Table.1

Gene product	Fold change	Accession No.
Adipokines		
Adiponectin	+2.97	NM009605
Resistin	+3.54	NM022984
Adipsin	+6.76	NM013459
FA uptake and metabolism related		
Fatty acid transporter 1 (FATP1)	+5.08	NM011977
Fatty acid transporter 4 (FATP4)	+1.53	AF072759
CD36 antigen	+1.59	AK004192
Carnitine/acylcarnitine translocase	+1.78	NM020520
Acyl-CoA synthetase long-chain family member 1 (Acsl1)	+2.57	NM007981
Acyl-Coenzyme A oxidase-like (Acoxl)	+1.79	NM028765
3-hydroxyacyl-Coenzyme A dehydrogenase	+1.64	NM008212
Enoyl-Coenzyme A, hydratase/ 3-hydroxyacyl Coenzyme A dehydrogenase	+1.78	AK004867
Acetyl-Coenzyme A carboxylase β	+6.37	NM133904
Phosphoenolpyruvate carboxykinase (PEPCK)	+4.74	AK028046
Fatty acid binding protein 4	+2.61	NM011596
Fatty acid binding protein 9	+11.58	BC018558
TG metabolism related		
Diacylglycerol O-acyltransferase 1 (DGAT-1)	+2.74	NM010046
1-acylglycerol-3-phosphate O-acyltransferase 2 (AGPAT2)	+1.65	NM026212
Lipolysis		
Lipase, hormone sensitive (HSL)	+3.30	U08188
Uncoupling protein 3 (UCP3)	+1.73	NM009464
Gluose uptake and metabolism related		
Glucose transporter 4 (GLUT4)	+2.54	BC014282
Glucose transporter 3 (GLUT3)	+1.87	X69698
Hexokinase 2	+1.90	NM013820
Phosphofructokinase (B-type)	+1.69	NM008826
2,3-bisphosphoglycerate mutase	+2.38	NM007563
Pyruvate dehydrogenase kinase 4 (PDH kinase 4)	+3.02	BC026134
Pyruvate dehydrogenase kinase 2 (PDH kinase 2)	+1.74	NM133667
Cholesterol biosynthesis related		
3-hydroxy-3-methylglutaryl-Coenzyme A reductase (HMGr)	-1.99	BC059873
Sterol regulatory element binding protein 1 (SREBP1)	-2.03	NM011480
Lipoprotein metablism related		
High density lipoprotein binding protein 1	+2.20	AK050431
Very low density lipoprotein receptor	+1.68	NM013703
Transcriptional regulation related		
Peroxisome proliferator activated receptor gamma (PPARγ)	+2.88	NM008904
PPARg coactivator 1 alpha (PGC1α)	+1.93	NM133249
PPARg coactivator 1 beta (PGC1β)	+1.71	U01841
CCAAT/enhancer binding protein alpha, (C/EBPα)	+2.04	BC058161
Forkhead box C1 (Foxc1)	+2.42	NM008592
Forkhead box C2 (Foxc2)	+1.53	X74040
Retinoid X receptor alpha (Rxrα)	+2.10	NM011305
Retinoid X receptor gamma (Rxrγ)	+1.50	NM009107

Gene product	Fold change	Accession No.
Insulin signaling related		
Insulin receptor (IR)	+1.81	NM010568
Insulin receptor substrate 1 (IRS1)	+2.80	AY169784
Insulin receptor substrate 3 (IRS3)	+1.75	NM010571
Insulin-like growth factor binding protein 3 (IGFBP3)	+2.69	AK077477
Insulin-like growth factor binding protein 4 (IFGBP4)	+1.54	NM010517
Insulin-like growth factor 2 receptor (IGF2R)	-2.89	NM010515
Insulin-like growth factor 1 (IGF1)	-1.67	NM010512
Extracellular matrix rlated		
Procollagen, type II, (α-1)	+1.53	AK028295
Procollagen, type IV, (α-6)	+3.15	BC004800
Procollagen, type XIII, (α-1)	+2.15	BC034164
Integrin α6	+2.42	AK083717
Integrin α7	+1.58	NM008398
Syndecan 4	+1.65	NM011521
Procollagen, type I, (α-1)	-3.94	U03419
Procollagen, type I, (α-2)	-2.78	BC012438
Procollagen, type III, (α-1)	-7.96	NM009930
Procollagen, type IV, (α-1)	-1.87	AK052735
Procollagen, type V, (α-1)	-2.12	NM015734
Procollagen, type V, (α-2)	-2.28	BC055077
Procollagen, type VI,(α-1)	-2.36	AK027944
Procollagen, type VI, (α-2)	-2.36	X65582
Procollagen, type VI, (α-3)	-5.33	BC057903
Procollagen, type XV (α-1)	-2.29	BC052428
Procollagen, type XVIII, (α-1)	-1.74	D17546
Procollagen, type XXVII, (α-1)	-1.80	NM025685
Integrin α4	-2.56	X53176
Integrin β2	-3.33	X14951
Integrin α9	-1.94	NM133721
Integrin α11	-2.31	NM176922
Integrin αM	-2.59	NM008401
Integrin αX	-3.35	NM021334
Integrin αV	-1.66	BC048857
Syndecan 1	-2.11	NM011519
Syndecan 2	-1.73	NM008304
Syndecan 3	-2.74	NM011520
Metalloprotease related		
Matrix metallopeptidase 28	+1.87	AK051258
Tissue inhibitor of metalloproteinase 3	+1.85	NM011595
Tissue inhibitor of metalloproteinase 4	+9.17	NM080639
Matrix metallopeptidase 2	-4.09	NM008610
Matrix metallopeptidase 3	-28.60	NM010809
Matrix metallopeptidase 7	-2.87	NM010810
Matrix metallopeptidase 8	-1.56	NM008611
Matrix metallopeptidase 9	-2.49	D12712
Matrix metallopeptidase 12	-3.99	NM008605
Matrix metallopeptidase 14	-4.18	NM008608
Matrix metallopeptidase 19	-2.37	AK086808
Tissue inhibitor of metalloproteinase 1	-2.85	BC008107
Tissue inhibitor of metalloproteinase 2	-2.00	NM011594

Table 1. continued

Gene product	Fold change	Accession No.
Citric acid cycle related		
Mitochondrial aconitase 2	+1.72	NM080633
Malate dehydrogenase 1	+1.76	NM008618
Respiratory chain related		
NADH dehydrogenase (ubiquinone) 1 α subcomplex, 4	+1.83	AK005084
NADH dehydrogenase (ubiquinone) 1 α subcomplex, 7	+1.61	BC055698
NADH dehydrogenase (ubiquinone) 1 α subcomplex 10	+1.53	NM024197
NADH dehydrogenase (ubiquinone) 1 α subcomplex, 12	+1.57	NM025551
NADH dehydrogenase (ubiquinone) 1 β subcomplex, 9	+1.53	NM023172
NADH dehydrogenase (ubiquinone) 1, α/β subcomplex, 1	+1.71	NM028177
Succinate dehydrogenase complex, subunit A	+1.56	AF095938
Succinate dehydrogenase complex, subunit D	+1.60	NM025848
Ubiquinol-cytochrome c reductase	+1.65	NM025710
ATP synthase mitochondrial F1 complex assembly factor 2	+1.83	NM145427
ATP synthase, H+ transporting mitochondrial F1 complex, β subunit	+1.66	BC037127
ROS detoxification related		
Superoxide dismutase 3	+1.54	NM011435
Glutathione peroxidase 4	+1.64	NM008162
Cell adhesion molecule related		
Neural cell adhesion molecule 1 (NCAM1)	-3.74	X15052
Neuronal cell adhesion molecule short isoform (NrCAM)	-4.87	NM176930
Intercellular adhesion molecule (ICAM1)	-2.06	NM010493
Macrophage marker related		
F4/80	-5.21	NM010130
Inflammatory cytokine related		
Tumor necrosis factor (TNF)	-2.29	AY423855
Tumor necrosis factor receptor superfamily, member 1b	-2.67	X76401
Tnf receptor-associated factor 1 (TRAF1)	-1.56	NM009421
Tnf receptor-associated factor 5 (TRAF5)	-2.04	NM011633
TNFRSF1A-associated via death domain (TRADD)	-1.53	BC028542
Interleukin 1 α	-1.82	M14639
Interleukin 1 β	-4.38	NM008361
Interleukin 10	-1.87	NM010548
Interleukin 1 receptor, type I	-1.67	NM008362
Interleukin 1 receptor, type II	-4.54	NM010555
Interleukin 2 receptor γ chain	-3.27	NM013563
Interleukin 7 receptor α chain	-3.44	NM008372
Interleukin 8 receptor b	-2.20	NM009909
Interleukin 10 receptor α	-2.22	NM008348
Interleukin 11 receptor α chain 1	-1.75	NM010550
Interleukin 12 receptor β2	-1.54	NM008354
Interleukin 13 receptor α1	-2.20	BC021472
Interleukin 13 receptor α2	-2.59	NM008356
Interleukin 27 receptor α	-1.88	NM016671
Colony stimulating factor 2 receptor, β1	-2.12	NM007780
Colony stimulating factor 2 receptor, β2	-3.25	NM007781

Supplemental Table 1

Alterations in transcriptional profiles in the epididymal adipose tissue of 12 week old male *ob*/*ob* and transgenic *ob*/*ob* mice. mRNA levels for key metabolic enzymes have been selected and have been grouped into subcategories. Microarray slides were scanned as described in Materials and Methods. Raw data and normalized gene calls were delivered by NimbleGen. The ratio of Cy3 to Cy5 for each feature was calculated from all normalized data. The final values were taken from the average of three slides and were log transformed for statistical analysis. Only statistically significant values above and below 1.5-fold differences are shown.