

# Induced Pluripotent Stem Cell (iPSC) Research Tools



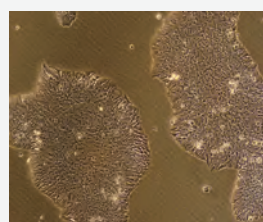
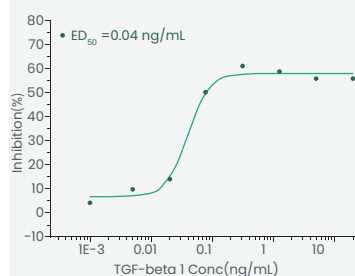
Since the discovery of induced pluripotent stem cells (iPSCs) in 2006, iPSCs have been widely used in research and clinical applications, including disease modeling, regenerative medicine, gene therapy and drug discovery. To support iPSC research, Sino Biological provides a broad collection of high-quality cytokines and growth factors for stem cell culture, as well as premium primary antibodies for pluripotency characterization.

## Recombinant Cytokines for iPSC Culture

Cytokines and growth factors are critical to the expansion, maintenance, and differentiation of iPSCs. All of our recombinant cytokines are manufactured in ISO9001:2015 and ISO13485:2016 certified facilities, with high batch-to-batch consistency, bioactivity, and purity.

### Human/Rhesus/Cynomolgus/Canine TGF- $\beta$ 1 Protein

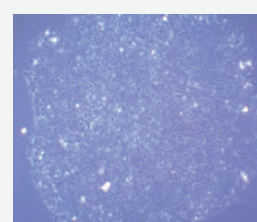
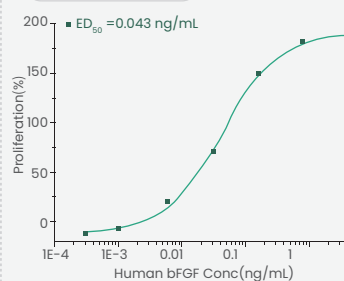
10804-HNAC



TGF- $\beta$  (Cat#: 10804-HNAC) & bFGF used in the culture of hESCs.

### Bioactive Human bFGF Protein

10014-HNAE



Cell proliferation assay of BALB/c 3T3 mouse embryonic fibroblasts.

bFGF (Cat#: 10014-HNAE) used in the culture of hESCs.

## Bioactive Cytokines for iPSC Expansion and Differentiation (Partial)

Name	Cat#	Species	Source	Tag	Purity
Activin A	10429-HNAH	Human/Mouse/Rat/Cynomolgus/Rhesus	HEK293		> 95%
BMP-2	10426-HNAE	Human/Mouse/Rat/ Rhesus/Canine	<i>E. coli</i>		> 95%
FGF-4	16043-HNAE	Human	<i>E. coli</i>		> 90%
FGF-7	10210-H07E	Human	<i>E. coli</i>	His	> 95%
FGF-8A	16124-HNAE	Human	<i>E. coli</i>		> 95%
SCF	10451-H08B	Human	Baculovirus-Insect	His	> 92%
IL-1 $\beta$	10573-HNAE	Human	<i>E. coli</i>		> 95%
Noggin	10139-HNAE	Human	<i>E. coli</i>		> 95%
EphB2	10267-HNAH	Human	HEK293		> 95%
Flt3-ligand	10315-H07B	Human	Baculovirus-Insect	His	> 95%
Sonic Hedgehog	10372-H08H1	Human	HEK293	His	> 95%
TPO	10381-H07H	Human	HEK293	His	> 90%
IL-3	11858-HNAE	Human	<i>E. coli</i>		> 95%
IL-6	10395-HNAE	Human	<i>E. coli</i>		> 95%
HGF	10463-HNAS	Human	CHO		> 93%
EGF	10605-HNAE	Human	<i>E. coli</i>		> 95%
NGF	11050-HNAC	Human	CHO		> 95%
DKK1	10170-H08H	Human	HEK293	His	> 90%
LIF	14890-HNAH	Human	HEK293		> 95%
G-CSF	10007-HNAH	Human	HEK293		> 95%

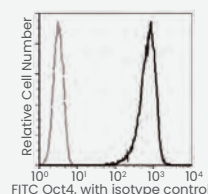
For more products, please visit <https://www.sinobiological.com/research/cytokines/embryonic-pluripotent-stem-cell-therapy>

## Pluripotency and Lineage-Specific Marker Antibodies

Antibodies are often used to monitor the pluripotency and differentiation status of iPSC lines. Sino Biological offers a large panel of primary antibodies to specifically stain pluripotency and lineage-specific markers.

### Anti-Human Oct4

100105-MM03-F

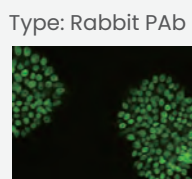


Type: Rabbit PAb  
Ig Type: Rabbit IgG  
Label: FITC

Flow cytometric analysis of Oct4 in human ESCs.

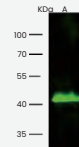
### Anti-Human NANOG

101286-T34



Immunofluorescence staining of NANOG in HESS9 cells.

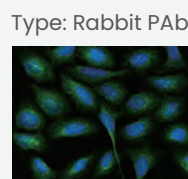
Ig Type: Rabbit IgG



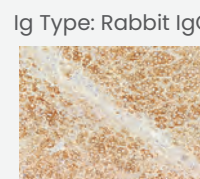
Western blot analysis of NANOG in HESS9 whole cell lysate.

### Anti-Human ALPL

10440-T26



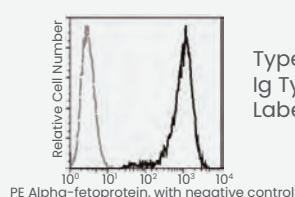
Immunofluorescence staining of ALPL in U2OS cells.



Immunochemical staining of ALPL in human adrenal gland.

### Anti-Human $\alpha$ -fetoprotein

12177-MM35T-P

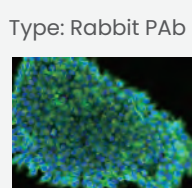


Type: Mouse MAb  
Ig Type: Mouse IgG1  
Label: PE

Flow cytometric analysis of Alpha-fetoprotein on HepG2 cells.

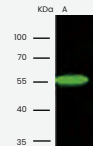
### Anti-Human $\beta$ -Tubulin III

101288-T34



Immunofluorescence staining of TUBB3 in HESS9 cells.

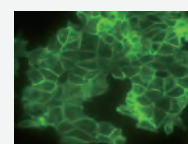
Ig Type: Rabbit IgG



Western blot analysis of TUBB3 in A549 whole cell lysate.

### Anti-Human E-Cadherin

10204-MM04



Immunofluorescence staining of human E-cadherin in MCF-7 cells.

## Additional Antibodies for iPSC Characterization (Partial)

Name	Cat#	Species	Application	Ig Type	Clonality
Oct4	101282-T02	Human	ICC/IF	Rabbit IgG	PAb
SOX2	100106-RP02	Human	WB, IHC-P, IP	Rabbit IgG	PAb
SSEA-1	101905-T32	Mouse	WB	Rabbit IgG	PAb
NANOG	101286-T34	Human	WB, ICC/IF	Rabbit IgG	PAb
Alkaline Phosphatase	10440-T24	Human	ELISA, IHC-P	Rabbit IgG	PAb
c-Myc	100427-T32	Human	WB	Rabbit IgG	PAb
Alpha-Fetoprotein	12177-MM27	Human	ICC/IF	Mouse IgG1	MAb
Smooth Muscle Actin	100125-RP02	Human/Mouse/Rat	WB, IHC-P, IP	Rabbit IgG	PAb
CD44	12211-T62	Human	WB, ELISA, IHC-P, ICC/IF, IP	Rabbit IgG	PAb
NKX2.2	101241-T32	Human	WB	Rabbit IgG	PAb
GFAP	206278-T44	Human	WB, IHC-P, IP	Rabbit IgG	PAb
CD146	10115-MM01-P	Human	FCM	Mouse IgG1	MAb
Somatostatin	104537-T08	Human	IHC-P	Rabbit IgG	PAb
Nestin	103270-MM11	Human	WB, IHC-P, FCM, IP	Mouse IgG2a	MAb
E-Cadherin	10204-T58	Human	WB, ELISA, IHC-P, ICC/IF	Rabbit IgG	PAb
PDHX	100419-T36	Human	WB, IP	Rabbit IgG	PAb
CD31	10148-T62	Human	WB, ELISA, IHC-P, ICC/IF, IP	Rabbit IgG	PAb
CD13	10051-R011	Human	ICC/IF	Rabbit IgG	MAb

For more products, please visit <https://www.sinobiological.com/areas/stem-cells/embryonic-and-induced-pluripotent-stem-cells>



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