

## Human Fatty Liver PCR Array

**Insulin Signaling Pathway:** AKT1, FOXA2 (HNF3B), FOXO1, GSK3B, IGF1, IGFBP1, INSR, IRS1, MAPK1 (ERK2), MAPK8 (JNK1), MTOR, PIK3CA (p110A), PIK3R1 (PI3K p85 $\alpha$ ), PKLR, PPARGC1A (PGC-1 $\alpha$ ), PRKAA1, PTPN1, SLC2A4 (GLUT4), SOCS3, SREBF1.

**Adipokine Signaling Pathway:** ADIPOR1, ADIPOR2, AKT1, CD36, IRS1, LEPR, MAPK8 (JNK1), MTOR, NFKB1, PPARA, PPARGC1A (PGC-1 $\alpha$ ), PRKAA1, RXRA, SERPINE1 (PAI-1), SLC2A1, SLC2A4 (GLUT4), SOCS3, STAT3, TNF.

**Genes Involved in NIDDM:** GCK, INSR, IRS1, MAPK1 (ERK2), MAPK8 (JNK1), MTOR, PIK3CA (p110A), PIK3R1 (PI3K p85 $\alpha$ ), PKLR, PNPLA3, SLC2A2, SLC2A4 (GLUT4), SOCS3, TNF, XBP1.

### Metabolic Pathways:

Carbohydrate Metabolism: ACLY, G6PC, G6PD, GCK, GSK3B, MLXIPL, PCK2, PDK4, PKLR, RBP4.

Beta-Oxidation: ACADL, ACOX1, AKT1, CPT1A, CPT2, FABP1, IRS1, MTOR, PPARA.

Cholesterol Metabolism/Transport: ABCA1, APOA1, APOB, APOC3, APOE, CD36, CNBP, CYP2E1, CYP7A1, HMGCR, LDLR, LEPR, NR1H2, NR1H3, NR1H4, PPARA, PPARG, PRKAA1, RXRA, SREBF1, SREBF2.

Other Lipid Metabolism/Transport: ACACA, ACSL5, ACSM3, DGAT2, FABP3, FABP5, FASN, GK, HNF4A, LPL, PNPLA3, PPA1, SCD, SLC27A5.

Oxidative Phosphorylation: ATP5C1, NDUFB6, PPA1.

**Inflammatory Response:** CEBPB, FAS (TNFRSF6), IFNG, IL10, IL1B, IL6, NFKB1, RXRA, TNF.

**Apoptosis:** AKT1, CASP3, CEBPB, FAS (TNFRSF6), MAPK1 (ERK2), MAPK8 (JNK1), NFKB1, PIK3CA (p110A), PPARG, PRKAA1, RXRA, SERPINE1 (PAI-1), SOCS3, TNF.