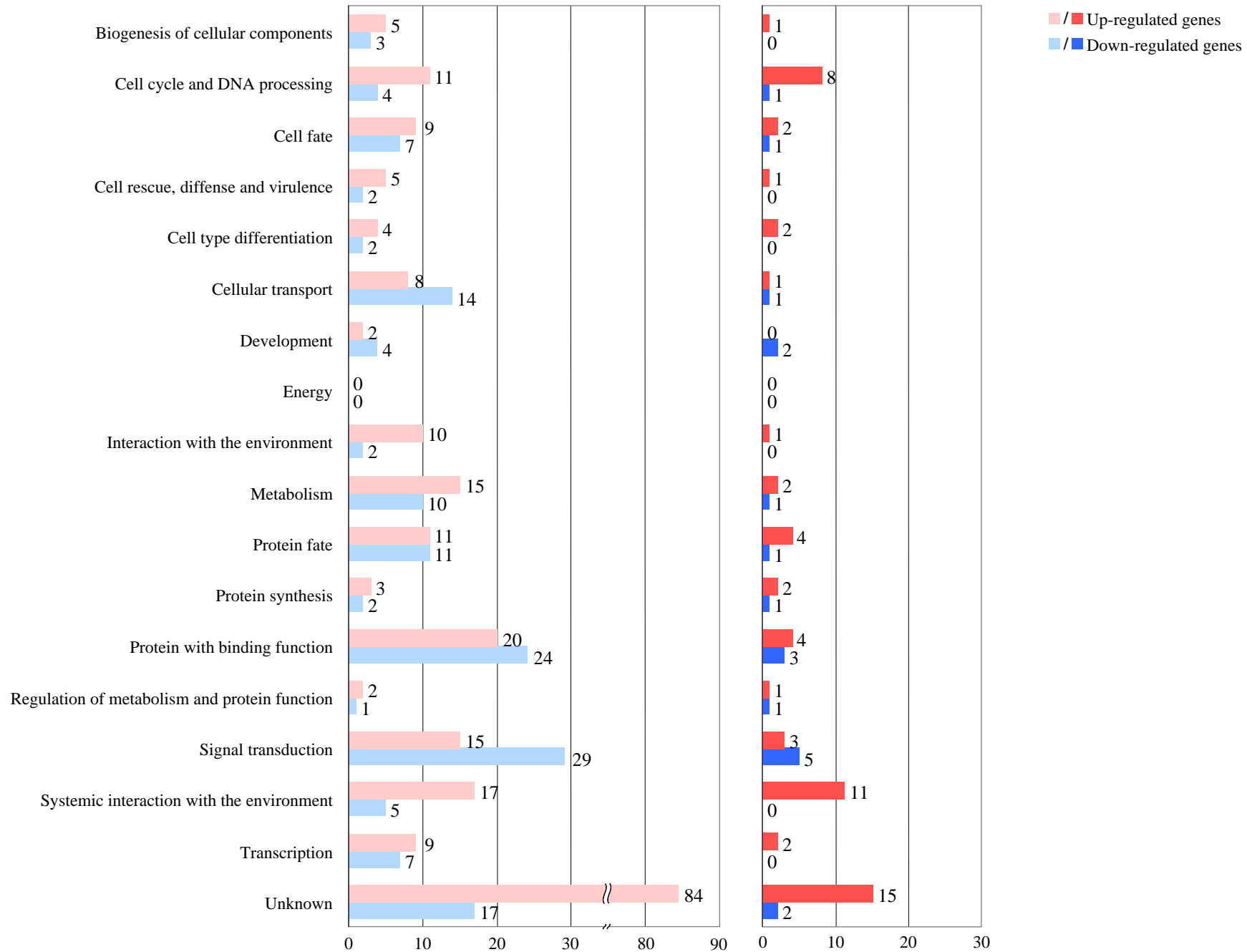
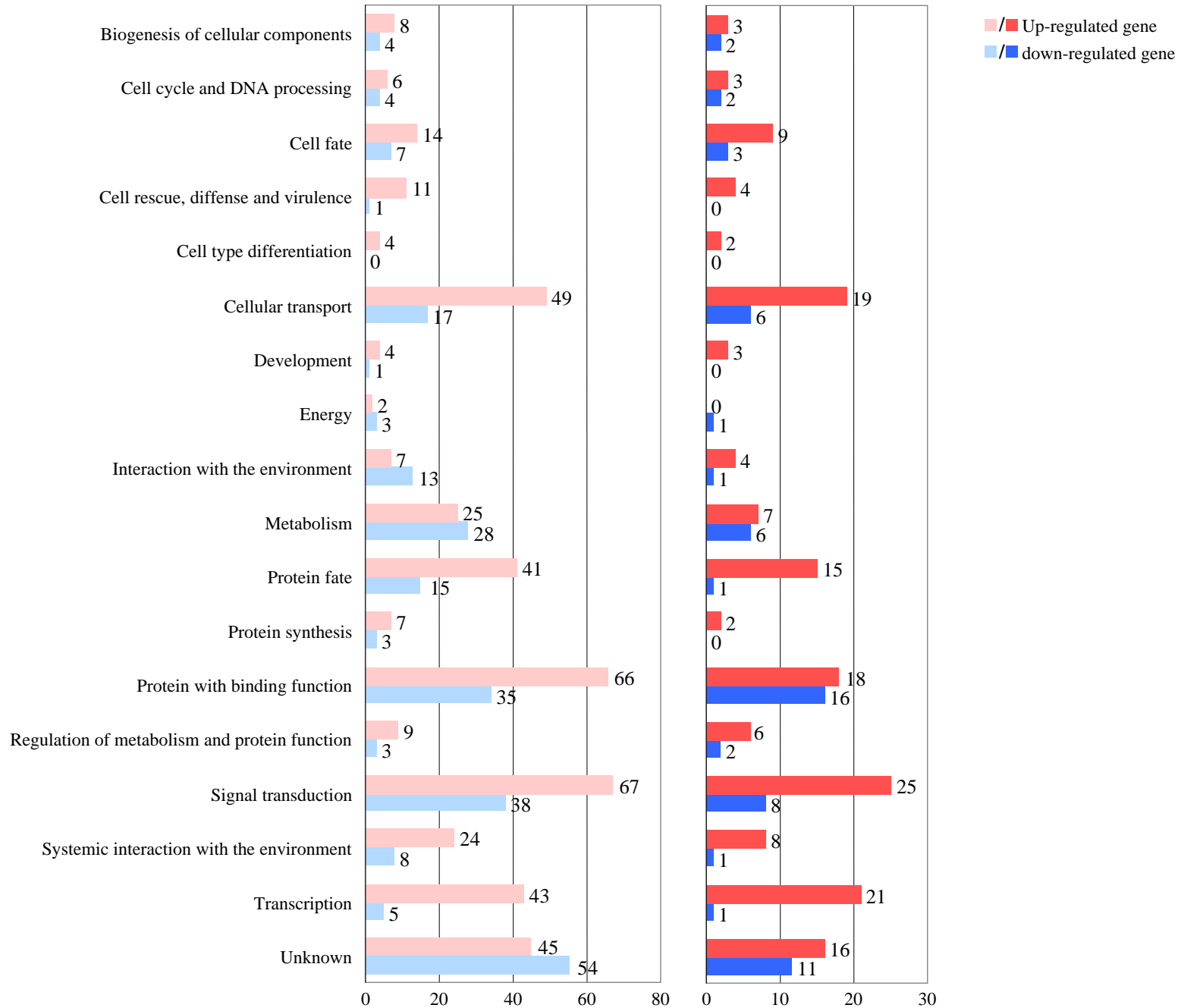


Functional category of differentially expressed genes in irradiated striata



Functional category of differentially expressed genes in contralateral striata



Supplementary Table 1. Details of microarray experiment.

Replicate *	Sample	Microarray slide #	Labeling	
			Cy3	Cy5
Pooled Biological Replicates (x 2)	STRAITUM (Left, unilateral)	MA 1	Control	Irradiated
		MA 2	Irradiated	Control
RT-PCR validation				
Pooled Biological Replicates (x 2)	STRAITUM (Right, contralateral)	MA 3	Control	Un-irradiated
		MA 4	Un-irradiated	Control
RT-PCR validation				

* Total RNA isolated from individual rats were used for cDNA synthesis.

Supplementary Table 2. The induced genes in irradiated striatum after gamma knife surgery (2.0).

No.	Gene	nucleotide accession (NCBI)	Log	Fold	Description
<u>Biogenesis of cellular components</u>					
4	A_44_P191330	NM_053722	3.24	25.42	<i>Rattus norvegicus</i> CLIP associating protein 2 (Clasp2)
61	XM_216166	NM_001013086	1.09	2.97	<i>Rattus norvegicus</i> capping protein (actin filament), gelsolin-like (Capg)
83	XM_215513	NM_053976	0.99	2.69	<i>Rattus norvegicus</i> keratin complex 1, acidic, gene 18 (Krt1-18)
170	A_43_P16949	XM_220884	0.80	2.23	PREDICTED: <i>Rattus norvegicus</i> sarcoglycan, alpha (dystrophin-associated glycoprotein) (Sgca_predicted)
221	A_44_P295563	NM_001106858	0.71	2.03	<i>Rattus norvegicus</i> procollagen, type VII, alpha 1 (Col7a1)
<u>Cell cycle and DNA processing</u>					
2	A_44_P506741	NM_001108310	4.26	70.67	<i>Rattus norvegicus</i> 5-azacytidine induced gene 1 (Azi1)
11	A_44_P157835	BC081852	2.17	8.77	<i>Rattus norvegicus</i> cyclin G1, mRNA (cDNA clone MGC:93642 IMAGE:7105829)
12	A_44_P380167	XM_217535	1.84	6.32	PREDICTED: <i>Rattus norvegicus</i> similar to synaptonemal complex protein 3 (LOC302172)
17	A_42_P837214	NM_012861	1.65	5.22	<i>Rattus norvegicus</i> O-6-methylguanine-DNA methyltransferase (Mgmt)
22	A_44_P436164	XM_224970	1.58	4.85	PREDICTED: <i>Rattus norvegicus</i> cytoskeleton associated protein 2 (Ckap2_predicted)
44	XM_344261	XM_001054510	1.26	3.51	PREDICTED: <i>Rattus norvegicus</i> similar to Hus1 homolog (LOC498411)
51	A_44_P113933	NM_019179	1.21	3.34	<i>Rattus norvegicus</i> thymidylate synthase (Tyms)
55	A_44_P1009603	XM_217016	1.16	3.20	PREDICTED: <i>Rattus norvegicus</i> similar to B99 protein (LOC300126)
157	XM_345474	NM_001008319	0.83	2.29	<i>Rattus norvegicus</i> macrophage erythroblast attacher (Maea)
176	A_44_P138767	NM_001107680	0.79	2.19	<i>Rattus norvegicus</i> myeloid leukemia factor 1 (Mlf1)
179	A_44_P285853	NM_012641	0.78	2.18	<i>Rattus norvegicus</i> regenerating islet-derived 1 (Reg1)
<u>Cell fate</u>					
30	A_44_P377266	NM_133306	1.47	4.34	<i>Rattus norvegicus</i> oxidized low density lipoprotein (lectin-like) receptor 1 (Oldlr1)
54	A_44_P437945	NM_173837	1.18	3.24	<i>Rattus norvegicus</i> Bcl-2 binding component 3 (Bbc3)
62	A_44_P168265	NM_019142	1.08	2.93	<i>Rattus norvegicus</i> protein kinase, AMP-activated, alpha 1 catalytic subunit (Prkaa1)
68	A_44_P515275	NM_080782	1.05	2.85	<i>Rattus norvegicus</i> cyclin-dependent kinase inhibitor 1A (Cdkn1a)
70	A_44_P224810	NM_001106291	1.04	2.84	<i>Rattus norvegicus</i> NLR family, pyrin domain containing 10 (Nlrp10)
74	A_43_P12478	NM_031019	1.03	2.81	<i>Rattus norvegicus</i> corticotropin releasing hormone (Crh)
137	A_44_P120353	XM_001064680	0.86	2.36	PREDICTED: <i>Rattus norvegicus</i> roundabout homolog 2 (Drosophila) (Robo2)
145	A_44_P242800	NM_031775	0.85	2.33	<i>Rattus norvegicus</i> caspase 6 (Casp6)
206	A_44_P517122	NM_012815	0.72	2.06	<i>Rattus norvegicus</i> glutamate-cysteine ligase, catalytic subunit (Gclc)
<u>Cell rescue, diffense and virulence</u>					
9	A_43_P11616	NM_012912	2.56	12.90	<i>Rattus norvegicus</i> activating transcription factor 3 (Atf3)
86	A_44_P364872	XM_001076624	0.98	2.67	PREDICTED: <i>Rattus norvegicus</i> programmed cell death 6 interacting protein (Pdc6ip)
105	A_44_P252935	NM_030682	0.93	2.54	<i>Mus musculus</i> toll-like receptor 1 (Tlr1)
129	XM_234338	XR_009419	0.87	2.40	PREDICTED: <i>Rattus norvegicus</i> similar to RAD51-like 1 (RGD1560681_predicted)
168	A_44_P163242	NM_138541	0.81	2.24	<i>Rattus norvegicus</i> tumor-associated calcium signal transducer 1 (Tacstd1)
<u>Cell type differentiation</u>					
16	A_44_P294675	NM_053687	1.67	5.32	<i>Rattus norvegicus</i> schlafen 3 (Slfn3)
21	A_44_P990376	NM_133298	1.59	4.92	<i>Rattus norvegicus</i> glycoprotein (transmembrane) nmb (Gpnmb)
119	A_44_P423176	NM_001004214	0.88	2.42	<i>Rattus norvegicus</i> NAD(P)H dehydrogenase, quinone 2 (Nqo2)
188	A_44_P457599	NM_053832	0.77	2.15	<i>Rattus norvegicus</i> forkhead box J1 (Foxj1)
<u>Cellular transport</u>					
10	A_44_P228859	NM_134380	2.20	9.00	<i>Rattus norvegicus</i> integral membrane transport protein UST5r (UST5r)
107	A_44_P546805	NM_001107846	0.92	2.52	<i>Rattus norvegicus</i> six transmembrane epithelial antigen of the prostate 2 (Steap2)

113	A_44_P390223	XM_001076000	0.90	2.46	PREDICTED: <i>Rattus norvegicus</i> apolipoprotein C-II (Apoc2_predicted)
143	A_44_P386824	NM_001108861	0.85	2.34	<i>Rattus norvegicus</i> Yip1 domain family, member 7 (Yipf7)
154	A_44_P376735	NM_022289	0.83	2.30	<i>Rattus norvegicus</i> sorting nexin 16 (Snx16)
195	A_44_P956938	AF452729	0.75	2.11	<i>Rattus norvegicus</i> synaptogenesis-related mRNA sequence 3
218	A_44_P216830	NM_022689	0.71	2.04	<i>Rattus norvegicus</i> synaptosomal-associated protein 23 (Snap23)
230	A_44_P649558	NM_016792	0.69	2.00	<i>Mus musculus</i> thioredoxin-like 1 (Txnl1)
<u>Development</u>					
69	A_44_P233175	BC100134	1.05	2.84	<i>Rattus norvegicus</i> zinc finger protein 183 (RING finger, C3HC4 type), mRNA (cDNA clone MGC:114206 IMAGE:7133304)
132	A_44_P737735	XM_001069687	0.87	2.39	PREDICTED: <i>Rattus norvegicus</i> piwi like homolog 2 (<i>Drosophila</i>) (Piwil2_predicted)
<u>Interaction with the environment</u>					
42	A_44_P314074	XM_001065087	1.28	3.61	PREDICTED: <i>Rattus norvegicus</i> dynein, axonemal, heavy chain 5 (Dnahc5)
64	A_44_P267724	XM_217022	1.07	2.91	PREDICTED: <i>Rattus norvegicus</i> kinesin family member 21A (Kif21a_predicted)
117	A_44_P168586	XM_001078263	0.89	2.44	PREDICTED: <i>Rattus norvegicus</i> similar to quiescin Q6-like 1 (LOC687383)
120	A_44_P330414	AF115506	0.88	2.42	<i>Rattus norvegicus</i> sodium/calcium exchanger 1 splice variant NaCa10 (NCX1)
174	A_44_P325426	XM_575338	0.79	2.20	PREDICTED: <i>Rattus norvegicus</i> similar to fatty acid translocase/CD36 (RGD1562323_predicted)
191	A_44_P443751	NM_019358	0.75	2.12	<i>Rattus norvegicus</i> glycoprotein 38 (Gp38)
201	A_44_P205032	NM_031329	0.73	2.08	<i>Rattus norvegicus</i> occludin (Ocln)
208	A_42_P626467	NM_021701	0.72	2.05	<i>Rattus norvegicus</i> protein phosphatase 3, regulatory subunit B, alpha isoform, type 2 (Ppp3r2)
209	XM_236984	XM_236979	0.72	2.05	PREDICTED: <i>Rattus norvegicus</i> polycystic kidney and hepatic disease 1 (Pkh1_predicted)
222	A_44_P332870	NM_001012748	0.71	2.03	<i>Rattus norvegicus</i> cadherin 20 (Cdh20)
<u>Metabolism</u>					
24	A_44_P485910	NM_032077	1.55	4.73	<i>Rattus norvegicus</i> paraoxonase 1 (Pon1)
27	A_42_P576953	NM_138882	1.51	4.52	<i>Rattus norvegicus</i> phosphatidylserine-specific phospholipase A1 (Pspla1)
66	A_44_P336503	NM_212515	1.06	2.89	<i>Rattus norvegicus</i> similar to NHP2-like protein 1 (High mobility group-like nuclear protein 2 homolog 1) ([U4/U6.U5] tri-snRNP 15.5 kDa protein) (OTK27) (MGC72932)
90	A_44_P540591	BC061532	0.97	2.65	<i>Rattus norvegicus</i> S-adenosylmethionine decarboxylase 1, mRNA (cDNA clone MGC:72695 IMAGE:6921099)
99	A_44_P507860	BC107931	0.95	2.59	<i>Rattus norvegicus</i> UDP glycosyltransferase 1 family, polypeptide A6, mRNA (cDNA clone MGC:124929 IMAGE:7126208)
134	A_44_P1025613	NM_001004086	0.87	2.38	<i>Rattus norvegicus</i> paraoxonase 3 (Pon3)
152	A_44_P222122	NM_053648	0.84	2.31	<i>Rattus norvegicus</i> beta-carotene 15, 15-dioxygenase (Bcdo)
158	A_44_P118562	U17096	0.83	2.29	<i>Rattus norvegicus</i> gamma glutamyl transpeptidase (GGT) gene, promoter region and exon 1
164	A_44_P614473	BC127503	0.82	2.27	<i>Rattus norvegicus</i> cytochrome P450, family 2, subfamily c, polypeptide 7
173	A_44_P277556	NM_133562	0.79	2.21	<i>Rattus norvegicus</i> phosphatidylinositol (4,5) bisphosphate 5-phosphatase, A (Pib5pa)
194	XM_222207	XM_001074661	0.75	2.11	PREDICTED: <i>Rattus norvegicus</i> similar to Ornithine decarboxylase (ODC) (LOC690517)
213	A_44_P495813	XM_001076038	0.72	2.05	PREDICTED: <i>Rattus norvegicus</i> phosphoribosyl pyrophosphate amidotransferase (Ppat)
219	A_42_P741217	XM_001071932	0.71	2.04	PREDICTED: <i>Rattus norvegicus</i> similar to beta 3-glycosyltransferase-like (LOC689765)
224	A_44_P801711	RATUDPGV	0.70	2.02	<i>Rattus norvegicus</i> UDP glucuronosyltransferase gene
227	A_42_P785801	NM_013105	0.70	2.00	<i>Rattus norvegicus</i> cytochrome P450, family 3, subfamily a, polypeptide 23/polypeptide 1 (Cyp3a23/3a1)
<u>Protein fate</u>					
6	A_44_P300814	NM_181631	2.72	15.25	<i>Rattus norvegicus</i> F-box only protein 11 (Fbxo11)
25	A_44_P257058	NM_024400	1.55	4.72	<i>Rattus norvegicus</i> a disintegrin-like and metalloprotease (repolysin type) with thrombospondin type 1 motif, 1 (Adamts1)
39	XM_345367	XM_001059499	1.31	3.70	PREDICTED: <i>Rattus norvegicus</i> similar to myosin IIIB (RGD1560313_predicted)
57	A_44_P1013314	NM_001106700	1.13	3.09	<i>Rattus norvegicus</i> interferon, alpha-inducible protein (clone IFI-15K) (G1p2)
85	A_44_P131062	NM_001017380	0.98	2.67	<i>Rattus norvegicus</i> cylindromatosis (turban tumor syndrome) (Cylt)
135	A_44_P378348	XM_001064216	0.86	2.36	PREDICTED: <i>Rattus norvegicus</i> potential ubiquitin ligase (Herc6)
159	A_44_P113053	NM_001105916	0.83	2.29	<i>Rattus norvegicus</i> transferrin receptor 2 (Trfr2)
192	A_44_P489208	NM_001106642	0.75	2.12	<i>Rattus norvegicus</i> ubiquitin-conjugating enzyme E2, J1 (Ube2j1)

197	A_44_P286259	XM_232833	0.74	2.10	PREDICTED: <i>Rattus norvegicus</i> F-box and leucine-rich repeat protein 4 (Fbx14_predicted)
216	A_43_P18668	NM_001007148	0.71	2.04	<i>Rattus norvegicus</i> beta-transducin repeat containing (Btrc)
220	XM_221406	NM_001024766	0.71	2.03	<i>Rattus norvegicus</i> WD repeat domain 5B (Wdr5b)
<u>Protein synthesis</u>					
38	XM_344908	XM_001056747	1.31	3.71	PREDICTED: <i>Rattus norvegicus</i> similar to 40S ribosomal protein S27-like protein (LOC681429)
46	A_44_P499268	XM_001079537	1.25	3.49	PREDICTED: <i>Rattus norvegicus</i> similar to G2 (RGD1310754_predicted)
84	A_44_P677758	NM_001008859	0.98	2.68	<i>Rattus norvegicus</i> mitochondrial ribosomal protein S10 (Mrps10)
<u>Protein with binding function</u>					
3	XM_344417	NM_001012210	3.44	31.25	<i>Rattus norvegicus</i> tripartite motif protein 13 (Trim13)
13	A_44_P539098	XM_232222	1.78	5.92	PREDICTED: <i>Rattus norvegicus</i> SHQ1 homolog (<i>S. cerevisiae</i>) (Shq1_predicted)
41	XM_227361	XR_007493	1.30	3.67	PREDICTED: <i>Rattus norvegicus</i> similar to Annexin A7 (Annexin VII) (Synexin) (LOC310579)
48	A_44_P159321	XM_216427	1.22	3.38	PREDICTED: <i>Rattus norvegicus</i> FERM domain containing 3 (Frm3_predicted)
67	A_44_P1023538	NM_016994	1.06	2.88	<i>Rattus norvegicus</i> complement component 3 (C3)
80	XM_344143	NM_001012206	1.00	2.71	<i>Rattus norvegicus</i> pleckstrin homology-like domain, family A, member 3 (Phlda3)
87	A_44_P239044	NM_013024	0.98	2.66	<i>Rattus norvegicus</i> spermine binding protein (Sbp)
92	XM_344267	NM_001025750	0.97	2.64	<i>Rattus norvegicus</i> pleckstrin (Plek)
97	XM_226953	XM_226953	0.96	2.62	PREDICTED: <i>Rattus norvegicus</i> similar to glucocorticoid induced gene 1 (RGD1563869_predicted)
102	A_44_P361014	NM_001127542	0.94	2.57	<i>Rattus norvegicus</i> pellino 3 (Peli3)
118	XM_223599	NM_001011913	0.89	2.42	<i>Rattus norvegicus</i> fidgetin-like 1 (Fign1)
122	AA799298	NM_001024753	0.88	2.42	<i>Rattus norvegicus</i> interferon-induced protein with tetratricopeptide repeats 2 (Ifit2)
124	A_44_P343666	NM_001008362	0.88	2.41	<i>Rattus norvegicus</i> zinc finger protein 655 (Zfp655)
125	A_44_P315296	BC085706	0.88	2.41	<i>Rattus norvegicus</i> T-cell immunomodulatory protein, mRNA (cDNA clone MGC:93216 IMAGE:7189102)
140	A_44_P835875	NM_001031648	0.85	2.35	<i>Rattus norvegicus</i> EF hand domain containing 2 (Efh2)
162	A_44_P454232	NM_201561	0.82	2.28	<i>Rattus norvegicus</i> secretagogin, EF-hand calcium binding protein (Scgn)
167	A_42_P644800	NM_001106882	0.81	2.25	<i>Rattus norvegicus</i> unc-5 homolog C (<i>C. elegans</i>)-like (Unc5cl)
178	A_44_P129549	NM_001115036	0.78	2.19	<i>Rattus norvegicus</i> similar to Transcription initiation factor TFIID subunit 12 (Transcription initiation factor TFIID 20 kDa subunits) (TAFII-20) (TAFII20) (LOC682902)
181	A_44_P207403	XM_001069109	0.78	2.18	PREDICTED: <i>Rattus norvegicus</i> similar to Antxr2 protein (LOC305633)
189	A_42_P557272	NM_001007605	0.76	2.15	<i>Rattus norvegicus</i> seminal vesicle secretion 3 (Svs3)
<u>Regulation of metabolism and protein function</u>					
20	A_44_P374733	NM_013047	1.62	5.05	<i>Rattus norvegicus</i> thyrotropin releasing hormone receptor (Trhr)
103	A_44_P326556	NM_001108175	0.94	2.55	<i>Rattus norvegicus</i> TBC1 domain family, member 2B (Tbc1d2b)
<u>Signal transduction</u>					
19	A_44_P287945	NM_001000659	1.62	5.06	<i>Rattus norvegicus</i> olfactory receptor 587 (Olr587)
32	A_42_P841193	NM_080399	1.40	4.07	<i>Rattus norvegicus</i> DNA-damage-inducible transcript 4-like (Ddit4l)
43	A_43_P19437	XM_216520	1.26	3.53	<i>Rattus norvegicus</i> similar to rhomboid-related protein (LOC298512)
65	A_44_P244428	NM_001001112	1.07	2.91	<i>Rattus norvegicus</i> olfactory receptor 1699 (Olr1699)
78	A_44_P335806	XM_001060527	1.00	2.72	PREDICTED: <i>Rattus norvegicus</i> laminin, alpha 5 (Lama5)
96	A_44_P202201	NM_133570	0.97	2.63	<i>Rattus norvegicus</i> gastrin releasing peptide (Grp)
115	A_44_P517707	NM_001000511	0.89	2.45	<i>Rattus norvegicus</i> olfactory receptor 561 (Olr561)
138	A_44_P219642	NM_173130	0.85	2.35	<i>Rattus norvegicus</i> putative pheromone receptor (Go-VN5) (LOC286914)
141	A_44_P440311	NM_001000648	0.85	2.35	<i>Rattus norvegicus</i> olfactory receptor 633 (Olr633)
150	A_44_P158758	L14617	0.84	2.31	<i>Rattus norvegicus</i> C1a receptor mRNA
155	A_44_P245413	NM_001000732	0.83	2.30	<i>Rattus norvegicus</i> olfactory receptor 271 (Olr271)
163	A_44_P486088	NM_001000573	0.82	2.28	<i>Rattus norvegicus</i> olfactory receptor 724 (Olr724)
169	A_44_P223563	NM_183326	0.81	2.24	<i>Rattus norvegicus</i> gamma-aminobutyric acid A receptor, alpha 1 (Gabra1)

199	A_44_P100489	XM_001059177	0.74	2.09	PREDICTED: <i>Rattus norvegicus</i> similar to putative pheromone receptor (Go-VN3)
210	A_44_P342225	NM_001099469	0.72	2.05	<i>Rattus norvegicus</i> similar to putative pheromone receptor (RGD1565464)
<u>Systemic interaction with the environment</u>					
5	A_42_P695401	NM_031530	2.73	15.38	<i>Rattus norvegicus</i> chemokine (C-C motif) ligand 2 (Ccl2)
8	A_44_P1004840	NM_181384	2.64	14.07	<i>Rattus norvegicus</i> tumor necrosis factor (ligand) superfamily, member 9 (Tnfsf9)
14	A_44_P1039128	NM_139089	1.75	5.73	<i>Rattus norvegicus</i> chemokine (C-X-C motif) ligand 10 (Cxcl10)
28	A_44_P604656	NM_012493	1.49	4.43	<i>Rattus norvegicus</i> alpha-fetoprotein (Afp)
29	A_42_P714311	NM_013025	1.49	4.43	<i>Rattus norvegicus</i> chemokine (C-C motif) ligand 3 (Ccl3)
31	A_44_P1039994	NM_001033691	1.46	4.29	<i>Rattus norvegicus</i> interferon regulatory factor 7 (Irf7)
34	A_43_P12698	NM_031832	1.35	3.86	<i>Rattus norvegicus</i> lectin, galactose binding, soluble 3 (Lgals3)
35	BC088260	BC088260	1.32	3.74	<i>Rattus norvegicus</i> similar to Small inducible cytokine B13 precursor (CXCL13) (B lymphocyte chemoattractant) (CXC chemokine BLC)
45	A_44_P491796	NM_012881	1.26	3.51	<i>Rattus norvegicus</i> secreted phosphoprotein 1 (Spp1)
53	A_42_P473398	NM_030845	1.19	3.28	<i>Rattus norvegicus</i> chemokine (C-X-C motif) ligand 1 (Cxcl1)
58	A_44_P1053321	NM_133624	1.11	3.02	<i>Rattus norvegicus</i> guanylate nucleotide binding protein 2 (Gbp2)
76	A_42_P672071	XM_342824	1.01	2.74	PREDICTED: <i>Rattus norvegicus</i> chemokine (C-C motif) ligand 19 (Ccl19_predicted)
88	A_44_P257893	XM_227762	0.98	2.66	PREDICTED: <i>Rattus norvegicus</i> guanylate nucleotide binding protein 4 (Gbp4_predicted)
112	A_44_P332821	XM_001054171	0.90	2.47	PREDICTED: <i>Rattus norvegicus</i> similar to Retinoic acid early inducible protein 1 gamma precursor (RAE-1gamma)
165	A_44_P867246	NM_001008839	0.82	2.27	<i>Rattus norvegicus</i> RT1 class I, CE16 (RT1-CE16)
185	A_44_P533794	NM_130426	0.77	2.16	<i>Rattus norvegicus</i> tumor necrosis factor receptor superfamily, member 1b (Tnfrsf1b)
228	XM_234422	NM_022197	0.69	2.00	<i>Rattus norvegicus</i> FBJ murine osteosarcoma viral oncogene homolog (Fos)
<u>Transcription</u>					
7	A_42_P701060	NM_022671	2.71	15.01	<i>Rattus norvegicus</i> one cut domain, family member 1 (Onecut1)
47	A_42_P762829	NM_013154	1.23	3.41	<i>Rattus norvegicus</i> CCAAT/enhancer binding protein (C/EBP), delta (Cebpd)
111	A_44_P634946	XM_001080981	0.91	2.48	PREDICTED: <i>Rattus norvegicus</i> transformed mouse 3T3 cell double minute 2 homolog (mouse) (Mdm2_predicted)
126	A_44_P1006684	NM_001108535	0.88	2.41	<i>Rattus norvegicus</i> cell division cycle and apoptosis regulator 1 (Ccar1)
147	A_44_P167788	NM_001105944	0.84	2.32	<i>Rattus norvegicus</i> regulatory factor X, 1 (influences HLA class II expression) (Rfx1)
149	A_44_P545792	NM_138872	0.84	2.31	<i>Rattus norvegicus</i> MAD homolog 9 (Drosophila) (Madh9)
151	A_44_P214165	NM_053536	0.84	2.31	<i>Rattus norvegicus</i> Kruppel-like factor 15 (Klf15)
193	A_44_P345161	XM_221768	0.75	2.11	PREDICTED: <i>Rattus norvegicus</i> queuine tRNA-ribosyltransferase domain containing 1 (Qtrtd1_predicted)
211	A_43_P14931	NM_031789	0.72	2.05	<i>Rattus norvegicus</i> nuclear factor, erythroid derived 2, like 2 (Nfe2l2)
<u>Unknown</u>					
1	XM_219679	NM_001025683	4.50	90.40	<i>Rattus norvegicus</i> similar to RIKEN cDNA 1810055G02 (RGD1311946)
15	A_44_P854174	CO403204	1.68	5.38	<i>Rattus norvegicus</i> cDNA clone IMAGE:7316896
18	A_42_P577431	XM_214856	1.64	5.16	<i>Rattus norvegicus</i> similar to BCL3 (LOC292700)
23	A_44_P551181	AF452730	1.56	4.76	<i>Rattus norvegicus</i> synaptogenesis-related mRNA sequence 4
26	A_44_P1028132	BF564888	1.52	4.59	<i>Rattus norvegicus</i> cDNA clone UI-R-BU0-amz-g-01-0-UI
33	A_44_P404230	BI274185	1.38	3.96	<i>Rattus norvegicus</i> cDNA clone UI-R-CW0-bwg-a-05-0-UI
36	BF555514	XM_001058923	1.31	3.72	PREDICTED: <i>Rattus norvegicus</i> similar to homeobox-containing transcription factor (RGD1561431_predicted)
37	A_44_P616761	BC107564	1.31	3.71	<i>Rattus norvegicus</i> cDNA clone IMAGE:7938336, with apparent retained intron
40	A_44_P129009	AA957332	1.30	3.68	<i>Rattus norvegicus</i> cDNA clone UI-R-E1-fu-g-12-0-UI
49	XM_241622	NM_001014031	1.22	3.38	<i>Rattus norvegicus</i> similar to RIKEN cDNA 1300018I05 (RGD1307801)
50	XM_343523	XM_001062448	1.21	3.34	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 2310015N21 (RGD1563347_predicted)
52	A_43_P19341	XM_001070635	1.20	3.32	PREDICTED: <i>Rattus norvegicus</i> similar to GLI pathogenesis-related 2 (LOC684484)
56	A_44_P316659	XM_001067662	1.14	3.13	PREDICTED: <i>Rattus norvegicus</i> hypothetical protein LOC683829 (LOC683829)
59	A_44_P209854	BM389675	1.10	3.01	<i>Rattus norvegicus</i> cDNA clone UI-R-CN1-cjo-o-23-0-UI

60	A_44_P742499	XM_216545	1.10	3.01	PREDICTED: <i>Rattus norvegicus</i> transmembrane protein 50A (Tmem50a_predicted)
63	A_44_P828792	BC100074	1.08	2.93	<i>Rattus norvegicus</i> cDNA clone MGC:112638 IMAGE:7376647
71	A_44_P835675	EF076770	1.04	2.84	<i>Rattus norvegicus</i> clone X5
72	A_44_P307356	CB547741	1.04	2.84	<i>Rattus norvegicus</i> cDNA clone urrg1-00060-h3
73	A_44_P803793	BF548601	1.04	2.82	<i>Rattus norvegicus</i> cDNA clone UI-R-A0-au-c-02-0-UI
75	A_44_P271184	BQ206540	1.02	2.77	<i>Rattus norvegicus</i> cDNA clone UI-R-DZ1-cnl-c-08-0-UI
77	A_44_P373400	AC118839	1.00	2.72	<i>Rattus norvegicus</i> BAC CH230-232J22 () complete sequence
79	A_44_P429680	AA899068	1.00	2.71	<i>Rattus norvegicus</i> cDNA clone UI-R-E0-bz-d-01-0-UI
81	A_44_P243623	XM_226489	0.99	2.70	PREDICTED: <i>Rattus norvegicus</i> similar to snRNP core protein SMX5d (LOC292030)
82	A_44_P196401	Y13890	0.99	2.69	<i>Rattus norvegicus</i> mRNA for mature MHC class Ib alpha chain
89	A_44_P424734	AC136645	0.98	2.66	<i>Rattus norvegicus</i> 7 BAC CH230-156H17 (Children's Hospital Oakland Research Institute)
91	A_44_P306008	XM_001077667	0.97	2.64	PREDICTED: <i>Rattus norvegicus</i> similar to CREBBP/EP300 inhibitory protein 1 (RGD1562702_predicted)
93	A_44_P245741	NM_001107513	0.97	2.64	<i>Rattus norvegicus</i> transmembrane protein 143 (Tmem143)
94	A_44_P353367	AC094507	0.97	2.63	<i>Rattus norvegicus</i> 1 BAC CH230-4E15 (Children's Hospital Oakland Research Institute)
95	A_44_P309844	AI233144	0.97	2.63	<i>Rattus sp.</i> cDNA clone RKICL41
98	A_44_P545114	AA899814	0.96	2.61	<i>Rattus norvegicus</i> cDNA clone UI-R-E0-df-h-09-0-UI
100	A_44_P286703	AI112908	0.95	2.58	<i>Rattus norvegicus</i> cDNA clone UI-R-A1-ek-h-07-0-UI
101	A_44_P248394	XM_230963	0.94	2.57	<i>Rattus norvegicus</i> similar to RIKEN cDNA 2610019F01 (LOC311718)
104	A_44_P890340	BF523125	0.93	2.54	<i>Rattus norvegicus</i> cDNA clone UI-R-C3-sj-g-05-0-UI
106	A_44_P317742	XM_001068284	0.92	2.52	PREDICTED: <i>Rattus norvegicus</i> similar to angiotensin-like 1 (LOC684489)
108	A_43_P19118	XM_001080175	0.92	2.50	PREDICTED: <i>Rattus norvegicus</i> similar to Protein C6orf142 homolog (LOC691933)
109	XM_345043	NM_001106367	0.91	2.49	<i>Rattus norvegicus</i> sortilin-related VPS10 domain containing receptor 3 (Sorcs3)
110	A_44_P251008	XM_236843	0.91	2.48	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein 4921525D22 (LOC301168)
114	A_44_P240581	BF391894	0.90	2.46	<i>Rattus norvegicus</i> cDNA clone UI-R-CA1-bcy-g-12-0-UI
116	A_44_P539418	AI409191	0.89	2.44	<i>Rattus sp.</i> cDNA clone RKIDO27
121	A_44_P333010	NM_001107298	0.88	2.42	<i>Rattus norvegicus</i> multimerin 2 (Mmrn2)
123	XM_346223	XR_008157	0.88	2.42	PREDICTED: <i>Rattus norvegicus</i> similar to GTPase activating protein testicular GAP1 (RGD1562031_predicted)
127	A_44_P483923	XM_001080749	0.88	2.41	PREDICTED: <i>Rattus norvegicus</i> similar to CDNA sequence BC017647 (RGD1566149_predicted)
128	A_44_P230879	BC129120	0.88	2.40	<i>Rattus norvegicus</i> cDNA clone MGC:156776 IMAGE:7123928
130	A_44_P404982	AY325169	0.87	2.39	<i>Rattus norvegicus</i> Aa2-296 mRNA
131	A_42_P521242	XM_213312	0.87	2.39	PREDICTED: <i>Rattus norvegicus</i> similar to novel protein (RGD1561932_predicted)
133	XM_343716	XM_001056972	0.87	2.38	PREDICTED: <i>Rattus norvegicus</i> region containing hypothetical protein LOC501396; similar to RIKEN cDNA 1700001E04, transcript variant 1 (LOC688479)
136	A_44_P231010	XM_001080106	0.86	2.36	PREDICTED: <i>Rattus norvegicus</i> ankyrin repeat domain 15 (Ankrd15)
139	A_44_P132241	AC132058	0.85	2.35	<i>Rattus norvegicus</i> 18 BAC CH230-229M9 (Children's Hospital Oakland Research Institute)
142	A_44_P277126	XM_221369	0.85	2.35	PREDICTED: <i>Rattus norvegicus</i> SUMO/sentrin specific protease 5 (Senp5_predicted)
144	A_44_P643715	AW526490	0.85	2.34	<i>Rattus norvegicus</i> cDNA clone UI-R-BO1-ajc-b-05-0-UI
146	A_44_P227465	XM_001079427	0.84	2.32	PREDICTED: <i>Rattus norvegicus</i> similar to mirror-image polydactyly 1 (LOC687620)
148	A_44_P540051	AA963530	0.84	2.32	<i>Rattus norvegicus</i> cDNA clone UI-R-E1-gn-b-10-0-UI
153	A_44_P710844	XM_575207	0.84	2.31	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 1700095F04 (RGD1565206_predicted)
156	A_44_P221168	AF387339	0.83	2.30	<i>Rattus norvegicus</i> IkBL, vacuolar ATPase NG38, Bat1, and MHC class I antigen (RT1.46) genes
160	CF110927	AC112031	0.83	2.29	<i>Rattus norvegicus</i> BAC CH230-99K18 (Children's Hospital Oakland Research Institute Rat (BN/SsNHsd/MCW) BAC library)
161	A_44_P340650	AI234123	0.83	2.29	<i>Rattus sp.</i> cDNA clone RLUCV47
166	A_44_P142573	XM_001065032	0.82	2.27	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 5330437I02 gene (RGD1304731_predicted)
171	A_44_P382049	XM_222735	0.80	2.22	PREDICTED: <i>Rattus norvegicus</i> similar to GE36 (LOC289101)
172	A_44_P135356	XM_228926	0.79	2.21	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 1700045I19 (LOC317486)

175	XM_344294	XM_344294	0.79	2.20	PREDICTED: <i>Rattus norvegicus</i> similar to Spetex-2D protein (LOC364250)
177	A_44_P302326	XM_001063282	0.79	2.19	PREDICTED: <i>Rattus norvegicus</i> similar to serine/threonine kinase (LOC502238)
180	A_44_P532813	AC096474	0.78	2.18	<i>Rattus norvegicus</i> Pia BAC CH230-5304
182	XM_224634	NM_001013999	0.77	2.17	<i>Rattus norvegicus</i> similar to RIKEN cDNA 4930442L21 (RGD1311738)
183	XM_346228	NM_001025755	0.77	2.16	<i>Rattus norvegicus</i> similar to RIKEN cDNA 1700001E04 (MGC116197)
184	AW916469	AW916469	0.77	2.16	<i>Rattus norvegicus</i> cDNA clone RGIDQ60 5' end
186	A_44_P430673	AC091503	0.77	2.16	<i>Rattus norvegicus</i> strain Brown Norway clone RP31-446A15
187	A_44_P203125	NM_001013201	0.77	2.15	<i>Rattus norvegicus</i> ganglioside-induced differentiation-associated-protein 2 (Gdap2)
190	A_42_P547157	AC123427	0.76	2.13	<i>Rattus norvegicus</i> 2 BAC CH230-523K1 (Children's Hospital Oakland Research Institute)
196	A_44_P310532	AI408264	0.74	2.10	<i>Rattus sp.</i> cDNA clone ROVET85
198	A_43_P19769	XM_343049	0.74	2.10	PREDICTED: <i>Rattus norvegicus</i> LOC362727 (LOC362727)
200	A_44_P283758	XM_344414	0.74	2.09	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein MGC48915 (LOC364395)
202	A_44_P136937	AC134763	0.73	2.07	<i>Rattus norvegicus</i> BAC CH230-221M14 (Children's Hospital Oakland Research Institute Rat (BN/SsNHsd/MCW) BAC library)
203	A_44_P446944	AI136427	0.73	2.07	<i>Rattus norvegicus</i> cDNA clone UI-R-C2p-ns-a-08-0-UI
204	A_44_P301399	BF289458	0.73	2.07	<i>Rattus norvegicus</i> cDNA clone RGIHH58
205	A_44_P131290	XM_237535	0.72	2.06	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein E130310N06 (LOC301709)
207	A_44_P208990	AC124918	0.72	2.06	<i>Rattus norvegicus</i> 4 BAC CH230-4H1 (Children's Hospital Oakland Research Institute)
212	A_44_P240588	AA817929	0.72	2.05	<i>Rattus norvegicus</i> cDNA clone UI-R-A0-af-g-08-0-UI
214	A_44_P276755	NM_001107364	0.71	2.04	<i>Rattus norvegicus</i> Scm-like with four mbt domains 2 (Sfmbt2)
215	A_44_P391251	AF368860	0.71	2.04	<i>Rattus norvegicus</i> 3' non-translated beta-F1-ATPase mRNA-binding protein
217	A_44_P508683	NM_001037648	0.71	2.04	<i>Rattus norvegicus</i> similar to hypothetical protein FLJ11127 (LOC310190)
223	A_44_P676327	XM_001059937	0.70	2.02	PREDICTED: <i>Rattus norvegicus</i> similar to Discs large homolog 5 (Placenta and prostate DLG) (Discs large protein P-dlg) (LOC681180)
225	A_44_P208711	XM_343720	0.70	2.01	PREDICTED: <i>Rattus norvegicus</i> similar to cDNA sequence AY358078 (LOC363385)
226	A_44_P400112	CO384551	0.70	2.01	<i>Rattus norvegicus</i> cDNA clone IMAGE:7304330
229	A_44_P274866	AA924468	0.69	2.00	<i>Rattus norvegicus</i> cDNA clone UI-R-A1-dx-f-08-0-UI

Supplementary Table 3. The suppressed genes in irradiated striatum after gamma knife surgery (0.50).

No.	Gene	nucleotide accession (NCBI)	Log	Fold	Description
<u>Biogenesis of cellular components</u>					
94	A_44_P270769	XM_001056398	-0.80	0.45	PREDICTED: <i>Rattus norvegicus</i> nebulin (Neb_predicted)
137	A_44_P227065	NM_001009645	-0.70	0.50	<i>Rattus norvegicus</i> kinesin family member 22 (Kif22_predicted)
139	A_44_P618950	NM_001107869	-0.69	0.50	<i>Rattus norvegicus</i> dysferlin (Dysf_predicted)
<u>Cell cycle and DNA processing</u>					
14	A_43_P12819	NM_053480	-1.27	0.28	<i>Rattus norvegicus</i> polymerase (DNA directed), alpha 2 (Pola2)
54	A_44_P355430	XM_001059946	-0.95	0.39	PREDICTED: <i>Rattus norvegicus</i> ASF1 anti-silencing function 1 homolog A (<i>S. cerevisiae</i>) (Asf1a_predicted)
114	A_44_P493270	NM_054008	-0.75	0.47	<i>Rattus norvegicus</i> Rgc32 protein (Rgc32)
120	A_42_P757258	XM_220055	-0.73	0.48	PREDICTED: <i>Rattus norvegicus</i> M-phase phosphoprotein 1 (Mphosph1_predicted)
<u>Cell fate</u>					
19	A_44_P509426	XR_008386	-1.20	0.30	PREDICTED: <i>Rattus norvegicus</i> similar to forkhead box C1 (LOC364706)
25	A_44_P497700	XR_007714	-1.13	0.32	PREDICTED: <i>Rattus norvegicus</i> similar to Eph receptor A4 (RGD1560587_predicted)
37	XM_344857	XR_008660	-1.03	0.36	PREDICTED: <i>Rattus norvegicus</i> similar to Glyceraldehyde-3-phosphate dehydrogenase (GAPDH) (LOC365185)
45	A_44_P500882	NM_172010	-0.98	0.38	<i>Rattus norvegicus</i> fibronigen-like protein 1 (Fgl1)
62	A_42_P604033	NM_172047	-0.92	0.40	<i>Rattus norvegicus</i> ELL associated factor 2 (Eaf2)
102	A_43_P21732	NM_145095	-0.78	0.46	<i>Rattus norvegicus</i> potassium voltage-gated channel, subfamily H (eag-related), member 8 (Kcnh8)
104	A_44_P467670	BC081690	-0.78	0.46	<i>Rattus norvegicus</i> BCL2/adenovirus E1B 19 kDa-interacting protein 3
<u>Cell rescue, diffense and virulence</u>					
55	AI171566	XM_001061616	-0.94	0.39	PREDICTED: <i>Rattus norvegicus</i> oxidation resistance 1 (Oxr1)
80	A_44_P1048474	XM_236642	-0.84	0.43	PREDICTED: <i>Rattus norvegicus</i> cathelicidin antimicrobial peptide (Camp)
<u>Cell type differentiation</u>					
72	A_44_P291996	NM_001014108	-0.89	0.41	<i>Rattus norvegicus</i> glypican 4 (Gpc4)
103	A_44_P411954	NM_012830	-0.78	0.46	<i>Rattus norvegicus</i> CD2 antigen (Cd2)
<u>Cellular transport</u>					
2	A_44_P262550	NM_001012216	-1.71	0.18	<i>Rattus norvegicus</i> transmembrane channel-like gene family 5 (Tmc5)
33	A_44_P164972	XM_001072774	-1.06	0.35	PREDICTED: <i>Rattus norvegicus</i> transferrin receptor (Tfrc)
34	A_44_P319721	NM_001044265	-1.06	0.35	<i>Rattus norvegicus</i> Ab1-219 (LOC499991)
35	A_44_P398612	XM_232793	-1.04	0.35	PREDICTED: <i>Rattus norvegicus</i> solute carrier family 26, member 7 (Slc26a7_predicted)
60	A_44_P206774	XM_001056666	-0.92	0.40	PREDICTED: <i>Rattus norvegicus</i> similar to NADH-ubiquinone oxidoreductase MLRQ subunit (Complex I-MLRQ) (CI-MLRQ) (LOC679503)
69	A_42_P520497	NM_031741	-0.90	0.41	<i>Rattus norvegicus</i> solute carrier family 2, member 5 (Slc2a5)
70	A_44_P589850	XM_001059028	-0.90	0.41	PREDICTED: <i>Rattus norvegicus</i> procollagen, type IX, alpha 3 (Col9a3_predicted)
76	A_44_P427996	NM_022689	-0.85	0.43	<i>Rattus norvegicus</i> synaptosomal-associated protein 23 (Snap23)
87	A_44_P360301	NM_022689	-0.81	0.45	<i>Rattus norvegicus</i> synaptosomal-associated protein 23 (Snap23)
90	A_44_P219431	NM_201419	-0.81	0.45	<i>Rattus norvegicus</i> chloride channel calcium activated 6 (Clca6)
112	A_44_P200262	NM_139339	-0.75	0.47	<i>Rattus norvegicus</i> tramdorin 1 (Slc36a2)
117	A_44_P336913	NM_131907	-0.74	0.48	<i>Rattus norvegicus</i> ATPase, Ca ⁺⁺ -sequestering (Atp2c1)
126	A_42_P624212	NM_017162	-0.72	0.49	<i>Rattus norvegicus</i> gastric intrinsic factor (Gif)
133	A_44_P674879	XM_001080605	-0.70	0.49	PREDICTED: <i>Rattus norvegicus</i> nucleoredoxin, transcript variant 1 (Nxn_predicted)
<u>Development</u>					
4	A_42_P457003	NM_012802	-1.61	0.20	<i>Rattus norvegicus</i> platelet derived growth factor receptor, alpha polypeptide (Pdgfra)
9	A_44_P538357	NM_012827	-1.33	0.26	<i>Rattus norvegicus</i> bone morphogenetic protein 4 (Bmp4)
20	A_44_P313464	NM_182815	-1.18	0.31	<i>Rattus norvegicus</i> zona pellucida 3 receptor (Zp3r)

141	A_44_P426041	NM_199088	-0.69	0.50	<i>Rattus norvegicus</i> serine/threonine kinase 22 substrate 1 (Stk22s1)
<u>Interaction with the environment</u>					
43	A_44_P197290	NM_021760	-0.99	0.37	<i>Rattus norvegicus</i> collagen, type V, alpha 3 (Col5a3)
144	XM_344162	XM_001068691	-0.69	0.50	PREDICTED: <i>Rattus norvegicus</i> astrotactin 1, transcript variant 2 (Astn1)
<u>Metabolism</u>					
18	A_44_P370052	NM_017266	-1.23	0.29	<i>Rattus norvegicus</i> lactate dehydrogenase 3, C chain (Ldhc)
30	A_44_P403458	XM_237421	-1.07	0.34	PREDICTED: <i>Rattus norvegicus</i> sialidase 4 (Neu4_predicted)
40	A_44_P921994	NM_001025740	-1.00	0.37	<i>Rattus norvegicus</i> ribonucleotide reductase M2 (mapped) (Rrm2)
68	AY564232	AY564232	-0.90	0.41	<i>Rattus norvegicus</i> cyclic nucleotide-gated cation channel beta 3 (Cngb3)
88	A_44_P136032	AY456695	-0.81	0.45	<i>Rattus norvegicus</i> SA protein (Sah) gene
97	A_44_P541552	XM_234073	-0.79	0.45	PREDICTED: <i>Rattus norvegicus</i> phosphoribosyl pyrophosphate synthetase 1-like 1 (Prps111_predicted)
98	A_44_P431802	XM_001064261	-0.79	0.45	PREDICTED: <i>Rattus norvegicus</i> ATPase, Class I, type 8B, member 1 (Atp8b1_predicted)
99	A_44_P208596	XM_001056926	-0.79	0.46	PREDICTED: <i>Rattus norvegicus</i> carbonic anhydrase 7 (Car7_predicted)
110	A_44_P196679	XM_229754	-0.76	0.47	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 4930507C10 (LOC317051)
113	A_44_P142513	NM_207586	-0.75	0.47	<i>Rattus norvegicus</i> chitinase, acidic (Chia)
<u>Protein fate</u>					
1	A_44_P150752	NM_001108628	-1.90	0.15	<i>Rattus norvegicus</i> zinc and ring finger 1 (Znrf1)
21	XM_222861	BC083559	-1.16	0.31	<i>Rattus norvegicus</i> translocase of inner mitochondrial membrane 23 homolog (yeast)
27	A_44_P512396	XM_001070843	-1.12	0.33	PREDICTED: <i>Rattus norvegicus</i> polo-like kinase 4 (Drosophila) (Plk4_predicted)
29	A_44_P270464	NM_018805	-1.10	0.33	<i>Mus musculus</i> heparan sulfate (glucosamine) 3-O-sulfotransferase 3B1 (Hs3st3b1)
32	A_44_P972174	NM_001001801	-1.07	0.34	<i>Rattus norvegicus</i> A kinase (PRKA) anchor protein 7 (Akap7)
81	A_44_P381207	NM_001013108	-0.83	0.44	<i>Rattus norvegicus</i> ariadne ubiquitin-conjugating enzyme E2 binding protein homolog 1 (Drosophila) (Arih1)
86	A_44_P376804	NM_013143	-0.81	0.44	<i>Rattus norvegicus</i> meprin 1 alpha (Mep1a)
105	A_44_P152567	NM_001025700	-0.77	0.46	<i>Rattus norvegicus</i> F-box and leucine-rich repeat protein 12 (Fbx112)
130	A_44_P225860	NM_184050	-0.71	0.49	<i>Rattus norvegicus</i> putative aminopeptidase Fxna (Fxna)
136	A_44_P395459	XM_001081119	-0.70	0.50	PREDICTED: <i>Rattus norvegicus</i> testis expressed gene 14 (Tex14_predicted)
140	A_43_P17175	NM_001031642	-0.69	0.50	<i>Rattus norvegicus</i> serine (or cysteine) proteinase inhibitor, clade B, member 1a (Serp1b1a)
<u>Protein synthesis</u>					
7	XM_345288	XR_009293	-1.39	0.25	PREDICTED: <i>Rattus norvegicus</i> similar to 40S ribosomal protein S6 (LOC366632)
135	A_44_P1030727	XM_001079651	-0.70	0.50	PREDICTED: <i>Rattus norvegicus</i> similar to Dendritic cell protein GA17 (RGD1565840_predicted)
<u>Protein with binding function</u>					
5	A_44_P153551	NM_001034000	-1.53	0.22	<i>Rattus norvegicus</i> non-SMC condensin II complex, subunit D3 (Ncapd3)
11	A_44_P206552	XM_220775	-1.29	0.27	PREDICTED: <i>Rattus norvegicus</i> schlafen 5 (Slfn5_predicted)
16	A_44_P464317	XM_233437	-1.25	0.29	PREDICTED: <i>Rattus norvegicus</i> zinc finger protein 393 (Zfp393_predicted)
22	A_44_P423566	NM_001034010	-1.15	0.32	<i>Rattus norvegicus</i> similar to RIKEN cDNA 1200009O22; EST AI316813 (RGD1310827)
23	A_44_P101361	NM_032070	-1.15	0.32	<i>Rattus norvegicus</i> high mobility group AT-hook 2 (Hmga2)
24	A_44_P118897	NM_001009494	-1.14	0.32	<i>Rattus norvegicus</i> Ly49 stimulatory receptor 7 (Ly49s7)
36	A_44_P109385	NM_001002290	-1.04	0.35	<i>Rattus norvegicus</i> keratinocytes proline-rich protein (Kprp)
46	A_44_P509203	NM_001012060	-0.98	0.38	<i>Rattus norvegicus</i> ring finger protein 146 (Rnf146)
51	A_44_P343653	NM_001047093	-0.95	0.39	<i>Rattus norvegicus</i> kelch-like 5 (Drosophila) (Klh5)
52	A_44_P363448	XM_001065875	-0.95	0.39	PREDICTED: <i>Rattus norvegicus</i> zinc finger protein 710 (Zfp710_predicted)
56	A_44_P193750	XM_001054738	-0.94	0.39	PREDICTED: <i>Rattus norvegicus</i> dystonin (Dst_predicted)
58	A_44_P452563	XM_001077307	-0.93	0.40	PREDICTED: <i>Rattus norvegicus</i> similar to Notch-regulated ankyrin repeat protein (LOC687161)
64	A_44_P413671	XM_001059439	-0.91	0.40	PREDICTED: <i>Rattus norvegicus</i> similar to Homeobox protein A10 (RGD1564605_predicted)
82	A_44_P342770	XM_213246	-0.82	0.44	PREDICTED: <i>Rattus norvegicus</i> Crm, cramped-like (Drosophila) (Cramp11_predicted)

106	A_44_P356305	XM_001065756	-0.76	0.47	PREDICTED: <i>Rattus norvegicus</i> similar to usherin isoform B (RGD1560269_predicted)
108	A_44_P423263	XM_001079075	-0.76	0.47	PREDICTED: <i>Rattus norvegicus</i> periplakin (Ppl_predicted)
109	A_44_P496408	NM_001004266	-0.76	0.47	<i>Rattus norvegicus</i> HypB, AroK, ADK and rho factor domain containing protein RGD1303144
115	A_44_P423400	BC098742	-0.74	0.48	<i>Rattus norvegicus</i> similar to RNA-binding region (RNPI, RRM) containing 3
116	A_44_P423574	NM_001034010	-0.74	0.48	<i>Rattus norvegicus</i> similar to RIKEN cDNA 1200009O22; EST AI316813 (RGD1310827)
119	A_44_P680622	XM_001058264	-0.74	0.48	PREDICTED: <i>Rattus norvegicus</i> claspin homolog (<i>Xenopus laevis</i>) (Clspn_predicted)
129	A_44_P489104	BC091318	-0.71	0.49	<i>Rattus norvegicus</i> EF hand domain family, member A2
131	XM_342751	NM_001005890	-0.71	0.49	<i>Rattus norvegicus</i> C-type lectin domain family 4, member a1 (Clec4a1)
134	A_44_P205456	NM_001014206	-0.70	0.50	<i>Rattus norvegicus</i> similar to RIKEN cDNA 4931406C07 (RGD1309534)
142	A_44_P541470	XM_229054	-0.69	0.50	PREDICTED: <i>Rattus norvegicus</i> similar to MGC79482 protein (LOC302756)
<u>Regulation of metabolism and protein function</u>					
10	XM_227847	XM_001076638	-1.31	0.27	PREDICTED: <i>Rattus norvegicus</i> similar to GTPase activating protein testicular GAP1 (LOC691044)
<u>Signal transduction</u>					
3	A_43_P12315	NM_022800	-1.69	0.18	<i>Rattus norvegicus</i> purinergic receptor P2Y, G-protein coupled 12 (P2y12)
6	A_44_P237484	XM_001058293	-1.44	0.24	PREDICTED: <i>Rattus norvegicus</i> similar to mesoderm induction early response 1 (MI-ER1) (RGD1562337_predicted)
8	A_44_P156302	NM_001000790	-1.35	0.26	<i>Rattus norvegicus</i> olfactory receptor 1331 (Olr1331)
12	A_44_P160280	NM_019263	-1.28	0.28	<i>Rattus norvegicus</i> multiple inositol polyphosphate histidine phosphatase 1 (Minpp1)
13	A_44_P389132	NM_001047084	-1.27	0.28	<i>Rattus norvegicus</i> regulator of G-protein signaling 18 (Rgs18)
26	A_44_P340546	NM_001000680	-1.12	0.32	<i>Rattus norvegicus</i> olfactory receptor 500 (Olr500)
28	A_44_P350515	NM_024129	-1.10	0.33	<i>Rattus norvegicus</i> decorin (Dcn)
39	A_44_P228903	NM_078621	-1.01	0.37	<i>Rattus norvegicus</i> chemokine binding protein 2 (Ccbp2)
42	A_44_P126261	XM_001058707	-0.99	0.37	PREDICTED: <i>Rattus norvegicus</i> nischarin (Nisch)
44	A_44_P154148	XM_001060234	-0.98	0.37	PREDICTED: <i>Rattus norvegicus</i> similar to putative pheromone receptor (Go-VN5) (LOC681079)
48	A_44_P341966	NM_001000432	-0.96	0.38	<i>Rattus norvegicus</i> olfactory receptor 1151 (Olr1151)
50	A_44_P395675	NM_001000421	-0.95	0.39	<i>Rattus norvegicus</i> olfactory receptor 1075 (Olr1075)
53	A_44_P233817	XM_215575	-0.95	0.39	PREDICTED: <i>Rattus norvegicus</i> calcium-sensing receptor like 1 (Casr1)
57	A_44_P163319	NM_001000537	-0.93	0.39	<i>Rattus norvegicus</i> olfactory receptor 1667 (Olr1667)
59	A_44_P131930	NM_138541	-0.92	0.40	<i>Rattus norvegicus</i> tumor-associated calcium signal transducer 1 (Tacstd1)
67	A_42_P778184	NM_001037351	-0.90	0.41	<i>Rattus norvegicus</i> troponin C type 2 (fast) (Tnnc2)
77	A_44_P243689	XM_232983	-0.85	0.43	PREDICTED: <i>Rattus norvegicus</i> similar to Inv protein - mouse (LOC313228)
83	A_44_P208071	NM_001000403	-0.82	0.44	<i>Rattus norvegicus</i> olfactory receptor 847 (Olr847)
89	A_42_P789088	NM_201426	-0.81	0.45	<i>Rattus norvegicus</i> adrenomedullin 2 (Adm2)
91	A_44_P130547	XM_001080870	-0.81	0.45	PREDICTED: <i>Rattus norvegicus</i> similar to MAS-related G protein-coupled receptor, member B1 (LOC688010)
92	A_43_P11543	NM_012745	-0.81	0.45	<i>Rattus norvegicus</i> killer cell lectin-like receptor, subfamily D, member 1 (Klrd1)
93	A_44_P360645	NM_001000056	-0.80	0.45	<i>Rattus norvegicus</i> olfactory receptor 881 (Olr881)
95	A_44_P447101	NM_017235	-0.79	0.45	<i>Rattus norvegicus</i> hydroxysteroid (17-beta) dehydrogenase 7 (Hsd17b7)
100	A_43_P12394	NM_023998	-0.78	0.46	<i>Rattus norvegicus</i> taste receptor, type 2, member 13 (Tas2r13)
101	XM_227600	XM_227600	-0.78	0.46	PREDICTED: <i>Rattus norvegicus</i> similar to Vav 3 oncogene (RGD1565941_predicted)
107	A_44_P476876	NM_001024332	-0.76	0.47	<i>Rattus norvegicus</i> similar to ADP-ribosylation factor-like 10C (LOC500282)
123	A_42_P680720	NM_008966	-0.72	0.48	<i>Mus musculus</i> prostaglandin F receptor (Ptgfr)
125	A_44_P165543	NM_053478	-0.72	0.49	<i>Rattus norvegicus</i> phospholipase C, beta 2 (Plcb2)
127	A_44_P534624	XM_342946	-0.72	0.49	PREDICTED: <i>Rattus norvegicus</i> similar to class II cytokine receptor 12 (LOC362628)
<u>Systemic interaction with the environment</u>					
31	A_44_P333362	XM_236103	-1.07	0.34	PREDICTED: <i>Rattus norvegicus</i> cytotoxic and regulatory T cell molecule (Crtam_predicted)
38	X60658	X60658	-1.02	0.36	<i>R.rattus</i> RYA3 mRNA for a potential ligand-binding protein

75	A_44_P215946	BX883047	-0.86	0.42	<i>Rattus norvegicus</i> chromosome 20, major histocompatibility complex, assembled from 40 BACs, strain Brown Norway (BN/ssNHsd), RT1n haplotype; segment 6/11
84	A_44_P266119	XM_001062534	-0.82	0.44	PREDICTED: <i>Rattus norvegicus</i> nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, zeta (Nfkbiz_predicted)
128	A_44_P273839	NM_173097	-0.71	0.49	<i>Rattus norvegicus</i> regenerating islet-derived 3 gamma (Reg3g)
<u>Transcription</u>					
41	A_44_P476125	XM_235696	-0.99	0.37	PREDICTED: <i>Rattus norvegicus</i> homeo box C12 (Hoxc12_predicted)
65	A_44_P193817	XM_001058593	-0.91	0.40	PREDICTED: <i>Rattus norvegicus</i> M-phase phosphoprotein 10 (U3 small nucleolar ribonucleoprotein) (Mphosph10_predicted)
74	A_44_P225395	NM_001009685	-0.86	0.42	<i>Rattus norvegicus</i> developmentally regulated GTP binding protein 1 (Drg1)
78	A_44_P177398	NM_199373	-0.85	0.43	<i>Rattus norvegicus</i> tryptophan rich basic protein (Wrb)
85	A_44_P244534	XM_001061499	-0.82	0.44	PREDICTED: <i>Rattus norvegicus</i> similar to Myb proto-oncogene protein (C-myb) (RGD1560020_predicted)
111	A_44_P190887	XM_001068585	-0.75	0.47	PREDICTED: <i>Rattus norvegicus</i> suppressor of variegation 4-20 homolog 1 (Drosophila) (Suv420h1_predicted)
124	A_44_P284753	NM_013220	-0.72	0.49	<i>Rattus norvegicus</i> ankyrin repeat domain 1 (cardiac muscle) (Ankrd1)
<u>Unknown</u>					
15	A_42_P537051	XM_214392	-1.25	0.29	<i>Rattus norvegicus</i> similar to hypothetical protein 4933417N17 (LOC290877)
17	XM_346994	XM_346994	-1.24	0.29	PREDICTED: <i>Rattus norvegicus</i> RGD1565926 (RGD1565926_predicted)
47	A_44_P459573	XM_001069436	-0.97	0.38	PREDICTED: <i>Rattus norvegicus</i> hypothetical protein LOC684217 (LOC684217)
49	XM_341720	NM_001011711	-0.96	0.38	<i>Rattus norvegicus</i> similar to mammary tumor virus receptor 2 isoform 2 (RGD1309879)
61	A_44_P176450	AA858927	-0.92	0.40	<i>Rattus norvegicus</i> cDNA clone UI-R-A0-bi-g-12-0-UI
63	A_44_P154341	NM_001081447	-0.91	0.40	<i>Rattus norvegicus</i> similar to R31449_3 (RGD1563634_predicted)
66	A_44_P291130	XM_236851	-0.91	0.40	PREDICTED: <i>Rattus norvegicus</i> similar to CG3064-PB (LOC301172)
71	A_44_P664438	AC145398	-0.89	0.41	<i>Rattus norvegicus</i> chromosome 1 clone RP32-604H24 map q35-q36
73	A_44_P183926	XM_001053928	-0.88	0.41	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 3110037I16 (RGD1309802_predicted)
79	A_44_P111403	NM_001025018	-0.84	0.43	<i>Rattus norvegicus</i> transmembrane protein 77 (Tmem77)
96	A_44_P417376	XM_001068263	-0.79	0.45	PREDICTED: <i>Rattus norvegicus</i> similar to a disintegrin and metalloproteinase domain 28 (RGD1565552_predicted)
118	A_44_P497356	NM_001014198	-0.74	0.48	<i>Rattus norvegicus</i> similar to RIKEN cDNA 4933433P14 gene (RGD1308470)
121	A_44_P371777	NM_147207	-0.73	0.48	<i>Rattus norvegicus</i> ischemia related factor vof-16 (Vof16)
122	A_43_P17131	XM_001059994	-0.73	0.48	PREDICTED: <i>Rattus norvegicus</i> hypothetical protein LOC681027
132	A_44_P375704	XM_001060344	-0.70	0.49	PREDICTED: <i>Rattus norvegicus</i> similar to 9630058J23Rik protein (RGD1564833_predicted)
138	A_44_P517348	XM_343187	-0.70	0.50	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein MGC17943 (RGD1563325_predicted)
143	XM_341293	NM_001025129	-0.69	0.50	<i>Rattus norvegicus</i> similar to downregulated in renal cell carcinoma (RGD1306327)

Supplementary Table 4. The induced genes in contralateral striatum after gamma knife surgery (2.00)

No.	Gene	nucleotide accession (NCBI)	Log	Fold	Description
<u>Biogenesis of cellular components</u>					
20	A_44_P994686	NM_012676	2.29	9.87	<i>Rattus norvegicus</i> troponin T2, cardiac (Tnnt2)
41	XM_343026	NM_001013217	1.99	7.28	<i>Rattus norvegicus</i> tripartite motif-containing 54 (Trim54)
109	A_44_P506828	XM_001081302	1.29	3.62	PREDICTED: <i>Rattus norvegicus</i> sarcoglycan, alpha (dystrophin-associated glycoprotein) (Sgca_predicted)
181	XM_340819	XM_001078064	1.04	2.83	PREDICTED: <i>Rattus norvegicus</i> myosin, heavy polypeptide 8, skeletal muscle, perinatal, transcript variant 2 (Myh8)
198	A_44_P798116	NM_007733	1.00	2.71	<i>Mus musculus</i> procollagen, type XIX, alpha 1 (Col19a1)
279	A_43_P16949	XM_220884	0.83	2.30	PREDICTED: <i>Rattus norvegicus</i> sarcoglycan, alpha (dystrophin-associated glycoprotein) (Sgca_predicted)*
325	XM_341361	XM_001074393	0.79	2.20	PREDICTED: <i>Rattus norvegicus</i> similar to Protein diaphanous homolog 3 (Diaphanous-related formin-3) (DRF3) (mDIA2) (p134mDIA2) (LOC290396)
330	A_44_P263559	L19706	0.78	2.19	<i>Rattus norvegicus</i> H3 histone gene
<u>Cell cycle and DNA processing</u>					
47	A_44_P451326	XM_001073141	1.88	6.55	PREDICTED: <i>Rattus norvegicus</i> cyclin-dependent kinase inhibitor 3 (Cdkn3_predicted)
59	A_44_P179293	DQ124295	1.70	5.48	<i>Rattus norvegicus</i> dedicator of cytokinesis 7
89	XM_342111	NM_001012176	1.39	4.03	<i>Rattus norvegicus</i> testis specific gene A2 (Tsga2)
201	A_44_P517558	NM_001029897	0.97	2.65	<i>Rattus norvegicus</i> striatin, calmodulin binding protein 3 (Strn3)
254	A_44_P384735	XR_006160	0.86	2.37	PREDICTED: <i>Rattus norvegicus</i> similar to Spindlin-like protein 3 (SPIN-3) (Protein DXF34) (LOC304436)
419	A_44_P533786	NM_053749	0.70	2.02	<i>Rattus norvegicus</i> aurora kinase B (Aurkb)
<u>Cell fate</u>					
11	A_44_P267958	AK161172	2.85	17.34	<i>Mus musculus</i> 0 day neonate head cDNA, RIKEN full-length enriched library, clone:4831433I04 product:Castration induced prostatic apoptosis related protein-1, (CIPAR- 1) homolog [Rattus norvegicus]
13	AY240868	AY240868	2.72	15.13	<i>Rattus norvegicus</i> mixed-lineage kinase 3
27	A_44_P514458	XM_001076624	2.18	8.86	PREDICTED: <i>Rattus norvegicus</i> programmed cell death 6 interacting protein (Pcd6ip)
30	A_44_P235521	BC081820	2.15	8.55	<i>Rattus norvegicus</i> glucose-6-phosphate dehydrogenase X-linked
113	A_44_P503251	NM_030868	1.27	3.55	<i>Rattus norvegicus</i> nephroblastoma overexpressed gene (Nov)
119	A_43_P12739	NM_033485	1.23	3.43	<i>Rattus norvegicus</i> PRKC, apoptosis, WT1, regulator (Pawr)
132	A_44_P237715	NM_130741	1.18	3.27	<i>Rattus norvegicus</i> lipocalin 2 (Lcn2)
135	A_44_P316358	XM_223229	1.18	3.26	PREDICTED: <i>Rattus norvegicus</i> similar to PDZ domain actin binding protein Shroom
160	A_44_P1028132	NM_021897	1.11	3.02	<i>Mus musculus</i> transformation related protein 53 inducible nuclear protein 1 (Trp53inp1)
174	A_44_P119019	NM_012829	1.06	2.88	<i>Rattus norvegicus</i> cholecystokinin (Cck)
195	BF522839	NM_001012459	1.01	2.75	<i>Rattus norvegicus</i> C-type lectin domain family 11, member a (Clec11a)
291	A_44_P276451	NM_134413	0.81	2.25	<i>Rattus norvegicus</i> BTB (POZ) domain containing 14B (Btbd14b)
347	A_44_P397401	X16703	0.77	2.15	<i>R.norvegicus</i> insulin-like growth factor II
370	A_44_P437945	NM_173837	0.73	2.08	<i>Rattus norvegicus</i> Bcl-2 binding component 3 (Bbc3)*
<u>Cell rescue, diffense and virulence</u>					
3	A_43_P12689	NM_031810	4.10	60.13	<i>Rattus norvegicus</i> defensin beta 1 (Defb1)
38	XM_226696	NM_053313	2.03	7.65	<i>Rattus norvegicus</i> coagulation factor II (thrombin) receptor-like 2 (F2r12)
58	A_43_P17687	NM_001004424	1.72	5.60	<i>Rattus norvegicus</i> transforming acidic coiled coil 3 (Tacc3)
84	A_42_P837214	NM_012861	1.44	4.20	<i>Rattus norvegicus</i> O-6-methylguanine-DNA methyltransferase (Mgmt)*
241	XM_343575	NM_001013413	0.89	2.44	<i>Rattus norvegicus</i> amyotrophic lateral sclerosis 2 (juvenile) homolog (human) (Als2)
250	A_44_P343201	BC061849	0.87	2.39	<i>Rattus norvegicus</i> homocysteine-inducible, endoplasmic reticulum stress-inducible, ubiquitin-like domain member 1
283	A_44_P416968	XM_344798	0.82	2.28	PREDICTED: <i>Rattus norvegicus</i> similar to apoptosis signal-regulating kinase 1 (LOC365057)
290	A_44_P336119	NM_001012029	0.81	2.25	<i>Rattus norvegicus</i> myeloid cell nuclear differentiation antigen (Mnda)
309	A_43_P11616	NM_012912	0.80	2.22	<i>Rattus norvegicus</i> activating transcription factor 3 (Atf3)*

400	A_44_P252935	NM_030682	0.71	2.04	<i>Mus musculus</i> toll-like receptor 1 (Tlr1)*
426	AI171566	XM_001061616	0.70	2.00	PREDICTED: <i>Rattus norvegicus</i> oxidation resistance 1 (Oxr1)**
<u>Cell type differentiation</u>					
116	A_44_P294675	NM_053687	1.26	3.53	<i>Rattus norvegicus</i> schlafen 3 (Slfn3)*
117	A_43_P11531	NM_012719	1.24	3.47	<i>Rattus norvegicus</i> somatostatin receptor 1 (Sstr1)
211	A_44_P895970	NM_017037	0.95	2.57	<i>Rattus norvegicus</i> peripheral myelin protein 22 (Pmp22)
248	A_44_P393938	NM_001013923	0.87	2.39	<i>Rattus norvegicus</i> similar to Ndr3 protein (LOC296318)
<u>Cellular transport</u>					
24	A_44_P523253	NM_001034932	2.24	9.38	<i>Rattus norvegicus</i> C1q and tumor necrosis factor related protein 6 (C1qtnf6)
36	A_44_P427996	NM_022689	2.04	7.72	<i>Rattus norvegicus</i> synaptosomal-associated protein 23 (Snap23)**
39	A_44_P182270	NM_013192	2.03	7.59	<i>Rattus norvegicus</i> potassium inwardly-rectifying channel, subfamily J, member 6 (Kcnj6)
40	XM_231527	XM_001060172	2.02	7.54	PREDICTED: <i>Rattus norvegicus</i> similar to Ca ²⁺ -dependent activator for secretion protein 2 (RGD1559440_predicted)
51	A_44_P219158	BC009085	1.76	5.80	<i>Mus musculus</i> RAB14, member RAS oncogene family
56	A_44_P449938	NM_053608	1.73	5.65	<i>Rattus norvegicus</i> potassium inwardly-rectifying channel, subfamily J, member 13 (Kcnj13)
61	A_44_P211607	NM_010864	1.66	5.27	<i>Mus musculus</i> myosin Va (Myo5a)
64	A_44_P214936	NM_203325	1.63	5.08	<i>Rattus norvegicus</i> major urinary protein 5 (Mup5)
65	A_44_P1004450	XM_001072492	1.59	4.93	PREDICTED: <i>Rattus norvegicus</i> similar to Complement C1q-like protein 3 precursor (Gliacolin)
69	A_44_P346690	NM_139217	1.58	4.86	<i>Rattus norvegicus</i> potassium voltage gated channel, Shaw-related subfamily, member 2 (Kcnc2), transcript variant b
71	A_44_P814369	XM_001072492	1.56	4.76	PREDICTED: <i>Rattus norvegicus</i> similar to Complement C1q-like protein 3 precursor (Gliacolin)
74	A_42_P840094	NM_012653	1.52	4.59	<i>Rattus norvegicus</i> solute carrier family 9 (sodium/hydrogen exchanger), member 2 (Slc9a2)
76	A_43_P22902	XM_217311	1.52	4.57	PREDICTED: <i>Rattus norvegicus</i> similar to solute carrier family 25 member 25
86	XM_345375	XM_001080145	1.42	4.15	PREDICTED: <i>Rattus norvegicus</i> similar to voltage-dependent anion channel 1 (RGD1565338_predicted)
112	A_44_P212322	XM_001067830	1.27	3.55	PREDICTED: <i>Rattus norvegicus</i> similar to Potential phospholipid-transporting ATPase IF (ATPase class I type 11B) (ATPase IR)
118	A_42_P464434	XM_215498	1.24	3.44	PREDICTED: <i>Rattus norvegicus</i> similar to Hypothetical protein FLJ25422 (RGD1307559_predicted)
134	A_44_P333445	XM_220314	1.18	3.26	PREDICTED: <i>Rattus norvegicus</i> similar to novel protein (RGD1565126_predicted)
140	A_44_P356143	NM_012693	1.16	3.20	<i>Rattus norvegicus</i> cytochrome P450, subfamily 2A, polypeptide 1 (Cyp2a2)
150	AW917132	BC055859	1.13	3.10	<i>Mus musculus</i> C1q and tumor necrosis factor related protein 3
170	A_44_P112201	XM_227120	1.07	2.92	PREDICTED: <i>Rattus norvegicus</i> solute carrier family 7 (cationic amino acid transporter, y ⁺ system), member 11 (Slc7a11_predicted)
183	A_44_P545447	NM_053859	1.03	2.81	<i>Rattus norvegicus</i> solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 7 (Slc17a7)
187	A_44_P493980	NM_030841	1.03	2.81	<i>Rattus norvegicus</i> neuronal pentraxin receptor (Nptxr)
202	A_44_P533433	BC090323	0.97	2.64	<i>Rattus norvegicus</i> transportin 1
205	A_44_P788211	NM_145512	0.96	2.62	<i>Mus musculus</i> SFT2 domain containing 2 (Sft2d2)
217	BF568042	XM_001060172	0.94	2.55	PREDICTED: <i>Rattus norvegicus</i> similar to Ca ²⁺ -dependent activator for secretion protein 2 (RGD1559440_predicted)
219	A_42_P600978	NM_053996	0.93	2.54	<i>Rattus norvegicus</i> solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (Slc6a7)
221	A_44_P207204	NM_001033633	0.93	2.53	<i>Mus musculus</i> solute carrier family 2 (facilitated glucose transporter), member 13 (Slc2a13)
224	A_44_P505721	NM_053859	0.92	2.51	<i>Rattus norvegicus</i> solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 7 (Slc17a7)
230	A_44_P389710	NM_001100987	0.91	2.49	<i>Rattus norvegicus</i> aquarius (Aqr_predicted)
259	A_44_P543048	NM_001002024	0.86	2.36	<i>Rattus norvegicus</i> solute carrier organic anion transporter family, member 4C1 (Slco4c1)
262	A_44_P231583	NM_032462	0.86	2.36	<i>Rattus norvegicus</i> calsenilin, presenilin binding protein, EF hand transcription factor (Csen)
267	A_44_P107821	NM_001009651	0.85	2.33	<i>Rattus norvegicus</i> chloride intracellular channel 2 (Clc2)
277	A_42_P511118	NM_053427	0.83	2.30	<i>Rattus norvegicus</i> solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 6 (Slc17a6)
285	A_44_P257710	XM_344889	0.82	2.27	PREDICTED: <i>Rattus norvegicus</i> potassium voltage-gated channel, shaker-related subfamily, member 7 (Kcna7_predicted)
294	BE112244	XM_001065976	0.81	2.25	PREDICTED: <i>Rattus norvegicus</i> mitochondrial carrier homolog 2 (<i>C. elegans</i>) (Mtch2_predicted)
301	A_44_P263777	NM_139142	0.80	2.24	<i>Mus musculus</i> X transporter protein 3 similar 1 gene (Xtrp3s1)
319	A_44_P177595	NM_001004216	0.79	2.21	<i>Rattus norvegicus</i> NADPH oxidase 3 (Nox3)

324	A_44_P183813	NM_001010948	0.79	2.20	<i>Rattus norvegicus</i> P7 protein (P7)
328	A_44_P321809	NM_175007	0.79	2.19	<i>Mus musculus</i> amphiphysin (Amph)
349	A_44_P1053605	NM_053375	0.76	2.15	<i>Rattus norvegicus</i> hyperpolarization-activated, cyclic nucleotide-gated potassium channel 1 (Hcn1)
367	A_44_P555295	XM_344064	0.74	2.09	PREDICTED: <i>Rattus norvegicus</i> similar to SIGNR3 (LOC363856)
371	XM_341588	NM_001034918	0.73	2.08	<i>Rattus norvegicus</i> IWS1 homolog (<i>S. cerevisiae</i>) (Iws1)
373	A_44_P336908	BC100092	0.73	2.08	<i>Rattus norvegicus</i> Cytochrome P450, subfamily IIC6
401	A_44_P514781	BC105828	0.71	2.04	<i>Rattus norvegicus</i> oxysterol binding protein-like 9
403	A_44_P319238	XM_345977	0.71	2.04	PREDICTED: <i>Rattus norvegicus</i> copine IV (Cpne4_predicted)
410	A_44_P247900	NM_019270	0.71	2.03	<i>Rattus norvegicus</i> potassium voltage-gated channel, shaker-related subfamily, member 3 (Kcna3)
417	A_44_P882476	BC131846	0.71	2.03	<i>Rattus norvegicus</i> cytochrome P450-like protein
418	A_44_P147300	XM_217690	0.71	2.03	PREDICTED: <i>Rattus norvegicus</i> chloride channel, calcium activated, family member 2 (Clca2_predicted)
427	A_44_P479176	NM_053370	0.69	2.00	<i>Rattus norvegicus</i> translocase of inner mitochondrial membrane 8 homolog a (yeast) (Timm8a)

Development

17	XM_243011	XM_233529	2.42	11.30	PREDICTED: <i>Rattus norvegicus</i> zinc finger, MYM-type 4 (Zmym4_predicted)
70	A_43_P12779	NM_053346	1.57	4.79	<i>Rattus norvegicus</i> neuritin (Nrn1)
136	A_44_P115792	NM_153474	1.18	3.25	<i>Rattus norvegicus</i> frizzled homolog 3 (<i>Drosophila</i>) (Fzd3)
407	A_44_P423687	NM_175596	0.71	2.04	<i>Rattus norvegicus</i> disrupted in schizophrenia 1 (Disc1)

Energy

175	A_44_P198457	J02752	1.06	2.88	<i>Rat</i> acyl-coA oxidase
351	A_44_P393531	NM_144744	0.76	2.15	<i>Rattus norvegicus</i> adiponectin, C1Q and collagen domain containing (Adipoq)

Interaction with the environment

28	A_44_P297208	L21001	2.18	8.86	<i>Rattus norvegicus</i> T cell receptor
78	A_44_P125733	NM_019317	1.50	4.49	<i>Rattus norvegicus</i> mucosal vascular addressin cell adhesion molecule 1 (Madcaml)
105	A_44_P990376	NM_133298	1.32	3.73	<i>Rattus norvegicus</i> glycoprotein (transmembrane) nmb (Gpnmb)*
115	A_44_P108950	NM_013026	1.26	3.53	<i>Rattus norvegicus</i> syndecan 1 (Sdc1)
186	A_44_P352783	NM_173154	1.03	2.81	<i>Rattus norvegicus</i> adipocyte-specific adhesion molecule (Asam)
297	A_44_P211649	XM_001067802	0.81	2.25	PREDICTED: <i>Rattus norvegicus</i> protocadherin 19 (Pcdh19_predicted)
413	XM_341362	XM_001073640	0.71	2.03	PREDICTED: <i>Rattus norvegicus</i> protocadherin 9

Metabolism

7	A_44_P332943	NM_001106015	3.21	24.87	<i>Rattus norvegicus</i> phospholipase A2, group III (Pla2g3)
9	A_44_P293467	NM_012583	2.87	17.59	<i>Rattus norvegicus</i> hypoxanthine guanine phosphoribosyl transferase (Hprt)
34	A_44_P402091	NM_022585	2.09	8.08	<i>Rattus norvegicus</i> antizyme inhibitor 1 (Azin1)
35	A_44_P162593	XM_001060176	2.08	8.03	PREDICTED: <i>Rattus norvegicus</i> acylphosphatase 1, erythrocyte (common) type (Acyp1_predicted)
77	A_43_P13109	NM_130408	1.52	4.56	<i>Rattus norvegicus</i> cytochrome P450, family 26, subfamily A, polypeptide 1 (Cyp26a1)
156	A_42_P693964	NM_181087	1.12	3.06	<i>Rattus norvegicus</i> cytochrome P450, family 26, subfamily b, polypeptide 1 (Cyp26b1)
163	A_44_P434418	NM_001024247	1.10	3.01	<i>Rattus norvegicus</i> lactamase, beta 2 (Lactb2)
168	A_44_P175003	NM_012681	1.09	2.97	<i>Rattus norvegicus</i> transthyretin (Ttr)
173	A_42_P557394	NM_001008510	1.06	2.88	<i>Rattus norvegicus</i> interferon-stimulated protein (Isg20)
179	A_42_P603700	NM_144750	1.04	2.84	<i>Rattus norvegicus</i> lysophospholipase (LOC246266)
197	A_44_P151638	NM_012537	1.00	2.73	<i>Rattus norvegicus</i> cytochrome P450, subfamily 11B, polypeptide 1 (Cyp11b1)
199	A_43_P15529	NM_013015	0.99	2.69	<i>Rattus norvegicus</i> prostaglandin D2 synthase (Ptgds)
225	A_44_P243367	XM_218759	0.92	2.51	PREDICTED: <i>Rattus norvegicus</i> carbohydrate (chondroitin) synthase 1 (Chsy1_predicted)
228	A_42_P753215	NM_032071	0.92	2.50	<i>Rattus norvegicus</i> synaptojanin 2 (Synj2)
255	A_44_P147477	XM_228538	0.86	2.37	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein (LOC317237)
265	A_44_P756102	BC089307	0.85	2.33	<i>Mus musculus</i> CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase 2

292	A_44_P186398	NM_012545	0.81	2.25	<i>Rattus norvegicus</i> dopa decarboxylase (Ddc)
327	A_44_P485910	NM_032077	0.79	2.20	<i>Rattus norvegicus</i> paraoxonase 1 (Pon1)*
336	XM_345307	NM_001014256	0.78	2.18	<i>Rattus norvegicus</i> similar to betaine-homocysteine methyltransferase 2 (LOC365972)
337	A_44_P103966	BC091291	0.78	2.18	<i>Rattus norvegicus</i> heparan sulfate 2-O-sulfotransferase 1
374	A_44_P142513	NM_207586	0.73	2.08	<i>Rattus norvegicus</i> chitinase, acidic (Chia)**
382	A_42_P570313	NM_133295	0.73	2.07	<i>Rattus norvegicus</i> carboxylesterase 3 (Ces3)
398	A_44_P219356	XM_238398	0.72	2.04	PREDICTED: <i>Rattus norvegicus</i> tyrosinase-related protein 1 (Tyrp1)
420	A_42_P576953	NM_138882	0.70	2.02	<i>Rattus norvegicus</i> phosphatidylserine-specific phospholipase A1 (Pspla1)*
431	A_44_P240696	NM_053750	0.69	2.00	<i>Rattus norvegicus</i> natriuretic peptide precursor type C (Nppc)
<u>Protein fate</u>					
15	A_42_P645467	XM_343610	2.54	12.67	PREDICTED: <i>Rattus norvegicus</i> F-box only protein 36 (Fbxo36_predicted)
46	A_44_P298747	XM_001062155	1.91	6.73	PREDICTED: <i>Rattus norvegicus</i> transmembrane 4 superfamily member 2 (Tm4sf2_mapped)
62	A_44_P264397	NM_181378	1.66	5.24	<i>Rattus norvegicus</i> cathepsin M (Ctsm)
67	XM_217944	XR_006658	1.59	4.90	PREDICTED: <i>Rattus norvegicus</i> similar to serine/threonine kinase (LOC502274)
72	A_44_P473741	NM_001037643	1.56	4.76	<i>Rattus norvegicus</i> ubiquitin-conjugating enzyme E2Z (putative) (Ube2z)
88	A_44_P359052	XM_234481	1.40	4.07	PREDICTED: <i>Rattus norvegicus</i> OTU domain, ubiquitin aldehyde binding 2 (Otub2_predicted)
99	A_43_P12855	NM_053573	1.34	3.84	<i>Rattus norvegicus</i> olfactomedin 1 (Olfm1)
102	A_44_P597401	XM_984852	1.33	3.77	PREDICTED: <i>Mus musculus</i> carboxypeptidase M (Cpm)
121	A_44_P296745	NM_001015025	1.23	3.40	<i>Rattus norvegicus</i> serine/threonine kinase 38 (Stk38)
123	A_44_P410824	NM_024182	1.21	3.37	<i>Mus musculus</i> RIO kinase 3 (yeast) (Riok3)
133	A_44_P459105	AF020778	1.18	3.26	<i>Rattus norvegicus</i> focal adhesion kinase (FAK)
142	A_44_P479275	XM_001072232	1.15	3.17	PREDICTED: <i>Rattus norvegicus</i> similar to ErbB2 interacting protein isoform 2 (RGD1562952_predicted)
151	A_42_P602822	AJ299017	1.13	3.10	<i>Rattus norvegicus</i> mRNA for receptor tyrosine kinase (Ret gene), isoform RET9
152	A_42_P604657	NM_017275	1.13	3.09	<i>Rattus norvegicus</i> pregnancy upregulated non-ubiquitously expressed CaM kinase (Pnck)
154	A_44_P434177	XM_001080356	1.12	3.06	PREDICTED: <i>Rattus norvegicus</i> ubiquitin-like, containing PHD and RING finger domains 2 (Uhrf2_predicted)
166	A_44_P168992	XM_001066105	1.10	2.99	PREDICTED: <i>Rattus norvegicus</i> NIMA (never in mitosis gene a)-related expressed kinase 7 (Nek7_predicted)
185	A_44_P330197	NM_184045	1.03	2.81	<i>Rattus norvegicus</i> serine/arginine-rich protein specific kinase 3 (Srpk3)
233	A_44_P264327	BC110046	0.90	2.47	<i>Rattus norvegicus</i> similar to F-box only protein 31
234	A_44_P442422	XM_001080888	0.90	2.47	PREDICTED: <i>Rattus norvegicus</i> similar to nemo like kinase (RGD1561602_predicted)
235	A_44_P397008	XR_008488	0.90	2.46	PREDICTED: <i>Rattus norvegicus</i> similar to Serine/threonine-protein kinase WNK3 (Protein kinase, lysine-deficient 3) (RGD1563131_predicted)
238	A_44_P550840	XM_341619	0.89	2.45	PREDICTED: <i>Rattus norvegicus</i> a disintegrin-like and metalloprotease (repolysin type) with thrombospondin type 1 motif, 19 (Adamts19_predicted)
242	A_44_P501698	XM_232988	0.89	2.44	PREDICTED: <i>Rattus norvegicus</i> similar to UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 12 (LOC313233)
245	XM_343641	XM_001053209	0.88	2.42	PREDICTED: <i>Rattus norvegicus</i> protein tyrosine phosphatase, receptor type, M (Ptprm)
247	A_44_P238769	XM_220050	0.87	2.39	PREDICTED: <i>Rattus norvegicus</i> HECT domain containing 2 (Hectd2_predicted)
253	A_44_P117757	NM_031317	0.86	2.37	<i>Rattus norvegicus</i> platelet-derived growth factor, C polypeptide (Pdgfc)
256	A_44_P484414	NM_001005875	0.86	2.36	<i>Rattus norvegicus</i> proteasome (prosome, macropain) 26S subunit, non-ATPase, 12 (Psm12)
272	XM_234170	NM_001034994	0.84	2.31	<i>Rattus norvegicus</i> RWD domain containing 4A (Rwdd4a)
273	A_44_P218865	NM_080899	0.84	2.31	<i>Rattus norvegicus</i> inhibitor of kappa light polypeptide enhancer in B-cells, kinase complex-associated protein (Ikbkap)
278	A_44_P401110	XM_237047	0.83	2.30	PREDICTED: <i>Rattus norvegicus</i> similar to TESP2 (RGD1561330_predicted)
284	A_44_P648720	BC074015	0.82	2.28	<i>Rattus norvegicus</i> praja 2, RING-H2 motif containing
296	A_44_P142779	XM_235796	0.81	2.25	PREDICTED: <i>Rattus norvegicus</i> matrix metalloproteinase 20 (enamelysin) (Mmp20_predicted)
306	XM_343171	XM_001077291	0.80	2.22	PREDICTED: <i>Rattus norvegicus</i> granzyme M (lymphocyte met-ase 1) (Gzmm)
318	A_44_P332026	XM_001081013	0.79	2.21	PREDICTED: <i>Rattus norvegicus</i> dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 2 (Dyrk2_predicted)
364	A_44_P996729	U65656	0.75	2.11	<i>Rattus norvegicus</i> gelatinase A
366	A_42_P616287	XM_242644	0.74	2.10	PREDICTED: <i>Rattus norvegicus</i> complement component 1, r subcomponent (C1r_predicted)

389	A_44_P233212	NM_152812	0.72	2.06	<i>Mus musculus</i> OTU domain containing 6B (Otud6b)
394	A_44_P210962	XM_232654	0.72	2.05	PREDICTED: <i>Rattus norvegicus</i> similar to protein tyrosine phosphatase 4a2 (LOC297806)
404	A_44_P459941	XM_001080040	0.71	2.04	PREDICTED: <i>Rattus norvegicus</i> alpha-2,6-sialyltransferase ST6GalNAc IV (sial7D)
405	A_44_P262764	NM_001007687	0.71	2.04	<i>Rattus norvegicus</i> carnosine dipeptidase 1 (metallopeptidase M20 family) (Cndp1)
416	A_43_P15819	XM_220222	0.71	2.03	<i>Rattus norvegicus</i> similar to serine protease (LOC302971)
423	A_44_P521564	BC063157	0.70	2.01	<i>Rattus norvegicus</i> peptidase (prosome, macropain) 26S subunit, ATPase 1
					<u>Protein synthesis</u>
8	A_44_P268971	XM_001061006	3.17	23.81	PREDICTED: <i>Rattus norvegicus</i> glycyl-tRNA synthetase (Gars)
108	XM_233969	XR_008770	1.29	3.62	PREDICTED: <i>Rattus norvegicus</i> similar to 60S ribosomal protein L13
226	XM_344908	XM_001056747	0.92	2.50	PREDICTED: <i>Rattus norvegicus</i> similar to 40S ribosomal protein S27-like protein (LOC681429)*
240	A_44_P457254	XM_001066439	0.89	2.44	PREDICTED: <i>Rattus norvegicus</i> similar to suppressor of initiator codon mutations, related sequence 1 (LOC686076)
346	A_44_P517004	BC024463	0.77	2.15	<i>Mus musculus</i> eukaryotic translation initiation factor 3, subunit 6 interacting protein
380	A_44_P185540	NM_023314	0.73	2.07	<i>Mus musculus</i> eukaryotic translation initiation factor 4E member 2 (Eif4e2)
424	XM_342236	XR_008595	0.70	2.01	PREDICTED: <i>Rattus norvegicus</i> similar to Ribosomal protein L7a (RGD1564029_predicted)
					<u>Protein with binding function</u>
1	A_44_P546352	XM_235093	6.08	435.36	PREDICTED: <i>Rattus norvegicus</i> transmembrane and tetratricopeptide repeat containing 3 (Tmtc3_predicted)
2	A_44_P364005	NM_001010968	4.17	64.69	<i>Rattus norvegicus</i> endoglin (Eng)
21	A_42_P585467	XM_227404	2.29	9.84	PREDICTED: <i>Rattus norvegicus</i> RAB25, member RAS oncogene family (Rab25_predicted)
22	A_44_P356236	NM_001047852	2.26	9.60	<i>Rattus norvegicus</i> BCL2-associated transcription factor 1 (Bclaf1)
45	A_44_P334847	NM_001003976	1.92	6.79	<i>Rattus norvegicus</i> G6b protein (G6b)
49	A_44_P380167	XM_217535	1.85	6.35	PREDICTED: <i>Rattus norvegicus</i> similar to synaptonemal complex protein 3 (LOC302172)*
54	A_44_P251653	NM_175764	1.74	5.72	<i>Rattus norvegicus</i> jumonji domain containing 1A (Jmjd1a)
75	A_44_P177994	XM_226604	1.52	4.57	<i>Rattus norvegicus</i> similar to Rho-related BTB domain-containing protein 3
98	BE112793	NM_001013900	1.35	3.84	<i>Rattus norvegicus</i> similar to hypothetical protein FLJ90652
103	A_44_P310434	XM_001069610	1.33	3.76	PREDICTED: <i>Rattus norvegicus</i> similar to coiled-coil-helix-coiled-coil-helix domain containing 7
129	BC079325	BC079325	1.19	3.29	<i>Rattus norvegicus</i> similar to ADP-ribosylation factor-like 2-like 1 isoform 1
138	A_44_P537285	NM_172872	1.17	3.22	<i>Mus musculus</i> ankyrin repeat domain 38 (Ankrd38)
139	A_44_P248423	XM_216202	1.16	3.21	PREDICTED: <i>Rattus norvegicus</i> histone cell cycle regulation defective interacting protein 5 (Hirip5_predicted)
145	A_44_P385770	XM_001081275	1.14	3.13	PREDICTED: <i>Rattus norvegicus</i> WD repeat domain 50 (Wdr50_predicted)
146	A_44_P123158	NM_001013086	1.14	3.13	<i>Rattus norvegicus</i> capping protein (actin filament), gelsolin-like (Capg)
147	A_44_P555976	XM_001053214	1.14	3.12	PREDICTED: <i>Rattus norvegicus</i> similar to Zinc finger CCCH-type domain containing protein 6 (LOC678741)
148	A_44_P537602	XM_001068844	1.13	3.11	PREDICTED: <i>Rattus norvegicus</i> similar to quaking homolog, KH domain RNA binding isoform HQK-5
161	A_44_P219335	XM_509234	1.10	3.02	PREDICTED: <i>Pan troglodytes</i> neuron navigator 3, transcript variant 2 (NAV3)
189	A_44_P385596	XM_001060867	1.03	2.79	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein LOC168850
190	A_43_P15590	NM_080698	1.02	2.78	<i>Rattus norvegicus</i> fibromodulin (Fmod)
196	BG664851	XM_001058523	1.01	2.74	PREDICTED: <i>Rattus norvegicus</i> matrilin 2 (Matn2_predicted)
206	A_44_P1023538	NM_016994	0.96	2.61	<i>Rattus norvegicus</i> complement component 3 (C3)*
207	A_44_P145060	XM_229459	0.96	2.60	PREDICTED: <i>Rattus norvegicus</i> similar to EF hand calcium binding domain 1
213	AW920037	NM_001025638	0.94	2.57	<i>Rattus norvegicus</i> syntaxin 11 (Stx11)
216	A_44_P331065	XM_357954	0.94	2.55	PREDICTED: <i>Mus musculus</i> ankyrin repeat and death domain containing 1A (Ankdd1a)
220	XM_342226	XM_001060985	0.93	2.53	PREDICTED: <i>Rattus norvegicus</i> coiled-coil domain containing 39 (Ccdc39_predicted)
223	AA963765	XM_001054654	0.92	2.52	PREDICTED: <i>Rattus norvegicus</i> osteoglycin (Ogn_predicted)
231	A_44_P265643	NM_177093	0.91	2.49	<i>Mus musculus</i> leucine rich repeat containing 58 (Lrrc58)
232	A_44_P429984	XM_001061502	0.90	2.47	PREDICTED: <i>Rattus norvegicus</i> ATP/GTP binding protein 1 (Agtppb1_predicted)
236	XM_236295	NM_001014091	0.90	2.45	<i>Rattus norvegicus</i> similar to hypothetical protein (LOC315712)

239	A_44_P356445	XM_227547	0.89	2.44	PREDICTED: <i>Rattus norvegicus</i> leucine-rich repeats and immunoglobulin-like domains 2 (Lrig2_predicted)
243	A_44_P725710	XM_001065469	0.89	2.43	PREDICTED: <i>Rattus norvegicus</i> zinc finger and BTB domain containing 2 (Zbtb2_predicted)
246	A_44_P513918	NM_001025123	0.88	2.41	<i>Rattus norvegicus</i> KDEL (Lys-Asp-Glu-Leu) containing 2 (Kdelc2)
249	A_44_P447853	XM_001063572	0.87	2.39	PREDICTED: <i>Rattus norvegicus</i> hypothetical protein LOC685384
251	A_44_P168602	NM_001037649	0.87	2.39	<i>Rattus norvegicus</i> similar to RIKEN cDNA 0610033105 (RGD1306676)
263	A_44_P910050	XM_001058523	0.86	2.36	PREDICTED: <i>Rattus norvegicus</i> matrilin 2 (Matn2_predicted)
264	A_44_P335776	XM_221686	0.85	2.34	PREDICTED: <i>Rattus norvegicus</i> chondrolectin (Chodl_predicted)
271	A_44_P429476	XM_221622	0.84	2.32	PREDICTED: <i>Rattus norvegicus</i> zinc finger protein 295 (Zfp295_predicted)
274	XM_220044	XM_001080159	0.84	2.31	PREDICTED: <i>Rattus norvegicus</i> similar to TBP-associated factor 172 (TAF-172) (TAF(II)170) (RGD1564130_predicted)
281	A_44_P112030	XM_001080604	0.83	2.28	PREDICTED: <i>Rattus norvegicus</i> similar to Afadin (AF-6 protein) (LOC363432)
287	A_44_P362410	NM_001008363	0.82	2.27	<i>Rattus norvegicus</i> zinc finger, AN1-type domain 2A (Zfand2a)
288	A_44_P419976	XM_341009	0.82	2.26	PREDICTED: <i>Rattus norvegicus</i> T-box 1 (Tbx1_predicted)
299	XM_344432	XM_001069424	0.81	2.24	PREDICTED: <i>Rattus norvegicus</i> similar to PEBP family protein precursor (LOC684210)
300	A_44_P515381	U31203	0.80	2.24	<i>Rattus norvegicus</i> noggin (NOGGIN)
302	A_44_P412729	XM_228522	0.80	2.24	PREDICTED: <i>Rattus norvegicus</i> similar to WASP family 1 (LOC302367)
311	A_44_P152919	X15009	0.80	2.22	<i>R.norvegicus</i> beta-globin major gene
316	A_44_P317196	XM_575828	0.79	2.21	PREDICTED: <i>Rattus norvegicus</i> similar to EHM2 (RGD1562988_predicted)
317	A_44_P459359	XM_342077	0.79	2.21	PREDICTED: <i>Rattus norvegicus</i> similar to helicase, lymphoid specific (LOC361781)
320	A_44_P326311	XM_221189	0.79	2.21	PREDICTED: <i>Rattus norvegicus</i> similar to myosin, heavy polypeptide 9, non-muscle (LOC287867)
322	A_44_P292895	XM_001064585	0.79	2.20	PREDICTED: <i>Rattus norvegicus</i> similar to guanylate binding protein family, member 6 (LOC683128)
323	XM_343650	NM_031086	0.79	2.20	<i>Rattus norvegicus</i> protein S (alpha) (Pros1)
329	A_44_P295350	XM_228174	0.79	2.19	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 5730521E12 (LOC309775)
335	A_44_P503528	AY426671	0.78	2.18	<i>Rattus norvegicus</i> mucosal pentraxin (Mptx)
338	A_44_P505374	RNU76551	0.78	2.18	<i>Rattus norvegicus</i> mucin Muc3
342	A_44_P184297	MUSPEBP2A1	0.77	2.17	<i>Mus musculus</i> mRNA for PEBP2a1 protein
343	XM_344143	NM_001012206	0.77	2.16	<i>Rattus norvegicus</i> pleckstrin homology-like domain, family A, member 3 (Phlda3)*
352	A_44_P230600	AF090697	0.76	2.15	<i>Mus musculus</i> apoptosis-related RNA binding protein (Napor-3)
357	A_44_P393156	NM_001013925	0.76	2.14	<i>Rattus norvegicus</i> NEDD8 ultimate buster-1 (Nub1)
368	A_44_P244781	XM_001078708	0.74	2.09	PREDICTED: <i>Rattus norvegicus</i> coactosin-like 1 (Dictyostelium) (Cotl1_predicted)
375	A_44_P313031	XM_001073036	0.73	2.08	PREDICTED: <i>Rattus norvegicus</i> similar to NMDA receptor regulated 1-like
376	A_44_P507469	XM_220031	0.73	2.07	<i>Rattus norvegicus</i> similar to Myoferlin (Fer-1 like protein 3) (LOC309499)
392	A_44_P557767	XM_224885	0.72	2.06	PREDICTED: <i>Rattus norvegicus</i> similar to tripartite motif-containing 11 (LOC290767)
402	A_42_P553918	NM_023976	0.71	2.04	<i>Rattus norvegicus</i> periaxin (Prx)
408	A_44_P126545	XM_235088	0.71	2.04	PREDICTED: <i>Rattus norvegicus</i> similar to leucine-rich repeats and IQ motif containing 1 (LOC299759)
421	A_44_P118505	BC090339	0.70	2.02	<i>Rattus norvegicus</i> polyhomeotic-like 2 (Drosophila)
430	A_44_P370065	S82649	0.69	2.00	Narp=neuronal activity-regulated pentraxin

Regulation of metabolism and protein function

23	A_44_P470237	NM_053779	2.24	9.42	<i>Rattus norvegicus</i> serine (or cysteine) peptidase inhibitor, clade I, member 1 (Serpini1)
29	A_43_P16264	XM_343823	2.16	8.71	PREDICTED: <i>Rattus norvegicus</i> serine (or cysteine) peptidase inhibitor, clade A (alpha-1 antipeptidase, antitrypsin), member 7 (Serpina7)
55	XM_347026	XM_001069356	1.73	5.67	PREDICTED: <i>Rattus norvegicus</i> similar to GTPase activating protein testicular GAP1 (LOC362074)
80	A_42_P593020	NM_013413	1.48	4.41	<i>Rattus norvegicus</i> relaxin 1 (Rln1)
97	A_44_P420524	NM_001082549	1.36	3.88	<i>Rattus norvegicus</i> serine protease inhibitor, Kunitz type 2 (Spint2), transcript variant 1
144	XM_238309	XM_001069356	1.14	3.13	PREDICTED: <i>Rattus norvegicus</i> similar to GTPase activating protein testicular GAP1
331	A_43_P17175	NM_001031642	0.78	2.19	<i>Rattus norvegicus</i> serine (or cysteine) proteinase inhibitor, clade B, member 1a (Serpini1a)
355	A_44_P313558	NM_198773	0.76	2.14	<i>Rattus norvegicus</i> protein phosphatase 1E (PP2C domain containing) (Ppm1e)

428	A_44_P297337	XM_001069356	0.69	2.00	PREDICTED: <i>Rattus norvegicus</i> similar to GTPase activating protein testicular GAP1 <u>Signal transduction</u>
4	A_44_P253973	XM_001160279	3.93	50.69	PREDICTED: <i>Pan troglodytes</i> calcium channel, voltage-dependent, alpha 2/delta subunit 1, transcript variant 2 (CACNA2D1)
5	A_42_P648800	XM_001069570	3.89	48.84	PREDICTED: <i>Rattus norvegicus</i> frizzled homolog 7 (Drosophila) (Fzd7_predicted)
6	A_42_P680720	NM_008966	3.28	26.53	<i>Mus musculus</i> prostaglandin F receptor (Ptgfr)
14	A_44_P481160	NM_022631	2.57	13.01	<i>Rattus norvegicus</i> wingless-type MMTV integration site 5A (Wnt5a)
25	A_44_P111003	NM_012775	2.22	9.21	<i>Rattus norvegicus</i> transforming growth factor, beta receptor 1 (Tgfb1)
32	A_44_P184163	J05276	2.10	8.21	<i>Rat</i> 5-hydroxytryptamine-1a receptor (5-HT-1a)
33	A_44_P696363	NM_153294	2.09	8.12	<i>Rattus norvegicus</i> prepro-Neuropeptide W polypeptide
43	A_44_P266857	NM_001000767	1.98	7.21	<i>Rattus norvegicus</i> olfactory receptor 289 (Olr289)
44	A_44_P306454	NM_001000397	1.92	6.85	<i>Rattus norvegicus</i> olfactory receptor 434 (Olr434)
50	A_44_P368679	NM_021506	1.84	6.29	<i>Mus musculus</i> SH3 domain containing ring finger 1 (Sh3rf1)
52	A_44_P505812	NM_001000119	1.75	5.74	<i>Rattus norvegicus</i> olfactory receptor 23 (Olr23)
66	A_44_P165594	NM_017191	1.59	4.93	<i>Rattus norvegicus</i> adrenergic receptor, alpha 1a (Adra1a)
68	A_42_P501233	NM_024483	1.59	4.89	<i>Rattus norvegicus</i> adrenergic receptor, alpha 1d (Adra1d)
87	A_44_P202201	NM_133570	1.41	4.10	<i>Rattus norvegicus</i> gastrin releasing peptide (Grp)*
93	A_44_P782579	XM_222229	1.37	3.95	PREDICTED: <i>Rattus norvegicus</i> similar to Unc-119 protein homolog (Retinal protein 4) (RRG4) (RGD1309359_predicted)
94	A_44_P618962	BC063247	1.37	3.94	<i>Mus musculus</i> zinc finger protein of the cerebellum 1
95	A_44_P296230	NM_011035	1.36	3.89	<i>Mus musculus</i> p21 (CDKN1A)-activated kinase 1 (Pak1)
96	A_44_P273918	NM_001000384	1.36	3.88	<i>Rattus norvegicus</i> olfactory receptor 408 (Olr408)
110	AF053991	AF053991	1.28	3.58	<i>Rattus norvegicus</i> tissue-type vomeronasal neurons putative pheromone receptor V2R3
114	A_44_P136059	NM_028407	1.26	3.54	<i>Mus musculus</i> granule cell antiserum positive 14 (Gcap14), transcript variant 2
141	A_42_P719221	XM_217838	1.16	3.18	PREDICTED: <i>Rattus norvegicus</i> vasoactive intestinal polypeptide (Vip)
143	A_44_P186818	NM_022202	1.15	3.15	<i>Rattus norvegicus</i> glutamate receptor, metabotropic 8 (Grm8)
157	A_44_P128062	NM_138849	1.11	3.03	<i>Rattus norvegicus</i> brain and kidney protein (Bk)
158	A_42_P718331	NM_133522	1.11	3.03	<i>Rattus norvegicus</i> somatostatin receptor 3 (Sstr3)
164	XM_235213	XM_235213	1.10	3.00	PREDICTED: <i>Rattus norvegicus</i> similar to SLIT-ROBO Rho GTPase-activating protein 1 (RGD1566260_predicted)
171	BF560124	NM_008002	1.07	2.90	<i>Mus musculus</i> fibroblast growth factor 10 (Fgf10)
176	A_44_P283111	NM_001017988	1.05	2.85	<i>Rattus norvegicus</i> ankyrin repeat and SOCS box-containing 16 (Asb16)
182	A_44_P215917	XM_344018	1.04	2.82	PREDICTED: <i>Rattus norvegicus</i> similar to phosphatidylinositol-specific phospholipase C, X domain containing 2 (LOC363781)
184	A_44_P829145	XM_489641	1.03	2.81	PREDICTED: <i>Mus musculus</i> phosphatidylinositol-specific phospholipase C, X domain containing 2 (Plcx2)
191	A_43_P12785	NM_053364	1.02	2.77	<i>Rattus norvegicus</i> proliferin related protein (Plfr)
194	XM_344849	NM_001099492	1.01	2.75	<i>Rattus norvegicus</i> similar to putative pheromone receptor (Go-VN4)
204	A_44_P463749	XM_340809	0.97	2.63	PREDICTED: <i>Rattus norvegicus</i> RAS, dexamethasone-induced 1 (Rasd1)
208	A_44_P323320	Y11153	0.96	2.60	<i>R.norvegicus</i> mRNA for metabotropic glutamate receptor subtype 8b
209	A_44_P1029253	NM_012757	0.95	2.59	<i>Rattus norvegicus</i> MAS1 oncogene (Mas1)
214	A_44_P151812	NM_001099461	0.94	2.56	<i>Rattus norvegicus</i> similar to vomeronasal 2, receptor, 1
215	A_42_P841193	NM_080399	0.94	2.55	<i>Rattus norvegicus</i> DNA-damage-inducible transcript 4-like (Ddit4l)*
229	A_44_P123439	NM_001000269	0.92	2.50	<i>Rattus norvegicus</i> olfactory receptor 1683 (Olr1683)
237	A_44_P341895	NM_198199	0.89	2.45	<i>Rattus norvegicus</i> G protein-coupled receptor 103 (Gpr103)
260	A_44_P797926	XM_489641	0.86	2.36	PREDICTED: <i>Mus musculus</i> phosphatidylinositol-specific phospholipase C, X domain containing 2 (Plcx2)
261	A_44_P165221	XM_001063215	0.86	2.36	PREDICTED: <i>Rattus norvegicus</i> frizzled-related protein (Frzb)
276	A_43_P11654	NM_013007	0.83	2.30	<i>Rattus norvegicus</i> prepronociceptin (Phoc)
289	A_44_P397912	NM_001000973	0.82	2.26	<i>Rattus norvegicus</i> olfactory receptor 1609 (Olr1609)
293	A_44_P504357	NM_001033360	0.81	2.25	<i>Mus musculus</i> G protein-coupled receptor 101 (Gpr101)

303	A_44_P404395	NM_001009640	0.80	2.24	<i>Rattus norvegicus</i> cirrhosis, autosomal recessive 1A (human) (Cirh1a)
305	A_44_P512457	XM_001059231	0.80	2.22	PREDICTED: <i>Rattus norvegicus</i> phospholipase C-like 3 (Plcl3_predicted)
307	A_44_P231369	NM_001000267	0.80	2.22	<i>Rattus norvegicus</i> olfactory receptor 1668 (Olr1668)
308	A_44_P329501	BC128717	0.80	2.22	<i>Rattus norvegicus</i> caveolin
314	A_42_P559414	NM_053402	0.80	2.22	<i>Rattus norvegicus</i> wingless-related MMTV integration site 4 (Wnt4)
315	A_44_P526978	NM_017105	0.80	2.21	<i>Rattus norvegicus</i> bone morphogenetic protein 3 (Bmp3)
332	A_44_P217744	XM_342027	0.78	2.19	PREDICTED: <i>Rattus norvegicus</i> membrane-spanning 4-domains, subfamily A, member 4 (Ms4a4a_predicted)
333	XM_342308	XM_342308	0.78	2.19	PREDICTED: <i>Rattus norvegicus</i> wingless-type MMTV integration site family, member 2B (Wnt2b)
339	A_44_P423710	NM_001000838	0.78	2.18	<i>Rattus norvegicus</i> olfactory receptor 1622 (Olr1622)
340	A_44_P1014679	AK122352	0.78	2.17	<i>Mus musculus</i> mRNA for mKIAA0713 protein
348	A_44_P181640	XM_343844	0.76	2.15	PREDICTED: <i>Rattus norvegicus</i> interleukin-1 receptor-associated kinase 1 (Irak1_predicted)
354	A_42_P467277	NM_031802	0.76	2.14	<i>Rattus norvegicus</i> gamma-aminobutyric acid (GABA) B receptor 2 (Gabbr2)
359	A_44_P543867	NM_001099659	0.76	2.13	<i>Rattus norvegicus</i> similar to putative pheromone receptor (Go-VN2) (LOC367480)
362	A_44_P423765	NM_001000336	0.75	2.12	<i>Rattus norvegicus</i> olfactory receptor 610 (Olr610)
369	A_44_P337219	NM_001000340	0.74	2.09	<i>Rattus norvegicus</i> olfactory receptor 639 (Olr639)
378	A_44_P388897	NM_001005871	0.73	2.07	<i>Rattus norvegicus</i> ATPase, Ca ⁺⁺ transporting, plasma membrane 4 (Atp2b4)
383	A_44_P383005	NM_152801	0.73	2.07	<i>Mus musculus</i> Rac/Cdc42 guanine nucleotide exchange factor (GEF) 6 (Arhgef6)
386	A_44_P168038	NM_001000109	0.72	2.06	<i>Rattus norvegicus</i> olfactory receptor 387 (Olr387)
387	A_44_P447708	NM_001099499	0.72	2.06	<i>Rattus norvegicus</i> similar to putative pheromone receptor (Go-VN5) (RGD1564022_predicted)
396	A_44_P472888	NM_001000281	0.72	2.05	<i>Rattus norvegicus</i> olfactory receptor 439 (Olr439)
399	A_44_P112890	NM_022194	0.71	2.04	<i>Rattus norvegicus</i> interleukin 1 receptor antagonist (Il1rn)
411	A_42_P498708	X78689	0.71	2.03	<i>R.norvegicus</i> ehk-1
412	AW141051	NM_012686	0.71	2.03	<i>Rattus norvegicus</i> visinin-like 1 (Vsnl1)
422	A_44_P493558	BC026860	0.70	2.01	<i>Mus musculus</i> FYVE, RhoGEF and PH domain containing 6

Systemic interaction with the environment

10	A_43_P11522	NM_012705	2.85	17.36	<i>Rattus norvegicus</i> CD4 antigen (Cd4)
19	A_43_P15552	NM_021866	2.38	10.80	<i>Rattus norvegicus</i> chemokine (C-C motif) receptor 2 (Ccr2)
26	A_44_P1039128	NM_139089	2.18	8.89	<i>Rattus norvegicus</i> chemokine (C-X-C motif) ligand 10 (Cxcl10)*
60	A_42_P695401	NM_031530	1.67	5.31	<i>Rattus norvegicus</i> chemokine (C-C motif) ligand 2 (Ccl2)*
90	BC088260	BC088260	1.38	3.98	<i>Rattus norvegicus</i> similar to Small inducible cytokine B13 precursor (CXCL13) (B lymphocyte chemoattractant) (CXC chemokine BLC)*
131	A_42_P672071	XM_342824	1.19	3.28	PREDICTED: <i>Rattus norvegicus</i> chemokine (C-C motif) ligand 19 (Ccl19_predicted)
153	A_44_P1004840	NM_181384	1.12	3.08	<i>Rattus norvegicus</i> tumor necrosis factor (ligand) superfamily, member 9 (Tnfsf9)
155	A_44_P404230	BX883051	1.12	3.06	<i>Rattus norvegicus</i> chromosome 20, major histocompatibility complex
167	XM_341431	BX883051	1.09	2.98	<i>Rattus norvegicus</i> chromosome 20, major histocompatibility complex
172	A_42_P714311	NM_013025	1.06	2.88	<i>Rattus norvegicus</i> chemokine (C-C motif) ligand 3 (Ccl3)*
177	A_44_P467557	NM_019262	1.04	2.84	<i>Rattus norvegicus</i> complement component 1, q subcomponent, beta polypeptide (C1qb)
210	A_44_P474090	NM_001025767	0.95	2.59	<i>Rattus norvegicus</i> B-cell linker (Blnk)
218	A_44_P649823	XM_001074860	0.93	2.54	PREDICTED: <i>Rattus norvegicus</i> RGD1559432 (RGD1559432_predicted)
222	A_42_P565621		0.93	2.52	PREDICTED: <i>Rattus norvegicus</i> SLAM family member 9 (Slamf9_predicted)
227	A_44_P177726	NM_017009	0.92	2.50	<i>Rattus norvegicus</i> glial fibrillary acidic protein (Gfap)
286	A_44_P196401	Y13890	0.82	2.27	<i>Rattus norvegicus</i> mRNA for mature MHC class Ib alpha chain*
321	A_44_P526478	NM_012881	0.79	2.21	<i>Rattus norvegicus</i> secreted phosphoprotein 1 (Spp1)
341	AY325181	AY325181	0.78	2.17	<i>Rattus norvegicus</i> Ab2-018
372	XM_341574	NM_001025721	0.73	2.08	<i>Rattus norvegicus</i> collectin sub-family member 12 (Colec12)
384	A_44_P329740	NM_012822	0.73	2.07	<i>Rattus norvegicus</i> arachidonate 5-lipoxygenase (Alox5)

385	A_44_P438054	AY325188	0.72	2.06	<i>Rattus norvegicus</i> Ab2-086
388	A_44_P491294	NM_130409	0.72	2.06	<i>Rattus norvegicus</i> complement component factor H (Cfh)
397	A_42_P758222	NM_017134	0.72	2.05	<i>Rattus norvegicus</i> arginase 1 (Arg1)
414	A_44_P201954	NM_007758	0.71	2.03	<i>Mus musculus</i> complement receptor 2 (Cr2)
<u>Transcription</u>					
18	A_44_P317483	NM_173309	2.42	11.22	<i>Rattus norvegicus</i> ELAV (embryonic lethal, abnormal vision, <i>Drosophila</i>)-like 2 (Hu antigen B) (Elavl2)
31	A_44_P298292	XM_225068	2.14	8.47	PREDICTED: <i>Rattus norvegicus</i> Iroquois related homeobox 4 (<i>Drosophila</i>) (Irx4_predicted)
42	A_44_P475617	XM_238082	1.98	7.24	PREDICTED: <i>Rattus norvegicus</i> RGD1565487 (RGD1565487_predicted)
57	A_44_P165029	XM_001055735	1.73	5.64	PREDICTED: <i>Rattus norvegicus</i> similar to PHD finger protein 14 isoform 1 (RGD1563764_predicted)
79	A_44_P458901	NM_019326	1.50	4.48	<i>Rattus norvegicus</i> neurogenic differentiation 2 (Neurod2)
81	AI031016	XM_001060194	1.46	4.32	PREDICTED: <i>Rattus norvegicus</i> basic helix-loop-helix domain containing, class B5 (Bhlhb5_predicted)
82	A_44_P510857	XM_218208	1.46	4.30	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA A230102105 (LOC292548)
83	A_44_P377179	AF219999	1.44	4.24	<i>Rattus norvegicus</i> gastrulation brain homeobox protein 1 (Gbx1)
91	A_44_P433526	XM_341095	1.38	3.96	<i>Rattus norvegicus</i> similar to Putative protein 15E1.2
107	A_44_P139257	NM_001004207	1.30	3.67	<i>Rattus norvegicus</i> deoxyhypusine synthase (Dhps)
111	A_44_P226575	NM_019218	1.27	3.57	<i>Rattus norvegicus</i> neurogenic differentiation 1 (Neurod1)
120	A_44_P347498	BC062875	1.23	3.42	<i>Mus musculus</i> LSM3 homolog, U6 small nuclear RNA associated (<i>S. cerevisiae</i>)
126	A_44_P424218	XM_227230	1.20	3.31	PREDICTED: <i>Rattus norvegicus</i> myeloid leukemia factor 1 (Mlf1_predicted)
127	A_44_P306008	XM_001077667	1.20	3.31	PREDICTED: <i>Rattus norvegicus</i> similar to CREBBP/EP300 inhibitory protein 1 (RGD1562702_predicted)
128	A_44_P154344	NM_001034961	1.19	3.30	<i>Rattus norvegicus</i> hypothetical protein LOC619575
130	A_44_P421333	NM_080778	1.19	3.29	<i>Rattus norvegicus</i> nuclear receptor subfamily 2, group F, member 2 (Nr2f2)
137	A_44_P989457	XM_001056620	1.17	3.22	PREDICTED: <i>Rattus norvegicus</i> Ngfi-A binding protein 2 (Nab2)
149	A_44_P224106	NM_001024869	1.13	3.10	<i>Rattus norvegicus</i> transcriptional co-activator with PDZ-binding motif (TA)Z
159	A_44_P362706	NM_001024261	1.11	3.02	<i>Rattus norvegicus</i> tRNA nucleotidyl transferase, CCA-adding, 1 (Trmt1)
162	A_44_P354129	NM_053335	1.10	3.01	<i>Rattus norvegicus</i> C-terminal binding protein 2 (Ctbp2)
165	A_44_P162232	XM_341330	1.10	3.00	PREDICTED: <i>Rattus norvegicus</i> regulator of chromosome condensation (RCC1) and BTB (POZ) domain containing protein 1 (Rcctb1_predicted)
169	A_44_P176886	XM_001068302	1.09	2.96	PREDICTED: <i>Rattus norvegicus</i> SRY-box containing gene 4 (Sox4_predicted)
193	A_44_P193083	NM_012742	1.01	2.75	<i>Rattus norvegicus</i> forkhead box A1 (Foxa1)
200	A_42_P577431	XM_214856	0.99	2.68	<i>Rattus norvegicus</i> similar to BCL3 (LOC292700)*
212	A_44_P236857	XM_237228	0.94	2.57	PREDICTED: <i>Rattus norvegicus</i> zinc finger protein, subfamily 1A, 2 (Helios) (Zfpn1a2_predicted)
244	A_44_P328547	XM_230877	0.88	2.42	PREDICTED: <i>Rattus norvegicus</i> nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2 (Nfatc2_predicted)
295	A_44_P571978	NM_015753	0.81	2.25	<i>Mus musculus</i> zinc finger E-box binding homeobox 2 (Zeb2)
298	A_44_P397627	XM_001062676	0.81	2.24	PREDICTED: <i>Rattus norvegicus</i> zinc finger protein, multitype 2 (Zfpm2_predicted)
304	A_44_P485948	XM_222184	0.80	2.23	PREDICTED: <i>Rattus norvegicus</i> cut-like 2 (<i>Drosophila</i>) (Cutl2_predicted)
312	A_44_P496924	XM_345373	0.80	2.22	PREDICTED: <i>Rattus norvegicus</i> homeo box D12 (Hoxd12_predicted)
313	A_44_P311724	NM_001039505	0.80	2.22	<i>Rattus norvegicus</i> Iroquois related homeobox 2 (<i>Drosophila</i>) (Irx2)
326	A_44_P176737	NM_030647	0.79	2.20	<i>Homo sapiens</i> jumonji C domain-containing histone demethylase 1 homolog D (<i>S. cerevisiae</i>) (JHDM1D)
344	A_44_P267765	XM_220618	0.77	2.16	PREDICTED: <i>Rattus norvegicus</i> similar to Y-box protein MSY2 (LOC303250)
345	A_44_P104021	XM_001068302	0.77	2.15	PREDICTED: <i>Rattus norvegicus</i> SRY-box containing gene 4 (Sox4_predicted)
350	A_44_P169821	BC049375	0.76	2.15	<i>Homo sapiens</i> zinc finger and BTB domain containing 44
361	A_44_P522524	NM_019328	0.75	2.12	<i>Rattus norvegicus</i> nuclear receptor subfamily 4, group A, member 2 (Nr4a2)
377	A_44_P369164	NM_177239	0.73	2.07	<i>Mus musculus</i> myb-like, SWIRM and MPN domains 1 (Mysm1)
381	A_44_P129549	XM_001065010	0.73	2.07	PREDICTED: <i>Rattus norvegicus</i> similar to Transcription initiation factor TFIID subunit 12 (Transcription initiation factor TFIID 20 kDa subunits) (TAFII-20) (TAFII20) (LOC682902)*
391	A_44_P361548	XM_239504	0.72	2.06	<i>Rattus norvegicus</i> similar to PR-domain zinc finger protein 15 (Zinc finger protein 298) (LOC304054)
393	A_42_P762829	NM_013154	0.72	2.05	<i>Rattus norvegicus</i> CCAAT/enhancer binding protein (C/EBP), delta (Cebpd)*

409	BE116976	XM_001072361	0.71	2.03	PREDICTED: <i>Rattus norvegicus</i> similar to transcription factor 7-like 2, T-cell specific, HMG-box
425	A_44_P225395	NM_001009685	0.70	2.01	<i>Rattus norvegicus</i> developmentally regulated GTP binding protein 1 (Drg1)**
432	A_44_P176720	XM_001074007	0.69	2.00	PREDICTED: <i>Rattus norvegicus</i> RNA binding motif protein 15B (Rbm15b_predicted)
					<u>Unknown</u>
12	A_44_P189696	XM_001064803	2.81	16.64	PREDICTED: <i>Rattus norvegicus</i> similar to CG13745-PA
16	A_44_P401728	BC079338	2.53	12.60	<i>Rattus norvegicus</i> similar to hypothetical protein MGC33926
37	A_44_P375400	XM_229040	2.04	7.70	PREDICTED: <i>Rattus norvegicus</i> similar to Melanoma-associated antigen B1 (MAGE-B1 antigen) (MAGE-XP antigen) (DSS-AHC critical interval MAGE superfamily 10) (DAM10)
48	A_44_P382071	NM_001010961	1.86	6.39	<i>Rattus norvegicus</i> transmembrane protein 17 (Tmem17)
53	A_44_P551719	NM_001008355	1.75	5.73	<i>Rattus norvegicus</i> transmembrane protein 111 (Tmem111)
63	A_43_P23363	XM_340842	1.63	5.12	PREDICTED: <i>Rattus norvegicus</i> similar to novel protein(RGD1565378_predicted)
73	A_44_P243973	NM_173748	1.53	4.63	<i>Mus musculus</i> NudC domain containing 3 (Nudcd3)
85	A_44_P316659	XM_001067662	1.43	4.18	PREDICTED: <i>Rattus norvegicus</i> hypothetical protein LOC683829 (LOC683829)*
92	A_44_P323924	NM_001079701	1.38	3.96	<i>Rattus norvegicus</i> similar to hypothetical protein (RGD1310641)
100	A_44_P455955	XM_001074486	1.34	3.82	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein (RGD1305045_predicted)
101	A_43_P19751	XM_238038	1.33	3.79	PREDICTED: <i>Rattus norvegicus</i> hypothetical LOC291903
104	A_44_P318244	XM_001058595	1.32	3.74	PREDICTED: <i>Rattus norvegicus</i> similar to 9130011E15Rik protein (RGD1564887_predicted)
106	A_44_P1004392	XM_221455	1.30	3.69	PREDICTED: <i>Rattus norvegicus</i> Msid2 (LOC288109)
122	A_44_P249636	XM_001076152	1.22	3.40	PREDICTED: <i>Rattus norvegicus</i> similar to CG13957-PA (RGD1309995_predicted)
124	A_44_P549604	XM_001080934	1.21	3.36	PREDICTED: <i>Rattus norvegicus</i> similar to chromosome 11 open reading frame 9 (RGD1562127_predicted)
125	A_44_P487714	XM_001056630	1.20	3.33	PREDICTED: <i>Rattus norvegicus</i> hypothetical protein LOC680319
178	A_44_P265333	XM_236385	1.04	2.84	PREDICTED: <i>Rattus norvegicus</i> similar to KIAA1749 protein (LOC315795)
180	XM_346980	XM_574398	1.04	2.84	PREDICTED: <i>Rattus norvegicus</i> similar to FLJ41131 protein (RGD1560854_predicted)
188	A_44_P440062	XM_001066527	1.03	2.80	PREDICTED: <i>Rattus norvegicus</i> CTTNBP2 N-terminal like (Cttnbp2n1_predicted)
192	A_43_P19118	XM_001080175	1.02	2.76	PREDICTED: <i>Rattus norvegicus</i> similar to Protein C6orf142 homolog (LOC691933)*
203	A_44_P828792	BC100074	0.97	2.64	<i>Rattus norvegicus</i> cDNA clone MGC:112638 IMAGE:7376647*
252	XM_343496	XM_001076702	0.87	2.38	PREDICTED: <i>Rattus norvegicus</i> similar to Cartilage-associated protein precursor (RGD1565180_predicted)
257	A_43_P15735	AF311886	0.86	2.36	<i>Rattus norvegicus</i> cytochrome P450-like protein
258	A_44_P400112	CO384551	0.86	2.36	<i>Rattus norvegicus</i> cDNA clone IMAGE:7304330*
266	XM_228529	XM_001057303	0.85	2.33	PREDICTED: <i>Rattus norvegicus</i> similar to C56C10.7a (LOC681540)
268	A_44_P297348	XR_006786	0.85	2.33	PREDICTED: <i>Rattus norvegicus</i> similar to B-cell CLL/lymphoma 7A (LOC690085)
269	BF411462	XM_001057982	0.85	2.33	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein MGC32132 (RGD1307915_predicted)
270	NM_001007644	BC061963	0.84	2.33	<i>Rattus norvegicus</i> similar to RIKEN cDNA A330021E22
275	A_44_P389553	BC105825	0.83	2.30	<i>Rattus norvegicus</i> similar to immunoglobulin heavy chain 6 (Igh-6)
280	A_44_P135531	XM_224403	0.83	2.29	PREDICTED: <i>Rattus norvegicus</i> similar to chromosome 13 open reading frame 18 (LOC290403)
282	A_44_P710844	XM_575207	0.83	2.28	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 1700095F04 (RGD1565206_predicted)*
310	A_44_P110469	XM_001056118	0.80	2.22	PREDICTED: <i>Rattus norvegicus</i> hypothetical protein LOC679388
334	A_44_P1034926	AB046714	0.78	2.19	<i>Mus musculus</i> NAP-22 gene for 22 kDa neuronal tissue-enriched acidic protein
353	XM_345032	XM_001054262	0.76	2.14	PREDICTED: <i>Rattus norvegicus</i> similar to SON protein (LOC679018)
356	A_44_P437661	NM_207406	0.76	2.14	<i>Homo sapiens</i> coiled-coil domain containing 4 (CCDC4)
358	XM_346999	BC088295	0.76	2.13	<i>Rattus norvegicus</i> MARVEL (membrane-associating) domain containing 1
360	A_44_P939162	NM_001024296	0.75	2.12	<i>Rattus norvegicus</i> similar to Putative protein C21orf56 homolog (LOC499418)
363	XM_229406	XM_222167	0.75	2.11	PREDICTED: <i>Rattus norvegicus</i> similar to spermiogenesis specific transcript on the Y 2 (RGD1560580_predicted)
365	XM_233224	XR_007925	0.74	2.10	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein MGC35130 (RGD1565480_predicted)
379	A_44_P162214	AC119382	0.73	2.07	<i>Rattus norvegicus</i> 4 BAC CH230-125G2 (Children's Hospital Oakland Research Institute)**
390	A_44_P555072	NM_001004282	0.72	2.06	<i>Rattus norvegicus</i> similar to hypothetical protein MGC33926 (MGC94782)

395	XM_217103	XM_001056871	0.72	2.05	PREDICTED: <i>Rattus norvegicus</i> similar to Urinary protein 3 precursor (RUP-3) (LOC680367)
406	XM_235286	NM_001014084	0.71	2.04	<i>Rattus norvegicus</i> gasdermin domain containing protein RGD1359449
415	A_44_P369598	NM_001014010	0.71	2.03	<i>Rattus norvegicus</i> similar to expressed sequence AW209491 (RGD1308147)
429	A_44_P187842	XR_007586	0.69	2.00	PREDICTED: <i>Rattus norvegicus</i> similar to NACHT, leucine rich repeat and PYD containing 4A (LOC304027)

Supplementary Table 5. The suppressed genes in contralateral striatum after gamma knife surgery ($p < 0.05$).

No.	Gene	nucleotide accession (NCBI)	Log	Fold	Description
<u>Biogenesis of cellular components</u>					
23	A_44_P531947	XM_001078389	-1.50	0.22	PREDICTED: <i>Rattus norvegicus</i> similar to H3 histone, family 3B, transcript variant 2
25	A_44_P415957	NM_022927	-1.46	0.23	<i>Rattus norvegicus</i> midline 1 (Mid1)
133	A_44_P218919	NM_001008320	-0.91	0.40	<i>Rattus norvegicus</i> ras homolog gene family, member J (Rhoj)
176	XM_232919	NM_001025417	-0.79	0.45	<i>Rattus norvegicus</i> actin-like 7b (Actl7b)
<u>Cell cycle and DNA processing</u>					
12	A_42_P757258	XM_220055	-1.65	0.19	PREDICTED: <i>Rattus norvegicus</i> M-phase phosphoprotein 1 (Mphosph1_predicted)*
59	A_44_P193312	XM_001061201	-1.20	0.30	PREDICTED: <i>Rattus norvegicus</i> protein regulator of cytokinesis 1 (Prc1_predicted)
165	A_44_P109189	AF030091	-0.82	0.44	<i>Rattus norvegicus</i> cyclin ania-6a
177	A_44_P315610	XM_001065252	-0.79	0.45	PREDICTED: <i>Rattus norvegicus</i> similar to 5730405I09Rik protein (RGD1565969_predicted)
<u>Cell fate</u>					
34	A_44_P350877	XM_001070669	-1.40	0.25	PREDICTED: <i>Rattus norvegicus</i> similar to PDZ domain actin binding protein Shroom
42	A_44_P497700	XR_007714	-1.33	0.26	PREDICTED: <i>Rattus norvegicus</i> similar to Eph receptor A4 (RGD1560587_predicted)*
61	BC079010	BC079010	-1.19	0.30	<i>Rattus norvegicus</i> similar to Apoptosis facilitator Bcl-2-like protein 14
89	A_44_P171724	NM_133334	-1.06	0.35	<i>Homo sapiens</i> Wolf-Hirschhorn syndrome candidate 1 (WHSC1)
106	A_44_P441891	NM_001013171	-1.00	0.37	<i>Rattus norvegicus</i> GULP, engulfment adaptor PTB domain containing 1 (Gulp1)
108	A_44_P351935	XM_001059758	-1.00	0.37	PREDICTED: <i>Rattus norvegicus</i> similar to eyes absent 1 isoform c
209	A_44_P436844	XM_241632	-0.73	0.48	PREDICTED: <i>Rattus norvegicus</i> procollagen, type XVIII, alpha 1 (Col18a1)
<u>Cell rescue, diffense and virulence</u>					
181	A_44_P318837	XM_224276	-0.78	0.46	PREDICTED: <i>Rattus norvegicus</i> nei like 2 (E. coli) (Neil2_predicted)
<u>Cellular transport</u>					
10	A_44_P262550	NM_001012216	-1.68	0.19	<i>Rattus norvegicus</i> transmembrane channel-like gene family 5 (Tmc5)*
17	A_44_P106594	AF288290	-1.62	0.20	<i>Rattus norvegicus</i> RPT protein (RPT)
31	A_44_P164972	XM_001072774	-1.41	0.24	PREDICTED: <i>Rattus norvegicus</i> transferrin receptor (Tfrc)*
39	A_44_P106521	XR_009136	-1.35	0.26	PREDICTED: <i>Rattus norvegicus</i> similar to Probable phospholipid-transporting ATPase VD (ATPVD)
44	A_44_P174641	NM_139303	-1.32	0.27	<i>Mus musculus</i> kinesin family member 18A (Kif18a)
55	XM_236969	XM_236969	-1.22	0.30	PREDICTED: <i>Rattus norvegicus</i> similar to MGC68696 protein (RGD1564244_predicted)
90	AB119249	AB119249	-1.06	0.35	<i>Rattus norvegicus</i> CLCA mRNA for Ca(2+)-activated chloride channel
100	A_44_P355119	XM_001059999	-1.02	0.36	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 2610002M06 (RGD1566265_predicted)
105	A_44_P504750	NM_022959	-1.00	0.37	<i>Rattus norvegicus</i> peptidylglycine alpha-amidating monooxygenase COOH-terminal interactor (Pamci)
109	A_44_P187328	XM_219524	-0.99	0.37	PREDICTED: <i>Rattus norvegicus</i> gene model 963 (Gm963_predicted)
110	A_44_P426894	XM_233198	-0.99	0.37	PREDICTED: <i>Rattus norvegicus</i> similar to cytochrome P450, family 2, subfamily J, polypeptide 4 (RGD1560981_predicted)
121	A_42_P823322	NM_017315	-0.95	0.39	<i>Rattus norvegicus</i> solute carrier family 23 (nucleobase transporters), member 1 (Slc23a1)
149	A_44_P477545	NM_139341	-0.87	0.42	<i>Rattus norvegicus</i> solute carrier family 15, member 3 (Slc15a3)
172	A_44_P328097	NM_031650	-0.80	0.45	<i>Rattus norvegicus</i> solute carrier organic anion transporter family, member 1b2 (Slco1b2)
200	A_44_P200262	NM_139339	-0.74	0.48	<i>Rattus norvegicus</i> tramdorin 1 (Slc36a2)*
201	A_43_P16222	XM_341197	-0.74	0.48	PREDICTED: <i>Rattus norvegicus</i> casein gamma (Csng)
223	A_44_P306339	NM_012511	-0.70	0.50	<i>Rattus norvegicus</i> ATPase, Cu ⁺⁺ transporting, beta polypeptide (Atp7b)

					<u>Development</u>
219	XM_347021	XM_001071922	-0.71	0.49	PREDICTED: <i>Rattus norvegicus</i> similar to netrin G1 (RGD1563465_predicted)
					<u>Energy</u>
4	A_44_P494687	XM_231456	-1.89	0.15	PREDICTED: <i>Rattus norvegicus</i> similar to chromodomain protein, Y chromosome-like isoform a
188	BC083607	BC083607	-0.77	0.46	<i>Rattus norvegicus</i> similar to IQ motif containing D
207	AA800341	NM_001025720	-0.73	0.48	<i>Rattus norvegicus</i> dehydrogenase E1 and transketolase domain containing 1 (Dhtkd1)
					<u>Interaction with the environment</u>
6	A_44_P457573	M65161	-1.79	0.17	<i>Mouse</i> pro-alpha1 (II) collagen chain gene
65	A_44_P105078	XM_001059475	-1.18	0.31	PREDICTED: <i>Rattus norvegicus</i> similar to Trophinin (MAGE-D3 antigen) (LOC682030)
70	CK597958	XM_001077062	-1.15	0.32	PREDICTED: <i>Rattus norvegicus</i> similar to collagen, type XXIV, alpha 1 (LOC687191)
114	A_44_P421286	NM_139088	-0.97	0.38	<i>Rattus norvegicus</i> interphotoreceptor matrix proteoglycan 2 (Impg2)
128	A_44_P482519	XM_343336	-0.93	0.39	PREDICTED: <i>Rattus norvegicus</i> integrin, beta 7 (Itgb7)
131	A_44_P382184	XM_345201	-0.92	0.40	PREDICTED: <i>Rattus norvegicus</i> interleukin 21 (Il21_predicted)
138	A_44_P148888	NM_013082	-0.90	0.41	<i>Rattus norvegicus</i> syndecan 2 (Sdc2)
140	A_44_P468141	NM_134352	-0.89	0.41	<i>Rattus norvegicus</i> plasminogen activator, urokinase receptor (Plaur)
146	XM_344162	XM_001068691	-0.87	0.42	PREDICTED: <i>Rattus norvegicus</i> astrotactin 1, transcript variant 2 (Asth1)
162	A_44_P193865	XM_001081785	-0.83	0.44	PREDICTED: <i>Rattus norvegicus</i> similar to Actin, cytoplasmic 2 (Gamma-actin)
171	A_44_P553249	XM_228942	-0.81	0.45	PREDICTED: <i>Rattus norvegicus</i> similar to Nance-Horan syndrome protein
179	A_43_P13001	NM_053967	-0.78	0.46	<i>Rattus norvegicus</i> sperm adhesion molecule (Spam)
186	A_42_P636627	NM_017110	-0.77	0.46	<i>Rattus norvegicus</i> cocaine and amphetamine regulated transcript (Cart)
					<u>Metabolism</u>
2	A_44_P123818	NM_173136	-2.13	0.12	<i>Rattus norvegicus</i> aldo-keto reductase family 1, member B8 (Akr1b8)
18	A_44_P212582	NM_017085	-1.56	0.21	<i>Rattus norvegicus</i> cytochrome P450, family 19, subfamily a, polypeptide 1 (Cyp19a1)
21	A_44_P236068	NM_001004271	-1.52	0.22	<i>Rattus norvegicus</i> UDP glycosyltransferase 2 family, polypeptide B4 (Ugt2b4)
22	A_44_P166161	NM_134329	-1.50	0.22	<i>Rattus norvegicus</i> alcohol dehydrogenase 7 (class IV), mu or sigma polypeptide (Adh7)
26	A_44_P431920	XM_001065359	-1.45	0.23	PREDICTED: <i>Rattus norvegicus</i> methylenetetrahydrofolate dehydrogenase (NADP+ dependent) 1-like (Mthfd11_predicted)
58	A_44_P173628	NM_001039377	-1.20	0.30	<i>Rattus norvegicus</i> arachidonate 12-lipoxygenase, 12R type (Alox12b)
69	A_42_P785801	NM_013105	-1.16	0.31	<i>Rattus norvegicus</i> cytochrome P450, family 3, subfamily a, polypeptide 23/polypeptide 1 (Cyp3a23/3a1)**
74	A_44_P371777	NM_147207	-1.14	0.32	<i>Rattus norvegicus</i> ischemia related factor vof-16 (Vof16)*
85	A_44_P305326	BC074012	-1.07	0.34	<i>Rattus norvegicus</i> cytochrome P450, family 4, subfamily b, polypeptide 1
86	A_44_P494679	NM_133194	-1.07	0.34	<i>Mus musculus</i> sex comb on midleg-like 2 (Drosophila) (Scml2)
94	A_44_P360486	NM_016999	-1.04	0.35	<i>Rattus norvegicus</i> cytochrome P450, family 4, subfamily b, polypeptide 1 (Cyp4b1)
103	XM_223233	NM_001013988	-1.01	0.37	<i>Rattus norvegicus</i> similar to genethonin 1
107	A_44_P313102	NM_197985	-1.00	0.37	<i>Mus musculus</i> adiponectin receptor 2 (Adipor2)
113	A_44_P772171	NM_138884	-0.97	0.38	<i>Rattus norvegicus</i> aldo-keto reductase family 1, member D1 (Akr1d1)
115	A_44_P574368	NM_139306	-0.97	0.38	<i>Mus musculus</i> N-acylsphingosine amidohydrolase 3-like (Asah3l)
124	A_44_P1000391	XM_214553	-0.94	0.39	PREDICTED: <i>Rattus norvegicus</i> ATPase, Class I, type 8B, member 1 (Atp8b1_predicted)
132	A_44_P261680	NM_012820	-0.92	0.40	<i>Rattus norvegicus</i> acyl-CoA synthetase long-chain family member 1 (Acs11)
142	A_44_P311178	NM_173839	-0.89	0.41	<i>Rattus norvegicus</i> tryptophan hydroxylase 2 (Tph2)
144	A_44_P397784	NM_001012072	-0.88	0.41	<i>Rattus norvegicus</i> protein phosphatase 1, regulatory (inhibitor) subunit 3C (Ppp1r3c)
147	A_44_P527336	XM_001080746	-0.87	0.42	PREDICTED: <i>Rattus norvegicus</i> similar to dehydrogenase/reductase (SDR family) member 10
148	A_44_P440395	AB113213	-0.87	0.42	<i>Rattus norvegicus</i> cPLA2gamma mRNA for cytosolic phospholipase A2 gamma

151	A_44_P174007	XM_001078373	-0.86	0.42	PREDICTED: <i>Rattus norvegicus</i> TBC1 domain family, member 10b (Tbc1d10b_predicted)
156	A_42_P641569	S75275	-0.84	0.43	RVLG=vasa-like gene protein
183	A_44_P479766	NM_031553	-0.78	0.46	<i>Rattus norvegicus</i> nuclear transcription factor-Y beta (Nfyb)
187	XM_345838	XM_001063221	-0.77	0.46	PREDICTED: <i>Rattus norvegicus</i> similar to CUB and Sushi multiple domains 3 isoform 1, transcript variant 4 (LOC314942)
197	A_43_P11159	NM_001007680	-0.76	0.47	<i>Rattus norvegicus</i> abhydrolase domain containing 6 (Abhd6)
214	A_44_P250520	NM_001079706	-0.72	0.49	<i>Rattus norvegicus</i> similar to exonuclease NEF-sp (RGD1305412_predicted)
220	A_44_P1025613	NM_001004086	-0.71	0.49	<i>Rattus norvegicus</i> paraoxonase 3 (Pon3)**

Protein fate

8	A_44_P162738	XM_001076989	-1.75	0.17	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 2310008M10 (RGD1560708_predicted)
75	A_44_P262049	NM_178094	-1.13	0.32	<i>Rattus norvegicus</i> inositol 1,4,5-trisphosphate 3-kinase C (Itpkc)
79	A_44_P512396	XM_001070843	-1.11	0.33	PREDICTED: <i>Rattus norvegicus</i> polo-like kinase 4 (<i>Drosophila</i>) (Plk4_predicted)*
91	A_44_P471769	XM_001081135	-1.05	0.35	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 0610013E23 (RGD1562411_predicted)
95	A_44_P193791	XM_001061308	-1.04	0.35	PREDICTED: <i>Rattus norvegicus</i> progesterin induced protein (Dd5)
99	A_44_P144649	XM_222490	-1.02	0.36	PREDICTED: <i>Rattus norvegicus</i> serine (or cysteine) proteinase inhibitor, clade B, member 8 (Serpinb8_predicted)
117	A_44_P277423	NM_001109887	-0.95	0.39	<i>Rattus norvegicus</i> protein tyrosine phosphatase, receptor type, C (Ptpcr), transcript variant 3
129	A_44_P196909	XM_215934	-0.93	0.39	PREDICTED: <i>Rattus norvegicus</i> WAP four-disulfide core domain 5 (Wfdc5_predicted)
161	A_44_P548481	XM_344649	-0.83	0.44	PREDICTED: <i>Rattus norvegicus</i> similar to Proteasome subunit alpha type 7-like
166	A_44_P468705	XM_225128	-0.82	0.44	PREDICTED: <i>Rattus norvegicus</i> cathepsin 8 (Cts8_predicted)
173	A_44_P218695	NM_001014058	-0.80	0.45	<i>Rattus norvegicus</i> ubiquitin specific peptidase 18 (Usp18)
222	A_44_P242798	NM_001011923	-0.70	0.50	<i>Rattus norvegicus</i> PRP4 pre-mRNA processing factor 4 homolog B (yeast) (Prpf4b)
227	A_44_P440021	XM_341542	-0.69	0.50	PREDICTED: <i>Rattus norvegicus</i> cullin 2 (Cul2_predicted)
229	A_44_P236259	NM_031085	-0.69	0.50	<i>Rattus norvegicus</i> protein kinase C, eta (Prkch)
234	A_44_P369047	XM_001071216	-0.69	0.50	PREDICTED: <i>Rattus norvegicus</i> similar to CG9882-PA (RGD1306157_predicted)

Protein synthesis

141	A_44_P455101	XM_235021	-0.89	0.41	PREDICTED: <i>Rattus norvegicus</i> similar to ribosomal protein S12
210	A_44_P393679	XM_222950	-0.72	0.48	PREDICTED: <i>Rattus norvegicus</i> similar to Ifi204 protein (LOC289245)
225	A_44_P301354	NM_052804	-0.70	0.50	<i>Rattus norvegicus</i> fragile X mental retardation syndrome 1 homolog (Fmr1)

Protein with binding function

1	A_44_P312987	NM_203364	-3.65	0.03	<i>Homo sapiens</i> GPI-anchored membrane protein 1 (GPIAP1), transcript variant 2
9	A_44_P555518	XM_225290	-1.72	0.18	PREDICTED: <i>Rattus norvegicus</i> similar to D0H6S2654E protein (RGD1563458_predicted)
11	XM_222186	NM_001025665	-1.68	0.19	<i>Rattus norvegicus</i> similar to hypothetical protein 4921511C16
13	A_44_P302458	XM_232992	-1.65	0.19	PREDICTED: <i>Rattus norvegicus</i> tripartite motif-containing 14 (Trim14_predicted)
16	A_44_P377886	XM_001053796	-1.62	0.20	PREDICTED: <i>Rattus norvegicus</i> similar to smoothelin, like
29	A_44_P277544	XM_001079149	-1.44	0.24	PREDICTED: <i>Rattus norvegicus</i> similar to Harmonin-interacting ankyrin repeat-containing protein (Harp)
30	A_44_P210768	XM_001061765	-1.44	0.24	PREDICTED: <i>Rattus norvegicus</i> schwannomin interacting protein 1 (Schip1)
32	A_44_P527070	AY390386	-1.40	0.25	<i>Rattus norvegicus</i> dystrophin-related
35	A_42_P644800	NM_001106882	-1.39	0.25	<i>Rattus norvegicus</i> unc-5 homolog C (<i>C. elegans</i>)-like (Unc5cl)**
36	A_42_P473812	XM_220079	-1.38	0.25	PREDICTED: <i>Rattus norvegicus</i> RNA binding motif protein 20 (Rbm20_predicted)
43	A_44_P268192	AF220557	-1.33	0.26	<i>Rattus norvegicus</i> clone 8C12 murine complement receptor 1-specific monoclonal antibody Ig light chain variable region
46	A_44_P222533	XM_345198	-1.30	0.27	PREDICTED: <i>Rattus norvegicus</i> similar to Actin related protein M1
52	A_44_P566581	DQ132434	-1.22	0.29	<i>Rattus norvegicus</i> TRS4
54	XM_341185	NM_001014133	-1.22	0.30	<i>Rattus norvegicus</i> similar to ATP-binding cassette transporter ABCG3 (LOC360910)

56	A_44_P398424	XM_224795	-1.21	0.30	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein FLJ20035 (RGD1560014_predicted)
57	A_44_P215444	NM_001006977	-1.20	0.30	<i>Rattus norvegicus</i> testis nuclear RNA-binding protein (Tenr)
76	A_44_P212904	XM_577243	-1.13	0.32	PREDICTED: <i>Rattus norvegicus</i> similar to myosin light chain 2, precursor lymphocyte-specific (RGD1561258_predicted)
81	A_44_P212953	XM_222763	-1.10	0.33	PREDICTED: <i>Rattus norvegicus</i> tudor domain containing 5 (Tdrd5_predicted)
83	A_44_P173289	XM_226056	-1.09	0.34	PREDICTED: <i>Rattus norvegicus</i> polycystic kidney disease 2-like 2 (Pkd2l2_predicted)
97	A_44_P377919	XM_229144	-1.03	0.36	PREDICTED: <i>Rattus norvegicus</i> RGD1562057 (RGD1562057_predicted)
125	XM_235055	XM_001076955	-0.94	0.39	PREDICTED: <i>Rattus norvegicus</i> similar to cajalin 2 isoform a (RGD1565556_predicted)
155	A_44_P312940	NM_001012015	-0.85	0.43	<i>Rattus norvegicus</i> lysosomal-associated membrane protein 3 (Lamp3)
189	A_44_P297999	NM_021371	-0.77	0.46	<i>Mus musculus</i> calneuron 1 (Caln1), transcript variant 2
190	A_44_P128840	NM_001005546	-0.77	0.46	<i>Rattus norvegicus</i> similar to cDNA sequence BC021608 (MGC95155)
191	A_43_P19999	XM_227485	-0.76	0.47	PREDICTED: <i>Rattus norvegicus</i> macrophage scavenger receptor 2 (Msr2_predicted)
192	A_44_P262382	NM_021865	-0.76	0.47	<i>Rattus norvegicus</i> Jun dimerization protein 1 (Jdp1)
194	A_44_P422367	XM_344019	-0.76	0.47	PREDICTED: <i>Rattus norvegicus</i> similar to hypothetical protein (LOC363782)
202	XM_230648	NM_001014049	-0.74	0.48	<i>Rattus norvegicus</i> similar to dJ842G6.2 (novel protein imilar to SEL1L (sel-1 (suppressor of lin-12, C.elegans)-like)) (RGD1311278)
204	A_43_P21282	XM_001066988	-0.73	0.48	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 8430415E04 (RGD1560932_predicted)
206	A_44_P229316	XM_213813	-0.73	0.48	PREDICTED: <i>Rattus norvegicus</i> leucine rich repeat containing 43 (Lrrc43)
208	XM_237029	XM_001072650	-0.73	0.48	PREDICTED: <i>Rattus norvegicus</i> similar to WW domain binding protein 11 (RGD1559965_predicted)
212	XM_234466	XM_001064941	-0.72	0.49	PREDICTED: <i>Rattus norvegicus</i> tetratricopeptide repeat domain 7B (Ttc7b_predicted)
213	A_44_P220696	NM_001077671	-0.72	0.49	<i>Rattus norvegicus</i> zinc finger CCCH type containing 12A (Zc3h12a_predicted)
228	A_44_P443200	XM_344630	-0.69	0.50	PREDICTED: <i>Rattus norvegicus</i> similar to At1g76010/T4O12_22 (RGD1563247_predicted)
230	A_44_P483979	NM_001017459	-0.69	0.50	<i>Rattus norvegicus</i> similar to transformed mouse 3T3 cell double minute 1 (LOC314859)

Regulation of metabolism and protein fucion

20	A_44_P1035294	XM_215860	-1.53	0.22	PREDICTED: <i>Rattus norvegicus</i> cystatin-like 1 (Cstl1_predicted)
60	A_44_P326556	NM_001108175	-1.20	0.30	<i>Rattus norvegicus</i> TBC1 domain family, member 2B (Tbc1d2b)**
101	A_44_P114646	NM_009707	-1.01	0.36	<i>Mus musculus</i> Rho GTPase activating protein 6 (Arhgap6)

Signal transduction

3	A_44_P135058	NM_001000685	-2.10	0.12	<i>Rattus norvegicus</i> olfactory receptor 480 (Olr480)
5	A_43_P20037	XM_342220	-1.86	0.16	PREDICTED: <i>Rattus norvegicus</i> ect2 oncogene (Ect2_predicted)
7	XM_345701	XM_001056155	-1.76	0.17	PREDICTED: <i>Rattus norvegicus</i> regulator of G-protein signaling 6, transcript variant 2 (Rgs6)
24	A_44_P486088	NM_001000573	-1.46	0.23	<i>Rattus norvegicus</i> olfactory receptor 724 (Olr724)
28	A_44_P355997	NM_001000574	-1.45	0.24	<i>Rattus norvegicus</i> olfactory receptor 729 (Olr729)
41	A_44_P261425	NM_015732	-1.34	0.26	<i>Mus musculus</i> axin2 (Axin2)
45	A_44_P191433	NM_130405	-1.31	0.27	<i>Rattus norvegicus</i> KH domain containing, RNA binding, signal transduction associated 1 (Khdrbs1)
49	A_44_P355212	XM_001075127	-1.24	0.29	PREDICTED: <i>Rattus norvegicus</i> membrane-spanning 4-domains, subfamily A, member 8B (Ms4a8b_predicted)
63	A_43_P19535	NM_001002287	-1.18	0.31	<i>Rattus norvegicus</i> MAS-related G protein-coupled receptor, member B4 (Mrgprb4)
66	A_44_P271549	NM_001000180	-1.17	0.31	<i>Rattus norvegicus</i> olfactory receptor 180 (Olr180)
67	A_44_P404880	NM_173335	-1.17	0.31	<i>Rattus norvegicus</i> olfactory receptor 1082 (Olr1082)
68	A_44_P171160	NM_173130	-1.17	0.31	<i>Rattus norvegicus</i> putative pheromone receptor (Go-VN5) (LOC286914)
72	A_44_P501025	NM_001000404	-1.14	0.32	<i>Rattus norvegicus</i> olfactory receptor 845 (Olr845)
77	A_44_P396625	NM_001013917	-1.13	0.32	<i>Rattus norvegicus</i> similar to RIKEN cDNA 5830480G12 (LOC295635)
82	A_44_P321095	XM_001058723	-1.10	0.33	PREDICTED: <i>Rattus norvegicus</i> similar to vomeronasal 2, receptor, 1 (LOC681856)
88	A_44_P249593	NM_009622	-1.06	0.35	<i>Mus musculus</i> adenylate cyclase 1 (Adcy1)

112	A_44_P192041	NM_001006595	-0.98	0.37	<i>Rattus norvegicus</i> olfactory receptor 156 (Olr156)
116	A_44_P294642	NM_181772	-0.96	0.38	<i>Rattus norvegicus</i> opsin 5 (Opn5)
127	A_44_P543428	NM_017183	-0.93	0.39	<i>Rattus norvegicus</i> interleukin 8 receptor, beta (Il8rb)
130	A_44_P252571	NM_001000930	-0.93	0.40	<i>Rattus norvegicus</i> olfactory receptor 520 (Olr520)
135	XM_344161	XM_001073199	-0.91	0.40	PREDICTED: <i>Rattus norvegicus</i> RAS protein activator like 2 (Rasal2_predicted)
145	XM_344073	NM_001012475	-0.88	0.42	<i>Rattus norvegicus</i> leucine-rich repeat-containing G protein-coupled receptor 8 (Lgr8)
153	A_44_P198628	NM_001001374	-0.86	0.42	<i>Rattus norvegicus</i> olfactory receptor 1702 (Olr1702)
154	A_44_P388401	BC062948	-0.86	0.43	<i>Mus musculus</i> ankyrin repeat and SOCS box-containing protein 7*
157	A_44_P191405	XM_001078902	-0.84	0.43	PREDICTED: <i>Rattus norvegicus</i> GTPase activating protein and VPS9 domains 1 (Gapvd1_predicted)
158	A_44_P381752	NM_001000047	-0.84	0.43	<i>Rattus norvegicus</i> olfactory receptor 1562 (Olr1562)
159	A_43_P13345	NM_138977	-0.83	0.43	<i>Rattus norvegicus</i> prokineticin receptor 1 (Prokr1)
160	A_44_P454609	XM_218174	-0.83	0.44	<i>Rattus norvegicus</i> similar to osteoclast-associated receptor mOSCAR-M1
163	A_44_P320300	NM_001044247	-0.83	0.44	<i>Rattus norvegicus</i> similar to ankyrin repeat and SOCs box-containing protein 5 (LOC361187)
169	A_44_P250009	NM_138861	-0.82	0.44	<i>Rattus norvegicus</i> prolactin-like protein K (Prlpk)
174	A_43_P12315	NM_022800	-0.80	0.45	<i>Rattus norvegicus</i> purinergic receptor P2Y, G-protein coupled 12 (P2y12)*
182	A_44_P465233	NM_022603	-0.78	0.46	<i>Rattus norvegicus</i> fibroblast growth factor binding protein 1 (Fgfbp1)
193	A_44_P426638	NM_001005384	-0.76	0.47	<i>Rattus norvegicus</i> oncostatin M specific receptor (Osmr)
199	A_44_P455213	XM_221016	-0.74	0.47	PREDICTED: <i>Rattus norvegicus</i> wingless-type MMTV integration site family, member 3 (Wnt3)
233	A_44_P519024	NM_012535	-0.69	0.50	<i>Rattus norvegicus</i> Prolactin family 3, subfamily b, member 1 (Prl3b1)
235	A_42_P672595	NM_012937	-0.69	0.50	<i>Rattus norvegicus</i> crystallin, beta B2 (Crybb2)
236	A_44_P296774	BC061740	-0.69	0.50	<i>Rattus norvegicus</i> CEA-related cell adhesion molecule 1
238	A_44_P213127	XM_227798	-0.68	0.50	PREDICTED: <i>Rattus norvegicus</i> DEP domain containing 1 (Depdc1_predicted)

Systemic interaction with the environment

51	A_44_P402050	XM_213514	-1.22	0.29	PREDICTED: <i>Rattus norvegicus</i> similar to Cd300D antigen (LOC498022)
78	A_44_P181115	AF164039	-1.12	0.32	<i>Rattus norvegicus</i> interferon-inducible protein variant 10 mRNA
87	A_44_P360720	NM_022258	-1.07	0.34	<i>Rattus norvegicus</i> alpha-1-B glycoprotein (A1bg)
164	A_44_P262989	XM_236179	-0.83	0.44	PREDICTED: <i>Rattus norvegicus</i> membrane frizzled-related protein (Mfrp_predicted)
170	A_44_P452632	NM_001008722	-0.81	0.45	<i>Rattus norvegicus</i> interferon regulatory factor 8 (Irf8)
175	AY325255	AY325255	-0.79	0.45	<i>Rattus norvegicus</i> Da2-20
180	A_44_P253301	XM_233251	-0.78	0.46	PREDICTED: <i>Rattus norvegicus</i> complement component 8, alpha polypeptide (C8a_predicted)
218	A_44_P175495	NM_182952	-0.71	0.49	<i>Rattus norvegicus</i> chemokine (C-X-C motif) ligand 11 (Cxcl11)

Transcription

33	A_44_P420019	NM_011438	-1.40	0.25	<i>Mus musculus</i> SRY-box containing gene 12 (Sox12)
184	XM_346057	XM_001053481	-0.77	0.46	PREDICTED: <i>Rattus norvegicus</i> similar to CG4699-PA, isoform A, transcript variant 1 (LOC367289)
217	A_44_P283850	NM_001025693	-0.71	0.49	<i>Rattus norvegicus</i> cell division cycle associated 7 (Cdca7)
224	AY208915	AY208915	-0.70	0.50	<i>Rattus norvegicus</i> MTSG1 (Mtsg1)
237	A_44_P206825	XM_344606	-0.68	0.50	PREDICTED: <i>Rattus norvegicus</i> GA repeat binding protein, beta 1 (Gabpb1)

Unknown

14	A_44_P152258	XR_005993	-1.65	0.19	PREDICTED: <i>Rattus norvegicus</i> similar to Spindlin-like protein 2 (SPIN-2)
15	XM_341110	XM_001054199	-1.62	0.20	PREDICTED: <i>Rattus norvegicus</i> hypothetical LOC313149
19	XM_341733	XR_008811	-1.55	0.21	PREDICTED: <i>Rattus norvegicus</i> similar to KIAA1357 protein (RGD1308124_predicted)
27	A_44_P197238	AA925902	-1.45	0.23	<i>Rattus norvegicus</i> cDNA clone UI-R-A1-es-e-09-0-UI

37	A_44_P111403	NM_001025018	-1.36	0.26	<i>Rattus norvegicus</i> transmembrane protein 77 (Tmem77)*
38	A_44_P504333	BF554849	-1.36	0.26	<i>Rattus norvegicus</i> cDNA clone UI-R-A0-bi-c-02-0-UI
40	A_44_P131094	XR_006241	-1.34	0.26	PREDICTED: <i>Rattus norvegicus</i> similar to Spindlin-like protein 3 (SPIN-3) (Protein DXF34)
47	A_44_P364991	BE117884	-1.29	0.28	<i>Rattus norvegicus</i> cDNA clone UI-R-BS1-azm-b-05-0-UI
48	A_44_P662747	XM_001064553	-1.25	0.29	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 4930540L03 (RGD1560284_predicted)
50	A_44_P412987	AA956038	-1.24	0.29	<i>Rattus norvegicus</i> cDNA clone UI-R-E1-fe-c-02-0-UI
53	XM_346994	XM_346994	-1.22	0.29	PREDICTED: <i>Rattus norvegicus</i> RGD1565926 (RGD1565926_predicted)*
62	A_44_P340818	AI178668	-1.19	0.31	<i>Rattus sp.</i> cDNA clone RPLCU14
64	A_44_P530196	XM_345841	-1.18	0.31	PREDICTED: <i>Rattus norvegicus</i> similar to Ki-67 (LOC366937)
71	A_44_P396581	CB547296	-1.15	0.32	<i>Rattus norvegicus</i> cDNA clone urrg1-00068-d2
73	A_44_P616012	BC085952	-1.14	0.32	<i>Rattus norvegicus</i> cDNA clone IMAGE:7133408.
80	A_44_P349885	XR_006087	-1.11	0.33	PREDICTED: <i>Rattus norvegicus</i> hypothetical LOC290577
84	XM_345283	XM_001074671	-1.07	0.34	PREDICTED: <i>Rattus norvegicus</i> hypothetical protein LOC686543
92	A_44_P144482	AF077195	-1.05	0.35	<i>Rattus norvegicus</i> Sertoli cell protein (SERT-1) mRNA
93	A_44_P431884	AA818187	-1.04	0.35	<i>Rattus norvegicus</i> cDNA clone UI-R-A0-ai-f-11-0-UI
96	A_44_P385663	NM_001014211	-1.03	0.36	<i>Rattus norvegicus</i> similar to hypothetical protein FLJ30973
98	A_44_P494445	XM_341304	-1.02	0.36	<i>Rattus norvegicus</i> similar to MAPK-interacting and spindle-stabilizing protein
102	A_42_P537051	XM_214392	-1.01	0.36	<i>Rattus norvegicus</i> similar to hypothetical protein 4933417N17*
104	A_44_P520147	AF348144	-1.00	0.37	<i>Rattus norvegicus</i> platelet complement factor H
111	A_44_P366857	BE117642	-0.98	0.37	<i>Rattus norvegicus</i> cDNA clone UI-R-BS1-aze-c-01-0-UI
118	A_44_P251312	AA818416	-0.95	0.39	<i>Rattus norvegicus</i> cDNA clone UI-R-A0-au-f-04-0-UI
119	A_44_P113721	AC096310	-0.95	0.39	<i>Rattus norvegicus</i> 1 BAC CH230-121B19
120	A_44_P835198	AI072934	-0.95	0.39	<i>Rattus norvegicus</i> cDNA clone UI-R-Y0-mc-g-10-0-UI
122	A_44_P125945	U90260	-0.95	0.39	<i>Rattus norvegicus</i> developmentally-regulated cardiac factor (DRCF-1)
123	A_44_P663181	AC131405	-0.94	0.39	<i>Rattus norvegicus</i> BAC CH230-179I7
126	A_44_P231180	NM_001024867	-0.93	0.39	<i>Rattus norvegicus</i> similar to DNA segment, Chr 8, ERATO Doi 531, expressed (MGC116266)
134	A_44_P415305	AA924728	-0.91	0.40	<i>Rattus norvegicus</i> cDNA clone UI-R-A1-ed-f-04-0-UI
136	A_44_P281266	XR_008861	-0.91	0.40	PREDICTED: <i>Rattus norvegicus</i> similar to CG11883-PB, isoform B
137	A_44_P282033	AA899547	-0.91	0.40	<i>Rattus norvegicus</i> cDNA clone UI-R-E0-df-a-07-0-UI
139	A_44_P114160	AF473844	-0.90	0.41	<i>Rattus norvegicus</i> vitamin A-deficient testicular protein 4-like
143	A_44_P281372	XR_008947	-0.89	0.41	PREDICTED: <i>Rattus norvegicus</i> similar to Tubulin alpha-3 chain (Alpha-tubulin 3)
150	A_44_P394581	CB547285	-0.87	0.42	<i>Rattus norvegicus</i> cDNA clone urrg1-00068-c10
152	A_43_P20161	XM_226509	-0.86	0.42	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 4632417N05
167	A_44_P537684	AC103018	-0.82	0.44	<i>Rattus norvegicus</i> 1 CH230-196F22
168	A_44_P556258	XM_001062448	-0.82	0.44	PREDICTED: <i>Rattus norvegicus</i> similar to RIKEN cDNA 2310015N21 (RGD1563347_predicted)
178	A_44_P422407	AC114147	-0.78	0.46	<i>Rattus norvegicus</i> BAC CH230-144F3
185	A_44_P366417	BM389787	-0.77	0.46	<i>Rattus norvegicus</i> cDNA clone UI-R-CN1-cjp-d-17-0-UI
195	A_44_P394420	XM_001080417	-0.76	0.47	PREDICTED: <i>Rattus norvegicus</i> similar to Sulfide:quinone oxidoreductase, mitochondrial precursor (LOC691966)
196	A_44_P582878	BE106620	-0.76	0.47	<i>Rattus norvegicus</i> cDNA clone UI-R-BO1-asq-b-03-0-UI
198	A_44_P259561	AC114150	-0.75	0.47	<i>Rattus norvegicus</i> BAC CH230-145N21
203	A_44_P280581	NM_001025024	-0.73	0.48	<i>Rattus norvegicus</i> similar to hypothetical protein FLJ10204 (RGD1311362)
205	XM_221309	CR937050	-0.73	0.48	<i>Rattus norvegicus</i> chromosome 5 BAC CH230-339J16

211	A_44_P183788	AC121001	-0.72	0.48	<i>Rattus norvegicus</i> BAC CH230-189D6
215	BC083784	BC083784	-0.72	0.49	<i>Rattus norvegicus</i> similar to DNA segment, Chr 4, ERATO Doi 22, expressed
216	XM_235290	XR_008773	-0.71	0.49	PREDICTED: <i>Rattus norvegicus</i> similar to Geranylgeranyl transferase type-2 alpha subunit (Geranylgeranyl transferase type II alpha subunit) (Rab geranylgeranyltransferase alpha subunit) (Rab geranyl-geranyltransferase alpha subunit) (Rab GG transferase alpha) (Rab GGTase alpha) (LOC299922)
221	A_44_P387972	AI100769	-0.71	0.49	<i>Rattus sp.</i> cDNA clone RBRBA05
226	A_44_P558249	BF558337	-0.70	0.50	<i>Rattus norvegicus</i> cDNA clone UI-R-E0-dl-e-03-0-UI
231	A_44_P261377	CA508165	-0.69	0.50	<i>Rattus norvegicus</i> cDNA clone IMAGE:7355180
232	A_44_P328620	XM_001062794	-0.69	0.50	PREDICTED: <i>Rattus norvegicus</i> hypothetical protein LOC685204
239	A_44_P429523	AI111878	-0.68	0.50	<i>Rattus norvegicus</i> cDNA clone UI-R-A1-ec-d-06-0-UI 3'
