

## Human Skeletal Muscle: Myogenesis & Myopathy PCR Array

### **Skeletal Muscle Contractility:**

Dystrophin-Glycoprotein Complex: CAMK2G, CAPN3, CAV3, DAG1, DMD (Dystrophin), DYSF, LMNA, MAPK1, SGCA.

Titin Complex: ACTA1, ACTN3, CAPN3, CRYAB, DES, LMNA, MAPK1, MSTN, MYH1, MYH2, MYOT, NEB, SGCA, TNNT1, TNNT2, TNNT3, TRIM63 (MuRF1), TTN.

Energy Metabolism: CS, HK2, PDK4, SLC2A4 (GLUT4).

Fast-Twitch Fibers: ATP2A1, MYH1, MYH2, TNNT1, TNNT2.

Slow-Twitch Fibers: MB, MYH1, TNNT1, TNNT2.

Other: DMPK, IKBKB, RPS6KB1.

**Skeletal Myogenesis:** ACTA1, ADRB2, AGRN, BCL2, BMP4, CAPN2, CAST, CAV1, CTNNB1, DMD, HDAC5, IGF1, IGFBP3, IGFBP5, MEF2C, MSTN, MUSK, MYF5, MYF6, MYOD1, MYOG, PAX3, PAX7, PPP3CA (Calcineurin Aa), RHOA, RPS6KB1, UTRN.

**Skeletal Muscle Hypertrophy:** ACTA1, ACVR2B, ADRB2, IGF1, IGFBP5, MSTN, MYF6, MYOD1,

**Skeletal Muscle Autocrine Signaling:** ADIPOQ, FGF2, IGF1, IGF2, IL6, LEP, MSTN, TGFB1.

**Diabetes/Metabolic Syndrome:** ADIPOQ, LEP, PPARG, PPARGC1A (PGC-1a), PPARGC1B (PGC-1 $\beta$ ), PRKAA1

(AMPK), PRKAB2, PRKAG1, PRKAG3, SLC2A4 (GLUT4).

### **Skeletal Muscle Wasting/Atrophy:**

Autophagy: CAPN2, CASP3, FBXO32 (Atrogin-1), FOXO1, FOXO3, MSTN, NOS2, PPARGC1A (PGC-1 $\alpha$ ), PPARGC1B (PGC-1 $\beta$ ), RPS6KB1, TRIM63 (MuRF1).

Dystrophy: AKT1, AKT2, FBXO32 (Atrogin-1), IL1B, MAPK1, MAPK14, MAPK3, MAPK8, MMP9, NFKB1, TRIM63 (MuRF1), UTRN.