Supplementary Material

Obesity Gene Atlas in Mammals, Tanja Kunej et al.

Table S1: Obesity associated miRNAs (54 human and 57 murine) with corresponding host genes.

miRNA id	host gene	overlap	orientation
hsa-let-7b	*MIRLET7BHG*	exon	sense
hsa-let-7c	*C21orf34*	intron	sense
hsa-let-7d	*RP11*	intron	antisense
hsa-let-7e	*AC018755.2*	exon	antisense
mmu-let-7e	*AC165361.1*	exon	antisense
mmu-let-7g	*Wdr82*	intron	sense
hsa-let-7i	*RP11*	intron	sense
mmu-mir-101a	*E130102H24Rik*	exon	sense
mmu-mir-101b	*Rcl1*	intron	sense
hsa-mir-106b	*MCM7*	intron	sense
hsa-mir-107	*PANK1*	intron	sense
mmu-mir-107	*Pank1*	intron	sense
mmu-mir-10a	*Hoxb4*	3'-UTR	sense
hsa-mir-10a	*HOXB3*	intron	sense
mmu-mir-10b	*Hoxd4*	intron	sense
hsa-mir-10b	*HOXD3*	intron	sense
mmu-mir-125a	*Ncrna00085*	exon	sense
hsa-mir-125a	*AC018755.2*	exon	antisense
hsa-mir-126	*EGFL7*	intron	sense
hsa-mir-130a	*AP000662.4*	intron	sense
hsa-mir-130b	*PPIL2*	exon	sense
mmu-mir-130b	*2610318N02Rik*	intron	sense
mmu-mir-132	*1700016P03Rik*	intron	sense
hsa-mir-136	*RTL1*	exon	antisense
hsa-mir-137	*RP11*	exon	sense
hsa-mir-140	*WWP2*	intron	sense
mmu-mir-140	*Wwp2*	intron	sense
mmu-mir-141	*Gm15884*	intron	sense
mmu-mir-145	*Mir145*	exon	sense
mmu-mir-146b	*Tmem180*	intron	sense
mmu-mir-151	*Ptk2*	intron	sense
hsa-mir-152	*COPZ2*	intron	sense

mmu-mir-152	*Copz2*	intron	sense
hsa-mir-15a	*DLEU2-001*	intron	sense
mmu-mir-15a	*Dleu2*	intron	sense
mmu-mir-15b	*Smc4*	intron	sense
mmu-mir-185	*D16H22S680E*	intron	sense
hsa-mir-186	*ZRANB2*	intron	sense
mmu-mir-190	*Tln2*	intron	sense
hsa-mir-191	*DALRD3*	intron	sense
hsa-mir-195	*MIR497HG*	intron	sense
hsa-mir-197	*MIR197*	exon	sense
mmu-mir-199b	*Dnm1*	intron	antisense
mmu-mir-200a	*Ttll10*	intron	sense
mmu-mir-200b	*Ttll10*	intron	sense
mmu-mir-200c	*Gm15884*	intron	sense
mmu-mir-204	*Trpm3*	intron	sense
hsa-mir-205	*CTA-55I10.1*	intron	sense
mmu-mir-205	*4631405K08Rik*	exon	sense
mmu-mir-21	*Vmp1*	3'-UTR	sense
hsa-mir-210	*MIR210HG*	intron	sense
mmu-mir-211	*Trpm1*	intron	sense
mmu-mir-212	*1700016P03Rik*	intron	sense
hsa-mir-214	*DNM3*	intron	antisense
mmu-mir-214	*Dnm3*	intron	antisense
mmu-mir-215	*LOC636969*	intron	antisense
mmu-mir-22	*Tlcd2*	exon	sense
hsa-mir-22	*C17orf91-001*	exon	sense
hsa-mir-224	*GABRE*	intron	sense
mmu-mir-224	*Gabre*	intron	sense
hsa-mir-23b	*C9orf3*	intron	sense
mmu-mir-23b	*2010111I01Rik*	intron	sense
mmu-mir-25	*Mcm7*	intron	sense
hsa-mir-26b	*CTDSP1*	intron	sense
mmu-mir-26b	*Ctdsp1*	intron	sense
mmu-mir-27b	*2010111I01Rik*	intron	sense
mmu-mir-28b	*LOC100505323*	intron	antisense
hsa-mir-29a	*AC016831.7*	intron	antisense
mmu-mir-29c	*A330023F24Rik*	exon	sense
hsa-mir-30a	*C6orf155*	intron	sense
hsa-mir-30e	*NFYC*	intron	sense
mmu-mir-30e	*Nfyc*	intron	sense
hsa-mir-31	*RP11*	intron	sense

hsa-mir-326	*ARRB1*	intron	sense
mmu-mir-328	*Elmo3*	intron	antisense
mmu-mir-33	*Srebf2*	intron	sense
mmu-mir-330	*Eml2*	intron	sense
mmu-mir-331	*Vezt*	intron	sense
hsa-mir-335	*MEST*	intron	sense
mmu-mir-335	*Mest*	intron	sense
mmu-mir-342	*Evl*	intron	sense
mmu-mir-375	*Mir375*	exon	sense
hsa-mir-376c	*MIR376C*	exon	sense
mmu-mir-377	*Mirg*	exon	sense
mmu-mir-378	*Ppargc1b*	intron	sense
hsa-mir-380	*MIR380*	exon	sense
hsa-mir-383	*SGCZ*	intron	sense
mmu-mir-411	*Mir411*	exon	sense
mmu-mir-423	*Ccdc55*	intron	sense
mmu-mir-429	*Ttll10*	intron	sense
mmu-mir-448	*Htr2c*	intron	sense
hsa-mir-488	*ASTN1*	intron	sense
mmu-mir-491	*BC057079*	intron	sense
hsa-mir-503	*AC004383.4*	intron	sense
hsa-mir-569	*TNIK*	intron	sense
hsa-mir-586	*SUPT3H*	intron	sense
hsa-mir-595	*PTPRN2*	intron	sense
hsa-mir-606	*C10orf11*	intron	sense
hsa-mir-611	*C11orf10*	intron	sense
hsa-mir-630	*ARIH1*	exon	sense
hsa-mir-636	*SRSF2*	intron	sense
hsa-mir-646	*RP5-1043L13.1*	intron	sense
hsa-mir-660	*CLCN5*	intron	sense
hsa-mir-664	*RAB3GAP2*	intron	sense
mmu-mir-872	*Ift74*	intron	sense
hsa-mir-93	*MCM7*	intron	sense
hsa-mir-98	*HUWE1*	intron	sense
mmu-mir-98	*Huwe1*	intron	sense
hsa-mir-99a	*C21orf34*	intron	sense
mmu-mir-99a	*Gm11146*	intron	antisense
hsa-mir-99b	*AC018755.2*	intron	antisense

Table S2: List of 175 molecules included in lipid metabolism network.

Molecule Name	Entrez Gene ID (human)
ABCA7	10347
ABCB11	8647
ABCC2	1244
ABHD5	51099
ACADM	34
ACAT2	39
Acox	-
ACP1	52
ACTN2	88
acylglycerol lipase	-
ADAM12	8038
ALB	213
ALOX12	239
ALOX15	246
ALOX5	240
Alpha actin	-
AMBP	259
APOA1	335
APOA2	336
APOA4	337
APOB	338
APOC1	341
AQP7	364
ATXN2	6311
CAMK1D	57118
CBY1	25776
CCKAR	886
CCKBR	887
CD36	948
CEACAM1	634
CEL	1056
Ces	-
CES1	1066
CFB	629
CFD	1675
CIDEC	63924
Coup-Tf	-
CPB2	1361
Cpt	-
CPT1	-
CPT1A	1374
CPT1B	1375
CPT2	1376
CYP27A1	1593
DECR1	1666
DIO1	1733
DRD2	1813
DRD4	1815
EIF6	3692
ENPP2	5168

ESD	2098
F Actin	-
F13A1	2162
F2R	2149
FAAH	2166
FABP	-
FABP1	2168
FABP2	2169
FABP3	2170
FABP4	2167
FABP5	2171
FABP6	2172
FADS1	3992
FADS2	9415
FBXO32	114907
Fcer1	-
FDFT1	2222
FGA	2243
FGB	2244
FOXC2	2303
GAPDH	2597
Gcn5l	-
GPLD1	2822
GRB2	2885
HADHA	3030
hemoglobin	-
HMG CoA synthase	-
HMGCR	3156
HNF1A	6927
HNF1B	6928
HP	3240
IDH1	3417
IFT88	8100
INSIG1	3638
LBP	3929
LCAT	3931
LIPA	3988
LIPC	3990
LIPE	3991
LIPF	8513
LIPG	9388
Lipoxygenase	-
LMNA	4000
LMOD1	25802
LPA	4018
LPIN1	23175
LPL	4023
LTF	4057
lysophospholipase	-
MARK3	4140
MED12	9968
MED13L	23389
Mediator	-

MGLL	11343
MIF	4282
miR-143/miR-4770	-
miR-152/miR-148b/miR-148a	-
miR-20a/miR-106b/miR-17-5p	-
miR-23b/miR-23a/miR-23c	-
miR-27b/miR-27a	-
miR-378d/miR-378/miR-422a	-
MLYCD	23417
Myosin	-
NAP1L5	266812
NEB	4703
NPC1	4864
NPC1L1	29881
PAH	5053
PCK2	5106
PEPCK	-
PHB	5245
PKD2 (includes EG:18764)	5311
PKLR	5313
PLA2	-
PLA2G1B	5319
PLA2G4A	5321
PLA2G7	7941
PLIN1	5346
PLIN2	123
PNLIP	5406
PNPLA2	57104
PNPLA3	80339
PPARA	5465
PPARD	5467
PPARG	5468
PRDX6	9588
PRRC2A	7916
PRSS1/PRSS3	5644|5646
Pyruvate kinase	-
RAB6B	51560
RBFOX1	54715
RBP4	5950
RETN	56729
RNASE4	6038
Rxr	-
RXRA	6256
RXRG	6258
S1PR1	1901
Sec23	-
SERPINF1	5176
SERPINF2	5345
SHBG	6462
SKIV2L2	23517
SLC10A2	6555
SOAT2	8435
SORBS1	10580

SREBF1	6720
SREBF2	6721
SWI-SNF	-
SYK/ZAP	-
TALDO1	6888
TG	7038
THRSP	7069
TMED9	54732
TNFRSF14	8764
Tni	-
triacylglycerol lipase	-
TRIM55	84675
Tropomyosin	-
TTN	7273
TTR	7276
TULP1	7287
TWIST2	117581
VDAC1	7416
VitaminD3-VDR-RXR	-