

Materials List for:

# A Fluorescence-based Assay for Characterization and Quantification of Lipid Droplet Formation in Human Intestinal Organoids

Jorik M. van Rijn<sup>1,2,3</sup>, Marliek van Hoesel<sup>1,2</sup>, Sabine Middendorp<sup>1,2</sup>

<sup>1</sup>Division of Pediatrics, Department of Pediatric Gastroenterology, Wilhelmina Children's Hospital, University Medical Center Utrecht, Utrecht University

<sup>2</sup>Regenerative Medicine Center, University Medical Center Utrecht, Utrecht University

<sup>3</sup>Science for Life Laboratory, Department of Medical Biochemistry and Microbiology, Uppsala University

Correspondence to: Sabine Middendorp at [S.Middendorp@umcutrecht.nl](mailto:S.Middendorp@umcutrecht.nl)

URL: <https://www.jove.com/video/60150>

DOI: [doi:10.3791/60150](https://doi.org/10.3791/60150)

## Materials

Name	Company	Catalog Number	Comments
Advanced DMEM/F12	Gibco	12634-028	
B27 supplement	Gibco	17504-044	
Basement membrane matrix (matrigel)	BD Biosciences	356231	
DAPI	Sigma-Aldrich	D9542-1MG	
DGAT1 inhibitor (AZD 3988)	Tocris Bioscience	4837/10	
Fatty acid free BSA	Sigma-Aldrich	A7030	
Formaldehyde	Klinipath	4078-9001	
Glutamin (GlutaMAX, 100x)	Gibco	15630-056	
HEPES (1 M)	Gibco	15630-080	
Laser scanning confocal microscope	Leica	SP8X	
LD540			kindly provided by Dr. B. Spee, Utrecht University
mEGF	Peprtech	315-09_500ug	
N-acetyl cysteine	Sigma-Aldrich	A9165-100G	
Nicotinamide	Sigma-Aldrich	N0636-500G	
Noggin producing cells (HEK293-mNoggin-Fc cells)			MTA with J. den Hertog, Hubrecht Institute
Oleic acid	Sigma-Aldrich	O1008-5G	
p38 MAPK inhibitor (p38i) (SB202190)	Sigma-Aldrich	S7067-25MG	
PBS	Sigma-Aldrich	D8662-500ML	
PBS without Ca <sup>2+</sup> /Mg <sup>2+</sup>	Sigma-Aldrich	D8537-500ML	
Penicillin-Streptomycin (5,000 U/mL)	Gibco	15070-063	
R-spondin producing cells (Cultrex HA-R-Spondin1-Fc 293T Cells)	R&D systems	3710-001-01	
TC-treated 24 well plates	Greiner-One	662160	
TC-treated black clear-bottom 96 well plates	Corning Life Sciences	353219	
TGFb type I receptor inhibitor (A83-01)	Tocris Bioscience	2939/10	
Trypsin (TrypLE Express)	Life Technologies	12604021	

WNT-3A producing cells (L-Wnt-3A cells)			MTA with J. den Hertog, Hubrecht Institute
Y-27632 dihydrochloride (Rho kinase inhibitor)	Abcam	ab120129-10	