

Materials List for Generating Neural Retina from Human Pluripotent Stem Cells

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Materials

Name	Company	Catalog Number	Comments
0.01 M TPBS	Servicebio	G0002	Washing slices
4% Paraformaldehyde	Servicebio	G1101-500ML	Fix retinal organoids
5 mL Pasteur pipette	NEST Biotechnology	318516	Pipette retinal organoids
96 V-bottomed conical wells	Sumitomo Bakelit	MS-9096VZ	
Adhesion Microscope Slides	CITOTEST	188105	Fix slices
AggreWell medium	STEMCELL Technologies	5893	Medium
Anhydrous ethanol	SINOPHARM	10009218	Dehydrate
Anti-CHX10	Santa Cruz	sc-365519	Primary antibody
Antifade Solution	ZSGB-BIO	ZLI-9556	
Anti-Ki67	Abcam	ab16667	Primary antibody
Anti-NESTIN	Sigma	N5413	Primary antibody
Anti-Neuronal Class III β -Tubulin(TUJ1)	Beyotime	AT809	Primary antibody
Anti-PAX6	Abcam	ab195045	Primary antibody
Cell dissociation solution(CDS)	STEMCELL Technologies	7922	Cell dissociation
CHIR99021	Selleckchem	S2924	GSK-3 α / β inhibitor
Cholesterol Lipid Concentrate	Gibco	12531018	250 \times
Citrate Antigen Retrieval Solution	Servicebio	G1202-250ML	20 \times , pH 6.0
CS10	STEMCELL Technologies	1001061	Cell Freezing Medium
DAPI	Roche	10236276001	Nuclear counterstain
Dimethyl sulfoxide(DMSO)	Sigma	D2650	
DMEM/F12	Gibco	11330032	Medium
DMEM/F12-GlutaMAX	Gibco	10565018	Medium
Donkey anti-Mouse Alexa Fluor Plus 488	Invitrogen	A32766	Secondary Antibody
Donkey anti-Rabbit Alexa Fluor 568	Invitrogen	A10042	Secondary Antibody
Ethylene Diamine Tetraacetic Acid (EDTA)	Biosharp	BL518A	0.5 M, pH 8.0, cell dissociation
Extracellular matrix (ECM)	Corning	354277	Coating plates
F12-Glutamax	Gibco	31765035	Medium
Fetal Bovine Serum	Gibco	A5669701	
Flow-like tissue cell quantitative analyzer	TissueGnostics	TissueFAXS Plus	Scan sections

IMDM-GlutaMAX	Gibco	31980030	Medium
IWR1-endo	Selleckchem	S7086	Wnt-inhibitor
KnockOut Serum Replacement	Gibco	10828028	
LDN-193189 2HCl	Selleckchem	S7507	BMP-inhibitor
Low-adhesion 24-well Plates	Corning	3473	
Low-adhesion 6-well Plates	Corning	3471	
Maintenance medium (MM)	STEMCELL Technologies	85850	Medium
N2 supplement	Gibco	17502048	
Normal Donkey Serum	Solarbio	SL050	Blocking buffer
Paraplast	Leica	39601006	Tissue embedding
PBS pH 7.4 basic (1x)	Gibco	C10010500BT	Without Ca ⁺ ,Mg ⁺
Recombinant human bone morphogenetic protein-4(rhBMP4)	R&D	314-BP	Key protein factor
Retinoic acid	Sigma	R2625	Powder, keep out of light
SB431542	Selleckchem	S1067	ALK5-inhibitor
SU5402	Selleckchem	S7667	Tyrosine kinase inhibitor
Super PAP Pen	ZSGB-BIO	ZLI-9305	
Taurine	Sigma	T0625-10G	
Thioglycerol	Sigma	M1753	
Triton X-100	Sigma	X100	Permeabilization
WA09 embryonic stem cell line	WiCell Research Institute		Cell line
Xylene	SINOPHARM	10023418	Dewaxing
Y-27632 2HCL	Selleckchem	S1049	ROCK-inhibitor