

Supplementary materials

Identification of Pyrvinium, an Anthelmintic Drug, as a Novel Anti-Adipogenic Compound Based on the Gene Expression Microarray and Connectivity Map

Zonggui Wang ¹, Zhong Dai ^{2,3}, Zhicong Luo ^{2,3} and Changqing Zuo ^{2,3,*}

¹ Department of Biochemistry and Molecular Biology, Guangdong Medical University, Dongguan 523808, Guangdong, China

² Guangdong Key Laboratory for Research and Development of Natural Drugs, Zhanjiang 524023, Guangdong, China

³ School of Pharmacy, Guangdong Medical University, Dongguan, Guangdong 523808, China

* Correspondence: zuochangqing@gdmu.edu.cn; Tel.: +86-769-22896551

Table S1. The up-regulated expression genes in C3H10T1/2 and 3T3-L1 cells during adipogenic differentiation.

Gene symbol/name										
Abca1	Abhd5	Acadv1	Aco2	Acox1	Acsf2	Acsf3	Acs1	Acss3	Adh1	Adhfe1
Adig	Adipoq	Adrb2	Adrb3	Agpat2	Agt	Aifm2	Akr7a5	Aldh1a1	Aldh1a7	Aldh3b2
Alpl	Amacr	Angptl6	Ankrd37	Ano2	Anxa8	Apex2	Apmap	Apol6	Arhgap27	Armc12
Arxes1	Arxes2	Atp1a4	Atp2b4	Atp5g1	B3gnt6	BB287469	Bckdhb	Bnip3	Car5b	Ccdc103
Ccdc125	Ccdc69	Cd160	Ceacam15	Ces1d	Ces1f	Cfd	Cidec	Cldn15	Cluh	Clybl
Cma1	Cmb1	Cox6a2	Cox7a1	Cpa1	Crls1	Cxcl13	Cyc1	Cycs	Cyp2b10	Cyp2c44
Cyp2c70	Cyp2f2	Defb43	Dgat1	Dgat2	Dhrs3	Dnajb9	Ear1	Ear10	Ear2	Ear3
Ear6	Ear7	Echdc1	Echs1	Ehf	Ehhadh	Emc9	Endog	Eppk1	Ero1l	Fabp4
Fabp5	Fam13a	Fam178b	Fam195a	Fam213a	Fam214a	Fam83a	Fam89a	Fgf21	Fitm2	Fkbp5
Folh1	Fsd2	G0s2	Gbe1	Gbgt1	Gchfr	Gdf5	Ghitm	Glul	Gm2016	Gm2022
Gm4794	Gm8300	Gnpat	Gpcpd1	Gpd1	Gpr81	Gpt	Gpt2	Gsdmc4	Gys1	Gys2
Hibadh	Hibch	Higd1a	Hist1h1d	Hist1h4h	Hk2	Hmha1	Hp	Hpdl	Hsd11b1	Idh3a
Ifngr1	Itgae	Itpk1	Ivns1abp	Kbtbd11	Kbtbd13	Kcnk15	Kcnk3	Klb	Krt36	Krt79
Larp1b	Lcn2	Lin52	Lipe	Lrrc39	Map7d2	Mapk6	Mboat4	Mc5r	Mcam	Mdh1
Mettl7b	Mgst3	Mical3	Mpp3	Mrap	Mreg	Msra	Mthfd2	Mxi1	Myc	Naaa
Nampt	Napsa	Nat1	Niacr1	Nr1h3	Nrg4	Nudt12	Nudt17	Nupr1	Olr1	Orm1
Orm2	Pank3	Pcx	Pde3b	Pdss1	Pex11a	Pfkfb3	Pfk1	Phospho1	Pim3	Pkp1
Pla2g12a	Pla2g16	Plin1	Pnpla2	Por	Ppa1	Ppargc1b	Ppp2r1b	Prg4	Prrt4	Psen2
Psma1	Pxmp2	Rab15	Rbmx12	Rcl1	Rdh19	Retn	Retnla	Rgcc	Rgn	Rprml
Rpusd3	Scarb1	Scp2	Sdr9c7	Selenbp1	Selenbp2	Serpina3c	Serpina3k	Sfxn1	Sh2b2	Sik2
Slc13a4	Slc16a10	Slc1a5	Slc22a20	Slc25a10	Slc25a19	Slc25a34	Slc2a4	Slc36a2	Slc5a6	Smim5
Smim6	Sorbs1	Sort1	Srms	Strip2	Syde2	Syne1	Taldo1	Tead4	Tgm2	Thrsp
Tmem116	Tmem216	Tmem45b	Trim9	Trpc1	Tsc22d3	Tst	Tusc5	Txlng	Ubqln1	Ucp3
Ufsp1	Usp49	Vwa8	Wnk4	Zfp36l3	1600014C23Rik	1700001J03Rik	1700093K21Rik	2010003K11Rik	2610020H08Rik	2610528A11Rik
3010026O09Rik	4632428N05Ri	5730508B09Rik	9430023L20Rik	A530016L24Rik						

Table S4. The transformed Affymetrix probesets from the down-regulated expression genes list.

Affymetrix U133A probesets										
200974_at	201058_s_at	201107_s_at	201108_s_at	201109_s_at	201110_s_at	201278_at	201279_s_at	201280_s_at	201416_at	201417_at
201418_s_at	201605_x_at	201645_at	201860_s_at	201893_x_at	202052_s_at	202191_s_at	202192_s_at	202262_x_at	202273_at	202291_s_at
202351_at	202820_at	202863_at	202864_s_at	202949_s_at	203666_at	203684_s_at	203685_at	203729_at	203873_at	203874_s_at
203875_at	203889_at	203921_at	204285_s_at	204286_s_at	204337_at	204338_s_at	204339_s_at	204358_s_at	204359_at	204462_s_at
204489_s_at	204490_s_at	204501_at	204533_at	204802_at	204803_s_at	204846_at	204896_s_at	204897_at	204924_at	205185_at
205399_at	205422_s_at	205440_s_at	205483_s_at	205534_at	205535_s_at	205611_at	205635_at	205717_x_at	205782_at	205991_s_at
206029_at	206078_at	206115_at	206116_s_at	206117_at	206157_at	206237_s_at	206343_s_at	206426_at	206427_s_at	206501_x_at
206617_s_at	206673_at	206932_at	207004_at	207005_s_at	207053_at	207082_at	207172_s_at	207173_x_at	207191_s_at	207248_at
207293_s_at	207294_at	207369_at	207374_at	207704_s_at	207776_s_at	207823_s_at	207938_at	208127_s_at	208189_s_at	208195_at
208230_s_at	208231_at	208232_x_at	208241_at	208408_at	208475_at	208476_s_at	208782_at	209079_x_at	209108_at	209109_s_at
209306_s_at	209307_at	209335_at	209369_at	209465_x_at	209466_x_at	209561_at	209647_s_at	209648_x_at	209651_at	209687_at
209716_at	209835_x_at	209897_s_at	209901_x_at	209955_s_at	209960_at	209961_s_at	210218_s_at	210219_at	210273_at	210368_at
210369_at	210517_s_at	210557_x_at	210755_at	210757_x_at	210804_x_at	210872_x_at	210916_s_at	210941_at	210985_s_at	210986_s_at
210987_x_at	210997_at	210998_s_at	211066_x_at	211067_s_at	211103_at	211104_s_at	211737_x_at	211805_s_at	211813_x_at	211839_s_at
211896_s_at	212014_x_at	212063_at	212509_s_at	212670_at	213095_x_at	213665_at	213668_s_at	213714_at	213866_at	214059_at
214321_at	214453_s_at	214587_at	214635_at	214909_s_at	214927_at	215051_x_at	215294_s_at	215303_at	215365_at	215389_s_at
215537_x_at	215775_at	215787_at	215836_s_at	216005_at	216056_at	216269_s_at	216598_s_at	216724_at	216725_at	217053_x_at
217061_s_at	217502_at	217523_at	217892_s_at	217996_at	217997_at	217998_at	217999_s_at	218000_s_at	218468_s_at	218469_at
218730_s_at	218986_s_at	219014_at	219049_at	219179_at	219250_s_at	219427_at	219684_at	219935_at	219950_s_at	220040_x_at
220194_at	220327_at	220613_s_at	220663_at	220866_at	221152_at	221447_s_at	221910_at	221911_at	222321_at	33197_at

Table S5. Primers used for RT-qPCR.

Gene name	Forward primer (5'--3')	Reverse primer (5'--3')
aP2	GATGCCTTTGTGGGAACCTG	CAGTTTGAAGGAAATCTCGGT
Adipsin	CTGAACCCTACAAGCGATGG	ACCCAACGAGGCATTCTG
Hes1	TGCCAGCTGATATAATGGAGAA	CCATGATAGGCTTTGATGACTT
Hey1	CATGAAGAGAGCTCACCCAGA	GAACACAGCGCCGAACTCAA
Bnip3	TGGATGCCCAGCATGAATCTG	CTGTGGCTGTCTATTTTCAGCTC
Fkbp5	TATGCTTATGGCTCGGCTGG	GAGTATCCCTCGCCTTTCCG
Pank3	GGTGCTGAGTGCTACAGGAG	GCAAGCCCTTTACAAGGCAG
Sox4	GGACAGCGACAAGATTCCGT	TGCCCGACTTCACCTTCTTTC
36B4	GCTTCATTGTGGGAGCAGAC	ATGGTGTTCTTGCCCATCAG