

Supplemental Table 1. Mass-tagged Antibody Panel

Isotope	Antigen	Clone	Phosphorylation site	Supplier
In 113	CD235ab	HIR2		Biolegend
In 113	CD61	VI-PL2		BD
In 115	CD45	HI30		Biolegend
La 139	pSTAT3	4/P	pY705	BD
Pr 141	CD7	M-T701		BD
Nd 142	CD19	HIB19		DVS
Nd 143	STAT1	4a	pY701	BD
Nd 144	CD11b	ICRF44		DVS
Nd 145	CD4	RPA-T4		DVS
Nd 146	CD8a	RPA-T8		DVS
Sm 147	CD127	HCD127		Biolegend
Nd 148	pCREB	87G3	pS133	CST
Sm 149	pP65	K10-895.12.50	pS529	BD
Nd 150	CCR7	150503		R&D
Eu 151	CD123	6H6		DVS
Sm 152	PLCg2	K86-689.37	pY759	BD
Eu 153	CD45RA	HI100		DVS
Sm 154	NkP44	253415		R&D
Gd 156	pP38	36/p38	pT184/pY182	BD
Gd 158	CD33	WM53		Biolegend
Tb 159	CD11c	Bu15		DVS
Gd 160	CD14	M5E2		DVS
Dy 162	CD69	FN50		DVS
Dy 164	pSTAT5	47	pY694	BD
Ho 165	CD16	3G8		DVS
Er 166	FoxP3	PCH101		Ebioscience
Er 167	pMAPKAPK2	27B7	pT334	CST
Er 168	pERK	D13.14.4E	pT202/Y404	CST
Tm 169	CD25	2A3		DVS
Er 170	CD3	UCHT1		DVS
Yb 171	CD66	CD66a-B1.1		DVS
Yb 172	pS6	N7-548	pS235/236	BD
Yb 174	HLA-DR	L243		DVS
Yb 175	CD56	NCAM		BD
Yb 176	pP90RSK	D5D8	pS380	CST

Abbreviations: pCREB, phosphorylated cAMP response element-binding protein; pCREB, phosphorylated cAMP response element-binding protein; pERK1/2, phosphorylated extracellular regulated kinase 1/2; pMAPKAPK2, phosphorylated mitogen activated protein kinase-activated protein kinase-2; pNFkB, phosphorylated nuclear factor kappa-light-chain-enhancer of activated B cells; pPLCg2, phosphorylated phospholipase C gamma 2;

pP38, phosphorylated P38 map kinase; pp90RSK, phosphorylated ribosomal S6 kinase; prpS6, phosphorylated ribosomal protein S6; pSTAT1/3/5, phosphorylated signal transducer and activator of transcription 1/3/5.

Supplemental Table 2. Ligand-evoked Signaling Responses in Pre-surgical Blood Samples

Ligand	Cell type	Signaling protein	Arcsinh ratio (mean±SD)	<i>p</i> value ¹
IL-6	CD14 ⁺ monocyte	pSTAT3	0.437±0.136	2.40x10 ⁻¹⁴
IL-6	CD14 ⁺ monocyte	pSTAT1	0.171±0.092	2.25x10 ⁻⁰⁹
IL-6	CD14 ⁺ monocyte	pCREB	0.235±0.091	3.03x10 ⁻¹²
IL-6	CD14 ⁺ monocyte	pNFkB	0.064±0.039	1.87x10 ⁻⁰⁸
IL-6	CD14 ⁺ monocyte	pP38	0.285±0.135	1.81x10 ⁻¹⁰
IL-6	CD14 ⁺ monocyte	pSTAT5	0.138±0.049	4.68x10 ⁻¹³
IL-6	CD14 ⁺ monocyte	pMAPKAPK2	0.207±0.089	2.16x10 ⁻¹¹
IL-6	CD14 ⁺ monocyte	pERK	0.335±0.152	7.15x10 ⁻¹¹
IL-6	CD14 ⁺ monocyte	pS6	0.324±0.159	3.51x10 ⁻¹⁰
IL-6	CD14 ⁺ monocyte	pP90RSK	0.142±0.077	2.62x10 ⁻⁰⁹
IL-6	CD4 ⁺ T cell	pSTAT3	0.224±0.152	2.05x10 ⁻¹¹
IL-6	CD4 ⁺ T cell	pSTAT5	0.234±0.159	2.97x10 ⁻¹⁴
IL-6	CD8 ⁺ T cell	pSTAT3	0.069±0.045	5.36x10 ⁻⁰⁸
IL-6	CD8 ⁺ T cell	pSTAT5	0.044±0.033	8.26x10 ⁻⁰⁷
IL-2/GMCSF	CD14 ⁺ monocyte	pSTAT3	0.013±0.021	ns
IL-2/GMCSF	CD14 ⁺ monocyte	pSTAT1	0.152±0.074	2.65x10 ⁻¹⁰
IL-2/GMCSF	CD14 ⁺ monocyte	pCREB	0.367±0.118	4.80x10 ⁻¹⁴
IL-2/GMCSF	CD14 ⁺ monocyte	pNFkB	0.109±0.058	1.65x10 ⁻⁰⁹
IL-2/GMCSF	CD14 ⁺ monocyte	pP38	0.238±0.129	2.48x10 ⁻⁰⁹
IL-2/GMCSF	CD14 ⁺ monocyte	pSTAT5	1.855±0.253	1.41x10 ⁻²²
IL-2/GMCSF	CD14 ⁺ monocyte	pMAPKAPK2	0.335±0.113	1.28x10 ⁻¹³
IL-2/GMCSF	CD14 ⁺ monocyte	pERK	0.929±0.285	1.75x10 ⁻¹⁴
IL-2/GMCSF	CD14 ⁺ monocyte	pS6	0.562±0.223	4.79x10 ⁻¹²
IL-2/GMCSF	CD14 ⁺ monocyte	pP90RSK	0.367±0.159	2.94x10 ⁻¹¹
IL-2/GMCSF	CD4 ⁺ T cell	pSTAT3	0.007±0.006	6.39x10 ⁻⁰⁶
IL-2/GMCSF	CD4 ⁺ T cell	pSTAT5	1.606±0.284	5.93x10 ⁻²⁰
IL-2/GMCSF	CD8 ⁺ T cell	pSTAT3	0.008±0.007	3.52x10 ⁻⁰⁶
IL-2/GMCSF	CD8 ⁺ T cell	pSTAT5	1.677±0.262	3.51x10 ⁻²¹
LPS	CD14 ⁺ monocyte	pSTAT3	0.011±0.007	ns
LPS	CD14 ⁺ monocyte	pSTAT1	0.122±0.068	3.82x10 ⁻⁰⁹
LPS	CD14 ⁺ monocyte	pCREB	0.463±0.126	1.22x10 ⁻¹⁵
LPS	CD14 ⁺ monocyte	pNFkB	0.249±0.089	4.95x10 ⁻¹³
LPS	CD14 ⁺ monocyte	pP38	2.001±0.221	8.96x10 ⁻²⁵
LPS	CD14 ⁺ monocyte	pSTAT5	0.014±0.033	ns
LPS	CD14 ⁺ monocyte	pMAPKAPK2	1.552±0.241	3.03x10 ⁻²¹
LPS	CD14 ⁺ monocyte	pERK	0.970±0.205	3.95x10 ⁻¹⁸
LPS	CD14 ⁺ monocyte	pS6	0.625±0.235	1.45x10 ⁻¹²

LPS	CD14 ⁺ monocyte	pP90RSK	0.515±0.192	1.21x10 ⁻¹²
LPS	CD4 ⁺ T cell	pSTAT3	0.000±0.007	ns
LPS	CD4 ⁺ T cell	pSTAT5	0.000±0.020	ns
LPS	CD8 ⁺ T cell	pSTAT3	-0.003±0.010	ns
LPS	CD8 ⁺ T cell	pSTAT5	0.000±0.009	ns
IL-10	CD14 ⁺ monocyte	pSTAT3	0.502±0.173	2.27x10 ⁻¹³
IL-10	CD14 ⁺ monocyte	pSTAT1	0.094±0.073	1.11x10 ⁻⁰⁶
IL-10	CD14 ⁺ monocyte	pCREB	0.051±0.094	ns
IL-10	CD14 ⁺ monocyte	pNFkB	0.019±0.039	ns
IL-10	CD14 ⁺ monocyte	pP38	0.106±0.166	ns
IL-10	CD14 ⁺ monocyte	pSTAT5	0.137±0.039	4.30x10 ⁻¹⁵
IL-10	CD14 ⁺ monocyte	pMAPKAPK2	0.063±0.138	ns
IL-10	CD14 ⁺ monocyte	pERK	0.057±0.103	ns
IL-10	CD14 ⁺ monocyte	pS6	0.037±0.157	ns
IL-10	CD14 ⁺ monocyte	pP90RSK	0.027±0.044	ns
IL-10	CD4 ⁺ T cell	pSTAT3	0.264±0.128	2.46x10 ⁻¹⁰
IL-10	CD4 ⁺ T cell	pSTAT5	0.175±0.055	3.30x10 ⁻¹⁴
IL-10	CD8 ⁺ T cell	pSTAT3	0.293±0.138	1.41x10 ⁻¹⁰
IL-10	CD8 ⁺ T cell	pSTAT5	0.097±0.044	7.07x10 ⁻¹¹

1) ns indicates non-significant based on Bonferroni-corrected p-value > 8.92x10⁻⁴.

Abbreviations: GMCSF, Granulocyte macrophage colony-stimulating factor; IL-2, interleukin 2; IL-6, interleukin 6; IL-10, interleukin 10; LPS, lipopolysaccharide; pCREB, phosphorylated cAMP response element-binding protein; pERK1/2, phosphorylated extracellular regulated kinase 1/2; pMAPKAPK2, phosphorylated mitogen activated protein kinase-activated protein kinase-2; pNFkB, phosphorylated nuclear factor kappa-light-chain-enhancer of activated B cells; pP38, phosphorylated P38 map kinase; pp90RSK, phosphorylated ribosomal S6 kinase; prpS6, phosphorylated ribosomal protein S6; pSTAT1/3/5, phosphorylated signal transducer and activator of transcription 1/3/5.