

Human Tumor Metastasis PCR Array

Cell Adhesion Genes:

Cell to Cell Adhesion: APC, CD44, CDH1 (E-cadherin), CDH11, CDH6, FAT1, FXYD5, ITGA7, PNN, SYK, VEGFA.

Transmembrane Receptors: CD44, ITGA7, ITGB3, RPSA (LAMR1).

Other Genes Related to Adhesion: CTNNA1, FN1, MCAM, MGAT5, MTSS1.

Extracellular Matrix Proteins:

Matrix Metalloproteinases: MMP10, MMP11, MMP13, MMP2, MMP3, MMP7, MMP9.

MMP Inhibitors: TIMP2, TIMP3, TIMP4.

Other ECM Proteins: COL4A2, HPSE (Heparanase), SERPINE1 (PAI-1).

Cell Cycle Genes:

Cell Cycle Regulation: APC, BRMS1, CDKN2A (p16INK4), HRAS, IL1B, KRAS, MTSS1, NF2, NME1 (NME23A), PTEN, RB1, TGFB1, TP53, VEGFA.

Cell Cycle Arrest and Checkpoint: CDKN2A (p16INK4), MYC, RB1, TP53.

Cell Growth and Proliferation Genes:

Negative Regulation of Cell Proliferation: CDKN2A (p16INK4), CTBP1, GNRH1, IL1B, MDM2, NF2, NME1 (NME23A), SSTR2.

Positive Regulation of Cell Proliferation: IGF1, IL18, TSHR, VEGFA.

Growth Factors and Hormones: GNRH1, HGF (Scatter Factor), IGF1, TGFB1, VEGFA.

Cytokines: CCL7 (MCP-3), CXCL12, IL18, IL1B, TNFSF10.

Receptors: CXCR2 (IL8RB), CXCR4, EPHB2, FGFR4, FLT4, KISS1R, MET, NR4A3, PLAUR (uPAR), RORB, SSTR2, TSHR.

Other Genes Related to Growth: DENR, EWSR1, HRAS, MYC, SET, SRC, SYK, TRPM1.

Apoptosis: CXCR4, HTATIP2, IL1B , IL18, TGFB1, TIMP3, TNFSF10 (TRAIL), TP53.

Transcription Factors and Regulators: CHD4, ETV4, EWSR1, HTATIP2, MTA1, MYC, MYCL1, NR4A3, RB1, RORB, SMAD2, SMAD4, TCF20, TP53.

Other Genes Related to Metastasis: CST7, CTSK, CTSL1, CD82 (KAI1), KISS1, METAP2, NME4.