

**Supplementary Table 1.** List of reagents

No.	Reagent	Company	City	Country
1	Qproteome FFPE protein extraction kits	Qiagen	Hilden	Germany
2	Millicell-24 Cell Culture Insert Plate	Merck Millipore	Darmstadt	Germany
3	Phosphate-buffered saline (PBS)	Lonza	Walkersville, MD	USA
4	Penicillin-streptomycin mixture	Lonza	Walkersville, MD	USA
5	Roswell Park Memorial Institute (RPMI) medium	Welgene	Gyeongsan	Korea
6	Maxpar phosphate-buffered saline (PBS)	Fluidigm	San Francisco, CA	USA
7	Intercalator-Ir	Fluidigm	San Francisco, CA	USA
8	Anti-Pan-Keratin	Fluidigm	San Francisco, CA	USA
9	Anti-CD45	Fluidigm	San Francisco, CA	USA
10	Anti-HLA-DR	Fluidigm	San Francisco, CA	USA
11	Anti-CD11b	Fluidigm	San Francisco, CA	USA
12	Anti-CD3	Fluidigm	San Francisco, CA	USA
13	Anti-CD4	Fluidigm	San Francisco, CA	USA
14	Anti-CD8	Fluidigm	San Francisco, CA	USA
15	Anti-Tbet	Fluidigm	San Francisco, CA	USA
16	HiPPR Detergent Removal Resin-embedded Spin Column Kit	Thermo Fisher Scientific	Waltham, MA	USA
17	β-mercaptoethanol	Thermo Fisher Scientific	Waltham, MA	USA
18	BCA protein concentration determination kit	Thermo Fisher Scientific	Waltham, MA	USA
19	Fetal bovine serum albumin	Thermo Fisher Scientific	Waltham, MA	USA
20	Fc receptor binding inhibitor polyclonal antibody	Thermo Fisher Scientific	Waltham, MA	USA
21	Mouse anti-human PE-Cy7-CD366	Thermo Fisher Scientific	Waltham, MA	USA
22	GentleMACS C tubes	Miltenyi	Bergisch Gladbach	Germany
23	CD14 microbeads	Miltenyi	Bergisch Gladbach	Germany
24	Naïve T cell isolation kit	Miltenyi	Bergisch Gladbach	Germany
25	AutoMACS running buffer	Miltenyi	Bergisch Gladbach	Germany
26	Tumor dissociation kit	Miltenyi	Bergisch Gladbach	Germany
27	Sodium hypochlorite solution (HOCl)	Sigma-Aldrich	St Louis, MO	USA
28	Dihydrochloride	Sigma-Aldrich	St Louis, MO	USA
29	PGE2	Sigma-Aldrich	St Louis, MO	USA
30	FITC-dextran	Sigma-Aldrich	St Louis, MO	USA
31	Y-27632 dihydrochloride	Sigma-Aldrich	St Louis, MO	USA
32	Ficoll-Paque	Cytiva Life Sciences	Marlborough, MA	USA
33	ImmunoCult-XF T-cell expansion medium	Stemcell Technologies	Vancouver	Canada
34	Recombinant human IL-2	Stemcell Technologies	Vancouver	Canada
35	Recombinant human IL-4	CellGenix	Freiburg	Germany
36	Recombinant human GM-CSF	CellGenix	Freiburg	Germany
37	Recombinant human IL-15	PeptoTech	East Windsor, NJ	USA
38	PE Mouse Anti-Human CCR7	BD Biosciences	Franklin Lakes, NJ	USA
39	PE-CD80PE Mouse Anti-Human CD80	BD Biosciences	Franklin Lakes, NJ	USA
40	BV421 Mouse Anti-Human CD86	BD Biosciences	Franklin Lakes, NJ	USA
41	APC Mouse Anti-Human CD83	BD Biosciences	Franklin Lakes, NJ	USA
42	PE-Cy7 Mouse Anti-Human HLA-DR	BD Biosciences	Franklin Lakes, NJ	USA
43	PE Mouse Anti-Human HLA-ABC	BD Biosciences	Franklin Lakes, NJ	USA
44	Mouse Anti-Human CD314 (NKG2D)	BD Biosciences	Franklin Lakes, NJ	USA
45	PE Mouse Anti-Human CD107a	BD Biosciences	Franklin Lakes, NJ	USA
46	FITC Mouse Anti-Human CD3	BD Biosciences	Franklin Lakes, NJ	USA
47	PE Mouse Anti-Human NKp44	BD Biosciences	Franklin Lakes, NJ	USA
48	PerCP-Cy <sup>5.5</sup> Mouse Anti-Human CD195	BD Biosciences	Franklin Lakes, NJ	USA

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**Supplementary Table 1.** (Continued)

No.	Reagent	Company	City	Country
49	BV510 Mouse Anti-Human CD158b	BD Biosciences	Franklin Lakes, NJ	USA
50	PE Mouse anti-Human CD279 (PD-1)	BD Biosciences	Franklin Lakes, NJ	USA
51	PerCP-Cy <sup>5.5</sup> Mouse Anti-Human CD8	BD Biosciences	Franklin Lakes, NJ	USA
52	APC Mouse Anti-Human CD56	BD Biosciences	Franklin Lakes, NJ	USA
53	BV510 Mouse Anti-Human CD4	BD Biosciences	Franklin Lakes, NJ	USA
54	PE Mouse anti-Human CD197	BD Biosciences	Franklin Lakes, NJ	USA
55	PE-Cy <sup>7</sup> Mouse Anti-Human CD45RO	BD Biosciences	Franklin Lakes, NJ	USA
56	BB515 Mouse Anti-Human CD25	BD Biosciences	Franklin Lakes, NJ	USA
57	PE Mouse anti-Human FoxP3	BD Biosciences	Franklin Lakes, NJ	USA
58	FITC Annexin V Apoptosis Detection Kit I	BD Biosciences	Franklin Lakes, NJ	USA
59	Mouse anti-human PE-NKp46	Biolegend	San Diego, CA	USA
60	BV421- anti-human TIGIT Antibody	Biolegend	San Diego, CA	USA
61	PE anti-human CX3CR1 Antibody	Biolegend	San Diego, CA	USA
62	CTS AIM VTM medium	Gibco	Carlsbad, CA	USA
63	N2 supplement (100X)	Gibco	Carlsbad, CA	USA
64	Gentamicin	Gibco	Carlsbad, CA	USA
65	Antibiotic-antimycotic	Gibco	Carlsbad, CA	USA
66	Trypan Blue Solution, 0.4%	Gibco	Carlsbad, CA	USA
67	EGF protein	R&D Systems	Minneapolis, MN	USA
68	Recombinant human IFN- $\gamma$	R&D Systems	Minneapolis, MN	USA
69	Recombinant human IL-1 $\beta$	R&D Systems	Minneapolis, MN	USA
70	Recombinant human IL-6	R&D Systems	Minneapolis, MN	USA
71	Recombinant human TNF- $\alpha$	R&D Systems	Minneapolis, MN	USA
72	human IL-12p70 Quantikine ELISA Kit	R&D Systems	Minneapolis, MN	USA
73	human IFN- $\gamma$ Quantikine ELISA Kit	R&D Systems	Minneapolis, MN	USA
74	rhCCL19/MIP-3 $\beta$	R&D Systems	Minneapolis, MN	USA
75	rhCCL21/6Ckine	R&D Systems	Minneapolis, MN	USA
76	rh CD40LG	Creative biomart	Shirley, NY	USA
77	LymphoPrep	Axis-Shield Diagnostics	Scotland	UK
78	Cell counting kit-8	Dojindo	Kumamoto	Japan
79	Anti-HLA Class 1	ab70328	Cambridge	UK
80	Anti-CD11c	ab216655	Cambridge	UK
81	Anti-CD1a	ab217214	Cambridge	UK
82	Anti-FoxP3	ab96048	Cambridge	UK
83	Cytofix/Cytoperm Fixation/Permeabilization kit	BD Biosciences	Franklin Lakes, NJ	USA
84	Maxpar PBS	Fluidigm	San Francisco, CA	USA
85	Bond Epitope retrieval solution	Leica Biosystems	Newcastle	UK