

Materials List for

# Mucociliary Epithelial Organoids from *Xenopus* Embryonic Cells: Generation, Culture and High-Resolution Live Imaging

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jove.com/video/61604

## Materials

Name	Company	Catalog Number	Comments
<b>Equipment</b>			
Dual-stage Glass Micropipette Puller	Narishige	PC-100	
Picoliter microinjector	Warner Instruments	PLI-100A	
Confocal Laser Microscope			
Stereoscope			
<b>Tools</b>			
Forcep	Dumont	Dumont #5	
Hair knife		Reference (Kay, B.K.; Peng, H.B., 1991)	
Hair loop		Reference (Kay, B.K.; Peng, H.B., 1991)	
<b>hCG injection</b>			
human chorionic gonadotropin	Sigma	cg10-10vl	
<b>MBS solution</b>			
10M Sodium hydroxide	Sigma	72068	
Calcium chloride	Sigma	C3881	
Calcium nitrate	Sigma	C1396	
HEPES	Sigma	H4034	
Magnesium sulfate	Sigma	230391	
Phenol-red	Sigma	P0290	
Potassium chloride	Sigma	7447-40-7	
Sodium bicarbonate	Sigma	S6014	
Sodium chloride	Sigma	S9625	
Sodium hydroxide reagent grade, 97%, powder-25g	Sigma	655104	

<b>dejelling solution</b>			
L-Cysteine hydrochloride monohydrate	Sigma	C7880	
Sodium hydroxide 10M	Sigma	72068	
<b>Ficoll solution</b>			
Ficoll	Sigma	F4375	
<b>DFA solution</b>			
Sodium chloride	Sigma	S9625	
0.22mm Filter	Millipore	S2GPT05RE	
Antibiotic Antimycotic Solution	Sigma	A5955	
Bicine	Sigma	B3876	
Calcium chloride	Sigma	C3881	
Magnesium sulfate	Sigma	230391	
Potassium gluconate	Sigma	G4500	
Sodium carbonate	Sigma	222321	
Sodium gluconate	Sigma	G9005	
<b>mRNA in vitro transcription</b>			
SP6/T7 in vitro transcription kit	Invitrogen	AM1340	
<b>mRNA microinjection</b>			
Borosilicate glass capillary tubes	Harvard Apparatus	GC100-10	
Eppendorf microloader pipette tips	ThermoFisher	A25547	
Mineral oil	Sigma	M5904	
<b>PCR tube coating</b>			
BSA	Thermofisher	26140079	
PCR tubes	SSI	SSI-3245-00	
<b>Imaging</b>			
Custom-milled acrylic chamber			
Coverglass 24mmX50mm	Duran	B01_001650	
SPI Hexagonal TEM Grids, Gilded Nickel (50mesh)	SPI	275HGN-XA	
SPI Hexagonal TEM Grids, Gilded Nickel (75mesh)	SPI	2775GN-XA	
Silicone grease	Shinetsu	HIVAC-G	
<b>Fixation</b>			
20ml screw top-cap vial	Wheaton	WH.986580	
2ml screw top-cap vial			
Benzyl alcohol	Sigma	305197	
Benzyl benzoate	Sigma	B6630	
Dimethyl sulfoxide (DMSO)	Sigma	D4540	
Glutaraldehyde 10% EM GRADE	Electron Microscopy Sciences	16120	
Goat serum	Jackson	005-000-121	
Methanol	Sigma	322415	
Paraformaldehyde	Sigma	P6148	
Phosphate-buffered saline (PBS)	LPS Solution	CBP007B	
Triton X-100	Sigma	T8787	
<b>Primary antibody (1:200)</b>			

acetylated tubulin	Sigma	clone 6-11B-1	
Itln1	Proteintech	11770-1-AP	
Keratin	Developmental Studies Hybridoma Bank	1h5	
ZO1	Invitrogen	402200	
<b>Vectors</b>			
pCS2-mem-GFP		Gift from Dr. Lance Davidson	
pCS2-ZO1-RFP		Gift from Dr. Lance Davidson	