

Supplementary Table 14: Genes displaying significant difference in mRNA expression between control and palmitate treated human pancreatic islets ($q < 0.05$) as well as significant correlation between BMI and mRNA expression in human pancreatic islets ($P < 0.05$).

Gene symbol	Probe set ID	mRNA expression						BMI correlated with mRNA expression	
		Chr	Control mean \pm sd	Palmitate mean \pm sd	Diff. in expr. (palmitate-control)	P-value	q-value	Regression coefficient	P-value
<i>ADM</i>	7938390	11	306.1 \pm 136.2	592.8 \pm 468.5	286.7	0.0012	0.027	0.030	0.033
<i>AIFM2</i>	7934101	10	117.8 \pm 19.1	134.9 \pm 21.9	17.2	0.0024	0.041	0.014	0.038
<i>ANGPTL4</i>	8025402	19	176.2 \pm 109.0	270.4 \pm 181.2	94.2	0.0012	0.027	0.032	0.032
<i>AP1M2</i>	8034084	19	386.9 \pm 61.7	357.2 \pm 53.2	-29.7	0.0012	0.027	-0.016	0.016
<i>ASPM</i>	7923086	1	19.9 \pm 5.0	14.4 \pm 2.7	-5.5	0.0007	0.020	-0.021	0.040
<i>BET1L</i>	7945349	11	156.7 \pm 15.4	182.5 \pm 19.6	25.8	0.0002	0.013	0.014	0.023
<i>BRI3BP</i>	7959777	12	247.9 \pm 34.0	222.2 \pm 37.3	-25.7	0.0034	0.049	-0.016	0.046
<i>CAMK2N1</i>	7913237	1	1,134.0 \pm 260.3	1,030.1 \pm 237.0	-103.9	0.0002	0.013	-0.015	0.049
<i>CDKN1A</i>	8119088	6	241.8 \pm 56.2	309.6 \pm 72.3	67.9	0.0005	0.017	0.018	0.028
<i>CNTN3</i>	8088866	3	50.3 \pm 10.1	40.9 \pm 12.6	-9.4	0.0002	0.013	-0.022	0.046
<i>CNTN4</i>	8077323	3	251.9 \pm 147.1	207.3 \pm 117.7	-44.6	0.0024	0.041	-0.048	0.010
<i>CRYAB</i>	7951662	11	298.2 \pm 156.6	420.3 \pm 237.5	122.2	0.0034	0.049	0.052	0.006
<i>EFR3A</i>	8148333	8	1,179.9 \pm 218.9	1,071.9 \pm 203.8	-108.0	0.0005	0.017	-0.018	0.049
<i>EIF3D</i>	8075798	22	1,277.8 \pm 227.2	1,405.8 \pm 261.5	128.0	0.0012	0.027	0.015	0.009
<i>EMP3</i>	8030007	19	132.3 \pm 41.5	159.3 \pm 46.0	27.0	0.0007	0.020	0.021	0.047
<i>EXOSC9</i>	8097128	4	264.0 \pm 19.9	286.1 \pm 32.4	22.1	0.0024	0.041	0.020	0.013
<i>FUT2</i>	8030094	19	107.3 \pm 33.9	92.5 \pm 29.0	-14.8	0.0024	0.041	-0.046	0.007
<i>FXYD3</i>	8027748	19	426.5 \pm 97.5	338.7 \pm 97.4	-87.7	0.0002	0.013	-0.039	0.002
<i>GNL3</i>	8080419	3	757.3 \pm 102.2	888.3 \pm 116.3	131.1	0.0012	0.027	0.016	0.012
<i>HIBADH</i>	8138776	7	578.4 \pm 78.2	507.3 \pm 88.2	-71.1	0.0002	0.013	-0.019	0.013
<i>HSPA1A</i>	8118310	6	2,833.9 \pm 557.5	3,360.6 \pm 656.2	526.7	0.0005	0.017	0.026	0.041
<i>HSPA1A</i>	8179322	6_qbl_hap2	2,768.4 \pm 550.8	3,294.7 \pm 646.9	526.4	0.0005	0.017	0.025	0.043

<i>HSPA6</i>	7906764	1	83.1 ± 31.5	131.5 ± 72.9	48.4	0.0017	0.033	0.059	0.045
<i>HSPA9</i>	8114455	5	1,818.0 ± 162.0	1,995.5 ± 178.1	177.5	0.0024	0.041	0.011	0.048
<i>IQCB1</i>	8089954	3	188.9 ± 46.3	218.6 ± 62.4	29.6	0.0024	0.041	0.028	0.005
<i>JOSD1</i>	8076128	22	883.1 ± 178.9	994.1 ± 210.8	110.9	0.0012	0.027	0.016	0.025
<i>LIPA</i>	7934920	10	1,049.7 ± 191.0	919.0 ± 173.4	-130.7	0.0024	0.041	-0.015	0.040
<i>LPCAT4</i>	7987230	15	106.4 ± 7.3	92.8 ± 10.5	-13.6	0.0007	0.020	-0.013	0.049
<i>MED10</i>	8110886	5	352.3 ± 61.5	427.3 ± 71.2	75.0	0.0002	0.013	0.040	0.001
<i>MIA2</i>	7974080	14	86.9 ± 30.4	74.2 ± 29.0	-12.6	0.0024	0.041	-0.022	0.028
<i>MYL6</i>	7956211	12	4,630.9 ± 266.9	4,379.0 ± 339.0	-251.9	0.0002	0.013	-0.009	0.042
<i>NEUROD1</i>	8057480	2	1,106.1 ± 465.3	980.6 ± 426.5	-125.5	0.0007	0.020	-0.031	0.036
<i>NR4A1</i>	7955589	12	115.1 ± 22.4	137.1 ± 22.9	22.0	0.0002	0.013	0.035	0.002
<i>NR4A2</i>	8055952	2	90.7 ± 17.7	127.9 ± 32.0	37.2	0.0012	0.027	0.043	0.004
<i>NR4A3</i>	8156848	9	61.7 ± 5.0	76.0 ± 14.7	14.3	0.0002	0.013	0.022	0.016
<i>PDZK1</i>	7904843	1	224.1 ± 112.8	179.6 ± 97.6	-44.4	0.0024	0.041	-0.045	0.026
<i>PECR</i>	8058837	2	120.8 ± 22.0	97.6 ± 27.9	-23.3	0.0012	0.027	-0.022	0.028
<i>PLIN2</i>	8160297	9	392.4 ± 200.1	762.9 ± 577.3	370.6	0.0002	0.013	0.027	0.036
<i>PPP1R15A</i>	8030128	19	194.6 ± 36.2	319.2 ± 109.8	124.6	0.0002	0.013	0.033	0.004
<i>PSMB7</i>	8164067	9	1,373.3 ± 151.0	1,451.2 ± 140.5	77.9	0.0017	0.033	0.015	0.028
<i>PXMP2</i>	7960117	12	229.5 ± 35.5	205.4 ± 28.6	-24.2	0.0024	0.041	-0.023	0.006
<i>RAB7L1</i>	7923812	1	500.6 ± 113.7	457.6 ± 118.7	-43.0	0.0034	0.049	-0.021	0.025
<i>RASGRP1</i>	7987405	15	159.7 ± 54.0	138.0 ± 46.7	-21.6	0.0024	0.041	-0.043	0.010
<i>RBM3</i>	8167234	X	143.5 ± 36.4	164.0 ± 39.7	20.5	0.0005	0.017	0.031	0.038
<i>SCD5</i>	8101366	4	205.9 ± 57.3	179.7 ± 58.0	-26.3	0.0005	0.017	-0.019	0.028
<i>SCP2</i>	7901513	1	655.7 ± 107.4	594.7 ± 129.2	-61.0	0.0034	0.049	-0.012	0.043
<i>SLC2A3</i>	7960865	12	406.4 ± 106.3	664.2 ± 517.2	257.8	0.0002	0.013	0.030	0.036
<i>SLC30A8</i>	8148003	8	5,399.1 ± 1,886.6	4,762.5 ± 1,777.0	-636.6	0.0034	0.049	-0.031	0.019
<i>SLCO2A1</i>	8090823	3	61.4 ± 14.0	44.2 ± 4.5	-17.2	0.0012	0.027	-0.045	0.003

<i>SNHG12</i>	7914202	1	171.6 ± 75.1	267.0 ± 123.8	95.4	0.0034	0.049	0.035	0.024
<i>SORD</i>	7983393	15	568.3 ± 184.7	470.7 ± 152.8	-97.6	0.0024	0.041	-0.028	0.022
<i>SRXN1</i>	8064375	20	867.7 ± 225.9	1,159.6 ± 396.4	291.9	0.0012	0.027	0.023	0.029
<i>SYNJ2BP</i>	7979916	14	565.0 ± 47.9	501.3 ± 62.2	-63.7	0.0034	0.049	-0.014	0.040
<i>TM4SF4</i>	8083301	3	4,704.1 ± 1,740.2	3,956.5 ± 1,856.2	-747.7	0.0002	0.013	-0.054	0.003
<i>TMEM54</i>	7914592	1	434.0 ± 93.5	364.5 ± 82.6	-69.6	0.0002	0.013	-0.017	0.042
<i>TMEM63B</i>	8119926	6	168.6 ± 21.2	149.1 ± 19.3	-19.4	0.0034	0.049	-0.015	0.019
<i>TNFRSF10B</i>	8149733	8	321.5 ± 97.5	367.1 ± 139.2	45.6	0.0007	0.020	0.029	0.013
<i>UFM1</i>	7968670	13	1,058.4 ± 117.1	1,229.9 ± 142.0	171.5	0.0017	0.033	0.012	0.018
<i>UGT2B15</i>	8100737	4	2,339.8 ± 1,324.2	1,394.2 ± 1,331.7	-945.6	0.0007	0.020	-0.076	0.037
<i>UGT2B15</i>	8100746	4	2,339.8 ± 1,324.2	1,394.2 ± 1,331.7	-945.6	0.0007	0.020	-0.076	0.037
<i>UGT2B7</i>	8100758	4	2,820.4 ± 1,716.6	1,682.2 ± 1,628.9	-1,138.2	0.0007	0.020	-0.077	0.033
<i>WDR44</i>	8169519	X	208.8 ± 38.1	195.2 ± 41.1	-13.6	0.0034	0.049	-0.013	0.040
<i>WEE1</i>	7938348	11	133.2 ± 24.9	155.1 ± 31.4	21.9	0.0017	0.033	0.018	0.042
<i>VILI</i>	8048319	2	137.9 ± 42.8	110.6 ± 43.4	-27.3	0.0024	0.041	-0.037	0.027
<i>ZFAND2A</i>	8137709	7	174.8 ± 30.4	208.7 ± 27.0	33.8	0.0005	0.017	0.036	0.045
<i>ZNF165</i>	8117630	6	107.7 ± 22.1	180.5 ± 46.4	72.8	0.0002	0.013	0.026	0.011
<i>ZNFX1-AS1</i>	8063337	20	512.3 ± 138.3	659.0 ± 177.7	146.7	0.0002	0.013	0.021	0.008