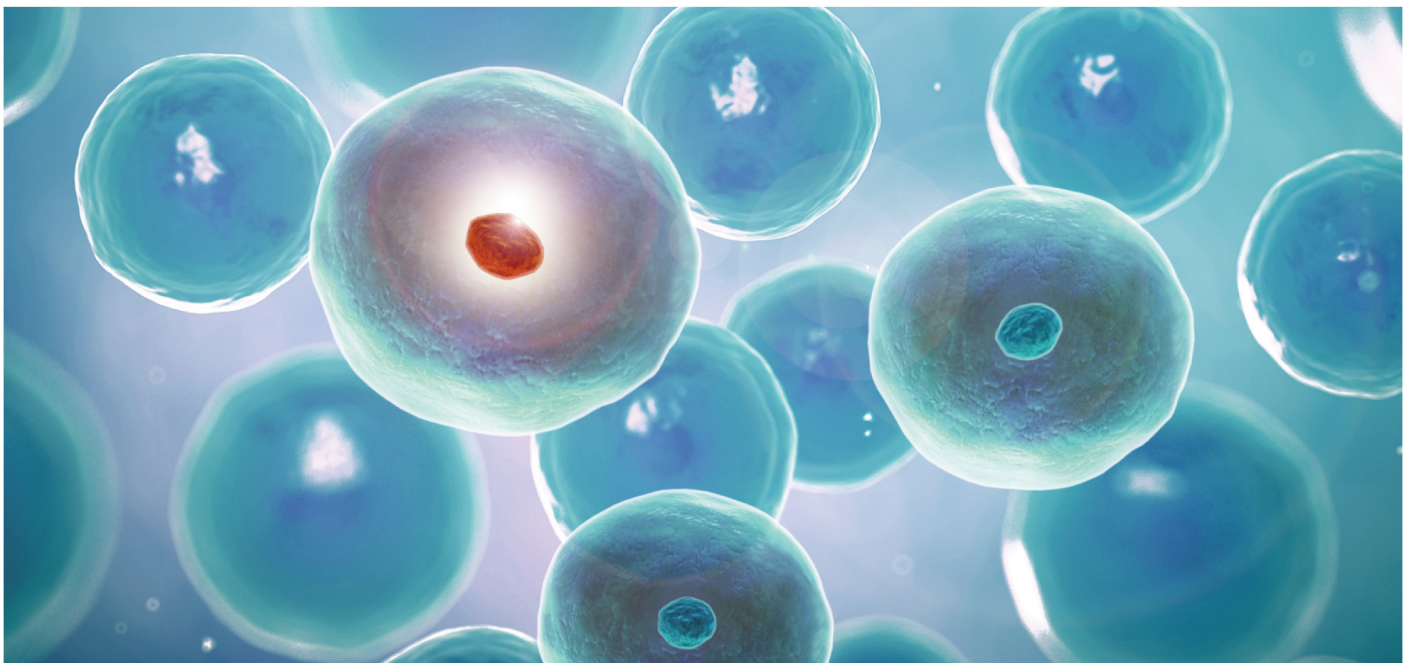
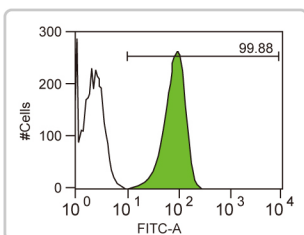


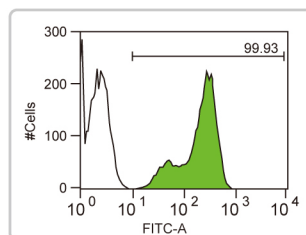
# iPSCs



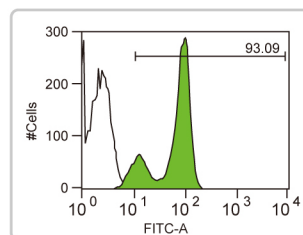
OCT3/4, SOX2, c-MYC and KLF4 are key transcription factors expressed in embryonic stem cells that regulate the signaling network essential for maintaining the pluripotent state. Dr. Shinya Yamanaka and colleagues first reported the capacity of these proteins (collectively known as “Yamanaka factors”) to reprogram somatic cells into induced pluripotent stem cells (iPSCs). Soon after that, James Thomson’s group used OCT3/4, SOX2, NANOG, and LIN28 to generate iPSCs. Notably, however, the use of the proto-oncogene c-MYC was found to increase the tumorigenicity of the resulting iPSCs, thus restricting their potential utility for medical applications. This obstacle was overcome by substituting the transcription factor GLIS1 for c-MYC in the Yamanaka factor set, which resulted in both increased iPSC generation efficiency and improved chimeric mouse survival. This finding represents a potentially major step forward in bringing iPSCs to the clinic.



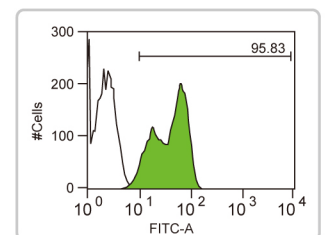
**Oct4 antibody [GT486] (GTX627419)**  
Flow cytometry analysis with Oct4 antibody on human ESCs.



**NANOG antibody [GT3312] (GTX627421)**  
Flow cytometry analysis with NANOG antibody on human ESCs.



**SOX2 antibody [GT1352] (GTX627405)**  
Flow cytometry analysis with SOX2 antibody on human ESCs.



**LIN28 antibody [GT717] (GTX628138)**  
Flow cytometry analysis with LIN28 antibody on human ESCs.

## Representative Citations:

1. Oct4 antibody [GT486] (GTX627419)  
*Cell*. 2014 Jul 17;158(2):449-61.

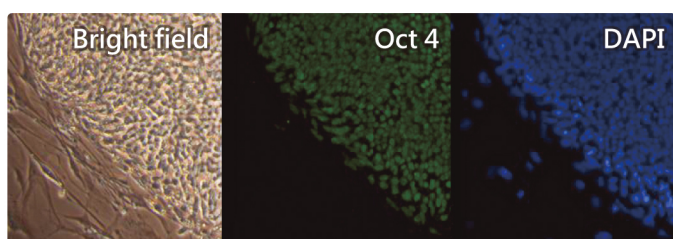
2. NANOG antibody [N3C3] (GTX100863)  
*Nat Protoc*. 2013 Jan;8(1):203-12.

3. SOX2 antibody [N1C3] (GTX101507)  
*Stem Cell Res Ther*. 2013;4(6):156.

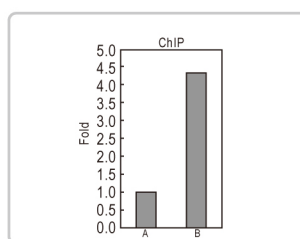
Cat. No.	Product name	Host & Clonality	Reactivity	Application
GTX103436	c-Myc antibody	Rb pAb	Hu, Ms	IP, WB, ChIP assay
GTX628459	c-Myc antibody [GT168]	Ms mAb	Hu,	FACS, IHC-P, WB
GTX75953	c-Myc antibody [9E10]	Ms mAb	Hu	ELISA, FACS, IHC-Fr, IHC-P, IP, WB
GTX84066	c-Myc antibody [1A6]	Ms mAb	Hu	FACS, ICC/IF, IHC-P, WB
GTX20056	c-Myc antibody [9E11]	Ms mAb	Hu, Ms	ELISA, IHC-Fr, IHC-P, IP, WB
GTX101508	KLF4 antibody	Rb pAb	Hu, Ms	FACS, IP, WB
GTX101509	KLF4 antibody	Rb pAb	Hu, Ms	ICC/IF, IHC-P, WB
GTX82771	KLF4 antibody [1E6]	Ms mAb	Hu	ELISA, ICC/IF, IHC, IHC-P, WB
GTX82798	KLF4 antibody [1E5]	Ms mAb	Hu	ELISA, ICC/IF, IHC, IHC-P, WB
GTX121923	LIN28 antibody	Rb pAb	Hu, Ms, Pig	FACS, IHC-P, WB
GTX628138	LIN28 antibody [GT717]	Ms mAb	Hu	FACS, ICC/IF, IHC-P, WB
GTX628139	LIN28 antibody [GT1086]	Ms mAb	Hu	FACS, ICC/IF, IHC-P, WB
GTX100863	NANOG antibody [N3C3]	Rb pAb	Hu, Ms	ELISA, ICC/IF, IP, WB
GTX627421	NANOG antibody [GT3312]	Ms mAb	Hu, Ms	FACS, WB
GTX89079	NANOG antibody, C-term	Gt pAb	Hu	ELISA, IHC, IHC-P, WB
GTX101497	Oct4 antibody	Rb pAb	Hu, Ms	FACS, ICC/IF, IHC-P, IP, WB
GTX100622	Oct4 antibody	Rb pAb	Hu, Ms	FACS, ICC/IF, IP, WB
GTX627419	Oct4 antibody [GT486]	Ms mAb	Hu, Ms	FACS, ICC/IF, IHC-P, IP, WB
GTX627423	Oct4 antibody [GT735]	Ms mAb	Hu	FACS, ICC/IF, IP, WB
GTX101507	SOX2 antibody [N1C3]	Rb pAb	Hu, Ms, Rat	FACS, ICC/IF, IHC-P, IP, WB
GTX124477	Sox2 antibody	Rb pAb	Zfsh	IHC-Fr, WB
GTX627405	SOX2 antibody [GT1352]	Ms mAb	Hu, Ms	FACS, ICC/IF, IHC-P, WB
GTX627404	SOX2 antibody [GT1876]	Ms mAb	Hu, Zfsh	FACS, IP, WB
GTX117785	GLIS1 antibody [N3C2], Internal	Rb pAb	Hu	ICC/IF, WB
GTX104841	GLIS1 antibody [C3], C-term	Rb pAb	Hu	WB

## Antibody Panels for iPSCs Research

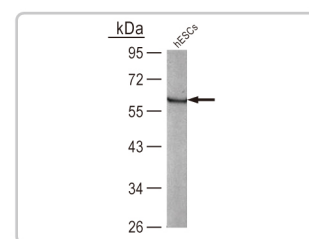
Cat. No.	Content	Host & Clonality	Reactivity	Application
GTX300062	Induced Pluripotent Stem Cells (iPSC) Antibody Panel _2			
	Oct4 antibody [GT486]	Ms mAb	Hu, Ms	FACS, ICC/IF, IHC-P, IP, WB
	SOX2 antibody [GT1876]	Ms mAb	Hu, Zfsh	FACS, IP, WB
	c-Myc antibody [GT168]	Ms mAb	Hu	FACS, IHC-P, WB
	KLF4 antibody	Rb pAb	Hu, Ms	FACS, IP, WB
	NANOG antibody [GT3312]	Ms mAb	Hu, Ms	FACS, WB
	Mouse IgG antibody (HRP)	Gt pAb	Ms	ELISA, IHC, WB
	LIN28 antibody [GT1086]	Ms mAb	Hu	FACS, ICC/IF, IHC-P, WB
GTX300064	iPSC Antibody Panel - Yamanaka factor-2			
	Oct4 antibody [GT486]	Ms mAb	Hu, Ms	FACS, ICC/IF, IHC-P, IP, WB
	SOX2 antibody [GT1876]	Ms mAb	Hu, Zfsh	FACS, IP, WB
	KLF4 antibody	Rb pAb	Hu, Ms	FACS, IP, WB
	c-Myc antibody [GT168]	Ms mAb	Hu	FACS, IHC-P, WB
	Mouse IgG antibody (HRP)	Gt pAb	Ms	ELISA, IHC, WB
GTX300063	iPSC Antibody Panel - Thomson factor-2			
	Oct4 antibody [GT486]	Ms mAb	Hu, Ms	FACS, ICC/IF, IHC-P, IP, WB
	SOX2 antibody [GT1876]	Ms mAb	Hu, Zfsh	FACS, IP, WB
	NANOG antibody [GT3312]	Ms mAb	Hu, Ms	FACS, WB
	LIN28 antibody [GT1086]	Ms mAb	Hu	FACS, ICC/IF, IHC-P, WB
	Mouse IgG antibody (HRP)	Gt pAb	Ms	ELISA, IHC, WB



**Oct4 antibody (GTX100622)**  
ICC/IF analysis with Oct4 antibody on human ESCs.



**c-Myc antibody (GTX103436)**  
WB analysis with c-Myc antibody on 293T cell extract.



**KLF4 antibody (GTX101508)**  
WB analysis with KLF4 antibody on whole cell lysate of human ESCs.