

Materials List for

Immunocompetent Intestine-on-Chip Model for Analyzing Gut Mucosal Immune Responses

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Materials

Name	Company	Catalog Number	Comments
96-well plate black, clear bottom	Thermo Fisher	10000631	Consumables
Acetic acid	Roth	3738.4	Chemicals
Alexa Fluor 488 AffiniPure, donkey, anti-mouse IgG (H+L)	Jackson Immuno Research	715-545-150	Secondary Antibody Vascular Staining and Epithelial Staining
Alexa Fluor 647 AffiniPure, donkey, anti-rabbit IgG (H+L)	Jackson Immuno Research	711-605-152	Secondary Antibody Epithelial Staining
Alexa Fluor 647, donkey, anti-rabbit IgG (H+L)	Thermo Fisher Scientific, Invitrogen	A31573	Secondary Antibody Vascular Staining
Axiocam ERc5s camera	Zeiss	426540-9901-000	Technical equipment
Basal Medium MV, phenol red-free	Promocell	C-22225	Cell culture consumables
Biochip	Dynamic 42	BC002	Microfluidic consumables
BSA fraction V	Gibco	15260-037	Cell culture consumables
C2BBE1 (clone of Caco-2)	ATCC	CRL-2102	Epithelial Cell Source
Chloroform	Sigma	C2432	Chemicals
CO2 Incubator	Heracell	150i	Technical equipment
Collagen IV from human placenta	Sigma-Aldrich	C5533	Cell culture consumables
Coverslips (24 x 40 mm; #1.5)	Menzel-Gläser	15747592	Consumables
Cy3 AffiniPure, donkey, anti-goat IgG (H+L)	Jackson Immuno Research	705-165-147	Secondary Antibody Vascular Staining
Cy3 AffiniPure, donkey, anti-rat IgG (H+L)	Jackson Immuno Research	712-165-150	Secondary Antibody Epithelial Staining
Descosept PUR	Dr.Schuhmacher	00-323-100	Cell culture consumables
DMEM high glucose	Gibco	41965-062	Cell culture consumables
DMEM high glucose w/o phenol red	Gibco	31053028	Cell culture consumables
DPBS (-/-)	Gibco	14190-169	Cell culture consumables
DPBS (+/+)	Gibco	14040-133	Cell culture consumables
EDTA solution	Invitrogen	15575-038	Cell culture consumables

Endothelial Cell Growth Medium	Promocell	C-22020	Cell culture consumables
Endothelial Cell Growth Medium supplement mix	Promocell	C-39225	Cell culture consumables
Ethanol 96%, undenatured	Nordbrand-Nordhausen	410	Chemicals
Fetal bovine Serum	invitrogen	10270106	Cell culture consumables
Fluorescein isothiocyanate (FITC)-dextran (3-5 kDa)	Sigma Aldrich	FD4-100MG	Chemicals
Fluorescent Mounting Medium	Dako	S3023	Chemicals
Gentamycin (10mg/mL)	Sigma Aldrich	G1272	Cell culture consumables
GlutaMAX Supplement (100x)	Gibco	35050061	Cell culture consumables
Histopaque	Sigma-Aldrich	10771	Cell culture consumables
Hoechst (bisBenzimid) H33342	Sigma-Aldrich	14533	Epithelial Staining
Holotransferrin (5mg/mL) Transferrin, Holo, Human Plasma	Millipore	616397	Cell culture consumables
Human recombinant GM-CSF	Peptotech	300-30	Cell culture consumables
Human recombinant M-CSF	Peptotech	300-25	Cell culture consumables
Illumination device	Zeiss	HXP 120 C	Fluorescence Microscope Setup
Laser Scanning Microscope	Zeiss	CLSM980	Fluorescence Microscope Setup
Lidocain hydrochloride	Sigma-Aldrich	L5647	Cell culture consumables
Lipopolysaccharide (LPS)	Sigma	L2630	Cell culture consumables
Loftex Wipes	Loftex	1250115	Consumables
Low attachment tubes (PS, 5 mL)	Falcon	352052	Consumables
Luer adapter for the top cap (M)	Mo Bi Tec	M3003	Microfluidic consumables
Male mini luer plugs, row of four, PP, opaque	Microfluidic chipshop	09-0556-0336-09	Microfluidic consumables
MEM Non-Essential Amino Acids Solution	Gibco	11140	Cell culture consumables
Methanol	Roth	8388.2	Chemicals
Microscope	Zeiss	Axio Observer 5	Fluorescence Microscope Setup
Microscope slides	Menzel	MZ-0002	Consumables
Monoclonal, mouse, anti-human CD68 Antibody (KP1)	Thermo Fisher Scientific, Invitrogen	14-0688-82	Primary Antibody Vascular Staining
Monoclonal, rat, anti-human E-Cadherin antibody (DECMA-1)	Sigma-Aldrich, Millipore	MABT26	Primary Antibody Epithelial Staining
Multiskan Go plate reader	Thermo Fisher	51119300	Technical equipment
Normal donkey serum	Biozol	LIN-END9010-10	Chemicals
Optical Sectioning	Zeiss	ApoTome	Fluorescence Microscope Setup
Penicillin-Streptomycin (10,000 U/mL)	Gibco	15140-122	Cell culture consumables
Plugs	Cole Parmer	GZ-45555-56	Microfluidic consumables
Polyclonal, goat, anti-human VE-Cadherin Antibody	R&D Systems	AF938	Primary Antibody Vascular Staining
Polyclonal, rabbit, anti-human Von Willebrand Factor Antibody	Dako	A0082	Primary Antibody Vascular Staining
Polyclonal, rabbit, anti-human ZO-1 antibody	Thermo Fisher Scientific, Invitrogen	61-7300	Primary Antibody Epithelial Staining
Power Supply Microscope	Zeiss	Eplax Vp232	Fluorescence Microscope Setup
Primovert microscope	Zeiss	415510-1101-000	Technical equipment
Reglo ICC peristaltic pump	Ismatec	ISM4412	Technical equipment
SAHA (Vorinostat)	Sigma Aldrich	SML0061-25MG	Chemicals
Saponin	Fluka	47036	Chemicals

S-Monovette, 7.5 mL Z-Gel	Sarstedt	01.1602	Consumables
S-Monovette, 9.0 mL K3E	Sarstedt	02.1066.001	Consumables
Sodium Pyruvate	Gibco	11360-088	Cell culture consumables
Tank 4.5 mL	ChipShop	10000079	Microfluidic consumables
Trypane blue stain 0.4%	Invitrogen	T10282	Cell culture consumables
Trypsin	Gibco	11538876	Cell culture consumables
Tubing	Dynamic 42	ST001	Microfluidic consumables
Tweezers (Präzisionspinzette DUMONT abgewinkelt Inox08, 5/45, 0,06 mm)	Roth	K343.1	Consumables
Wheat Germ Agglutinin (WGA)	Thermo Fisher Scientific, Invitrogen	W32464	Epithelial Staining
X-VIVO 15	Lonza	BE02-060F	Cell culture consumables, Hematopoietic cell medium
Zellkultur Multiwell Platten, 24 Well, sterile	Greiner Bio-One	662 160	Consumables
Zellkultur Multiwell Platten, 6 Well, sterile	Greiner Bio-One	657 160	Consumables
Zen Blue Software	Zeiss	Version 3.7	Microscopy Software