
Supplementary information

**Extricating human tumour immune
alterations from tissue inflammation**

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Extricating human tumor-enriched immune alterations from non-malignant tissue inflammation

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Supplementary Table 1

List of tissue types analyzed.

10x = 10x genomics scRNA-seq experiment

Rhaps = Rhapsody (targeted transcriptomics and/or AbSeq)

Suppr. assay = T cell/Treg suppression assay

Type	ID	Tissue source	Infl Score	APC panel	T cell panel	IL1R1 panel	Sort and <i>In vitro</i> assay	sc-RNAseq
OM	116	dental: sulcular and attached gingiva	High	Yes				
OM	119	dental: sulcular and attached gingiva	Low	Yes	Yes			
OM	121	implant: sulcular and attached gingiva	High					10x v2
OM	122	dental: sulcular and attached gingiva	Low					10x v2
OM	124	dental: sulcular and attached gingiva	High					10x v2
OM	125	dental: sulcular and attached gingiva	High					10x v2
OM	127	dental: sulcular and attached gingiva	High	Yes	Yes			
OM	128	dental: sulcular and attached gingiva	High	Yes	Yes			
OM	136	dental: sulcular and attached gingiva	High	Yes				
OM	138	dental: sulcular and attached gingiva	Low	Yes	Yes			
OM	139	dental: sulcular and attached gingiva	Low	Yes	Yes			
OM	141	dental: sulcular and attached gingiva	Low	Yes	Yes			
OM	145	dental: sulcular and attached gingiva	Low	Yes				
OM	152	dental: sulcular and attached gingiva	NA	Yes	Yes			
OM	153	implant: sulcular and attached gingiva	Low	Yes	Yes			
OM	161	dental: sulcular and attached gingiva	Low		Yes			
OM	162	dental: sulcular and attached gingiva	NA	Yes	Yes			
OM	163	dental: sulcular and attached gingiva	NA	Yes	Yes			
OM	167	implant: sulcular and attached gingiva	High	Yes				
OM	169	dental: sulcular and attached gingiva	Low	Yes	Yes			
OM	170	implant: sulcular and attached gingiva	Low	Yes				
OM	183	dental: osseous keratinized gingiva	NA			Yes		
OM	184	dental: sulcular keratinized gingiva	NA			Yes		
OM	190	dental: sulcular keratinized gingiva	NA			Yes		
OM	191	dental: NA	NA			Yes		
OM	192	dental: NA	NA			Yes		
OM	193	dental: sulcular keratinized gingiva	NA			Yes		
Type	ID	Tissue source	Infl Score	APC panel	T cell panel	IL1R1 panel		sc-RNAseq
HNSCC	2	base of tongue SCC	NA					10x v2
HNSCC	4	base of tongue SCC	NA	Yes	Yes		TCR stim	Rhaps and Bulk RNAseq
HNSCC	5	mandible SCC	NA				TCR stim	Bulk RNAseq
HNSCC	6	oral tongue SCC	NA	Yes	Yes			
HNSCC	7	oral tongue SCC	NA	Yes	Yes			Rhaps
HNSCC	7b	tonsil SCC	NA	Yes	Yes			
HNSCC	8	oral tongue SCC	NA	Yes	Yes			Rhaps
HNSCC	11	tonsil SCC	NA	Yes	Yes			
HNSCC	12	tonsil SCC	NA	Yes	Yes			
HNSCC	13	oral tongue SCC	NA					Rhaps+AbSeq
HNSCC	14	laryngeal SCC	NA	Yes	Yes			Rhaps+AbSeq
HNSCC	15	oral tongue SCC	NA	Yes	Yes			10x v2
HNSCC	17	tonsil SCC	NA	Yes			TCR stim	Bulk RNAseq
HNSCC	18	metastatic SCC to cervical lymph node	NA	Yes	Yes			Rhaps+AbSeq
HNSCC	19	base of tongue SCC	NA	Yes	Yes			
HNSCC	20	base of tongue SCC	NA					10x v3
HNSCC	21	maxillary sinus SCC	NA	Yes				
HNSCC	22	metastatic SCC to cervical lymph node	NA		Yes			
HNSCC	23	tonsil SCC	NA			Yes		
HNSCC	27	laryngeal SCC	NA	Yes	Yes			10x v3
HNSCC	28	palatal lesion SCC	NA			Yes		
HNSCC	29	floor of mouth SCC	NA			Yes		
HNSCC	30	oral tongue SCC	NA	Yes	Yes			
HNSCC	35	base of tongue SCC	NA	Yes				
HNSCC	48	oral tongue SCC	NA	No	No	Yes		
HNSCC	49	base of tongue	NA				Suppr assay	Rhaps+AbSeq
HNSCC	51	oral tongue SCC	NA					Rhaps+AbSeq
HNSCC	52	pharyngeal SCC	NA				Suppr assay	
HNSCC	53	base of tongue SCC	NA			Yes		10x VDJ v1
HNSCC	56	tonsil SCC	NA				Suppr assay	
HNSCC	68	mandible SCC	NA				Suppr assay	
HNSCC	69	base of tongue SCC	NA					10x VDJ v1
HNSCC	72	pharyngeal SCC	NA				Suppr assay	

HNSCC	73	glossotonsillar SCC	NA		Suppr assay	
HNSCC	75	pharyngeal SCC	NA		Suppr assay	
HNSCC	77	oral tongue SCC	NA			10x VDJ v1
HNSCC	79	tongue SCC	NA		Suppr assay	
HNSCC	84	neck mass SCC	NA	Yes		
HNSCC	86	tongue SCC	NA		Suppr assay	
HNSCC	89	mandible SCC	NA		Suppr Assay	
HNSCC	90	laryngeal SCC	NA	Yes		
HNSCC	93	sinonasal SCC	NA	Yes	TCR stim	Bulk RNAseq
HNSCC	91	tonsil SCC	NA		Suppr assay	
HNSCC	98	glossotonsillar SCC	NA		Suppr assay	Bulk RNAseq
HNSCC	99	tongue SCC	NA		TCR stim	Bulk RNAseq
HNSCC	101	base of tongue SCC	NA		TCR stim	Bulk RNAseq
HNSCC	102	tonsil SCC	NA		Suppr assay	Bulk RNAseq
HNSCC	103	floor of mouth SCC	NA		TCR stim	Bulk RNAseq
Other	54	Papillary carcinoma	NA	Yes		
Other	61	Papillary carcinoma	NA	Yes		
Other	64	Papillary carcinoma	NA	Yes		Rhaps+AbSeq
Other	65	Papillary carcinoma	NA	Yes		
Other	76	Breast Cancer	NA	Yes		
Other	47	Lung Cancer	NA	Yes		

Supplementary Table 2

High-dimensional flow cytometry panels used

For panel development details, see Mair et al, Cytometry Part A 2018

ic: stained intracellularly after fixation+permeabilization

PANEL 1: APC panel

		Fluorophore	Antigen	Dilutions
1	355nm	BUV395	CD40	1: 40
2		L/D UV Blue	L/D	1: 500
3		BUV496	CD16	1: 320
4		BUV563	CD56	1: 160
5		BUV661	CD3	1: 80
6		BUV737	CD86	1: 40
7		BUV805	CD45	1: 80
8	405nm	BV421	PD-L2	1: 20
9		BV480	CD85k	1: 40
10		BV570	CD14	1: 20
11		BV605	CD141	1: 640
12		BV650	Sirpa	1: 160
13		BV711	CD68	1: 40
14		BV750	CD11b	1: 160
15		BV785	CD123	1: 40
16	488nm	BB515	CD206	1: 20
17		BB630	BTLA	1: 80
18		BB660	PD-L1	1: 40
19		BB700	CD32	1: 160
20		BB790	CD38	1: 80
21	532nm	PE	Axl	1: 20
22		PE-CF594	CD163	1: 40
23		PE-Cy5	CD80	1: 10
24		PE-Cy5.5	CD19	1: 160
25		PE-Cy7	CX3CR1	1: 160
26	628nm	AF647	CD1c	1: 160
27		AF700	CD11c	1: 320
28		APC-H7	HLA-DR	1: 40

PANEL 2: general T cell panel

		Fluorophore	Antigen	Dilutions
1	355nm	BUV395	CD8	1: 80
2		L/D UV Blue	L/D	1: 500
3		BUV496	CD3	1: 40
4		BUV563	CD25	1: 40
5		BUV661	HLA-DR	1: 80
6		BUV737	ICOS	1: 10
7		BUV805	CD45	1: 80
8	405nm	BV421	MR1Tet	1: 500
9		BV480	CD28	1: 40
10		BV570	CD45RA	1: 160
11		BV605	PD1	1: 20
12		BV650	CD69	1: 20
13		BV711	OX40	1: 40
14		BV750	CD103	1: 160
15		BV785	IL7Ra	1: 10
16	488nm	BB515	Tim3	1: 80
17		BB630	BTLA	1: 80
18		BB660	CD27	1: 160
19		BB700	CD161	1: 20
20		BB790	CD38	1: 80
21	532nm	PE	Lag3	1: 20
22		PE-CF594	TCRgd	1: 20
23		PE-Cy5	CD137	1: 20
24		PE-Cy5.5	CD19	1: 160
25		PE-Cy7	CCR7	1: 40
26	628nm	eFlour660	KI67	1: 1000
27		AF700	GrzmB	1: 80
28		APC-H7	CD4	1: 40

PANEL 3: Transcription factor panel

		Fluorophore	Antigen	Dilutions
1	355nm	BUV395	CD8	1: 80
2		L/D UV Blue	dead	1: 500
3		BUV496	CD3	1: 40
4		BUV563	CD25	1: 40
5		BUV661	TCRgd	1: 40
6		BUV737	CD69	1: 80
7		BUV805	CD45	1: 80
8	405nm	BV421	MR1-Tet	1: 500
9		BV510	CCR7	1: 10
10		BV570	CD45RO	1: 20
11		BV605	CD39	1: 20
12		BV650	Tim3	1: 20
13		BV711	CCR5	1: 20
14		BV750	CD103	1: 160
15		BV785	KI-67	1: 320
16	488nm	BB515	CD45RA	1: 40
17		BB630	CTLA-4	1: 80
18		BB660	CD127	1: 40
19		BB700	PD1	1: 20
20		BB790	TIGIT	1: 80
21	532nm	PE	TCF1	1: 40
22		PEeFlour610	EOMES	1: 10
23		PE-Cy5	CD137	1: 20
24		PE-Cy5.5	Foxp3	1: 10
25		PE-Cy7	Tbet	1: 20
26	628nm	APC	Tox	1: 80
27		AF700	GrzmB	1: 80
28		APC-H7	CD4	1: 40

PANEL 4: IL1R1/chemokine panel

		Fluorophore	Antigen	Dilutions
1	355nm	BUV395	CD8	1: 80
2		L/D UV Blue	L/D	1: 500
3		BUV496	CD3	1: 40
4		BUV563	CXCR6	1: 20
5		BUV661	CCR7	1: 80
6		BUV737	ICOS	1: 20
7		BUV805	CD45	1: 80
8	405nm	BV421	CD25	1: 40
9		BV480	CD28	1: 40
10		BV570	CD45RA	1: 160
11		BV605	CD39	1: 40
12		BV650	CD69	1: 20
13		BV711	CCR8	1: 20
14		BV750	CD103	1: 160
15		BV785	CCR5	1: 20
16	488nm	BB515	Tim3	1: 80
17		BB630	BTLA	1: 80
18		BB660	CD127	1: 20
19		BB700	PD1	1: 20
20		BB790	TIGIT	1: 40
21	532nm	PE	IL-1R1	1: 20
22		PE-CF594	CXCR3	1: 20
23		PE-Cy5	CD137	1: 20
24		PE-Cy5.5	CD19	1: 160
25		PE-Cy7	IL18R1	1: 40
26	628nm	APC	IL-1R2	1: 20
27		AF700	HLA-DR	1: 160
28		APC-H7	CD4	1: 40

PANEL 5: Merged IL1R1 and TF panel

		Fluorophore	Antigen	Dilutions
1	355nm	BUV395	CD8	1: 80
2		L/D UV Blue	dead	1: 500
3		BUV496	CD3	1: 40
4		BUV563	CD56	1: 160
5		BUV661	CCR7	1: 40
6		BUV737	ICOS	1: 20
7		BUV805	CD45	1: 80
8	405nm	BV421	CD25	1: 40
9		BV510	<i>GrzmB</i>	1: 20
10		BV570	CD45RA	1: 80
11		BV605	CD39	1: 40
12		BV650	CD69	1: 20
13		BV711	CD14	1: 80
14		BV750	CD103	1: 160
15		BV785	<i>Kl67</i>	1: 160
16	488nm	BB515	Tim3	1: 80
17		BB630	<i>CTLA4</i>	1: 80
18		BB660	CD127	1: 40
19		BB700	PD1	1: 20
20		BB790	TIGIT	1: 40
21	532nm	PE	IL1R1	1: 20
22		PEeFlour610	<i>EOMES</i>	1: 20
23		PE-Cy5	CD137	1: 20
24		PE-Cy5.5	<i>Foxp3</i>	1: 20
25		PE-Cy7	<i>Tbet</i>	1: 40
26	628nm	APC	<i>TOX</i>	1: 80
27		AF700	<i>TCF1</i>	1: 10
28		APC-H7	CD4	1: 40

PANEL 6: *In vitro*/suppression assays

		Fluorophore	Antigen	Dilutions
1	355nm	BUV395	CD8	1: 80
2		L/D UV Blue		1:
3		BUV496		1:
4		BUV563		
5		BUV661	CD3	1: 40
6		BUV737	ICOS	1: 40
7		BUV805	(CD45)	1:
8	405nm	CTV	CTV	N.A
9		BV510		1:
10		BV570		1:
11		BV605		1:
12		BV650	CD69	1: 40
13		BV711	OX40	1: 40
14		BV750		1:
15		BV785	CD127	1: 20
16	488nm	BB515	CD25	1: 40
17		BB630	BTLA	1: 80
18		BB660		1:
19		BB700	PD1	1: 20
20		BB790		
21	532nm	PE	IL-1R1	1: 20
22		PE-CF594		1:
23		PE-Cy5	CD137	1: 20
24		PE-Cy5.5		1:
25		PE-Cy7		
26	628nm	APC	L/DFarRed	1: 500
27		AF700		1:
28		APC-H7	CD4	1: 40

Supplementary Table 3

List of antibodies utilized in the presented study

Reagent	Company	Cat.no/Identifier
CD183 (CXCR3)-PE-CF594 (clone 1C6)	BD Biosciences	Cat#562451; RRID:AB_11153118
CD3-BUV496 (clone UCHT1)	BD Biosciences	Cat#564809; RRID:AB_2744388
CD3-BUV661 (clone UCHT1)	BD Biosciences	Cat#612964; RRID:AB_2870239
CD25-BV421 (clone 2A3)	BD Biosciences	Cat#564033; RRID:AB_2738555
CD25-BUV563 (clone 2A3)	BD Biosciences	Cat#612918; RRID:AB_2870203
HLA-DR-BUV661 (clone G46-6)	BD Biosciences	Cat#612980; RRID:AB_2870252
ICOS-BUV737 (clone DX29)	BD Biosciences	Cat#749665; RRID:AB_2873929
CD8-BUV395 (clone RPA-T8)	BD Biosciences	Cat#563795; RRID:AB_2722501
TCRgd-PE-CF594 (clone B1)	BD Biosciences	Cat#562511; RRID:AB_2737631
CD14-BV570 (clone M5E2)	BioLegend	Cat#301832; RRID:AB_2563629
PD1-BB700 (clone EH12.1)	BD Biosciences	Cat#566460; RRID:AB_2744348
PD1-BV605 (clone EH12.1)	BD Biosciences	Cat#563245; RRID:AB_2738091
CD69-BV650 (clone FN50)	BD Biosciences	Cat#563835; RRID:AB_2738442
CD45RA-BV570 (clone HI100)	BioLegend	Cat#304132; RRID:AB_2563813
CD103-BV750 (clone Ber-ACT8)	BD Biosciences	Cat#747099; RRID:AB_2871852
CD127-Biotin (A019D5)	BioLegend	Cat#351346; RRID:AB_2566509
CD127-BV786 (clone HIL-7R-M21)	BD Biosciences	Cat#563324; RRID:AB_2738138
Tim3-BB515 (clone 7D3)	BD Biosciences	Cat#565568; RRID:AB_2744368
CD16-BUV496 (clone 3G8)	BD Biosciences	Cat#612944; RRID:AB_2870224
CD27-BB660 (clone M-T271)	BD Biosciences, custom	Cat#624295
CD161-BB700 (clone DX12)	BD Biosciences	Cat#745791; RRID:AB_2743247
CD38-BB790 (clone HIT2)	BD Biosciences, custom	Cat#624296
CD39-BV605 (clone A1)	BioLegend	Cat#328236; RRID:AB_2750430
CD137-PECy5 (clone 4B4-1)	BD Biosciences	Cat#551137; RRID:AB_394067
CD19-PE-Cy5.5 (clone SJ25-C1)	Thermo Fisher	Cat#MHCD1918; RRID:AB_1465597
CD197 (CCR7)-BUV661 (clone 2-L1-A)	BD Biosciences	Cat#749824; RRID:AB_2874072
CD197 (CCR7)-PE-Cy7 (clone 3D12)	BD Biosciences	Cat#557648; RRID:AB_396765
CD4-APCH7 (clone RPA-T4)	BD Biosciences	Cat#560158; RRID:AB_1645478
CD40-BUV395 (clone 5C3)	BD Biosciences	Cat#565202; RRID:AB_2739110
CD56-BUV563 (clone NCAM16.2)	BD Biosciences	Cat#612928; RRID:AB_2870213
CD86-BUV737 (clone FUN-1)	BD Biosciences	Cat#612784; RRID:AB_2814790
CX3CR1-PE-Cy7 (clone 2A9-1)	BioLegend	Cat#341612; RRID:AB_10900816
CD28-BV480 (clone CD28.2)	BD Biosciences	Cat#566110; RRID:AB_2739512
CD141-BV605 (clone 1A4)	BD Biosciences	Cat#740421; RRID:AB_2740151
Sirpa-BV650 (clone SE5A5)	BD Biosciences	Cat#743565; RRID:AB_2741588
OX40-BV711 (clone Ber-ACT35)	BioLegend	Cat#350029; RRID:AB_2632863
CD11b-BV750 (clone ICRF44)	BD Biosciences, custom	Cat#747357; RRID:AB_2872054
CD123-BV786 (clone 7G3)	BD Biosciences	Cat#564196; RRID:AB_2738662
CD206-BB515 (clone 19.2)	BD Biosciences	Cat#564668; RRID:AB_2738882
CD32-BB700 (clone FL18.26)	BD Biosciences	Cat#742216; RRID:AB_2871430
Lag3-PE (clone T47-530)	BD Biosciences	Cat#565617
CD163-PECF594 (clone GHI/61)	BD Biosciences	Cat#562670; RRID:AB_2737711
CD80-PECy5 (clone L307.4)	BD Biosciences	Cat#559370; RRID:AB_397239
CD1c-AF647 (clone F10/21A3)	BD Biosciences	Cat#565048; RRID:AB_2744318
CD11c-AF700 (clone B-ly6)	BD Biosciences	Cat#561352; RRID:AB_10612006
HLA-DR-APC-H7 (clone G46-6)	BD Biosciences	Cat#561358; RRID:AB_10611876
HLA-DR-APC-R700 (clone G46-6)	BD Biosciences	Cat#565127; RRID:AB_2732055
CXCR6-BUV563 (clone 13B 1E5)	BD Biosciences	Cat#748450; RRID:AB_2872866
CD45-BUV805 (HI30)	BD Biosciences	Cat#612891; RRID:AB_2870179
CCR8-BV711 (clone 433H)	BD Biosciences	Cat#747575; RRID:AB_2744146
CD195-BV786 (clone 3A9)	BD Biosciences	Cat#565001; RRID:AB_2739039
CD272-BB630-P (clone J168-540)	BD Biosciences, custom	Cat#624294
TIGIT-BB790 (clone 741182)	BD Biosciences, custom	Cat#624452
Streptavidin-BB660-P2	BD Biosciences, custom	Cat#624295
IL-1R1-PE (polyclonal)	R&D Systems	Cat#FAB269P-100; RRID:AB_2124912
IL-18R1 α -PECy7 (clone H44)	BioLegend	Cat#313812; RRID:AB_2800827
IL-1R2-APC (clone 34141)	R&D Systems	Cat#FAB663A; RRID:AB_10569839
CD273-BV421 (clone MIH18)	BD Biosciences	Cat#563842; RRID:AB_2738445
CD85k-BV480 (clone ZM3.8)	BD Biosciences	Cat#746718; RRID:AB_2743983
CD68-BV711 (clone Y1/82A)	BD Biosciences	Cat#565594; RRID:AB_2739297
CD274-BB660-P (clone MIH1)	BD Biosciences, custom	Cat#624295
Axl-PE (clone 108724)	R&D Systems	Cat#FAB154P
KI67-eFluor 660 (clone SolA15)	ThermoFisher Scientific	Cat#50-5698-80; RRID:AB_2574234
Granzyme B AF700 (clone QA16A02)	BioLegend	Cat#372222; RRID:AB_2728389
TCF1-PE	Cell Signaling	Cat#14456S; RRID:AB_2798483
TCF1-AF700	Cell Signaling	Cat#90904S;
TOX-APC	Miltenyi	Cat#130-118-335; RRID:AB_2751485
CCR7-BUV661	BD Biosciences	Cat#749824; RRID:AB_2874072
CTLA4-BB630	BD Biosciences, custom	Cat#624294; RRID:AB_11042699

Tbet-PECy7	Thermo Fisher Scientific	Cat#25-5825-82;
Human MR1 5-OP-RU BV421	NIH Tetramer Facility	N.A
Human TruStain FcX (Fc-Block)	BioLegend	Cat#422302; RRID:AB_2818986
CD3-Ab-O (clone SK7)	BD Biosciences	Cat#940000; RRID:AB_2875891
CD4-Ab-O (clone SK3)	BD Biosciences	Cat#940001; RRID:AB_2875892
CD8-Ab-O (clone RPA-T8)	BD Biosciences	Cat#940003; RRID:AB_2875894
CD19-Ab-O (clone SJ25C1)	BD Biosciences	Cat#940004; RRID:AB_2875895
CD14-Ab-O (clone MφP9)	BD Biosciences	Cat#940005; RRID:AB_2875896
CD16-Ab-O (clone 3G8)	BD Biosciences	Cat#940006; RRID:AB_2875897
CD56-Ab-O (clone NCAM16.2)	BD Biosciences	Cat#940007; RRID:AB_2875898
CD11b-Ab-O (clone M1/70)	BD Biosciences	Cat#940008; RRID:AB_2875899
CD25-Ab-O (clone 2A3)	BD Biosciences	Cat#940009; RRID:AB_2875900
HLA-DR-Ab-O (clone G46-6)	BD Biosciences	Cat#940010; RRID:AB_2875901
CD45RA-Ab-O (clone HI100)	BD Biosciences	Cat#940011; RRID:AB_2875902
CD127-Ab-O (clone HIL-7R-M21)	BD Biosciences	Cat#940012; RRID:AB_2875903
CD38-Ab-O (clone HIT2)	BD Biosciences	Cat#940013; RRID:AB_2875904
CD279-Ab-O (clone EH12.1)	BD Biosciences	Cat#940015; RRID:AB_2875906
CD28-Ab-O (clone CD28.2)	BD Biosciences	Cat#940017; RRID:AB_2875908
CD27-Ab-O (clone M-T271)	BD Biosciences	Cat#940018; RRID:AB_2875909
CD69-Ab-O (clone FN 50)	BD Biosciences	Cat#940019; RRID:AB_2875910
CD123-Ab-O (clone 7G3)	BD Biosciences	Cat#940020; RRID:AB_2875911
CD45RO-Ab-O (clone UCHL1)	BD Biosciences	Cat#940022; RRID:AB_2875913
CD11c-Ab-O (clone B-Ly6)	BD Biosciences	Cat#940024; RRID:AB_2875915
CD86-Ab-O (clone FUN-1)	BD Biosciences	Cat#940025; RRID:AB_2875916
CD183-Ab-O (clone 1C6/CXCR3)	BD Biosciences	Cat#940030; RRID:AB_2875921
CD196-Ab-O (clone 11A9)	BD Biosciences	Cat#940033; RRID:AB_2875924
CD80-Ab-O (clone L307.4)	BD Biosciences	Cat#940036; RRID:AB_2875927
CD278-Ab-O (clone DX29)	BD Biosciences	Cat#940043; RRID:AB_2875934
CD194-Ab-O (clone 1G1)	BD Biosciences	Cat#940047; RRID:AB_2875938
CD40-Ab-O (clone 5C3)	BD Biosciences	Cat#940049; RRID:AB_2875940
CD137-Ab-O (clone 4B4-1)	BD Biosciences	Cat#940055; RRID:AB_2875946
TCRgd-Ab-O (clone B1)	BD Biosciences	Cat#940057; RRID:AB_2875948
CD163-Ab-O (clone GH1/61)	BD Biosciences	Cat#940058; RRID:AB_2875949
CD134-Ab-O (clone ACT35)	BD Biosciences	Cat#940060; RRID:AB_2875951
Tim3-Ab-O (clone 7D3)	BD Biosciences	Cat#940066; RRID:AB_2875957
CD103-Ab-O (clone Ber-ACT8)	BD Biosciences	Cat#940067; RRID:AB_2875958
CD206-Ab-O (clone 19.2)	BD Biosciences	Cat#940068; RRID:AB_2875959
CD32-Ab-O (clone FLI8.26)	BD Biosciences	Cat#940069; RRID:AB_2875960
CD161-Ab-O (clone DX12)	BD Biosciences	Cat#940070; RRID:AB_2875961
CD39-Ab-O (clone TU66)	BD Biosciences	Cat#970073; RRID:AB_2875964
CD141-Ab-O (clone 1A4)	BD Biosciences	Cat#940079; RRID:AB_2875970
Lag3-Ab-O (clone T47-530)	BD Biosciences	Cat#940080; RRID:AB_2875971
CD1c-Ab-O (clone F10/21A3)	BD Biosciences	Cat#940083; RRID:AB_2875974
CD244-Ab-O (clone 2-69)	BD Biosciences	Cat#940362; RRID:AB_2876232
CD274-Ab-O (clone B7-H1)	BD Biosciences	Cat#940035; RRID:AB_2875926
CX3CR1-Ab-O (clone 2A9-1)	BD Biosciences	Cat#940216; RRID:AB_2876098
VISTA-Ab-O (clone MIH65.rMAb)	BD Biosciences	Cat#940497; RRID:AB_2876339
CCR7-Ab-O (clone 2-L1-A)	BD Biosciences	Cat#940394; RRID:AB_2876258
CD5-Ab-O (clone UCHT2)	BD Biosciences	Cat#940038; RRID:AB_2875929
CD195-Ab-O (clone2D7/CCR5)	BD Biosciences	Cat#940050; RRID:AB_2875941
CXCR6-Ab-O (clone 13B 1E5)	BD Biosciences	Cat#940234; RRID:AB_2876115
CCR2-Ab-O (clone LS132.1D9)	BD Biosciences	Cat#940286; RRID:AB_2876163
Anti-PE-Ab-O (E31-1459) (used to detect IL-1R1-PE antibody in AbSeq experiment)	BD Biosciences (custom)	Cat#2216Z / 120162

Supplementary Table 4

Custom gene panel for Rhapsody experiments (data shown in Figure 4)

For genes in the base panel, please refer to the "Human Immune Response Panel"

(BD Biosciences, #633750)

1	ADAM15	33	FCGR3B	65	MMP2
2	ADAM17	34	FOS	66	MNDA
3	ADAM28	35	FOXO3	67	MRC1
4	AHR	36	GATA3	68	MX1
5	AIF1	37	GZMM	69	MX2
6	ALCAM	38	HIF1A	70	MXRA8
7	AXL	39	HLA-DPB1	71	NLRP3
8	BATF	40	HLA-DQA1	72	PDCD1LG2
9	BIRC5	41	HOPX	73	PTPN6
10	C1ORF54	42	ICOSLG	74	S100A8
11	CAPG	43	ID2	75	S1PR1
12	CCL3L3	44	ID3	76	SBK1
13	CCL4L2	45	IFITM1	77	SERPINA1
14	CCR6	46	IFNGR2	78	SOCS3
15	CD200R	47	IFNL1	79	STK38
16	CD207	48	IL10	80	TGFBR2
17	CD40LG	49	IL10RB	81	TIMP1
18	CD68	50	IL18BP	82	TIMP2
19	CD83	51	IL23A	83	TIMP3
20	CDH1	52	IL27	84	TMEM123
21	CLEC9A	53	IL6R	85	TNFRSF14
22	CLU	54	IL6ST	86	TNFRSF18
23	CRTAM	55	IRF7	87	TNFRSF1B
24	CSF1	56	ITGA1	88	TNFSF12
25	CSF1R	57	ITGA5	89	TOX
26	CSF2RA	58	KLF2	90	TREM2
27	CTSK	59	KLF3	91	TSPAN18
28	CTSS	60	KLF6	92	VCAN
29	DUSP6	61	KLRC2	93	VEGFB
30	EBI3	62	KLRD1	94	XCL1
31	FBLN2	63	LYZ	95	XCL2
32	FBN2	64	MMP1	96	ZFP36