

Supplementary Table 8: Differential mRNA expression ($q < 0.05$) of candidate genes for obesity in human pancreatic islets exposed to palmitate versus control. DNA methylation data is displayed if the absolute difference in DNA methylation $\geq 3\%$ and $P < 0.05$.

Obesity candidate gene	mRNA expression							DNA methylation (%)					
	Probe ID	Chr	Control mean \pm sd	Palmitate mean \pm sd	Diff. palmitate-control	P-value	q-value	Probe ID	Region	Control mean \pm sd	Palmitate mean \pm sd	Diff. palmitate-control	P-value
<i>ASAH1</i>	8149534	8	2,772.5 \pm 351.5	2,517.6 \pm 434.2	-254.9	0.0017	0.033						
<i>DNM3</i>	7907370	1	51.6 \pm 11.7	62.1 \pm 17.4	10.6	0.0017	0.033	cg21450888	Body; Open sea	70.8 \pm 5.7	75.0 \pm 8.4	4.2	0.041
								cg10769535	Body; Open sea	66.4 \pm 4.4	71.5 \pm 3.7	5.1	0.001
<i>GP2</i>	7999920	16	661.9 \pm 420.1	475.1 \pm 388.5	-186.8	0.0012	0.027						
<i>GPRC5B</i>	7999909	16	796.9 \pm 322.0	586.9 \pm 262.5	-210.0	0.0002	0.013						
<i>GRB14</i>	8056327	2	97.5 \pm 15.5	81.5 \pm 24.1	-16.0	0.0024	0.041						
<i>HNF4G</i>	8146986	8	123.1 \pm 43.5	99.8 \pm 32.8	-23.3	0.0005	0.017						
<i>ITPR2</i>	7961900	12	204.8 \pm 36.8	172.7 \pm 38.7	-32.1	0.0005	0.017						
<i>KLF9</i>	8161648	9	230.1 \pm 29.3	211.0 \pm 28.2	-19.1	0.0012	0.027						
<i>LAMA2</i>	8121949	6	73.7 \pm 37.0	57.7 \pm 20.2	-16.0	0.0034	0.049	cg15002362	Body; Open sea	49.5 \pm 6.4	52.9 \pm 7.7	3.4	0.014
								cg23621912	Body; Open sea	36.5 \pm 4.7	40.0 \pm 3.6	3.5	0.003
<i>OLFM4</i>	7969288	13	6,063.4 \pm 1,604.4	4,926.3 \pm 2,045.2	-1,137.1	0.0024	0.041						
<i>PCSK1</i>	8113234	5	4,238.9 \pm 1,705.4	5,381.2 \pm 1,765.8	1,142.3	0.0002	0.013						
<i>RARB</i>	8078286	3	83.4 \pm 20.4	51.8 \pm 17.7	-31.6	0.0002	0.013						
<i>RASAL2</i>	7907611	1	114.5 \pm 20.7	101.4 \pm 14.8	-13.1	0.0017	0.033	cg00112588	TSS1500; N Shore	53.7 \pm 4.6	56.7 \pm 3.7	3.0	0.017
								cg22685215	Body; Open sea	56.7 \pm 5.4	60.0 \pm 5.8	3.4	0.024
<i>RPL27A</i>	7938295	11	145.9 \pm 40.1	124.9 \pm 30.5	-21.0	0.0034	0.049						
<i>UBE2E3</i>	8046685	2	310.0 \pm 22.3	276.8 \pm 26.8	-33.2	0.0017	0.033						