

Human Cell Lineage Identification PCR Array
Pluripotent Markers: DNMT3B, GDF3 (VGR-2), LEFTY1, NANOG, PODXL, POU5F1 (OCT4), ZFP42.
Germ Layers:
<u>Ectoderm:</u> FGF5, FOXD3, OTX2, ZIC1.
<u>Neuroectoderm:</u> GBX2, NEUROG2.
<u>Mesoderm:</u> BMP4, CD34, DCN, GATA2, HAND1, IGF2, MIXL1, PDGFRA, RUNX1 (AML1), T (Brachyury).
<u>Endoderm:</u> FOXA1, GATA1, GATA6, HNF4A, SOX17, SOX7.
Progenitors:
<u>Ectoderm:</u>
<i>Neuronal:</i> FABP7, HES5, PROM1, SOX2.
<i>Immature Neuron:</i> DCX.
<i>Immature GABA Neuron:</i> GAD2, SLC32A1.
<i>Limbal Progenitor:</i> ENO1, MSLN.
<i>Motor Neuron Progenitor:</i> FOXG1, OLIG2.
<i>Oligodendrocyte Progenitor:</i> NKX2-2, OLIG2.
<u>Mesoderm:</u>
<i>Early Cardiomyocyte:</i> HAND2.
<i>Early B Cell:</i> CD79A.
<i>Early T Cell:</i> CD3E, PTCRA.
<i>Muscle Stem Cell:</i> CD34.
<u>Endoderm:</u>
<i>Pancreatic Islet Cell:</i> KRT19.
<i>Hepatic Stem Cell:</i> APOH, DPP4, MAP3K12.
Terminal Differentiation:
<u>Ectoderm:</u>
<i>Keratinocyte:</i> KRT10, KRT14.
<i>Melanocyte:</i> TYR.
<i>Mature Neuron:</i> NEUROD1.
<i>Cholinergic Neuron:</i> CHAT.
<i>GABA Neuron:</i> GAD1.
<i>Glutamatergic Neuron:</i> SLC17A6, SLC17A7.
<i>Astrocyte:</i> GALC, GFAP.
<i>Ganglion Cell:</i> POU4F2.
<i>Photoreceptor Cell:</i> RCVRN.
<u>Mesoderm:</u>
<i>Skeletal Muscle Cell:</i> MYH1.
<i>Smooth Muscle Cell:</i> MYH11, SMTN.
<i>Cardiomyocyte:</i> MYL3, MYH7, NPPA, RYR2.
<i>Osteoblast:</i> IBSP.
<i>Osteoclast:</i> CTSK.
<i>Chondrocyte:</i> COL10A1, COMP.
<i>Macrophage:</i> CCR5.
<u>Endoderm:</u>
<i>Hepatocyte:</i> ALB, G6PC, TAT.
<i>Cholangiocyte:</i> ITGB4.
<i>Beta Cell:</i> INS, SLC2A2.
<i>Exocrine Cell:</i> CPA1.
<i>Lung Cell:</i> SFTPB, SFTPD.

Proximal Tubule Cell: AQP1, MIOX.