

Table.S2 :**Fluorochrome-Conjugated Antibodies:**

Antibodies	Supplier	Identifier	Clone
APC anti-human IgM Antibody	BioLegend	Cat # 314510	Clone # MHM-88
APC/Cyanine7 anti-human CD19 Antibody	BioLegend	Cat # 363010	Clone # SJ25C1
APC/Cy7 anti-human CD197 (CCR7)	BioLegend	Cat # 353212	Clone # G043H7
Brilliant Violet 605™ anti-human CD3 Antibody	BioLegend	Cat # 317322	Clone # OKT3
Brilliant Violet 650™ anti-human CD127 (IL-7Rα) Antibody	BioLegend	Cat # 351325	Clone # A019D5
Brilliant Violet 650™ anti-human CD3 Antibody	BioLegend	Cat # 317324	Clone # OKT3
Brilliant Violet 711™ anti-human CD27 Antibody	BioLegend	Cat # 302833	Clone # O323
Brilliant Violet 785™ anti-human CD38 Antibody	BioLegend	Cat # 303530	Clone # HIT2
Alexa Fluor® 700 anti-human CD45RA Antibody	BioLegend	Cat # 304120	Clone # HI100
PE/Cyanine7 anti-human CD45RA Antibody	BioLegend	Cat # 304126	Clone # HI100
Brilliant Violet 421™ anti-human CD279 (PD-1) Antibody	BioLegend	Cat # 329920	Clone # EH12.2H7
PE/Dazzle™ 594 anti-human CD4 Antibody	BioLegend	Cat # 300548	Clone # RPA-T4
PE anti-human IgD Antibody	BioLegend	Cat # 348204	Clone # IA6-2
APC anti-human IFN-γ Antibody	BioLegend	Cat # 506510	Clone # B27
Brilliant Violet 785™ anti-human CD8a Antibody	BioLegend	Cat # 301046	Clone # RPA-T8
Brilliant Violet 711™ anti-human CD8a Antibody	BioLegend	Cat # 301044	Clone # RPA-T8
Brilliant Violet 510™ anti-human CD4 Antibody	BioLegend	Cat # 300546	Clone # RPA-T4
Brilliant Violet 510™ anti-human CD14 Antibody	BioLegend	Cat # 301842	Clone # M5E2
Brilliant Violet 510™ anti-human CD19 Antibody	BioLegend	Cat # 302242	Clone # HIB19
Brilliant Violet 711™ anti-human CD279 (PD-1) Antibody	BioLegend	Cat # 329928	Clone # EH12.2H7
Brilliant Violet 711™ anti-human PD-1 Antibody	BioLegend	Cat # 300232	Clone # RPA-2.10
PE/Cyanine7 anti-human CD154 Antibody	BioLegend	Cat # 310832	Clone # 24-31
APC-R700 Mouse Anti-Human CD196 (CCR6)	BD Biosciences	Cat # 565173	Clone # 11A9

BB515 Rat Anti-Human CXCR5 (CD185)	BD Biosciences	Cat # 564624	Clone # RF8B2
BV605 Mouse Anti-Human CD56	BD Biosciences	Cat # 562780	Clone # NCAM16.2
PC-Cy7 Mouse Anti-Human CD25	BD Biosciences	Cat # 335824	Clone # 2A3
BB700 Mouse Anti-Human CD16	BD Biosciences	Cat # 746199	Clone # 3G8
BB700 Mouse Anti-Human CD4	BD Biosciences	Cat # 566393	Clone # SK3
PE-Cy™5 Mouse Anti-Human CD183	BD Biosciences	Cat # 551128	Clone # 1C6/CXCR3
PE-Cy™5 Mouse Anti-Human HLA-DR	BD Biosciences	Cat # 562007	Clone # G46-6
FITC Mouse Anti-Human TNF-α	BD Biosciences	Cat # 554512	Clone # MAb11
GolgiStop (with Monensin)	BD Biosciences	Cat # 554724	
PerCP-eFluor 710 Anti-Human IL-2	eBioscience	Cat # 46-7029-42	Clone # MQ1-17H12
PerCP-eFluor 710 Anti-Human CD3	eBioscience	Cat # 46-0037-42	Clone # OKT3
PE Anti-Human TIGIT	eBioscience	Cat # 12-9500-42	Clone # MBSA43

Key Chemicals, Peptides, and Commercial Assays

Reagents	Supplier	Identifier	
PepTivator SARS-CoV-2 Prot_N	Miltenyi Biotec	Cat # 130-126-698	
PepTivator SARS-CoV-2 Prot_M	Miltenyi Biotec	Cat # 130-126-702	
PepTivator CMV pp65, human	Miltenyi Biotec	Cat # 130-093-438	
ProMix™ HIV Peptide Pool	Proimmune	Cat # PX-HIV	
Human IFN-γ ELISpot Kit	Mabtech	Cat # P3420-2A	
Human Anti-Cytomegalovirus IgG ELISA Kit (CMV)	Abcam	Cat # ab108724	
Brefeldin A	eBioscience	Cat # 00-4506-51	
Foxp3/TF Staining Buffer Set	Invitrogen	Cat # 00-5523-00	
BD Cytofix/Cytoperm™ Fixation/Permeabilization Solution Kit	BD Biosciences	Cat # 554714	