

Name	Source	Identifier
Lectins		
Sambucus sieboldiana	J-chemical	J118
ConA	J-chemical	J103
Aleuria aurantia Lectin (AAL),Aleuria aurantia	J-chemical	J101-R
Peanut Lectin, Lyophilized	Wako Fujifilm	165-15031
Wheat Germ Lectin	Wako Fujifilm	126-02811
DSA Lectin from Datura stramonium(jimson weed, thorn apple)	SIGMA	L2766
Maackia Amurensis Lectin, Lyophilized	wako fujifilm	139-10891
Antibodies		
Anti-MUC1 antibody [EP1024Y]	Abcam	ab45167
Purified anti-mouse/human CD44	BioLegend	103001
Purified anti-human CD24	BioLegend	311101
Purified anti-human CD164	BioLegend	324802
Purified anti-CD49C	BioLegend	865201
Purified anti-human/mouse CD49f Antibody	BioLegend	313602
Purified anti-human CD138 (Syndecan-1)	BioLegend	356501
Monoclonal Antibody to Receptor Tyrosine Protein Kinase erbB-2 (ErbB2), C12	Cloud-Clone Corp	MAB867Hu22
PLXNB2 Rabbit pAb	ABClonal	A10069
Anti-Angiotensin Converting Enzyme 2, Ectodomain, Human, Goat-Poly <Anti-ACE-2>	R&D systems	AF933
Anti-SARS-CoV/SARS-CoV-2 (COVID-19) Spike, Mouse-Monoclonal antibody (1A9)	GTX	632604
Goat anti-Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 555	Thermo Fisher	A-21428
Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 555	Thermo Fisher	A-21434
Goat anti-Mouse IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 555	Thermo Fisher	A-21422
Anti Mouse IgG CF568 Goat 50uL	BTI	20100-1
Alexa 647 labeled anti-Mouse IgG secondary antibody	Thermo Fisher	A-21235
Other chemicals and reagents		
SNAP –Cell TMR star	New England Biolabs	S9105S
SNAP-Surface 488	New England Biolabs	S9124S
SNAP-Surface Alexa 647	New England Biolabs	S9136S
Alexa Fluor™ 488 NHS Ester (Succinimidyl Ester)	Thermo Fisher	A20000
Alexa Fluor™ 647 NHS Ester (Succinimidyl Ester)	Thermo Fisher	A37566
DiI18(5) solid (1,1'-Dioctadecyl-3,3',3'-Tetramethylindodicarbocyanine, 4-Chlorobenzenesulfonate Salt, or DID)	Thermo Fisher	D7757
BODIPY™ FL DHPE	Thermo Fisher	D3800
1,2-Dioleoyl-sn-glycero-3-phosphatidylcholine	Avanti Polar Lipids	850375
1,2-dioleoyl-sn-glycero-3-phosphatidylserine	Avanti Polar Lipids	840035
1,2-dioleoyl-sn-glycero-3- [(N-(5-amino-1-carboxypentyl)iminodiacetic acid)succinyl] (DGS-NTA(Ni))	Avanti Polar Lipids	790404
tetramethylrhodamine thiocarbonyl-1,2-dihexadecanoyl-sn-glycero-3-phosphoeth- anolamine, triethylammonium salt	Thermo Fisher	T1391
Perylene	Sigma	394475-1G
Hoechst 33342 solution	Dojindo	H342
Plasmem Bright Red	Dojindo	P505
MemGlow 590	Cytoskeleton inc.	MG03-02
Cysteamine (MEA)	Sigma	#30070-50G
Glucose Oxidase type seven from Aspergillus	Sigma	#G2133-250KU
Catalase, from Bovine Liver	Wako Fujifilm	#035-12903
Lenti-X™ Concentrator.	Takara Bio	631231
Lenti-X™ p24 Rapid Titer Kit	Takara Bio	631476
10x Buffer BXT	iba	# 2-1042-025
Strep-Tactin XT 4Flow high capacity	iba	# 2-5030-002
GST-bind resin	Merck Millipore	# 70541-3
PreScission Protease	Cytiva	# 27-0843-01
Micro Bio-Spin™ P-6 Gel Columns, Tris Buffer	Biorad	7326221
6.5 mm Transwell® with 0.4 µm Pore Polyester Membrane Insert, Sterile	Corning	3470
Uniform Silica Microspheres Non-functionalized Silica	Bangs lab	SS05N
Cell line		
Calu-3	ATCC	HTB-55
HEK 293T	ATCC	CRL-11268
Plasmids		
pLV-eGFP	Addgene	#36083

AAV GFP	Addgene	#49055
pAdDeltaF6	Addgene	#112867
pAAV2/2	Addgene	#104963
AxCAEGFP	Riken BRC	RDB03343
pCAG-HIVgp	Riken BRC	RDB04394
pCMV-VSV-G-RSV-Rev	Riken BRC	RDB04393
pCMV-SARS-CoV-2 Spike-RSV-Rev	Kaizuka et al. (2023)	NA
ACE2-iRFP	Kaizuka et al. (2023)	NA
TMPRSS2-TagRFP657	Kaizuka et al. (2023)	NA
SNAP-MUC1(42TR)	This study	NA
SNAP-MUC1(0TR)	This study	NA
SNAP-MUC1(4TR)	This study	NA
SNAP-MUC1(14TR)	This study	NA
SNAP-CD43	This study	NA
SNAP-CD44	This study	NA
SNAP-CD24	This study	NA
SNAP-CD164	This study	NA
SNAP-SDC1	This study	NA
SNAP-F174B	This study	NA
SNAP-VCAM1	This study	NA
SNAP-VAMP2	This study	NA
SNAP-PD-1	This study	NA
SNAP-EPHB1	This study	NA
CD43-mTagBFP2	This study	NA
PODXL-mTagBFP2	This study	NA
TMEM123-mTagBFP2	This study	NA
EFNB2-mTagBFP2	This study	NA
EPHB1-mTagBFP2	This study	NA
Jag1-mTagBFP2	This study	NA
Dll4-mTagBFP2	This study	NA
GYPE-mTagBFP2	This study	NA
LCK10-mCherry	This study	NA
dStrep-SNAP-MUC1(14TR)_ecto-His	This study	NA
dStrep-SNAP-CD43_ecto-His	This study	NA
pGEX6p1-MUC1(14TR)_ecto-His	This study	NA
pGEX6p1-CD43_ecto-His	This study	NA

Software

Python		3.9.2
Matplotlib		3.7.2
Numpy		1.22.1
Pandas		1.4.2
numpyro		0.11.0
jax		0.4.8
Fiji ImageJ		2.1.0/1.54d
Affinity Designer	Serif	1.10.8
Data Graph	VisualDataTools	5.2