

**Supplemental Table 3: Antibodies for flow cytometry**

Surface Antibodies <sup>1</sup>			
Marker	Clone	Format	Manufacturer
CXCR5	RF8B2	BB515	BD Biosciences
CD38	HIT2	PerCP	BD Biosciences
CD319	235614	BB700	BD Biosciences
CCR6	11A9	BB755-P*	BD Biosciences
CD56	NCAM16	BB790-P*	BD Biosciences
CCR4	1G1	APC	BD Biosciences
CD24	ML5	R718	BD Biosciences
CD45RA	HI100	APC-H7	BD Biosciences
ICOS	C398.4A	BV421	BD Biosciences
CD4	RPA-T4	BV480	BD Biosciences
CD57	QA17A04	BV510	BioLegend
CD19	HIB19	BV570	BioLegend
CD45RO	UCHL1	BV605	BD Biosciences
CD27	O323	BV650	BD Biosciences
TIGIT	741182	BV711	BD Biosciences
IgD	IA6-2	BV750	BD Biosciences
PD-1	EH12.1	BV786	BD Biosciences
CD3	HIT3a	BUV395	BD Biosciences
CD8	RPA-T8	BUV496	BD Biosciences
CD86	2331 (FUN-1)	BUV563	BD Biosciences
CD95	DX2	BUV615	BD Biosciences
IgM	UCH-B1	BUV661	BD Biosciences
CD127	HIL-7R-M21	BUV737	BD Biosciences
CD49b	AK-7	BUV805	BD Biosciences
CXCR3	G025H7	PE	BioLegend
KLRG1	SA231A2	PE-Dazzle594	BioLegend
CD25	M-A251	PE-Cy5	BD Biosciences
CCR7	2-L1-A	PE-Cy7	BD Biosciences
Intracellular Antibodies			
Marker	Clone	Format	Manufacturer
FoxP3	236A/E7	BB630-P*	BD Biosciences
Ki67	B56	BB660-P*	BD Biosciences
Viability			
Marker	Clone	Format	Manufacturer
Fixable Viability Stain		440UV	BD Biosciences

\*Denotes BD Bioscience proprietary dyes not commercially available during development

<sup>1</sup> Fixable Viability Stain (BD Biosciences) was added to cells for 10 minutes following thaw for live/dead discrimination. Cells were then washed with FACS buffer and Fc receptor blocking was added using Human TruStain FcX (Biolegend) for 5 minutes prior to a 20 minute incubation with the surface staining cocktail, both made in Brilliant Violet Buffer (BD Biosciences). Cells were washed again and then fixed and permeabilized for 20 minutes using the fix and perm from eBioscience FoxP3/Transcription Factor Staining Buffer Set (ThermoFisher). Intracellular stain was made in a 1X perm buffer from this same kit and incubated with washed cells for 30 minutes after fix/perm. Stained PBMC samples were washed with 1X perm buffer and stored in 1% paraformaldehyde overnight at 4°C. Each step post-thaw, prior to overnight storage, was performed at room temperature and protected from light.

All samples were acquired on a BD Symphony cytometer with FACS Diva software. PMT voltages were adjusted to match 7<sup>th</sup> peak mean fluorescent intensities for parameters using 8 peak rainbow beads (Spherotech) for improved batch-to-batch consistency; this was done for 8 parameters selected to monitor laser performance on the first 6 batches and for all parameters on the remaining 7 batches.