

Development of Multiplex Real-Time RT-qPCR Assays for the Detection of SARS-CoV-2, Influenza A/B, and MERS-CoV

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Materials

Name	Company	Catalog Number	Comments
0.45 µm filter cups	Thermo Scientific	291-4545	
10X Tris-Glycine SDS running buffer	Novex	LC2675	
6-well tissue culturing plates	Corning	353046	
Ammonium sulfate	Fisher Scientific	A701-3	
Ampicillin	Corning	61-238-RH	
Cation exchange (HiTrap SP HP) 5 mL	Cytiva	17-1152-01	
D-(+)-Biotin, 98+%	Thermo Scientific	A14207.60	
DH10Bac competent cells	Fisher Scientific	10361012	
Dialysis bag (Snakeskin 10,000 MWC)	Thermo Scientific	68100	
Dithiothreitol (DTT)	Thermo Scientific	R0862	
Dnase/Rnase Free Distilled Water	Ambion	AM9930	
dNTPs	Thermo Scientific	R0192	
<i>E. coli</i> BL21(DE3) competent cells	Invitrogen	C600003	
EDTA	Fisher Scientific	BP120-1	
Elution Buffer	Qiagen	19086	
ESF 921 insect cell culture medium (Insect cells media)	Expression Systems	96-001-01	
FBS Solution	Gibco	A38400-01	
Fugene (transfection reagent)	Promega	E2311	
Gentamicin	Fisher Scientific	15750060	
Glycerol	Sigma Aldrich	G5516-500	
IGEPAL CA-630	Sigma Aldrich	I8896-100ml	
Imidazole	Sigma Aldrich	56750-1Kg	

Influenza A (H1N1) synthetic RNA	Twist Bioscience	103001	
Influenza A (H3N2) synthetic RNA	Twist Bioscience	103002	
Influenza B synthetic RNA	Twist Bioscience	103003	
IPTG	Gold Biotechnology	I3481C100	
Kanamycin	Gibco	11815-032	
LB Agar	Fisher Scientific	BP1425-500	
LB Broth media	Fisher Scientific	BP1426-500	
Lysozyme	Sigma Aldrich	L6876-10G	
Magnesium Chloride	Sigma Aldrich	13152-1Kg	
MERS-CoV synthetic RNA	Twist Bioscience	103015	
MicroAmp Fast Optical 96-well Reaction plates with Barcode (0.1 mL)	Applied Biosystems	10310855	
Mini- PROTEAN TGX Precast Gel	Bio-Rad	456-1093	
Miniprep kit	Qiagen	27106	
Ni-NTA Excel (HisTrap Excel) 5 mL	Cytiva	17-3712-06	
Ni-NTA HP (HisTrap HP) 5 mL	Cytiva	17-5248-02	
Optical Adhesice Covers (PCR Compatible,DNA/Rnase/PCR Inhibitors Free	Applied Biosystems	4311971	
Potassium Chloride	Fisher Bioreagents	BP366-1	
Primers and Probes	Integrated DNA Technologies, Inc.		
Protease Inhibitor Mini tablets EDTA-Free	Thermo Scientific	A32955	
Protein marker	Fermentas	26616	
RT-qPCR machine (QuantStudio 7 Flex)	Applied Biosystems		
S.O.C medium	Fisher Scientific	15544034	
SARS-CoV-+A2:C442 synthetic RNA	Twist Bioscience	102024	
Sf9 insect cells	Gibco	A35243	
Sodium Chloride	Sigma Aldrich	S3014-1Kg	
StrepTrap XT 5 mL	Cytiva	29401323	
Tetracycline	IBI Scientific	IB02200	
Tris Base Molecular Biology Grade	Promega	H5135	
Tris-HCl	Affymetrix	22676	
Tween 20	Sigma Aldrich	P1379-100ml	
X-Gal	Invitrogen	B1690	