

Supplementary Table 1: List of Reagents or Resources used in Methods.

REAGENT or RESOURCE	SOURCE	IDENTIFIER
Antibodies		
Anti CD8a PE (Clone 53.6-7)	Biolegend	Cat. 100708
Anti-annexin V PE	Biolegend	Cat. 640908
Anti-CD103 BV480 (Clone M290)	BD Biosciences	Cat. 566118
Anti-Cd11b BV480 (Clone M1/70)	BD Biosciences	Cat. 566149
Anti-CD19 FITC (clone 1D3/CD19)	Biolegend	Cat. 152404
Anti-CD25 PerCPCy5.5 (Clone PC61)	Biolegend	Cat. 102029
Anti-CD3 PE (Clone 500A2)	Biolegend	Cat. 152310
Anti-CD4 APC (Clone RM4-5)	Biolegend	Cat. 100516
Anti-CD4 BV650 (Clone RM4-5)	Biolegend	Cat. 100546
Anti-CD4 BV711 (Clone RM4-5)	BD Biosciences	Cat. 563726
Anti-CD44 BV785 (Clone IM7)	Biolegend	Cat. 103059
Anti-CD45 AF700 (Clone 30.F11)	Biolegend	Cat. 103128
Anti-CD45 BV605 (Clone 30-F11)	Biolegend	Cat. 103155
Anti-CD45 FITC (Clone 30.F11)	Biolegend	Cat. 103108
Anti-CD45 PerCPCy5.5 (Clone 30.F11)	Biolegend	Cat. 103132
Anti-CD8a AF700 (Clone 53.6-7)	Biolegend	Cat. 100730
Anti-CD8b (Clone H35-17.2)	Golstein et al., 1982	N/A
Anti-FOXP3 AF700 (Clone MF-14)	Biolegend	Cat. 126422
Anti-Granzyme B Pacific Blue™ (Clone GB11)	Biolegend	Cat. 515408
Anti-IFN γ (APC)	BD Biosciences	Cat. 554413
Anti-IgM biotin	Biolegend	Cat. 406504
Anti-MHCII (I-A/I-E) APC (Clone M5/114.15.2)	Biolegend	Cat. 107614
Anti-NK1.1 BV605 (Clone PK136)	Biolegend	Cat. 108739
Anti-PD-1 PeCy7 (Clone RMP1-30)	Biolegend	Cat. 109110
Anti-PDL1 BV421 (Clone MIH5)	BD Biosciences	Cat. 564716
Anti-Perforin PE (Clone S16009A)	Biolegend	Cat. 154306
Anti-TCF1 FITC (Clone 63D9)	Cell Signaling	Cat. 6444S
ChromPure Rat IgG	Jackson Immunoresearch	Cat#012-000-003
eBioscience™ Anti-Ki67 AF700 (Clone SolA15)	Thermo Fisher Scientific Invitrogen™	Ref. 56-5698-82
Goat anti-Mouse IgG Heavy and Light Chain Antibody HRP Conjugated	Bethyl Laboratories	Ref: A90-116P
HRP Goat Anti-IgG (minimal x-reactivity) Antibody	Biolegend	Ref: 405405

HRP Streptavidin	Biolegend	Cat. 405210
LT359 APC	NIH Tetramer	Core/RRID:SCR_026557
Virus strains		
MuPyV, Strain A2	N/A	N/A
Chemicals, peptides, and recombinant proteins		
BD GolgiPlug™ Protein Transport Inhibitor (Containing Brefeldin A)	BD Biosciences	Cat. 51-2301KZ
Collagenase (Type I)	Worthington	Cat. LS004197
Corn oil	Sigma-Aldrich	C8267
DNAse I	Worthington	Cat. LS002140
Percoll	Cytiva	Product 17089101
Tamoxifen	Sigma-Aldrich	T5648
Commercial assays		
1-Step™ TMB ELISA Substrate Solutions	Thermo Fisher Scientific	Ref. 34029
BD Rhapsody WTA Reagent Kit - 8 Pack	BD Biosciences	Cat. 666620
BD Rhapsody™ Cartridge Kit	BD Biosciences	Cat. 633733
Bioanalyzer High Sensitivity DNA Analysis RUO	Agilent	Part No. 5067-4626
eBioscience™ Foxp3 / Transcription Factor Staining Buffer Set	Thermo Fisher Scientific Invitrogen	Cat. 00-5523-00
EIA/RIA Polystyrene High Bind Microplate	Corning	Ref. 3590
Ms Single Cell Sample Multiplexing Kit	BD Biosciences	Cat. 633793
PerfeCTa FastMix II ROX	QuantaBio	Part No. 95119-012
Wizard Genomic DNA Purification Kit	Promega	Ref. A1120
Experimental model organisms		
C57Bl/6J	Jackson Laboratories	Strain No. 000664
CD4-CreERT2 C57BL/6J	Jackson Laboratories	Strain No. 022356
E8i-Cre C57BL/6J	Andrews et al., 2021	N/A
PD-1 ^{fl/fl} C57BL/6J	Laurent Brossay at Brown University	N/A
Rosa26 CreERT2	Jackson Laboratories	Strain No. 004847
Software		
BCL Convert	Illumina	N/A
Benchling	Benchling	RRID:SCR_013955
Flowjo	BD Biosciences	RRID:SCR_008520
Graphpad Prism	Dotmatics	RRID:SCR_002798
R v. 4.4.3	R Core Team 2021	RRID:SCR_001905
Other		

BD Pharmingen™ Annexin V Binding Buffer, 10X concentrate	BD Biosciences	Cat. 556454
BD Omics-Guard Sample Preservation Buffer	BD Biosciences	Cat. 570911
eBioscience™ Fixable Viability Dye eFluor™ 780	Thermo Fisher Scientific Invitrogen™	Cat. 65-0865-14