

Contact-Free Co-Culture Model for the Study of Innate Immune Cell Activation During Respiratory Virus Infection

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Materials

Name	Company	Catalog Number	Comments
0.5% Trypsin-EDTA	Gibco	15400-054	
0.5 M Ethylenediaminetetraacetic acid (EDTA), pH 8.0, RNase-free	ThermoFisher	AM9260G	0.5M EDTA
1.5 mL SafeLock Tubes	Eppendorf	0030120086	1.5mL Centrifuge Tube
10 mL K3EDTA Vacutainer Tubes	BD	366643	10mL Blood Collection Tubes
10x dPBS	Gibco	14200-075	
10x PBS	Vivantis	PC0711	
12-well Plate	Corning	3513	
12-well Transwell Insert	Corning	3460	membrane insert
1x FACS Lysing Solution	BD	349202	
2.0 mL SafeLock Tubes	Eppendorf	0030120094	2 mL centrifuge tube
24-well Plate	Corning	3524	
24-well Transwell Insert	Corning	3470	
3% Acetic Acid with Methylene Blue	STEMCELL Technologies	07060	
3,3',5-triiodo-L-thyronine	Sigma	T-074	
37% Formaldehyde Solution w 15% Methanol as Stabilizer in H ₂ O	Sigma	533998	
5810R Centrifuge	Eppendorf	5811000320	
5 mL polypropylene tubes (flow tubes)	BD	352058	
70 µm Cell Strainer	Corning	431751	
A-4-62 Rotor	Eppendorf	5810709008	

Accutase	Gibco	A1110501	Cell Dissociation Reagent
Antibiotic-Antimycotic	Gibco	15240-062	
Avicel CL-611	FMC Biopolymer	NA	Liquid Overlay
Bio-Plex Manager 6.2 Standard Software	Bio-Rad Laboratories, Inc	171STND01	Multiplex Manager Software
Butterfly Needle 21 G	BD	367287	
Cholera Toxin	Sigma	C8052	
Crystal Violet	Merck	C6158	
Cytofix/Cytoperm Solution	BD	554722	Fixation and Permeabilization Solution
Dispase II	Sigma	D4693	Neutral Protease
DMEM/High Glucose	GE Healthcare Life Sciences	SH30243.01	
DMEM/Nutrient Mixture F-12	Gibco-Invitrogen	11320033	
dNTP Mix	Promega	U1515	dNTP Mix
EMEM (w L-Glutamine)	ATCC	30-2003	
EVOM voltohmmeter device	WPI, Sarasota, FL, USA	300523	
FACS Lysing Solution	BD	349202	1x Lysing Solution
Falcon tube 15 mL	CellStar	188271	15 mL tube
Falcon tube 50 mL	CellStar	227261	50 mL Tube
Fast Start Essential DNA Probes Master	Roche	6402682001	qPCR Master Mix
Ficoll Paque Premium	Research Instruments	17544203	Density Gradient Media
H3N2 (A/Aichi/2/1968)	ATCC	VR547	
H3N2 M1 Forward Primer Sequence	Sigma	5'- ATGGTTCTGGCCAGCACTAC-3'	
H3N2 M1 Reverse Primer Sequence	Sigma	5'- ATCTGCACCCCATTCGTTT-3'	
H3N2 NS1 Forward Primer Sequence	Sigma	5'- ACCCGTGTGGAAAGCAGAT-3'	
H3N2 NS1 Reverse Primer Sequence	Sigma	5'- CCTCTTCGGTGAAAGCCCTT-3'	
Heat Inactivated Fetal Bovine Serum	Gibco	10500-064	
hNESPCs	Human Donors	NA	
Human Epithelial Growth Factor	Gibco-Invitrogen	PHG0314	
Hydrocortisone	STEMCELL Techonologies	7925	Collected from nasal biopsies during septal deviation surgeries
Insulin	Sigma	I3536	
Lightcycler 96	Roche	5815916001	qPCR Instrument
Live/DEAD Blue Cell Stain Kit *for UV Excitation	Thermofisher	L23105	Viability Stain
MILLIPLEX MAP Human Cytokine/ Chemokine Magnetic Bead Panel II - Premixed 23 Plex	Merck Pte Ltd	HCP2MAG-62K-PX23	Immunology Multiplex Assay
Mitomycin C	Sigma	M4287	
M-MLV 5x Buffer	Promega	M1705	RT-PCR 5x Buffer
M-MLV Reverse Transcriptase	Promega	M1706	Reverse Transcriptase
N-2 supplement	Gibco-Invitrogen	17502-048	
NIH/3T3	ATCC	CRL1658	
Perm/Wash Buffer	BD	554723	Permeabilization Wash Buffer
PneumaCult-ALI 10x Supplement	STEMCELL Techonologies	5001	
PneumaCult-ALI Basal Medium	STEMCELL Techonologies	5001	
PneumaCult-ALI Maintenance Supplement (100x)	STEMCELL Techonologies	5001	

Random Primers	Promega	C1181	Random Primers
Recombinant Rnasin Rnase Inhibitor	Promega	N2511	RNase Inhibitor
RNA Lysis Buffer	Qiagen	Part of 52904	
RPMI 1640 (w L-Glutamine)	ATCC	30-2001	
STX2 electrodes	WPI, Sarasota, FL, USA	STX2	Electrode
T25 Flask	Corning	430639	
T75 Flask	Corning	430641U	
TPCK Trypsin	Sigma	T1426	
Trypan Blue	Hyclone	SV30084.01	
Viral RNA Extraction Kit	Qiagen	52904	Viral RNA Extraction Kit
V-Shaped 96-well Plate	Corning	3894	