

Materials List for:

# Single-cell Analysis of Immunophenotype and Cytokine Production in Peripheral Whole Blood via Mass Cytometry

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## Materials

Name	Company	Catalog Number	Comments
Ruxolitinib	Santa Cruz	SC-364729A	Stock Conc: 10 mM; Final Conc: 5 μM
R848	Invivogen	tirl-r848-5	Stock Conc: 1 μg/μL; Final Conc: 1 μg/mL
LPS-EK	Invivogen	tirl-eklps	Stock Conc: 1 μg/μL; Final Conc: 0.1 μg/mL
Sterile PBS	Lonza	17-516F	
Lyse/Fix Buffer	BD biosciences	558049	Stock Conc: 5X; Final Conc: 1X (dilute in ddH2O)
BD Phosflow perm/wash buffer I	BD biosciences	557885	Stock Conc: 10X; Final Conc: 1:10 (dilute in ddH2O)
RPMI	Gibco	21870-076	
Sodium Azide (NaN <sub>3</sub> )	Sigma-Aldrich	S-8032	Stock Conc:>99.9%; Final Conc: 0.0002
Protein Transport Inhibitor (PTI)	eBiosciences	00-4980-93	Stock Conc: 500X; Final Conc: 1X
DNA Intercalator	Fluidigm	201192B	Stock Conc: 500 μM; Final Conc: 0.1 μM
Cell Staining Media (CSM)			PBS + 0.5% BSA, 0.02% NaN <sub>3</sub>
MaxPar Barcode Perm Buffer	Fluidigm	201057	Stock Conc: 10X; Final Conc: 1X
20-plex Pd Barcode Set	Fluidigm	S0014	Stock Conc: n/a; Final Conc: n/a
EQ™ Four Element Calibration Beads	Fluidigm	201078	Stock Conc: 10X; Final Conc: 1X
16% MeOH-free Formaldehyde Solution	Thermo	28908	Stock Conc: 16% (w/v); Final Conc: 1.6% (w/v)
Sterile round bottom polystyrene tubes	VWR	60818-496	Stock Conc: n/a; Final Conc: n/a
Polypropylene cluster tubes	Light Labs	A-9001	Stock Conc: n/a; Final Conc: n/a
Helios CyTOF instrument	Fluidigm	Helios	All solutions to be used in CyTOF analysis need to be free of metal contamination. ddH <sub>2</sub> O is used in the preparation of any solutions should have a resistivity of at least 18.0 MΩ.cm. ddH <sub>2</sub> O and any self-prepared solutions should be stored in new plastic or glass bottles that have never been autoclaved.
Name	Company	Catalog Number	Comments

<b>Antibodies used for Mass Cytometry</b>			
<b>Surface markers</b>			
CD1c	Biolegend	L161	Mass: 161
CD3	BD	UCHT1	Mass: 144
CD4	Biolegend	SK3	Mass: 174
CD7	BD	M-T701	Mass: 149
CD8	Biolegend	SK1	Mass: 142
CD11b	Fluidigm	ICRF44	Mass: 209
CD11c	BD	B-ly6	Mass: 152
CD15	BD	HI98	Mass: 115
CD14	Biolegend	M5E2	Mass: 154
CD16	eBioscience/Thermo	B73.1	Mass: 165
CD19	Santa Cruz	SJ25C1	Mass: 163
CD21	Biolegend	Bu32	Mass: 141
CD27	BD	L128	Mass: 155
CD38	Fluidigm	HIT2	Mass: 172
CD45 total	Biolegend	HI30	Mass: 89
CD45RA	Biolegend	HI100	Mass: 153
CD56	Miltenyi	REA196	Mass: 168
CD66	BD	B1.1/CD66	Mass: 113
CD86	Fluidigm	IT2.2	Mass: 150
CD123	Fluidigm	6H6	Mass: 143
CD278/ICOS	Biolegend	C398.4A	Mass: 156
CD179/PD1	Biolegend	EH12.2H7	Mass: 162
IgD	Biolegend	IA6-2	Mass: 146
IgM	Biolegend	MHM-88	Mass: 151
CXCR5	BD	RF8B2	Mass: 173
HLADR	Biolegend	L243	Mass: 167
<b>Cytokines</b>			
IL-1 $\alpha$	Biolegend	364-3B3-14	Mass: 147
IL-1 $\beta$	Biolegend	H1b-98	Mass: 169
IL-1RA	Santa Cruz	AS17	Mass: 157
IL-6	Biolegend	MQ2-13A5	Mass: 164
IL-8	BD	E8N1	Mass: 160
IL-12/IL-23p40	Biolegend	C8.6	Mass: 171
IL-17A	Biolegend	BL168	Mass: 148
IL23p19	eBioscience/Thermo	23dcdp	Mass: 176
MIP1 $\beta$	BD	D21-1351	Mass: 158
MCP1	BD	5D3-F7	Mass: 170
IFN $\alpha$	Miltenyi	LT27:295	Mass: 175
IFN $\gamma$	Biolegend	4S.B3	Mass: 165
PTEN	BD	A2B1	Mass: 159
TNF $\alpha$	Biolegend	Mab11	Mass: 166
<b>Note:</b> If the manufacturer is stated as Fluidigm, this antibody was purchased from Fluidigm			

<p>with metal pre-conjugated. If the manufacturer is stated as other than Fluidigm, this antibody was self-conjugated using the MaxPar Multi-Metal Labeling Kit (Fluidigm Cat: 201300) according to manufacturer protocol.</p>			
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