

Materials List for:

Efficient Differentiation of Postganglionic Sympathetic Neurons using Human Pluripotent Stem Cells under Feeder-free and Chemically Defined Culture Conditions

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Materials

Name	Company	Catalog Number	Comments
100 mm cell culture dishes	Falcon	353003	
15 mL conical tissue culture tubes	VWR/Corning	89039-664	
24-well tissue culture plates	Falcon	353047	
24-well ultra-low-attachment plates	Corning	07 200 601 and 07 200 602	
5% CO ₂ /20% O ₂ tissue culture incubator	Thermo Fisher/Life Technologies	Heracell VIOS 160i	
50 ml conical tissue culture tubes	VWR/Corning	89039-656	
6-well tissue culture plates	Costar	3516	
Accutase	Innovation Cell Technologies	AT104500	Cell dissociation solution
Anti-AP2a antibody	Abcam	ab108311	Host: Rabbit; 1:400 dilution
Anti-Ascl1 antibody	BD Pharmingen	556604	Host: Mouse IgG1; 1:200 dilution
Anti-CD49D antibody	BioLegend	304313	Host: Mouse IgG1; 5 µl/million cells in 100 µl volume
Anti-CD49D antibody (isotype)	BioLegend	400125	Host: Mouse IgG1; 5 µl/million cells in 100 µl volume
DAPI dye	Sigma	D9542	1:1000 dilution
Anti-DBH antibody	Immunostar	22806	Host: Rabbit; 1:500 dilution
Anti-GFP antibody	Abcam	ab13970	Host: Chicken; 1:1000 dilution
Anti-HOXC9 antibody	Abcam	ab50839	Host: Mouse; 1:100 dilution
Anti-NET1 antibody	Mab	NET17-1	Host: Mouse; 1:1000 dilution
Anti-PRPH antibody	Santa Cruz Biotechnology	SC-377093/H0112	Host: Mouse IgG2a; 1:200 dilution
Anti-SOX10 antibody	Santa Cruz Biotechnology	sc-365692	Host: Mouse IgG1; 1:100 dilution
Anti-TH antibody	Pel-Freez	P40101- 150	Host: Rabbit; 1:500 dilution
Ascorbic acid	Sigma	A8960-5G	Stock concentration: 100 mM
B27 supplement	Thermo Fisher/Life Technologies	12587-010	Stock concentration: 50x
BDNF	R&D Systems	248-BD	Stock concentration: 10 µg/mL
BMP4	R&D Systems	314-BP	Stock concentration: 6 mM
Cell counter	Thermo Fisher/Life Technologies	Countess II	
Cell counting chamber slides	Invitrogen	C10312	
Centrifuge	Eppendorf	57021&5424R	
CHIR99021	R&D Systems	4423	Stock concentration: 6 mM
Cryo-vial	Thermo Fisher/Life Technologies	375353	

dbcAMP	Sigma	D0627	Stock concentration: 100 mM
DMEM	Thermo Fisher/Life Technologies	10829-018	Stock concentration: 1x
DMEM/F12	Thermo Fisher/Life Technologies	11330-057	Stock concentration: 1x
DMSO	Thermo Fisher/Life Technologies	BP231-100	
E6 medium	gibco	A15165-01	
E8 medium	gibco	A15169-01	Stock concentration: 1x
E8 supplement	gibco	A15171-01	Stock concentration: 50x
EDTA	Sigma	ED2SS	Stock concentration: 0.5 M
Electrophysiology plates (AXION cytoview MEA96)	Axion BioSystems	M768-tMEA-96W	
FACS machine	Beckman Coulter	CytoFLEX (for FACS)	
FACS machine	Beckman Coulter	MoFlo Astrios EQ (for sorting)	
FACS tubes (blue filter cap)	Falcon	352235	
FACS tubes (white cap)	Falcon	352063	
Fetal bovine serum (FBS)	Atlanta Biologicals	S11150	
GDNF	PeproTech	450	Stock concentration: 10 µg/mL
Geltrex	Invitrogen	A1413202	Basement membrane matrix; Stock concentration: 100x
hPSCs	Thomson et al., (1998)	WA09	
hPSCs	Oh et al. (2016)	H9-PHOX2B::eGFP	
Human fibronectin (FN)	VWR/Corning	47743-654	Stock concentration: 1 mg/mL
L-glutamine	Thermo Fisher/Gibco	25030-081	Stock concentration: 200 mM
LN tank	Custom Biogenic Systems	V-1500AB	
MEA reader	Axion BioSystems	Maestro Pro	
Mouse laminin I (LM)	R&D Systems	3400-010-01	Stock concentration: 1 mg/mL
N2 supplement	Thermo Fisher/Life Technologies	17502-048	Stock concentration: 100x
Neurobasal medium	gibco	21103-049	Stock concentration: 1x
NGF	PeproTech	450-01	Stock concentration: 25 µg/mL
Phosphate-buffered saline (PBS)	Gibco	14190-136	Stock concentration: 1x
Poly-L-ornithine hydrobromide (PO)	Sigma	P3655	Stock concentration: 15 mg/mL
Primocin (antibiotics)	InvivoGen	ANTPM1	Stock concentration: 50 mg/mL
qPCR machine	Bio-Rad Laboratories	C1000 Touch	
qPCR plates	Bio-Rad Laboratories	HSP9601	
recombinant FGF2	R&D Systems	233-FB/CF	Stock concentration: 10 µg/mL
Retinoic acid	Sigma	R2625	Stock concentration: 1 mM
SB431542	Tocris/R&D Systems	1614	Stock concentration: 10 mM
Trypan blue	Corning	MT-25-900-CI	
Vitronectin (VTN)	Thermo Fisher/Life Technologies	A14700	Stock concentration: 0.5 mg/mL
Water bath	VWR/Corning	706308	
Y27632	R&D Systems	1254	Stock concentration: 10 mM