

Human Retinoic Acid Pathway

Retinoic Acid & Retinol Receptors: RARA, RARB, RARG, RXRA, RXRB, RXRG, PPARD, STRA6.

Retinoic Acid & Retinol Metabolism: ADH1A, ALDH1A1, ALDH1A2, ALDH1A3, CYP1B1, CYP26A1, CYP26B1, CYP26C1, DHRS3, DHRS9, LRAT, RDH10.

Retinoic Acid & Retinol Transporters: CRABP1, CRABP2, FABP5, RBP1, RBP2, RBP4, STRA6.

Non-Canonical Retinoic Acid Signal Transduction: CRABP1, FABP5, LRAT, PPARD, PPARG, RARA, STRA6.

Retinoic Acid Receptor Targets: ADH1A, APOA2, BHLHE40, CD38, CDX1, CRABP1, CRABP2, CYP26A1, CYP26B1, CYP26C1, DHRS9, EFNB1, EGR1, EPO, FOXA1, GBX2, HNF1B, HOXA1, HOXA5, HOXB1, HOXB4, HSD17B2, KLF4, LEFTY1, MEIS2, MYC, PLAT, RARA, RARB, RARG,

Retinoic Acid Pathway Regulators: CHD7, HOXA1, MEIS2, NRIP1, PAX6, PPARG, TBX1.

Signal Transduction: BMP2, CD38, DCX, EFNB1, EPO, FGF8, JAG1, KLF4, LEFTY1, PLAT, RARRES3, RET, SHH, TGFB2, WNT5A, WNT8A.

Transcription Factors & Regulators: ASCL1, BHLHE40, CDX1, CHD7, DLX5, EGR1, FOXA1, FOXG1, GATA4, GBX2, GLI1, HNF1B, HOXA1, HOXA5, HOXB1, HOXB4, ISL1, KLF4, LHX1, MAFB, MEIS2, MSX2, MYC, NANOG, NEUROD1, NRIP1, OLIG2, OTX2, PAX6, PITX2, PPARA, PPARD, PPARG,

Development:

Adipogenesis: EGR1, FABP5, FOXA1, KLF4, MSX2, NRIP1, PPARA, PPARD, PPARG, RBP4, SREBF1, STRA6, UCP1.

Cardiovascular System Development: BMP2, CHD7, DHRS3, DLX5, EPO, FGF8, GATA4, ISL1, JAG1, PITX2, SHH, SOX9, STRA6, TBX1, TGFB2, WNT5A.

Body Pattern Formation: BMP2, CDX1, EFNB1, FGF8, FOXA1, FOXG1, GATA4, GBX2, GLI1, HOXA1, HOXA5, HOXB1, HOXB4, HNF1B, JAG1, LEFTY1, LHX1, MAFB, MEIS2, NANOG, NEUROD1, OTX2, PITX2, SHH, TBX1, WNT5A, WNT8A.

Neurological Development: ASCL1, BMP2, CHD7, DCX, DLX5, EFNB1, FGF8, FOXA1, FOXG1, GBX2, HNF1B, HOXA1, HOXB1, ISL1, MAFB, MEIS2, NEUROD1, OLIG2, OTX2, PAX6, PITX2, RET, SHH, SOX2, STRA6, TBX1, TFAP2C, TGFB2, TUBB3, WNT5A.

Sex Determination & Development: CHD7, FGF8, GATA4, GLI1, HNF1B, LHX1, MAFB, RBP4, SHH, SOX2, SOX9, STRA6, STRA8, WNT5A.

Skin Development & Homeostasis: KLF4, LRAT, PAX6, PPARA, PPARD, PPARG, SHH, TFAP2C, MSX2.

Stem Cell Development & Maintenance: GLI1, KLF4, NANOG, SHH, SOX2, TFAP2C, WNT5A.