

Supplementary Table 4. Functional and pathway enrichment analysis of upregulated and downregulated genes using KEGG category in DM and non-DM group

Term	Count	Up molecules	Down molecules	Fold enrichment	-Log10 (p-value)
Insulin resistance	6	5 (<i>SOCS3, MLXIPL, INSR, PPARA, PIK3R5</i>)	1 (<i>SLC27A2</i>)	5.31	2.30
TGF- β signaling pathway	5	4 (<i>BMP4, LEFTY1, ID3, ID4</i>)	1 (<i>AMH</i>)	5.69	2.00
Non-alcoholic fatty liver disease	6	6 (<i>SOCS3, MLXIPL, INSR, LEPR, PPARA, PIK3R5</i>)	0	3.80	1.71
Adipocytokine signaling pathway	4	4 (<i>SOCS3, LEPR, PPARA, CAMKK1</i>)	0	5.46	1.45
Signaling pathways regulating pluripotency of stem cells	5	5 (<i>BMP4, ID4, ID3, WNT3, PIK3R5</i>)	0	3.41	1.25
Prostate cancer	4	3 (<i>CDKN1A, PDGFB, PIK3R5</i>)	1 (<i>LEF1</i>)	4.34	1.21
Neuroactive ligand-receptor interaction	7	6 (<i>GABRP, EDNRB, HTR1F, P2RY2, LEPR</i>)	1 (<i>HRH3</i>)	2.41	1.18
Oxytocin signaling pathway	5	5 (<i>KCNJ4, CACNG6, CDKN1A, PLCB1, CAMKK1</i>)	0	3.18	1.16
cGMP-PKG signaling pathway	5	4 (<i>EDNRB, INSR, PLCB1, ADRA2C</i>)	1 (<i>SLC8A1</i>)	3.02	1.10
Phosphatidylinositol signaling system	4	4 (<i>INPP5D, PLCD3, PLCB1, PIK3R5</i>)	0	3.90	1.10
Melanogenesis	4	3 (<i>EDNRB, PLCB1, WNT3</i>)	1 (<i>LEF1</i>)	3.82	1.08
Type II DM	3	3 (<i>SOCS3, INSR, PIK3R5</i>)	0	5.97	1.06

cGMP-PKG, cGMP-dependent protein kinase G; DM, diabetes mellitus; KEGG, Kyoto Encyclopedia of Genes and Genomes; TGF- β , transforming growth factor beta.