

Materials List for:

# Chemical Reversion of Conventional Human Pluripotent Stem Cells to a Naïve-like State with Improved Multilineage Differentiation Potency

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## Materials

Name	Company	Catalog Number	Comments
anti- SSEA-1/CD15 antibody, APC conjugated	BD Biosciences	561716	use 5µL per assay (FACS)
anti- TFCEP2L1 antibody	Sigma Aldrich	HPA029708	use at a 1:100 dilution (immunostainings)
anti-beta-Actin antibody	Abcam	ab6276	use at 1:5000 (Western blot)
anti-CD146 antibody, PE conjugated	BD Biosciences	550315	use 5µL per assay (FACS)
anti-CD31 antibody, APC conjugated	eBioscience	17-0319-42	use 2µL per assay (FACS)
anti-CD31 microbead kit	Miltenyi Biotec	130-091-935	
anti-NANOG antibody	Abcam	ab109250	use at a 1:100 dilution (immunostainings)
anti-NR5A2 antibody	Sigma Aldrich	HPA005455	use at a 1:100 dilution (immunostainings)
anti-p44/42 MAPK (Erk1/2) antibody	Cell Signaling	4695	use at 1:1000 (Western blot), for detection of total protein
anti-phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204 antibody	Cell Signaling	4370	use at 1:1000 (Western blot)
anti-phospho-STAT3 (Tyr705) antibody	Cell Signaling	9145	use at 1:1000 (Western blot)
anti-rabbit immunoglobulin antibody, biotinylated	Agilent	E0432	use at a 1:500-1:1000 dilution (immunostainings)
anti-SSEA-4 antibody, APC conjugated	R&D System	FAB1435A	use 5µL per assay (FACS)
anti-SSEA-4 GloLIVE antibody, NL493 conjugated	R&D System	NLLC1435G	use at 1:50 dilution (live and fixed immunostainings)
anti-STAT3 antibody	Cell Signaling	9139	use at 1:1000 (Western blot), for detection of total protein
anti-STELLA/DPPA3 antibody	Millipore	MAB4388	use at a 1:50 dilution (immunostainings)
anti-TRA-1-60 GloLIVE antibody, NL557 conjugated	R&D System	NLLC4770R	use at a 1:50 dilution (live and fixed immunostainings)
anti-TRA-1-60 StainAlive Antibody, DyLight 488 conjugated	Stemgent	09-0068	use at a 1:100 dilution (live and fixed immunostainings)
anti-TRA-1-81 StainAlive Antibody, DyLight 488 conjugated	Stemgent	09-0069	use at a 1:100 dilution (live and fixed immunostainings)
anti-TRA1-60 antibody, PE conjugated	BD Biosciences	560193	use 10µL per assay (FACS)

anti-TRA1-81 antibody, PE conjugated	BD Biosciences	560161	use 10µL per assay (FACS)
APEL2-Li	StemCell Technologies	5271	
Bovine Serum Albumin	Sigma Aldrich	A3311	
CellAdhere dilution buffer	StemCell Technologies	7183	diluent for Vitronectin XF™ matrix
CF1 mouse	Charles river	023	
CHIR99021	R&D System	L5283	reconstitute at 100mM in DMSO
confocal microscope system	Zeiss	LSM 510	
cord blood CD34+ derived iPSC line	Thermo Fisher Scientific	A18945	also referred as 6.2 line
Corning Costar tissue culture-treated 6-well plates	Corning	3506	
Countess cell counting chamber slide	Thermo Fisher Scientific	C10228	
Countess automated cell counter	Thermo Fisher Scientific	AMQAX1000	
DMEM (Dulbecco's Modified Eagle Medium)	Thermo Fisher Scientific	11995-065	
DMEM-F12	Thermo Fisher Scientific	11330-032	
DMSO (dimethyl sulfoxide)	Sigma Aldrich	D2650	
DR4 mouse	The Jackson Laboratory	3208	
Essential 8 (E8) medium	StemCell Technologies	5940	
Fetal bovin serum (FBS)	Thermo Fisher Scientific	SH30071.03	
Forskolin	Stemgent	04-0025	reconstitute at 100mM in DMSO
Gelatin (porcine)	Sigma Aldrich	G1890-100G	resuspend in water and sterilize with an autoclave
KnockOut Serum Replacement	Thermo Fisher Scientific	10828-028	
L-Glutamine (100X)	Thermo Fisher Scientific	25030-081	
MEM Non-essential amino acid (MEM NEAA) (100X)	Thermo Fisher Scientific	11140-050	
mTeSR1 medium	StemCell Technologies	85850	
Nalgene cryogenic vials	Thermo Fisher Scientific	5000-0020	
Nunc Lab-Tek II Chamber Slide System	Fisher Scientific	154534	
Paraformaldehyde (PFA) solution , 4% in PBS	USB Corporation	19943	
PD0325901	Sigma Aldrich	PZ0162	reconstitute at 100mM in DMSO
Penicillin/streptomycin (10,000 U/mL)	Thermo Fisher Scientific	15140-122	
Phosphate buffered saline (PBS)	Biological Industries	02-023-1A	
Purmorphamine	Stemgent	04-0009	reconstitute at 10mM in DMSO
recombinant human Activin A	Peptotech	AF-120-14E	
recombinant human Bone morphogenetic protein (BMP)-4	Peptotech	120-05ET	resuspend at 100ug/mL in 0.1% bovine serum albumin in PBS
recombinant human FGF-basic (bFGF)	Peptotech	100-18B	resuspend at 100ug/mL in 0.1% bovine serum albumin in PBS
recombinant human LIF	Peptotech	300-05	resuspend at 100ug/mL in 0.1% bovine serum albumin in PBS
SB431542	Stemgent	04-0010-05	reconstitute at 100mM in DMSO
Stemolecule Y27632 in Solution	Stemgent	04-0012-02	ROCK inhibitor in solution (10mM)

StemPro Accutase Cell Dissociation Reagent	Thermo Fisher Scientific	A11105-01	
Streptavidin-Cy3 conjugate	Sigma Aldrich	S6402	use at 1:500-1:1000 dilution (immunostainings)
Thermo Scientific Mr. Frosty Freezing Container	Thermo Fisher Scientific	5100-0001	
Vascular endothelial growth factor (VEGF)-165	Peprtech	100-21	resuspend at 100ug/mL in 0.1% bovine serum albumin in PBS
Vitronectin XF matrix	StemCell Technologies	7180	dilute at 40µL/mL in CellAdhere™ dilution buffer
XAV939	Sigma Aldrich	X3004	reconstitute at 100mM in DMSO
β-mercaptoethanol	Thermo Fisher Scientific	21985-023	light sensitive