

1 **Supplementary tables**

2 **Supplementary Table 1:** The table summarises all reagents and antibodies used to generate
 3 the data presented in this manuscript.

Reagents used in the experiments shown in this manuscript		
Item	Manufacturer	Product code
Fetal Bovine Serum	Sigma-Aldrich	F9665
RPMI-1640 Medium (1X) with L Glutamine	Fisher Scientific	12004997
Stemcell Lymphoprep™	Fisher Scientific	07811
Trypan blue	Sigma-Aldrich	T8154
Gibco™ Penicillin-Streptomycin	Thermo Fisher Scientific	15140122
Gibco™ HEPES (1M)	Thermo Fisher Scientific	15630056
Gibco™ Phosphate Buffered Saline (PBS), pH7.2	Thermo Fisher Scientific	11540546
CTL kit (contains-Cryo A, Cryo B, Cryo C)	Cellular Technology Limited (CTL), USA	CTLC-ABC-300
Invitrogen™ LIVE/DEAD™ Fixable Aqua Dead Cell Stain Kit, for 405 nm excitation	Thermo Fisher Scientific	L34957
Invitrogen™ eBioscience™ Fixation/Permeabilization Concentrate	Thermo Fisher Scientific	00-5123-43
Invitrogen™ eBioscience™ Fixation/Permeabilization Diluent	Thermo Fisher Scientific	00-5223-56
Invitrogen™ eBioscience™ Permeabilization Buffer (10X)	Thermo Fisher Scientific	00-8333-56
SULFO-TAG™ Anti-Human IgG detection antibody	Meso Scale Discovery	D21ADF-3
SULFO-TAG™–human ACE2 protein	Meso Scale Discovery	D21ADG-3
MSD Blocker A	Meso Scale Discovery	R93BA-2

GOLD™ Read Buffer B	Meso Scale Discovery	R60AM-2
BD FastImmune™ Co-Stimulatory Antibodies (CD28/CD49d)	BD Biosciences	347690
Brefeldin A (BD GolgiPlug™)	BD Biosciences	555029
Cell Activation Cocktail (without Brefeldin A)	BioLegend	423301
PepTivator SARS-CoV-2 Prot_S Complete	Miltenyi Biotec	130-127-951
PepTivator SARS-CoV-2 Prot_N	Miltenyi Biotec	130-126-698

4

Antibodies used for surface staining of T cells from PBMCs and BAL cells		
Antibody	Supplier	Product code
APC anti-human CD3 antibody	BioLegend	300312
APC-Cy7 anti-human CD4 antibody	BioLegend	317418
Alexa Fluor® 700 anti-human CD8 antibody	BioLegend	344724
Brilliant Violet 605™ anti-human CD69 antibody	BioLegend	310938
PE-Cy7 anti-human CD103 antibody	BioLegend	350212

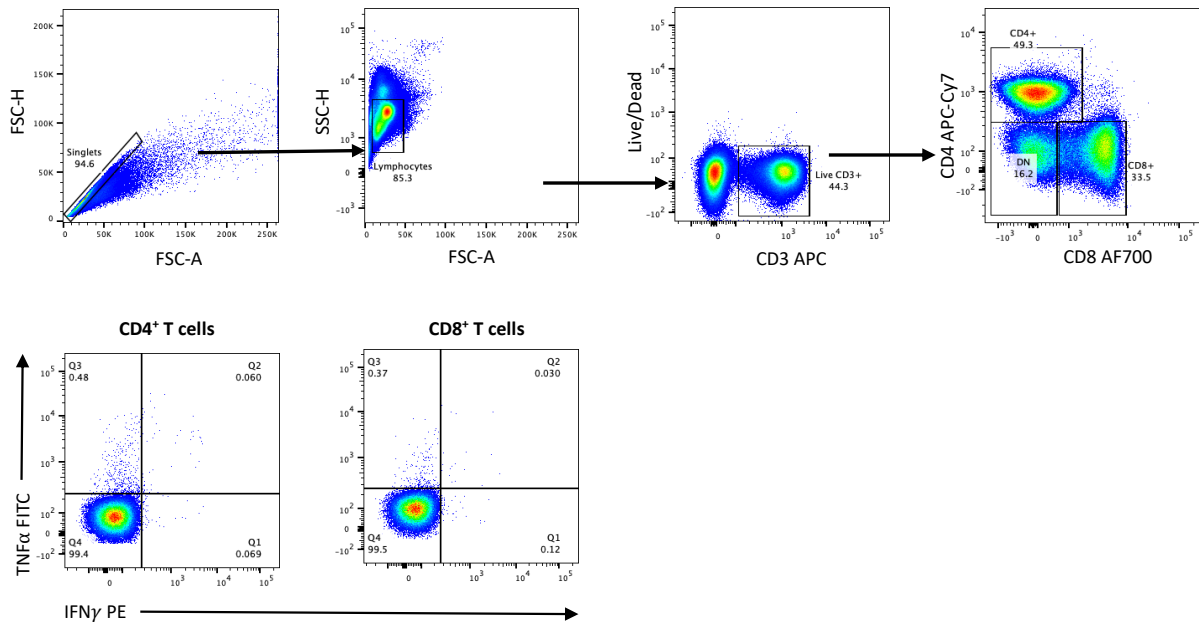
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Antibodies used for intracellular staining of T cells from PBMCs and BAL cells		
Antibody	Supplier	Product code
PE anti-human IFN-γ antibody	BioLegend	502509
FITC anti-human TNF-α antibody	BioLegend	502906

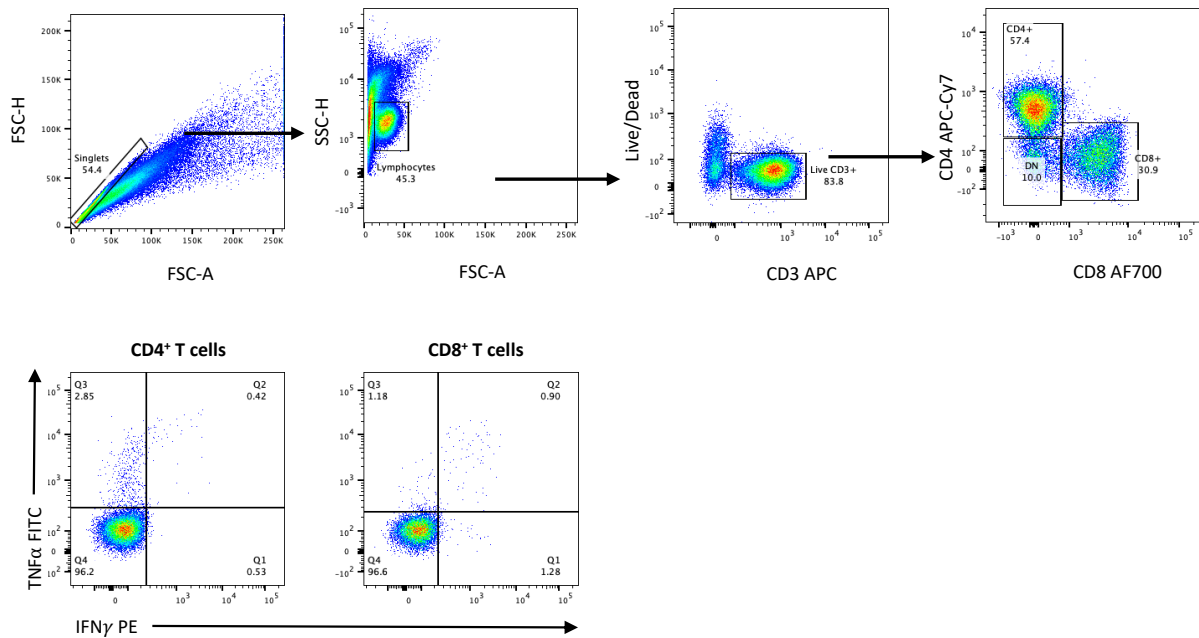
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7 **Supplementary figures**

a. Representative gating strategy for PBMCs



b. Representative gating strategy for BAL



Supplementary Fig. 1 | Flow cytometry gating strategy for systemic and mucosal WT SARS-CoV-2 Spike-specific T cell populations. **a**, Peripheral blood mononuclear cells (PBMCs) and **b**, bronchoalveolar lavage (BAL) cells were stained with a panel of

13 fluorochrome-conjugated surface and intracellular antibodies and analysed by flow
14 cytometry. The gating strategy for CD3⁺CD4⁺ and CD3⁺CD8⁺ T cells is shown, including
15 assessment of functional responses (IFN- γ ⁺, TNF- α ⁺) following stimulation with WT SARS-CoV-
16 2 Spike peptide.