

Key resources table

REAGENT or RESOURCE	SOURCE	IDENTIFIER
Antibodies		
CoraLite®594-conjugated PFKFB3-Specific Polyclonal antibody	Proteintech	CL594-13763
Goat anti-rabbit IgG (H+L) antibody conjugated to fluorescein isothiocyanate	Sigma–Aldrich	AP307F
Rabbit anti-β-actin	Invitrogen	PA5-78715
Rabbit anti-Influenza A H1N1 NA	Invitrogen	PA5-23363
Rabbit anti-DYKDDDDK Tag	Invitrogen	PA1-984B
Mouse anti-GAPDH	Invitrogen	MA1-16757
SUMO1 Monoclonal Antibody	Thermo	MA5-14877
Bradykinin antibody	BIOSS	bs-10947R
Glycolysis Antibody Sampler Kit	Cellsignal	#8337
Goat anti-Rabbit IgG (H+L)	Invitrogen	31460
Goat anti-Rabbit IgG (H+L), Alexa Fluor® 488 conjugate	Invitrogen	A11008
Goat anti-Mouse IgG (H+L)	Invitrogen	31430
Goat anti-Mouse IgG (H+L), Alexa Fluor® 594 conjugate	Invitrogen	A11005
Rabbit anti-Hexokinase II	Abcam	ab209847
Rabbit anti-H1N1 Influenza A virus Nucleocapsid protein	Abcam	ab104870
Mouse anti-Influenza A Virus Hemagglutinin	Abcam	ab8262
Plasmids and Virus Strains		
human ACE2	Sinobiological	HG10108-CF
Flag-tagged SENP1	Addgene	Plasmid #17357
Flag-tagged SENP2	Addgene	Plasmid #18047
Flag-tagged SENP3	Addgene	Plasmid #115521
Flag-tagged PFKFB3	Sinobiological	HG13230-CF
A/Hong Kong/415742/2009(H1N1) pdm09	In house	PMID: 20660098
SARS-CoV-2 strain B.1.1.7/Alpha	In house	GenBank accession number OM21246

Enterovirus A-71 (SZ/HK08-5)	In house	GenBank accession number GQ279369.1
Zika virus (Puerto Rico strain PRVABC59)	Dr. Brandy Russell and Dr. Barbara Johnson, CDC, USA	
MERS-CoV (EMC/2012)	Dr Ron Fouchier (Erasmus Medical Center, the Netherlands)	
Pseudovirus-Influenza A virus-H5N1-M1	ACE Biolab	PV203
Chemicals and drugs		
Bradykinin	MedChemExpress	HY-P0206
[Des-Arg9]-Bradykinin acetate	MedChemExpress	HY-P0298A
G418	MedChemExpress	HY-17561
Lipopolysaccharides	MedChemExpress	HY-D1056
Nirmatrelvir	MedChemExpress	HY-138687
Zanamivir	MedChemExpress	HY-13210
KAN	MedChemExpress	HY-112808
AZ-PFKFB3-67	MedChemExpress	HY-101972
Glycolysis drug library	MedChemExpress	HY-LD-000001809
Poly I:C	Sigma-Aldrich	P9582
PageRuler™ Prestained Protein Ladder, 10 to 180 kDa	Thermo	26616
ExpressPlus™ PAGE Gel,10×8, 10%, 15 wells	Genscript	M01115C
ExpressPlus™ PAGE Gel,10×8, 12%, 10 wells	Genscript	M01210C
Tris-MOPS-SDS Running Buffer Powder	Genscript	M00138
PageRuler™ Plus Prestained Protein Ladder, 10 to 250 kDa	Thermo	26620
Pierce Phosphatase Inhibitor Mini Tablets, 20 tablets	Thermo	A32957
Pierce Protease and Phosphatase Inhibitor Mini Tablets, 20 tablets	Thermo	A32959
Pierce Protease and Phosphatase Inhibitor Mini Tablets, EDTA-free, 20 tablets	Thermo	A32961
2-NBDG	MedChemExpress	HY -116215
Hoechst 33342	MedChemExpress	HY-15559

Critical Commercial Assays		
IL-1 β ELISA kit	Abclonal (Massachusetts, USA)	A16288
Seahorse XF Glycolysis Stress Test Kit	Agilent	103015-100
CellTiter-Glo	Promega	G7571
Luciferase Reporter Assay System	Promega	E1501
RNeasy Mini Kit	Qiagen, Germantown, MD, USA	74004
Bradykinin ELISA kit	Abcam	ab136936
human Plasma Kallikrein Assay Kit	Abcam	ab241042
Mouse Tissue kallikrein ELISA Kit	Abcam	ab233630
RNAiMAX Transfection Reagent	INVITROGEN	13778150
Airway Epithelial Cell Growth Medium	Promocell	C-21060
Experimental Models: cell lines/animals		
A549	ATCC [®]	CCL-185
hBTEC	ATCC [®]	ATCC PCS-300-010
Calu3	ATCC [®]	HTB-55 [™]
Huh7	JCRB [®]	0403 [™]
RD	ATCC [®]	CCL-136
U251	Sigma-Aldrich	09063001
MDCK	ATCC [®]	PTA-6503
VeroE6	ATCC [®]	CRL-1586 [™]
BEAS-2B-wild type (WT)	Ubigen	
BEAS-2B-PFKFB3-knockout (KO)	Ubigen	
HEK-293T- wild type (WT)	Abcam	ab266309
HEK-293T-PFKFB3-knockout (KO)	Abcam	ab266309
K18-hACE2 transgenic mice	CCMR, HKU	
BALB/c mice	CCMR, HKU	
IFN α / β R ^{-/-} (A129) mice	CCMR, HKU	
Oligonucleotides		
SiPFKFB3	Thermo Scientific	4427038
siScramble	Thermo Scientific	
gRNA1	IDT	5'- GGAAGGGTAAAATT AGCGTTGGG-3'
gRNA2	IDT	5'- CGTTAATGAGTAGG

Primers 1-F	IDT	TTAGATTGG-3' 5'- AGTCTATTTCTACC TGTTGGTTCA-3'
Primers 1-R	IDT	5'- AGGGTGTTCCTCAATC CCTAACAAA-3'
Primers 2-F	IDT	5'- TGCTTCACAGGGTC GGTAG-3
Primers 2-R1	IDT	5'- ACACCGGCCTTATT CCAAG-3'
Primers 2-R2	IDT	5'- CATTACCTGGGGTA GGACCA-3'
Primers 3-F	IDT	5'- AGTCTATTTCTACC TGTTGGTTCA-3'
Primers 3-R	IDT	5'- GGAAACAGTTAGA AACTTGGGGTT-3'
Human PFKFB3-F	IDT	5'- CTCGCATCAACAGC TTTGAGG-3'
Human PFKFB3-R	IDT	5'- TCAGTGTTCCTGG AGGAGTC-3'
Mouse PFKFB3-F	IDT	5'- GATCTGGGTGCCCCG TCGATCACCG -3'
Mouse PFKFB3-R	IDT	5'- CAGTTGAGGTAGCG AGTCAGCTTC -3'
Influenza A_M_R	IDT	GGCATTTTGGACAA AKCGTCTA
human GAPDH_F	IDT	ATTCCACCCATGGC AAATTC

human GAPDH_R	IDT	CGCTCCTGGAAGAT GGTGAT
mouse GAPDH_F	IDT	AAGGTCATCCCAGA GCTGAA
mouse GAPDH_R	IDT	CTGCTTCACCACCTT CTTGA
SARS-CoV-2 RdRp_F	IDT	CGCATACAGTCTTRC AGGCT
SARS-CoV-2 RdRp_R	IDT	GTGTGATGTTGAWA TGACATGGTC
β-actin_F	IDT	ACGGCCAGGTCATC ACTATTG
β-actin_R	IDT	CAAGAAGGAAGGC TGGAAAAG
Software / Equipment and others		
XF96 Seahorse Biosciences Extracellular Flux Analyzer	Seahorse Bioscience (Agilent technologies)	N/A
CFX96	Bio–Rad, Berkeley, California, USA	N/A
Carl Zeiss LSM880 system	Dublin, CA, USA	N/A
Novoexpress	Seahorse Bioscience (Agilent technologies)	https://www.agilent.com/en/product/research-flow-cytometry/flow-cytometry-software/novocyte-novoexpress-software-1320805
Flowjo	BD biosciences	https://www.flowjo.com/ https://www.olympus-lifescience.com/en/software/cellsens/
cellSens Imaging Software	Olympus-life science	