

Materials List for:

Human Colonoid Monolayers to Study Interactions Between Pathogens, Commensals, and Host Intestinal Epithelium

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Materials

Name	Company	Catalog Number	Comments
2-Amino-2-(hydroxymethyl)-1,3-propanediol	Sigma	T4661	Tris base, Component of lysis buffer
A-83-01	Tocris	2939	ALK4/5/7 inhibitor
Acetic acid, glacial	Fisher Scientific	A38	
Advanced DMEM/F12	Life Technologies	12634-010	Component of growth medium
Alexa Fluor 488 phalloidin	Life Technologies	A12379	Fluorescent probe for F-actin
Antibiotic/antimycotic cocktail	Invivogen	ant-pm-2	Primocin (100x)
B27, 50x	Life Technologies	17504-044	Component of growth medium
Cell culture inserts	Corning	3470	Transwell, PET membrane, 0.4 µm pore, 24-well plate
CHIR 99021	Tocris	4423	GSK3β inhibitor
Click-iT Plus EdU Alexa Fluor 594 Imaging Kit	Life Technologies	C10639	
Collagen IV, from human placenta	Sigma	C5533	
Cultrex Organoid Harvesting Solution	Trevigen	3700-100-01	Depolymerizes basement membrane matrix
Enterohemorrhagic <i>Escherichia coli</i> (EHEC)	Kaper lab, University of Maryland		
Epithelial voltohmmeter	World Precision Instruments	EVOM2	
Epithelial voltohmmeter electrode	World Precision Instruments	STX3	
<i>Escherichia coli</i> strain HS	Kaper lab, University of Maryland		
Ethanol, absolute	Pharmco	111000200	
FluorSave mounting medium	Millipore	345789	For mounting insert membrane on microscope slide
GlutaMAX	Life Technologies	35050-061	L-alanyl-L-glutamine dipeptide, 200 mM
HEK293T/Noggin-Fc cell line	van den Brink lab, Tytgat Institute for Liver and Intestinal Research		For production of Noggin conditioned medium
HEK293T/RSPO1-Fc-HA cell line	Trevigen	3710-001-K	For production of Rspodin-1 conditioned medium
HEPES, 1 M	Life Technologies	15630-080	Component of growth medium
Heraeus Multifuge X1R Centrifuge	Thermo Fisher Scientific	75004250	
Hoechst 33342	Life Technologies	H3570	Fluorescent nuclear dye
Human epidermal growth factor (EGF)	R&D Systems	236-EG-01M	Component of growth medium

IGEPAL CA-630	Sigma	I8896	Component of lysis buffer
Inverted cell culture light microscope	Olympus	CKX51	
LB broth	EMD Millipore	1.10285.0500	
L-WNT3A cell line	ATCC	CRL-2647	For production of Wnt3a conditioned medium
Matrigel, growth factor reduced	Corning	356231	Basement membrane matrix for 3D culture
Mini cell scraper	United BioSystems	MCS-200	
MUC2 antibody, mouse monoclonal	Abcam	ab11197	Use at 1:100 for immunostaining, 1:500 for immunoblotting
MUC2 shRNA lentiviral particles	GE Dharmacon	RHS4531	GIPZ lentiviral shRNA, ID: 4583
Orbital shaker	Grant Instruments	PSU-10i	
Penicillin-streptomycin, 100x	Life Technologies	15140-122	Component of growth medium
Phosphate buffered saline	Corning	21-031	
Probe sonicator with microtip	Branson Ultrasonics	450	
Protease inhibitor cocktail for mammalian cells	Sigma	P8340	Component of lysis buffer
SB 202190	Tocris	1264	p38 MAPK inhibitor
Sodium chloride	Sigma	S3014	Component of lysis buffer
Sodium dexoycholate	Sigma	D6750	Component of lysis buffer
Sodium dodecyl sulfate	Sigma	L3771	Component of lysis buffer
TrypLE Express, 1x	Life Technologies	12605-010	Trypsin, for digesting enteroid/colonoid fragments
Vinculin antibody, rabbit monoclonal	Abcam	ab129002	Use at 1:1000 for immunoblotting
Water, tissue culture grade, sterile filtered	Corning	25-055	
Y-27632	Tocris	1254	RhoA/ROCK inhibitor