

Materials List for:

Forskolin-induced Swelling in Intestinal Organoids: An *In Vitro* Assay for Assessing Drug Response in Cystic Fibrosis Patients

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URL: <https://www.jove.com/video/55159>

DOI: [doi:10.3791/55159](https://doi.org/10.3791/55159)

Materials

Name	Company	Catalog Number	Comments
Advanced Dulbecco's Modified Eagles Medium with Nutrient Mixture F-12 Hams (Ad-DF) 500 ml	Thermo Fisher Scientific: Invitrogen	#12634	stored at 4 °C
GlutaMax	Thermo Fisher Scientific: Invitrogen	#35050	stored at 4 °C
Hepes	Thermo Fisher Scientific: Invitrogen	# 15630-056	stored at 4 °C
Penicillin/Streptomycin	Thermo Fisher Scientific: Invitrogen	#15140-122	stored at -20 °C
96 well culture plate	Cellstar	#655180	
24 well culture plate	Cellstar	#662160	
6 well culture plate	Cellstar	#657160	
Dulbecco's Phosphate Buffered Saline (-) CaCl ₂ (-) MgCl ₂ (DPBS)	Life Technologies: Gibco	#14190-094	stored at 4 °C
Dulbecco's Modified Eagles Medium (DMEM) 500 ml	Thermo Fisher Scientific: Invitrogen	#31966-021	For Wnt-3A Conditioned Medium Production. Stored at 4 °C
Fetal Bovine Serum (FBS)	Bovogen	#SFBS LOT#11113	For Wnt-3A Conditioned Medium Production. Stored at -20 °C
L Wnt3A cell line	ATCC	#CRL-2647	For Wnt-3A Conditioned Medium Production.
TOP/FOP plasmids	Millipore	#17-285	For measuring Wnt activity
pTK-Renilla	Promega	#E2241	For measuring Wnt activity
HEK-293	ATCC	#CRL-1573	For measuring Wnt activity
Dual-Luciferase Reporter Assay System	Promega	#E1910	For measuring Wnt activity
Zeocin	Thermo Fisher Scientific: Invitrogen	#R250-01	For Wnt-3A Cell line selection
B27 supplement	Thermo Fisher Scientific: Invitrogen	#17504-044	stored at -20 °C
N-Acetylcysteine	Sigma Aldrich	#A9165-5G	stored at -20 °C
Nicotinamide	Sigma Aldrich	#N0636	stored at -20 °C
Human Epithelial Growth Factor (hEGF)	PreproTech	#AF-100-15	stored at -20 °C
Gastrin	Sigma Aldrich	#G9145	stored at -20 °C

TGFb type I Receptor inhibitor (A83-01)	Tocris	#2939	stored at -20 °C
Y-27632 dihydrochloride (RhoKi)	Selleckchem	#S1049	stored at -20 °C
p38 MAPK inhibitor (p38i) (SB202190)	Sigma Aldrich	#S7067	stored at -20 °C
Primocin	InvivoGen	#ant-pm-1	stored at -20 °C
Human Noggin (hNoggin)	PreproTech	#120-10C	stored at -20 °C
Human R-spondin 3 (hRspo-3)	R&D Systems	#3500-RS/CF	stored at -20 °C
Vancomycin	Sigma Aldrich	#861987- 250mg	stored at -20 °C
Gentamycin	Life Technologies: Gibco	#15710-049	stored at -20 °C
Ethylenediamine tetraacetic acid (EDTA)	Sigma Aldrich	#431788	Stored at 4 °C
Matrigel	Corning	#354230	stored at -80 °C
TrypLE Express	Life Technologies: Gibco	#12605-010	for trypsinizing organoids for freezing
Recovery Cell Culture Freezing Medium	Life Technologies: Gibco	#12648010	for freezing
Calcein	Life Technologies: Gibco	#C3100MP	stored at -20 °C
Forskolin	R&D Systems	#1099-50 mg	stored at -80 °C
Lumacaftor (VX-809)	Selleckchem	#s1565	stored at -80 °C
Ivacaftor (VX-770)	Selleckchem	#s1144	stored at -80 °C
Name of Reagents/Material	Solvent	Stock Concentration	Final Concentration
GlutaMax		200 mM	2 mM
Hepes		1 M	10 mM
Penicillin/Streptomycin		10K U/ml 10K µg/ml	100 U/ml 100 µg/ml
Zeocin		100 mg/ml	125 µg/ml
B27 supplement		100x	1x
N-Acetylcysteine	MiliQ H ₂ O	500 mM	
Nicotinamide	DPBS	1 M	10 mM
Human Epithelial Growth Factor (hEGF)	DPBS 0.1% BSA	0.5 mg/ml	50 ng/ml
Gastrin	DPBS	100 µM	10 nM
TGFb type I Receptor inhibitor (A83-01)	DMSO	5 mM	500 nM
Y-27632 dihydrochloride (RhoKi)	DMSO	10 mM	10 µM
p38 MAPK inhibitor (p38i) (SB202190)	DMSO	30 mM	10 µM
Primocin		50 mg/ml	100 µg/ml
Human Noggin (hNoggin)	DPBS 0.1%BSA	100 µg/ml	100 ng/ml
Human R-spondin 3 (hRspo-3)		varies per lot	300 ng/ml
Vancomycin		10 mg/ml	50 µg/ml
Gentamycin		10 mg/ml	50 µg/ml
Ethylenediamine tetraacetic acid (EDTA)	MiliQ H ₂ O	0.5 M	2 mM
Calcein	DMSO	10 µg/ml	3.3 ng/ml
Forskolin	DMSO	10 mM	variable
Lumacaftor (VX-809)	DMSO	20 mM	variable
Ivacaftor (VX-770)	DMSO	20 mM	variable