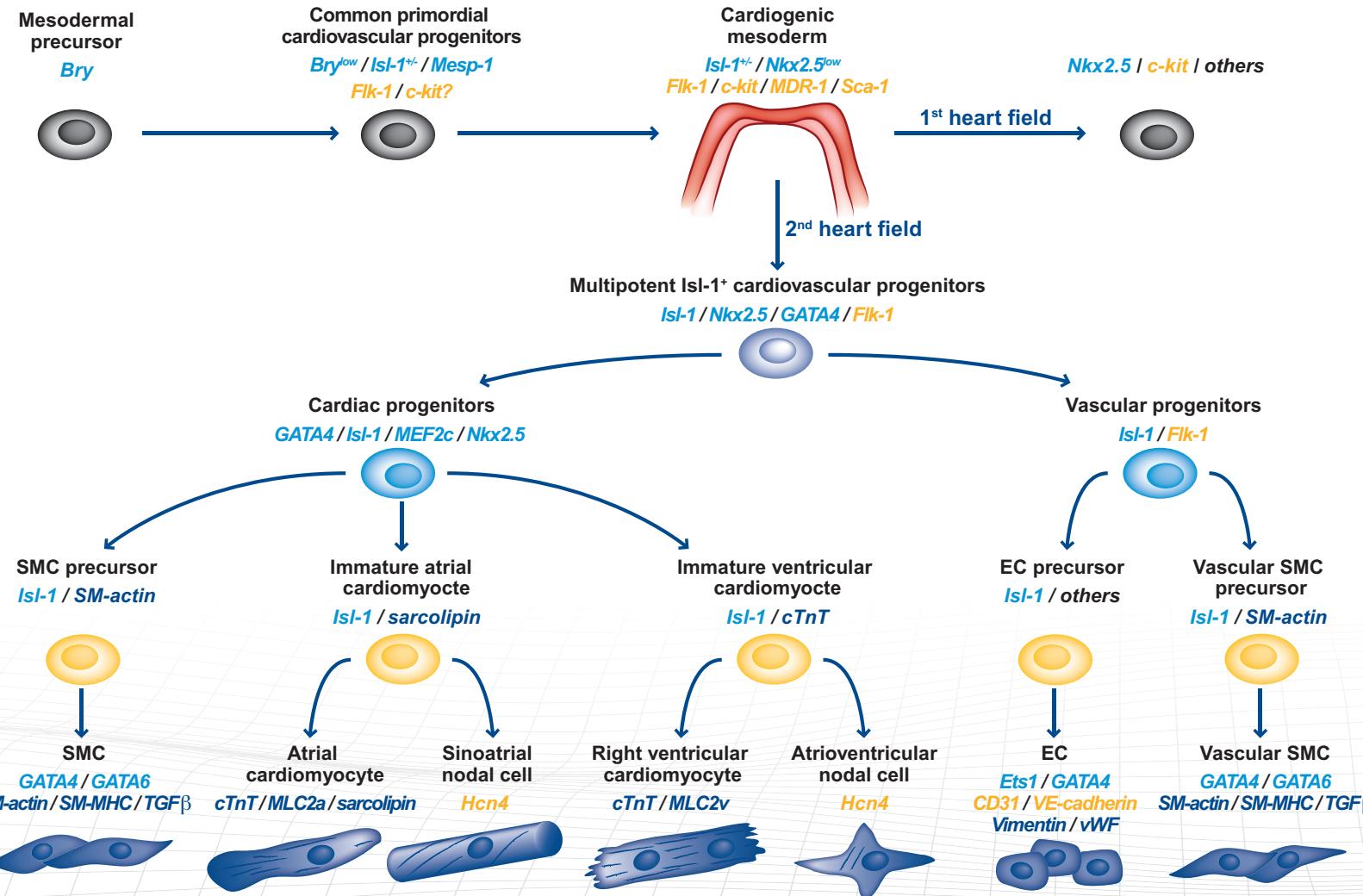




Cardiac Lineage Markers of the 2nd Heart Field

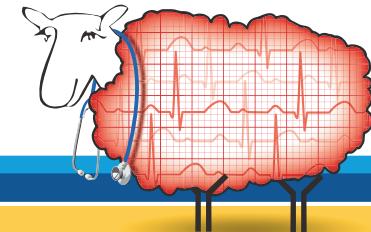


Legend

MARKER:	Transcription factor / Nuclear protein
MARKER:	Cell surface marker / Membrane protein
MARKER:	Cytoplasmic protein / Secreted protein
SMC:	Smooth muscle cell
EC:	Endothelial cell
Bipotent progenitors:	
Transient intermediates:	
Differentiated progenies:	

The heart is composed of muscle and non-muscle cell lineages. During cardiogenesis, the differentiation of progenitor cells into these multiple heart cell lineages is under tight spatial and temporal control. Within the 2nd heart field, multipotent Isl-1⁺ cardiovascular progenitors (MICPs) can give rise to all three major cell lineages of the heart: cardiomyocytes, smooth muscle cells (SMCs) and, to a limited extent, endothelial cells (ECs). MICPs in the 2nd heart field give rise to cells in the right ventricle, outflow tract, and proximal coronary arteries. Less is known about the progenitor cells of the 1st heart field and their derivatives which give rise to most of the left ventricular chamber. Some representative cardiac lineage markers are shown here.

- 1) Moretti, et al., *Cell* 2006
- 2) Wu, et al., *Cell* 2006
- 3) Kattman, et al., *Dev. Cell* 2006
- 4) Martin-Puig et al., *Cell Stem Cell* 2008
- 5) Murry et al., *Cell* 2008

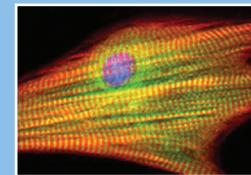


Cardiac lineage markers related antibodies from Abcam:

See more products at: www.abcam.com

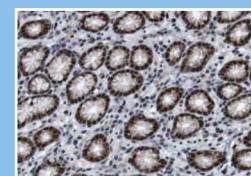
Product	Clonality	Applications	Host	Species Reactivity	Datasheet www.abcam.com/ab...
beta-catenin	P	IHC-P, WB, ICC/IF, Dot, IHC-Fr	Rb	Hu, Ms, Rat, Chk, Pig, Xl, Zfsh	6302
BMP-2	P	WB, ELISA, Dot, IHC-Fr	Rb	Hu, Ms, Rat	14933
Brachury / Bry antibody	M	WB	Ms	Hu	57480
Brachury / Bry antibody - Mesoderm Marker	P	ICC/IF, IHC-Fr, IHC-P, WB	Rb	Hu, Ms	20680
cardiac Troponin T antibody	P	ICC/IF, WB	Rb	Hu	45932
CD31	M	ICC/IF, IP, WB	Ms	Hu, Ms, Rat	24590
c-kit	P	IHC-P, WB, ELISA, ICC/IF	Rb	Hu, Ms	5506
c-kit	P	Flow Cyt, ICC/IF, IHC-P	Rb	Hu	16832
ETS1 antibody [1G11]	M	IHC-P, IP, WB	Ms	Hu	10936
GATA2 antibody	P	IHC-P, WB	Rb	Hu	22849
GATA4 (phospho S105) antibody	P	EMSA, WB	Rb	Ms, Rat, Dog	5245
GATA4 antibody	P	ELISA, ICC/IF, WB	Rb	Hu, Rat	61767
HCN4 antibody	P	IHC-Fr, IHC-P, WB	Rb	Hu, Ms, Rat	66501
HCN4 antibody [SHG 1E5]	M	IHC-Fr, WB	Rt	Hu, Ms, Rat	32675
IRX4 antibody	P	ELISA, WB	Rb	Hu	56032
Islet 1 antibody - Neural Stem Cell Marker	P	ICC, Immunohistochemistry (PFA fixed)	Rb	Ms, Chk	26122
MDR-1/P Glycoprotein	M	Flow Cyt, ICC/IF	Ms	Hu	10333
MEF2A antibody	P	ELISA, IHC-P, WB	RB	Hu, Ms, Rat	51153
MEF2C (phospho S387) antibody	P	ELISA, WB	Rb	Hu	65252
MEF2C antibody	P	WB	Ms	Hu	43796
Mesp-1	M	WB, ELISA	Ms	Hu	77013
Nkx2.5 antibody	P	IHC-P, WB	Rb	Hu	22611
Nkx2.5 antibody	P	IHC-P, WB	Rb	Hu	35842
Sca-1 (FITC-conjugated)	M	Flow Cyt, IP, WB, IHC-FR, CellAct	Rt	Ms	25031
Smad-1	P	WB, ELISA, ICC/IF	Rb	Hu, Ms	63356
Smad-1 (phospho S465)	P	IHC-P, WB, ELISA	Rb	Hu, Ms, Rat	63439
Smooth muscle Myosin heavy chain 2 antibody	P	ICC/IF, IHC-Fr, WB	Rb	Cow	53219
TGF beta 1 antibody [2Ar2]	M	ELISA, Flow Cyt, ICC, IHC-Fr, IHC-P, Neut, WB	MS	Hu, Ms, Rat	64715
VE Cadherin antibody	P	IHC-P, WB	Rb	Hu, Ms	33168
VEGF Receptor 2 antibody - Hemangioblast Marker	P	Flow Cyt, ICC/IF, IHC-Fr, IHC-P, IP, WB	Rb	Hu, Ms, Rat, Cow, Dog	2349
VEGF Receptor 2 antibody [KDR/EIC]	M	ELISA, Flow Cyt, ICC/IF, IHC-Fr	Ms	Hu, Rat	9530
Wnt1	P	IHC-P, WB	Rb	Hu, Ms, Rat	15251

Featured antibodies



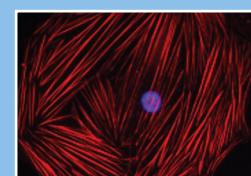
Heavy chain cardiac Myosin antibody [3-48] (ab15)

Clonality	Applications	Host	Species cross reactivity
M	ELISA, Flow Cyt, ICC, ICC/IF, IHC-Fr, IHC-P, WB	Ms	Hu, Ms, Rat, Cow, Dog, Pig, Rb



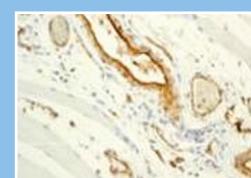
Gata6 antibody (ab22600)

Clonality	Applications	Host	Species cross reactivity
P	WB	Rb	Hu, Ms, Rat



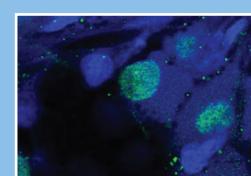
alpha smooth muscle Actin antibody (ab5694)

Clonality	Applications	Host	Species cross reactivity
P	ELISA, ICC/IF, IHC-FoFr, IHC-Fr, IHC-P, WB	Rb	Hu, Ms, Rat, Chk, Cow, Pig



CD31 antibody (ab76533)

Clonality	Applications	Host	Species cross reactivity
M	Flow Cyt, IHC-P, IP, WB	Rb	Hu



Islet 1 antibody (ab20670)

Clonality	Applications	Host	Species cross reactivity
P	ICC/IF, IF, IHC-Fr	Rb	Hu, Ms, Rat