

Materials List for

# Generation of 3D Whole Lung Organoids from Induced Pluripotent Stem Cells for Modeling Lung Developmental Biology and Disease

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## Materials

Name	Company	Catalog Number	Comments
<b>Cell Culture</b>			
12 well plates	Corning	3512	
12-well inserts, 0.4um, translucent	VWR	10769-208	
2-mercaptoethanol	Sigma-Aldrich	M3148	
Accutase	Innovative Cell Tech	AT104	
ascorbic acid	Sigma	A4544	
B27 without retinoic acid	ThermoFisher	12587010	
Bovine serum albumin (BSA) Fraction V, 7.5% solution	Gibco	15260-037	
Dispase	StemCellTech	7913	
DMEM/F12	Gibco	10565042	
FBS	Gibco	10082139	
Glutamax	Life Technologies	35050061	
Ham's F12	Invitrogen	11765-054	
HEPES	Gibco	15630-080	
Iscove's Modified Dulbecco's Medium (IMDM) + Glutamax	Invitrogen	31980030	
Knockout Serum Replacement (KSR)	Life Technologies	10828028	
Matrigel	Corning	354230	
Monothioglycerol	Sigma	M6145	
mTeSR plus Kit (10/case)	Stem Cell Tech	5825	
N2	ThermoFisher	17502048	
NEAA	Life Technologies	11140050	
Pen/strep	Lonza	17-602F	
ReleSR	Stem Cell Tech	5872	
RPMI1640 + Glutamax	Life Technologies	12633012	

TrypLE	Gibco	12605-028	
Y-27632 (Rock Inhibitor)	R&D Systems	1254/1	
<b>Growth Factors/Small Molecules</b>			
Activin A	R&D Systems	338-AC	
All-trans retinoic acid (RA)	Sigma-Aldrich	R2625	
BMP4	R&D Systems	314-BP/CF	
Br-cAMP	Sigma-Aldrich	B5386	
CHIR99021	Abcam	ab120890	
Dexamethasone	Sigma-Aldrich	D4902	
Dorsomorphin	R&D Systems	3093	
EGF	R&D Systems	236-EG	
FGF10	R&D Systems	345-FG/CF	
FGF7	R&D Systems	251-KG/CF	
IBMX (3-Isobutyl-1-methylxanthine)	Sigma-Aldrich	I5879	
SB431542	R&D Systems	1614	
VEGF/PIGF	R&D Systems	297-VP/CF	
<b>Primary antibodies</b>			<b>Dilution rate</b>
CXCR4-PE	R&D Systems	FAB170P	1:200 (F)
HOPX	Santa Cruz Biotech	sc-398703	0.180555556
HTII-280	Terrace Biotech	TB-27AHT2-280	0.145833333
KRT5	Abcam	ab52635	0.180555556
NKX2-1	Abcam	ab76013	0.25
NKX2-1-APC	LS-BIO	LS-C264437	1:1000 (F)
proSPC	Abcam	ab40871	0.215277778
SCGB3A2	Abcam	ab181853	0.25
SOX2	Invitrogen	MA1-014	0.180555556
SOX9	R&D Systems	AF3075	0.180555556
SPB (mature)	7 Hills	48604	1: 1500 (F) 1:500 (W) <sup>a</sup>
SPC (mature)	LS Bio	LS-B9161	1:100 (F); 1:500 (W) <sup>a</sup>