

Materials List for

Functional Characterization and Visualization of Esophageal Fibroblasts Using Organoid Co-Cultures

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Materials

Name	Company	Catalog Number	Comments
B-27 Supplement (50X), serum free	Thermo Fisher (Gibco)	17504001	
Corning Matrigel Growth Factor Reduced (GFR) Basement Membrane Matrix	fisher scientific	356231	
Dimethyl sulfoxide	Sigma-Aldrich	276855-100ML	
DMEM/F-12	Thermo Fisher (Gibco)	11320074	
DPBS	Thermo Fisher (Gibco)	14190250	
Fetal Bovine Serum	Sigma-Aldrich	F7524	
GlutaMAX Supplement	Thermo Fisher (Gibco)	35050061	
HBSS, no calcium, no magnesium, no phenol red	Thermo Fisher (Gibco)	14175-129	
Normal Donkey Serum	Jackson Immuno	017-000-121	
Penicillin-Streptomycin (10,000 U/ mL)	Thermo Fisher (Gibco)	15140122	
Triton X-100 solution	Merck	93443-100ML	
Trypsin-EDTA (0.25%), phenol red	Thermo Fisher (Gibco)	25200-056	
Chemicals, Peptides, and recombinant proteins			
DAPI Solution	Thermo Fisher	62248	
Dissociation solution: 0.25 mg/ml Liberase TM, 0.25 mg/ml Dnase in HBSS			
Dnase I	Sigma-Aldrich	11284932001	
Formaldehyde, 37%, with 10-15% methanol	Sigma-Aldrich	252549-1L	
Liberase	Sigma-Aldrich	5401127001	
N-Acetyl-cysteine	Sigma-Aldrich	A9165-25G	
Noggin murine	Peptotech	250-38	
RapiClear 1.47	SunJin Lab	#RC147001	
Recombinant Mouse EGF Protein, CF	R&D systems	2028-EG-200	

R-spondin-1 murine	Peprotech	315-32	
SYTOX Blue Dead Cell Stain	Thermo Fisher	S34857	
Thermolysin	Sigma-Aldrich	T7902-25MG	
Y-27632 dihydrochloride	Sigma-Aldrich	Y0503-5MG	
Plastic & Glassware			
Corning Sterile Cell Strainers 40um	VWR	15360801	
Corning Sterile Cell Strainers 70um	VWR	431751	
Menzel Deckgläser/ cover slips	Thermo Fisher	Q10143263NR15	
SafeSeal reaction tube, 1.5 mL, PP	Sarstedt	72.706	
Snap Cap Low Retention Microcentrifuge Tubes 0.6 mL	Thermo Fisher	3446	
SuperFrost Slides	VWR	631-9483	
Tools			
0.05 mm 4 circular well iSpacer	SunJin Lab	#IS204	
Dumont #5 forceps, biology tip	F.S.T	11252-20	
ImmEdge Pen	VectorLaboratories	H-4000	
Spring Scissors Angled to Side Ball Tip 8mm Cutting Edge	F.S.T	15033-09	
Instruments			
Confocal microscope Stellaris 5	Leica		
Dissection microscope ZEISS Stemi 305	Zeiss		
FACS ARIA III	BD Biosciences		
Conjugated Antibodies for FACS			
Alexa Fluor 647 anti-mouse CD104 Antibody Clone: 346-11A	123608	123608	
APC anti-mouse CD26 (DPP-4) Antibody	H194-112	H194-112	
PE/Cy7 anti-mouse/human CD324 (E-Cadherin) Antibody	147310	147310	
Antibodies for Immunofluorescence			
CD104 (β-integrin 4) Clone: 346-11A	BioLegend	553745	
Cytokeratin 14	Acris Antibodies (AbD Serotec)	BP5009	
Cytokeratin13 Clone: EPR3671	abcam	ab92551	
E-cadherin (CD324) Clone: 2.40E+11	Cell Signaling Technology	3195	
Keratin 5 Polyclonal Chicken Antibody, Purified Clone: Poly9059	BioLegend	905901	
p63 Clone: 4a4	abcam	ab735	
Recombinant Anti-KLF4 antibod Clone: EPR20753-25	abcam	ab214666	
Vimentin	Sigma-Aldrich	AB5733	
Secondary antibodies			
Donkey anti-species* antibodies with fluorophore of choice	Jackson Immuno		