

List of Common Stem Cell Markers

TaqMan® Gene Expression Assays ID's



Stem Cell Solutions

			Human		Mouse	
			Gene Symbol	Assay ID	Gene Symbol	Assay ID
<b>Blood Vessel</b>						
ABCG2 (CDw338)	Primitive Stem Cells	Cell Surface	ABCG2	Hs00184979_m1	Abcg2	Mm00496364_m1
Fetal liver kinase-1 (Flk1); aka VEGFR	Endothelial	Cell Surface	KDR	Hs00176676_m1	Kdr	Mm01222419_m1
Smooth muscle cell-specific myosin heavy chain	Smooth muscle	Intracellular	MYH11	Hs00224610_m1	Myh11	Mm00443013_m1
Vascular endothelial cell cadherin (CD-144)	Smooth muscle	Cell Surface	CDH5	Hs00174344_m1	Cdh5	Mm00486938_m1
<b>Bone Marrow &amp; Blood</b>						
Bone morphogenetic protein receptor (BMPR)	Mesenchymal stem and progenitor cells	Cell Surface	BMPR1B	Hs00176144_m1	Bmpr1a	Mm00477650_m1
Bone Morphogenic Protein (BMP-2)	ESC, endoderm	Secreted	BMP2	Hs00154192_m1	Bmp2	Mm01340178_m1
Bone Morphogenic Protein (BMP-4)	ESC, endoderm	Secreted	BMP4	Hs00370078_m1	Bmp4	Mm00432087_m1
CD3	Leukocyte lineage	Cell surface			Cd3e	Mm00442746_m1
					Cd3g	Mm00438095_m1
CD4	Leukocyte lineage	Cell surface	CD4	Hs00181217_m1	Cd4	Mm00442754_m1
CD8	Leukocyte lineage	Cell surface	CD8A	Hs00233520_m1	Cd8a	Mm01182107_g1
CD19	Leukocyte lineage	Cell surface	CD19	Hs00174333_m1	Cd19	Mm00515420_m1
CD34	Hematopoietic stem cell (HSC), Mesenchymal stem cell (MSC)	Cell Surface	CD34	Hs00156373_m1	Cd34	Mm00519283_m1
CD34* Sca1* Lin <sup>-</sup> profile	Absent on HSC; Present on WBC	Cell Surface	CD38	Hs00233552_m1	Cd38	Mm00483146_m1
CD38	HSC, MSC	Cell Surface	CD44	Hs00153304_m1	Cd44	Mm01277163_m1
CD44	Leukocyte lineage	Cell Surface	PTPRC	Hs00174541_m1	Ptprc	Mm00448463_m1
CD45	HSC, MSC	Cell Surface	KIT	Hs00174029_m1	Kit	Mm00445212_m1
c-Kit	WBC	Cell Surface	ITGAM	Hs00355885_m1	Itgam	Mm00434455_m1
Mac-1	Bone marrow fibroblasts, endothelial	Cell Surface	MCAM	Hs00174838_m1	Mcam	Mm00522397_m1
Muc-18 (CD146)	Stromal cell, fibroblasts	Cell Surface, secreted	CASP3	Hs00234387_m1	Ly6a	Mm00726565_s1
Stem cell antigen (Sca-1)						
<b>Liver</b>						
Albumin	Hepatocyte	Secreted	ALB	Hs00609411_m1	Alb-1	Mm00802090_m1
CD29 (b-1 integrin)	Hepatocyte	Cell surface	ITGB1	Hs00236976_m1	Itgb1	Mm01253227_m1
<b>Nervous</b>						
CD56 (N-CAM)	Ectoderm	Cell Surface	NCAM1	Hs00288627_s1	Ncam1	Mm00456815_m1
CD133	Neural stem cell, HSC	Cell Surface	PROM1	Hs00195682_m1	Prom1	Mm00477115_m1
CNPase	NSC, Oligodendrocyte	Intracellular	CNP	Hs00263981_m1	Cnp1	Mm00487038_m1
FOXD3 (Genesis)	ESC, endoderm	Intracellular	FOXD3	Hs00255287_s1	Foxd3	Mm02384867_s1
GABA	NSC	Secreted	various (see		various (see	
GAD65	Neurons, oligodendrocyte,	Intracellular	GAD2	Hs00609529_m1	Gad2	Mm00484623_m1
GAP-43	NSC	Cell surface	GAP43	Hs00967138_m1	Gap43	Mm00504004_m1
Glial fibrillary acidic protein (GFAP)	Astrocyte	Cell surface	GFAP	Hs00157674_m1	Gfap	Mm00546086_m1
HLXB9 (homeo box HB9)	Ectoderm, Mesoderm	Intracellular	MXN1	Hs00232128_m1	Hlxb9	Mm00658300_g1
Microtubule-associated protein-2 (MAP-2)	Neuron	Cytoplasmic	MAP2	Hs00258900_m1	Mtap2	Mm00485230_m1
Myelin basic protein (MPB)	Oligodendrocyte	Cell surface	MBP	Hs00175245_m1	Mbp	Mm01262035_m1
MSI1	Ectoderm	Intracellular	MSI1	Hs00159291_m1	Msi1	Mm00485224_m1
Nestin	Neural progenitor	Intracellular	NES	Hs00707120_s1	Nes	Mm00450205_m1
Neural tubulin	Ectoderm, Neuron	Intracellular				
NeuroD1	Ectoderm, Neuron	Intracellular	NEUROD1	Hs00159598_m1	Neurod1	Mm01946604_s1
Neurofilament (NF) (Light)	Neuron	Intracellular	NEFL	Hs00196245_m1		
Neurofilament (NF) (Medium)	Neuron	Intracellular	NEFM	Hs00193572_m1	Nefm	Mm00456201_m1
Neurofilament (NF) (Heavy)	Neuron	Intracellular	NEFH	Hs00606024_m1	Nefh	Mm01191456_m1
Neuron Specific Enolase (NSE)	Neuron	Intracellular	ENO2	Hs00157360_m1	Eno2	Mm00469062_m1
Noggin	Neuron	Intracellular	NOG	Hs00271352_s1	Nog	Mm00476456_s1
O4	Oligodendrocyte	Cell Surface	FOXO4	Hs00172973_m1	Foxo4	Mm00840140_g1
O1	Oligodendrocyte	Cell Surface	FOXO1	Hs01054576_m1	Foxo1	Mm00490672_m1
Pax-5	Ectoderm	Intracellular	PAX5	Hs00277134_m1	Pax5	Mm00435501_m1
Pax-6	Ectoderm, Neuron	Intracellular	PAX6	Hs00240871_m1	Pax6	Mm00443072_m1
S100	NSC, Astrocyte	Intracellular	S100A1	Hs00196704_m1	S100a1	Mm00478585_m1
SOX1	Ectoderm	Intracellular	SOX1	Hs00534426_s1	Sox1	Mm00486299_s1
Synaptophysin	Neuron	Cell Surface	SYP	Hs00300531_m1	Syp	Mm00436850_m1
Tau	Neuron	Intracellular	MAPT	Hs00326720_s1	Mapt	Mm00521988_m1
Tyrosine Hydroxylase (TH)	Ectoderm, Neuronal lineage	Intracellular	TH	Hs00165941_m1	Th	Mm00447557_m1
Wnt 1	NSC, Endoderm	Secreted	WNT1	Hs00180529_m1	Wnt1	Mm01300555_g1
<b>Pancreas</b>						
Cytokeratin 19 (CK19)	Pancreatic epithelium	Intracellular	KRT19	Hs00761767_s1	Krt1	Mm00492980_m1
Glucagon	Pancreatic islet	Secreted	GCGR	Hs00164710_m1	Gcgr	Mm00433546_m1
Insulin	Pancreatic islet	Secreted	INSR	Hs00169631_m1	Insr	Mm00439693_m1
Insulin-promoting factor-1 (PDX-1)	Pancreatic islet	Intracellular	PDX1	Hs00236830_m1	Pdx1	Mm00435565_m1
Nestin	Pancreatic progenitor	Intracellular	NES	Hs00707120_s1	Nes	Mm00450205_m1
Pancreatic polypeptide	Pancreatic islet	Secreted	PPYR1	Hs00275980_s1	Ppyr1	Mm00435894_s1
Somatostatin	Pancreatic islet	Secreted	SST	Hs00174949_m1	Sst	Mm00436671_m1

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## Stem Cell Solutions

	Pluripotent		Gene Symbol	Assay ID	Gene Symbol	Assay ID
Alkaline phosphatase	Embryonic stem (ES), embryonal carcinoma (EC)	Secreted	ALPP	Hs01654626_s1	Akp5	Mm00475856_g1
Alpha-fetoprotein (AFP)	Endoderm	Secreted	AFP	Hs00173490_m1	Afp	Mm00431715_m1
Bone morphogenetic protein-4 (BMP-4)	Mesoderm	Secrete	BMP4	Hs00370078_m1	Bmp4	Mm00432087_m1
Brachyury	Mesoderm	Intracellular	T	Hs00610080_m1	T	Mm00436877_m1
CD30	ES, EC	Cell surface; intracellular	TNFRSF8	Hs00174277_m1	Tnfrsf8	Mm00437140_m1
Cripto (TDGF-1)	ES, cardiomyocyte	Cell surface	TDGF1	Hs02339499_g1	Tdgf1	Mm03024051_g1
GATA-4 gene	Endoderm	Intracellular	GATA4	Hs00171403_m1	Gata4	Mm00484689_m1
GCTM-2 (Podocalyxin-like)	ES, EC	Intracellular	PODXL	Hs00193638_m1	Podxl	Mm00449829_m1
Genesis	ES, EC	Intracellular	FOXD3	Hs00255287_s1	Foxd3	Mm02384867_s1
Germ cell nuclear factor	ES, EC	Intracellular	NR6A1	Hs00364256_m1	Nr6a1	Mm00599848_m1
Hepatocyte nuclear factor-4 (HNF-4)	Endoderm	Intracellular	HNF4A	Hs00230853_m1	Hnf4a	Mm00433964_m1
Nestin	Ectoderm, neural and pancreatic	Intracellular	NES	Hs00707120_s1	Nes	Mm00450205_m1
Neuronal cell-adhesion molecule (N-CAM)	Ectoderm	Extracellular	PUNC	Hs00402733_m1	Punc	Mm00501289_m1
Oct-4	ES, EC	Intracellular	POU5F1	Hs01895061_u1	Pou5f1	Mm00658129_gH
Pax6	Ectoderm	Intracellular	PAX6	Hs00240871_m1	Pax6	Mm00443072_m1
Stem cell factor (SCF or c-Kit ligand)	ES, EC, HSC, MSC	Cell Surface, secreted	KIT	Hs00174029_m1	Kit	Mm00445212_m1
Telomerase	ES, EC	Intracellular	TEP1	Hs00200091_m1	Tep1	Mm01319520_m1
Vimentin	Ectoderm, neural and pancreatic progenitor	Intracellular	VIM	Hs00185584_m1	Vim	Mm00449201_m1

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