

**Supplementary Table 1.** Genes identified by microarray as differently expressed in amygdala or hippocampus of bLR offspring fostered to bLR mothers (bLR-bLR fostered) versus bLR

P7 Amygdala, bLR-bLR fostered vs. bLR control						
Gene Symbol	Sequence ID	Corrected P-Value	Fold Change	Comments	Description	Function
<b>Up-Regulated Genes</b>						
Six3	NM_023990	0.038	1.608	Rattus norvegicus sine oculis homeobox homolog 3 (Drosophila) (Six3), mRNA.	homeobox protein Six3	sine oculis homeobox homolog 3
<b>P14 Amygdala, bLR-bLR fostered vs. bLR control</b>						
Gene Symbol	Sequence ID	Corrected P-Value	Fold Change	Comments	Description	Function
<b>Down-Regulated Genes</b>						
Rpl38	NM_001077592	0.018	-4.229	Rattus norvegicus ribosomal protein L38 (Rpl38), mRNA.	60S ribosomal protein L38	ribosomal protein L38
<b>Up-Regulated Genes</b>						
Bnip3	NM_053420	0.003	2.858	"Rattus norvegicus BCL2/adenovirus E1B 19 kDa-interacting protein 3 (Bnip3), mRNA."	BCL2/adenovirus E1B 19 kDa-interacting protein 3 nuclear gene for mitochondrial product	BCL2/adenovirus E1B 19 kDa-interacting protein 3
Usp11	NM_001008861	0.005	2.932	Rattus norvegicus ubiquitin specific protease 11 (Usp11), mRNA.		ubiquitin specific protease 11
Cntn1	NM_057118	0.013	4.880	Rattus norvegicus contactin 1 (Cntn1), mRNA.		contactin 1
Rad23b	NM_001025275	0.026	5.043	"Rattus norvegicus RAD23b homolog (S. cerevisiae) (Rad23b), mRNA."		RAD23b homolog
Zdhc5	NM_001039338	0.028	3.933	Rattus norvegicus membrane-associated DHHC5 zinc finger protein (LOC362156), mRNA.		membrane-associated DHHC5 zinc finger protein
Wdr7	NM_023975	0.049	5.804	Rattus norvegicus WD repeat domain 7 (Wdr7), mRNA.		TGF-beta resistance-associated protein
<b>P14 Hippocampus, bLR-bLR fostered vs. bLR control</b>						
Gene Symbol	Sequence ID	Corrected P-Value	Fold Change	Comments	Description	Function
<b>Down-Regulated Genes</b>						
Psm5	NM_017282	0.002	-2.079	Rattus norvegicus proteasome (prosome, macropain) subunit, alpha type 5 (Psm5), mRNA.		proteasome (prosome, macropain) subunit, alpha type 5
Dynlrb1	NM_131910	0.018	-1.656	Rattus norvegicus dynein, cytoplasmic, light chain 2A (Dnc12a), mRNA.	robl/LC7-like; bithoraxoid-like protein; dynein-associated protein RKM23	dynein, cytoplasmic, light chain 2A
<b>Up-Regulated Genes</b>						
Rtn3	NM_001009953	0.029	1.668	Rattus norvegicus reticulon 3 (Rtn3), transcript variant 2, mRNA.	isoform A1 is encoded by transcript variant 2	reticulon 3 isoform A1
Cttn	NM_021868	0.002	1.742	Rattus norvegicus cortactin (Cttn), mRNA.		cortactin isoform B
Gabbr1	NM_031028	0.039	2.289	Rattus norvegicus gamma-aminobutyric acid (GABA) B receptor 1 (Gabbr1), mRNA.	gamma-aminobutyric acid (GABA) B receptor, 1; gamma-aminobutyric acid type B receptor; GABA-BR1h receptor; GABA-BR1i receptor	gamma-aminobutyric acid (GABA) B receptor 1
Cdk5r1	NM_053891	0.021	2.462	Rattus norvegicus cyclin-dependent kinase 5, regulatory subunit 1 (p35) (Cdk5r1), mRNA.		cyclin-dependent kinase 5, regulatory subunit 1
Nelf	NM_057190	0.027	1.945	Rattus norvegicus nasal embryonic LHRH factor (Nelf), mRNA.		nasal embryonic LHRH factor
Cdig1l	NM_153623	0.005	2.453	Rattus norvegicus cadmium-inducible gene 1L (Cdig1l), mRNA.		cadmium-inducible gene 1L

**Supplementary Table 2.** Genes identified by microarray as differently expressed in amygdala of bLR offspring cross-fostered to bHR mothers (bLR-bHR fostered) versus bLR offspring raised by their biological mothers (bLR control)

P7 Amygdala, bLR-bHR cross-fostered vs. bLR control						
Gene Symbol	Sequence ID	Corrected P-Value	Fold Change	Comments	Description	Function
<b>Down-Regulated Genes</b>						
Ttr	NM_012681	0.003	-5.759	"Rattus norvegicus transthyretin (Ttr), mRNA."	"Transthyretin (prealbumin, amyloidosis type I)"	transthyretin
<b>Up-Regulated Genes</b>						
Gnb1	NM_030987	0.003	2.388	"Rattus norvegicus guanine nucleotide binding protein, beta 1 (Gnb1), mRNA."	Guanine nucleotide-binding protein beta 1	"guanine nucleotide-binding protein, beta-1 subunit"
Ptgds	NM_013015	0.018	1.996	"Rattus norvegicus prostaglandin D2 synthase (Ptgds), mRNA."	Prostaglandin D synthase	prostaglandin H2 D-isomerase
<b>P14 Amygdala, bLR-bHR cross-fostered vs. bLR control</b>						
Gene Symbol	Sequence ID	Corrected P-Value	Fold Change	Comments	Description	Function
<b>Up-Regulated Genes</b>						
Gfap	NM_017009	0.012	1.912	"Rattus norvegicus glial fibrillary acidic protein (Gfap), mRNA."	intermediate filament; glial fibrillary acidic protein alpha	glial fibrillary acidic protein
Krt10	NM_001008804	0.000	16.000	"Rattus norvegicus keratin 10 (Krt10), mRNA."	type I keratin KA10	keratin 10
Plp1	NM_030990	0.004	2.343	"Rattus norvegicus proteolipid protein (Plp), mRNA."	"proteolipid protein (myelin); Proteolipid protein (Pelizaeus-Merzbacher disease spastic paraplegia 2 uncomplicated); Proteolipid protein (Pelizaeus-Merzbacher disease, spastic paraplegia 2, uncomplicated); myelin proteolipid protein"	proteolipid protein
<b>P21 Amygdala, bLR-bHR cross-fostered vs. bLR control</b>						
Gene Symbol	Sequence ID	Corrected P-Value	Fold Change	Comments	Description	Function
<b>Down-Regulated Genes</b>						
Calr	NM_022399	0.029	-1.662	"Rattus norvegicus calreticulin (Calr), mRNA."		calreticulin
Dnajc5	NM_024161	0.004	-2.323	"Rattus norvegicus Dnaj (Hsp40) homolog, subfamily C, member 5 (Dnajc5), mRNA."		cysteine string protein
Fdft1	NM_019238	0.019	-2.415	"Rattus norvegicus farnesyl diphosphate farnesyl transferase 1 (Fdft1), mRNA."	farnesyl diphosphate farnesyltransferase	farnesyl diphosphate farnesyl transferase 1
Gabra3	NM_017069	0.018	-2.554	"Rattus norvegicus gamma-aminobutyric acid (GABA-A) receptor, subunit alpha 3 (Gabra3), mRNA."	"Gamma-aminobutyric acid (GABA) A receptor, alpha 3; Gamma-aminobutyric acid (GABA) A receptor alpha 3; GABA-A receptor alpha-3 subunit"	"gamma-aminobutyric acid receptor, subunit alpha 3"
Hspa5	NM_013083	0.048	-1.737	"Rattus norvegicus heat shock 70kDa protein 5 (glucose-regulated protein) (Hspa5), mRNA."		heat shock 70kD protein 5
Ing3	NM_001034107	0.047	-1.707	"Rattus norvegicus inhibitor of growth family, member 3 (Ing3), mRNA."		"inhibitor of growth family, member 3"
Park2	NM_020093	0.042	-1.756	"Rattus norvegicus parkin (Park2), mRNA."		Parkin
Pcdhga2	NM_001037139	0.037	-2.985	"Rattus norvegicus protocadherin gamma a2 (Pcdhga2), mRNA."		protocadherin gamma A2
Slc9a3r1	NM_021594	0.036	-2.014	"Rattus norvegicus solute carrier family 9 (sodium/hydrogen exchanger), isoform 3 regulator 1 (Slc9a3r1), mRNA."		ERM-binding phosphoprotein
Sp1	NM_012655	0.046	-2.436	"Rattus norvegicus Sp1 transcription factor (Sp1), mRNA."		sp1 transcription factor
Tmem209	NM_001014055	0.013	-1.989	"Rattus norvegicus similar to hypothetical protein FLJ14803 (RGD1309682), mRNA."		hypothetical protein LOC312200
<b>Up-Regulated Genes</b>						
Atp5e	NM_139099	0.008	4.292	"Rattus norvegicus ATP synthase, H+ transporting, mitochondrial F1 complex, epsilon subunit (Atp5e), mRNA."		"ATP synthase, H+ transporting, mitochondrial F1 complex, epsilon subunit"
Atp5i	NM_080481	0.030	3.567	"Rattus norvegicus ATP synthase, H+ transporting, mitochondrial F0 complex, subunit e (Atp5i), mRNA."	"ATP synthase, H+ transporting, mitochondrial F1F0 complex, subunit e"	"ATP synthase, H+ transporting, mitochondrial F0 complex, subunit E"
Atp5l	NM_212516	0.035	3.144	"Rattus norvegicus similar to CG6105-PA (MGC72942), mRNA."		"ATP synthase, H+ transporting, mitochondrial F0 complex, subunit G"
Cartpt	NM_017110	0.015	2.511	"Rattus norvegicus cocaine and amphetamine regulated transcript (Cart), mRNA."		cocaine and amphetamine regulated transcript
Cox17	NM_053540	0.001	3.053	"Rattus norvegicus cytochrome c oxidase, subunit XVII assembly protein homolog (yeast) (Cox17), mRNA."		"COX17 homolog, cytochrome c oxidase assembly protein"

Gene Symbol	Sequence ID	Corrected P-Value	Fold Change	Comments	Description	Function
<b>Up-Regulated Genes (continued)</b>						
Cox5b	NM_053586	0.032	3.279	"Rattus norvegicus cytochrome c oxidase subunit Vb (Cox5b), mRNA."		cytochrome c oxidase subunit Vb
Cox7a2	NM_022503	0.024	3.516	"Rattus norvegicus cytochrome c oxidase, subunit VIIa 2 (Cox7a2), mRNA."	cytochrome c oxidase subunit VIIa 3	"cytochrome c oxidase, subunit 7a 3"
Cox7b	NM_182819	0.004	3.055	"Rattus norvegicus cytochrome c oxidase subunit VIIb (Cox7b), mRNA."		cytochrome c oxidase subunit VIIb
Mif	NM_031051	0.028	2.306	"Rattus norvegicus macrophage migration inhibitory factor (Mif), mRNA."		macrophage migration inhibitory factor
Mrps24	NM_001077659	0.049	2.863	"Rattus norvegicus mitochondrial ribosomal protein S24 (predicted) (Mrps24_predicted), mRNA."		mitochondrial ribosomal protein S24
Mt3	NM_053968	0.017	4.718	"Rattus norvegicus metallothionein 3 (Mt3), mRNA."	growth inhibitory factor; metallothionein III	metallothionein 3
Ndufa11	NM_212517	0.017	3.178	"Rattus norvegicus NADH dehydrogenase (ubiquinone) 1 alpha subcomplex 11 (Ndufa11), mRNA."	NADH-ubiquinone oxidoreductase subunit B14.7; RE70703p-like	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex 11
Ndufs7	NM_001008525	0.035	3.106	"Rattus norvegicus NADH dehydrogenase (ubiquinone) Fe-S protein 7 (Ndufs7), mRNA."	NADH-ubiquinone oxidoreductase Fe-S protein 7	NADH dehydrogenase (ubiquinone) Fe-S protein 7
Nenf	NM_001002851	0.007	2.420	"Rattus norvegicus neuron derived neurotrophic factor (Nenf), mRNA."	neudessin; secreted protein of unknown function; Spinal cord injury related protein 10	SCIRP10-related protein
Rpl13	NM_031101	0.037	2.207	"Rattus norvegicus ribosomal protein L13 (Rpl13), mRNA."		ribosomal protein L13
Rpl23	NM_001007599	0.043	2.726	"Rattus norvegicus ribosomal protein L23 (Rpl23), mRNA."		ribosomal protein L23
Rpl35a	NM_021264	0.004	2.380	"Rattus norvegicus ribosomal protein L35a (Rpl35a), mRNA."		ribosomal protein L35a
Rpl38	NM_001077592	0.015	3.498	"Rattus norvegicus ribosomal protein L38 (Rpl38), mRNA."	60S ribosomal protein L38	ribosomal protein L38
Rps14	NM_022672	0.000	3.076	"Rattus norvegicus ribosomal protein S14 (Rps14), mRNA."		ribosomal protein S14
Rps15a	NM_053982	0.002	2.660	"Rattus norvegicus ribosomal protein S15a (Rps15a), mRNA."		ribosomal protein S15a
Rps19	NM_001037346	0.000	3.326	"Rattus norvegicus ribosomal protein S19 (Rps19), mRNA."		ribosomal protein S19
Rps21	NM_031111	0.041	3.565	"Rattus norvegicus ribosomal protein S21 (Rps21), mRNA."		ribosomal protein S21
Rps23	NM_078617	0.023	2.675	"Rattus norvegicus ribosomal protein S23 (Rps23), mRNA."		ribosomal protein S23
Rps26	NM_013224	0.002	2.641	"Rattus norvegicus ribosomal protein S26 (Rps26), mRNA."		ribosomal protein S26
Sepw1	NM_013027	0.016	2.629	"Rattus norvegicus selenoprotein W, muscle 1 (Sepw1), mRNA."		"selenoprotein W, 1"
Sst	NM_012659	0.000	3.219	"Rattus norvegicus somatostatin (Sst), mRNA."		somatostatin
Tceb2	NM_031129	0.024	2.465	"Rattus norvegicus transcription elongation factor B (SIII), polypeptide 2 (Tceb2), mRNA."	"transcription elongation factor B (SIII) polypeptide 2 (18kD, elongin B)"	"transcription elongation factor B (SIII), polypeptide 2"
Timm8b	NM_022541	0.002	2.711	"Rattus norvegicus translocase of inner mitochondrial membrane 8 homolog b (yeast) (Timm8b), mRNA."	Tim8b; similar to the yeast Tim10/Tim12/DDP protein family; small zinc finger-like protein DDP2	translocase of inner mitochondrial membrane 8 homolog b
Uba52	NM_031687	0.009	2.828	"Rattus norvegicus ubiquitin A-52 residue ribosomal protein fusion product 1 (Uba52), mRNA."		ubiquitin A-52 residue ribosomal protein fusion product 1
Ubl5	NM_001048243	0.002	2.452	"Rattus norvegicus Ubiquitin-Like 5 Protein (LOC500954), mRNA."		ubiquitin-like 5 protein
Usmg5	NM_133544	0.036	3.388	"Rattus norvegicus upregulated during skeletal muscle growth 5 (Usmg5), mRNA."	diabetes-associated protein in insulin-sensitive tissues	dapit protein

**Supplementary Table 3.** Gene clusters from adult amygdala microarray data that were differentially expressed in bLR offspring cross-fostered to bHR mothers versus bLR controls (raised by biological bLR mothers)

Cluster 1						
Gene Symbol	Sequence ID	Corrected P-Value	Fold Change	Comments	Description	Function
Cds2	NM_053643	0.005	5.250	Rattus norvegicus CDP-diacylglycerol synthase (phosphatidate cytidyltransferase) 2 (Cds2), mRNA.		phosphatidate cytidyltransferase 2
Cirbp	NM_031147	0.020	1.977	Rattus norvegicus cold inducible RNA binding protein (Cirbp), mRNA.	cold inducible RNA-binding protein	cold inducible RNA binding protein
Clstn3	NM_134376	0.011	2.645	Rattus norvegicus calysntenin 3 (Clstn3),		calysntenin 3
Cpt1a	NM_031559	0.038	3.856	Rattus norvegicus carnitine palmitoyltransferase 1a, liver (Cpt1a), mRNA.	Carnitine palmitoyltransferase 1 alpha, liver isoform	carnitine palmitoyltransferase 1, liver
Def8	NM_001024774	0.002	2.577	Rattus norvegicus differentially expressed in FDCP 8 (Def8), mRNA.		differentially expressed in FDCP 8
Dlg4	NM_019621	0.016	3.248	Rattus norvegicus discs, large homolog 4 (Drosophila) (Dlg4), mRNA.	discs large homolog 4; synapse-associated protein SAP90	postsynaptic density protein 95
Dvl1	NM_031820	0.015	2.753	Rattus norvegicus dishevelled, dsh homolog 1 (Drosophila) (Dvl1), mRNA.	dishevelled 1; dishevelled-1	dishevelled, dsh homolog 1
Jph4	NM_001003711	0.042	2.750	Rattus norvegicus junctophilin 4 (Jph4),		junctophilin 4
Mapre3	NM_001007656	0.024	1.565	Rattus norvegicus microtubule-associated protein, RP/EB family, member 3 (Mapre3), mRNA.		microtubule-associated protein, RP/EB family, member 3
Nelf	NM_057190			Rattus norvegicus nasal embryonic LHRH factor (Nelf), mRNA.		nasal embryonic LHRH factor
Olr836	NM_001000406	0.013	-2.995	Rattus norvegicus olfactory receptor 836 (predicted) (Olr836_predicted), mRNA.	olfactory receptor gene Olr836	olfactory receptor Olr836
Pomgnt1	NM_001007747	0.039	1.973	Rattus norvegicus protein O-linked mannose beta1,2-N-acetylglucosaminyltransferase (Pomgnt1), mRNA.		O-linked mannose beta1,2-N-acetylglucosaminyltransferase
Prkar1b	NM_001033679	0.049	2.514	Rattus norvegicus protein kinase, cAMP dependent regulatory, type I, beta (Prkar1b), mRNA.	cAMP dependent protein kinase, subunit type 1 beta	protein kinase, cAMP dependent regulatory, type I, beta
Uhmk1	NM_017293	0.002	5.810	Rattus norvegicus UZAF homology motif (UHM) kinase 1 (Uhmk1), mRNA.	kinase interacting with leukemia-associated gene (stathmin); PAM COOH-terminal	KIS
Vdac1	NM_031353	0.046	2.185	Rattus norvegicus voltage-dependent anion channel 1 (Vdac1), mRNA.		voltage-dependent anion channel 1
Zfyve27	NM_199104	0.023	2.167	Rattus norvegicus zinc finger, FYVE domain containing 27 (Zfyve27), mRNA.		zinc finger, FYVE domain containing 27
Cluster 2						
Gene Symbol	Sequence ID	Corrected P Value	Fold Change	Comments	Description	Function
App	NM_019288	0.044	1.598	Rattus norvegicus amyloid beta (A4) precursor protein (App), mRNA.		amyloid beta (A4) precursor protein
Camk2a	NM_012920	0.001	2.411	Rattus norvegicus calcium/calmodulin-dependent protein kinase II, alpha (Camk2a),	Ca2+/calmodulin-dependent protein kinase II alpha; alpha CaM kinase II	calcium/calmodulin-dependent protein kinase II alpha subunit
Car12	NM_001080756	0.023	3.092	Rattus norvegicus carbonic anhydrase 12 (Car12), mRNA.	membrane-bound carbonic anhydrase 12	carbonic anhydrase 12
Cntnap1	NM_032061	0.002	2.433	Rattus norvegicus contactin associated protein 1 (Cntnap1), mRNA.		contactin associated protein 1
Cx3cl1	NM_134455	0.000	3.487	Rattus norvegicus chemokine (C-X3-C motif) ligand 1 (Cx3cl1), mRNA.	fractalkine; small inducible cytokine subfamily D, 1	chemokine (C-X3-C motif) ligand 1
Fbxl16	NM_001009504	0.034	3.850	Rattus norvegicus F-box and leucine-rich repeat protein 16 (Fbxl16), mRNA.	spinal cord injury and regeneration related 1	F-box and leucine-rich repeat protein 16
Gabra1	NM_183326	0.013	2.548	Rattus norvegicus gamma-aminobutyric acid A receptor, alpha 1 (Gabra1), mRNA.	gamma-aminobutyric acid (GABA-A) receptor subunit alpha 1; gamma-	gamma-aminobutyric acid A receptor, alpha 1
Hrh3	NM_053506	0.011	2.168	Rattus norvegicus histamine receptor H3 (Hrh3), mRNA.		histamine receptor H3
Kcnab2	NM_017304	0.002	3.841	Rattus norvegicus potassium voltage-gated channel, shaker-related subfamily, beta member 2 (Kcnab2), mRNA.	potassium voltage gated channel, shaker related subfamily, beta member 2	potassium voltage-gated channel, shaker-related subfamily, beta member 2
Ncdn	NM_053543	0.007	2.572	Rattus norvegicus neurochondrin (Ncdn),		neurochondrin
Nptxr	NM_030841	0.001	4.964	Rattus norvegicus neuronal pentraxin receptor (Nptxr), mRNA.	non-AUG (CUG) translation initiation codon	neuronal pentraxin receptor
Nrn1	NM_053346	0.030	3.296	Rattus norvegicus neuritin (Nrn1), mRNA.		neuritin
Nsf	NM_021748	0.001	2.275	Rattus norvegicus N-ethylmaleimide sensitive fusion protein (Nsf), mRNA.	N-ethylmaleimide sensitive factor	N-ethylmaleimide sensitive fusion protein
Pde2a	NM_031079	0.021	2.362	Rattus norvegicus phosphodiesterase 2A, cGMP-stimulated (Pde2a), mRNA.	cyclic GMP stimulated phosphodiesterase	phosphodiesterase 2A, cGMP-stimulated
Phyhip	NM_001017376	0.001	3.229	Rattus norvegicus phytanoyl-CoA hydroxylase interacting protein (Phyhip), mRNA.		phytanoyl-CoA hydroxylase interacting protein
Pip5k1a	NM_001042621	0.034	2.869	Rattus norvegicus phosphatidylinositol-4-phosphate 5-kinase, type 1, alpha (predicted) (Pip5k1a_predicted), mRNA.	phosphatidylinositol-4-phosphate 5-kinase, type 1 beta; phosphatidylinositol-4-phosphate 5-kinase, type 1 alpha	phosphatidylinositol-4-phosphate 5-kinase, type 1, alpha
Prepl	NM_001010951	0.037	2.081	Rattus norvegicus similar to RIKEN cDNA D030028016 (RGD1310143), mRNA.		prolyl endopeptidase-like
Selplg	NM_001013230	0.020	2.462	Rattus norvegicus selectin, platelet (p-selectin) ligand (predicted) (Selpl_predicted),	P-selectin glycoprotein ligand; leukocyte cell surface adhesion molecule	selectin, platelet (p-selectin) ligand (predicted)
Slc17a7	NM_053859	0.010	2.731	Rattus norvegicus solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 7 (Slc17a7), mRNA.	vesicular glutamate transporter 1; brain-specific Na-dependent inorganic phosphate cotransporter	solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 7
Syp	NM_012664	0.028	2.475	Rattus norvegicus synaptophysin (Syp), mRNA.		synaptophysin
Ubl3	NM_001015030	0.010	1.776	Rattus norvegicus ubiquitin-like 3 (Ubl3),		ubiquitin-like 3
Ugt8	NM_019276	0.001	2.072	Rattus norvegicus UDP galactosyltransferase 8 (Ugt8), mRNA.		UDP-glucuronosyltransferase 8

Cluster 3						
Gene Symbol	Sequence ID	Corrected P Value	Fold Change	Comments	Description	Function
Ablim1	NM_001044394	0.016	2.683	Rattus norvegicus actin-binding LIM protein 1 (predicted) (Ablim1_predicted), mRNA.		actin-binding LIM protein 1
Add1	NM_016990	0.037	3.188	Rattus norvegicus adducin 1 (alpha) (Add1), mRNA.	alpha-ADD	adducin 1 (alpha)
Adora1	NM_017155	0.023	3.519	Rattus norvegicus adenosine A1 receptor (Adora1), mRNA.		adenosine A1 receptor
Akt2	NM_017093	0.003	2.152	Rattus norvegicus thymoma viral proto-oncogene 2 (Akt2), mRNA.	RAC protein kinase beta RAC-PK beta; protein kinase B beta	murine thymoma viral (v-akt) oncogene homolog 2
Arf3	NM_080904	0.006	2.656	Rattus norvegicus ADP-ribosylation factor 3 (Arf3), mRNA.		ADP-ribosylation factor 3
Atf2	NM_031018	0.046	2.067	Rattus norvegicus activating transcription factor 2 (Atf2), mRNA.		activating transcription factor 2
Atp2b4	NM_001005871	0.005	5.701	Rattus norvegicus ATPase, Ca++ transporting, plasma membrane 4 (Atp2b4), mRNA.	plasma membrane Ca2+-ATPases 4	plasma membrane calcium ATPase 4
Atp6v0a1	NM_031604	0.023	3.204	Rattus norvegicus ATPase, H+ transporting, lysosomal V0 subunit A1 (Atp6v0a1), mRNA.	ATPase, H+ transporting, lysosomal noncatalytic accessory protein 1a; v-H+ATPase subunit a1; vacuolar proton pump; ATPase, H+ transporting, lysosomal V0 subunit a; ATPase H+ transporting	ATPase, H+ transporting, lysosomal V0 subunit a isoform 1
Bcat1	NM_017253	0.012	2.656	Rattus norvegicus branched chain aminotransferase 1, cytosolic (Bcat1), mRNA.		branched chain aminotransferase 1, cytosolic
Bcl2l1	NM_001033670	0.045	2.537	Rattus norvegicus Bcl2-like 1 (Bcl2l1), transcript variant 3, mRNA.	isoform 2 is encoded by transcript variant 3; B cell lymphoma 2 like; B cell lymphoma like	Bcl2-like 1 isoform 2
Camkv	NM_024000	0.000	4.046	Rattus norvegicus CaM kinase-like vesicle-associated (Camkv), mRNA.		vesicle-associated calmodulin-binding protein
Cap1	NM_022383	0.011	2.420	Rattus norvegicus CAP, adenylate cyclase-associated protein 1 (yeast) (Cap1), mRNA.	cyclase-associated protein homologue	CAP, adenylate cyclase-associated protein 1
Carm1	NM_001030041	0.049	2.154	Rattus norvegicus protein arginine N-methyltransferase 4 (Prmt4), transcript variant 1, mRNA.	isoform a is encoded by transcript variant 1; coactivator-associated arginine methyltransferase 1	coactivator-associated arginine methyltransferase 1 isoform a
Cbx6	NM_001012119	0.006	3.690	Rattus norvegicus chromobox homolog 6 (Cbx6), mRNA.		chromobox homolog 6
Cd164	NM_031812	0.015	3.794	Rattus norvegicus CD164 antigen (Cd164),		endolyn
Cntn1	NM_057118	0.006	3.750	Rattus norvegicus contactin 1 (Cntn1), mRNA.		contactin 1
Dclk1	NM_053343	0.022	3.021	Rattus norvegicus doublecortin-like kinase 1 (Dclk1), mRNA.	double cortin and calcium/calmodulin-dependent protein kinase-like 1	doublecortin-like kinase 1
Dlg3	NM_031639	0.005	2.515	Rattus norvegicus discs, large homolog 3 (Drosophila) (Dlg3), mRNA.	discs large homolog 3	synapse-associated protein 102
Dnajc5	NM_024161	0.023	3.331	Rattus norvegicus Dnaj (Hsp40) homolog, subfamily C, member 5 (Dnajc5), mRNA.		cysteine string protein
Dpp6	NM_022850	0.000	2.794	Rattus norvegicus dipeptidylpeptidase 6 (Dpp6), mRNA.		dipeptidylpeptidase 6
Dstyk	NM_199463	0.017	4.410	Rattus norvegicus receptor interacting protein kinase 5 (Ripk5), mRNA.	dusty protein kinase	receptor interacting protein kinase 5
Fnbp1	NM_138914	0.006	2.697	Rattus norvegicus formin binding protein 1 (Fnbp1), mRNA.		rapostlin
Freq	NM_024366	0.014	3.961	Rattus norvegicus frequenin homolog (Drosophila) (Freq), mRNA.		neuronal calcium sensor-1
Gabbr1	NM_031028	0.017	3.154	Rattus norvegicus gamma-aminobutyric acid (GABA) B receptor 1 (Gabbr1), mRNA.	gamma-aminobutyric acid (GABA) B receptor, 1; gamma-aminobutyric acid type B receptor; GABA-BR1h receptor; GABA-	gamma-aminobutyric acid (GABA) B receptor 1
Gja1	NM_012567	0.005	4.013	Rattus norvegicus gap junction membrane channel protein alpha 1 (Gja1), mRNA.	gap junction protein, alpha 1, 43 kD; connexin 43; Gap junction protein alpha 1 43 kD (connexin 43); Gap junction protein,	gap junction membrane channel protein alpha 1
Glul	NM_017073	0.017	2.540	Rattus norvegicus glutamate-ammonia ligase (glutamine synthase) (Glul), mRNA.	Glutamine synthetase (glutamate-ammonia ligase)	glutamine synthetase 1
Ipk6k1	NM_053316	0.006	5.171	Rattus norvegicus inositol hexaphosphate kinase 1 (Ipk1), mRNA.	inositol hexakisphosphate kinase 6	inositol hexaphosphate kinase 1
Map2k7	NM_001025425	0.044	3.167	Rattus norvegicus mitogen activated protein kinase kinase 7 (Map2k7), mRNA.		mitogen activated protein kinase kinase 7
Mmd	NM_001007673	0.001	2.229	Rattus norvegicus monocyte to macrophage differentiation-associated (Mmd), mRNA.	macrophage/microglia activation-associated factor	monocyte to macrophage differentiation-associated
Ndr3	NM_001013923	0.003	1.913	Rattus norvegicus similar to Ndr3 protein (LOC296318), mRNA.		similar to Ndr3 protein
Ogdh	NM_001017461	0.021	2.553	Rattus norvegicus similar to oxoglutarate dehydrogenase (lipoamide) (LOC360975),		hypothetical protein LOC360975
Opcml	NM_053848	0.047	3.031	Rattus norvegicus opioid binding protein/cell adhesion molecule-like (Opcml), mRNA.		opioid-binding protein/cell adhesion molecule-like
Pcyox1	NM_145085	0.002	3.440	Rattus norvegicus prenylcysteine oxidase 1 (Pcyox1), mRNA.		chloride ion pump-associated 55 kDa protein
Pip5k1c	NM_001009967	0.004	2.487	Rattus norvegicus phosphatidylinositol-4-phosphate 5-kinase, type I, gamma (Pip5k1c), transcript variant c, mRNA.	isoform c is encoded by transcript variant c	phosphatidylinositol-4-phosphate 5-kinase, type I, gamma isoform c
Pip5k1c	NM_001033970	0.002	3.683	Rattus norvegicus phosphatidylinositol-4-phosphate 5-kinase, type I, gamma (Pip5k1c), transcript variant b, mRNA.	isoform b is encoded by transcript variant b	phosphatidylinositol-4-phosphate 5-kinase, type I, gamma isoform b
Pom121	NM_053622	0.010	3.763	Rattus norvegicus nuclear pore membrane glycoprotein 121 (Pom121), mRNA.	nuclear pore membrane glycoprotein 121 kD	nuclear pore membrane glycoprotein 121
Ppp2r2c	NM_057116	0.003	4.124	Rattus norvegicus protein phosphatase 2 (formerly 2A), regulatory subunit B (PR 52), gamma isoform (Ppp2r2c), mRNA.		protein phosphatase 2 (formerly 2A), regulatory subunit B (PR 52), gamma isoform

Cluster 3 (continued)						
Prkacb	NM_001077645	0.002	3.814	Rattus norvegicus protein kinase, cAMP dependent, catalytic, beta (Prkacb), mRNA.		protein kinase, cAMP dependent, catalytic, beta
Ptprn2	NM_031600	0.003	2.686	Rattus norvegicus protein tyrosine phosphatase, receptor type, N polypeptide 2 (Ptprn2), mRNA.	protein tyrosine phosphatase, receptor-type, N polypeptide 2; protein tyrosine phosphatase receptor-type N polypeptide 2	protein tyrosine phosphatase, receptor type, N polypeptide 2
Rnf44	NM_001024795	0.036	3.296	Rattus norvegicus ring finger protein 44 (Rnf44), mRNA.		ring finger protein 44
Sirpa	NM_013016	0.007	4.151	Rattus norvegicus protein tyrosine phosphatase, non-receptor type substrate 1 (Ptpps1), mRNA.	Protein tyrosine phosphatase non-receptor type substrate 1 (SHP substrate 1); Brain immunoglobulin like protein with tyrosine-based activation motifs; protein tyrosine phosphatase non-receptor type substrate 1;	signal-regulatory protein alpha
Slc1a3	NM_019225	0.004	3.004	Rattus norvegicus solute carrier family 1 (glial high affinity glutamate transporter), member 3 (Slc1a3), mRNA.	glutamate transporter; glutamate/aspartate transporter; solute carrier family 1, member 3	solute carrier family 1 (glial high affinity glutamate transporter), member 3
Slc6a17	NM_001033079	0.005	3.334	Rattus norvegicus solute carrier family 6 (neurotransmitter transporter), member 17 (Slc6a17), mRNA.		solute carrier family 6 (neurotransmitter transporter), member 17
Stx1b	NM_012700	0.013	4.310	Rattus norvegicus syntaxin 1B2 (Stx1b2),	Syntaxin 2	syntaxin 1B2
Stxbp1	NM_013038	0.001	2.698	Rattus norvegicus syntaxin binding protein 1 (Stxbp1), mRNA.		syntaxin binding protein 1
Syngap1	NM_181092	0.019	4.119	Rattus norvegicus synaptic Ras GTPase activating protein 1 homolog (rat) (Syngap1),		synaptic Ras GTPase activating protein 1 homolog
Syt1	NM_001033680	0.001	3.355	Rattus norvegicus synaptotagmin I (Syt1),		synaptotagmin 1
Syt11	NM_031667	0.002	4.640	Rattus norvegicus synaptotagmin XI (Syt11), mRNA.	synaptotagmin 11	synaptotagmin XI
Tsc1	NM_021854	0.018	3.545	Rattus norvegicus tuberous sclerosis 1 (Tsc1), mRNA.		tuberous sclerosis 1
Wdr7	NM_023975	0.036	3.922	Rattus norvegicus WD repeat domain 7 (Wdr7), mRNA.		TGF-beta resistance-associated protein
Cluster 4						
Gene Symbol	Sequence ID	Corrected P Value	Fold Change	Comments	Description	Function
Caskin1	NM_080690	0.010	2.865	Rattus norvegicus CASK interacting protein 1 (Caskin1), mRNA.		cask-interacting protein 1
Cdk5r1	NM_053891	0.020	3.097	Rattus norvegicus cyclin-dependent kinase 5, regulatory subunit 1 (p35) (Cdk5r1), mRNA.		cyclin-dependent kinase 5, regulatory subunit 1
Csnk1d	NM_139060	0.044	3.002	Rattus norvegicus casein kinase 1, delta (Csnk1d), mRNA.		casein kinase 1, delta
Gnaz	NM_013189	0.006	3.464	Rattus norvegicus guanine nucleotide binding protein, alpha z subunit (Gnaz), mRNA.	Guanine nucleotide binding protein alpha	guanine nucleotide binding protein, alpha z subunit
Gnb1	NM_030987	0.003	7.193	Rattus norvegicus guanine nucleotide binding protein, beta 1 (Gnb1), mRNA.	Guanine nucleotide-binding protein beta 1	guanine nucleotide-binding protein, beta-1 subunit
Lppr2	NM_001005881	0.008	2.780	Rattus norvegicus plasticity related protein 4 (PRG-4), mRNA.		plasticity related protein 4
Map4	NM_001024278	0.034	3.742	Rattus norvegicus microtubule-associated protein 4 (LOC367171), mRNA.		microtubule-associated protein 4
Nlgn2	NM_053992	0.002	4.894	Rattus norvegicus neuroligin 2 (Nlgn2), mRNA.		neuroligin 2
Ptprs	NM_019140	0.006	2.344	Rattus norvegicus protein tyrosine phosphatase, receptor type, D (Ptprd), mRNA.		protein tyrosine phosphatase, receptor type, D
Rab35	NM_001013046	0.001	2.318	Rattus norvegicus RAB35, member RAS oncogene family (Rab35), mRNA.		RAB35, member RAS oncogene family
Rab40c	NM_182675	0.029	3.489	Rattus norvegicus Rab40c, member RAS oncogene family (Rab40c), mRNA.	localized in perinuclear recycling compartment	Rab40c, member RAS oncogene family
Shroom2	NM_001047893	0.034	3.581	Rattus norvegicus apical protein-like (Xenopus laevis) (Apxl), mRNA.		apical protein of Xenopus-like
Srebf2	NM_001033694	0.012	3.674	Rattus norvegicus sterol regulatory element binding factor 2 (predicted) (Srebf2), mRNA.	sterol regulatory element binding protein 2	sterol regulatory element binding factor 2
Ywhag	NM_019376	0.000	4.476	Rattus norvegicus tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, gamma polypeptide (Ywhag), mRNA.	14-3-3 protein gamma-subtype; tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein gamma polypeptide; tyrosine 3/tryptophan 5-monooxygenase activation protein gamma polypeptide; 3-monooxygenase/tryptophan	tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, gamma polypeptide
Zfp180	NM_144757	0.042	2.940	Rattus norvegicus zinc finger protein 180 (Zfp180), mRNA.		Cys2/His2 zinc finger protein (rKr1)