

Materials List for:

Alternative Cultures for Human Pluripotent Stem Cell Production, Maintenance, and Genetic Analysis

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Materials

Name	Company	Catalog Number	Comments
Countess automated cell counter	Invitrogen Inc.	C10227	Automatic cell counting
Faxitron Cabinet X-ray System	Faxitron X-ray Corporation, Wheeling, IL	Model RX-650	X-ray irradiation of MEFs
MULTIWELL 6-well plates	Becton Dickinson Labware	353046	Polystyrene plates
DMEM	Invitrogen Inc.	11965-092	For MEF medium
Mitomycin C	Roche	107409	Mitotic inhibitor
Trypsin	Invitrogen Inc.	25300-054	For MEF dissociation
DMEM/F12	Invitrogen Inc.	11330-032	For hPSC medium
Opti-MEM I Reduced Serum Medium	Invitrogen Inc.	31985-062	For hPSC transfection
Heat-inactivated FBS	Invitrogen Inc.	16000-044	Component of MEF medium
Knockout Serum Replacement	Invitrogen Inc.	10828-028	KSR, Component of hPSC medium
Dulbecco's Phosphate-Buffered Saline	Invitrogen Inc.	14190-144	D-PBS, free of Ca ²⁺ /Mg ²⁺
Non-essential amino acids	Invitrogen	11140-050	NEAA, component of hPSC medium
L-Glutamine	Invitrogen	25030-081	Component of hPSC medium
mTeSR1 & Supplements	StemCell Technologies	5850	Animal protein-free
TeSR2 & Supplements	StemCell Technologies	5860	Xeno-free medium
β-mercaptoethanol	Sigma	M7522	Component of hPSC medium
MEF (CF-1) ATCC	American Type Culture Collection (ATCC)	SCRC-1040	For feeder culture of hPSCs
hESC-qualified Matrigel	BD Bioscience	354277	For feeder-free culture of hPSCs
Laminin-521	BioLamina	LN521-02	Human recombinant protein
FGF-2 (recombinant FGF, basic)	R&D Systems, MN	223-FB	Growth factor in hPSC medium
CryoStor CS10	StemCell Technologies	7930	
Accutase	Innovative Cell Technologies	AT-104	1X mixed enzymatic solution
JAK inhibitor I	EMD4 Biosciences	420099	An inhibitor of Janus kinase
Y-27632	EMD4 Biosciences	688000	ROCK inhibitor
Y-27632	Stemgent	04-0012	ROCK inhibitor
Y-39983	Stemgent	04-0029	ROCK I inhibitor
Phenylbenzodioxane	Stemgent	04-0030	ROCK II inhibitor
Thiazovivin	Stemgent	04-0017	A novel ROCK inhibitor
BD Falcon Cell Strainer	BD Bioscience	352340	40 μm cell strainer
Nalgene 5100-0001 Cryo 1 °C	Thermo Scientific	C6516F-1	"Mr. Frosty" Freezing Container

Lipofectamine 2000	Invitrogen Inc.	11668-027	Transfection reagents
DharmaFECT Duo	Thermo Scientific	T-2010-02	Transfection reagent
Non-targeting miRIDIAN miRNA Transfection Control	Thermo Scientific	IP-004500-01-05	Labeled with Dy547, to monitor the delivery of microRNAs
SMART-shRNA	Thermo Scientific	To be determined	Lentiviral vector
pmaxGFP	amaxa Inc (Lonza)	Included in every transfection kit	Expression plasmid for transfection control
Oct-4	Santa Cruz Biotechnology	sc-5279	Mouse IgG2b, pluripotent marker
SSEA-1	Santa Cruz Biotechnology	sc-21702	Mouse IgM, differentiation marker
SSEA-4	Santa Cruz Biotechnology	sc-21704	Mouse IgG3, pluripotent marker
Tra-1-60	Santa Cruz Biotechnology	sc-21705	Mouse IgM, pluripotent marker
Tra-1-81	Santa Cruz Biotechnology	sc-21706	Mouse IgM, pluripotent marker
CK8 (C51)	Santa Cruz Biotechnology	sc-8020	Mouse IgG1, against cytokeratin 8
α -fetoprotein	Santa Cruz Biotechnology	sc-8399	AFP, mouse IgG2a
HNF-3 β (P-19)	Santa Cruz Biotechnology	sc-9187	FOXA2, goat polyclonal antibody
Troponin T (Av-1)	Thermo Scientific	MS-295-P0	Mouse IgG1
Desmin	Thermo Scientific	RB-9014-P1	Rabbit IgG
Anti-NANOG	ReproCELL Inc, Japan	RCAB0004P-F	Polyclonal antibody
Rat anti-GFAP	Zymed	13-0300	Glial fibrillary acidic protein
Albumin (clone HSA1/25.1.3)	Cedarlane Laboratories Ltd.	CL2513A	Mouse IgG1
Smooth muscle actin (clone 1A4)	DakoCytomation Inc	IR611/IS611	Mouse IgG2a
Nestin	Chemicon International	MAB5326	Rabbit polyclonal antibody
TUBB3	Convance Inc	MMS-435P	Tuj1, mouse IgG2a
HNF4 α (C11F12)	Cell Signaling Technologies	3113	Rabbit monoclonal antibody
Paraformaldehyde (solution)	Electron Microscopy Sciences	15710	PFA, fixative, diluted in D-PBS