

Supplementary Tables

Supplementary Table S1. Patient Demographic Information and the Average of Cytokine/chemokine Level per Category

	Positive Patient		Negative Patient	
	Male	Female	Male	Female
Number	44		40	
Gender	(22 M)	(22 F)	(24 M)	(16 F)
Age	18 yr. to 68 yr.	18 yr. to 57 yr.	18 yr. to 76 yr.	18 yr. to 81 yr.
	15.11 ± 1.6 (N1)	15.28 ± 1.8 (N1)		
CT Value	15.99 ± 1.5 (N2)	15.65 ± 2 (N2)	-	-
<u>Cytokines</u>	(pg/mg)	(pg/mg)	(pg/mg)	(pg/mg)
PD-L1/B7-H1	85.95 ± 86.4	64.68 ± 39.4	52.61 ± 37.1	53.82 ± 32.6
Eotaxin	88.27 ± 112.4	129.04 ± 131.3	74.69 ± 97.7	76.38 ± 107.9
MIP-3b	213.11 ± 178.6	163.19 ± 159.5	71.46 ± 92.6	75.99 ± 64.9
MCP-1	222.84 ± 213.2	151.89 ± 222.9	34.5 ± 30.8	44.95 ± 45.1
MIP-3a	27.82 ± 25.1	20.16 ± 24.3	11.98 ± 11.6	14.87 ± 15.6
MIP-1a	60.02 ± 46.9	63.82 ± 46.7	37.68 ± 31.4	38.72 ± 35.4
MIP-1b	515.59 ± 314	524.99 ± 419.5	276.52 ± 348.1	274.44 ± 332.8
CD40L	1697.71 ± 1338.8	900.40 ± 818.2	1191.51 ± 1123.5	1190.27 ± 1048.8
GROa	3459.74 ± 2561.6	2785.26 ± 2325.6	2238.01 ± 3231.9	1860.21 ± 1470
IP-10	2562.61 ± 1712.4	1541.89 ± 1639.2	107.94 ± 179.3	266.07 ± 535.6
GROb	147.68 ± 116.8	190.72 ± 171.4	84.81 ± 105.4	72.2 ± 72.4
IL-8	958.21 ± 1050.2	684.91 ± 487.5	422.13 ± 580.5	436.58 ± 427.4
EGF	214.66 ± 170.7	228.01 ± 101.9	189.93 ± 117.5	226.29 ± 114
Fit-3L	87 ± 95.4	77.88 ± 72.4	59.08 ± 59.1	47.23 ± 39.6
G-CSF	295.08 ± 311.3	134.62 ± 152.4	91.87 ± 135.2	106.99 ± 183.8
GM-CSF	195.43 ± 77.5	151.52 ± 70.3	46.5 ± 40.2	59.38 ± 58.9
Granzyme-B	1049.47 ± 1660.2	571.44 ± 978.7	75.04 ± 114.4	167.01 ± 398.9
IFNa	27.68 ± 30.4	7.58 ± 9.2	6.38 ± 4.9	4.98 ± 3.9
IFN beta	13.76 ± 16.42	19.84 ± 23.1	12.16 ± 17.3	12.45 ± 16.2
IFNg	29.81 ± 25.7	20.85 ± 23.9	18.2 ± 15.2	19.61 ± 19.7
IL-10	506.45 ± 272	356.29 ± 142.3	169.76 ± 245.7	210.21 ± 234.1
IL-12p70	31.11 ± 30.9	42.82 ± 36.3	33.67 ± 24.3	27.87 ± 16.4
IL-13	94.21 ± 119.6	113 ± 99	77.28 ± 99.8	77.52 ± 84.4
IL-15	6.52 ± 5.3	7.51 ± 6.2	5.58 ± 5.3	5.21 ± 4.8
IL-17A	9.62 ± 13.8	17.18 ± 18	9.31 ± 13.5	9.92 ± 14.9
IL-17E	23.49 ± 43.5	11.71 ± 9.2	33.71 ± 48.2	27.94 ± 38.4
IL-1b	145.55 ± 174.2	102.03 ± 143.8	10.74 ± 9.3	28.24 ± 50.4
	18924.66 ±	17150.52 ±	13309.91 ±	12228.29 ±
IL-1ra	10155.2	16162.6	13970.8	8976.3
IL-2	12.14 ± 11.2	12.67 ± 9.2	7.73 ± 7.6	7 ± 7

IL-3	26.79 ± 22.1	27.77 ± 23.3	31.61 ± 20.5	28.95 ± 23.1
IL-33	204.08 ± 212.8	206.71 ± 278.3	151.74 ± 282	122.43 ± 148.9
IL-4	3.92 ± 4.2	4.94 ± 4.3	3.75 ± 5.1	3.85 ± 3.7
IL-5	8.21 ± 9.8	11.75 ± 13.2	8.02 ± 11.4	5.57 ± 5.7
IL-6	255.23 ± 379.3	124.8 ± 218.7	25.42 ± 29.8	60.65 ± 109.3
IL-7	13.77 ± 11.6	10.61 ± 6.8	7.96 ± 8.8	9.81 ± 9.2
PDGF-AA	129.16 ± 178.1	112.13 ± 93.3	101.57 ± 103	120.84 ± 136.5
PDGF-AB/BB	6.23 ± 6.4	3.05 ± 3.2	9.46 ± 11.4	6.83 ± 3.7
RANTES	261.91 ± 86.6	257.35 ± 76.1	320.21 ± 85	312.77 ± 42.9
TGFα	30.62 ± 45	20.41 ± 24.3	27.58 ± 38.6	20.38 ± 19.2
TNFα	22.95 ± 19.5	7.61 ± 13.75	10.19 ± 9	9.12 ± 11.7
TRAIL	5439.23 ± 5407.6	3133.11 ± 3682.6	451.67 ± 416.9	657.86 ± 503.9
VEGF	217.74 ± 155.3	247.56 ± 105.1	197.24 ± 161.3	198.95 ± 118.4
FGF basic	29.68 ± 34.6	12.93 ± 17.6	20.99 ± 34.4	12.91 ± 10.8
IL-1α	37.84 ± 41.3	23.21 ± 24.8	20.57 ± 25.4	22.47 ± 41.7

Supplementary Table S2. (Patient demographics belonging to Figure 3A)

	Positive Patients		Negative Patients	
Number	64		74	
Gender	29 M	35 F	32 M	42 F
Age	18 to 72 yr.	18 to 94 yr.	18 to 67 yr.	18 to 72 yr.
CT Value	19.72 ± 4 (N1)	20.08 ± 5.1 (N1)	-	-
	21.25 ± 4.9 (N2)	21.59 ± 5.9 (N2)		

Supplementary Table S3. (Patient demographics belonging to Figure 3B and 3C)

	Positive Patients		Negative Patients	
Number	140		148	
Gender	65 M	75 F	53 M	95 F
Age	18 yr. to 78 yr.	18 yr. to 67 yr.	18 yr. to 75 yr.	18 yr. to 81 yr.
CT Value	20.52 ± 5.6 (N1)	21.64 ± 5.4 (N1)	-	-
	22.28 ± 6.6 (N2)	23.5 ± 6.2 (N2)		

Supplementary Table S4. (Patient demographics belonging to Figure 4A)

	Positive Patients		Negative Patients	
Number	108		109	
Gender	51 M	57 F	58 M	51 F
Age	18 yr. to 79 yr.	18 yr. to 64 yr.	18 yr. to 79 yr.	18 yr. to 74 yr.
CT Value	19.91 \pm 5.3 (N1)	21.38 \pm 5.4 (N1)	-	-
	21.42 \pm 6.1(N2)	22.76 \pm 5.9 (N2)		

Supplementary Table S5. (Patient demographics belonging to Figure 4B)

	Positive Patients		Negative Patients	
Number	105		112	
Gender	54 M	70 F	56 M	56 F
Age	18 yr. to 77 yr.	18 yr. to 74 yr.	18 yr. to 82 yr.	18 yr. to 71 yr.
CT Value	21.03 \pm 5.2 (N1)	20.54 \pm 4.9 (N1)	-	-
	22.86 \pm 5.9(N2)	21.78 \pm 6.2 (N2)		

Supplementary Table S6. (Patient demographics belonging to Figure 4E)

	Positive Patients		Negative Patients	
Number	45		47	
Gender	17 M	28 F	23 M	24 F
Age	18 yr. to 65 yr.	18 yr. to 64 yr.	18 yr. to 76 yr.	18 yr. to 74 yr.
CT Value	18.97 \pm 4.8 (N1)	19.93 \pm 4.4 (N1)	-	-
	20.35 \pm 5.3 (N2)	21.59 \pm 5.4 (N2)		

Supplementary Table S7. (Patient demographics belonging to Figure 5 that were stained with cell surface markers (CD5, CCR7, Ki-67 and OX40))

		Positive Patients		Negative Patients	
Number		38		45	
Gender		16 M	22 F	20 M	25 F
Age		18 yr. to 48 yr.	18 yr. to 89 yr.	18 yr. to 67 yr.	18 yr. to 90 yr.
CT Value		23.55 \pm 4.6 (N1)	19.84 \pm 4.2 (N1)	-	-
		25.34 \pm 5.1 (N2)	21.44 \pm 4.8 (N2)	-	-

Supplementary Table S8. (Patient demographics belong to Figure 5 that were stained with cell surface markers (CD130, CD40, and CD69))

		Positive Patients		Negative Patients	
Number		32		33	
Gender		15 M	17 F	15 M	18 F
Age		18 yr. to 60 yr.	18 yr. to 64 yr.	18 yr. to 77 yr.	18 yr. to 81 yr.
CT Value		21.6 \pm 4.4 (N1)	24.39 \pm 4.9 (N1)	-	-
		22.63 \pm 5 (N2)	26.59 \pm 6.3 (N2)	-	-

Supplementary Table S9. (Patient demographics belong to Figure 5 that were stained with cell surface markers (CD28 and CD130))

		Positive Patients		Negative Patients	
Number		46		55	
Gender		24 M	22 F	28 M	27 F
Age		18yr. to 69 yr.	18 yr. to 59 yr.	18 yr. to 70 yr.	18 yr. to 59 yr.
CT Value		21.8 \pm 4.8 (N1)	21.5 \pm 4.2 (N1)	-	-
		23.67 \pm 5.8 (N2)	23.34 \pm 5 (N2)	-	-

Supplementary Table S10. (Patient demographics belonging to Figures 7A and B)

	Positive Patients		Negative Patients	
Number	705		1018	
Gender	324 M	381 F	480 M	538 F
Age	18 to 83 yr.	18 to 76 yr.	1 mo. to 94 yr.	2 mo. to 85 yr.
CT Value	19.69 ± 4 (N1)	19.8 ± 4 (N1)		
	21.15 ± 5 (N2)	21.27 ± 5 (N2)	-	-

Supplementary Table S11. Materials used in the study.

REAGENT/RESOURCE	SOURCE	IDENTIFIER	
List of Flow cytometry antibodies/reagents			
Antibodies used in study belong to figure			Abs amount in 50µL DPBS/well
Figure 2A			
Anti-human CD3 FITC, Clone: OKT3	BioLegend	317306	0.6 µg
Anti-human CD4 PerCP/Cyanine 5.5, Clone: RPA-T4	BioLegend	300530	0.3 µg
Anti-human CD8a APC/Cyanine7, Clone: RPA-T8	BioLegend	301016	0.6 µg
Anti-human CD20 APC, Clone: 2H7	BioLegend	302310	0.15 µg
Anti-human CD45 Brilliant Violet 510, Clone: 2D1	BioLegend	368526	0.15 µg
Anti-human CD56 (NCAM) PE-Cyanine7, Clone: CMSSB	Invitrogen	25-0567-42	0.075 µg
Fixable Viability Dye eFluor™ 450	Invitrogen	65-0863-14	1:1000
Figure 2B and C			
Anti-human CD4 APC-Alexa Fluor 700, Clone: 13B8.2	Beckman Coulter	B10824	2 µL
Anti-human CD8a PE/Cyanine7, Clone: RPA-T8	BioLegend	301012	0.4 µg
Anti-human CD45 Brilliant Violet 510, Clone: 2D1	BioLegend	368526	0.1 µg
Anti-human IL-10 APC, Clone: JES3-19F1	BioLegend	506807	0.04 µg

Anti-human IL-6 PerCP-eFluor 710, Clone: MQ2-13A5	Invitrogen	46-7069-42	0.05 µg
Anti-human IL-2 FITC, Clone: IL2.39.1	Beckman Coulter	B90436	2 µL
Anti-human TNF-α PE, Clone: MAb11	BioLegend	502909	0.2 µg
Anti-human IFN-γ FITC, Clone: 45.15	Beckman Coulter	IM2716U	2 µL
Anti-human IFN-γ Alexa Fluor 700, Clone: 4S.B3	BioLegend	502520	1 µg
Mouse Anti-Human TGF-β1 PE-CF594, Clone: TW4-9E7	BD Horizon	562422	0.4 µg
Fixable Viability Dye eFluor™ 450	Invitrogen	65-0863-14	1:1000
Antibodies used in study belong to figure 3			
Figure 3A			
Anti-human CD3 FITC, Clone: OKT3	BioLegend	317306	0.2 µg
Anti-human CD4 APC-Cyanine7, Clone: RPA-T4	TONBO Biosciences	25-0049-T100	0.1 µg
Anti-human CD8a PE/Cyanine7, Clone: RPA-T8	BioLegend	301012	0.2 µg
Anti-human CD45 Brilliant Violet 510, Clone: 2D1	BioLegend	368526	0.05 µg
Anti-human CCR10 APC, Clone: 6588-5	BioLegend	341506	1 µL
Anti-human CD183 (CXCR3) PE, Clone: G025H7	BioLegend	353706	1 µL
Anti-human CD194 (CCR4) PerCP/Cyanine 5.5, Clone: L291H4	BioLegend	359406	1 µL
Anti-human CD196 (CCR6) Alexa Fluoro 700 anti-human, Clone: G034E3	BioLegend	353434	1 µL
Fixable Viability Dye eFluor™ 450	Invitrogen	65-0863-14	1:1000
Figure 3B			
Anti-human CD3 BV510, Clone HIT3a	BD Biosciences	564713	0.05 µg
Anti-human CD152 (CTLA-4) APC, Clone BNI3	BioLegend	369612	1 µL
Anti-human CD25 Alexa Fluor 700, Clone M-A251	BioLegend	356118	1 µL
Anti-human CD4 APC/Cyanine7, Clone SK3	BioLegend	344616	0.012 µg
Anti-human CD127 BB700 Mouse anti-human, Clone HIL-7R-M21	BD Biosciences	566398 Lot 2272891	0.2 µg

Anti-human FOXP3 Recombinant PE, Clone QA18A03	BioLegend	364704	2.5 µL
Fixable Viability Dye eFluor™ 450	Invitrogen	65-0863-14	1:1000
Figure 3C			
Anti-human CD3 Brilliant Violet 510, Clone: HIT3a	BD Biosciences	564713 Lot 2265049	0.15 µg
Anti-human CD8a PE/Cyanine7, Clone: RPA-T8	BioLegend	301012	3 µL
Anti-human CD45RO PE-CF594, Clone: UCHL1	BD Biosciences	562299 Lot 1333677	0.6 µg
Anti-human IL-17A APC/Cyanine7, Clone: BL168	BioLegend	512320	0.06 µg
Anti-human IFNγ Alexa Fluor 700, eBiosciences, Clone: 4S.B3	Invitrogen	56-7319-42	0.15 µg
Anti-human IL-4 Alexa Fluor 488, Clone: 8D4-8	BD Biosciences	557990	0.6 µg
Anti-human IL-10 APC, Clone: JES3-19F1	BioLegend	506807	0.06 µg
Anti-human IL-21PerCP/Cyanine 5.5, Clone: 3A3-N2	BioLegend	513012	0.15 µg
Fixable Viability Dye eFluor™ 450	Invitrogen	65-0863-14	1:1000
Figure 4			
Anti-human CD3 FITC, Clone: OKT3	BioLegend	317306	0.2 µg
Anti-human CD3 PC7, Clone: UCHT1	Beckman Coulter	6607100	1 µL
Anti-human CD4 PerCP/Cyanine 5.5, Clone: RPA-T4	BioLegend	300530	0.1 µg
Anti-human CD5 PC7, Clone: BL1a	Beckman Coulter	A51075	1 µL
Anti-human CD10 APC, Clone: ALB1	Beckman Coulter	IM3633	1 µL
Anti-human CD28 APC/Cyanine7, Clone: CD28.2	BioLegend	302966	0.1 µg
Anti-human CD31 (PECAM-1) APC-eFluor 780, Clone: WM-59 (WM59)	Invitrogen	47-0319-42	0.025 µg
Anti-human CD45 Krome Orange, Clone: J33	Beckman Coulter	A96416	1 µL
Anti-human CD69 APC-R700, Clone: FN50	BD BioSciences	565154 Lot 2294006	0.1 µg
Anti-human CD116 PE, Clone: SCO6	Beckman Coulter	IM1977	1 µL

Anti-human CD130 PE, Clone: AM64	BD BioSciences	555757	0.025 µg
Anti-human CD 134 (OX40) Brilliant Violet 510, Clone: Ber-ACT35 (ACT35)	BioLegend	350026	0.2 µg
Anti-human CD137 (4-1BB) Alexa Fluor 700, Clone: 4B4 (4B4-1)	Invitrogen	56-1379-42	0.05 µg
Anti-human CD154 (CD 40 Ligand), APC, Clone: 24-31	Invitrogen	17-1548-42	0.05 µg
Anti-human CD197 (CCR7) APC, Clone: G043H7	BioLegend	353214	0.2 µg
Anti-human anti-Ki-67 Alexa Fluor 700, Clone: B56	BD BioSciences	561277	0.15 µg
Anti-human Human (target species) Kappa Chain FITC, Clone: Polyclonal, F(ab') ₂ Goat	Beckman Coulter	C15623	1 µL
Anti-human Lambda Chain PE, Clone: Polyclonal, F(ab') ₂ Goat	Beckman Coulter	C15189	1 µL
Anti-human Myeloperoxidase (MPO) FITC, Clone: MPO455-8E6	Invitrogen	11-1299-41	0.1 µg
Fixable Viability Dye eFluor™ 450	Invitrogen	65-0863-14	1:1000
Figure 5			
Anti-human CD11c FITC, Clone: Bu15	Biolegend	337214	0.1 µg
Anti-human CD11b APC, Clone: ICRF44	BD bioscience	550019	0.00625µg
Anti-human CD14 Alexa Fluor® 700, Clone: M5E2	BD Bioscience	557923	0.05 µg
Anti-human CD16 APC-Cy™7, Clone: 3G8	BD Bioscience	557758	0.05 µg
Anti-human CD38 Alexa Fluor® 700, Clone: HIT2	Biolegend	303524	0.125 µg
Anti-human CD40 PE/Cyanine7, Clone: 5C3	Biolegend	334322	0.0125 µg
Anti-human CD68 APC, Clone: Y1/82A	Biolegend	333810	0.00625 µg
Anti-human CD80 Brilliant Violet 510™, Clone: 2D10	Biolegend	305233	0.04 µg
Anti-human CD86 PE, Clone: BU63	Biolegend	374206	0.0125 µg
Anti-human CD163 PerCP, Clone: GHI/61	Biolegend	333626	0.1 µg
Anti-human CD206 PE-CF594, Clone: 19.2	BD Bioscience	564063	0.05 µg
Anti-human CD252 (OX40L) PE, Clone: 11C3.1	Biolegend	326308	0.1 µg

Anti-human CD274 (B7-H1, PD-L1) PE/Dazzle™ 594, Clone: 29E.2A3	Biolegend	329732	0.05 µg
Anti-human MARCO PE-Cyanine7, Clone: PLK-1	Invitrogen	25-5447-42	0.003 µg
Fixable Viability Dye eFluor™ 450	Invitrogen	65-0863-14	1:1000
Other reagents used for Flow Cytometry			
Fc Receptor Binding Inhibitor Antibody	Invitrogen	14-9161-73	0.5µg
Cell staining buffer	BioLegend,	B330711	
FluroFix™ Buffer	BioLegend	B331501	
Human TruStain FcXTM (Fc receptor blocking solution)	BioLegend	422302	2µL/50uL DPBS/well
Intracellular Staining Permeabilization Wash Buffer (10X)	BioLegend	421002	
eBioscience FOXP3/transcription factor Staining buffer set	Invitrogen	00-5523-00	
Fixation/Permeabilization concentrate	Invitrogen	00-5123-43	
eBiosciences Fixation/Perm diluent	Invitrogen	00-5223-56	
Permeabilization Buffer (perm wash)	Invitrogen	00-8333-56	
Biological Samples			
Human nasopharyngeal swabs	Ayass Bioscience LLC	IRB# ABS001_01_01_2022	
Buffy coat	Carter Blood Care, Bedford Texas		
Other Requirements			
Recombinant Human M-CSF (carrier-free)	BioLegend	574804	50ngmL ⁻¹
Lipopolysaccharides (LPS) from Escherichia coli O26:B6	Millipore Sigma	L2654-1MG	100ngmL ⁻¹
Recombinant human IFN-gamma protein	R&D System	285-IF-100/CF	100ngmL ⁻¹
Recombinant human IL-4 protein	R&D System	204-IL-020/CF	50ngmL ⁻¹
Recombinant human IL-10 (aa 19-178)	R&D System	1064-IL-	50ngmL ⁻¹

		025/CF	
SARS-CoV-2 S-protein (Wild type)	ACROBiosystems	SPN-C52H9	5nM
SARS-CoV-2 S-protein (Omicron)	ACROBiosystems	SPN-C52Hz	5nM
SARS-CoV-2 S-protein (Delta)	ACROBiosystems	SPN-C52He	5nM
SARS-CoV-2 S-protein (Lamda)	ACROBiosystems	SPN-C52Hs	5nM
SARS-CoV-2 S-protein (Alpha)	ACROBiosystems	SPN-C52H6	5nM
SARS-CoV-2 S-protein (Delta+)	ACROBiosystems	SPN-C52Ht	5nM
Influenza A H1N1 (A/Brevig Mission/1/1918) Hemagglutinin Protein (HA1 Subunit) (His Tag)	11068-V08H1	SinoBiological	5nM
H3N2 (Influenza A H3N2 (A/Texas/1/1977) Hemagglutinin / HA1 Protein (His Tag)	40477-V08H1	SinoBiological	5nM
RPMI	Gibco	11875-093	
HyClone Standard FBS, US Origin, 500 mL, Heat-inactivated	Cytiva life Sciences	SH30088.03HI	10%
HEPES	Cytiva life Sciences	SH30851.01	25mM
Sodium Pyruvate (100 mM)	Gibco	11360-070	1mM
MEM Non-Essential Amino Acids Solution (100X)	Gibco	11140-050	1X
Penicillin-Streptomycin 10,000 U/mL – Penicillin + 10,000 µg/mL Streptomycin	Gibco	15140-122	100U/mL Penicillin 100µg/mL Streptomycin
StemPro™ Accutase™ Cell Dissociation Reagent	Gibco	A1110501	
Ficoll-Paque PLUS density gradient media	Cytiva life Sciences	17144002	
EasySep™ Human T Cell Enrichment Kit	StemCell	19051	
EasySep™ Human CD8+ T Cell Enrichment Kit	StemCell	19053	
CellTrace™ CFSE Cell Proliferation Kit	Invitrogen	C34554	
Pierce™ Cell Surface Biotinylation and Isolation Kit	ThermoFisher Scientific	A44390	
EasyPep™ Mini MS Sample Prep Kit	ThermoFisher Scientific	A40006	

Human XL Cytokine 44-plex Fixed Panel	R&D Systems	LKTM014	
Software			
Prism 9	GraphPad Software	https://www.graphpad.com/scientific-software/prism/	
FlowJo™ v10.8.1		https://www.flowjo.com/	
SARS-CoV-2 RT PCR Assay Reagents			
RNAdvance Viral Kit	Beckman Coulter	A35604	
2019-nCoV RUO Kit, 500 rxn	IDT	10006713	
2019-nCoV_N_Positive Control	IDT	268335814	
s_RPP30 Positive Control	IDT	268335815	
TaqPath™ 1-Step RT-qPCR Master Mix (4x)	ThermoFisher Scientific	A15299	
Biomek i5	Beckman Coulter	B87583	
StepOnePlus™ Real-Time PCR System	ThermoFisher Scientific	4376600	
Instruments			
Navios EX System, 10 colors/3 lasers (5+3+2 configuration)	Beckman Coulter	B83535	
FLEXMAP-3D	Luminex Corporation	FM3DD21267021	

Supplementary Table S12. The lists of abbreviation

Abbreviation	Name
COVID-19	Coronavirus disease 20189
NP	nasopharyngeal
UA	upper airway
MΦ	macrophage
RT-qPCR	Reverse transcription-quantitative polymerase chain reaction
ELISA	Enzyme-linked immunosorbent assay
LC-MS	Liquid chromatography–mass spectrometry
hPBMCs	human peripheral blood mononuclear
PRRs	pattern recognition receptors
pDCs	plasmacytoid dendritic cells
RIG-1	retinoic acid-inducible gene I
RLRs	retinoic acid-inducible gene I (RIG-1)-like receptors
NF-KB	nuclear factor kB
DCs	dendritic cells
NALT	nasopharynx-associated lymphoid tissue
VTM	viral transport media
ct	cycle threshold
ICS	intracellular staining
SS	surface staining
CPRMI	complete RPMI-1640
FBS	fetal bovine serum
RSV	respiratory syncytial virus
ACE2	angiotensin-converting enzyme 2
RT	room temperature

LPS	lipopolysaccharides
EGF	epidermal growth factor
TNF- α	tumor necrosis factor-alpha
TGF- α	transforming growth factor-alpha
G-CSF	granulocyte-colony stimulating factor
VEGF	vascular endothelial growth factor
GM-CSF	granulocyte/macrophage-colony stimulating factor
MIP-1	macrophage inflammatory protein-1
MIP-1 α	macrophage inflammatory protein-1 alpha
MIP-1 β	macrophage inflammatory protein-1 beta
MIP-3 α	macrophage inflammatory protein-3 alpha
MIP-3 β	macrophage inflammatory protein-3 beta
IL-1 α	interleukin-1 alpha
IL-1 β	interleukin-1 beta
IL-2	interleukin-2
IL-3	interleukin-3
IL-4	interleukin-4
IL-5	interleukin-5
IL-6	interleukin-6
IL-7	interleukin-7
IL-8	interleukin-8
IL-10	interleukin-10
IL-13	interleukin-13
IL-15	interleukin-15
IL-17A	interleukin-17A
IL-17E	interleukin-17E

IL-33	interleukin-33
IL-12P70	interleukin-12 _P 70
IL-1 α	interleukin-1 α
IFN- α	interferon-alpha
IFN- γ	interferon-gamma
IP-10	interferon gamma-induced protein 10
MCP-1	monocyte chemoattractant protein-1
PDGF-AA	platelet-derived growth factor-AA
PDGF-AA/BB	platelet-derived growth factor-AA/BB
PD-L1	programmed cell death ligand 1
TRAIL	TNF-related apoptosis-inducing ligand
FGF basic	Fibroblast growth factor basic
Flt-3 ligand	Fms-like tyrosine kinase receptor 3 ligand
RANTES	Regulated upon Activation, Normal T cell Expressed, and Secreted

CONTACT FOR REAGENT AND RESOURCE SHARING: Further information and requests for resources and reagents should be addressed to the Lead Contact Lina Abi Mosleh (lina.a@ayassbioscience.com).