

Supplementary Table 2. List of outlier genes identified by comparing L5 nerve root ligation (LR) and L5 spinal nerve transection (L5tx) lumbar spinal cord gene expression to corresponding sham operated controls at **7 days post-surgery**. Color coding corresponds to Fig. 2

1. LR Specific Outlier Genes

Probe Set ID	Gene Title	Ratio LR/Sham
1370810_at	Cyclin D2	2.96
1368081_at	ATP-binding cassette, sub-family A (ABC1), member 2	2.12
1388541_at	EST	1.94
1370209_at	basic transcription element binding protein 1	1.89
1398883_at	heterogeneous nuclear ribonucleoprotein A2/B1 (predicted)	1.83
1388271_at	EST	1.77
1371541_at	Similar to Mylk protein	1.71
1373224_at	Alpha-2,3-sialyltransferase ST3Gal IV	1.67
1388689_at	EST	1.66
1367679_at	CD74 antigen (invariant polypeptide of major histocompatibility class II antigen-associated)	1.63
1367846_at	S100 calcium-binding protein A4	1.61
1373862_at	EST	1.60
1389452_at	EST	1.60
1398385_at	EST	1.60
1374939_at	Similar to p53 inducible protein	1.58
1377095_at	similar to ataxin 2-binding protein 1 isoform 1; hexaribonucleotide binding protein 1	1.55
1388284_at	keratin associated protein 3-1 (predicted)	1.53
1375349_at	Similar to sorbin and SH3 domain containing 1	1.53
1389147_at	EST	1.52
1372812_at	EST	1.50
1398757_at	nucleophosmin 1	1.50
1375674_at	similar to chromosome 16 open reading frame 5 (predicted)	1.50
1377114_at	EST	1.47
1399096_at	Adducin 3 (gamma)	1.46
1387909_at	abl-interactor 2	1.45
1388983_at	EST	1.45
1372947_at	EST	1.44
1371890_at	Arginine-glutamic acid dipeptide (RE) repeats	1.44
1375144_at	Tissue inhibitor of metalloproteinase 2	1.43
1392453_at	chloride channel 3	1.43
1394166_at	EST	1.43
1375519_at	similar to alpha globin	1.42
1388500_at	EST	1.42
1373195_at	fusion (involved in t(12;16) in malignant liposarcoma) (predicted)	1.42
1386514_at	EST	1.42
1367934_at	ribosomal protein L39	1.41
1388076_at	PAI-1 mRNA-binding protein	1.40
1367637_a at	protein phosphatase 1, catalytic subunit, gamma isoform	1.40
1367497_at	phosphatidylserine synthase 1 (predicted)	1.39

1390461_at	EST	1.38
1398767_at	ubiquitin C	1.38
1370070_at	synaptojanin 1	1.38
1367576_at	EST	1.38
1369953_a_at	CD24 antigen	1.38
1387015_at	profilin 2	1.38
1375424_at	EST	1.37
1371550_at	similar to TSC-22-like (predicted)	1.36
1374635_at	EST	1.35
1387856_at	calponin 3, acidic	1.34
1367783_at	GABA(A) receptor-associated protein like 2	1.33
1399097_at	EST	1.33
1375032_at	EST	1.33
1367562_at	secreted acidic cysteine rich glycoprotein	1.33
1367771_at	delta sleep inducing peptide, immunoreactor	1.32
1385868_at	EST	1.32
1371434_at	EST	1.32
1383162_at	EST	1.31
1372002_at	gap junction membrane channel protein alpha 1	1.30
1372474_at	Similar to synaptophysin-like protein; pantophysin; Pan I; DNA segment, Chr 12, ERATO Doi 446, expressed	1.30
1368105_at	tetraspan 2	1.30
1368511_at	basic helix-loop-helix domain containing, class B3	1.29
1398775_at	ribosomal protein S15a	1.29
1368504_at	lysosomal membrane glycoprotein 1	1.29
1370545_at	potassium voltage-gated channel, shaker-related subfamily, member 1	1.29
1367453_at	cell division cycle 37 homolog (<i>S. cerevisiae</i>)	1.29
1389221_at	Similar to monocyte-to-macrophage differentiation factor 2	1.29
1372080_at	inner membrane protein, mitochondrial (predicted)	1.29
1389334_at	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex 10 /// NADH dehydrogenase 1 alpha subcomplex 10-like protein	1.28
1367898_at	BCL2/adenovirus E1B 19 kDa-interacting protein 3-like	1.28
1367460_at	GDP dissociation inhibitor 2	1.28
1371304_a_at	myosin, light polypeptide 6, alkali, smooth muscle and non-muscle (predicted)	1.27
1368806_at	selenoprotein P, plasma, 1	1.27
1379371_at	EST	1.27
1389556_at	kinesin-associated protein 3 (predicted)	1.26
1388615_at	Ras-related protein RAP-1A	1.26
1372484_at	EST	1.26
1371419_at	spectrin beta 2	1.26
1368384_at	kallikrein 6	1.26
1367476_at	signal recognition particle 14 (predicted)	1.26
1398782_at	EST	1.25
1371352_at	high mobility group protein 17	1.25
1388997_at	ADP-ribosylation factor 3	1.25
1370825_a_at	cell division cycle 42 homolog (<i>S. cerevisiae</i>)	1.24
1367929_at	EST	1.24
1372953_at	Similar to neurocalcin delta	1.24
1388159_at	EST	1.23

1389586_at	EST	1.23
1373133_at	EST	1.23
1370866_at	ribosomal protein L41	1.23
1375295_at	Citrate synthase	1.22
1370243_a_at	prothymosin alpha	1.22
1368402_at	dynein, cytoplasmic, light intermediate polypeptide 2	1.22
1371694_at	dihydropyrimidinase-like 2	1.22
1375108_at	EST	1.21
1375413_at	sirtuin 2 (silent mating type information regulation 2, homolog) 2 (S. cerevisiae)	1.21
1398333_at	Endothelial PAS domain protein 1	1.21
1371618_s_at	tubulin, beta 3	1.21
1384178_at	EST	1.20
1387890_at	ribosomal protein S29	1.20
1387040_at	myelin and lymphocyte protein	1.20
1370334_at	evectin-1	1.19
1376577_at	EST	1.19
1371334_at	integral membrane protein 2C (predicted)	1.19
1386874_at	ribosomal protein S15	1.18
1399012_at	EST	1.18
1371798_at	Guanine nucleotide binding protein, alpha 12	1.18
1368701_at	ATPase, Na ⁺ /K ⁺ transporting, alpha 3 polypeptide	1.18
1398764_at	ribosomal protein L21	1.18
1388995_at	EST	1.18
1389820_at	EST	1.17
1389957_at	EST	1.17
1398330_at	syntaxin binding protein 1	1.17
1398762_at	syndecan binding protein	1.17
1372701_at	heat shock protein 1, alpha	1.16
1367617_at	aldolase A	1.16
1371319_at	integral membrane protein 2B	1.16
1372707_at	RAB6, member RAS oncogene family	1.16
1386921_at	carboxypeptidase E	1.15
1371507_at	Similar to 4921517L17Rik protein	1.15
1387897_at	Cyclic nucleotide phosphodiesterase 1	1.15
1371327_a_at	similar to gamma actin-like protein /// similar to put. type 5 nonmuscle actin	1.15
1370434_a_at	myelin-associated oligodendrocytic basic protein	1.15
1370246_at	calmodulin 2	1.14
1372542_at	EST	1.13
1369897_s_at	GNAS complex locus /// XLas protein	1.13
1388303_at	ribosomal protein L26 (predicted)	1.12
1386937_at	ATPase, Na ⁺ /K ⁺ transporting, beta 1 polypeptide	1.11
1375651_at	EST	1.10
1367557_s_at	glyceraldehyde-3-phosphate dehydrogenase	1.10
1370803_at	ZW10 interactor	1.10
1368810_a_at	myelin basic protein	1.08
1367653_a_at	malate dehydrogenase 1, NAD (soluble)	-1.00
1371301_at	ribosomal protein L9	-1.00
1370862_at	apolipoprotein E	-1.00
1375336_at	heat shock 90kDa protein 1, beta	-1.00

1367625_at	EST	-1.01
1370156_at	prion protein	-1.01
1367799_at	statin-like	-1.02
1368211_at	ribosomal protein S14 /// similar to RIKEN cDNA 1810007P19 (predicted)	-1.02
1376711_at	Claudin 11	-1.02
1371682_at	microtubule-associated protein 1 light chain 3 alpha	-1.03
1398851_at	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, epsilon polypeptide	-1.03
1386852_x_at	polyubiquitin	-1.03
1398917_at	ribosomal protein L7	-1.03
1388039_a_at	gamma-aminobutyric acid (GABA) B receptor 1	-1.03
1375861_at	EST	-1.03
1367560_at	acidic ribosomal phosphoprotein P0	-1.04
1388163_at	solute carrier family 25 (mitochondrial carrier; adenine nucleotide translocator), member 5	-1.04
1367634_at	ribosomal protein L31	-1.05
1371761_at	ribosomal protein L34 (predicted)	-1.05
1371956_at	EST	-1.06
1371607_at	Microtubule-associated protein 4	-1.06
1398761_at	ribosomal protein L5	-1.06
1372724_at	glutamate receptor, ionotropic, N-methyl D-aspartate-associated protein 1 (glutamate binding)	-1.06
1398326_at	similar to Nur77 downstream protein 2	-1.06
1387291_at	inter-alpha trypsin inhibitor, heavy chain 3	-1.06
1369933_at	voltage-dependent anion channel 2	-1.06
1369930_at	proteasome (prosome, macropain) subunit, alpha type 6	-1.06
1367645_at	ribosomal protein S17	-1.07
1367882_at	microtubule-associated protein 1 A	-1.07
1371415_at	ubiquinol-cytochrome c reductase hinge protein (predicted)	-1.07
1372249_at	Ac1254	-1.07
1368098_a_at	small nuclear ribonucleoprotein N	-1.07
1398749_at	ribosomal protein L4	-1.08
1370179_at	dynein, cytoplasmic, light chain 2A	-1.08
1370184_at	cofilin 1	-1.08
1386858_at	ribosomal protein L13	-1.08
1367721_at	syndecan 4	-1.08
1367845_at	neurofilament 3, medium	-1.08
1370888_at	cytochrome c oxidase, subunit Va	-1.09
1371702_at	Transmembrane 4 superfamily member 2	-1.09
1373255_at	EST	-1.09
1371680_at	gamma-aminobutyric acid (GABA(A)) receptor-associated protein-like 1 (predicted)	-1.10
1369065_a_at	ATPase, Ca ⁺⁺ transporting, cardiac muscle, slow twitch 2	-1.10
1372193_at	EST	-1.10
1388586_at	synaptojanin 1	-1.10
1367773_at	solute carrier family 25, member 1	-1.11
1370230_at	ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit F6	-1.11
1388795_at	EST	-1.11
1387861_at	amino-terminal enhancer of split	-1.11
1367708_a_at	fatty acid synthase	-1.11

1375245_at	EST	-1.11
1387910_at	erythrocyte protein band 4.1-like 1	-1.12
1371671_at	Similar to orphan G protein-coupled receptor	-1.13
1387887_at	ribosomal protein L14	-1.13
1389120_at	potassium voltage gated channel, Shaw-related subfamily, member 3	-1.13
1369609_at	claudin 11	-1.13
1369085_s_at	small nuclear ribonucleoprotein N /// SNRPN upstream reading frame	-1.14
1388196_at	NCK-associated protein 1	-1.14
1368101_at	calmodulin 3	-1.14
1398863_at	guanine nucleotide binding protein, beta polypeptide 2	-1.15
1375305_at	LOC362256	-1.15
1386859_at	transketolase	-1.15
1387653_at	translin-associated factor X	-1.15
1370693_a_at	cyclic nucleotide phosphodiesterase 1	-1.16
1388300_at	microsomal glutathione S-transferase 3 (predicted)	-1.16
1372077_at	Similar to UNR-interacting protein (Serine-threonine kinase receptor-associated protein)	-1.17
1367669_a_at	microtubule-associated proteins 1A/1B light chain 3	-1.17
1367589_at	aconitase 2, mitochondrial	-1.18
1368853_at	visinin-like 1	-1.19
1388851_at	heat shock protein, A (predicted)	-1.19
1390714_at	Eukaryotic translation initiation factor 5	-1.19
1369816_at	RAB3A, member RAS oncogene family	-1.19
1376637_at	EST	-1.20
1372511_at	DAZ associated protein 2 (predicted)	-1.20
1369811_at	complexin 1	-1.20
1371365_at	EST	-1.21
1371742_at	U1 small nuclear ribonucleoprotein polypeptide A (predicted)	-1.21
1367959_a_at	sodium channel, voltage-gated, type I, beta polypeptide	-1.21
1375055_at	EST	-1.21
1367762_at	somatostatin	-1.22
1368273_at	mitogen-activated protein kinase 6	-1.22
1374271_at	EST	-1.22
1389544_at	translocase of outer mitochondrial membrane 7 homolog (yeast) (predicted)	-1.23
1388757_at	Adrenergic receptor kinase, beta 1	-1.23
1367894_at	EST	-1.24
1370519_at	syntaxin binding protein 1	-1.24
1388125_a_at	kinesin 2	-1.25
1390261_at	EST	-1.27
1369520_a_at	branched chain aminotransferase 1, cytosolic	-1.28
1368969_at	sclerostin	-1.28
1398817_at	ADP-ribosylation factor 1	-1.29
1387041_at	ubiquilin 1	-1.29
1376756_at	EST	-1.29
1373018_at	EST	-1.30
1391096_at	EST	-1.31
1398364_at	EST	-1.32
1387258_a_at	protein-L-isoaspartate (D-aspartate) O-methyltransferase 1	-1.33
1377008_at	EST	-1.33
1377485_at	EST	-1.34

1398823_at	translin-associated factor X	-1.34
1385507_at	EST	-1.35
1390487_at	EST	-1.39
1388622_at	nucleolar protein 5A (predicted)	-1.43
1375875_at	Kinesin family member 5A	-1.45
1370518_a_at	syntaxin binding protein 1	-1.54
1375480_at	EST	-1.56
1375396_at	pumilio 1 (Drosophila) (predicted)	-1.57
1383698_at	pyruvate dehydrogenase E1 alpha 1	-1.57
1369214_a_at	MHC class II transactivator	-1.59
1387693_a_at	solute carrier family 6 (neurotransmitter transporter, glycine), member 9	-1.59
1371108_a_at	ATPase, Na ⁺ /K ⁺ transporting, alpha 1 polypeptide	-1.71
1370544_at	echinoderm microtubule associated protein like 2	-1.73
1386914_at	guanosine monophosphate reductase	-1.73
1399152_at	EST	-1.82
1376137_at	pleckstrin homology domain containing, family B (evectins) member 2 (predicted)	-1.92
1375476_at	muscle glycogen phosphorylase	-1.96
1375387_at	EST	-2.07
1368440_at	solute carrier family 3, member 1	-2.24
1375112_at	EST	-2.67

2. L5tx Outlier Genes

Probe Set ID	Gene Title	Ratio L5tx/Sham
1386881_at	insulin-like growth factor binding protein 3	12.65
1367652_at	insulin-like growth factor binding protein 3	10.88
1398390_at	EST	7.08
1367571_a_at	insulin-like growth factor 2	5.48
1370155_at	procollagen, type I, alpha 2	5.47
1388469_at	Insulin-like growth factor I mRNA, 3' end of mRNA	5.39
1370333_a_at	insulin-like growth factor 1	5.15
1388116_at	alpha-1 type I collagen	4.88
1370959_at	collagen, type III, alpha 1	4.50
1387854_at	procollagen, type I, alpha 2	4.34
1367749_at	lumican	4.05
1368815_at	myelin protein zero	3.63
1370956_at	decorin	3.49
1385248_a_at	osteoglycin (predicted)	3.23
1369705_at	X transporter protein 3	3.14
1371447_at	placenta-specific 8 (predicted)	2.72
1367648_at	EST	2.38
1373025_at	EST	2.35
1369640_at	gap junction membrane channel protein alpha 1	2.12
1370215_at	complement component 1, q subcomponent, beta polypeptide	2.04
1367568_a_at	matrix Gla protein	1.89
1387029_at	complement component factor h	1.84
1375422_at	EST	1.84
1370831_at	monoglyceride lipase	1.82

1380822_at	EST	1.76
1370154_at	lysozyme	1.75
1387995_a_at	interferon induced transmembrane protein 3	1.74
1373053_at	EST	1.69
1389006_at	Macrophage expressed gene 1	1.69
1367851_at	prostaglandin D2 synthase	1.69
1376836_at	EST	1.69
1370949_at	similar to Myristoylated alanine-rich C-kinase substrate (MARCKS)	1.66
1370891_at	CD48 antigen	1.66
1389868_at	Trehalase (brush-border membrane glycoprotein)	1.65
1368981_at	aquaporin 4	1.64
1387926_at	sterol-C5-desaturase (fungal ERG3, delta-5-desaturase) homolog (S. cerevisiae)	1.62
1373204_at	hypothetical LOC297077 (predicted)	1.61
1370751_at	rRNA promoter binding protein	1.60
1370176_at	amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 3 homolog (human)	1.59
1372070_at	interferon gamma inducible protein 30 (predicted)	1.54
1367794_at	alpha-2-macroglobulin	1.53
1387146_a_at	endothelin receptor type B	1.52
1375532_at	EST	1.49
1377105_at	EST	1.48
1383054_at	EST	1.48
1370935_at	EST	1.47
1367974_at	annexin A3	1.47
1371103_at	RAB6, member RAS oncogene family (predicted)	1.46
1373575_at	EST	1.44
1370130_at	plysia ras-related homolog A2	1.44
1387505_at	guanine nucleotide binding protein, alpha inhibiting 1	1.44
1370678_s_at	monoamine oxidase A	1.43
1387385_at	contactin 1	1.42
1370950_at	ER transmembrane protein Dri 42	1.41
1367995_at	catalase	1.41
1386862_at	annexin A5	1.40
1399027_at	plysia ras-related homolog A2	1.39
1369215_a_at	carboxypeptidase D	1.37
1370550_at	limbic system-associated membrane protein	1.36
1387397_at	aquaporin 4	1.36
1386999_at	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, beta polypeptide	1.35
1375119_at	neural precursor cell expressed, developmentally down-regulated gene 4A	1.35
1372303_at	similar to 0910001A06Rik protein (predicted)	1.35
1388378_at	eukaryotic translation initiation factor 3, subunit 8, 110kDa (predicted)	1.33
1374002_at	EST	1.33
1389986_at	EST	1.32
1367844_at	guanine nucleotide binding protein, alpha inhibiting 2	1.30
1369690_at	N-ethylmaleimide sensitive fusion protein	1.30
1375523_at	Myristoylated alanine rich protein kinase C substrate	1.29
1367584_at	annexin A2	1.29
1370247_a_at	peripheral myelin protein 22	1.28

1373861_at	Nedd4 family interacting protein 2 (predicted)	1.28
1374646_at	Casein kinase 1, alpha 1	1.28
1375662_at	EST	1.28
1390174_at	Similar to echinoderm microtubule associated protein like 1	1.27
1367581_a_at	secreted phosphoprotein 1	1.27
1369959_at	zinc finger protein 36, C3H type-like 1	1.27
1388071_x_at	RT1 class Ib, locus Aw2	1.27
1382048_at	ATPase, H ⁺ transporting, V1 subunit A, isoform 1 (predicted)	1.26
1372455_at	EST	1.26
1373250_at	EST	1.26
1373432_at	similar to Myristoylated alanine-rich C-kinase substrate (MARCKS)	1.25
1367930_at	growth associated protein 43	1.24
1370169_at	unr protein	1.24
1376665_at	EST	1.24
1370389_at	glycoprotein m6b	1.22
1375211_at	ribonuclease T2 (predicted)	1.22
1369952_at	poly(A) binding protein, cytoplasmic 1	1.22
1372336_at	EST	1.22
1371572_at	EST	1.22
1388121_at	sperm membrane protein (YWK-II)	1.22
1376272_s_at	EST	1.22
1370859_at	thioredoxin domain containing 7	1.21
1387340_at	reticulon 3	1.21
1387436_at	septin 7	1.21
1398776_at	ribophorin II	1.20
1386890_at	S100 calcium binding protein A10 (calpactin)	1.20
1368858_at	UDP-glucuronosyltransferase 8	1.20
1373188_at	sodium channel, voltage-gated, type IV, beta	1.19
1370048_at	endothelial differentiation, lysophosphatidic acid G-protein-coupled receptor, 2	1.18
1388119_at	hypothetical gene supported by Y16641; Y16641 /// heterogeneous nuclear ribonucleoprotein A3	1.17
1372806_at	vacuolar protein sorting 35	1.17
1388503_at	EST	1.17
1387863_at	unr protein	1.17
1370903_a_at	Eph receptor B1	1.17
1370283_at	heat shock 70kD protein 5	1.16
1372444_at	EST	1.16
1389521_at	influenza virus NS1A binding protein (predicted)	1.16
1398788_at	glucose regulated protein, 58 kDa	1.16
1373501_at	EST	1.16
1367666_at	heterogeneous nuclear ribonucleoprotein H1	1.16
1388850_at	heat shock protein 1, alpha	1.16
1370193_at	protein tyrosine phosphatase 4a1	1.15
1367979_s_at	cytochrome P450, subfamily 51	1.15
1387757_at	liver regeneration p-53 related protein	1.15
1388373_at	adiponectin receptor 1	1.15
1372706_at	hexosaminidase B (predicted)	1.15
1398819_at	DnaJ-like protein	1.15
1390407_at	EST	1.14

1386886_at	CD164 antigen	1.14
1371837_at	similar to Probable RNA-dependent helicase p68 (DEAD-box protein p68) (DEAD-box protein 5)	1.14
1370087_at	RAB2, member RAS oncogene family	1.14
1367814_at	ATPase, Na ⁺ /K ⁺ transporting, beta 1 polypeptide	1.14
1371840_at	Endothelial differentiation sphingolipid G-protein-coupled receptor 1	1.14
1371379_at	similar to Brain protein 44 (0-44 protein)	1.14
1370042_at	stathmin-like 2	1.13
1398961_at	EST	1.13
1368277_at	protein phosphatase 3, catalytic subunit, alpha isoform	1.13
1368042_a_at	high mobility group box 1	1.13
1398849_at	H3 histone, family 3B	1.12
1383161_a_at	EST	1.12
1373470_at	Beta-catenin	1.11
1367774_at	glutathione S-transferase A5	1.11
1375273_at	tripartite motif protein 47 (predicted)	1.10
1370838_s_at	alpha-spectrin 2	1.10
1398774_at	ribosomal protein L30	1.09
1388481_at	EST	1.09
1398842_at	clathrin, heavy polypeptide (Hc)	1.09
1398841_at	RAB1, member RAS oncogene family	1.09
1372104_at	Guanine nucleotide binding protein, alpha inhibiting 1	1.09
1367632_at	glutamine synthetase 1	1.09
1389307_at	EST	1.09
1371320_at	integral membrane protein 2B	1.08
1367596_at	ribosomal protein S26	1.08
1367853_at	solute carrier family 12, member 2	1.07
1371571_at	amyloid beta (A4) precursor protein	1.07
1388110_at	eukaryotic translation elongation factor 1 alpha 1	1.07
1388748_at	lysosomal-associated protein transmembrane 4 alpha	1.07
1368097_a_at	reticulon 1	1.06
1398893_at	Similar to Nedd4 WW domain-binding protein 5	1.06
1371308_at	EST	1.06
1371300_at	ribosomal protein L3	1.05
1371295_at	EST	1.05
1367573_at	ribosomal protein S6	1.05
1373098_at	breast carcinoma amplified sequence 1	1.05
1370109_s_at	eukaryotic translation elongation factor 1 alpha 1	1.04
1369966_a_at	ribosomal protein S24	1.03
1387112_at	proteolipid protein	1.03
1367668_a_at	stearoyl-Coenzyme A desaturase 2	1.03
1370274_at	polyubiquitin	1.02
1398258_at	apolipoprotein D	-1.04
1370239_at	hemoglobin alpha, adult chain 1	-1.04
1370058_at	neurofilament, light polypeptide	-1.05
1371387_at	cytochrome c oxidase subunit VIIb	-1.07
1371316_at	Finkel-Biskis-Reilly murine sarcoma virusubiquitously expressed	-1.07
1370240_x_at	hemoglobin alpha, adult chain 1	-1.07
1388146_at	Brain Ntab mRNA sequence	-1.08
1372612_at	dynein light chain-2	-1.08

1370918_a_at	ATP synthase, H ⁺ transporting, mitochondrial F1 complex, gamma polypeptide 1	-1.08
1370238_at	upregulated during skeletal muscle growth 5	-1.08
1367553_x_at	hemoglobin beta chain complex	-1.08
1398852_at	ribosomal protein S21	-1.08
1369976_at	dynein, cytoplasmic, light chain 1	-1.09
1370378_at	ATP synthase, H ⁺ transporting, mitochondrial F1 complex, alpha subunit, isoform 1.	-1.09
1367629_at	cytochrome c oxidase, subunit 7a 3	-1.09
1371041_at	NADH dehydrogenase (ubiquinone) flavoprotein 2	-1.10
1371398_at	EST	-1.10
1388391_at	similar to NADH dehydrogenase	-1.10
1371102_x_at	EST	-1.10
1368157_at	stathmin-like 3	-1.10
1370296_at	sterol carrier protein 2	-1.11
1371390_at	EST	-1.11
1386891_at	phosphatidylethanolamine binding protein	-1.11
1373479_at	Protein phosphatase 3, catalytic subunit, alpha isoform	-1.11
1370124_at	metallothionein 3	-1.11
1370218_at	lactate dehydrogenase B	-1.12
1371392_at	glucose phosphate isomerase	-1.12
1386998_at	aldolase C, fructose-biphosphate	-1.12
1372182_at	EST	-1.12
1386887_at	cytochrome c oxidase subunit Vb	-1.12
1371564_at	EST	-1.12
1367578_at	peroxiredoxin 2	-1.13
1371254_at	EST	-1.13
1376702_at	EST	-1.13
1388670_at	Similar to kinesin family protein KIF1a	-1.13
1368653_a_at	fertility protein SP22	-1.13
1368104_at	tetraspan 2	-1.14
1369999_a_at	neuronatin	-1.14
1367607_at	cytochrome c oxidase subunit IV isoform 1	-1.14
1372250_at	EST	-1.14
1371711_at	EST	-1.14
1367842_at	amyloid beta (A4) precursor protein-binding, family B, member 1	-1.14
1368145_at	Purkinje cell protein 4	-1.14
1387811_at	angiotensinogen	-1.14
1375669_at	similar to binding protein	-1.14
1386884_at	protease, serine, 11 (Igf binding)	-1.15
1368656_at	secretogranin III	-1.15
1388304_at	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 5 (predicted)	-1.15
1372761_at	EST	-1.15
1388113_at	cytochrome c oxidase, subunit VIIa	-1.15
1388414_at	NADH dehydrogenase (ubiquinone) Fe-S protein 5b, 15kDa (NADH-coenzyme Q reductase) (predicted)	-1.15
1392530_at	EST	-1.15
1375189_at	endothelial differentiation-related factor 1 (predicted)	-1.16
1371701_at	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 9 (predicted)	-1.17
1371435_at	nascent-polypeptide-associated complex alpha polypeptide (predicted)	-1.17

1388004_at	G protein-coupled receptor 37-like 1	-1.17
1398812_at	proteasome (prosome, macropain) subunit, beta type 1	-1.17
1367599_at	ATP synthase, H ⁺ transporting, mitochondrial F0 complex, subunit c (subunit 9), isoform 1	-1.17
1377455_at	Solute carrier family 6 (neurotransmitter transporter, GABA), member 11	-1.17
1368051_at	smooth muscle-specific 17 beta-hydroxysteroid dehydrogenase type 3	-1.17
1388598_at	similar to death effector filament-forming Ced-4-like apoptosis protein isoform 2; caspase recruitment domain protein 7; NAC-alpha/beta/gamma/delta	-1.17
1373202_at	guanine nucleotide binding protein (G protein), gamma 3	-1.17
1373613_at	EST	-1.17
1371381_at	EST	-1.17
1374496_at	EST	-1.18
1370276_at	ATP synthase, H ⁺ transporting, mitochondrial F1 complex, O subunit	-1.18
1376092_at	EST	-1.18
1371335_at	similar to CG6105-PA	-1.18
1389448_at	peanut-like 2 (Drosophila) (predicted)	-1.18
1367816_at	homeobox only domain	-1.19
1389343_at	EST	-1.19
1398754_at	ubiquitin A-52 residue ribosomal protein fusion product 1	-1.19
1372790_at	Malate dehydrogenase 1, NAD (soluble)	-1.19
1369948_at	nerve growth factor receptor associated protein 1	-1.19
1368253_at	guanidinoacetate methyltransferase	-1.19
1368688_at	neurotensin receptor 2	-1.19
1370341_at	enolase 2, gamma	-1.19
1371416_at	EST	-1.19
1371355_at	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 8 (predicted)	-1.19
1370313_at	brain acyl-CoA hydrolase	-1.20
1372036_at	Similar to CD2 antigen (cytoplasmic tail) binding protein 2	-1.20
1388343_at	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 7 (predicted)	-1.20
1370881_at	Thiosulfate sulfurtransferase	-1.20
1390566_a_at	creatine kinase, mitochondrial 1, ubiquitous	-1.20
1388489_at	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 3 (predicted)	-1.21
1387529_a_at	transgelin 3	-1.21
1374417_at	Similar to nuclear receptor binding protein; HLS7-interacting protein kinase	-1.22
1367808_at	translocase of inner mitochondrial membrane 8 homolog b (yeast)	-1.22
1367793_at	D-dopachrome tautomerase	-1.22
1388364_at	NADH dehydrogenase (ubiquinone) Fe-S protein 3 (predicted)	-1.22
1398365_at	EST	-1.23
1367609_at	macrophage migration inhibitory factor	-1.23
1367768_at	latexin	-1.23
1367559_at	ferritin light chain 1	-1.24
1398860_at	neural precursor cell expressed, developmentally down-regulated gene 8	-1.24
1375220_at	RE70703p-like	-1.24
1388361_at	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 10 (predicted)	-1.24
1370284_at	ATP synthase, H ⁺ transporting, mitochondrial F1 complex, epsilon subunit	-1.24
1389138_at	EST	-1.24
1388315_at	similar to neuronal protein 15.6	-1.25
1398777_at	proteasome (prosome, macropain) subunit, beta type 6	-1.25
1375197_at	EST	-1.25

1398909_at	similar to QIL1	-1.26
1371417_at	Low molecular mass ubiquinone-binding protein (Qpc)	-1.26
1379243_at	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 6 (B14) (predicted)	-1.26
1389511_s_at	EST	-1.26
1387023_at	glutathione S-transferase, mu type 3	-1.27
1370006_at	NADH dehydrogenase (ubiquinone) Fe-S protein 6	-1.28
1375628_at	NADH dehydrogenase (ubiquinone) 1 beta subcomplex 8 (predicted)	-1.28
1387928_at	Rap2 interacting protein	-1.28
1388122_at	glutathione-S-transferase, pi 1 /// glutathione S-transferase, pi 2	-1.29
1376345_at	dopamine receptor D1 interacting protein	-1.31
1371912_at	EST	-1.31
1389012_at	NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 2 (predicted)	-1.32
1388793_at	phosphatidylinositol glycan, class Q	-1.32
1375856_at	EST	-1.35
1371885_at	cytoskeleton-associated protein 1 (predicted)	-1.37
1372848_at	EST	-1.39
1375090_at	EST	-1.42

3. Co-regulated Outlier Genes

Probe Set ID	Gene Title	LR Fold Change	L5tx Fold Change
1368816_at	myelin protein zero	-1.14	3.69
1367574_at	vimentin	1.96	2.30
1392890_at	platelet-activating factor acetylhydrolase, isoform Ib, alpha subunit 45kDa	-1.82	1.94
1376652_at	complement component 1, q subcomponent, alpha polypeptide (predicted)	1.40	1.77
1368000_at	complement component 3	1.67	1.72
1369756_a_at	solute carrier family 4, member 4	-2.01	1.71
1375335_at	heat shock 90kDa protein 1, beta	-1.27	1.52
1398846_at	eukaryotic translation initiation factor 5	-1.15	1.50
1388784_at	similar to Macrophage colony stimulating factor I receptor precursor (CSF-1-R) (Fms proto-oncogene) (c-fms)	1.41	1.47
1386899_at	cathepsin H	1.45	1.47
1371687_at	calnexin	-1.60	1.45
1369689_at	N-ethylmaleimide sensitive fusion protein	-1.32	1.43
1386893_at	granulin	1.49	1.42
1370504_a_at	peripheral myelin protein 22	-1.47	1.41
1367563_at	secreted acidic cysteine rich glycoprotein	1.55	1.41
1368353_at	glial fibrillary acidic protein	1.71	1.40
1368840_at	TORID	1.32	1.39
1373058_at	similar to RIKEN cDNA 2010200I23	-1.25	1.36
1398836_s_at	actin, beta	-1.12	1.30
1387664_at	ATPase, H ⁺ transporting, V1 subunit B, isoform 2	-1.23	1.30
1369651_at	thymus cell antigen 1, theta	-1.13	1.28
1373067_at	Beta-catenin	1.33	1.28
1375421_a_at	praja 2, RING-H2 motif containing	-1.12	1.28
1369628_at	synaptic vesicle glycoprotein 2b	-1.16	1.25

1370339_at	EST	-1.30	1.25
1370213_at	nuclease sensitive element binding protein 1	1.27	1.25
1398835_at	actin, beta	1.17	1.24
1370190_at	H3 histone, family 3B	-1.07	1.24
1369968_at	pleiotrophin	1.52	1.24
1370043_at	activated leukocyte cell adhesion molecule	1.29	1.23
1398892_at	Niemann Pick type C2	1.29	1.21
1398797_at	heterogeneous nuclear ribonucleoprotein K	1.22	1.20
1367633_at	glutamine synthetase 1	-1.17	1.20
1374188_at	translocation protein 1 (predicted)	1.42	1.19
1388027_a_at	reticulon 4	-1.33	1.18
1370500_a_at	myelin-associated oligodendrocytic basic protein	-1.35	1.17
1375687_at	RAB14, member RAS oncogene family	1.23	1.17
1386889_at	stearoyl-Coenzyme A desaturase 2	-1.74	1.17
1386950_at	protein phosphatase 1, catalytic subunit, beta isoform	1.43	1.17
1370010_at	lysosomal membrane glycoprotein 2	1.25	1.17
1375905_at	leukocyte receptor cluster (LRC) member 8 (predicted)	1.28	1.16
1387005_at	cathepsin S	1.23	1.16
1372513_at	ras-related C3 botulinum toxin substrate 1	-1.27	1.15
1371481_at	deleted in polyposis 1 (predicted)	-1.10	1.15
1398986_at	EST	1.27	1.15
1369008_a_at	olfactomedin 1	-1.08	1.14
1369879_a_at	EST	-1.22	1.14
1367784_a_at	clusterin	1.16	1.14
1373365_at	similar to UMP-CMP kinase (predicted)	-1.12	1.13
1375338_at	RAB10, member RAS oncogene family	1.34	1.13
1368700_at	130kDa-Ins(1,4,5)P3 binding protein	1.48	1.13
1368275_at	sterol-C4-methyl oxidase-like	-1.21	1.13
1371344_at	ribosomal protein L27a (predicted)	1.12	1.13
1373951_at	Protein kinase, cAMP dependent regulatory, type I, alpha	1.16	1.13
1374385_at	EST	1.23	1.12
1387182_at	G protein-coupled receptor 37	-1.10	1.11
1388307_at	tumor differentially expressed 1, like	1.29	1.11
1370556_at	ESY	-1.29	1.11
1386870_at	glutamine synthetase 1	-1.05	1.11
1387906_a_at	GNAS complex locus	1.26	1.10
1367512_at	similar to RIKEN cDNA 2210412K09 (predicted)	-1.06	1.09
1387774_at	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide	-1.08	1.08
1398880_at	PR-ET2 encoded oncodevelopmental protein	-1.04	1.08
1387073_at	synaptosomal-associated protein 25	1.16	1.07
1399057_at	mortality factor 4 like 1 (predicted)	-1.12	1.07
1368536_at	ectonucleotide pyrophosphatase/phosphodiesterase 2	1.20	1.07
1370024_at	EST	1.29	1.07
1370059_at	neurofilament, light polypeptide	-1.02	1.06

1370168_at	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, theta polypeptide	-1.08	1.06
1372190_at	Aquaporin 4	1.37	1.06
1388332_at	Ras-related C3 botulinum toxin substrate 1	1.12	1.06
1371642_at	eukaryotic translation initiation factor 4A2 (predicted)	-1.04	1.06
1374513_at	CDC10 (cell division cycle 10, S.cerevisiae, homolog)	1.35	1.05
1367595_s_at	beta-2 microglobulin	1.27	1.05
1386864_at	phosphoglycerate mutase 1	1.14	1.05
1398240_at	heat shock protein 8	-1.01	1.05
1371318_at	ribosomal protein S16	-1.08	1.05
1367646_at	EST	1.23	1.04
1375340_at	EST	1.12	1.04
1371504_at	EST	-1.04	1.03
1370228_at	Transferrin	-1.03	1.02
1387883_a_at	thymosin, beta 4	1.17	1.02
1375107_at	EST	1.23	1.00
1367565_a_at	ferritin, heavy polypeptide 1	1.13	-1.03
1387341_a_at	myelin basic protein	-1.03	-1.04
1386903_at	S100 protein, beta polypeptide	1.14	-1.05
1387121_a_at	N-myc downstream regulated gene 2	1.17	-1.06
1370815_at	EST	-1.01	-1.06
1387772_at	calmodulin 1	1.11	-1.06
1367579_a_at	tubulin, alpha 1 /// tubulin, alpha 6 (predicted)	1.31	-1.07
1388608_x_at	hemoglobin alpha, adult chain 1	-1.00	-1.07
1398827_at	CD 81 antigen	1.13	-1.07
1367695_at	quinoid dihydropteridine reductase	1.15	-1.07
1370855_at	cystatin C	1.17	-1.07
1398850_at	peptidylprolyl isomerase A	1.10	-1.07
1367641_at	superoxide dismutase 1	-1.05	-1.08
1367757_at	cytochrome c oxidase, subunit VIc	-1.01	-1.08
1367610_at	ribosomal protein L19	-1.01	-1.08
1373363_at	microtubule-associated protein 1b	1.18	-1.08
1368263_a_at	myelin-associated oligodendrocytic basic protein	1.23	-1.09
1367740_at	creatine kinase, brain	-1.01	-1.10
1371884_at	EST	-1.06	-1.10
1388112_at	solute carrier family 25 (mitochondrial adenine nucleotide translocator) member 4	-1.02	-1.10
1371377_at	ribosomal protein S19	-1.04	-1.10
1371305_at	ribosomal protein L8	-1.05	-1.10
1375219_a_at	ribosomal protein S2 /// similar to 40S ribosomal protein S2 /// similar to 40S ribosomal protein S2	1.17	-1.11
1370275_at	ATP synthase, H+ transporting, mitochondrial F1 complex, beta polypeptide	-1.09	-1.11
1367904_at	regulated endocrine-specific protein 18	1.16	-1.11
1367639_a_at	ribosomal protein S2	-1.08	-1.11
1371312_at	similar to septin 10 isoform 1	-1.05	-1.12
1368887_at	cadherin 22	-1.11	-1.12

1374742_at	Transcribed locus	-1.24	-1.12
1373375_at	Rab6 interacting protein 1 (predicted)	1.34	-1.12
1398830_at	ribosomal protein L28	-1.06	-1.13
1371409_at	EST	1.47	-1.13
1398932_at	histidine triad nucleotide binding protein 1 (predicted)	1.19	-1.13
1372141_at	EST	-1.18	-1.13
1370200_at	glutamate dehydrogenase 1	1.23	-1.14
1387770_at	putative ISG12(a) protein	1.40	-1.14
1367918_at	fasciculation and elongation protein zeta 1 (zygin I)	-1.10	-1.14
1370235_at	diazepam binding inhibitor	1.20	-1.15
1371625_at	brain glycogen phosphorylase	1.31	-1.15
1369937_at	calmodulin 1	1.19	-1.16
1388362_at	similar to novel cell death-regulatory protein GRIM19	-1.09	-1.17
1367585_a_at	ATPase, Na ⁺ /K ⁺ transporting, alpha 1 polypeptide	-1.08	-1.18
1370278_at	ATP synthase, H ⁺ transporting, mitochondrial F1 complex, delta subunit	-1.04	-1.19
1387019_at	EST	-1.08	-1.23
1367706_at	voltage-dependent anion channel 1	1.37	-1.23
1372521_at	Similar to RhoN	-1.04	-1.24
1372345_at	Transcribed locus	-1.19	-1.25
1388301_at	ubiquinol-cytochrome c reductase core protein I	-1.06	-1.25
1370861_at	cytochrome c oxidase, subunit VIa, polypeptide 1	-1.11	-1.26
1390265_at	EST	-1.11	-1.27
1386871_at	glutathione peroxidase 4	-1.01	-1.28
1371594_at	tetratricopeptide repeat domain 11 (predicted)	-1.10	-1.29
1367969_at	peroxiredoxin 6	-1.63	-1.30
1367813_at	protein phosphatase 1, regulatory (inhibitor) subunit 14A	-1.16	-1.31
1371363_at	EST	1.49	-1.35
1388357_at	Transcribed locus, strongly similar to NP_653096.1 GTL2, imprinted maternally expressed untranslated mRNA [Mus musculus]	-1.73	-1.38
1367802_at	serum/glucocorticoid regulated kinase	2.11	-1.44