

Programming skeletal muscle metabolic flexibility in offspring of male rats in response to maternal consumption of slow digesting carbohydrates during pregnancy

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SUPPLEMENTARY MATERIAL

- Supplementary Figure S1
- Supplementary Figure S2
- Supplementary Table S1
- Supplementary Table S2
- Supplementary Table S3
- Supplementary Table S4
- Supplementary Table S5

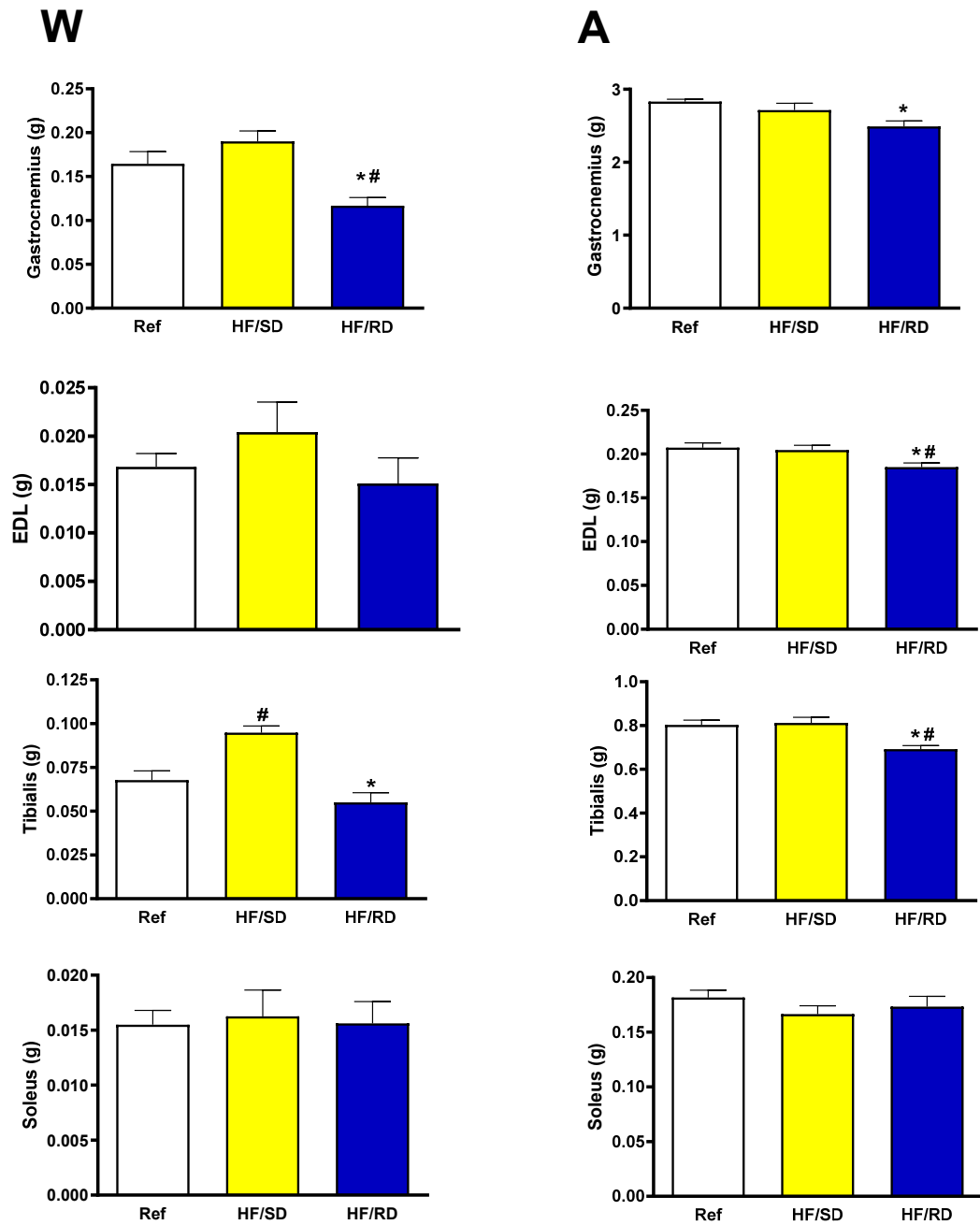
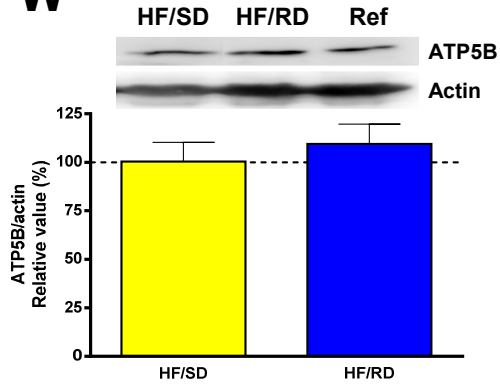
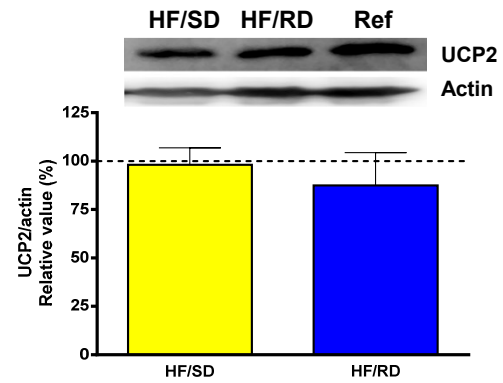
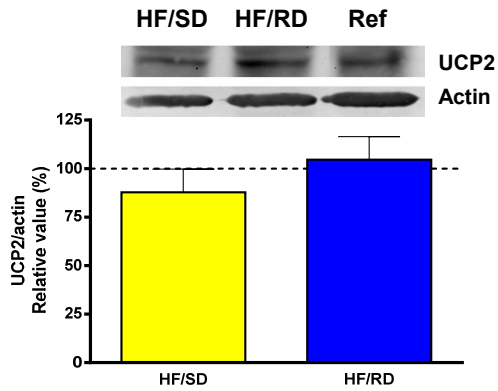
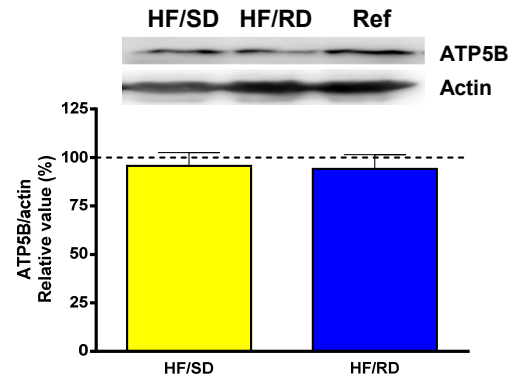


Figure S1. Muscle weight in the offspring. The muscle weight has been measured at weaning (W) and adolescence (A). Values are means \pm SEM (n=8 for each experimental group). HF/SD: offspring from mothers on high fat diet containing slow digesting carbohydrates; HF/RD: offspring from mothers on high fat diet containing rapid digesting carbohydrates; Ref: offspring from mothers on AIN93G diet. * Significant difference with HF/SD group, $p < 0.05$. # Significant difference with reference group, $p < 0.05$. EDL: extensor digitorum longus.

W**A**

Supplementary Figure S2. Muscle ATPase subunit 5B (ATP5B) and the mitochondrial uncoupling protein 2 (UCP2) expression. Expression was assayed by Western blot in gastrocnemius muscle at weaning (W) and adolescence (A). Values are means \pm SEM (n=8 for each experimental group). HF/SD: offspring from mothers on high fat diet containing slow digesting carbohydrates; HF/RD: offspring from mothers on high fat diet containing rapid digesting carbohydrates; Ref: offspring from mothers on AIN93G diet. Line in all graphs shows reference group mean value. No significant differences were found.

Supplementary Materials Table S1. Composition of experimental diets

	Reference diets		Obesogenic diet	Experimental diets	
	AIN93G	AIN93M	HF	HF/RD	HF/SD
Total Protein ^a (g/100g diet)	18.3	12.6	24.2	24.2	24.2
Calcium caseinate (%)	100	100	100	100	100
Total fat ^b (g/100g diet)	7.0	4.0	20.5	20.5	20.5
Plant oil (%)	100	100			
Lard fat (%)			100	100	100
Total CHO (g/100g diet)	64.6	75.7	49.4	49.4	49.1
Sugar ^c					
Isomaltulose (%)	-	-	-	-	67.9
Sucrose (%)	14.4	13.5	56.0	81.9	5.5
Rapid-digesting complex CHO ^c					
Maltodextrin/Corn starch (%)	78.4	79.7	-	-	7.7
Resistant maltodextrin (%)	-	-	7.9	-	15.4
Indigestible fiber ^c					
Fructooligosaccharides (%)	-	-	-	18.1	3.5
Cellulose (%)	7.2	6.8	-	-	-

Individual (a) protein, (b) fat and (c) CHO composition is expressed as percentage of total protein, fat and CHO, respectively

Supplementary Table S2. Biochemical Serum Parameters.

Weaning

	HF/SD Group	HF/RD Group	Reference
Glycaemia (mg/dL)	169.4 ± 4.7	163.1 ± 7.7	170.6 ± 4.2
TG (mg/dL)	49.1 ± 4.5	85.8 ± 14.8*	55.6 ± 7.7

Adolescence

	HF/SD Group	HF/RD Group	Reference
Glycaemia (mg/dL)	104.6 ± 5.0	119.0 ± 6.4	117.3 ± 12.8
TG (mg/dL)	62.3 ± 5.2	123.2 ± 30.5	59.4 ± 5.9

(n=8) * Significant difference with HF/SD group.

Homeostasis model assessment (HOMA) at Adolescence

	HF/SD Group	HF/RD Group	Reference
AUC glycaemia (mg·min/dL)	25415 ± 857.8	28112 ± 1351	27391 ± 524.3
AUC insulinemia (µg·min/L)	341066 ± 25027	393824 ± 53570	359118 ± 30052
HOMA (index)	5.72 ± 1.093	9.83 ± 2.425	9.875 ± 2.748

We have measured in the offspring of the different experimental groups a homeostasis model assessment (HOMA) as an index of insulin resistance, a meal tolerance test and during the test the plasma glucose and insulin levels have been quantitated (Martin, *et al. The Journal of nutritional biochemistry* **2018**, 61, 183-196). The results expressed as Area under the Curve (AUC) for the different groups (n=8). Proinsulinemic peak and total glycemic response were significantly lower in the HF/SD group compared with HF/RD group.

Supplementary Material Table S3. Expression arrays of mRNA samples from HF/SD and HF/RD animals at adolescence. A total of 1363 genes with higher than 1.5 fold change and $p < 0.05$ were detected and from those, a subgroup of 507 well annotated genes were selected.

M (log2 fold change)	Linear Fold Change	Increase/Decrease	Statistic	p-value	Adjusted p-value	GeneName	Description	Genbank Accession
2.88	7.34	Increase	7.38	4.6793E-07	0.0121	similar to alkaline phosphatase (EC 3.1.3.1) precursor, placental-like - human (predicted)	Rattus norvegicus similar to alkaline phosphatase precursor (LOC367308), mRNA [XM_346070]	XM_346070
2.11	4.31	Increase	7.25	6.0042E-07	0.0121	ubiquitously transcribed tetratricopeptide repeat gene, X chromosome (predicted)	PREDICTED: Rattus norvegicus ubiquitously transcribed tetratricopeptide repeat gene, X chromosome (predicted) (Utx_predicted), mRNA [XM_001055391]	XM_001055391
1.16	2.23	Increase	7.06	8.8496E-07	0.0121	AI237189	AI237189 EST233751 Normalized rat ovary, Bento Soares Rattus sp. cDNA clone ROVDP71 3' end, mRNA sequence [AI237189]	AI237189
1.22	2.33	Increase	6.52	2.6988E-06	0.0184	AA859053	AA859053 UI-R-A0-ak-e-04-0-UI.s1 UI-R-A0 Rattus norvegicus cDNA clone UI-R-A0-ak-e-04-0-UI 3', mRNA sequence [AA859053]	AA859053
2.01	4.04	Increase	6.51	2.758E-06	0.0184	similar to Protein C6orf78 homolog	PREDICTED: Rattus norvegicus similar to Protein C6orf78 homolog (LOC499445), mRNA [XM_574768]	XM_574768
-1.43	2.70	Decrease	-6.22	5.0911E-06	0.0184	RGD1308297	Rattus norvegicus similar to CG10084-PA (LOC306137), mRNA [XM_224510]	XM_224510
-1.22	2.32	Decrease	-6.03	7.527E-06	0.0184	BF556301	BF556301 UI-R-A1-en-d-10-0-UI.r1 UI-R-A1 Rattus norvegicus cDNA	BF556301

							clone UI-R-A1-en-d-10-0-UI 5', mRNA sequence [BF556301]	
-1.02	2.03	Decrease	-5.91	9.9477E-06	0.0207	TC552847	APC_RAT (P70478) Adenomatous polyposis coli protein (APC protein), complete [TC552847]	
1.78	3.44	Increase	5.88	1.0397E-05	0.0207	hypothetical protein LOC685924	PREDICTED: Rattus norvegicus hypothetical protein LOC685924 (LOC685924), mRNA [XM_001065777]	XM_001065777
1.04	2.05	Increase	5.84	1.1437E-05	0.0207	BE106074	BE106074 UI-R-BO1-ask-f-04-0-UI.s1 UI-R-BO1 Rattus norvegicus cDNA clone UI-R-BO1-ask-f-04-0-UI 3', mRNA sequence [BE106074]	BE106074
-1.21	2.32	Decrease	-5.78	1.3075E-05	0.0207	AA998118	AA998118 UI-R-C0-hx-c-06-0-UI.s1 UI-R-C0 Rattus norvegicus cDNA clone UI-R-C0-hx-c-06-0-UI 3', mRNA sequence [AA998118]	AA998118
1.19	2.29	Increase	5.73	1.4431E-05	0.0207	similar to Der1-like domain family, member 1	PREDICTED: Rattus norvegicus similar to Der1-like domain family, member 1 (LOC689741), mRNA [XM_001071836]	XM_001071836
2.30	4.93	Increase	5.73	1.4671E-05	0.0207	tryptase alpha/beta 1	Rattus norvegicus tryptase alpha/beta 1 (Tpsab1), mRNA [NM_019322]	NM_019322
1.83	3.56	Increase	5.72	1.4887E-05	0.0207	SH2 domain containing phosphatase anchor protein 1 (predicted)	PREDICTED: Rattus norvegicus SH2 domain containing phosphatase anchor protein 1 (predicted) (Spap1_predicted), mRNA [XM_227483]	XM_227483
2.06	4.18	Increase	5.55	2.182E-05	0.0263	olfactory receptor 567 (predicted)	Rattus norvegicus olfactory receptor 567 (predicted) (Olr567_predicted), mRNA [NM_001000326]	NM_001000326
-1.82	3.54	Decrease	-5.52	2.3065E-05	0.0263	BF523141	BF523141 UI-R-C3-sl-b-09-0-UI.r1 UI-R-C3 Rattus norvegicus cDNA clone	BF523141

							UI-R-C3-sl-b-09-0-UI 5', mRNA sequence [BF523141]	
1.63	3.09	Increase	5.42	2.8987E-05	0.0290	AI171355	AI171355 EST217310 Normalized rat muscle, Bento Soares Rattus sp. cDNA clone RMUBJ63 3' end, mRNA sequence [AI171355]	AI171355
1.46	2.75	Increase	5.39	3.0771E-05	0.0300	cyclin-dependent kinase inhibitor 1C (P57)	Rattus norvegicus cyclin-dependent kinase inhibitor 1C (P57) (Cdkn1c), transcript variant 3, mRNA [NM_182735]	NM_182735
-1.07	2.10	Decrease	-5.36	3.274E-05	0.0312	AW144111	AW144111 EST294407 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone RGIC134 5' end, mRNA sequence [AW144111]	AW144111
-1.22	2.32	Decrease	-5.31	3.6921E-05	0.0329	AW916157	AW916157 EST347461 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIDI75 5' end, mRNA sequence [AW916157]	AW916157
-1.02	2.02	Decrease	-5.27	4.0501E-05	0.0339	AI102821	AI102821 EST212110 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone REMBT30 3' end, mRNA sequence [AI102821]	AI102821
-1.12	2.17	Decrease	-5.24	4.289E-05	0.0339	TC520328	Unknown	
1.96	3.89	Increase	5.20	4.7236E-05	0.0339	calcium/calmodulin-dependent protein kinase I	Rattus norvegicus calcium/calmodulin-dependent protein kinase I (Camk1), mRNA [NM_134468]	NM_134468
1.69	3.22	Increase	5.19	4.8002E-05	0.0339	sialic acid acetyltransferase (predicted)	PREDICTED: Rattus norvegicus sialic acid acetyltransferase (predicted) (Siae_predicted), mRNA [XM_343373]	XM_343373

1.93	3.82	Increase	5.11	5.7646E-05	0.0347	matrix metallopeptidase 2	Rattus norvegicus matrix metallopeptidase 2 (Mmp2), mRNA [NM_031054]	NM_031054
1.49	2.82	Increase	5.10	5.86E-05	0.0347	G-protein signalling modulator 1 (AGS3-like, C. elegans)	Rattus norvegicus G-protein signalling modulator 1 (AGS3-like, C. elegans) (Gpsm1), mRNA [NM_144745]	NM_144745
1.24	2.36	Increase	5.09	6.0282E-05	0.0347	protein phosphatase 4, catalytic subunit	Rattus norvegicus protein phosphatase 4, catalytic subunit (Ppp4c), mRNA [NM_134359]	NM_134359
1.27	2.41	Increase	5.04	6.7496E-05	0.0360	CXXC finger 5	PREDICTED: Rattus norvegicus similar to CXXC finger 5 (LOC681300), mRNA [XM_001061130]	XM_001061130
-1.45	2.73	Decrease	-5.04	6.8405E-05	0.0360	centrosome-associated protein 350	PREDICTED: Rattus norvegicus centrosome-associated protein 350 (Cap350), mRNA [XM_001067472]	XM_001067472
2.23	4.69	Increase	5.00	7.3874E-05	0.0379	XM_216797	Rattus norvegicus hypothetical LOC299350 (LOC299350), mRNA [XM_216797]	XM_216797
1.56	2.95	Increase	4.96	8.0953E-05	0.0394	Hist1h2an_predicted	PREDICTED: Rattus norvegicus histone 1, H2an (predicted) (Hist1h2an_predicted), mRNA [XM_225386]	XM_225386
1.48	2.80	Increase	4.96	8.1351E-05	0.0394	AF010441	Rattus norvegicus MARRLC6A mRNA, partial cds. [AF010441]	AF010441
-1.77	3.42	Decrease	-4.84	0.00010713	0.0448	DY472414	RVL23737 Wackym-Soares normalized rat vestibular cDNA library Rattus norvegicus cDNA 5', mRNA sequence [DY472414]	DY472414
1.06	2.09	Increase	4.81	0.00011444	0.0454	zinc finger, DHHC domain containing 18	Rattus norvegicus zinc finger, DHHC domain containing 18 (Zdhhc18), mRNA [NM_001039339]	NM_001039339

2.76	6.77	Increase	4.79	0.00012011	0.0456	FBJ osteosarcoma oncogene B	PREDICTED: Rattus norvegicus FBJ osteosarcoma oncogene B (Fosb), mRNA [XM_001057199]	XM_001057199
-2.35	5.09	Decrease	-4.77	0.00012372	0.0464	mutL homolog 1 (E. coli)	Rattus norvegicus mutL homolog 1 (E. coli) (Mlh1), mRNA [NM_031053]	NM_031053
2.29	4.91	Increase	4.76	0.00012677	0.0464	actin, gamma 2	Rattus norvegicus actin, gamma 2 (Actg2), mRNA [NM_012893]	NM_012893
1.57	2.97	Increase	4.73	0.00013583	0.0470	XM_345216	Rattus norvegicus similar to Ab2-162 (LOC365803), mRNA [XM_345216]	XM_345216
4.30	19.69	Increase	4.73	0.00013646	0.0470	Myh11	PREDICTED: Rattus norvegicus myosin, heavy polypeptide 11, smooth muscle, transcript variant 1 (Myh11), mRNA [XM_001053321]	XM_001053321
1.23	2.35	Increase	4.72	0.00014086	0.0470	similar to ribosomal protein L13	PREDICTED: Rattus norvegicus similar to ribosomal protein L13 (LOC680938), mRNA [XM_001059551]	XM_001059551
-1.08	2.11	Decrease	-4.71	0.00014341	0.0470	BF550737	BF550737 UI-R-C0-jk-c-04-0-UI.r1 UI-R-C0 Rattus norvegicus cDNA clone UI-R-C0-jk-c-04-0-UI 5', mRNA sequence [BF550737]	BF550737
-1.67	3.18	Decrease	-4.70	0.00014738	0.0470	TC548806	S79979 ribosomal protein L37 {Homo sapiens;}, partial (85%) [TC548806]	
1.53	2.89	Increase	4.68	0.00015479	0.0478	Hermansky-Pudlak syndrome 1 homolog (human)	Rattus norvegicus Hermansky-Pudlak syndrome 1 homolog (human) (Hps1), mRNA [NM_040669]	NM_040669
-1.48	2.79	Decrease	-4.64	0.00016679	0.0496	ATP-binding cassette, sub-family A (ABC1), member 7	Rattus norvegicus ATP-binding cassette, sub-family A (ABC1), member 7 (Abca7), mRNA [NM_207598]	NM_207598
-2.11	4.32	Decrease	-4.62	0.00017752	0.0509	Sh3bp1	PREDICTED: Rattus norvegicus reg I binding protein I (Rbp1), mRNA [XM_235500]	XM_235500

1.47	2.77	Increase	4.61	0.00018103	0.0516	AI233279	AI233279 EST229967 Normalized rat kidney, Bento Soares Rattus sp. cDNA clone RKIDD12 3' end, mRNA sequence [AI233279]	AI233279
3.05	8.31	Increase	4.60	0.00018317	0.0518	claudin 23	Rattus norvegicus claudin 23 (Cldn23), mRNA [NM_001033062]	NM_001033062
1.36	2.57	Increase	4.59	0.00019031	0.0531	similar to Williams-Beuren syndrome critical region protein 28 isoform A (predicted)	PREDICTED: Rattus norvegicus similar to Williams-Beuren syndrome critical region protein 28 isoform A (predicted) (RGD1561903_predicted), mRNA [XM_213758]	XM_213758
1.56	2.95	Increase	4.58	0.00019306	0.0531	XM_214608	Rattus norvegicus similar to FH1/FH2 domains-containing protein (Formin homolog overexpressed in spleen) (FHOS) (Formin homology 2 domain containing 1) (LOC291731), mRNA [XM_214608]	XM_214608
-1.06	2.09	Decrease	-4.52	0.00022176	0.0576	TC563522	Q6XKT3 (Q6XKT3) Long-wavelength rhodopsin (Fragment), partial (6%) [TC563522]	
2.00	3.99	Increase	4.49	0.00023953	0.0585	similar to histone 2a	PREDICTED: Rattus norvegicus similar to histone 2a (LOC682543), mRNA [XM_001061959]	XM_001061959
2.49	5.60	Increase	4.48	0.0002458	0.0590	guanylate cyclase 2g	Rattus norvegicus guanylate cyclase 2g (Gucy2g), mRNA [NM_139042]	NM_139042
1.51	2.85	Increase	4.47	0.00024737	0.0590	PEF protein with a long N-terminal hydrophobic domain	Rattus norvegicus PEF protein with a long N-terminal hydrophobic domain (Peflin), mRNA [NM_001007651]	NM_001007651
1.00	2.00	Increase	4.47	0.00025114	0.0595	cleavage and polyadenylation specific factor 5	Rattus norvegicus cleavage and polyadenylation specific factor 5 (Cpsf5), mRNA [NM_001039004]	NM_001039004
-1.11	2.16	Decrease	-4.45	0.00026288	0.0608	Smarca4	PREDICTED: Rattus norvegicus SWI/SNF related, matrix associated,	XM_343358

							actin dependent regulator of chromatin, subfamily a, member 4 (Smarca4), mRNA [XM_343358]	
-1.46	2.75	Decrease	-4.43	0.00027021	0.0618	similar to MYST histone acetyltransferase monocytic leukemia 4 (predicted)	PREDICTED: Rattus norvegicus similar to MYST histone acetyltransferase monocytic leukemia 4 (predicted) (RGD1566399_predicted), mRNA [XR_008228]	XR_008228
1.45	2.72	Increase	4.43	0.0002722	0.0618	similar to mast cell protease 1-like 3 precursor (predicted)	PREDICTED: Rattus norvegicus similar to mast cell protease 1-like 3 precursor (predicted) (RGD1562035_predicted), mRNA [XM_224209]	XM_224209
-2.17	4.51	Decrease	-4.41	0.00028266	0.0627	TC549700	Q9ERK2 (Q9ERK2) Neprilysin-like peptidase gamma, partial (5%) [TC549700]	
-1.22	2.34	Decrease	-4.34	0.00033574	0.0679	TC550497	Q8R4C3 (Q8R4C3) Csr1, partial (40%) [TC550497]	
1.16	2.24	Increase	4.32	0.00034971	0.0690	M16349	Rat asialoglycoprotein receptor RHL1 mRNA, 5' end. [M16349]	M16349
-1.73	3.31	Decrease	-4.32	0.00035276	0.0692	BF564899	BF564899 UI-R-BU0-ana-b-07-0-UI.r1 UI-R-BU0 Rattus norvegicus cDNA clone UI-R-BU0-ana-b-07-0-UI 5', mRNA sequence [BF564899]	BF564899
-2.06	4.16	Decrease	-4.31	0.00035858	0.0693	DV719627	RVL10432 Wackym-Soares normalized rat vestibular cDNA library Rattus norvegicus cDNA 5', mRNA sequence [DV719627]	DV719627
-1.05	2.07	Decrease	-4.30	0.00036884	0.0696	similar to CG3064-PB (predicted)	PREDICTED: Rattus norvegicus similar to CG3064-PB (predicted) (RGD1564844_predicted), mRNA [XM_236851]	XM_236851

-1.73	3.31	Decrease	-4.30	0.00037217	0.0696	BF558804	BF558804 UI-R-A1-du-a-12-0-UI.r1 UI-R-A1 Rattus norvegicus cDNA clone UI-R-A1-du-a-12-0-UI 5', mRNA sequence [BF558804]	BF558804
-1.41	2.65	Decrease	-4.29	0.00037713	0.0697	hypothetical protein LOC690208	PREDICTED: Rattus norvegicus hypothetical protein LOC690208 (LOC690208), mRNA [XM_001073671]	XM_001073671
-1.39	2.63	Decrease	-4.28	0.00038644	0.0708	procollagen, type IV, alpha 3 (Goodpasture antigen) binding protein (predicted)	PREDICTED: Rattus norvegicus procollagen, type IV, alpha 3 (Goodpasture antigen) binding protein (predicted) (Col4a3bp_predicted), mRNA [XM_345143]	XM_345143
1.56	2.95	Increase	4.26	0.00039962	0.0718	ectonucleotide pyrophosphatase/phosphodiesterase 2	Rattus norvegicus ectonucleotide pyrophosphatase/phosphodiesterase 2 (Enpp2), mRNA [NM_057104]	NM_057104
-1.96	3.90	Decrease	-4.26	0.00040093	0.0718	similar to RIKEN cDNA 4931426K16 gene	Rattus norvegicus similar to RIKEN cDNA 4931426K16 gene (RGD1311267), mRNA [NM_001039024]	NM_001039024
1.21	2.32	Increase	4.26	0.0004038	0.0720	cholecystokinin	Rattus norvegicus cholecystokinin (Cck), mRNA [NM_012829]	NM_012829
1.21	2.32	Increase	4.25	0.00041561	0.0732	gamma-aminobutyric acid (GABA) B receptor 1	Rattus norvegicus gamma-aminobutyric acid (GABA) B receptor 1 (Gabbr1), mRNA [NM_031028]	NM_031028
1.48	2.80	Increase	4.22	0.00044035	0.0738	PHD finger protein 7	Rattus norvegicus PHD finger protein 7 (Phf7), mRNA [NM_001012211]	NM_001012211
-1.18	2.26	Decrease	-4.21	0.00045725	0.0759	TC520546	K13A_MOUSE (Q9EQW7) Kinesin-like protein KIF13A, partial (3%) [TC520546]	
1.38	2.60	Increase	4.20	0.00046518	0.0759	BG671620	DRNBVF01 Rat DRG Library Rattus norvegicus cDNA clone DRNBVF01 5', mRNA sequence [BG671620]	BG671620

1.24	2.36	Increase	4.16	0.00050398	0.0801	ADP-ribosylation factor 6	Rattus norvegicus ADP-ribosylation factor 6 (Arf6), mRNA [NM_024152]	NM_024152
1.49	2.81	Increase	4.15	0.00051937	0.0814	adaptor protein complex AP-1, sigma 1 (predicted)	PREDICTED: Rattus norvegicus adaptor protein complex AP-1, sigma 1 (predicted) (Ap1s1_predicted), mRNA [XM_341052]	XM_341052
-1.73	3.31	Decrease	-4.14	0.00053057	0.0817	cadmium-inducible gene 1L	Rattus norvegicus cadmium-inducible gene 1L (Cdig1l), mRNA [NM_153623]	NM_153623
1.38	2.61	Increase	4.13	0.00054924	0.0823	aquaporin 2	Rattus norvegicus aquaporin 2 (Aqp2), mRNA [NM_012909]	NM_012909
3.06	8.32	Increase	4.10	0.00058874	0.0840	plasticity-related protein PRG-2	Rattus norvegicus plasticity-related protein PRG-2 (Prg-2), mRNA [NM_181634]	NM_181634
1.91	3.75	Increase	4.09	0.00059779	0.0848	similar to JM11 protein (predicted)	PREDICTED: Rattus norvegicus similar to JM11 protein (predicted) (RGD1561596_predicted), mRNA [XM_228761]	XM_228761
-1.35	2.55	Decrease	-4.05	0.00065577	0.0898	PHD finger protein 17 (predicted)	PREDICTED: Rattus norvegicus PHD finger protein 17 (predicted) (Phf17_predicted), mRNA [XM_227074]	XM_227074
-1.33	2.52	Decrease	-4.05	0.00066161	0.0898	speedy homolog 1 (Drosophila)	Rattus norvegicus speedy homolog 1 (Drosophila) (Spdy1), mRNA [NM_138855]	NM_138855
-2.30	4.93	Decrease	-4.04	0.00066878	0.0898	LOC682316	PREDICTED: Rattus norvegicus similar to dystrophin, muscular dystrophy (LOC682316), mRNA [XM_001060977]	XM_001060977
2.58	5.98	Increase	4.03	0.00069304	0.0920	AI145447	AI145447 UI-R-BT0-pv-d-09-0-UI.s1 UI-R-BT0 Rattus norvegicus cDNA clone UI-R-BT0-pv-d-09-0-UI 3', mRNA sequence [AI145447]	AI145447

-1.18	2.27	Decrease	-4.02	0.00070638	0.0935	Obscn	PREDICTED: Rattus norvegicus obscurin, cytoskeletal calmodulin and titin-interacting RhoGEF (Obscn), mRNA [XM_001076876]	XM_001076876
-1.18	2.27	Decrease	-4.00	0.00073898	0.0959	zinc and ring finger 1 (predicted)	PREDICTED: Rattus norvegicus zinc and ring finger 1 (predicted) (Znrf1_predicted), mRNA [XM_342692]	XM_342692
1.07	2.10	Increase	3.98	0.00076446	0.0973	hairy and enhancer of split 7 (Drosophila) (predicted)	PREDICTED: Rattus norvegicus hairy and enhancer of split 7 (Drosophila) (predicted) (Hes7_predicted), mRNA [XM_220597]	XM_220597
-1.45	2.73	Decrease	-3.98	0.00076636	0.0973	synaptojanin 1	PREDICTED: Rattus norvegicus synaptojanin 1 (Synj1), mRNA [XM_573256]	XM_573256
-1.27	2.41	Decrease	-3.96	0.00080322	0.0998	chromodomain helicase DNA binding protein 1 (predicted)	PREDICTED: Rattus norvegicus chromodomain helicase DNA binding protein 1 (predicted) (Chd1_predicted), mRNA [XM_001056703]	XM_001056703
4.28	19.38	Increase	3.96	0.00080346	0.0998	RGD1562348_predicted	PREDICTED: Rattus norvegicus similar to ankyrin repeat domain protein 17 isoform b (predicted) (RGD1562348_predicted), mRNA [XM_214012]	XM_214012
-1.65	3.14	Decrease	-3.95	0.00081997	0.1002	G protein-coupled receptor associated sorting protein 1	Rattus norvegicus G protein-coupled receptor associated sorting protein 1 (Gprasp1), mRNA [NM_134386]	NM_134386
2.52	5.74	Increase	3.94	0.00084378	0.1003	cell division cycle 20 homolog (S. cerevisiae)	Rattus norvegicus cell division cycle 20 homolog (S. cerevisiae) (Cdc20), mRNA [NM_171993]	NM_171993
2.12	4.35	Increase	3.93	0.0008566	0.1010	TC522745	Q7S3E7 (Q7S3E7) Predicted protein, partial (3%) [TC522745]	

-1.10	2.15	Decrease	-3.92	0.00088171	0.1024	XM_223541	Rattus norvegicus similar to leucine zipper-EF-hand containing transmembrane protein 1 (LOC305457), mRNA [XM_223541]	XM_223541
1.33	2.52	Increase	3.91	0.00090969	0.1039	procollagen, type 1, alpha 1	PREDICTED: Rattus norvegicus procollagen, type 1, alpha 1 (Col1a1), mRNA [XM_213440]	XM_213440
1.04	2.06	Increase	3.91	0.00091381	0.1041	CF110073	Shultzomica03324 Rat lung airway and parenchyma cDNA libraries Rattus norvegicus cDNA clone Contig2930 5', mRNA sequence [CF110073]	CF110073
1.58	2.98	Increase	3.90	0.00091995	0.1045	receptor (calcitonin) activity modifying protein 2	Rattus norvegicus receptor (calcitonin) activity modifying protein 2 (Ramp2), mRNA [NM_031646]	NM_031646
1.27	2.41	Increase	3.90	0.00092814	0.1046	mitochondrial tumor suppressor 1	Rattus norvegicus mitochondrial tumor suppressor 1, mRNA (cDNA clone IMAGE:7104732), complete cds. [BC072537]	BC072537
-2.50	5.64	Decrease	-3.88	0.00098027	0.1066	homeodomain interacting protein kinase 2 (predicted)	Rattus norvegicus similar to nuclear body associated kinase 1a (LOC362342), mRNA [XM_342662]	XM_342662
-1.47	2.77	Decrease	-3.87	0.00099969	0.1074	stonin 2 (predicted)	PREDICTED: Rattus norvegicus stonin 2 (predicted) (Ston2_predicted), mRNA [XM_234454]	XM_234454
-1.61	3.05	Decrease	-3.86	0.00101486	0.1080	putative aminopeptidase Fxna	Rattus norvegicus putative aminopeptidase Fxna (Fxna), mRNA [NM_184050]	NM_184050
-1.16	2.24	Decrease	-3.84	0.00105296	0.1082	similar to NFkB interacting protein 1	PREDICTED: Rattus norvegicus similar to NFkB interacting protein 1 (LOC686781), mRNA [XM_001075705]	XM_001075705

-1.01	2.02	Decrease	-3.84	0.00105614	0.1083	LOC682690	PREDICTED: Rattus norvegicus similar to chromodomain helicase DNA binding protein 9, transcript variant 1 (LOC682690), mRNA [XM_001062637]	XM_001062637
1.23	2.34	Increase	3.84	0.00107011	0.1089	AW530281	UI-R-BU0-amu-g-07-0-UI.s1 UI-R-BU0 Rattus norvegicus cDNA clone UI-R-BU0-amu-g-07-0-UI 3', mRNA sequence [AW530281]	AW530281
-1.04	2.05	Decrease	-3.82	0.0011046	0.1092	Arsk	PREDICTED: Rattus norvegicus arylsulfatase K (Arsk), mRNA [XM_001059083]	XM_001059083
2.11	4.33	Increase	3.82	0.00110929	0.1094	similar to HOX11L2 (predicted)	PREDICTED: Rattus norvegicus similar to HOX11L2 (predicted) (RGD1564190_predicted), mRNA [XM_573065]	XM_573065
1.02	2.03	Increase	3.82	0.00111461	0.1094	similar to Dynamin-binding protein (Scaffold protein Tuba)	PREDICTED: Rattus norvegicus similar to Dynamin-binding protein (Scaffold protein Tuba) (LOC309362), mRNA [XM_219860]	XM_219860
-1.12	2.17	Decrease	-3.82	0.00111814	0.1094	AW921244	AW921244 EST352548 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIHQ07 5' end, mRNA sequence [AW921244]	AW921244
-1.20	2.30	Decrease	-3.81	0.00112796	0.1094	XM_215481	Rattus norvegicus similar to DEAH (Asp-Glu-Ala-His) box polypeptide 29; nucleic acid helicase DDXx (LOC294741), mRNA [XM_215481]	XM_215481
-1.39	2.62	Decrease	-3.80	0.00115426	0.1103	CASP8 and FADD-like apoptosis regulator	Rattus norvegicus CASP8 and FADD-like apoptosis regulator (Cflar), transcript variant 2, mRNA [NM_057138]	NM_057138

-1.44	2.71	Decrease	-3.79	0.00120723	0.1121	AA997849	UI-R-C0-hu-b-07-0-UI.s1 UI-R-C0 Rattus norvegicus cDNA clone UI-R-C0-hu-b-07-0-UI 3', mRNA sequence [AA997849]	AA997849
-1.62	3.08	Decrease	-3.78	0.00120978	0.1121	DV725773	RVL17751 Wackym-Soares normalized rat vestibular cDNA library Rattus norvegicus cDNA 5', mRNA sequence [DV725773]	DV725773
-1.50	2.84	Decrease	-3.76	0.00127446	0.1153	AW917250	AW917250 EST348554 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIEB30 5' end, mRNA sequence [AW917250]	AW917250
1.65	3.14	Increase	3.76	0.00128684	0.1153	forkhead-like 18 (Drosophila)	Rattus norvegicus forkhead-like 18 (Drosophila) (Fkhl18), mRNA [NM_001012091]	NM_001012091
1.14	2.21	Increase	3.75	0.00131277	0.1163	similar to RIKEN cDNA 1300007B12; clone MNCb-2755	Rattus norvegicus similar to RIKEN cDNA 1300007B12; clone MNCb-2755 (RGD1309892), mRNA [NM_001013871]	NM_001013871
-1.22	2.33	Decrease	-3.75	0.00132285	0.1165	BE117514	BE117514 UI-R-BS1-ayo-f-11-0-UI.s1 UI-R-BS1 Rattus norvegicus cDNA clone UI-R-BS1-ayo-f-11-0-UI 3', mRNA sequence [BE117514]	BE117514
1.22	2.33	Increase	3.74	0.00135517	0.1179	serologically defined colon cancer antigen 3	Rattus norvegicus serologically defined colon cancer antigen 3 (Sdccag3), mRNA [NM_001013135]	NM_001013135
1.22	2.33	Increase	3.73	0.00138391	0.1191	Poldip3_predicted	PREDICTED: Rattus norvegicus polymerase (DNA-directed), delta interacting protein 3 (predicted) (Poldip3_predicted), mRNA [XM_001077668]	XM_001077668

1.34	2.54	Increase	3.72	0.00139849	0.1191	procollagen, type I, alpha 2	Rattus norvegicus procollagen, type I, alpha 2 (Col1a2), mRNA [NM_053356]	NM_053356
-1.04	2.06	Decrease	-3.70	0.00145321	0.1213	ankyrin 3, epithelial	Rattus norvegicus ankyrin 3, epithelial (Ank3), transcript variant 1, mRNA [NM_031805]	NM_031805
1.31	2.48	Increase	3.70	0.00146522	0.1216	AI548160	AI548160 UI-R-C3-su-a-08-0-UI.s1 UI-R-C3 Rattus norvegicus cDNA clone UI-R-C3-su-a-08-0-UI 3', mRNA sequence [AI548160]	AI548160
1.38	2.60	Increase	3.70	0.00147101	0.1219	similar to Antxr2 protein	PREDICTED: Rattus norvegicus similar to Antxr2 protein (LOC305633), mRNA [XM_223745]	XM_223745
2.23	4.69	Increase	3.69	0.00148803	0.1224	BI294724	BI294724 UI-R-DK0-ceb-d-01-0-UI.s1 UI-R-DK0 Rattus norvegicus cDNA clone UI-R-DK0-ceb-d-01-0-UI 3', mRNA sequence [BI294724]	BI294724
-1.12	2.17	Decrease	-3.69	0.0014957	0.1227	similar to thyroid hormone receptor interactor 11	PREDICTED: Rattus norvegicus similar to thyroid hormone receptor interactor 11 (LOC314393), mRNA [XM_001065684]	XM_001065684
-2.44	5.44	Decrease	-3.66	0.00162166	0.1269	epoxide hydrolase 1, microsomal	Rattus norvegicus epoxide hydrolase 1, microsomal (Ephx1), transcript variant 2, mRNA [NM_012844]	NM_012844
2.01	4.04	Increase	3.66	0.00162452	0.1269	plakophilin 1 (predicted)	PREDICTED: Rattus norvegicus plakophilin 1 (predicted) (Pkp1_predicted), mRNA [XM_222666]	XM_222666
1.46	2.75	Increase	3.63	0.00172234	0.1301	putative small membrane protein NID67	Rattus norvegicus putative small membrane protein NID67 (Nid67), mRNA [NM_173126]	NM_173126
1.40	2.65	Increase	3.62	0.00174717	0.1308	actin related protein 2/3 complex, subunit 4 (predicted)	PREDICTED: Rattus norvegicus actin related protein 2/3 complex, subunit	XM_238365

							4 (predicted) (Arpc4_predicted), mRNA [XM_238365]	
-1.13	2.18	Decrease	-3.62	0.00175214	0.1309	short form of beta II spectrin	Rattus norvegicus beta II spectrin-short isoform mRNA, partial cds. [AF218849]	AF218849
-1.42	2.67	Decrease	-3.62	0.00176135	0.1309	AW914836	AW914836 EST346140 Normalized rat ovary, Bento Soares Rattus sp. cDNA clone RGIBH87 5' end, mRNA sequence [AW914836]	AW914836
-1.22	2.32	Decrease	-3.62	0.00178164	0.1319	AA926021	AA926021 UI-R-A1-es-d-09-0-UI.s1 UI-R-A1 Rattus norvegicus cDNA clone UI-R-A1-es-d-09-0-UI 3' similar to gi [AA926021]	AA926021
1.26	2.40	Increase	3.61	0.00179104	0.1319	TC539961	Q986H9 (Q986H9) ABC transporter binding protein, partial (5%) [TC539961]	
-1.19	2.29	Decrease	-3.61	0.00180987	0.1323	DV727624	RVL20147 Wackym-Soares normalized rat vestibular cDNA library Rattus norvegicus cDNA 5', mRNA sequence [DV727624]	DV727624
-2.39	5.26	Decrease	-3.59	0.00188425	0.1358	TC522919	Q6WZ94 (Q6WZ94) Transcriptional regulator, partial (6%) [TC522919]	
-1.07	2.09	Decrease	-3.59	0.00190887	0.1363	CF107847	Shultzomica01098 Rat lung airway and parenchyma cDNA libraries Rattus norvegicus cDNA clone NA8658 5', mRNA sequence [CF107847]	CF107847
-1.26	2.39	Decrease	-3.59	0.00191382	0.1363	AW918229	AW918229 EST349533 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIEO12 5' end, mRNA sequence [AW918229]	AW918229
-1.18	2.27	Decrease	-3.56	0.0020184	0.1395	similar to RNA polymerase III subunit RPC2 (predicted)	PREDICTED: Rattus norvegicus similar to RNA polymerase III subunit	XM_343188

							RPC2 (predicted) (RGD1565311_predicted), mRNA [XM_343188]	
-1.74	3.34	Decrease	-3.56	0.00202929	0.1396	F-box only protein 17	Rattus norvegicus F-box only protein 17 (Fbxo17), mRNA [NM_001013064]	NM_001013064
2.74	6.66	Increase	3.56	0.00203544	0.1398	naked cuticle 1 homolog (Drosophila) (predicted)	PREDICTED: Rattus norvegicus naked cuticle 1 homolog (Drosophila) (predicted) (Nkd1_predicted), mRNA [XM_344728]	XM_344728
-1.76	3.38	Decrease	-3.55	0.00206199	0.1401	BF559590	BF559590 UI-R-A1-dz-b-11-0-UI.r1 UI-R-A1 Rattus norvegicus cDNA clone UI-R-A1-dz-b-11-0-UI 5', mRNA sequence [BF559590]	BF559590
-2.02	4.06	Decrease	-3.55	0.00206452	0.1401	TC544106	Q7PN93 (Q7PN93) ENSANGP00000023986 (Fragment), partial (17%) [TC544106]	
-2.52	5.73	Decrease	-3.54	0.00210711	0.1410	transformed mouse 3T3 cell double minute 4	Rattus norvegicus transformed mouse 3T3 cell double minute 4 (Mdm4), mRNA [NM_001012026]	NM_001012026
1.44	2.72	Increase	3.53	0.00217264	0.1426	AI180270	AI180270 EST224013 Normalized rat spleen, Bento Soares Rattus sp. cDNA clone RSPCS66 3' end, mRNA sequence [AI180270]	AI180270
3.15	8.86	Increase	3.52	0.00220238	0.1432	XM_230900	Rattus norvegicus similar to nuclear DNA binding factor (LOC296420), mRNA [XM_230900]	XM_230900
-1.38	2.60	Decrease	-3.52	0.00221443	0.1432	kinesin family member 1B	Rattus norvegicus kinesin family member 1B (Kif1b), mRNA [NM_057200]	NM_057200
-1.46	2.75	Decrease	-3.52	0.00221887	0.1432	REX4, RNA exonuclease 4 homolog (S. cerevisiae)	Rattus norvegicus REX4, RNA exonuclease 4 homolog (S. cerevisiae) (Rexo4), mRNA [NM_001033884]	NM_001033884

-1.17	2.25	Decrease	-3.52	0.00224096	0.1438	AY623033	Rattus norvegicus clone S33-A glycosyltransferase family 8-related mRNA, 3' UTR. [AY623033]	AY623033
1.50	2.84	Increase	3.50	0.00232474	0.1465	LOC681211	PREDICTED: Rattus norvegicus similar to monoacylglycerol O-acyltransferase 2 (LOC681211), mRNA [XM_001060766]	XM_001060766
-1.51	2.85	Decrease	-3.50	0.0023524	0.1477	TC530091	Q7WGV9 (Q7WGV9) Sulfate transport system permease protein, partial (6%) [TC530091]	
1.36	2.56	Increase	3.49	0.00237681	0.1486	similar to hypothetical gene supported by BC007071	Rattus norvegicus similar to hypothetical gene supported by BC007071 (RGD1311868), mRNA [NM_001033061]	NM_001033061
1.37	2.59	Increase	3.47	0.00249998	0.1498	XM_222160	Rattus norvegicus similar to endothelial monocyte-activating polypeptide (LOC288662), mRNA [XM_222160]	XM_222160
1.16	2.23	Increase	3.47	0.00250552	0.1498	RGD1562717_predicted	PREDICTED: Rattus norvegicus similar to ABI gene family, member 3 (NESH) binding protein (predicted) (RGD1562717_predicted), mRNA [XM_344015]	XM_344015
-1.29	2.44	Decrease	-3.46	0.0025342	0.1506	pam, highwire, rpm 1 (predicted)	PREDICTED: Rattus norvegicus pam, highwire, rpm 1 (predicted) (Phr1_predicted), mRNA [XM_214245]	XM_214245
-1.01	2.01	Decrease	-3.46	0.00257538	0.1518	carbaryl phosphatase synthetase 2 (mapped)	PREDICTED: Rattus norvegicus carbaryl phosphatase synthetase 2 (mapped) (Cad_mapped), mRNA [XM_343027]	XM_343027
-1.47	2.77	Decrease	-3.45	0.00258624	0.1520	zinc and ring finger 1 (predicted)	PREDICTED: Rattus norvegicus zinc and ring finger 1 (predicted)	XM_342692

							(Znrf1_predicted), mRNA [XM_342692]	
3.57	11.85	Increase	3.45	0.00259159	0.1521	a disintegrin-like and metalloproteinase (reprolysin type) with thrombospondin type 1 motif, 5 (aggrecanase-2)	Rattus norvegicus a disintegrin-like and metalloproteinase (reprolysin type) with thrombospondin type 1 motif, 5 (aggrecanase-2) (Adamts5), mRNA [NM_198761]	NM_198761
-2.34	5.08	Decrease	-3.45	0.00261467	0.1528	citron	Rattus norvegicus postsynaptic density protein (citron) mRNA, complete cds. [AF039218]	AF039218
1.62	3.07	Increase	3.45	0.00262671	0.1528	TC543377	P97374 (P97374) Serum amyloid A protein isoform 1, partial (51%) [TC543377]	
1.09	2.13	Increase	3.44	0.00269206	0.1544	D-serine modulator-1	Rattus norvegicus D-serine modulator-1 (Dsm-1), mRNA [NM_001037215]	NM_001037215
1.88	3.68	Increase	3.43	0.00271635	0.1549	guanylate cyclase 2g	Rattus norvegicus ksGC mRNA, complete cds. [U33847]	U33847
-1.35	2.55	Decrease	-3.43	0.00272039	0.1549	non imprinted in Prader-Willi/Angelman syndrome 2 homolog (human) (predicted)	PREDICTED: Rattus norvegicus non imprinted in Prader-Willi/Angelman syndrome 2 homolog (human) (predicted) (Nipa2_predicted), mRNA [XM_218718]	XM_218718
-1.39	2.62	Decrease	-3.43	0.00276211	0.1549	DV727231	RVL19689 Wackym-Soares normalized rat vestibular cDNA library Rattus norvegicus cDNA 5', mRNA sequence [DV727231]	DV727231
1.07	2.09	Increase	3.42	0.00276402	0.1549	XM_230113	Rattus norvegicus similar to olfactory receptor GA_x6K02T2Q125-48226321-48225386 (LOC295766), mRNA [XM_230113]	XM_230113
1.03	2.05	Increase	3.42	0.00276469	0.1549	hypothetical protein LOC687595	PREDICTED: Rattus norvegicus hypothetical protein LOC687594,	XM_001078994

							transcript variant 3 (LOC687595), mRNA [XM_001078994]	
1.25	2.38	Increase	3.42	0.00278419	0.1552	capping protein (actin filament), gelsolin-like	Rattus norvegicus capping protein (actin filament), gelsolin-like (Capg), mRNA [NM_001013086]	NM_001013086
1.07	2.09	Increase	3.42	0.00279197	0.1552	RAB13, member RAS oncogene family	Rattus norvegicus RAB13, member RAS oncogene family (Rab13), mRNA [NM_031092]	NM_031092
-1.57	2.97	Decrease	-3.42	0.00279685	0.1552	similar to KIAA1582 protein (predicted)	AA956352 UI-R-E1-fj-d-03-0-UI.s1 UI-R-E1 Rattus norvegicus cDNA clone UI-R-E1-fj-d-03-0-UI 3' similar to gi [AA956352]	AA956352
1.97	3.91	Increase	3.42	0.0028009	0.1552	oligodendrocyte transcription factor 3 (predicted)	Rattus norvegicus similar to Olig3 bHLH protein (LOC293012), mRNA [XM_218772]	XM_218772
-1.96	3.90	Decrease	-3.41	0.00286925	0.1573	gap junction membrane channel protein alpha 5	Rattus norvegicus gap junction membrane channel protein alpha 5 (Gja5), mRNA [NM_019280]	NM_019280
1.43	2.69	Increase	3.40	0.00289194	0.1583	AW507178	AW507178 EST00605 Plasmid Subtractive Library of Rat Cerebrum (stroke) Rattus norvegicus cDNA clone 1stB1, mRNA sequence [AW507178]	AW507178
2.42	5.35	Increase	3.40	0.00290391	0.1586	mitochondrial ribosomal protein S10	Rattus norvegicus mitochondrial ribosomal protein S10 (Mrps10), mRNA [NM_001008859]	NM_001008859
-1.79	3.46	Decrease	-3.40	0.00291347	0.1589	Mediterranean fever	Rattus norvegicus Mediterranean fever (Mefv), mRNA [NM_031634]	NM_031634
1.43	2.69	Increase	3.40	0.00291694	0.1589	G-protein signalling modulator 1 (AGS3-like, C. elegans)	Rattus norvegicus G-protein signalling modulator 1 (AGS3-like, C. elegans), mRNA (cDNA clone IMAGE:7104788), complete cds. [BC086535]	BC086535

1.59	3.00	Increase	3.39	0.00299458	0.1599	olfactory receptor 1294 (predicted)	Rattus norvegicus olfactory receptor 1294 (predicted) (Olr1294_predicted), mRNA [NM_001000597]	NM_001000597
-2.14	4.40	Decrease	-3.39	0.00299963	0.1600	zinc finger protein 365	Rattus norvegicus zinc finger protein 365 (Zfp365), mRNA [NM_001025145]	NM_001025145
-1.96	3.89	Decrease	-3.39	0.0030178	0.1603	transferrin receptor	PREDICTED: Rattus norvegicus transferrin receptor (Tfrc), mRNA [XM_001072774]	XM_001072774
1.42	2.68	Increase	3.38	0.00303493	0.1606	G protein pathway suppressor 2 (predicted)	PREDICTED: Rattus norvegicus G protein pathway suppressor 2 (predicted) (Gps2_predicted), mRNA [XM_220615]	XM_220615
-1.46	2.75	Decrease	-3.38	0.00306101	0.1610	similar to hypothetical protein (predicted)	PREDICTED: Rattus norvegicus similar to hypothetical protein (predicted) (RGD1305269_predicted), mRNA [XM_223397]	XM_223397
-2.40	5.30	Decrease	-3.37	0.00309934	0.1611	ryanodine receptor 1, skeletal muscle	PREDICTED: Rattus norvegicus similar to ryanodine receptor 1 (skeletal) (LOC686059), mRNA [XM_574411]	XM_574411
1.12	2.18	Increase	3.37	0.00310347	0.1611	insulin-like growth factor binding protein 5	Rattus norvegicus cDNA clone IMAGE:7110383 [BC087030]	BC087030
1.27	2.41	Increase	3.37	0.00314157	0.1621	BM986267	BM986267 EST531721 Rat gene index, normalized rat, norvegicus Rattus norvegicus cDNA clone RGIAD36 3' end similar to CaM kinase IV beta, mRNA sequence [BM986267]	BM986267
-1.31	2.48	Decrease	-3.37	0.00315777	0.1621	ubiquitin specific peptidase 9, X chromosome (predicted)	PREDICTED: Rattus norvegicus ubiquitin specific peptidase 9, X chromosome (predicted)	XM_343766

							(Usp9x_predicted), mRNA [XM_343766]	
1.80	3.48	Increase	3.37	0.00316515	0.1621	similar to glyceraldehyde-3-phosphate dehydrogenase (predicted)	PREDICTED: Rattus norvegicus similar to glyceraldehyde-3-phosphate dehydrogenase (predicted) (RGD1565190_predicted), mRNA [XM_344998]	XM_344998
-2.20	4.58	Decrease	-3.36	0.00317576	0.1621	DY471722	RVL22932 Wackym-Soares normalized rat vestibular cDNA library Rattus norvegicus cDNA 5', mRNA sequence [DY471722]	DY471722
-1.14	2.20	Decrease	-3.36	0.00322584	0.1627	hypothetical protein LOC304743	Rattus norvegicus hypothetical protein LOC304743 (LOC304743), mRNA [NM_001024997]	NM_001024997
1.50	2.82	Increase	3.36	0.00324062	0.1631	lysyl oxidase-like 2 (predicted)	PREDICTED: Rattus norvegicus lysyl oxidase-like 2 (predicted) (Loxl2_predicted), mRNA [XM_214225]	XM_214225
-1.33	2.52	Decrease	-3.35	0.00330146	0.1645	S-adenosylhomocysteine hydrolase-like 1 (predicted)	PREDICTED: Rattus norvegicus S-adenosylhomocysteine hydrolase-like 1 (predicted) (Ahcyl1_predicted), mRNA [XM_001068488]	XM_001068488
1.08	2.11	Increase	3.34	0.00332289	0.1649	similar to Chromobox protein homolog 4 (Polycomb 2 homolog) (Pc2) (MPc2)	PREDICTED: Rattus norvegicus similar to Chromobox protein homolog 4 (Polycomb 2 homolog) (Pc2) (MPc2) (LOC501403), mRNA [XM_001081757]	XM_001081757
-1.50	2.83	Decrease	-3.34	0.00334268	0.1649	similar to neurobeachin (predicted)	PREDICTED: Rattus norvegicus similar to neurobeachin (predicted) (RGD1562629_predicted), mRNA [XM_001059612]	XM_001059612
1.62	3.08	Increase	3.34	0.00334331	0.1649	peripherin 1	Rattus norvegicus peripherin 1 (Prph1), mRNA [NM_012633]	NM_012633

-5.24	37.82	Decrease	-3.34	0.00336991	0.1657	AA956504	AA956504 UI-R-E1-fk-g-05-0-UI.s1 UI-R-E1 Rattus norvegicus cDNA clone UI-R-E1-fk-g-05-0-UI 3' similar to gi [AA956504]	AA956504
-1.39	2.62	Decrease	-3.34	0.00338578	0.1657	DEAH (Asp-Glu-Ala-His) box polypeptide 9 (predicted)	PREDICTED: Rattus norvegicus DEAH (Asp-Glu-Ala-His) box polypeptide 9 (predicted) (Dhx9_predicted), mRNA [XM_239780]	XM_239780
-1.08	2.11	Decrease	-3.33	0.00339987	0.1657	BC089934	Rattus norvegicus cDNA clone IMAGE:7309127 [BC089934]	BC089934
-1.02	2.03	Decrease	-3.33	0.00342911	0.1659	HtrA serine peptidase 4 (predicted)	Rattus norvegicus similar to Probable serine protease HTRA4 precursor (LOC306564), mRNA [XM_224963]	XM_224963
1.06	2.08	Increase	3.33	0.00345874	0.1663	3-alpha-hydroxysteroid dehydrogenase	Rattus norvegicus 3-alpha-hydroxysteroid dehydrogenase (LOC191574), mRNA [NM_138547]	NM_138547
1.22	2.32	Increase	3.32	0.00348943	0.1667	RGD1564450 (predicted)	PREDICTED: Rattus norvegicus RGD1564450 (predicted) (RGD1564450_predicted), mRNA [XM_215355]	XM_215355
-1.01	2.02	Decrease	-3.32	0.00354795	0.1679	TC521816	D87060 cerebral protein-1 {Homo sapiens;}, partial (17%) [TC521816]	
1.21	2.31	Increase	3.30	0.00365531	0.1703	BF555594	BF555594 UI-R-E0-cz-b-01-0-UI.r1 UI-R-E0 Rattus norvegicus cDNA clone UI-R-E0-cz-b-01-0-UI 5', mRNA sequence [BF555594]	BF555594
1.04	2.06	Increase	3.30	0.00366227	0.1703	similar to Hypothetical protein MGC59076	Rattus norvegicus similar to Hypothetical protein MGC59076 (RGD1309144), mRNA [NM_001009658]	NM_001009658
2.19	4.57	Increase	3.30	0.00369731	0.1711	mitochondrial ribosomal protein L52 (predicted)	PREDICTED: Rattus norvegicus mitochondrial ribosomal protein L52 (predicted), transcript variant 2	XM_341312

							(Mrpl52_predicted), mRNA [XM_341312]	
-1.39	2.62	Decrease	-3.30	0.00370888	0.1713	potassium inwardly-rectifying channel, subfamily J, member 13	Rattus norvegicus potassium inwardly-rectifying channel, subfamily J, member 13 (Kcnj13), mRNA [NM_053608]	NM_053608
-5.55	46.95	Decrease	-3.29	0.00371585	0.1713	tachykinin 4	Rattus norvegicus tachykinin 4 (Tac4), mRNA [NM_172328]	NM_172328
-3.70	13.02	Decrease	-3.29	0.0037495	0.1716	discs, large (Drosophila) homolog-associated protein 3	Rattus norvegicus discs, large (Drosophila) homolog-associated protein 3 (Dlgap3), mRNA [NM_173138]	NM_173138
1.13	2.19	Increase	3.29	0.00379421	0.1725	AI599392	AI599392 EST251095 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone REMEO50 3' end, mRNA sequence [AI599392]	AI599392
1.02	2.03	Increase	3.29	0.00379446	0.1725	endothelial cell adhesion molecule	Rattus norvegicus endothelial cell adhesion molecule (Esam), mRNA [NM_001004245]	NM_001004245
1.16	2.23	Increase	3.27	0.00390879	0.1737	procollagen, type 1, alpha 1	Rat alpha-1 type I collagen mRNA, segment 3. [M12199]	M12199
-1.62	3.07	Decrease	-3.27	0.0039246	0.1737	Syncrip	PREDICTED: Rattus norvegicus synaptotagmin binding, cytoplasmic RNA interacting protein (Syncrip), mRNA [XM_001065902]	XM_001065902
1.03	2.04	Increase	3.26	0.00404379	0.1759	hypothetical protein LOC690113	PREDICTED: Rattus norvegicus similar to hypothetical protein FLJ14800 (predicted) (RGD1561500_predicted), mRNA [XM_235711]	XM_235711
-1.64	3.12	Decrease	-3.26	0.00404615	0.1759	hypothetical LOC288978	PREDICTED: Rattus norvegicus hypothetical LOC288978 (LOC288978), mRNA [XM_213864]	XM_213864

1.02	2.02	Increase	3.26	0.00406073	0.1759	CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase 1	PREDICTED: Rattus norvegicus CTD (carboxy-terminal domain, RNA polymerase II, polypeptide A) small phosphatase 1 (Ctdsp1), mRNA [XM_343588]	XM_343588
-1.88	3.68	Decrease	-3.25	0.00409773	0.1765	BM986233	BM986233 EST531687 Rat gene index, normalized rat, norvegicus Rattus norvegicus cDNA clone RGIAB50 3' end similar to 57-KDa calcium-binding protein MCaBP, mRNA sequence [BM986233]	BM986233
-2.02	4.07	Decrease	-3.25	0.00410651	0.1765	Ttn	PREDICTED: Rattus norvegicus titin (Ttn), mRNA [XM_001065955]	XM_001065955
1.95	3.86	Increase	3.25	0.00415592	0.1771	ChaC, cation transport regulator-like 1 (E. coli) (predicted)	PREDICTED: Rattus norvegicus ChaC, cation transport regulator-like 1 (E. coli) (predicted) (Chac1_predicted), mRNA [XM_342497]	XM_342497
-1.07	2.10	Decrease	-3.24	0.00418276	0.1778	similar to RIKEN cDNA E230015L20 gene (predicted)	PREDICTED: Rattus norvegicus similar to RIKEN cDNA E230015L20 gene (predicted) (RGD1560873_predicted), mRNA [XM_001058121]	XM_001058121
1.58	2.99	Increase	3.24	0.00418398	0.1778	olfactory receptor 384 (predicted)	Rattus norvegicus olfactory receptor 384 (predicted) (Olr384_predicted), mRNA [NM_001000263]	NM_001000263
1.42	2.68	Increase	3.24	0.00424019	0.1789	cytochrome b-245, alpha polypeptide	Rattus norvegicus cytochrome b-245, alpha polypeptide (Cyba), mRNA [NM_024160]	NM_024160
-1.68	3.20	Decrease	-3.22	0.00439272	0.1823	oxidative-stress responsive 1 (predicted)	PREDICTED: Rattus norvegicus oxidative-stress responsive 1 (predicted) (Oxsr1_predicted), mRNA [XM_001078098]	XM_001078098
-1.13	2.19	Decrease	-3.22	0.00440058	0.1823	tenascin R	Rattus norvegicus tenascin R (Tnr), mRNA [NM_013045]	NM_013045

-1.15	2.22	Decrease	-3.22	0.00445323	0.1823	AW141160	AW141160 EST291196 Normalized rat brain, Bento Soares Rattus sp. cDNA clone RGIBE24 5' end similar to Ki-ras cellular oncogene 4B, mRNA sequence [AW141160]	AW141160
-1.11	2.16	Decrease	-3.22	0.00445436	0.1823	similar to RIKEN cDNA 3110052N05	Rattus norvegicus similar to RIKEN cDNA 3110052N05 (RGD1308579), mRNA [NM_001014151]	NM_001014151
-2.63	6.18	Decrease	-3.21	0.00455128	0.1837	dystrophin, muscular dystrophy	Rattus norvegicus dystrophin, muscular dystrophy (Dmd), transcript variant Dp71ab, mRNA [NM_001005244]	NM_001005244
1.53	2.89	Increase	3.20	0.00456528	0.1837	BI282748	BI282748 UI-R-CW0s-cce-g-02-0-UI.s1 UI-R-CW0s Rattus norvegicus cDNA clone UI-R-CW0s-cce-g-02-0-UI 3', mRNA sequence [BI282748]	BI282748
1.80	3.47	Increase	3.20	0.00457862	0.1839	signal sequence receptor, gamma	Rattus norvegicus signal sequence receptor, gamma (Ssr3), mRNA [NM_031120]	NM_031120
-4.62	24.52	Decrease	-3.20	0.00460328	0.1844	similar to apolipoprotein L2; apolipoprotein L-II (predicted)	PREDICTED: Rattus norvegicus similar to apolipoprotein L2; apolipoprotein L-II (predicted) (RGD1309808_predicted), mRNA [XM_343282]	XM_343282
-1.07	2.10	Decrease	-3.20	0.00460798	0.1844	similar to KIAA0614 protein (predicted)	PREDICTED: Rattus norvegicus similar to KIAA0614 protein (predicted) (RGD1309762_predicted), mRNA [XM_222205]	XM_222205
-1.50	2.82	Decrease	-3.20	0.00464147	0.1853	cyclin G1	Rattus norvegicus cyclin G1 (Ccng1), mRNA [NM_012923]	NM_012923
-1.04	2.05	Decrease	-3.19	0.00466874	0.1853	Arid2_predicted	PREDICTED: Rattus norvegicus AT rich interactive domain 2 (Arid-rfx	XM_001059099

							like) (predicted) (Arid2_predicted), mRNA [XM_001059099]	
1.77	3.42	Increase	3.19	0.00470476	0.1855	similar to Protein C10orf11 homolog	PREDICTED: Rattus norvegicus similar to Protein C10orf11 homolog (LOC681383), mRNA [XM_001059639]	XM_001059639
3.31	9.95	Increase	3.19	0.00471651	0.1857	AA924846	AA924846 UI-R-A1-eb-a-03-0-UI.s1 UI-R-A1 Rattus norvegicus cDNA clone UI-R-A1-eb-a-03-0-UI 3' similar to gi [AA924846]	AA924846
-1.87	3.66	Decrease	-3.19	0.00476375	0.1873	ribonuclease, RNase A family, 10 (non-active) (predicted)	Rattus norvegicus ribonuclease, RNase A family, 10 (non-active) (predicted) (Rnase10_predicted), mRNA [NM_001012467]	NM_001012467
1.14	2.20	Increase	3.18	0.00480234	0.1885	BE108178	BE108178 UI-R-BS1-ayw-g-07-0-UI.s1 UI-R-BS1 Rattus norvegicus cDNA clone UI-R-BS1-ayw-g-07-0-UI 3', mRNA sequence [BE108178]	BE108178
1.03	2.04	Increase	3.16	0.00501616	0.1900	similar to 60S ribosomal protein L29 (P23) (predicted)	PREDICTED: Rattus norvegicus similar to 60S ribosomal protein L29 (P23) (predicted) (RGD1562489_predicted), mRNA [XM_220370]	XM_220370
1.06	2.09	Increase	3.15	0.00511205	0.1909	similar to RIKEN cDNA 2610003J06	Rattus norvegicus similar to RIKEN cDNA 2610003J06 (RGD1307381), mRNA [NM_001014116]	NM_001014116
1.54	2.91	Increase	3.15	0.00517716	0.1914	myosin, light polypeptide 2	AGENCOURT_28626027 NIH_MGC_250 Rattus norvegicus cDNA clone IMAGE:7384149 5', mRNA sequence [CO563307]	CO563307
1.16	2.23	Increase	3.14	0.00528347	0.1933	similar to Heparan-sulfate 6-O-sulfotransferase 2 (HS6ST-2)	PREDICTED: Rattus norvegicus similar to heparan sulfate 6-O-sulfotransferase 2 isoform S (predicted)	XM_228681

							(RGD1564397_predicted), mRNA [XM_228681]	
-3.80	13.90	Decrease	-3.14	0.00528409	0.1933	cell death-inducing DNA fragmentation factor, alpha subunit-like effector A (predicted)	PREDICTED: Rattus norvegicus cell death-inducing DNA fragmentation factor, alpha subunit-like effector A (predicted) (Cidea_predicted), mRNA [XM_214551]	XM_214551
1.12	2.17	Increase	3.14	0.00530708	0.1937	transmembrane protein 53 (predicted)	PREDICTED: Rattus norvegicus transmembrane protein 53 (predicted) (Tmem53_predicted), mRNA [XM_233431]	XM_233431
1.35	2.55	Increase	3.13	0.00544723	0.1960	similar to scaffolding protein SLIPR (predicted)	Rattus norvegicus similar to scaffolding protein SLIPR (predicted) (RGD1306155_predicted), mRNA [NM_001037218]	NM_001037218
-1.18	2.27	Decrease	-3.12	0.00554888	0.1970	ENSRNOT00000051958	Q9NQW1 (Q9NQW1) Secretory pathway component Sec31B-1, partial (10%) [TC548694]	
-2.24	4.72	Decrease	-3.11	0.00559753	0.1976	titin	PREDICTED: Rattus norvegicus titin (Ttn), mRNA [XM_001065955]	XM_001065955
-1.24	2.36	Decrease	-3.11	0.00567896	0.1982	solute carrier family 30 (zinc transporter), member 4	Rattus norvegicus solute carrier family 30 (zinc transporter), member 4 (Slc30a4), mRNA [NM_172066]	NM_172066
1.23	2.35	Increase	3.10	0.00573878	0.1983	olfactory receptor 283 (predicted)	Rattus norvegicus olfactory receptor 283 (predicted) (Olr283_predicted), mRNA [NM_001001010]	NM_001001010
-1.34	2.54	Decrease	-3.10	0.00581127	0.1989	lipin 1	Rattus norvegicus lipin 1 (Lpin1), mRNA [NM_001012111]	NM_001012111
1.33	2.52	Increase	3.09	0.00587023	0.1998	follistatin	Rattus norvegicus follistatin (Fst), mRNA [NM_012561]	NM_012561
1.48	2.78	Increase	3.08	0.00602683	0.2011	spastic paraplegia 21 homolog (human)	Rattus norvegicus spastic paraplegia 21 homolog (human) (Spg21), mRNA [NM_001006987]	NM_001006987

1.49	2.81	Increase	3.08	0.0060366	0.2012	carbohydrate sulfotransferase 12	Rattus norvegicus carbohydrate sulfotransferase 12 (Chst12), mRNA [NM_001037775]	NM_001037775
-1.48	2.79	Decrease	-3.08	0.00604993	0.2012	HCR (a-helix coiled-coil rod homolog)	Rattus norvegicus HCR (a-helix coiled-coil rod homolog) (Hcr), mRNA [NM_001002822]	NM_001002822
-1.51	2.85	Decrease	-3.08	0.00605562	0.2012	similar to Dynamin-binding protein (Scaffold protein Tuba)	PREDICTED: Rattus norvegicus similar to Dynamin-binding protein (Scaffold protein Tuba) (LOC309362), mRNA [XM_219860]	XM_219860
2.37	5.16	Increase	3.08	0.00606736	0.2012	similar to RIKEN cDNA 633040615 (predicted)	PREDICTED: Rattus norvegicus similar to RIKEN cDNA 633040615 (predicted) (RGD1307396_predicted), mRNA [XM_341029]	XM_341029
-1.09	2.13	Decrease	-3.08	0.00610332	0.2019	similar to high mobility group protein homolog HMG4 (predicted)	PREDICTED: Rattus norvegicus similar to high mobility group protein homolog HMG4 (predicted) (RGD1564407_predicted), mRNA [XM_223440]	XM_223440
-2.14	4.41	Decrease	-3.07	0.00613449	0.2024	AA892994	AA892994 EST196797 Normalized rat kidney, Bento Soares Rattus sp. cDNA clone RKIBA84 3' end, mRNA sequence [AA892994]	AA892994
-1.07	2.10	Decrease	-3.07	0.00621519	0.2030	chromosome segregation 1-like (S. cerevisiae) (predicted)	PREDICTED: Rattus norvegicus chromosome segregation 1-like (S. cerevisiae) (predicted) (Cse1l_predicted), mRNA [XM_342581]	XM_342581
-1.40	2.64	Decrease	-3.07	0.00621729	0.2030	Ttn	PREDICTED: Rattus norvegicus titin (Ttn), mRNA [XM_001065955]	XM_001065955
-2.17	4.49	Decrease	-3.06	0.00630278	0.2045	X52757	R.norvegicus mitochondrial D-loop region. [X52757]	X52757

1.38	2.60	Increase	3.06	0.00637428	0.2050	cofilin 1, non-muscle	Rattus norvegicus cofilin 1, non-muscle (Cfl1), mRNA [NM_017147]	NM_017147
-1.17	2.25	Decrease	-3.05	0.00644075	0.2055	programmed cell death 6 interacting protein	PREDICTED: Rattus norvegicus programmed cell death 6 interacting protein (Pcd6ip), mRNA [XM_001076624]	XM_001076624
1.75	3.36	Increase	3.05	0.0065314	0.2070	BF564217	BF564217 UI-R-C4-alk-b-02-0-UI.r1 UI-R-C4 Rattus norvegicus cDNA clone UI-R-C4-alk-b-02-0-UI 5', mRNA sequence [BF564217]	BF564217
2.11	4.32	Increase	3.04	0.00662729	0.2085	BM392202	BM392202 UI-R-DO1-ckp-o-12-0-UI.s1 UI-R-DO1 Rattus norvegicus cDNA clone UI-R-DO1-ckp-o-12-0-UI 3', mRNA sequence [BM392202]	BM392202
1.09	2.13	Increase	3.04	0.00664561	0.2087	pituitary tumor-transforming 1	Rattus norvegicus pituitary tumor-transforming 1 (Pttg1), mRNA [NM_022391]	NM_022391
1.98	3.94	Increase	3.03	0.00669231	0.2094	follistatin	Rattus norvegicus follistatin (Fst), mRNA [NM_012561]	NM_012561
1.78	3.44	Increase	3.03	0.00674725	0.2101	growth arrest specific 7	Rattus norvegicus growth arrest specific 7 (Gas7), mRNA [NM_053484]	NM_053484
-4.10	17.18	Decrease	-3.03	0.00682525	0.2113	similar to RIKEN cDNA C530028O21 gene	Rattus norvegicus similar to RIKEN cDNA C530028O21 gene (RGD1304952), mRNA [NM_001014059]	NM_001014059
1.09	2.13	Increase	3.02	0.00691209	0.2120	similar to KIAA0974 protein	Rattus norvegicus similar to KIAA0974 protein (RGD1359592), mRNA [NM_001013878]	NM_001013878
2.83	7.13	Increase	3.02	0.00696461	0.2121	AA944569	AA944569 EST200068 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone REMAL22 3' end, mRNA sequence [AA944569]	AA944569

-2.12	4.33	Decrease	-3.01	0.00703652	0.2134	AI233993	AI233993 EST230681 Normalized rat lung, Bento Soares Rattus sp. cDNA clone RLUCT82 3' end, mRNA sequence [AI233993]	AI233993
1.04	2.05	Increase	3.01	0.00704273	0.2135	bcl2-associated death promoter	Rattus norvegicus bcl2-associated death promoter (Bad), mRNA [NM_022698]	NM_022698
1.52	2.87	Increase	3.00	0.00729822	0.2171	AW917664	AW917664 EST348968 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIEG58 5' end, mRNA sequence [AW917664]	AW917664
-1.18	2.26	Decrease	-2.99	0.00731168	0.2171	ring finger protein 135	Rattus norvegicus ring finger protein 135 (Rnf135), mRNA [NM_001012010]	NM_001012010
-1.22	2.33	Decrease	-2.98	0.00746977	0.2188	TC530939	Q9ERK2 (Q9ERK2) Neprilysin-like peptidase gamma, partial (4%) [TC530939]	
1.19	2.28	Increase	2.97	0.00767044	0.2210	XM_342889	Rattus norvegicus similar to hypothetical protein (LOC362570), mRNA [XM_342889]	XM_342889
1.13	2.18	Increase	2.96	0.00791288	0.2246	reversion induced LIM gene	Rattus norvegicus reversion induced LIM gene (Ril), mRNA [NM_017062]	NM_017062
1.25	2.38	Increase	2.96	0.00795908	0.2256	nicotinamide N-methyltransferase (predicted)	PREDICTED: Rattus norvegicus nicotinamide N-methyltransferase (predicted) (Nnmt_predicted), mRNA [XM_217138]	XM_217138
1.00	2.00	Increase	2.95	0.00811882	0.2268	Dnaj (Hsp40) homolog, subfamily C, member 17 (predicted)	PREDICTED: Rattus norvegicus Dnaj (Hsp40) homolog, subfamily C, member 17 (predicted) (Dnajc17_predicted), mRNA [XM_230468]	XM_230468
2.10	4.29	Increase	2.95	0.00812464	0.2268	Senp5_predicted	PREDICTED: Rattus norvegicus SUMO/sentrin specific protease 5	XM_221369

							(predicted) (Senp5_predicted), mRNA [XM_221369]	
1.12	2.18	Increase	2.94	0.00817349	0.2270	AW523375	AW523375 UI-R-BO0-aif-e-07-0-UI.s1 UI-R-BO0 Rattus norvegicus cDNA clone UI-R-BO0-aif-e-07-0-UI 3', mRNA sequence [AW523375]	AW523375
1.12	2.17	Increase	2.94	0.0082098	0.2275	DiGeorge syndrome critical region gene 14 homolog (human)	Rattus norvegicus DiGeorge syndrome critical region gene 14 homolog (human) (Dgcr14), mRNA [NM_001012472]	NM_001012472
-1.01	2.02	Decrease	-2.94	0.00827712	0.2284	XM_225436	Rattus norvegicus similar to hypothetical protein MGC39558 (LOC291212), mRNA [XM_225436]	XM_225436
-1.01	2.02	Decrease	-2.94	0.00829809	0.2284	similar to 5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase/IMP cyclohydrolase (predicted)	PREDICTED: Rattus norvegicus similar to 5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase/IMP cyclohydrolase (predicted) (RGD1559750_predicted), mRNA [XM_227632]	XM_227632
1.35	2.55	Increase	2.94	0.00831477	0.2284	glutathione peroxidase 3	Rattus norvegicus glutathione peroxidase 3 (Gpx3), mRNA [NM_022525]	NM_022525
1.31	2.48	Increase	2.94	0.00833605	0.2284	AI145976	AI145976 UI-R-BT0-qc-g-05-0-UI.s1 UI-R-BT0 Rattus norvegicus cDNA clone UI-R-BT0-qc-g-05-0-UI 3', mRNA sequence [AI145976]	AI145976
1.25	2.38	Increase	2.93	0.00837806	0.2291	similar to RIKEN cDNA 1500015010 (predicted)	PREDICTED: Rattus norvegicus similar to RIKEN cDNA 1500015010 (predicted) (RGD1305645_predicted), mRNA [XM_343562]	XM_343562
-1.66	3.16	Decrease	-2.93	0.00842478	0.2297	Ttn	PREDICTED: Rattus norvegicus titin (Ttn), mRNA [XM_001065955]	XM_001065955

-1.34	2.53	Decrease	-2.92	0.00854064	0.2312	splicing factor 3b, subunit 1	BF523561 UI-R-C0-jr-d-05-0-UI.r1 UI-R-C0 Rattus norvegicus cDNA clone UI-R-C0-jr-d-05-0-UI 5', mRNA sequence [BF523561]	BF523561
-2.82	7.05	Decrease	-2.92	0.00856814	0.2316	U08214	RSU08214 Rattus sp. DNA binding protein (URE-B1) mRNA, complete cds [U08214]	U08214
-1.15	2.22	Decrease	-2.92	0.00861781	0.2321	nebulin (predicted)	PREDICTED: Rattus norvegicus nebulin (predicted) (Neb_predicted), mRNA [XM_229925]	XM_229925
1.85	3.60	Increase	2.92	0.00870115	0.2326	similar to guanine nucleotide binding protein, alpha stimulating, olfactory type	PREDICTED: Rattus norvegicus similar to guanine nucleotide binding protein, alpha stimulating, olfactory type (LOC682950), mRNA [XM_001060921]	XM_001060921
1.71	3.26	Increase	2.91	0.00874872	0.2331	chymase 1, mast cell	Rattus norvegicus chymase 1, mast cell (Cma1), mRNA [NM_013092]	NM_013092
1.08	2.12	Increase	2.91	0.00880843	0.2343	STARD3 N-terminal like	Rattus norvegicus STARD3 N-terminal like (Stard3nl), mRNA [NM_001008298]	NM_001008298
1.07	2.10	Increase	2.91	0.00882726	0.2345	nuclear transcription factor-Y gamma	Rattus norvegicus nuclear transcription factor-Y gamma (Nfyc), mRNA [NM_012866]	NM_012866
1.95	3.86	Increase	2.91	0.00885347	0.2349	similar to Antxr2 protein	PREDICTED: Rattus norvegicus similar to Antxr2 protein (LOC305633), mRNA [XM_223745]	XM_223745
-1.76	3.39	Decrease	-2.90	0.00898534	0.2371	AW141373	AW141373 EST291414 Normalized rat brain, Bento Soares Rattus sp. cDNA clone RGIBP89 5' end similar to neural cell adhesion molecule NCAM-120, mRNA sequence [AW141373]	AW141373
1.77	3.41	Increase	2.88	0.00952512	0.2448	histone cluster 1, H2bm (predicted)	PREDICTED: Rattus norvegicus histone 1, H2bm (predicted)	XM_341530

							(Hist1h2bm_predicted), mRNA [XM_341530]	
-1.55	2.92	Decrease	-2.88	0.00952634	0.2448	titin	PREDICTED: Rattus norvegicus titin (Ttn), mRNA [XM_001065955]	XM_001065955
1.05	2.07	Increase	2.88	0.0095292	0.2448	TPA regulated locus	Rattus norvegicus TPA regulated locus (Tparl), mRNA [NM_001024802]	NM_001024802
-2.96	7.80	Decrease	-2.87	0.0096271	0.2454	XM_239603	Rattus norvegicus similar to RIKEN cDNA 1300006M19 (LOC304282), mRNA [XM_239603]	XM_239603
1.66	3.17	Increase	2.86	0.00984004	0.2471	Uap1_predicted	PREDICTED: Rattus norvegicus UDP-N-acetylglucosamine pyrophosphorylase 1 (predicted) (Uap1_predicted), mRNA [XM_222863]	XM_222863
1.55	2.94	Increase	2.86	0.00990568	0.2482	zinc finger protein 579 (predicted)	PREDICTED: Rattus norvegicus zinc finger protein 579 (predicted) (Znf579_predicted), mRNA [XM_218200]	XM_218200
2.23	4.69	Increase	2.86	0.0099432	0.2486	leucine rich repeat containing 30 (predicted)	PREDICTED: Rattus norvegicus leucine rich repeat containing 30 (predicted) (Lrrc30_predicted), mRNA [XM_237538]	XM_237538
-1.46	2.76	Decrease	-2.85	0.00996867	0.2486	netrin 2-like (chicken)	PREDICTED: Rattus norvegicus netrin 2-like (chicken) (Ntn2l), mRNA [XM_343867]	XM_343867
1.23	2.35	Increase	2.85	0.01001135	0.2486	procollagen, type VI, alpha 2	PREDICTED: Rattus norvegicus procollagen, type VI, alpha 2 (Col6a2), mRNA [XM_342115]	XM_342115
-1.37	2.59	Decrease	-2.85	0.01011066	0.2493	RGD1565416_predicted	PREDICTED: Rattus norvegicus similar to talin 2 (predicted) (RGD1565416_predicted), mRNA [XM_236367]	XM_236367

2.35	5.10	Increase	2.84	0.01022892	0.2505	TC536217	Q800A3 (Q800A3) Ddx49-A-prov protein (Fragment), partial (23%) [TC536217]	
-1.27	2.40	Decrease	-2.84	0.01026295	0.2510	acyl-Coenzyme A dehydrogenase family, member 11 (predicted)	PREDICTED: Rattus norvegicus acyl-Coenzyme A dehydrogenase family, member 11 (predicted) (Acad11_predicted), mRNA [XM_236582]	XM_236582
-1.03	2.04	Decrease	-2.84	0.01034504	0.2519	hect (homologous to the E6-AP (UBE3A) carboxyl terminus) domain and RCC1 (CHC1)-like domain (RLD) 2 (predicted)	PREDICTED: Rattus norvegicus hect (homologous to the E6-AP (UBE3A) carboxyl terminus) domain and RCC1 (CHC1)-like domain (RLD) 2 (predicted) (Herc2_predicted), mRNA [XM_218720]	XM_218720
-1.14	2.21	Decrease	-2.84	0.01036428	0.2521	zinc finger and BTB domain containing 25	Rattus norvegicus zinc finger and BTB domain containing 25 (Zbtb25), mRNA [NM_199496]	NM_199496
-1.59	3.00	Decrease	-2.83	0.01046023	0.2536	doublesex and mab-3 related transcription factor like family A2 (predicted)	PREDICTED: Rattus norvegicus doublesex and mab-3 related transcription factor like family A2 (predicted) (Dmrta2_predicted), mRNA [XM_233363]	XM_233363
1.26	2.40	Increase	2.82	0.01067749	0.2553	similar to protein phosphatase 1, regulatory (inhibitor) subunit 1C (predicted)	BG670819 DRNBGB03 Rat DRG Library Rattus norvegicus cDNA clone DRNBGB03 5', mRNA sequence [BG670819]	BG670819
1.83	3.56	Increase	2.82	0.01074371	0.2554	BF407382	BF407382 UI-R-BJ2-bqd-d-06-0-UI.s1 UI-R-BJ2 Rattus norvegicus cDNA clone UI-R-BJ2-bqd-d-06-0-UI 3', mRNA sequence [BF407382]	BF407382
1.54	2.90	Increase	2.81	0.01088406	0.2577	angiotensin II receptor, type 1 (AT1A)	Rattus norvegicus angiotensin II receptor, type 1 (AT1A) (Agtr1a), mRNA [NM_030985]	NM_030985

1.62	3.07	Increase	2.81	0.01092323	0.2579	death effector domain-containing	Rattus norvegicus death effector domain-containing (Dedd), mRNA [NM_031800]	NM_031800
-1.32	2.49	Decrease	-2.81	0.01095405	0.2583	USP6 N-terminal like (predicted)	Rattus norvegicus similar to Expressed sequence AI316785 (LOC291309), mRNA [XM_214508]	XM_214508
1.01	2.01	Increase	2.81	0.01097683	0.2587	transmembrane protein 87A (predicted)	PREDICTED: Rattus norvegicus transmembrane protein 87A (predicted) (Tmem87a_predicted), mRNA [XM_345422]	XM_345422
-1.41	2.65	Decrease	-2.81	0.01098555	0.2587	diamine oxidase-like protein 1	Rattus norvegicus diamine oxidase-like protein 1 (Doxl1), mRNA [NM_199233]	NM_199233
-2.37	5.16	Decrease	-2.81	0.01108028	0.2595	similar to HTGN29 protein; keratinocytes associated transmembrane protein 2	PREDICTED: Rattus norvegicus similar to HTGN29 protein; keratinocytes associated transmembrane protein 2 (RGD1310352), mRNA [XM_220404]	XM_220404
-1.31	2.48	Decrease	-2.81	0.01108456	0.2595	similar to RNA binding motif, single stranded interacting protein 3 isoform 1	PREDICTED: Rattus norvegicus similar to RNA binding motif, single stranded interacting protein 3 isoform 1, transcript variant 5 (LOC680726), mRNA [XM_001061391]	XM_001061391
-1.01	2.02	Decrease	-2.80	0.01122104	0.2606	phospholipase C, beta 4	Rattus norvegicus phospholipase C, beta 4 (Plcb4), mRNA [NM_024353]	NM_024353
-1.24	2.36	Decrease	-2.80	0.01127263	0.2612	similar to RIKEN cDNA 1700081O22	Rattus norvegicus similar to RIKEN cDNA 1700081O22 (LOC367515), mRNA [NM_001014271]	NM_001014271
-1.04	2.05	Decrease	-2.79	0.01151578	0.2641	ryanodine receptor 1, skeletal muscle	PREDICTED: Rattus norvegicus ryanodine receptor 1, skeletal muscle (Ryr1), mRNA [XM_341818]	XM_341818

-1.89	3.71	Decrease	-2.79	0.01161151	0.2644	M33313	RATCYP2A21 Rat hepatic steroid hydroxylase IIA2 (CYP2A2) gene, exons 1 and 2 [M33313]	M33313
1.08	2.11	Increase	2.78	0.01166414	0.2647	serine/threonine kinase 16	Rattus norvegicus serine/threonine kinase 16 (Stk16), mRNA [NM_173142]	NM_173142
1.55	2.92	Increase	2.78	0.01186883	0.2667	choline/ethanolamine phosphotransferase 1	Rattus norvegicus choline/ethanolamine phosphotransferase 1 (Cept1), mRNA [NM_001007699]	NM_001007699
-1.18	2.27	Decrease	-2.78	0.01186922	0.2667	ENSRNOT00000027501	Rattus norvegicus LRRGT00043 mRNA, complete cds. [AY383698]	AY383698
1.70	3.25	Increase	2.77	0.01200626	0.2667	Ac1258	Rattus norvegicus Ac1258 mRNA, complete cds. [AY310151]	AY310151
-2.84	7.18	Decrease	-2.77	0.01203121	0.2668	Ttn	PREDICTED: Rattus norvegicus titin (Ttn), mRNA [XM_001065955]	XM_001065955
1.27	2.42	Increase	2.76	0.01222808	0.2689	gap junction membrane channel protein alpha 7	PREDICTED: Rattus norvegicus gap junction membrane channel protein alpha 7 (Gja7), mRNA [XM_001081521]	XM_001081521
-4.65	25.02	Decrease	-2.76	0.01223386	0.2689	BF550568	BF550568 UI-R-C0-jl-b-08-0-UI.r1 UI-R-C0 Rattus norvegicus cDNA clone UI-R-C0-jl-b-08-0-UI 5', mRNA sequence [BF550568]	BF550568
1.06	2.09	Increase	2.76	0.01228861	0.2692	Josephin domain containing 2 (predicted)	PREDICTED: Rattus norvegicus Josephin domain containing 2 (predicted) (Josd2_predicted), mRNA [XM_214929]	XM_214929
1.27	2.41	Increase	2.75	0.01260622	0.2731	TC521066	Q49846 (Q49846) B2235_C3_243 (Possible conserved membrane protein), partial (7%) [TC521066]	
1.54	2.91	Increase	2.75	0.0126117	0.2731	non-metastatic cells 7, protein expressed in	Rattus norvegicus non-metastatic cells 7, protein expressed in (Nme7), mRNA [NM_138532]	NM_138532

-1.48	2.79	Decrease	-2.75	0.01264704	0.2733	ubiquitin specific peptidase 9, X chromosome (predicted)	PREDICTED: Rattus norvegicus ubiquitin specific peptidase 9, X chromosome (predicted) (Usp9x_predicted), mRNA [XM_343766]	XM_343766
1.04	2.06	Increase	2.74	0.01292742	0.2768	BI301310	UI-R-DLO-cio-f-15-0-UI.s1 UI-R-DLO Rattus norvegicus cDNA clone UI-R-DLO-cio-f-15-0-UI 3', mRNA sequence [BI301310]	BI301310
-2.30	4.91	Decrease	-2.73	0.0130034	0.2773	MAM domain containing 4	Rattus norvegicus MAM domain containing 4 (Mamdc4), mRNA [NM_145768]	NM_145768
-2.07	4.20	Decrease	-2.73	0.0131755	0.2786	myosin Va	Rattus norvegicus myosin Va (Myo5a), mRNA [NM_022178]	NM_022178
1.00	2.00	Increase	2.73	0.01320504	0.2787	procollagen, type 1, alpha 1	PREDICTED: Rattus norvegicus procollagen, type 1, alpha 1 (Col1a1), mRNA [XM_213440]	XM_213440
1.30	2.46	Increase	2.72	0.01325323	0.2790	LOC683544	PREDICTED: Rattus norvegicus similar to proline rich membrane anchor 1 (LOC683544), mRNA [XM_001066450]	XM_001066450
1.07	2.10	Increase	2.72	0.0133098	0.2796	similar to RIKEN cDNA 5830446M03	Rattus norvegicus similar to RIKEN cDNA 5830446M03 (RGD1307688), mRNA [NM_001014188]	NM_001014188
1.23	2.34	Increase	2.71	0.01366456	0.2832	tripartite motif-containing 42	Rattus norvegicus tripartite motif-containing 42 (Trim42), mRNA [NM_001013955]	NM_001013955
-1.19	2.29	Decrease	-2.71	0.01375115	0.2837	nischarin	PREDICTED: Rattus norvegicus nischarin (Nisch), mRNA [XM_240330]	XM_240330
-1.28	2.42	Decrease	-2.70	0.01386863	0.2849	BF408265	BF408265 UI-R-BJ2-bqr-c-10-0-UI.s1 UI-R-BJ2 Rattus norvegicus cDNA clone UI-R-BJ2-bqr-c-10-0-UI 3', mRNA sequence [BF408265]	BF408265

1.08	2.12	Increase	2.70	0.01390994	0.2850	similar to exosome component 1	PREDICTED: Rattus norvegicus similar to exosome component 1 (LOC679140), mRNA [XM_001054866]	XM_001054866
1.25	2.37	Increase	2.70	0.01392796	0.2850	SRY-box containing gene 4 (predicted)	PREDICTED: Rattus norvegicus SRY-box containing gene 4 (predicted) (Sox4_predicted), mRNA [XM_344594]	XM_344594
-1.44	2.71	Decrease	-2.70	0.01393741	0.2850	microtubule associated serine/threonine kinase 2 (predicted)	PREDICTED: Rattus norvegicus microtubule associated serine/threonine kinase 2 (predicted) (Mast2_predicted), mRNA [XM_233782]	XM_233782
1.91	3.75	Increase	2.70	0.01394159	0.2850	BF393048	BF393048 UI-R-CA0-bgp-e-04-0-UI.s1 UI-R-CA0 Rattus norvegicus cDNA clone UI-R-CA0-bgp-e-04-0-UI 3', mRNA sequence [BF393048]	BF393048
1.23	2.34	Increase	2.70	0.01402709	0.2855	BI277534	UI-R-CY0-bxs-d-02-0-UI.s1 UI-R-CY0 Rattus norvegicus cDNA clone UI-R-CY0-bxs-d-02-0-UI 3', mRNA sequence [BI277534]	BI277534
-1.06	2.09	Decrease	-2.70	0.01408667	0.2859	AW144275	AW144275 EST294571 Normalized rat ovary, Bento Soares Rattus sp. cDNA clone RGICP06 5' end, mRNA sequence [AW144275]	AW144275
1.29	2.45	Increase	2.69	0.0141436	0.2864	similar to G2 (predicted)	PREDICTED: Rattus norvegicus similar to G2 (predicted) (RGD1310754_predicted), mRNA [XM_001079537]	XM_001079537
1.26	2.40	Increase	2.69	0.01422858	0.2869	XM_214487	Rattus norvegicus similar to RIKEN cDNA 5730599009 (LOC291188), mRNA [XM_214487]	XM_214487
2.07	4.20	Increase	2.69	0.01426916	0.2874	artemin	Rattus norvegicus artemin (Artn), mRNA [NM_053397]	NM_053397

1.93	3.81	Increase	2.68	0.01460522	0.2893	brain-specific angiogenesis inhibitor 1-associated protein 2	Rattus norvegicus brain-specific angiogenesis inhibitor 1-associated protein 2 (Baia2), mRNA [NM_057196]	NM_057196
1.40	2.65	Increase	2.68	0.01466533	0.2894	tumor necrosis factor (ligand) superfamily, member 13	Rattus norvegicus tumor necrosis factor (ligand) superfamily, member 13 (Tnfsf13), mRNA [NM_001009623]	NM_001009623
-1.32	2.49	Decrease	-2.68	0.01472376	0.2896	AW918233	AW918233 EST349537 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIEO19 5' end, mRNA sequence [AW918233]	AW918233
-1.03	2.04	Decrease	-2.67	0.01481576	0.2904	AI236318	EST232880 Normalized rat ovary, Bento Soares Rattus sp. cDNA clone ROVDE13 3' end, mRNA sequence [AI236318]	AI236318
1.08	2.12	Increase	2.67	0.01490865	0.2912	Col11a1	PREDICTED: Rattus norvegicus procollagen, type XI, alpha 1 (Col11a1), mRNA [XM_342325]	XM_342325
-1.18	2.26	Decrease	-2.67	0.01505742	0.2923	CO388689	AGENCOURT_26625193 NIH_MGC_253 Rattus norvegicus cDNA clone IMAGE:7304073 5', mRNA sequence [CO388689]	CO388689
1.17	2.25	Increase	2.66	0.01519363	0.2936	TAF7 RNA polymerase II, TATA box binding protein (TBP)-associated factor, 55kDa (predicted)	PREDICTED: Rattus norvegicus TAF7 RNA polymerase II, TATA box binding protein (TBP)-associated factor, 55kDa (predicted) (Taf7_predicted), mRNA [XM_226031]	XM_226031
1.24	2.36	Increase	2.66	0.01523302	0.2939	sal-like 3 (Drosophila) (predicted)	PREDICTED: Rattus norvegicus sal-like 3 (Drosophila) (predicted) (Sall3_predicted), mRNA [XM_344708]	XM_344708

-1.31	2.48	Decrease	-2.66	0.01533722	0.2946	Dst_predicted	PREDICTED: Rattus norvegicus dystonin (predicted) (Dst_predicted), mRNA [XM_237042]	XM_237042
1.07	2.09	Increase	2.65	0.01548465	0.2954	protein phosphatase 1, regulatory (inhibitor) subunit 14A	Rattus norvegicus protein phosphatase 1, regulatory (inhibitor) subunit 14A (Ppp1r14a), mRNA [NM_130403]	NM_130403
-1.50	2.84	Decrease	-2.65	0.01551369	0.2955	AW920343	AW920343 EST351647 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIGU32 5' end, mRNA sequence [AW920343]	AW920343
1.05	2.07	Increase	2.65	0.01556498	0.2957	similar to Tetraspanin-15 (Tspan-15) (Transmembrane 4 superfamily member 15) (Tetraspan NET-7)	PREDICTED: Rattus norvegicus similar to Tetraspanin-15 (Tspan-15) (Transmembrane 4 superfamily member 15) (Tetraspan NET-7) (LOC679462), mRNA [XM_001056482]	XM_001056482
1.83	3.56	Increase	2.65	0.01572027	0.2964	LOC679596	PREDICTED: Rattus norvegicus similar to GABA(A) receptor-associated protein like 2 (LOC679596), mRNA [XM_001053633]	XM_001053633
-2.07	4.21	Decrease	-2.64	0.01577634	0.2968	period homolog 2 (Drosophila)	Rattus norvegicus period homolog 2 (Drosophila) (Per2), mRNA [NM_031678]	NM_031678
-3.48	11.15	Decrease	-2.64	0.01602261	0.2994	AI008646	AI008646 EST203097 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone REMBB18 3' end, mRNA sequence [AI008646]	AI008646
-1.16	2.24	Decrease	-2.64	0.01604015	0.2994	similar to KIAA0853 protein (predicted)	PREDICTED: Rattus norvegicus similar to KIAA0853 protein (predicted)	XM_573801

							(RGD1563689_predicted), mRNA [XM_573801]	
1.59	3.00	Increase	2.64	0.01609348	0.3001	schlafen 2 (predicted)	PREDICTED: Rattus norvegicus schlafen 2 (predicted) (Slfn2_predicted), mRNA [XM_220779]	XM_220779
1.38	2.60	Increase	2.63	0.01628676	0.3022	cathepsin K	Rattus norvegicus cathepsin K (Ctsk), mRNA [NM_031560]	NM_031560
1.21	2.31	Increase	2.63	0.01643612	0.3039	drebrin 1	Rattus norvegicus drebrin 1 (Dbn1), mRNA [NM_031024]	NM_031024
1.17	2.26	Increase	2.62	0.0165623	0.3047	v-ral simian leukemia viral oncogene homolog B	Rattus norvegicus v-ral simian leukemia viral oncogene homolog B (Ralb), mRNA [NM_053821]	NM_053821
1.04	2.06	Increase	2.62	0.01657829	0.3049	TC562057	Q8R0F4 (Q8R0F4) BC026978 protein (Fragment), partial (20%) [TC562057]	
-1.82	3.53	Decrease	-2.62	0.01659621	0.3051	protein kinase, cGMP-dependent, type 1 (mapped)	PREDICTED: Rattus norvegicus protein kinase, cGMP-dependent, type 1 (mapped) (Prkg1_mapped), mRNA [XM_219805]	XM_219805
-1.28	2.44	Decrease	-2.61	0.01681984	0.3067	supervillin (predicted)	PREDICTED: Rattus norvegicus supervillin (predicted) (Svil_predicted), mRNA [XM_341540]	XM_341540
-1.58	3.00	Decrease	-2.61	0.01689749	0.3073	similar to Myeloid/lymphoid or mixed-lineage leukemia protein 3 homolog (Histone-lysine N-methyltransferase, H3 lysine-4 specific MLL3)	PREDICTED: Rattus norvegicus similar to Myeloid/lymphoid or mixed-lineage leukemia protein 3 homolog (Histone-lysine N-methyltransferase, H3 lysine-4 specific MLL3) (LOC679252), mRNA [XM_001054661]	XM_001054661
-1.43	2.69	Decrease	-2.61	0.01697028	0.3078	transient receptor potential cation channel, subfamily C, member 1	Rattus norvegicus transient receptor potential cation channel, subfamily C, member 1 (Trpc1), mRNA [NM_053558]	NM_053558

1.50	2.83	Increase	2.61	0.01700255	0.3078	thrombospondin 2	PREDICTED: Rattus norvegicus thrombospondin 2 (Thbs2), mRNA [XM_214778]	XM_214778
1.10	2.14	Increase	2.61	0.01704674	0.3079	TC541278	Q8R4C3 (Q8R4C3) Csr1, partial (33%) [TC541278]	
2.81	7.03	Increase	2.61	0.01707904	0.3081	chondroadherin	Rattus norvegicus chondroadherin (Chad), mRNA [NM_019164]	NM_019164
-1.11	2.16	Decrease	-2.60	0.01718253	0.3092	olfactory receptor 157 (predicted)	Rattus norvegicus olfactory receptor 157 (predicted) (Olr157_predicted), mRNA [NM_001000169]	NM_001000169
1.68	3.21	Increase	2.60	0.01732919	0.3109	AA955229	AA955229 UI-R-A1-ej-f-11-0-UI.s1 UI-R-A1 Rattus norvegicus cDNA clone UI-R-A1-ej-f-11-0-UI 3' similar to gi [AA955229]	AA955229
-1.27	2.42	Decrease	-2.60	0.01743481	0.3119	LOC679811	PREDICTED: Rattus norvegicus similar to RIKEN cDNA D930015E06, transcript variant 3 (LOC679811), mRNA [XM_001054550]	XM_001054550
1.04	2.05	Increase	2.60	0.01751446	0.3123	XM_346216	Rattus norvegicus similar to Itga6 protein (LOC367576), mRNA [XM_346216]	XM_346216
1.11	2.16	Increase	2.60	0.0175352	0.3124	AW529005	AW529005 UI-R-BT1-aka-a-11-0-UI.s1 UI-R-BT1 Rattus norvegicus cDNA clone UI-R-BT1-aka-a-11-0-UI 3', mRNA sequence [AW529005]	AW529005
1.33	2.52	Increase	2.59	0.01782956	0.3142	similar to Ext1	PREDICTED: Rattus norvegicus similar to Ext1 (LOC299907), mRNA [XM_216920]	XM_216920
1.58	2.99	Increase	2.58	0.01793143	0.3153	AA850885	AA850885 EST193653 Normalized rat ovary, Bento Soares Rattus sp. cDNA clone ROVAO01 3' end, mRNA sequence [AA850885]	AA850885
1.11	2.16	Increase	2.58	0.01830055	0.3178	similar to ADP-ribosylation factor-like 10B (predicted)	PREDICTED: Rattus norvegicus similar to ADP-ribosylation factor-	XM_573456

							like 10B (predicted) (RGD1565940_predicted), mRNA [XM_573456]	
-3.12	8.70	Decrease	-2.57	0.01838832	0.3189	AW144502	AW144502 EST294879 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone RGIAM10 5' end, mRNA sequence [AW144502]	AW144502
1.04	2.06	Increase	2.57	0.01841647	0.3191	AW143671	AW143671 EST293967 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone RGBX76 5' end, mRNA sequence [AW143671]	AW143671
1.24	2.37	Increase	2.57	0.01842896	0.3191	promethin	Rattus norvegicus promethin (LOC378467), mRNA [NM_194354]	NM_194354
1.19	2.27	Increase	2.57	0.01843961	0.3191	acyl-Coenzyme A binding domain containing 4	Rattus norvegicus acyl-Coenzyme A binding domain containing 4 (Acbd4), mRNA [NM_001012013]	NM_001012013
1.35	2.54	Increase	2.57	0.01852726	0.3195	hypothetical protein LOC499856	Rattus norvegicus hypothetical protein LOC499856 (LOC499856), mRNA [NM_001025042]	NM_001025042
-1.04	2.05	Decrease	-2.57	0.01859502	0.3198	similar to RIKEN cDNA E130308A19 (predicted)	PREDICTED: Rattus norvegicus similar to RIKEN cDNA E130308A19 (predicted), transcript variant 2 (RGD1310951_predicted), mRNA [XM_001056694]	XM_001056694
2.98	7.87	Increase	2.57	0.01859884	0.3198	TC535418	Q6PD06 (Q6PD06) Cdc23 protein, partial (24%) [TC535418]	
1.24	2.37	Increase	2.57	0.01863681	0.3202	Usher syndrome 1C homolog (human)	Rattus norvegicus harmonin a1 (Ush1c) mRNA, complete cds; alternatively spliced [AY588414]	AY588414
1.36	2.58	Increase	2.57	0.01869699	0.3205	CDC23 (cell division cycle 23, yeast, homolog)	Rattus norvegicus similar to cell division cycle protein 23; anaphase-promoting complex subunit 8 (LOC291689), mRNA [XM_214588]	XM_214588

1.04	2.05	Increase	2.56	0.01900729	0.3233	AA925266	AA925266 UI-R-A1-ee-f-06-0-UI.s1 UI-R-A1 Rattus norvegicus cDNA clone UI-R-A1-ee-f-06-0-UI 3', mRNA sequence [AA925266]	AA925266
1.38	2.61	Increase	2.56	0.01903899	0.3233	pyrimidinerbic receptor P2Y, G- protein coupled, 6	Rattus norvegicus pyrimidinerbic receptor P2Y, G-protein coupled, 6 (P2ry6), mRNA [NM_057124]	NM_057124
1.52	2.86	Increase	2.56	0.01904764	0.3233	cytochrome b5 reductase 3	Rattus norvegicus cytochrome b5 reductase 3 (Cyb5r3), mRNA [NM_138877]	NM_138877
1.07	2.09	Increase	2.56	0.01907299	0.3233	prepro-Neuropeptide W polypeptide	Rattus norvegicus prepro- Neuropeptide W polypeptide (LOC259224), mRNA [NM_153294]	NM_153294
1.45	2.74	Increase	2.56	0.01908543	0.3233	LOC682841	PREDICTED: Rattus norvegicus similar to H3 histone, family 3B (LOC682841), mRNA [XM_001063350]	XM_001063350
-1.13	2.19	Decrease	-2.55	0.01923209	0.3237	vacuolar protein sorting 13D (yeast) (predicted)	PREDICTED: Rattus norvegicus vacuolar protein sorting 13D (yeast) (predicted) (Vps13d_predicted), mRNA [XM_233792]	XM_233792
-1.16	2.23	Decrease	-2.55	0.01929009	0.3238	Bmpr2	PREDICTED: Rattus norvegicus bone morphogenic protein receptor, type II (serine/threonine kinase) (Bmpr2), mRNA [XM_217409]	XM_217409
1.59	3.01	Increase	2.54	0.01957363	0.3250	angiopoietin-like 4	Rattus norvegicus angiopoietin-like 4 (Angptl4), mRNA [NM_199115]	NM_199115
1.26	2.39	Increase	2.54	0.01967334	0.3260	hypothetical protein LOC691995	PREDICTED: Rattus norvegicus hypothetical protein LOC691995 (LOC691995), mRNA [XM_001080750]	XM_001080750
1.71	3.27	Increase	2.54	0.01972914	0.3265	prostaglandin E synthase	Rattus norvegicus prostaglandin E synthase (Ptges), mRNA [NM_021583]	NM_021583

-1.93	3.82	Decrease	-2.53	0.02010545	0.3290	short form of beta II spectrin	RNO242018 Rattus norvegicus mRNA for short form of beta II spectrin, partial [AJ242018]	AJ242018
2.05	4.15	Increase	2.53	0.02019218	0.3295	similar to hypothetical protein (predicted)	PREDICTED: Rattus norvegicus similar to hypothetical protein (predicted) (RGD1565522_predicted), mRNA [XM_237794]	XM_237794
-1.10	2.15	Decrease	-2.53	0.02025678	0.3297	LOC688211	PREDICTED: Rattus norvegicus hypothetical protein LOC688211 (LOC688211), mRNA [XM_001081514]	XM_001081514
1.11	2.16	Increase	2.53	0.02036398	0.3302	AI177494	AI177494 EST221126 Normalized rat placenta, Bento Soares Rattus sp. cDNA clone RPLCA67 3' end, mRNA sequence [AI177494]	AI177494
1.57	2.97	Increase	2.52	0.02038753	0.3302	XM_345436	Rattus norvegicus similar to 40S RIBOSOMAL PROTEIN S3A (V-FOS TRANSFORMATION EFFECTOR PROTEIN) (LOC366193), mRNA [XM_345436]	XM_345436
1.85	3.60	Increase	2.52	0.02040549	0.3303	BQ203347	BQ203347 UI-R-DZ1-cnf-i-24-0-UI.s1 NCI_CGAP_DZ1 Rattus norvegicus cDNA clone IMAGE:7344962 3', mRNA sequence [BQ203347]	BQ203347
-1.45	2.74	Decrease	-2.52	0.02042297	0.3303	similar to RIKEN cDNA 2310045A20 (predicted)	PREDICTED: Rattus norvegicus similar to RIKEN cDNA 2310045A20 (predicted) (RGD1562860_predicted), mRNA [XM_341223]	XM_341223
1.25	2.37	Increase	2.52	0.02060741	0.3318	MUS81 endonuclease homolog (yeast)	Rattus norvegicus MUS81 endonuclease homolog (yeast) (Mus81), mRNA [NM_001025645]	NM_001025645

1.02	2.02	Increase	2.52	0.02069596	0.3328	leukotriene C4 synthase	Rattus norvegicus leukotriene C4 synthase (Ltc4s), mRNA [NM_053639]	NM_053639
-1.25	2.39	Decrease	-2.52	0.0207058	0.3328	hect (homologous to the E6-AP (UBE3A) carboxyl terminus) domain and RCC1 (CHC1)-like domain (RLD) 1 (predicted)	PREDICTED: Rattus norvegicus hect (homologous to the E6-AP (UBE3A) carboxyl terminus) domain and RCC1 (CHC1)-like domain (RLD) 1 (predicted) (Herc1_predicted), mRNA [XM_236362]	XM_236362
-1.76	3.38	Decrease	-2.52	0.02072519	0.3328	BF413313	UI-R-BT1-bnw-d-07-0-UI.s1 UI-R-BT1 Rattus norvegicus cDNA clone UI-R-BT1-bnw-d-07-0-UI 3', mRNA sequence [BF413313]	BF413313
-1.85	3.61	Decrease	-2.51	0.02086794	0.3337	peptidyl-tRNA hydrolase 1 homolog (S. cerevisiae) (predicted)	PREDICTED: Rattus norvegicus peptidyl-tRNA hydrolase 1 homolog (S. cerevisiae) (predicted) (Ptrh1_predicted), mRNA [XM_342416]	XM_342416
1.55	2.92	Increase	2.50	0.02128455	0.3377	AI385133	AI385133 UI-R-A0-ay-f-02-0-UI.s1 UI-R-A0 Rattus norvegicus cDNA clone UI-R-A0-ay-f-02-0-UI 3', mRNA sequence [AI385133]	AI385133
1.45	2.73	Increase	2.50	0.02155472	0.3389	ENSRNOT00000052065	PREDICTED: Rattus norvegicus similar to ribosomal protein S10 (LOC364977), mRNA [XM_344746]	XM_344746
-1.41	2.66	Decrease	-2.50	0.02158464	0.3390	Down syndrome critical region gene 1-like 1	Rattus norvegicus Down syndrome critical region gene 1-like 1 (Dscr11), mRNA [NM_175578]	NM_175578
-1.23	2.34	Decrease	-2.49	0.0217374	0.3397	polymerase (DNA directed), alpha 2	Rattus norvegicus polymerase (DNA directed), alpha 2 (Pola2), mRNA [NM_053480]	NM_053480
1.02	2.02	Increase	2.49	0.0217481	0.3397	CD302 antigen	Rattus norvegicus CD302 antigen (Cd302), mRNA [NM_001013916]	NM_001013916

1.63	3.10	Increase	2.49	0.02175304	0.3397	CD44 antigen	Rattus norvegicus CD44 antigen (Cd44), mRNA [NM_012924]	NM_012924
1.07	2.10	Increase	2.49	0.02177022	0.3399	RGD1561069_predicted	PREDICTED: Rattus norvegicus similar to F-box only protein 31 (predicted) (RGD1561069_predicted), mRNA [XM_574248]	XM_574248
-1.65	3.13	Decrease	-2.49	0.0220242	0.3410	abhydrolase domain containing 1	Rattus norvegicus abhydrolase domain containing 1 (Abhd1), mRNA [NM_001008520]	NM_001008520
1.37	2.59	Increase	2.48	0.02231967	0.3427	proline arginine-rich end leucine-rich repeat protein	Rattus norvegicus proline arginine-rich end leucine-rich repeat protein (Prelp), mRNA [NM_053385]	NM_053385
2.49	5.61	Increase	2.47	0.02269923	0.3454	acetylcholinesterase	R.norvegicus mRNA for glycolipid-anchored form of acetylcholinesterase (HAcHE). [X70140]	X70140
1.57	2.96	Increase	2.47	0.0229602	0.3475	nuclear factor, interleukin 3 regulated	Rattus norvegicus nuclear factor, interleukin 3 regulated (Nfil3), mRNA [NM_053727]	NM_053727
1.28	2.43	Increase	2.47	0.02305132	0.3484	AW535083	AW535083 UI-R-C4-als-a-07-0-UI.s1 UI-R-C4 Rattus norvegicus cDNA clone UI-R-C4-als-a-07-0-UI 3', mRNA sequence [AW535083]	AW535083
1.28	2.43	Increase	2.47	0.02310719	0.3485	AF216218	AF216218 Rattus norvegicus orphanin FQ receptor gene (OFQR), complete cds, alternatively spliced [AF216218]	AF216218
1.11	2.15	Increase	2.46	0.0232104	0.3492	lactamase, beta (predicted)	PREDICTED: Rattus norvegicus lactamase, beta (predicted) (Lactb_predicted), mRNA [XM_217181]	XM_217181
-1.21	2.32	Decrease	-2.46	0.02337605	0.3495	5-azacytidine induced gene 1 (predicted)	PREDICTED: Rattus norvegicus 5-azacytidine induced gene 1	XM_340945

							(predicted) (Azi1_predicted), mRNA [XM_340945]	
-1.10	2.14	Decrease	-2.46	0.02358261	0.3511	FAD-dependent oxidoreductase domain containing 1 (predicted)	Rattus norvegicus hypothetical LOC315547 (LOC315547), mRNA [XM_235988]	XM_235988
1.79	3.45	Increase	2.45	0.02374693	0.3522	BF564703	UI-R-BU0-amv-g-06-0-UI.r1 UI-R-BU0 Rattus norvegicus cDNA clone UI-R-BU0-amv-g-06-0-UI 5', mRNA sequence [BF564703]	BF564703
-1.69	3.23	Decrease	-2.45	0.02409551	0.3538	XM_341060	Rattus norvegicus similar to Williams-Beuren syndrome critical region protein 27 (LOC360794), mRNA [XM_341060]	XM_341060
1.32	2.49	Increase	2.45	0.02410141	0.3538	junction adhesion molecule 2	Rattus norvegicus junction adhesion molecule 2 (Jam2), mRNA [NM_001034004]	NM_001034004
-1.01	2.01	Decrease	-2.44	0.02416909	0.3539	AW917678	AW917678 EST348982 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIEG73 5' end, mRNA sequence [AW917678]	AW917678
-1.48	2.78	Decrease	-2.44	0.02419229	0.3539	POU domain, class 2, transcription factor 1	PREDICTED: Rattus norvegicus POU domain, class 2, transcription factor 1 (Pou2f1), mRNA [XM_001075635]	XM_001075635
1.26	2.39	Increase	2.44	0.02420531	0.3539	SRY-box containing gene 21 (predicted)	PREDICTED: Rattus norvegicus SRY-box containing gene 21 (predicted) (Sox21_predicted), mRNA [XM_224521]	XM_224521
-2.06	4.16	Decrease	-2.44	0.02447062	0.3560	AW143180	AW143180 EST293476 Normalized rat brain, Bento Soares Rattus sp. cDNA clone RGIBF05 5' end, mRNA sequence [AW143180]	AW143180

-1.73	3.32	Decrease	-2.44	0.02449439	0.3561	growth differentiation factor 11	PREDICTED: Rattus norvegicus growth differentiation factor 11 (Gdf11), mRNA [XM_001071574]	XM_001071574
1.13	2.19	Increase	2.43	0.0248293	0.3587	coronin, actin binding protein 6	Rattus norvegicus coronin, actin binding protein 6 (Coro6), mRNA [NM_139115]	NM_139115
-1.15	2.21	Decrease	-2.43	0.02486483	0.3587	CUG triplet repeat, RNA binding protein 2	Rattus norvegicus CUG triplet repeat, RNA binding protein 2 (Cugbp2), mRNA [NM_017197]	NM_017197
-2.43	5.40	Decrease	-2.43	0.02486515	0.3587	epsin 3	Rattus norvegicus epsin 3 (Epn3), mRNA [NM_001024791]	NM_001024791
1.40	2.63	Increase	2.43	0.02498064	0.3597	procollagen, type V, alpha 1	Rattus norvegicus procollagen, type V, alpha 1 (Col5a1), mRNA [NM_134452]	NM_134452
1.43	2.69	Increase	2.42	0.02522654	0.3615	transcriptional co-activator with PDZ-binding motif (TA)Z	Rattus norvegicus transcriptional co-activator with PDZ-binding motif (TA)Z (MGC116096), mRNA [NM_001024869]	NM_001024869
-1.94	3.84	Decrease	-2.42	0.02534621	0.3621	laminin, beta 3	PREDICTED: Rattus norvegicus laminin, beta 3 (Lamb3), mRNA [XM_001069930]	XM_001069930
1.10	2.14	Increase	2.42	0.02550939	0.3626	leucine rich repeat containing 33	Rattus norvegicus leucine rich repeat containing 33 (Lrrc33), mRNA [NM_001024995]	NM_001024995
-1.21	2.31	Decrease	-2.42	0.02550979	0.3626	tetraspanin 1	Rattus norvegicus tetraspanin 1 (Tspan1), mRNA [NM_001004236]	NM_001004236
-1.33	2.51	Decrease	-2.42	0.02561668	0.3632	similar to ornithine decarboxylase-like protein	Rattus norvegicus similar to ornithine decarboxylase-like protein (LOC366473), mRNA [NM_001014261]	NM_001014261
1.02	2.03	Increase	2.42	0.025695	0.3636	ELK3, member of ETS oncogene family (predicted)	PREDICTED: Rattus norvegicus ELK3, member of ETS oncogene family (predicted) (Elk3_predicted), mRNA [XM_343198]	XM_343198

1.22	2.33	Increase	2.42	0.02569629	0.3636	AW915440	AW915440 EST346744 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone RGICV43 5' end, mRNA sequence [AW915440]	AW915440
-1.39	2.61	Decrease	-2.41	0.02581236	0.3639	laminin, beta 3	PREDICTED: Rattus norvegicus laminin, beta 3 (Lamb3), mRNA [XM_223087]	XM_223087
1.05	2.07	Increase	2.41	0.02584516	0.3639	TC538123	Q7Z5L9 (Q7Z5L9) Interferon regulatory factor-2 binding protein 2A, partial (64%) [TC538123]	
-1.30	2.47	Decrease	-2.41	0.02602022	0.3639	zinc fingers and homeoboxes 3	PREDICTED: Rattus norvegicus zinc fingers and homeoboxes 3, transcript variant 2 (Zhx3), mRNA [XM_230811]	XM_230811
1.30	2.47	Increase	2.41	0.02609978	0.3639	AI231472	AI231472 EST228160 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone REMDK57 3' end, mRNA sequence [AI231472]	AI231472
-1.23	2.34	Decrease	-2.41	0.02620741	0.3646	similar to ZFP36L3 (predicted)	PREDICTED: Rattus norvegicus similar to ZFP36L3 (predicted) (RGD1559581_predicted), mRNA [XM_228661]	XM_228661
-1.94	3.83	Decrease	-2.40	0.02640348	0.3649	Syncrip	PREDICTED: Rattus norvegicus synaptotagmin binding, cytoplasmic RNA interacting protein (Syncrip), mRNA [XM_001065902]	XM_001065902
1.05	2.07	Increase	2.40	0.02643124	0.3649	XM_346356	Rattus norvegicus similar to 60S RIBOSOMAL PROTEIN L7 (LOC367933), mRNA [XM_346356]	XM_346356
-1.11	2.16	Decrease	-2.40	0.02645783	0.3650	similar to Myosin-18B (Myosin XVIIIb)	Rattus norvegicus similar to myosin-like protein (LOC304551), mRNA [XM_239684]	XM_239684
1.98	3.94	Increase	2.40	0.02652971	0.3655	arachidonate 5-lipoxygenase activating protein	Rattus norvegicus arachidonate 5-lipoxygenase activating protein (Alox5ap), mRNA [NM_017260]	NM_017260

1.70	3.24	Increase	2.40	0.02658955	0.3658	myelin-associated glycoprotein	Rattus norvegicus myelin-associated glycoprotein (Mag), mRNA [NM_017190]	NM_017190
1.49	2.81	Increase	2.40	0.02668094	0.3663	similar to Slit-like 2	PREDICTED: Rattus norvegicus similar to Slit-like 2 (LOC679921), mRNA [XM_001055204]	XM_001055204
1.30	2.46	Increase	2.39	0.02681878	0.3668	proline-rich proteoglycan 2	Rattus norvegicus proline-rich proteoglycan 2 (Prpg2), mRNA [NM_172065]	NM_172065
-2.14	4.40	Decrease	-2.39	0.0269002	0.3674	CD6 antigen	Rattus norvegicus CD6 antigen (Cd6), mRNA [NM_175577]	NM_175577
-1.68	3.20	Decrease	-2.39	0.02700562	0.3676	pellino homolog 3 (Drosophila) (predicted)	PREDICTED: Rattus norvegicus pellino homolog 3 (Drosophila) (predicted) (Peli3_predicted), mRNA [XM_219692]	XM_219692
1.38	2.60	Increase	2.38	0.02744446	0.3694	AW144408	AW144408 EST294704 Normalized rat ovary, Bento Soares Rattus sp. cDNA clone RGICR81 5' end, mRNA sequence [AW144408]	AW144408
2.12	4.35	Increase	2.38	0.02745857	0.3694	retinol binding protein 1, cellular	Rattus norvegicus retinol binding protein 1, cellular (Rbp1), mRNA [NM_012733]	NM_012733
-1.10	2.15	Decrease	-2.38	0.02748495	0.3694	TC553545	Q961E9 (Q961E9) GH28016p, partial (4%) [TC553545]	
-1.15	2.22	Decrease	-2.38	0.02758548	0.3696	Vcl_predicted	PREDICTED: Rattus norvegicus vinculin (predicted) (Vcl_predicted), mRNA [XM_223781]	XM_223781
1.31	2.48	Increase	2.38	0.0279174	0.3714	similar to RIKEN cDNA 1810012H11	Rattus norvegicus similar to RIKEN cDNA 1810012H11 (LOC298606), mRNA [NM_001013936]	NM_001013936
-1.34	2.53	Decrease	-2.37	0.02798333	0.3719	CA507012	CA507012 UI-R-FS1-cqd-e-23-0-UI.s1 NCI_CGAP_FS1 Rattus norvegicus cDNA clone IMAGE:7361377 3', mRNA sequence [CA507012]	CA507012

-1.14	2.20	Decrease	-2.37	0.02808914	0.3719	EGF-like-domain, multiple 4	PREDICTED: Rattus norvegicus EGF-like-domain, multiple 4 (Egfl4), mRNA [XM_341803]	XM_341803
-1.75	3.35	Decrease	-2.37	0.02846067	0.3735	AW918794	AW918794 EST350098 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIEY31 5' end, mRNA sequence [AW918794]	AW918794
-1.18	2.27	Decrease	-2.36	0.0285873	0.3743	AI555010	AI555010 UI-R-C2p-qu-h-04-0-UI.s1 UI-R-C2p Rattus norvegicus cDNA clone UI-R-C2p-qu-h-04-0-UI 3', mRNA sequence [AI555010]	AI555010
-1.12	2.17	Decrease	-2.36	0.02866495	0.3745	Rab6 interacting protein 1 (predicted)	PREDICTED: Rattus norvegicus Rab6 interacting protein 1 (predicted) (Rab6ip1_predicted), mRNA [XM_219270]	XM_219270
1.63	3.10	Increase	2.36	0.0288298	0.3745	WD repeat and SOCS box-containing 1	Rattus norvegicus WD repeat and SOCS box-containing 1 (Wsb1), transcript variant 2, mRNA [NM_001025664]	NM_001025664
-1.03	2.04	Decrease	-2.36	0.02885336	0.3745	U08214	RSU08214 Rattus sp. DNA binding protein (URE-B1) mRNA, complete cds [U08214]	U08214
1.46	2.75	Increase	2.36	0.02897611	0.3748	DV722215	RVL13603 Wackym-Soares normalized rat vestibular cDNA library Rattus norvegicus cDNA 5', mRNA sequence [DV722215]	DV722215
1.00	2.00	Increase	2.35	0.02929268	0.3769	similar to CD69 antigen (p60, early T-cell activation antigen) (predicted)	PREDICTED: Rattus norvegicus similar to CD69 antigen (p60, early T-cell activation antigen) (predicted) (RGD1565373_predicted), mRNA [XM_231622]	XM_231622

-1.58	2.99	Decrease	-2.35	0.02940474	0.3769	valyl-tRNA synthetase 2	PREDICTED: Rattus norvegicus valyl-tRNA synthetase 2 (Vars2), mRNA [XM_001076616]	XM_001076616
-1.36	2.56	Decrease	-2.35	0.02945723	0.3769	interleukin 13	Rattus norvegicus interleukin 13 (Il13), mRNA [NM_053828]	NM_053828
-2.06	4.16	Decrease	-2.35	0.02949021	0.3769	titin	RNU89530 Rattus norvegicus titin protein homolog mRNA, partial cds [U89530]	U89530
-1.12	2.18	Decrease	-2.35	0.02971844	0.3781	AW144299	AW144299 EST294595 Normalized rat ovary, Bento Soares Rattus sp. cDNA clone RGICP57 5' end, mRNA sequence [AW144299]	AW144299
-1.39	2.62	Decrease	-2.34	0.02987516	0.3785	myosin, heavy polypeptide 14	PREDICTED: Rattus norvegicus myosin, heavy polypeptide 14 (Myh14), mRNA [XM_218617]	XM_218617
2.34	5.07	Increase	2.34	0.02988069	0.3785	XM_345191	Rattus norvegicus similar to ribosomal protein L30 (LOC365749), mRNA [XM_345191]	XM_345191
1.15	2.23	Increase	2.34	0.02993471	0.3785	F11 receptor	Rattus norvegicus F11 receptor (F11r), mRNA [NM_053796]	NM_053796
-1.13	2.18	Decrease	-2.34	0.02999332	0.3790	XM_346113	PREDICTED: Rattus norvegicus similar to Down syndrome cell adhesion molecule (LOC367375), mRNA [XM_346113]	XM_346113
-1.58	2.98	Decrease	-2.34	0.03023716	0.3802	AW918794	AW918794 EST350098 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIEY31 5' end, mRNA sequence [AW918794]	AW918794
-1.09	2.12	Decrease	-2.34	0.03024991	0.3802	Sbno1	PREDICTED: Rattus norvegicus sno, strawberry notch homolog 1 (Drosophila) (Sbno1), mRNA [XM_222152]	XM_222152

1.21	2.32	Increase	2.33	0.0305071	0.3815	neuroblastoma, suppression of tumorigenicity 1	Rattus norvegicus neuroblastoma, suppression of tumorigenicity 1 (Nbl1), mRNA [NM_031609]	NM_031609
1.26	2.39	Increase	2.33	0.03051087	0.3815	transmembrane protein 104 (predicted)	PREDICTED: Rattus norvegicus transmembrane protein 104 (predicted) (Tmem104_predicted), mRNA [XM_221104]	XM_221104
-1.69	3.23	Decrease	-2.33	0.03053483	0.3817	homer homolog 2 (Drosophila)	Rattus norvegicus homer homolog 2 (Drosophila) (Homer2), mRNA [NM_053309]	NM_053309
1.18	2.26	Increase	2.33	0.03078096	0.3835	XM_217340	Rattus norvegicus similar to hypothetical protein MGC19067 (LOC301239), mRNA [XM_217340]	XM_217340
1.00	2.00	Increase	2.33	0.03092873	0.3844	gap junction membrane channel protein alpha 7	PREDICTED: Rattus norvegicus gap junction membrane channel protein alpha 7 (Gja7), mRNA [XM_001081521]	XM_001081521
1.70	3.24	Increase	2.33	0.03094604	0.3844	paired related homeobox 2 (predicted)	PREDICTED: Rattus norvegicus paired related homeobox 2 (predicted) (Prrx2_predicted), mRNA [XM_238327]	XM_238327
2.49	5.64	Increase	2.33	0.03099063	0.3846	AW533905	AW533905 UI-R-C4-alr-b-02-0-UI.s1 UI-R-C4 Rattus norvegicus cDNA clone UI-R-C4-alr-b-02-0-UI 3', mRNA sequence [AW533905]	AW533905
1.12	2.18	Increase	2.32	0.03123406	0.3854	parathymsin	Rattus norvegicus parathymsin (Ptms), mRNA [NM_031975]	NM_031975
1.11	2.16	Increase	2.32	0.03159451	0.3869	BF555800	BF555800 UI-R-A1-ej-d-01-0-UI.r1 UI-R-A1 Rattus norvegicus cDNA clone UI-R-A1-ej-d-01-0-UI 5', mRNA sequence [BF555800]	BF555800
1.03	2.04	Increase	2.31	0.03169803	0.3876	RT1 class II, locus Da	Rattus norvegicus RT1 class II, locus Da (RT1-Da), mRNA [NM_001008847]	NM_001008847

1.49	2.82	Increase	2.30	0.03236966	0.3912	mast cell protease 6	Rattus norvegicus mast cell protease 6 (Mcpt6), mRNA [NM_019180]	NM_019180
1.25	2.39	Increase	2.30	0.03262557	0.3923	tissue factor pathway inhibitor	Rattus norvegicus tissue factor pathway inhibitor (Tfpi), mRNA [NM_017200]	NM_017200
1.06	2.08	Increase	2.30	0.03263429	0.3923	lipocalin 7	Rattus norvegicus lipocalin 7 (Lcn7), mRNA [NM_053582]	NM_053582
1.36	2.56	Increase	2.30	0.03284202	0.3931	BI285576	BI285576 UI-R-CW0s-ccb-g-06-0-UI.s1 UI-R-CW0s Rattus norvegicus cDNA clone UI-R-CW0s-ccb-g-06-0-UI 3', mRNA sequence [BI285576]	BI285576
1.13	2.18	Increase	2.30	0.03293153	0.3934	AW917911	AW917911 EST349215 Rat gene index, normalized rat, norvegicus, Bento Soares Rattus norvegicus cDNA clone RGIEK03 5' end, mRNA sequence [AW917911]	AW917911
-1.12	2.17	Decrease	-2.29	0.03310292	0.3942	CO398332	AGENCOURT_27827173 NIH_MGC_252 Rattus norvegicus cDNA clone IMAGE:7308022 5', mRNA sequence [CO398332]	CO398332
-1.12	2.18	Decrease	-2.29	0.03312584	0.3942	similar to Retinoic acid induced 2 (predicted)	PREDICTED: Rattus norvegicus similar to Retinoic acid induced 2 (predicted) (RGD1560139_predicted), mRNA [XM_576959]	XM_576959
-1.04	2.05	Decrease	-2.29	0.03340342	0.3946	protein phosphatase 1B, magnesium dependent, beta isoform	Rattus norvegicus protein phosphatase 1B, magnesium dependent, beta isoform (Ppm1b), mRNA [NM_033096]	NM_033096
-1.13	2.19	Decrease	-2.29	0.03347089	0.3949	nuclear factor I/B	PREDICTED: Rattus norvegicus nuclear factor I/B (Nfib), mRNA [XM_342854]	XM_342854

1.30	2.46	Increase	2.29	0.03352783	0.3952	glutamate receptor, metabotropic 2	PREDICTED: Rattus norvegicus glutamate receptor, metabotropic 2 (Grm2), mRNA [XM_343470]	XM_343470
1.00	2.00	Increase	2.28	0.03369648	0.3959	AI045508	AI045508 UI-R-C1-kj-g-08-0-UI.s1 UI-R-C1 Rattus norvegicus cDNA clone UI-R-C1-kj-g-08-0-UI 3', mRNA sequence [AI045508]	AI045508
1.01	2.01	Increase	2.28	0.0337376	0.3959	BF417776	BF417776 UI-R-CN0-blx-a-09-0-UI.s1 UI-R-CN0 Rattus norvegicus cDNA clone UI-R-CN0-blx-a-09-0-UI 3', mRNA sequence [BF417776]	BF417776
-1.11	2.16	Decrease	-2.28	0.0337597	0.3959	ATPase, Ca++ transporting, plasma membrane 3	PREDICTED: Rattus norvegicus ATPase, Ca++ transporting, plasma membrane 3 (Atp2b3), mRNA [XM_343839]	XM_343839
1.83	3.57	Increase	2.28	0.03376864	0.3959	Jun D proto-oncogene	Rattus norvegicus Jun D proto-oncogene (Jund), mRNA [NM_138875]	NM_138875
-1.31	2.47	Decrease	-2.28	0.03387811	0.3964	integrin alpha 7	Rattus norvegicus integrin alpha 7 (Itga7), mRNA [NM_030842]	NM_030842
1.09	2.14	Increase	2.28	0.03392	0.3967	similar to nuclear localized factor 2	PREDICTED: Rattus norvegicus similar to nuclear localized factor 2 (LOC501015), mRNA [XM_001056441]	XM_001056441
1.37	2.59	Increase	2.28	0.03393656	0.3967	lysyl oxidase-like 1	Rattus norvegicus lysyl oxidase-like 1 (Loxl1), mRNA [NM_001012125]	NM_001012125
1.51	2.84	Increase	2.28	0.03395108	0.3967	HtrA serine peptidase 3 (predicted)	PREDICTED: Rattus norvegicus HtrA serine peptidase 3 (predicted) (Htra3_predicted), mRNA [XM_341237]	XM_341237
-1.58	2.99	Decrease	-2.28	0.03415916	0.3982	Ttn	PREDICTED: Rattus norvegicus titin (Ttn), mRNA [XM_001065955]	XM_001065955
-1.02	2.02	Decrease	-2.28	0.03418866	0.3983	AI411407	AI411407 EST239701 Normalized rat kidney, Bento Soares Rattus sp.	AI411407

							cDNA clone RKIES92 3' end, mRNA sequence [AI411407]	
1.39	2.63	Increase	2.28	0.03431443	0.3988	TC518066	Q9ERK2 (Q9ERK2) Neprilysin-like peptidase gamma, partial (3%) [TC518066]	
1.09	2.13	Increase	2.28	0.03434051	0.3990	quinolinate phosphoribosyltransferase	Rattus norvegicus quinolinate phosphoribosyltransferase (Qprt), mRNA [NM_001009646]	NM_001009646
1.03	2.04	Increase	2.27	0.03443671	0.3993	hsp70-interacting protein	Rattus norvegicus hsp70-interacting protein (Hspbp1), mRNA [NM_139261]	NM_139261
1.21	2.31	Increase	2.27	0.03451459	0.3993	farnesyltransferase, CAAX box, beta	Rattus norvegicus farnesyltransferase, CAAX box, beta (Fntb), mRNA [NM_172034]	NM_172034
1.50	2.83	Increase	2.27	0.03456926	0.3995	A kinase (PRKA) anchor protein (gravin) 12	Rattus norvegicus A kinase (PRKA) anchor protein (gravin) 12 (Akap12), transcript variant 1, mRNA [NM_057103]	NM_057103
-1.19	2.29	Decrease	-2.27	0.03475208	0.3999	similar to RIKEN cDNA B630019K06 (predicted)	Rattus norvegicus similar to hypothetical protein MGC31104 (LOC363449), mRNA [XM_343770]	XM_343770
1.33	2.51	Increase	2.27	0.03479267	0.3999	XM_227418	Rattus norvegicus similar to hypothetical protein FLJ32934 (LOC295247), mRNA [XM_227418]	XM_227418
1.54	2.91	Increase	2.27	0.03480154	0.3999	CO386194	AGENCOURT_26627340 NIH_MGC_253 Rattus norvegicus cDNA clone IMAGE:7302287 5', mRNA sequence [CO386194]	CO386194
-1.53	2.90	Decrease	-2.26	0.03513186	0.4012	similar to Glutathione S-transferase 8 (GST 8-8) (Chain 8) (GST class-alpha) (predicted)	PREDICTED: Rattus norvegicus similar to Glutathione S-transferase 8 (GST 8-8) (Chain 8) (GST class-alpha) (predicted) (RGD1564906_predicted), mRNA [XM_576039]	XM_576039

1.04	2.05	Increase	2.26	0.0353762	0.4020	similar to Laminin alpha-4 chain precursor (predicted)	PREDICTED: Rattus norvegicus similar to Laminin alpha-4 chain precursor (predicted) (RGD1560062_predicted), mRNA [XM_228209]	XM_228209
-1.30	2.46	Decrease	-2.26	0.03553779	0.4026	similar to hypothetical basic protein I-19 (predicted)	PREDICTED: Rattus norvegicus similar to hypothetical basic protein I-19 (predicted) (RGD1305157_predicted), mRNA [XM_236724]	XM_236724
-1.73	3.32	Decrease	-2.26	0.03575581	0.4034	glycine-, glutamate-, thienylcyclohexylpiperidine-binding protein	PREDICTED: Rattus norvegicus glycine-, glutamate-, thienylcyclohexylpiperidine-binding protein (LOC246295), mRNA [XM_575968]	XM_575968
-2.22	4.66	Decrease	-2.25	0.03601868	0.4047	BC099186	Rattus norvegicus cDNA clone MGC:116357 IMAGE:7383333, complete cds. [BC099186]	BC099186
1.32	2.49	Increase	2.25	0.03619798	0.4051	phosphatase, orphan 1 (predicted)	PREDICTED: Rattus norvegicus phosphatase, orphan 1 (predicted) (Phospho1_predicted), mRNA [XM_220877]	XM_220877
1.93	3.82	Increase	2.25	0.03638548	0.4059	deoxyribonuclease II	Rattus norvegicus deoxyribonuclease II (Dnase2), mRNA [NM_138539]	NM_138539
2.60	6.08	Increase	2.25	0.03647912	0.4061	complement component 1, q subcomponent, gamma polypeptide	Rattus norvegicus complement component 1, q subcomponent, gamma polypeptide (C1qg), mRNA [NM_001008524]	NM_001008524
1.09	2.13	Increase	2.25	0.0364859	0.4061	AW142493	AW142493 EST292745 Normalized rat embryo, Bento Soares Rattus sp. cDNA clone RGIAN21 5' end, mRNA sequence [AW142493]	AW142493

1.21	2.32	Increase	2.25	0.03652906	0.4061	adipocyte-specific adhesion molecule	Rattus norvegicus adipocyte-specific adhesion molecule (Asam), mRNA [NM_173154]	NM_173154
1.66	3.15	Increase	2.24	0.03669018	0.4064	protein C receptor, endothelial	Rattus norvegicus protein C receptor, endothelial (Procr), mRNA [NM_001025733]	NM_001025733
-1.55	2.94	Decrease	-2.24	0.03678111	0.4064	XM_234810	Rattus norvegicus similar to GLUTATHIONE S-TRANSFERASE 8 (GST 8-8) (CHAIN 8) (GST CLASS-ALPHA) (LOC314570), mRNA [XM_234810]	XM_234810
-1.21	2.32	Decrease	-2.24	0.03683957	0.4065	N-myc downstream regulated gene 4	Rattus norvegicus N-myc downstream regulated gene 4 (Ndr4), mRNA [NM_031967]	NM_031967
-1.42	2.67	Decrease	-2.24	0.03690091	0.4066	similar to KIAA0368 (predicted)	Rattus norvegicus similar to KIAA0368 (LOC313196), mRNA [XM_232937]	XM_232937
1.70	3.24	Increase	2.24	0.03719753	0.4088	similar to RIKEN cDNA 1300017J02	PREDICTED: Rattus norvegicus similar to RIKEN cDNA 1300017J02 (RGD1310507), mRNA [XM_236574]	XM_236574
1.04	2.06	Increase	2.24	0.03721769	0.4088	reticulon 4 receptor-like 2	Rattus norvegicus reticulon 4 receptor-like 2 (Rtn4rl2), mRNA [NM_181380]	NM_181380
-1.17	2.25	Decrease	-2.23	0.03764038	0.4102	Mapk7	Rattus norvegicus mitogen-activated protein kinase 7 (Mapk7), mRNA [XM_340813]	XM_340813
2.17	4.50	Increase	2.23	0.03804436	0.4123	LRRGT00154	PREDICTED: Rattus norvegicus LRRGT00154 (LOC499544), mRNA [XM_574867]	XM_574867
1.65	3.15	Increase	2.22	0.03812488	0.4126	chymase 1, mast cell	Rattus norvegicus chymase 1, mast cell (Cma1), mRNA [NM_013092]	NM_013092
-1.38	2.61	Decrease	-2.22	0.03837913	0.4131	solute carrier family 27 (fatty acid transporter), member 1	Rattus norvegicus solute carrier family 27 (fatty acid transporter),	NM_053580

							member 1 (Slc27a1), mRNA [NM_053580]	
-2.42	5.36	Decrease	-2.22	0.03847613	0.4133	cholinergic receptor, nicotinic, alpha polypeptide 7	Rattus norvegicus cholinergic receptor, nicotinic, alpha polypeptide 7 (Chrna7), mRNA [NM_012832]	NM_012832
-1.33	2.51	Decrease	-2.22	0.0385194	0.4134	kinesin family member 21A (predicted)	PREDICTED: Rattus norvegicus kinesin family member 21A (predicted) (Kif21a_predicted), mRNA [XM_001056804]	XM_001056804
1.26	2.40	Increase	2.21	0.03920549	0.4170	serine/threonine kinase 25 (STE20 homolog, yeast)	Rattus norvegicus serine/threonine kinase 25 (STE20 homolog, yeast) (Stk25), mRNA [NM_184049]	NM_184049
-1.10	2.15	Decrease	-2.21	0.03945026	0.4175	carbonic anhydrase 1 (predicted)	PREDICTED: Rattus norvegicus carbonic anhydrase 1 (predicted) (Car1_predicted), mRNA [XM_226922]	XM_226922
-1.18	2.26	Decrease	-2.21	0.03949196	0.4175	similar to Guanine nucleotide-binding protein G(T) gamma-T1 subunit precursor (Transducin gamma chain)	AW533257 UI-R-BU0-ana-f-11-0-UI.s1 UI-R-BU0 Rattus norvegicus cDNA clone UI-R-BU0-ana-f-11-0-UI 3', mRNA sequence [AW533257]	AW533257
-2.38	5.19	Decrease	-2.20	0.03974168	0.4189	BF281791	BF281791 EST446382 Rat Gene Index, normalized rat, Rattus norvegicus cDNA Rattus norvegicus cDNA clone RGIBA05 similar to alpha cardiac myosin heavy chain, mRNA sequence [BF281791]	BF281791
-1.65	3.15	Decrease	-2.20	0.03981819	0.4193	cell division cycle 25 homolog A (S. cerevisiae)	Rattus norvegicus cell division cycle 25 homolog A (S. cerevisiae) (Cdc25a), mRNA [NM_133571]	NM_133571
1.15	2.22	Increase	2.20	0.04002754	0.4203	zinc finger, FYVE domain containing 1 (predicted)	PREDICTED: Rattus norvegicus zinc finger, FYVE domain containing 1 (predicted) (Zfyve1_predicted), mRNA [XM_216762]	XM_216762

1.29	2.44	Increase	2.19	0.0405062	0.4222	similar to hypothetical protein FLJ21827	Rattus norvegicus similar to hypothetical protein FLJ21827 (RGD1307682), mRNA [NM_001024760]	NM_001024760
-1.01	2.01	Decrease	-2.19	0.04092458	0.4247	BG664520	BG664520 DRABEH09 Rat DRG Library Rattus norvegicus cDNA clone DRABEH09 5', mRNA sequence [BG664520]	BG664520
1.74	3.33	Increase	2.19	0.04093541	0.4247	XM_227913	Rattus norvegicus similar to RIKEN cDNA 4930580F03 (LOC294168), mRNA [XM_227913]	XM_227913
-1.92	3.79	Decrease	-2.19	0.04105345	0.4248	secreted phosphoprotein 1	Rattus norvegicus secreted phosphoprotein 1 (Spp1), mRNA [NM_012881]	NM_012881
1.09	2.12	Increase	2.19	0.04118983	0.4254	similar to ribosomal protein L10	PREDICTED: Rattus norvegicus similar to ribosomal protein L10 (LOC689075), mRNA [XM_001069421]	XM_001069421
1.26	2.39	Increase	2.18	0.04142679	0.4261	procollagen, type XI, alpha 2 (mapped)	Rattus norvegicus procollagen, type XI, alpha 2 (mapped) (Col11a2_mapped), mRNA [NM_212528]	NM_212528
1.15	2.22	Increase	2.18	0.0415061	0.4261	lysyl oxidase	Rattus norvegicus lysyl oxidase (Lox), mRNA [NM_017061]	NM_017061
1.01	2.02	Increase	2.18	0.04175704	0.4269	XM_346101	Rattus norvegicus similar to ribosomal protein L30 (LOC367349), mRNA [XM_346101]	XM_346101
-1.06	2.08	Decrease	-2.18	0.04198626	0.4271	RGD1564173_predicted	PREDICTED: Rattus norvegicus similar to RIKEN cDNA 1700001F22 (predicted) (RGD1564173_predicted), mRNA [XM_579040]	XM_579040
-1.27	2.42	Decrease	-2.17	0.04219395	0.4282	leucine rich repeat protein 2, neuronal (predicted)	PREDICTED: Rattus norvegicus leucine rich repeat protein 2,	XM_222670

							neuronal (predicted) (Lrrn2_predicted), mRNA [XM_222670]	
1.16	2.24	Increase	2.17	0.04228922	0.4286	similar to RIKEN cDNA 2810002D13 gene	Rattus norvegicus similar to RIKEN cDNA 2810002D13 gene (RGD1307128), mRNA [NM_001012354]	NM_001012354
-1.48	2.79	Decrease	-2.17	0.04246787	0.4293	AW142013	AW142013 EST292128 Normalized rat ovary, Bento Soares Rattus sp. cDNA clone RGICT53 5' end similar to basic-leucine zipper nuclear factor, mRNA sequence [AW142013]	AW142013
-1.10	2.15	Decrease	-2.17	0.04278324	0.4310	AI412098	AI412098 EST240392 Normalized rat kidney, Bento Soares Rattus sp. cDNA clone RKIEJ68 3' end, mRNA sequence [AI412098]	AI412098
2.69	6.45	Increase	2.17	0.04289125	0.4315	mast cell protease 1	Rattus norvegicus mast cell protease 1 precursor (RMCP-1) mRNA, complete cds. [U67915]	U67915
2.48	5.57	Increase	2.17	0.04289192	0.4315	secreted acidic cysteine rich glycoprotein	Rattus norvegicus secreted acidic cysteine rich glycoprotein (Sparc), mRNA [NM_012656]	NM_012656
-1.33	2.51	Decrease	-2.16	0.04316576	0.4317	similar to SH3-domain binding protein 3	PREDICTED: Rattus norvegicus similar to SH3-domain binding protein 3 (LOC688018), mRNA [XR_009418]	XR_009418
1.29	2.45	Increase	2.16	0.04339813	0.4329	TC523917	1913423B exoK gene. {Sinorhizobium meliloti;}, partial (6%) [TC523917]	
-1.24	2.36	Decrease	-2.16	0.04384894	0.4353	M33313	RATCYP2A21 Rat hepatic steroid hydroxylase IIA2 (CYP2A2) gene, exons 1 and 2 [M33313]	M33313
1.03	2.04	Increase	2.15	0.04393574	0.4354	UDP-glucuronate decarboxylase 1	Rattus norvegicus UDP-glucuronate decarboxylase 1 (Uxs1), mRNA [NM_139336]	NM_139336

1.13	2.18	Increase	2.15	0.04405789	0.4354	two pore channel 1	Rattus norvegicus two pore channel 1 (Tpcn1), mRNA [NM_139332]	NM_139332
-2.06	4.17	Decrease	-2.15	0.04412762	0.4354	alpha thalassemia/mental retardation syndrome X-linked homolog (human)	PREDICTED: Rattus norvegicus alpha thalassemia/mental retardation syndrome X-linked homolog (human) (Atrx), mRNA [XM_217570]	XM_217570
1.96	3.89	Increase	2.15	0.04437498	0.4360	carboxypeptidase A3	PREDICTED: Rattus norvegicus carboxypeptidase A3 (Cpa3), mRNA [XM_342219]	XM_342219
1.24	2.35	Increase	2.15	0.04441238	0.4361	LOC691522	PREDICTED: Rattus norvegicus hypothetical protein LOC691522 (LOC691522), mRNA [XM_001078640]	XM_001078640
1.37	2.59	Increase	2.15	0.04456073	0.4364	ARP3 actin-related protein 3 homolog (yeast)	Rattus norvegicus ARP3 actin-related protein 3 homolog (yeast) (Actr3), mRNA [NM_031068]	NM_031068
-1.16	2.23	Decrease	-2.15	0.04463685	0.4364	AABR03006190	Rattus norvegicus chromosome 1, 7 clones, strain BN/SsNHsdMCW RNOR03210214, whole genome shotgun sequence [AABR03006190]	AABR03006190
1.60	3.04	Increase	2.15	0.04474353	0.4368	AI233749	AI233749 EST230437 Normalized rat kidney, Bento Soares Rattus sp. cDNA clone RKIDJ59 3' end, mRNA sequence [AI233749]	AI233749
-1.14	2.21	Decrease	-2.15	0.04475269	0.4368	CO396335	AGENCOURT_26737670 NIH_MGC_255 Rattus norvegicus cDNA clone IMAGE:7317613 5', mRNA sequence [CO396335]	CO396335
1.14	2.20	Increase	2.14	0.04502713	0.4372	cerebral endothelial cell adhesion molecule 1	Rattus norvegicus cerebral endothelial cell adhesion molecule 1 (Ceecam1), mRNA [NM_001011962]	NM_001011962
1.20	2.30	Increase	2.14	0.04538006	0.4374	AA925693	AA925693 UI-R-A1-ec-a-04-0-UI.s1 UI-R-A1 Rattus norvegicus cDNA	AA925693

							clone UI-R-A1-ec-a-04-0-UI 3' similar to gi [AA925693]	
-1.82	3.54	Decrease	-2.14	0.04565938	0.4379	pyrroline-5-carboxylate reductase-like	Rattus norvegicus pyrroline-5-carboxylate reductase-like (Pyclr), mRNA [NM_001011993]	NM_001011993
1.27	2.41	Increase	2.13	0.04598545	0.4390	AW914967	AW914967 EST346271 Normalized rat ovary, Bento Soares Rattus sp. cDNA clone RGIBM91 5' end, mRNA sequence [AW914967]	AW914967
1.05	2.07	Increase	2.12	0.04660006	0.4424	cadherin EGF LAG seven-pass G-type receptor 1	PREDICTED: Rattus norvegicus cadherin EGF LAG seven-pass G-type receptor 1 (Celsr1), mRNA [XM_001070474]	XM_001070474
-1.58	2.99	Decrease	-2.12	0.04677122	0.4429	leprecan-like 1	Rattus norvegicus leprecan-like 1 (Leprel1), mRNA [NM_001025627]	NM_001025627
1.09	2.13	Increase	2.12	0.04684448	0.4431	similar to RIKEN cDNA 9230117N10	Rattus norvegicus similar to RIKEN cDNA 9230117N10 (RGD1311155), mRNA [NM_001014166]	NM_001014166
1.01	2.01	Increase	2.12	0.04690984	0.4432	death-associated protein	Rattus norvegicus death-associated protein (Dap), mRNA [NM_022526]	NM_022526
1.06	2.09	Increase	2.12	0.04704079	0.4435	LOC294446	PREDICTED: Rattus norvegicus similar to Myristoylated alanine-rich C-kinase substrate (MARCKS) (Protein kinase C substrate 80 kDa protein), transcript variant 2 (LOC294446), mRNA [XM_001061084]	XM_001061084
-1.16	2.23	Decrease	-2.12	0.04733898	0.4435	transmembrane BAX inhibitor motif containing 1	Rattus norvegicus transmembrane BAX inhibitor motif containing 1 (Tmbim1), mRNA [NM_001007713]	NM_001007713
1.10	2.14	Increase	2.12	0.0475309	0.4436	doublesex and mab-3 related transcription factor 2 (predicted)	PREDICTED: Rattus norvegicus doublesex and mab-3 related transcription factor 2 (predicted)	XM_219927

							(Dmrt2_predicted), mRNA [XM_219927]	
1.07	2.10	Increase	2.11	0.04763449	0.4442	olfactory receptor 1423 (predicted)	Rattus norvegicus olfactory receptor 1423 (predicted) (Olr1423_predicted), mRNA [NM_001000006]	NM_001000006
-1.42	2.67	Decrease	-2.11	0.04788666	0.4451	filamin A interacting protein 1	Rattus norvegicus filamin A interacting protein 1 (Filip1), mRNA [NM_145682]	NM_145682
-1.01	2.01	Decrease	-2.11	0.04803214	0.4454	Trp53bp1_predicted	PREDICTED: Rattus norvegicus transformation related protein 53 binding protein 1 (predicted) (Trp53bp1_predicted), mRNA [XM_215812]	XM_215812
1.59	3.01	Increase	2.11	0.04811401	0.4457	AI045333	AI045333 UI-R-C1-kh-e-06-0-UI.s1 UI-R-C1 Rattus norvegicus cDNA clone UI-R-C1-kh-e-06-0-UI 3', mRNA sequence [AI045333]	AI045333
1.09	2.13	Increase	2.11	0.04834112	0.4461	colony stimulating factor 1 (macrophage)	Rattus norvegicus colony stimulating factor 1 (macrophage) (Csf1), mRNA [NM_023981]	NM_023981
-1.84	3.58	Decrease	-2.11	0.04834792	0.4461	AW914294	AW914294 EST345598 Normalized rat brain, Bento Soares Rattus sp. cDNA clone RGIAD11 5' end, mRNA sequence [AW914294]	AW914294
1.28	2.43	Increase	2.11	0.04839854	0.4461	similar to calmodulin-like 4	Rattus norvegicus similar to CLN6 protein (LOC315746), mRNA [XM_236325]	XM_236325
1.50	2.82	Increase	2.11	0.0484262	0.4463	aryl hydrocarbon receptor nuclear translocator-like	Rattus norvegicus aryl hydrocarbon receptor nuclear translocator-like (Arntl), mRNA [NM_024362]	NM_024362
1.02	2.03	Increase	2.10	0.04871161	0.4469	ribonuclease, RNase A family 4	Rattus norvegicus ribonuclease, RNase A family 4 (Rnase4), mRNA [NM_020082]	NM_020082

1.18	2.27	Increase	2.10	0.04917496	0.4481	XM_345721	Rattus norvegicus similar to KIAA1912 protein (LOC366726), mRNA [XM_345721]	XM_345721
-1.16	2.23	Decrease	-2.10	0.0493999	0.4485	AA874941	AA874941 UI-R-E0-ci-d-06-0-UI.s1 UI-R-E0 Rattus norvegicus cDNA clone UI-R-E0-ci-d-06-0-UI 3' similar to gi [AA874941]	AA874941
1.20	2.29	Increase	2.09	0.04969242	0.4488	reversion-inducing-cysteine-rich protein with kazal motifs (predicted)	PREDICTED: Rattus norvegicus reversion-inducing-cysteine-rich protein with kazal motifs (predicted) (Reck_predicted), mRNA [XM_233371]	XM_233371

Supplementary Material Table S4. *STRING* (a database of known and predicted protein-protein interactions) analysis of differentially expressed genes from HF/SD and HF/RD animals at adolescence. 499 nodes were identified, with an average local clustering coefficient of 0.299 and a PPI enrichment p-value $<1 \cdot 10^{-16}$. Of these, eight main clusters were identified with the highest confidence for interaction score (≥ 0.9).

Cluster 1	Mrps15, Rps25, Rpsa, Fau, Rps4x, Mrps2, Mrps5, Mrps10, Rps5, Rps15a, Rps15, Rps16, <i>RGD1566136</i> , Mrps9, Mrpl43, Rps11, Mrps15.
Cluster 2	Actr2, Arpc4, Epn2, Baiap2, Nckap11, Actr3, Synj1, Ston2
Cluster 3	Pf4, Sparc, Procr, Grm2, Fpr1, C5ar1, Gpsm1, Ccl21, Gabbr1
Cluster 4	Slu7, Poldip3, Ranbp2, Dhx9, Srrm1, Bud31, Elavl1, Ddx46, Sf3b1
Cluster 5	Agtr1a, Cck, P2ry6, Tacr2, P2ry1
Cluster 6	RT1-Da, RT1-Bb, Ap1s1, RT1-Ba
Cluster 7	Cyba, Ncf1, Ncf4, Mmp2
Cluster 8	Coll1a1, Col6a2, Coll1a2

Supplementary Material Table S5. Top 10 KEGG pathways identified by STRING from the analysis of differentially expressed genes from HF/SD and HF/RD animals at adolescence.

Pathway Description	False discovery rate (FDR)	Matching proteins
ECM-receptor interaction	8.95E-07	Cd44,Chad,Col11a2,Col1a1,Col1a2,Col5a1,Col6a2,Comp,Gp9,Itga7,Lamb2,Lamb3,Spp1,Thbs2
Staphylococcus aureus infection	7.26E-05	C1qa,C1qc,C1s,C2,C5ar1,Fpr1,RT1-Ba,RT1-Bb,RT1-Da
Focal adhesion	0.00375	Akt1,Chad,Col11a2,Col1a1,Col1a2,Col5a1,Col6a2,Comp,Itga7,Lamb2,Lamb3,Mylpf,Sos2,Spp1,Thbs2
Renin-angiotensin system	0.00386	Agtr1a,Anpep,Cma1,Cpa3,Mcpt8l3
Phagosome	0.00408	Atp6v1g2,Comp,Ctss,Cyba,Mrc1,Ncf1,Ncf4,RT1-A2,RT1-Ba,RT1-Bb,RT1-Da,Tfrc,Thbs2
Intestinal immune network for IgA production	0.011	Cd80,Cxcr4,RT1-Ba,RT1-Bb,RT1-Da,Tnfsf13
Systemic lupus erythematosus	0.0159	C1qa,C1qc,C1s,Cd80,Mcpt8l3,RT1-Ba,RT1-Bb,RT1-Da
PI3K-Akt signaling pathway	0.0289	Akt1,Chad,Col11a2,Col1a1,Col1a2,Col5a1,Col6a2,Comp,Csf1,Itga7,Lamb2,Lamb3,Osmr,Sos2,Spp1,Thbs2,Ywhab
Leukocyte transendothelial migration	0.0314	Cldn11,Cldn23,Cxcr4,Cyba,Jam2,Mmp2,Mylpf,Ncf1,Ncf4
Osteoclast differentiation	0.0402	Akt1,Csf1r,Ctsk,Cyba,Fosb,Jund,Ncf1,Ncf4,Tnfrsf11b