of transcription, DNA-dependent
S77154	Beta-type transcription factor homologue human	3.2	NC	Regulation of transcription, DNA-dependent
NM_004904	cAMP response element-binding protein CRE-Bpa	2.9	-1.5	Transcription factor activated by translocation of PKC
NM_006981	Nuclear receptor subfamily 4, group A, member 3 (NR4A3)	2.8	NC	Regulation of transcription, DNA-dependent
NM_004472	Forkhead box D1 (FOXO1)	2.6	NC	Regulation of transcription, DNA-dependent
AL021977	V-maf musculoaponeurotic fibrosarcoma oncogene homologue F	2.2	2.2	Regulation of transcription, DNA-dependent

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
NM_003201	Transcription factor 6-like 1 (TCF6L1)	2.1	NC	Mitochondrial DNA transcriptional activator
NM_022898	B-cell lymphomaleukaemia 11B (BCL11B)	2	NC	Regulation of transcription, zinc finger protein
NM_002114	HIV type I enhancer-binding protein 1 (HIVEP1)	1.9	NC	Regulation of transcription, DNA-dependent
AI378706	Calreticulin (CALR)	-1.4	NC	Calcium ion storage; transcription regulation
NM_001706	B-cell CLL/lymphoma 6 (zinc finger protein 51) (BCL6)	-1.9	NC	Regulation of transcription; oncogenesis
AF119334	Zinc finger protein multitype 2 (ZFPM2)	-1.9	NC	Transcriptional activity
M83667	CCAAT-enhancer-binding protein (CEBP), delta (CEBPD)	-2.1	NC	Regulation of transcription, DNA-dependent
L07648	MAX-interacting protein 1 (MXI1)	-2.1	NC	Transcription factor
NM_005384	Nuclear factor, interleukin 3-regulated (NFIL3)	-2.2	NC	Transcriptional co-repressor
BE542323	TONDU	-2.2	NC	Regulation of transcription, DNA-dependent
NM_014112	Trichorhinophalangeal syndrome I gene (TRPS1)	-2.2	NC	Zinc finger transcription factor
NM_003670	Basic helix-loop-helix domain-containing, class B, 2	-2.4	-3.9	Regulation of transcription, DNA-dependent
BG250310	Zinc finger protein 36, C3H type-like 1 (ZFP36L1)	-2.9	NC	Transcription factor
AF055993	Sin3-associated polypeptide (SAP30)	-3.2	NC	Transcription co-repressor activity
NM_020529	NFκ light polypeptide gene enhancer in B-cells inhibitor, alpha	-3.3	NC	Cytoplasmic sequestering of NF-κappaB
NM_030751	Transcription factor 8 (TCF8)	-3.3	-4.3	Represses interleukin 2 expression
NM_004527	Mesenchyme homoeobox 1 (MEOX1), transcript variant 1	-4.4	-3.2	Homoeobox; transcription factor activity
NM_005526	Heat shock transcription factor 1 (HSF1)	NC	11	Regulation of transcription, DNA-dependent
AB015332	Neighbour of A-kinase anchoring protein 95	NC	6.1	DEAD/H-box RNA helicase binding
NM_005483	Chromatin assembly factor 1, subunit A (CHAF1A)	NC	5.5	Assembles histone octamers onto replicating DNA
NM_003597	TGFB inducible early growth response 2	NC	5.5	Transcriptional regulator
NM_004083	DNA-damage-inducible transcript 3	NC	4.3	A dominant-negative inhibitor of C/EBP and LAP
AL161985	Transcription factor binding to IGHM enhancer 3	NC	4.2	Regulation of transcription, DNA-dependent
AF106934	Thyroid hormone receptor-associated protein (TRAP95)	NC	3.7	Transcription co-activator
M64497	Nuclear receptor subfamily 2, group F, member 2	NC	3.5	Transcription co-repressor activity
AB019219	Similar to yeast pre-mRNA splicing factors, Prp1Zer1 and Prp6	NC	3.5	Spliceosome assembly
U67734	HIV-1 Tat interactive protein	NC	3.2	Transcriptional co-activator
NM_005859	Purine-rich element-binding protein A (PURA)	NC	3.2	Regulation of transcription, binds to GAGA boxes
X72631	Rev-ErbA alpha	NC	3	Regulation of transcription, DNA-dependent
U19769	Centromere protein F (mitosin) (CENPF)	NC	2.8	Regulation of mitosis
NM_014140	HepA-related protein (HARP)	NC	2.8	ATP dependent helicase
AC004908	Ribosomal protein L23a	NC	2.8	Protein biosynthesis
NM_006943	SRY (sex-determining region Y)-box 22 (SOX22)	NC	2.8	Regulation of transcription from Pol II promoter
NM_020310	MAX-binding protein (MNT)	NC	2.7	Regulation of transcription; negative regulation of cell proliferation
BC002704	Signal transducer and activator of transcription 1 (STAT1)	NC	2.7	Transcription from Pol II promoter
AF295773	Ral guanine nucleotide dissociation stimulator (RALGDS)	NC	2.6	RAS protein signal transduction
AF055078	Zinc finger protein 42 (ZNF42)	NC	2.6	Regulation of transcription, DNA-dependent
U79283	Albumin D-box-binding protein	NC	2.5	Regulation of transcription
AI884867	Ribosomal protein L26	NC	2.4	Protein biosynthesis
NM_006736	Hsp, neuronal DNAJ-like 1 (HSJ1) subfamily B, member 2	NC	2.2	Co-chaperone activity
NM_004176	Sterol regulatory element-binding transcription factor 1 (SREBF1)	NC	2.2	Regulation of transcription; LDL metabolism regulation
NM_014292	Chromobox homologue 6	NC	2.1	Regulation of transcription; chromatin modification
AW517464	Ribosomal protein L3	NC	2.1	Protein biosynthesis
AA679705	Eukaryotic translation initiation factor 3, subunit 8	NC	1.9	Regulation of translational initiation

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
NM_006084	Interferon-stimulated transcription factor 3, gamma (ISGF3G)	NC	1.8	An interferon-dependent, transcription factor
NM_002105	H2A histone family, member X (H2AFX)	NC	1.6	Nucleosomal organization of chromatin
BC004973	Signal transducer and activator of transcription 6 (STAT6)	NC	1.6	Transcription from Pol II promoter
AF295773	Ral guanine nucleotide dissociation stimulator	NC	1.5	Dissociation of guanine nucleotides from ralA and ralB GTPases
NM_005066	Splicing factor proline-/glutamine-rich	NC	-1.5	mRNA splicing
AF080569	DnaJ (Hsp40) homologue, subfamily B, member 6	NC	-1.6	Response to stress
M93255	Friend leukaemia virus integration 1 (FLI-1)	NC	-1.6	Regulation of transcription
AV721430	Transcription factor 7-like 2 (T-cell-specific, HMG-box)	NC	-1.7	Regulation of transcription, DNA-dependent
NM_003074	BRG1-associated factor 155 (BAF155)	NC	-1.8	SWI-/SNF-related; chromatin assembly/disassembly
NM_006079	Cbpb300-interacting transactivator (CITED2)	NC	-1.8	Regulation of transcription from Pol II promoter
AL136810	TBP-interacting protein	NC	-1.8	Regulation of transcription
BC001449	Heterogeneous nuclear ribonucleoprotein R (HNRPR)	NC	-1.9	mRNA processing
AF147209	Interleukin enhancer-binding factor 3 (ILF3)	NC	-1.9	RNA polymerase II transcription factor activity
AJ270770	T-cell transcription factor-4 (TCF-4)	NC	-1.9	Regulation of transcription
NM_006526	Zinc finger protein 217 (ZNF217)	NC	-1.9	Regulation of transcription; oncogenesis
NM_003925	Methyl-CpG-binding endonuclease (MED1)	NC	-2	DNA repair
NM_000176.1	Nuclear receptor subfamily 3, group C, member 1 (NR3C1)	NC	-2	Regulation of transcription, DNA-dependent
AF098483	PC4- and SFRS1-interacting protein 2 (PSIP2)	NC	-2	Transcriptional co-activators
AK026426.1	SWI-/SNF-related, matrix-associated, subfamily a, member 1	NC	-2	Chromatin modelling
NM_004500	Heterogeneous nuclear ribonucleoprotein C (C1C2)	NC	-2.1	mRNA splicing
NM_014319	Integral inner nuclear membrane protein (MAN1)	NC	-2.1	Nuclear membrane localization
NM_005324	H3 histone, family 3B (H3.3B)	NC	-2.2	Nucleosome assembly
D13889	Inhibitor of DNA binding 1 (ID1)	NC	-2.2	Regulation of transcription from Pol II promoter
AK021418	Putative RNA helicase	NC	-2.2	rRNA processing
BC000451	Splicing factor, arginine-/serine-rich 10	NC	-2.2	mRNA splicing
AL136621	Zinc finger protein 198	NC	-2.2	Protein binding
NM_004379	cAMP responsive element-binding protein 1	NC	-2.3	Regulation of transcription, DNA-dependent
M62829	Early growth response 1 (EGR1)	NC	-2.3	Regulation of transcription
AA679988	Polypyrimidine tract-binding protein 1 (PTPB1)	NC	-2.3	mRNA splicing
BC000627	Signal transducer and activator of transcription 3 (STAT 3)	NC	-2.3	JAK-STAT cascade; transcription factor activity
NM_012266	DnaJ (Hsp40) homologue, subfamily B, member 5	NC	-2.4	Response to stress
BC000806	Polymerase (RNA) II (DNA-directed) polypeptide K (POLR2K)	NC	-2.4	Transcription from Pol III promoter
NM_003016	Splicing factor, arginine-/serine-rich 2	NC	-2.4	mRNA splicing
BC000997	Splicing factor, arginine-/serine-rich 7 (SFRS7)	NC	-2.5	mRNA processing
AF309553	Meiotic recombination protein REC14	NC	-2.6	Meiotic recombination
NM_006902	Paired mesoderm homoeobox 1a (PMX1a)	NC	-2.6	Regulation of transcription, DNA-dependent
AL117487	Transcriptional adaptor 3-like (ADA3)	NC	-2.6	Transcriptional activity
M94630	Heterogeneous nuclear ribonucleoprotein D (HNRPD)	NC	-2.9	RNA processing
D13891	Inhibitor of DNA-binding 2 (ID2)	NC	-2.9	Transcriptional repressor
AL553320	Stress-induced-phosphoprotein 1 (STIP1)	NC	-2.9	Association of molecular chaperones HSP70 and HSP90
L23959	Transcription factor Dp-1 (TFDP1)	NC	-2.9	Regulation of transcription from Pol II promoter
NM_006265	RAD21 (<i>Schizosaccharomyces pombe</i>) homologue	NC	-3	Chromosome segregation
NM_006924	Splicing factor, arginine-/serine-rich 1 (SFRS1)	NC	-3	mRNA splice site selection
NM_004779	CCR4-NOT transcription complex, subunit 8 (CNOT8)	NC	-3.1	Regulation of transcription, DNA-dependent
AF039942	HCF-binding transcription factor Zhangfei (ZF)	NC	-3.2	Regulation of transcription, DNA-dependent

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
AB009023	RNA guanylyltransferase and 5-phosphatase (RNGTT)	NC	−3.2	mRNA capping
NM_003017	Splicing factor, arginine-/serine-rich 3 (SFRS3)	NC	−3.3	mRNA splicing
M97935	Transcription factor ISGF-3	NC	−3.3	IRF; transcription factor activity
BC001255	Nuclear cap-binding protein subunit 2 (NCBP2)	NC	−3.5	snRNA-nucleus export
U12170	Zinc finger homeodomain protein; transcription factor 8	NC	−3.7	Represses interleukin 2 expression
AF061261	Muscleblind-like 2 (<i>Drosophila</i>) (MBNL2)	NC	−4.2	Transcription factor activity
AF072814	PHD finger DNA-binding protein isoform 1 (M96)	NC	−4.3	Regulation of transcription, DNA-dependent
BF983406	Heterogeneous nuclear ribonucleoprotein H1	NC	−4.4	RNA processing
NM_021038	Muscleblind (<i>Drosophila</i>)-like	NC	−4.8	Nucleic acid-binding activity
AI217362	Trinucleotide repeat-containing 11 (THR-associated protein)	NC	−5	Regulation of transcription, DNA-dependent
NM_006166	Nuclear transcription factor Y, beta (NFYB)	NC	−5.5	Regulation of transcription, DNA-dependent
U71300	snRNA-activating protein complex subunit (SNAP50)	NC	−5.5	snRNA transcription
NM_007034	DnaJ (Hsp40) homologue, subfamily B, member 4	NC	−6.3	Heat shock protein activity
M68891	GATA-binding protein 2	NC	−7.3	Regulation of transcription, DNA-dependent
NM_004622	Translin	NC	−9	A recombination hotspot-binding protein
NM_001356	DEAD/H box 3, X-linked (DDX3)	NC	−9.5	ATP-dependent RNA helicase
NM_004779	Transcription complex, subunit 8	NC	−12.4	Regulation of transcription, DNA-dependent
NM_003831	SudD (suppressor of bimD6 homologue) (SUDD)	NC	−12.5	Chromosome segregation
Metabolism J00146	Dihydrofolate reductase pseudogene (psi-hd1)	5.4	NC	Converts dihydrofolate into tetrahydrofolate
NM_002133	Heme oxygenase (decycling) 1 (HMOX1)	4.7	4.4	Heme catabolism
NM_000413	Hydroxysteroid (17-beta) dehydrogenase 1 (HSD17B1)	4.6	5	Oestrogen metabolism
NM_002640	Serine proteinase inhibitor, clade B, member 8 (SERPINB8)	3.3	NC	Inactivates serine proteinases
BG035985	3-Hydroxy-3-methylglutaryl-coenzyme A synthase 1	2.4	2.3	Lipid metabolism
NM_003330	Thioredoxin reductase 1 (TXNRD1)	2.4	2.1	Regulation of the intracellular redox environment
NM_001902	Cystathionase (CTH)	2.3	NC	Transforms cystathionine to cysteine
NM_000859	3-Hydroxy-3-methylglutaryl-coenzyme A reductase (HMGCR)	2.2	NC	Cholesterol biosynthesis
BC005247	Isopentenyl-diphosphate delta isomerase (IDI1)	2.2	NC	Cholesterol homeostasis
NM_005542	Insulin-induced gene 1	2.2	2.3	Biosynthesis of chondroitin sulfate
AB017915	Chondroitin 6-sulfotransferase	1.9	NC	UDP-N-acetylglucosamine biosynthesis
S73498	UDP-N-acetylglucosamine pyrophosphorylase 1 (UAP1)	1.9	NC	Protein amino acid phosphorylation
NM_021158	Chromosome 20 open reading frame 97 (C20orf97)	1.9	3.9	Protein amino acid phosphorylation
AF155661	Pyruvate dehydrogenase phosphatase (PDP)	1.7	NC	Protein dephosphorylation
AL161952	Glutamate-ammonia ligase	1.6	NC	Clearance of ammonia from circulation
U25997	Stanniocalcin 1 (STC1)	−1.8	NC	Calcium ion homeostasis
NM_002615	Serine proteinase inhibitor, clade F member 1 (SERPINF1)	−2	NC	Serine proteinase inhibitor
NM_004566	6-Phosphofructo-2-kinasefructose-2,6-biphosphatase 3	−2.2	NC	Fructose 2,6-bisphosphate metabolism
NM_000963	Prostaglandin-endoperoxide synthase 2 (PTGS2)	−2.4	−3.3	Prostaglandin biosynthesis
D14874	Adrenomedullin (ADM)	−2.6	NC	Hormone
D88308	Fatty acid-CoA ligase, very long-chain 1 (FACVL1)	−3.1	NC	Lipids synthesis and degradation of fatty acids
AF153606	PPAR (gamma) angiopoietin-related protein (PGAR)	−3.1	NC	Regulation of lipid metabolism
NM_002600	Phosphodiesterase 4B, cAMP-specific (PDE4B)	−3.3	NC	3',5'-cyclic-nucleotide phosphodiesterase activity
AA621558	Methionine-tRNA synthetase	−4	NC	Protein biosynthesis
NM_001077	UDP glycosyltransferase 2, polypeptide B17 (UGT2B17)	−4	NC	Transferase activity
AL044326	Phosphoribosylformylglycinamide synthase	−4.2	NC	Purine nucleotide biosynthesis
NM_005518	3-OH-3-methylglutaryl-CoA synthase 2 (HMGCS2)	−4.3	NC	Cholesterol biosynthesis

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
NM_001873	Carboxypeptidase E	-6	-10.8	Protein catabolism
D13287	Glucosidase, beta; acid (GBA)	NC	27.9	Sphingoglycolipid metabolism
NM_002861	Phosphate cytidylyltransferase 2, ethanolamine	NC	8.8	Converts ethanolamine to CDP-ethanolamine
AB021638	APP-binding, family A, member 3 (APBA3)	NC	7.7	Regulates APP processing
NM_003364	Uridine phosphorylase (UP)	NC	6.6	Phosphorolysis of uridine to ribose-1-phosphate
M80927	Chitinase 3-like 1 (CHI3L1)	NC	6	Metabolism of chitin
AF096304	Transmembrane 7 superfamily member 2 (TM7SF2)	NC	5.8	Sterol biosynthesis
NM_001247	Ectonucleoside triphosphate diphosphohydrolase 6 (ENTPD6)	NC	5.4	Catabolism of extracellular nucleotides
AL022394	DNA topoisomerase I (TOP 1)	NC	4.9	Catalyse the breaking and rejoining of DNA strands
NM_021920	Secretin (SCT)	NC	4.6	Pancreatic juice secretion
NM_000402	Glucose-6-phosphate dehydrogenase (G6PD)	NC	3.4	Pentose-phosphate shunt pathway
NM_001360	7-Dehydrocholesterol reductase (DHCR7)	NC	3.2	Converts 7-DHC to cholesterol
AF148509	Alpha 1,2-mannosidase	NC	3.2	Carbohydrate metabolism
AF113123	Carbonyl reductase	NC	3.2	NADPH-dependent oxidoreductases
M11233	Cathepsin D (lysosomal aspartyl protease) (CTSD)	NC	3.2	Proteolysis and peptidolysis
AF084558	Fatty acid desaturase 1	NC	3.1	Regulate the unsaturation of fatty acids
AF151802	CGI-44 protein; sulfide dehydrogenase-like (CGI-44)	NC	3	Electron transport
NM_000285	Peptidase D (PEPD)	NC	2.9	Collagen catabolism
NM_000434	Lysosomal sialidase	NC	2.8	Desialylation of sialoglycoconjugates
NM_017458	Major vault protein (MVP), transcript variant 1	NC	2.8	Drug resistance
NM_000954	Prostaglandin D2 synthase (PTGDS)	NC	2.8	Biosynthesis of PGD2
NM_002340	2,3-Oxidosqualene-lanosterol cyclase	NC	2.7	Cyclization of (S)-2,3 oxidosqualene to lanosterol
NM_002004	Farnesyl diphosphate synthase (FDPS)	NC	2.5	Cholesterol biosynthesis
NM_002496	NADH dehydrogenase (ubiquinone) Fe-S protein 8	NC	2.5	Oxidative phosphorylation; NADH to ubiquinone
NM_000543	Acid sphingomyelinase (ASM)	NC	2.4	Sphingomyelin metabolism
NM_007014	Nedd-4-like ubiquitin-protein ligase	NC	2.4	Ubiquitin-protein ligase activity
AF073890	Cathepsin X precursor	NC	2.3	Lysosomal protease
NM_012320	LCAT-like lysophospholipase	NC	2.3	Lipid metabolism
K02920	Lysosomal glucocerebrosidase, glucosidase, beta; acid	NC	2.3	Sphingoglycolipid metabolism
NM_000713	Biliverdin reductase B (BLVRB)	NC	2.2	Heme metabolism
NM_016256	Phosphodiester alpha-GlcNAcase	NC	2.2	Glucosamine metabolism
NM_001064	Transketolase (tk)	NC	2.2	Links pentose phosphate pathway with glycolytic pathway
NM_012088	6-Phosphogluconolactonase (PGLS)	NC	2.1	Pentose phosphate pathway of carbohydrate metabolism
U02389	hLON ATP-dependent protease, serine, 15 (PRSS15)	NC	2.1	ATP-dependent peptidase activity
NM_006702.1	Neuropathy target esterase (NTE)	NC	2.1	Neuronal development
NM_016243	Cytochrome b5 reductase 1 (B5R.1)	NC	2	Electron transport
U91316	Cytosolic acyl coenzyme A thioester hydrolase (HBACH)	NC	2	Cleave fatty acyl-CoAs into free fatty acids and CoA
NM_004110	Ferredoxin reductase (FDXR) transcript variant 2	NC	2	Electron-transport chain of mitochondrial cytochromes P450
U30894	N-sulfoglucosamine sulfohydrolase	NC	2	Glycosaminoglycan metabolism
AF126799	Delta-6 fatty acid desaturase (FADS6)	NC	1.9	Regulate unsaturation of fatty acids
NM_021727	Fatty acid desaturase 3 (FADS3)	NC	1.9	Regulate de novo unsaturation of fatty acids
NM_005471	Glucosamine-6-phosphate isomerase (GNPI)	NC	1.9	Glucosamine catabolism
NM_001276	Glycoprotein chitinase 3-like 1	NC	1.9	Deposition and remodelling of the cartilage matrix
AA927724	Adenine phosphoribosyltransferase	NC	1.8	Nucleoside metabolism
D83782	SREBP cleavage-activating protein	NC	1.8	Cholesterol homeostasis
U90223	dUTP pyrophosphatase (DUT)	NC	1.7	dUTP metabolism
J03934	NAD(P)H dehydrogenase, quinone 1 (NQO1)	NC	1.7	Xenobiotic metabolism
NM_005525	Hydroxysteroid (11-beta) dehydrogenase 1 (HSD11B1)	NC	-1.6	Steroid metabolism
BC003623	Brain protein 14-3-3, zeta isoform (YWHAZ)	NC	-1.7	Prostaglandin and leukotriene metabolism
NM_004784	N-deacetylase N-sulfotransferase 3 (NDST3)	NC	-1.8	Protein amino acid sulfation; deacetylation
NM_016081	Paladin	NC	-1.8	Organelle biogenesis
BG290646	Ubiquitin-conjugating enzyme E2N	NC	-1.8	Ubiquitin cycle

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
U68758	Pyrraline-5-carboxylate synthetase (PYCS)	NC	-1.9	Amino acid biosynthesis
NM_003349	Ubiquitin-conjugating enzyme E2 variant 1	NC	-1.9	Protein polyubiquitination
A1687738	Peptidylprolyl isomerase B (cyclophilin B)	NC	-2.1	Protein folding
NM_002764	Phosphoribosyl pyrophosphate synthetase 1 (PRPS1)	NC	-2.1	Nucleoside metabolism and biosynthesis
NM_006452	Phosphoribosylaminoimidazole carboxylase (PAICS)	NC	-2.1	Purine base biosynthesis
NM_002056	Glutamine-fructose-6-phosphate transaminase 1 (GFPT1)	NC	-2.2	Hexosamine biosynthetic pathway
AL049593	Phospholipase C, beta 1 (PLCB1)	NC	-2.2	Lipid metabolism
NM_006523	X-prolyl aminopeptidase-like (XPPEPL)	NC	-2.2	Removes N-terminal amino acids adjacent to proline
U10473	Beta-1,4-galactosyltransferase 3 (B4GALT3)	NC	-2.3	Carbohydrate biosynthesis
NM_003299	Tumour rejection antigen (gp96) 1	NC	-2.3	Elicits tumour-specific immunity
NM_004388	Chitobiase, di-N-acetyl- (CTBS)	NC	-2.4	Carbohydrate metabolism
NM_012343	Nicotinamide nucleotide transhydrogenase (NNT)	NC	-2.4	Electron transport
D38145	Prostacyclin synthase	NC	-2.4	Prostaglandin biosynthesis
M59979	Prostaglandin-endoperoxide synthase 1 (PTGS1)	NC	-2.4	Prostaglandin biosynthesis
AF254621	NADPH oxidase 4 (NOX4)	NC	-2.5	Electron donor for superoxide production
NM_003659	Alkylglycerone phosphate synthase (AGPS)	NC	-2.6	Lipid biosynthesis
U18197.1	ATP citrate lyase (ACLY)	NC	-2.6	Citrate metabolism
BE568219	Phosphodiesterase 8A	NC	-2.7	Cyclic nucleotide metabolism
AF321182	Protease, serine, 26 (PRSS22)	NC	-2.9	Proteolysis and peptidolysis
D37931	RNase A family, 4 (RNASE4)	NC	-2.9	mRNA cleavage
U65090	Carboxypeptidase D (CPD)	NC	-3.1	Proteolysis and peptidolysis
AF036144	Meningioma expressed antigen 5 (MGEA5)	NC	-3.1	Glycoprotein catabolism
U28936	14-3-3 Protein epsilon isoform (YWHAE)	NC	-3.3	Binds cdk; intracellular signalling cascade
NM_002318	Lysyl oxidase-like 2	NC	-3.3	Catalyzes cross-linking of collagens and elastin
NM_002534	2,5-Oligoadenylate synthetase 1 (OAS1)	NC	-3.	Nucleic acid metabolism
NM_005328	Hyaluronan synthase 2 (HAS2)	NC	-3.5	Hyaluronic acid biosynthesis
BC001258	N-acetylglucosamine-phosphate mutase	NC	-3.7	Glucosamine metabolism
BF979497	Squalene epoxidase	NC	-3.9	Sterol biosynthesis
D85390	gp180-carboxypeptidase D-like enzyme	NC	-4	Proteolysis and peptidolysis
NM_005907	Mannosidase, alpha, class 1A, member 1 (MAN1A1)	NC	-4.8	N-linked glycosylation
NM_002408	2-N-acetylglucosaminyltransferase (MGAT2)	NC	-4.9	Conversion of oligomannose to complex N-glycans
BE503425	Lysyl oxidase (LOX)	NC	-6	Catalyses cross-linking of collagens and elastin
AF027740	Prostaglandin E synthase (PTGES)	NC	-6.2	Prostaglandin metabolism
NM_000041	Apolipoprotein E	NC	-6.7	Lipid metabolism
AF288208	Beta-1,3-N-acetylglucosaminyltransferase (BETA3GNT)	NC	-6.8	Poly-N-acetylglucosamine biosynthesis
BE256969	PAF acetylhydrolase, isoform Ib, alpha subunit	NC	-7.8	Lipid metabolism
AF191653	Nucleoside diphosphate-linked moiety X-type motif 4 (NUDT4)	NC	-7.9	Cyclic nucleotide metabolism
A1652662	Branched-chain aminotransferase 1, cytosolic (BCAT1)	NC	-10.3	Branched-chain family amino acid biosynthesis
Transporter				
NM_000104	Cytochrome P450, subfamily I polypeptide 1 (CYP1B1)	4.1	NC	Electron transport
NM_003615	Solute carrier family 4 member 7 (SLC4A7)	3.2	NC	Coupled transport of sodium and bicarbonate ions
NM_021187	Cytochrome P450, subfamily IVF, polypeptide 11 (CYP4F11)	3.1	NC	Electron transport
AB040875	Solute carrier family 7, member 11 (SLC7A11)	2.7	NC	Cationic amino acid transporter
AB018009	L-type amino acid transporter 1	2.2	NC	Import of large neutral amino acids
AF271070	Amino acid transporter system A1 (ATA1)	1.9	NC	Transport of amino acids and N-methylated amino acids
AV717561	ATPase, H+ transporting, lysosomal subunit H (ATP6H)	-2	NC	Translocates protons
AF034102	Solute carrier family 29, member 2 (SLC29A2)	-3.3	NC	Nucleoside transporter
NM_017585	Solute carrier family 2 member 6 (SLC2A6)	NC	11.9	Facilitates glucose transport
AF026030	Mitochondrial inner membrane protein import receptor (hTIM44)	NC	10.1	Import of mitochondrial proteins into mitochondria
NM_002555	Solute carrier family 22 member 1-like (SLC22A1L)	NC	8.4	Organic cation transporter
NM_006019	T-cell, immune regulator 1 (TCIRG1)	NC	3.8	Hydrogen-transporting ATPase activity

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
NM_003040	Solute carrier family 4, member 2 (SLC4A2)	NC	2.8	Anion transport
NM_030971	Tricarboxylate carrier-like protein (BA108L7.2)	NC	2.3	Cation and iron ion transport
Z67743	CLC-7 chloride channel protein	NC	2.2	Voltage gated chloride channel
BE798517	Mitochondrial ATP synthase delta subunit	NC	2.1	Proton transporting ATP synthase complex
NM_002394	Solute carrier family 3 member 2 (SLC3A2)	NC	2.1	Dibasic and neutral amino acid transport
BC001913	Vesicle amine transport protein 1 homologue (VAT1)	NC	1.8	Vesicular amine transport
NM_013272	Solute carrier family 21 member 11 (SLC21A11)	NC	1.7	Organic anion transporter
M23114	Sarcoplasmic reticulum Ca(2+)-ATPase 2 (SERCA2)	NC	-1.5	Cation transport across membranes
AF189723	Calcium transport ATPase (ATP2C1A)	NC	-1.8	Cation transport
NM_001690	ATPase, H+ transporting lysosomal alpha polypeptide 1 (ATP6A1)	NC	-2	Proton transport
NM_016657	KDEL ER protein retention receptor 3 (KDELR3)	NC	-2	Retention of resident proteins in ER
NM_003051	Solute carrier family 16 member 1 (SLC16A1)	NC	-2	Monocarboxylate transporter activity
AA805753	ATPase, Ca2+ transporting, cardiac muscle, slow twitch 2	NC	-2.2	Cation transport
NM_005765	ATPase, H+ transporting, lysosomal membrane protein M8-9	NC	-2.3	Vacuolar proton pump
NM_006801	KDEL ER protein retention receptor 1 (KDELR1)	NC	-2.3	Retention of resident proteins in ER
AJ002428	Voltage-dependent anion channel 1 (VDAC1)	NC	-2.4	Anion transport
NM_006854	KDEL ER protein retention receptor 2 (KDELR2)	NC	-2.6	Retention of resident proteins in ER
NM_007107	Signal sequence receptor, gamma (SSR3)	NC	-2.7	Protein translocation across ER
NM_007325	Glutamate receptor 3 (GLUR3)	NC	-2.8	Glutamate signalling; synaptic transmission
AF053755	Bicarbonate transporter (BT)	NC	-3.4	Small molecule transport
NM_004733	Acetyl-coenzyme A transporter (ACATN)	NC	-3.5	Acetyl-CoA transporter activity
NM_012450	Sulfate transporter 1 (SUT1)	NC	-3.8	Sodium ion transport; sulfate transport
AI638420	Chloride intracellular channel 4 (CLIC4)	NC	-4.7	Chloride transport
Cytokine and growth factor				
NM_002546	Osteoprotegerin (TNFRSF11B)	15.1	NC	Regulates bone resorption
NM_004591	Chemokine (cc motif) ligand 20 (CCL20)	14.2	NC	Recruitment of activated T-cells
NM_012242	Dickkopf (<i>Xenopus laevis</i>) homologue 1 (DKK1)	13.8	3.8	Growth factor
NM_001945	Heparin-binding EGF-like growth factor	7	-1.8	Binds EGFR; positive regulation of cell proliferation
NM_000417	Interleukin 2 receptor, alpha (IL2RA)	3.8	NC	T-cell proliferation
NM_002506	Nerve growth factor, beta (NGFB)	2.8	1.6	Survival of nerve cells
NM_002607	Platelet-derived growth factor alpha (PDGFA)	2.5	NC	Cell proliferation
NM_013246	Cardiotrophin-like cytokine (CLC)	2	NC	IL-6 family of cytokines
AF229253	FGF2-interacting factor (API5)	-1.5	-2.9	Apoptosis inhibitor
NM_002090	GRO3 oncogene (GRO3)	-1.8	NC	G-protein-coupled receptor protein signalling pathway
S69738	Monocyte chemotactic protein human (MCP-1)	-1.8	-2	Recruitment of monocytes
AF125392	Insulin-induced protein 2	-2	-2.3	
NM_006273	Chemokine (C-C motif) ligand 7 (CCL7)	-2	-2.6	Monocytes/macrophages recruitment
X16323	Hepatocyte growth factor (HGF)	-2.3	-4.1	Cell proliferation
M59465	TNF alpha-induced protein 3 (TNFAIP3)	-2.7	-1.9	Inhibits NFK-B and TNF-mediated apoptosis
M57731	Gro-beta; GRO2 oncogene	-3.1	NC	G-protein-coupled receptor protein signalling pathway
NM_000759	Colony-stimulating factor 3 (granulocyte) (CSF3)	-5.8	NC	Positive regulation of cell proliferation
NM_001492	Growth differentiation factor 1 (GDF1)	NC	8.5	Growth factor
AF028333	Growth differentiation factor-11 (GDF11)	NC	4.8	Neurogenesis; skeletal development
NM_021805	Single Ig IL-1R-related molecule (SIGIRR)	NC	4.7	Subtype of the IL-1R superfamily
NM_002010	Fibroblast growth factor 9 (FGF9)	NC	2.5	Cell proliferation
NM_000599	Insulin-like growth factor-binding protein 5 (IGFBP5)	NC	2.1	IGF binding; regulation of cell growth
NM_003641	Interferon-induced transmembrane protein 1 (IFITM1)	NC	-1.3	Antiproliferative
NM_001709	Brain-derived neurotrophic factor (BDNF)	NC	-1.4	Survival of striatal neurons in the brain
NM_006792	Mortality factor 4 (MORF4)	NC	-1.6	Induces senescent-like phenotype in cell lines
AK001280	Hepatoma-derived growth factor	NC	-1.7	Growth factor
NM_000600	Interleukin 6 (IL6)	NC	-2	Acute-phase response; cell proliferation

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
AF214570	Vascular endothelial growth factor (VEGF)	NC	−2.4	Positive regulation of cell proliferation; angiogenesis
NM_000598	Insulin-like growth factor-binding protein 3	NC	−2.5	Regulation of cell growth
U81380	Interleukin-13 receptor soluble form	NC	−2.6	IL-13 regulation
NM_002187	Interleukin 12B (IL12B)	NC	−2.7	Positive regulation of activated T-cell proliferation
BC001281	TNF receptor superfamily, member 10b	NC	−2.8	Induction of apoptosis via death domain receptors
D78132	Ras homologue-enriched in brain 2 (RHEB2)	NC	−2.9	Ras-related growth factor
U19495	Intercrine-alpha stromal cell-derived factor 1	NC	−3.1	regulation of actin polymerization; cell–cell signalling
AW770896	Insulin-like growth factor-binding protein 7	NC	−3.7	Negative regulation of cell proliferation
M19154	Transforming growth factor, beta 2 (TGFB2)	NC	−4	Regulation of proliferation
NM_005711	EGF-like repeats and discoidin I-like domains 3	NC	−5.3	Integrin binding; cell adhesion
NM_000641	Interleukin 11 (IL11)	NC	−6.4	Positive regulation of cell proliferation
BG166705	Small inducible cytokine subfamily B (CXC), member 5 (SCYB5)	NC	−8	Chemotaxis; positive regulation of cell proliferation
NM_000618	Insulin-like growth factor I (somatomedin C)	NC	−12.5	RAS signal transduction; regulation of proliferation
Miscellaneous				
NM_017856	Hypothetical protein FLJ20514	9.3	NC	
AB007938	KIAA0469	7.5	6.7	
NM_014344	Putative-secreted ligand homologous to ftx1	7	7.8	
NM_018039	Hypothetical gene FLJ10251	4.8	NC	
AK000293	cDNA FLJ20286, clone HEP04358	4.5	NC	
NM_020119	Hypothetical gene FLB6421 (FLB6421)	4.4	NC	
BE783668	KIAA1032	4.4	NC	
AB051442	KIAA1655	4.3	NC	
AL080112	cDNA clone DKFZp586H0722	4.2	NC	
AF281064	CHMP1.5 protein (CHMP1.5)	4	NC	Vesicle trafficking
AF277094	Stargardt disease 3 (autosomal dominant) (ELOVL4)	3.9	NC	
AL117523	KIAA1053	3.7	NC	
AK024259	Highly similar to KIAA0998	3.5	NC	
AF070592	HSKM-B	3.4	NC	
AL137378	cDNA from clone DKFZp434K1126	3.3	NC	
U81031	Cosmid 6E5 CDK4, SAS, KIAA0167 and OS9 genes	3.1	NC	
NM_014114	PRO0097 protein	3	6	
AA488687	est:ab38f03	2.8	NC	
AB037745	KIAA1324	2.8	NC	
K01391	<i>Bacillus subtilis</i> TrpE, D, C proteins in K01391	2.7	NC	
NM_024697	Hypothetical protein FLJ22419	2.7	NC	
AB028976	KIAA1053	2.7	NC	
N30649	Truncated calcium-binding protein (LOC51149)	2.7	8.4	
AW503390	Est weakly similar to ALU7_human ALU subfamily	2.6	NC	
X80821	mRNA for ribosomal protein L18a homologue	2.6	NC	
AI189753	cDNA FLJ13302 clone OVARC1001357	2.5	NC	
AW205215	KIAA0286	2.5	NC	
N30342	KIAA0339	2.5	NC	
AL353759	Sequence from chr 6	2.5	NC	
NM_022454	SRY-box-containing gene 17	2.4	NC	
NM_025025	Hypothetical gene FLJ14100	2.2	NC	
NM_014705	KIAA0716	2.1	NC	
NM_014388	Similar to YIL091C yeast hypothetical 84 kD protein	2.1	NC	
AL556438	Clone CS0DK004Y118 (3 prime)	1.9	NC	
AA148507	cDNA DKFZp564D016	1.8	NC	
AW779556	KIAA0965	1.8	NC	
NM_014575	Schwannomin-interacting protein 1 (SCHIP-1)	1.8	NC	
NM_030915	Hypothetical gene DKFZp566J091	1.6	NC	
NM_024116	Hypothetical protein MGC5306	1.6	NC	
NM_018418	Hypothetical protein (HSD-3.1)	−1.2	NC	
NM_014909	KIAA1036 protein	−1.5	−1.8	
AF199356	F-box and leucine-rich repeat protein 7	−1.6	NC	Components of modular E3 ubiquitin protein ligases
AL031848	Sequence from clone 20208 on chromosome 1p36.11-36.31	−1.6	NC	
AI078169	FLJ23176 fis, clone LNG10452	−1.7	NC	

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
NM_003155	Stanniocalcin 1	-1.9	NC	
AF269167	Arsenite-related gene 1	-1.9	-5.2	
U85707	MEIS1 homobox protein	-2	-2	Specify cell fates and differentiation patterns
AF268037	Chromosome 8 open reading frame 4 (C8ORF4)	-2.1	-1.8	Thyroid carcinogenesis
AL049786	Novel human gene mapping to chromosome 13	-2.2	NC	
AB020721	KIAA0914 gene product	-2.3	NC	
NM_018678	Lipopolysaccharide specific response-68 protein (LSR68)	-2.5	-4.3	
M58549	Matrix Gla protein (MGP)	-2.8	-2.3	Regulator of Ca deposition in cartilage and arterial wall
NM_015626	SOCS box-containing WD protein SWIP-1 (WSB1)	-2.8	-5.4	
AW029169	KIAA0507 protein	-2.9	NC	
NM_025079	Hypothetical protein FLJ23231	-3.1	NC	
AW195581	KIAA0761 protein	-3.1	NC	
BC000527	Ewing sarcoma breakpoint region 1	-3.4	NC	Sarcoma-associated gene
D17570	Zona pellucida-binding protein (SP38)	-3.4	NC	
M10098	AFFX-r2-Hs18SrRNA	-3.7	NC	
D87470	KIAA0280 gene	-3.7	NC	
AF139463	Early growth response 2 (EGR2)	-3.9	NC	Induction of genes critical for myelination
NM_024111	Hypothetical protein MGC4504	-3.9	NC	
AF144755	Hypoxia-inducible protein 2 (HIG2)	-3.9	NC	Response to stress
NM_030776	Z DNA-binding protein 1 (ZBP1)	-4.3	NC	Binds left-handed Z-DNA
AK023792	Hypothetical protein FLJ13074	-4.5	-3.1	
AF056209	PAM COOH-terminal interactor protein 1 (PCIP1)	-4.9	NC	Neuropeptide signalling pathway
NM_000312	Protein C (PROC)	-5	NC	Anticoagulant
NM_017606	Hypothetical protein DKFZp434K1210	-5.3	NC	
M12529	Apolipoprotein E (APOE)	-5.5	-6.2	Lipid metabolism and transport
NM_017869	BTG3-associated nuclear protein (BANP)	-9.8	NC	
NM_019058	Hypothetical protein (FLJ20500)	-9.8	NC	
AF263928	Papillomavirus regulatory factor PRF-1 (LOC55893)	-19.7	NC	
AC005943	Chromosome 19, cosmid R30538	NC	24.3	
BE885926	KIAA0706	NC	17.1	
NM_022772	Hypothetical gene FLJ21935	NC	15.4	
NM_024874	Hypothetical protein FLJ14225	NC	14.7	
NM_014786	KIAA0337	NC	11.7	
BE305165	Phospholipase C, beta 3, neighbour pseudogene	NC	9.5	
BG334196	FLJ00043 protein	NC	8	
NM_024801	Hypothetical protein FLJ21551	NC	8	
NM_017722	Hypothetical protein FLJ20244	NC	7.8	
NM_018052	Hypothetical gene FLJ10305	NC	7.3	
NM_022914	Hypothetical protein 24432	NC	7.2	
AF043898	Bridging integrator 1	NC	7	Synaptic transmission; non-selective vesicle transport
AB028949	KIAA1026 protein	NC	6.6	
NM_017949	Hypothetical protein FLJ20739	NC	6.4	
U79266	Clone 23627 (HSU79266)	NC	6.2	
NM_024922	Hypothetical protein FLJ21736	NC	5.8	
NM_017707	Hypothetical protein FLJ20199	NC	5.5	
AB011133	KIAA0561 protein	NC	5.5	
X83412	B1 mucin	NC	5.2	
NM_024906	Hypothetical protein FLJ21032	NC	5	
AB002354	KIAA0356 protein	NC	5	
AI935123	est:wp13h09.x1	NC	4.9	
BF062629	DKFZP586E1621	NC	4.8	
NM_022372	G-protein beta subunit-like (GBL)	NC	4.8	
AF007155	Clone 23763 unknown mRNA	NC	4.5	
NM_017600	Hypothetical protein DKFZp434M0331	NC	4.2	
NM_021995	Urotensin 2 (UTS2), transcript variant 1	NC	4.2	Vasoconstrictor
NM_017849	Hypothetical protein FLJ20507	NC	4.1	
AW070431	Myelin basic protein	NC	4	Nerve ensheathment
BC000039	Similar to hypothetical protein, clone MGC:1824	NC	3.9	
AL540260	PAC clone RP3-515N1 from 22q11.2-q22	NC	3.8	
NM_024509	Hypothetical protein MGC2656	NC	3.6	
AU155105	FLJ13271 fis, clone OVARC1001000	NC	3.5	

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
AV705559	Lipin 1	NC	3.5	Adipocyte differentiation
L77566	DGS-1	NC	3.4	Required for thymic development
AK022897	cDNA FLJ12835 fis, clone NT2RP2003165	NC	3.3	
NM_016473	Hypothetical protein (LOC51243)	NC	3.3	
AW006750	Hypothetical protein FLJ20059	NC	3.3	
AA907940	3 end/clone	NC	3.2	
AA314406	5 end/clone	NC	3.1	
NM_024632	Hypothetical protein FLJ11526	NC	3.1	
NM_022842	Hypothetical protein FLJ22969	NC	3.1	
AI341234	3 End	NC	3	
NM_025092	Hypothetical protein FLJ22635	NC	2.9	
AW168132	KIAA0404 protein	NC	2.8	
AA149545	5 End/clone	NC	2.6	
NM_017828	Hypothetical protein FLJ20452	NC	2.6	
NM_030575	Hypothetical protein MGC10334	NC	2.6	
BC001393	Hypothetical protein, clone MGC:782	NC	2.6	
BC003654	Similar to hypothetical protein MGC4365	NC	2.6	
AF230924	Divalent cation tolerant protein CUTA	NC	2.5	
BF038366	Hypothetical protein	NC	2.5	
NM_024952	Hypothetical protein FLJ20950	NC	2.5	
NM_024900	Hypothetical protein FLJ22479	NC	2.5	
AL040896	Hypothetical protein MGC3035	NC	2.5	
AB007895	KIAA0435 mRNA	NC	2.5	
AB018333	KIAA0790 protein	NC	2.5	
AK022632	cDNA FLJ12570 fis, clone NT2RM4000895	NC	2.4	
NM_006589	Chromosome 1 open reading frame 2 (C1ORF2)	NC	2.4	
AL049261	DKFZp564E053 (from clone DKFZp564E053)	NC	2.3	
NM_022450	Epidermal growth factor receptor-related protein	NC	2.3	
BF038366	Hypothetical protein	NC	2.3	
NM_024682	Hypothetical protein FLJ12168	NC	2.3	
NM_022759	Hypothetical protein FLJ21865	NC	2.3	
R39094	KIAA1085 protein	NC	2.3	
AI493119	3 end/clone	NC	2.2	
AF132940	CGI-06 protein (LOC51604)	NC	2.2	
NM_020989	Crystallin, gamma C (CRYGC)	NC	2.2	Structural constituent of eye lens
NM_022464	ER chaperone SIL1, homolog of yeast (SIL1)	NC	2.2	
NM_018103	Hypothetical protein FLJ10470	NC	2.2	
BC001471	Hypothetical protein FLJ20277	NC	2.2	
NM_017966	Hypothetical protein FLJ20847	NC	2.2	
AL040896	Hypothetical protein MGC3035	NC	2.2	
NM_003900	Sequestosome 1 (SQSTM1)	NC	2.2	
AA150503	3 End/clone	NC	2.1	
AL571362	Calcium-binding protein Cab45 precursor	NC	2.1	Calcium ion-binding activity
AL136663	cDNA DKFZp564A176 hypothetical protein	NC	2.1	
AI871641	cDNA FLJ12012 fis, clone HEMBB1001668	NC	2.1	
BE783279	est:601470835F1	NC	2.1	
AK022192	FLJ12130 fis, clone MAMMA1000251	NC	2.1	
AK000754	Highly similar to J03068 Human DNF1552	NC	2.1	
NM_025099	Hypothetical protein FLJ22170	NC	2.1	
AY007098	Hypothetical protein FLJ22405	NC	2.1	
BC004998	Membrane-bound C2 domain-containing protein (MBC2)	NC	2.1	
AW016304	3 End/clone	NC	2	
BG287862	AHNAK nucleoprotein (desmoyokin)	NC	2	Binds and activated PLC gamma
AL136658	Hypothetical protein chromosome 14 ORF 1	NC	2	
NM_018391	Hypothetical protein FLJ11328	NC	2	
NM_024779	Hypothetical protein FLJ22055	NC	2	
AA775681	Hypothetical protein FLJ23091	NC	2	
NM_006394	Regulated in glioma (RIG)	NC	2	
AA631254	3 End/clone	NC	1.9	
AI669655	3 End/clone	NC	1.9	
NM_000489	Alpha thalassaemia mental retardation syndrome (RAD54)	NC	1.9	
NM_019088	Hypothetical protein F23149_1	NC	1.9	
NM_022827	Hypothetical protein FLJ21347	NC	1.9	
NM_031213	Hypothetical protein MGC:5244	NC	1.9	
NM_018584	Hypothetical protein PRO1489	NC	1.9	
AF208043	IFI16b	NC	1.9	Interferon, gamma-inducible protein
AI735639	KIAA0239 protein	NC	1.9	
AL080183	KIAA0592 protein	NC	1.9	
AB014564	KIAA0664 protein	NC	1.9	
AB028988	KIAA1065 protein	NC	1.9	

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
D28124	mRNA for unknown product	NC	1.9	
BC001308	Nucleolar protein ANKT	NC	1.9	
NM_012436	Sperm-associated antigen 8 (SPAG8)	NC	1.9	
BC004327	Unknown (protein for IMAGE:3629896)	NC	1.9	
BF663461	Clone PP1744 unknown mRNA	NC	1.8	
AW241752	FLJ11680 fis, clone HEMBA1004820	NC	1.8	
NM_024537	Hypothetical protein FLJ12118	NC	1.8	
NM_024958	Hypothetical protein FLJ23329	NC	1.8	
AB011174	KIAA0602 protein	NC	1.8	
AK025608	KIAA0930 protein	NC	1.8	
AI693193	Metaxin 1	NC	1.8	
NM_000308	Protective protein for beta-galactosidase (PPGB)	NC	1.8	Intracellular protein transport
AA582932	3 End/clone	NC	1.7	
AL120741	5 End/clone	NC	1.7	
NM_016274	CK2-interacting protein 1; HQ0024c protein (LOC51177)	NC	1.7	
BC000464	JM5 protein, clone MGC:8542	NC	1.7	
AC005600	Chromosome 16, P1 clone 109-9G (LANL)	NC	1.6	
AF132959	CGI-25 protein (LOC51070)	NC	1.5	
NM_014924	KIAA0831 protein	NC	1.4	
D13634	KIAA0009 gene product	NC	-1.1	
AK024279	FLJ14217 fis, clone NT2RP3003680	NC	-1.2	
NM_024852	Hypothetical protein FLJ12765	NC	-1.5	
BC001759	Hypothetical protein FLJ20360	NC	-1.5	
AI760249	KIAA1040 protein	NC	-1.5	
AI753659	cDNA DKFZp56402363	NC	-1.6	
AI566082	Clone 24889 mRNA sequence	NC	-1.6	
NM_018834	Matrin 3	NC	-1.6	
AF062483	SDP3	NC	-1.6	
BE748698	Small acidic protein	NC	-1.6	
AF033095	Testis enhanced gene transcript protein (TEGT)	NC	-1.6	Suppress apoptosis
AF201949	60S ribosomal protein L30 isologue (LOC51187)	NC	-1.7	Protein biosynthesis
AF214737	C9orf10 protein	NC	-1.7	
AF151853	CGI-95 protein	NC	-1.7	
NM_001755	Core-binding factor, beta subunit (CBFB), transcript variant 2	NC	-1.7	Transcription from Pol II promoter
AL110243	Hypothetical protein DKFZP564A122 protein	NC	-1.7	
NM_030938	Hypothetical protein DKFZp566I133	NC	-1.7	
NM_018212	Hypothetical protein FLJ10773	NC	-1.7	
D14658	KIAA0102 gene product	NC	-1.7	
AB011084	KIAA0512 gene product	NC	-1.7	
AB014580	KIAA0680 gene product	NC	-1.7	
AB023187	KIAA0970 protein	NC	-1.7	
M30938	Ku autoimmune antigen gene	NC	-1.7	Ku autoimmune antigen gene
BC002379	MAD homologue 4 (MADH4)	NC	-1.7	Putative tumour suppressor
BE880828	Transposon-like element mRNA	NC	-1.7	
NM_001839	Calponin 3, acidic (CNN3)	NC	-1.8	Smooth muscle contraction
BG168666	DKFZp434J1813 protein	NC	-1.8	
NM_006486	Fibulin 1 (FBLN1), transcript variant D	NC	-1.8	Extracellular matrix glycoprotein
NM_006329	Fibulin 5 (FBLN5)	NC	-1.8	Cell-matrix adhesion
AK025862	FLJ22209 fis, clone HRC01496	NC	-1.8	
U25165	Fragile X mental retardation, autosomal homologue 1	NC	-1.8	Nucleic acid-binding activity
NM_018422	Hypothetical protein DKFZp761K1423	NC	-1.8	
NM_018247	Hypothetical protein FLJ10856	NC	-1.8	
NM_021175	Liver-expressed antimicrobial peptide (LEAP-1)	NC	-1.8	Xenobiotic metabolism; immune response
BC002364	Non-POU-domain-containing, octomer-binding	NC	-1.8	mRNA splicing
S81916	Phosphoglycerate kinase (alternatively spliced)	NC	-1.8	
AF306510	RAN-binding protein 9 (RANBP9)	NC	-1.8	Protein complex assembly
M11433	Retinol-binding protein 1, cellular (RBP1)	NC	-1.8	Intracellular carrier of retinol
NM_000993	Ribosomal protein L31	NC	-1.8	
NM_005885	Similar to <i>Saccharomyces cerevisiae</i> SSM4	NC	-1.8	
AF182292	Sm protein F (LSM6)	NC	-1.8	mRNA splicing
U51678	Small acidic protein (IMAGE145052)	NC	-1.8	
U09087	Thymopoietin	NC	-1.8	Lamin binding
AF045606	Chromosome 21 open reading frame 4 (C21ORF4)	NC	-1.9	
AI718937	Clone 24775	NC	-1.9	
AF138300	Decorin (DCN)	NC	-1.9	Histogenesis and organogenesis
BC005291	Eukaryotic translation elongation factor 1 epsilon 1 (EEF1E1)	NC	-1.9	Protein biosynthesis

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
NM_017992	Hypothetical protein FLJ10083	NC	-1.9	
AL050262	Hypothetical protein toll-like receptor 1	NC	-1.9	Host response against pathogens
AU153138	KIAA0033 protein	NC	-1.9	
D80006	KIAA0184 gene	NC	-1.9	
AV725328	Prion protein	NC	-1.9	Protein infectious agent
BC004892	Reticulocalbin 2, EF-hand calcium-binding domain	NC	-1.9	Protein binding; calcium ion-binding; tumour suppressor
AA890010	SEC22, vesicle trafficking protein (<i>S. cerevisiae</i>)-like 1	NC	-1.9	ER to Golgi transport
AI768845	Synaptophysin-like protein	NC	-1.9	Synaptic transmission
AK025637	Brefeldin A-inhibited guanine nucleotide-exchange protein 1	NC	-2	Guanyl-nucleotide exchange factor activity
AF104857	Cdc42 effector protein 3	NC	-2	Signal transduction; regulatory protein binding
BG286537	CGI-109 protein	NC	-2	
AF151899	CGI-141 protein (LOC51026)	NC	-2	Vesicle-mediated transport
AF080579	Integral membrane subunit of complex II (CII-3) pseudogene	NC	-2	
BC004467	KIAA0171 gene product, clone MGC:10257	NC	-2	
AB007898	KIAA0438 gene product	NC	-2	
AI479175	KIAA1077 protein	NC	-2	
AF063002	LIM protein SLIMMER	NC	-2	Cell growth; muscle development; cell differentiation
AI653730	Matrix Gla protein	NC	-2	
AF261717	SAR1 protein (SAR1)	NC	-2	Interacts with components of the cytoskeleton
NM_007281	Scrapie-responsive protein 1 (SCRG1)	NC	-2	Neurogenesis
AF130464	SEC24 (<i>S. cerevisiae</i>)-related gene family, member D (SEC24D)	NC	-2	
AF065485	Sorting nexin 4 (SNX4)	NC	-2	Intracellular trafficking of proteins
AF030162	Translocase of mitochondrial membrane 23 homologue (TIM23)	NC	-2	Protein targeting; mitochondrial translocation
NM_001177	ADP-ribosylation factor-like 1 (ARL1)	NC	-2.1	Intracellular vesicular membrane trafficking
BC000373	Amyloid beta (A4) precursor-like protein 2	NC	-2.1	
NM_014034	Anti-silencing function 1 homologue A (ASF1A)	NC	-2.1	
NM_001746	Calnexin	NC	-2.1	Protein secretion
AI741876	cDNA DKFZp566B213	NC	-2.1	
BC000899	Golgi vesicular membrane trafficking protein p18, clone	NC	-2.1	ER to Golgi protein transport
AI912583	HIV-1 rev-binding protein 2	NC	-2.1	
NM_017905	Hypothetical protein FLJ20623	NC	-2.1	
NM_018507	Hypothetical protein PRO1843	NC	-2.1	
AF282626	Latexin protein (LXN)	NC	-2.1	
NM_005899	Membrane component, chr. 17, surface marker 2	NC	-2.1	Tumour antigen
D42063	RAN-binding protein 2	NC	-2.1	Protein-nucleus import; protein folding
AF109873	Retinoblastoma protein-associated protein	NC	-2.1	
AF085481	Serum deprivation response (phosphatidylserine-BP) (SDPR)	NC	-2.1	Phospholipid binding
NM_005637	Synovial sarcoma, translocated to X chromosome	NC	-2.1	
AF124489	Arfaptin-1b mRNA, alternatively spliced	NC	-2.2	Vesicle transport between ER and Golgi complex
M64110	Caldesmon 1 (CALD1)	NC	-2.2	Muscle development; muscle contraction
BC002500	Calreticulin (CALR)	NC	-2.2	Regulation of transcription, DNA-dependent
AL133102	CGI-142	NC	-2.2	
M97501	Cytoplasmic linker protein-170 alpha-2 (CLIP-170)	NC	-2.2	
U13896	Discs, large (<i>Drosophila</i>) homologue 1 (DLG1)	NC	-2.2	
AL049943	DKFZp564F0522	NC	-2.2	
AF220153	Four and a half LIM domains 1 protein isoform C (FHL1)	NC	-2.2	Cell growth; muscle development; cell differentiation
U16307	Glioma pathogenesis-related protein (RTVP1)	NC	-2.2	Act enzymatically to inhibit microbial or viral infection
NM_015383	Hypothetical protein DJ328E19.C1.1	NC	-2.2	
AB044343	KIAA0260 protein	NC	-2.2	
AI656706	KIAA0997 protein	NC	-2.2	
AF095727	Myelin protein zero-like protein MPZL1a	NC	-2.2	Protein tyrosine kinase signalling

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
NM_004641	Myeloid/lymphoid or mixed-lineage leukaemia homologue (AF10)	NC	-2.2	Regulation of transcription, DNA-dependent
NM_015640	PAI-1 mRNA-binding protein (PAI-RBP1)	NC	-2.2	
D88674	Antizyme inhibitor (LOC51582)	NC	-2.3	Polyamine biosynthesis
AF132941	CGI-07 protein (LOC51068)	NC	-2.3	Electron transport
AF151834	CGI-76 protein	NC	-2.3	
AF003114	CYR61;cysteine-rich, angiogenic inducer, 61	NC	-2.3	Embryogenesis and morphogenesis; cell proliferation
AK027217	FLJ23564 fis, clone LNG10773	NC	-2.3	
AF164622	Golgin-67 (GOLGA5)	NC	-2.3	
NM_015684	Hypothetical protein HSU79253	NC	-2.3	
AL137254	KIAA1109 protein	NC	-2.3	
U41060	LIV-1 protein, oestrogen regulated (LIV-1)	NC	-2.3	Metal ion transport
U28727	Pregnancy-associated plasma protein A	NC	-2.3	Pregnancy
J03223	Secretory granule proteoglycan peptide core mRNA	NC	-2.3	Proteoglycan
NM_003276	Thymopoietin	NC	-2.3	Thymus development
U19878	TM protein with EGF and follistatin-like domains 1 (TMEFF1)	NC	-2.3	
AI400621	3 End/clone	NC	-2.4	
AF353990	Beta-amyloid-binding protein precursor (BBP)	NC	-2.4	
AA156865	cDNA DKFZp56400122	NC	-2.4	
AF151842	CGI-84 protein	NC	-2.4	
NM_003676	Degenerative spermatocyte (lipid desaturase) (DEGS)	NC	-2.4	Fatty acid desaturation
AF161392	HSPC274 protein	NC	-2.4	
NM_022826	Hypothetical protein DKFZp586F1122 similar to axotrophin	NC	-2.4	
NM_024753	Hypothetical protein FLJ11457	NC	-2.4	
NM_025191	Hypothetical protein FLJ13033	NC	-2.4	
AL096712	Hypothetical protein FLJ20337	NC	-2.4	
NM_014774	KIAA0494 protein	NC	-2.4	
AW043713	KIAA1077 protein	NC	-2.4	
NM_002389	Membrane cofactor protein (CD46) (MCP)	NC	-2.4	Invasive growth; virulence; complement activation
AB000220	Semaphorin 3C (SEMA3C)	NC	-2.4	Non-multidrug resistance
NM_005637	Synovial sarcoma, translocated to X chromosome (SSXT)	NC	-2.4	Cell growth and/or maintenance
NM_017813	Hypothetical protein FLJ20421	NC	-2.5	
NM_014789	KIAA0628 gene product	NC	-2.5	
D90453	Caldesmon 1	NC	-2.5	
U95822	Putative transmembrane GTPase	NC	-2.5	
NM_007190	Sec23-interacting protein p125	NC	-2.5	Intracellular protein transport
NM_006948	Stress 70 protein chaperone, microsome-associated (STCH)	NC	-2.5	ATP binding
R94644	Versican Vint isoform	NC	-2.5	Complex with matrix glycoproteins
AF013759	Calumenin	NC	-2.6	Calcium ion binding
AI057093	cDNA DKFZp434I0812	NC	-2.6	
AF151867	CGI-109 protein	NC	-2.6	
NM_001968	Eukaryotic translation initiation factor 4E	NC	-2.6	Translational initiation; binding to mRNA cap
AI936769	FK506-binding protein 1A (12kD)	NC	-2.6	Protein folding
NM_024862	Hypothetical protein FLJ13962	NC	-2.6	
AB028991	KIAA1068 protein	NC	-2.6	
M30269	Nidogen (enactin) (NID)	NC	-2.6	Cell-matrix adhesion
D32039	pgH3 mRNA for proteoglycan PG-M(V3)	NC	-2.6	Cell recognition
AF113132	Phosphoserine aminotransferase (PSA)	NC	-2.6	Metabolism
AF239756	PZR1b	NC	-2.6	
NM_030791	Sphingosine-1-phosphatase (SGPP1)	NC	-2.6	
NM_019063	Chromosome 2 open reading frame 2 (C2ORF2)	NC	-2.7	
AF257659	Crocalbin-like protein	NC	-2.7	
AL534321	DAZ-associated protein 2	NC	-2.7	Transport
BC000793	Eukaryotic translation initiation factor 1A	NC	-2.7	Translational initiation
AK021640	FLJ11578 fis, clone HEMBA1003571	NC	-2.7	
AF197137	FN5 protein (FN5)	NC	-2.7	
AF064826	Glypican 4 (GPC4)	NC	-2.7	Anti-angiogenic
AB029156	HRP-3	NC	-2.7	
NM_024563	Hypothetical protein FLJ14054	NC	-2.7	
NM_014739	KIAA0164 gene product	NC	-2.7	
AF069072	KIAA0987	NC	-2.7	Actin binding
AF136975	Ribosome-associated membrane protein 4	NC	-2.7	

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
AF106622	Translocase of mitochondrial membrane 17 homologue A	NC	-2.7	Protein targeting to mitochondria
AB028639	Calpain 7 (CAPN7)	NC	-2.8	Proteolysis and peptidolysis
AF016005	Chromosome 1 atrophin-1-related protein (DRPLA)	NC	-2.8	
BC005147	FK506-binding protein 1A (12kD), clone MGC:2167	NC	-2.8	Protein folding
AK025843	FLJ22190 fis, clone HRC01053	NC	-2.8	
AB017365	Frizzled (<i>Drosophila</i>) homologue 7 (FZD7)	NC	-2.8	Frizzled receptor signalling pathway
AW138594	Hypothetical protein FLJ10262	NC	-2.8	
AF119855	Hypothetical protein PR01847	NC	-2.8	
AF329637	Mitofusin 1	NC	-2.8	
M35999	Platelet glycoprotein IIIa (GPIIIa)	NC	-2.8	Platelet aggregation
BC005253	Similar to Kelch motif-containing protein, clone MGC:12288	NC	-2.8	Cytoskeleton organization and biogenesis
BF695847	YDD19 protein	NC	-2.8	
NM_002964	Calgranulin A (CGLA)	NC	-2.9	Ca- and Zn-binding protein; Cf Ag
L18887	Calnexin	NC	-2.9	Protein secretion
AI621079	Coatmer protein complex, subunit alpha	NC	-2.9	ER to Golgi transport
AW242916	DKFZp564F053	NC	-2.9	
AL050050	DKFZp566D133 hypothetical protein	NC	-2.9	
X62009	Fibrillin 2 (FBN2)	NC	-2.9	
AK025862	FLJ22209 fis, clone HRC01496	NC	-2.9	
U16307	Glioma pathogenesis-related protein (GliPR)	NC	-2.9	Pathogenesis
U29538	Human heart protein with four and a half LIM domains (FHL-1)	NC	-2.9	Cell growth; muscle development; cell differentiation
NM_024840	Hypothetical protein FLJ13590	NC	-2.9	
L12002	Integrin alpha 4 subunit	NC	-2.9	Cell-matrix adhesion; integrin-mediated signalling pathway
AK023621	KIAA0878 protein	NC	-2.9	
Z24725	Mitogen inducible 2	NC	-2.9	
AF274954	PNAS-29	NC	-2.9	
BC003364	ADP-ribosylation factor 4	NC	-3	Intracellular protein transport
BC002416	Biglycan (BGN)	NC	-3.1	Extracellular matrix structural constituent
AB043587	Golgi resident protein GCP60	NC	-3.1	Sorting and modification of proteins from ER
AF010193	MAD (mothers against decapentaplegic) homologue 7 (MADH7)	NC	-3.2	Regulation of transcription, DNA-dependent
AF196834	Twisted gastrulation (TSG)	NC	-3.2	Dorsal-ventral axis inducing activity
AF294326	Core-binding factor beta isoform PEBP2B	NC	-3.3	Transcription from Pol II promoter
AF220051	Haematopoietic stem/progenitor cells protein MDS031	NC	-3.3	
AF119855	PR01847	NC	-3.3	
AF000992	Ubiquitous tetratricopeptide repeat gene, X isoform (UTX)	NC	-3.3	
AF151834	CGI-76 protein (LOC51632)	NC	-3.4	
NM_018240	Hypothetical protein FLJ10845	NC	-3.4	
NM_018351	Hypothetical protein FLJ11183	NC	-3.4	
AF107493	LUCA-15 protein mRNA, splice variant	NC	-3.4	RNA processing; negative regulation of cell cycle
NM_005936	Mixed-lineage leukaemia translocated to 4 (MLLT4)	NC	-3.4	
AF042273	STAM-like protein-containing SH3 and ITAM domains 2	NC	-3.4	Intracellular protein transport
BC001731	Membrane component, chromosome 11, surface marker 1	NC	-3.5	
AF022860	Neuropilin 2	NC	-3.5	Sorting neuronal cells into distinct brain structures
NM_003825	Synaptosomal-associated protein (SNAP23)	NC	-3.5	Membrane fusion in intracellular vesicle traffic
AF241230	TAK1-binding protein 2	NC	-3.5	Induce JNK and Nfκ-B
BC005807	clone MGC:10264	NC	-3.6	
D87119	GS3955 protein, clone MGC:3860	NC	-3.6	Protein amino acid phosphorylation
NM_030921	Hypothetical protein DC42	NC	-3.6	
AF069765	Signal recognition particle 72kD	NC	-3.6	Protein targeting
AF008937	Syntaxin-16C	NC	-3.6	
NM_030799	Hypothetical protein AF140225	NC	-3.7	
NM_022090	Transposon-derived Buster3 transposase-like	NC	-3.7	
AK021457.1	cDNA FLJ11395 fis, clone HEMBA1000594	NC	-3.8	
AF000985	Dead box, Y isoform (DBY)	NC	-3.8	ATP-dependent helicase activity

Table S1 Continued.

Accession number	Gene title	3 h	21 h	Function
AL162040	DKFZp434N199	NC	-3.8	
BC000687	Translocating chain-associating membrane protein (TRAM)	NC	-3.8	Protein targeting; co-translational membrane targeting
M77227	Competitive HGF antagonist	NC	-3.9	
AL137673	DKFZp434H0872	NC	-3.9	
AI743740	DKFZp586F1323	NC	-3.9	
NM_024524	Hypothetical protein FLJ20986	NC	-3.9	
NM_030755	Thioredoxin-related transmembrane protein (TMX)	NC	-3.9	Electron transport
AF230399	Tripartite motif protein TRIM23 gamma	NC	-4	Small GTPase-mediated signal transduction
AC002544	Chromosome 16 BAC clone CIT987SK-A-761H5	NC	-4.1	
NM_004866	Secretory carrier membrane protein 1 (SCAMP1)	NC	-4.1	
NM_001884	Cartilage linking protein 1 (CRTL1)	NC	-4.2	Cell adhesion
D13630	KIAA0005 gene product	NC	-4.2	
AF111113	SBBI26 protein (SBBI26)	NC	-4.2	Protein-binding activity
NM_031214	Hypothetical protein AF311304	NC	-4.3	
NM_022828	Hypothetical protein FLJ21940	NC	-4.3	
AF230398	Tripartite motif protein TRIM23 beta	NC	-4.4	
NM_006815	Coated vesicle membrane protein (RNP24)	NC	-4.5	Intracellular protein transport
AK023111	Highly similar to NUCLEOPROTEIN TPR	NC	-4.5	
NM_006667	Progesterone-binding protein	NC	-4.5	
D86326	Vesicle docking protein p115	NC	-4.5	Intracellular protein transport
NM_006815	Coated vesicle membrane protein (RNP24)	NC	-4.7	Intracellular protein transport
NM_003139	Signal recognition particle receptor (docking protein)	NC	-4.7	Protein targeting
BC006141	Erythrocyte protein band 4.1-like 3	NC	-4.8	Actin binding
U45976	Clathrin assembly lymphoid-myeloid leukaemia gene (CLTH)	NC	-4.9	Vesicle-mediated transport
NM_001430	Endothelial PAS domain protein 1 (EPAS1)	NC	-4.9	Regulation of transcription, DNA-dependent
AL137000	KIAA0970 protein	NC	-5.2	
AF257501	SYTSSX4v fusion protein (SSXTSSX4v fusion)	NC	-5.3	Cell growth and/or maintenance
AF047448	TLS-associated protein TASR	NC	-5.6	Spliceosome assembly; mRNA processing
AK026803	FLJ23150 fis, clone LNG09358	NC	-6	
AB017445	X-ray repair complementing defective repair (XRCC4)	NC	-6.1	DNA recombination; double-strand break repair
AF163441	Golgin 67	NC	-6.2	
AF308601	NOTCH 2 (N2)	NC	-6.2	
AF223468	AD021 protein (LOC51313)	NC	-6.3	
BE465032	Hypothetical protein FLJ12619	NC	-6.6	
AF100745	PTD016 protein (LOC51136)	NC	-6.7	
NM_002518	Neuronal PAS domain protein 2 (NPAS2)	NC	-7	Central nervous system development
NM_006364	Sec23 (<i>S. cerevisiae</i>) homologue A (SEC23A)	NC	-7	Intracellular protein transport; vesicle-mediated transport
NM_006544	SEC10 (<i>S. cerevisiae</i>)-like 1 (SEC10L1)	NC	-7.4	Intracellular protein transport
D84294	Tetratricopeptide repeat domain 3	NC	-7.5	Pathogenesis
NM_018243	Hypothetical protein FLJ10849	NC	-7.9	
AF130055	Translocating chain-associating membrane protein	NC	-8.7	Protein targeting; co-translational membrane targeting
AK021846	Sec23-interacting protein p125	NC	-13.6	Golgi organization and biogenesis
L19161	Eukaryotic translation initiation factor 2, subunit 3 (EIF2S3)	NC	-13.9	Translational elongation
NM_005570	Lectin, mannose-binding, 1 (LMAN1)	NC	-15.4	Transport of mannose glycans from ER to Golgi
BG257762	Hypothetical protein	NC	-15.6	