

CellCarta has deep expertise in developing flow cytometry panels for clinical use and provides the highest standard of quality with CAP accredited and CLIA certified sites.

To support the monitoring of all immune cell populations, we catered a list of specific panels for both your whole blood and cryopreserved PBMC samples.

Off-The-Shelf Panels

OTS panels were pre-developed and validated at all global sites with the same level of validation and provide the fastest runway to clinical sample analysis.

OTS Panels for Whole Blood Samples

TBNK - WB1	TBNK - WB2	TBNK - WB3	Immune Cells - WB1
- T cell - B cell - NK cells - Absolute cell count	- T cell - B cell - NK cells - Absolute cell count	- T cell - B cell - NK cells - Monocytes - Absolute cell count	- T cell - B cell - Monocytes/subsets - NK cell/subsets - NKT - Cell proliferation - Cell activation - Cell cytotoxicity - CD38 monitoring
CD45	CD45	CD45	CD45
CD3	CD3	CD3	CD3
CD4	CD4	CD4	CD4
CD8	CD8	CD8	CD8
CD16/CD56	CD16/CD56	CD14	CD14
CD19	CD19	CD16	CD16
	CD20	CD19	CD19
		CD56	CD38
			CD56
			CD57
			CD69
			CD314 (NKG2D)
			HLA-DR
			Granzyme B
			Perforin
			Ki-67
			IFN-γ

■ T cells
 ■ B cells
 ■ Monocytes/myeloid
 ■ NK

OTS Panels for Whole Blood Samples

Immune Cells - WB2	T Cell - WB1	B cell - WB1
- T cell - B cell (plasma cells, abnormal plasma cells, non-plasma cells) - Monocytes/subsets - NK cell/subsets - NKT - CD38 monitoring - BCMA monitoring - Absolute cell count	- Memory T cell - Treg - T cell activation - T cell exhaustion - T cell proliferation - T cell cytotoxicity - Immune checkpoints	- B cell memory - B cell class switching - B cell activation - Plasma cells/plasmablasts
CD45	CD3	CD45
CD3	CD4	CD19
CD4	CD8	CD20
CD8	CD14/CD16/CD19	CD21
CD14	CD25	CD24
CD16	CD39	CD27
CD19	CD45RA	CD38
CD38	CD127	CD40
CD56	CCR7 (CD197)	CD86
CD123	FoxP3	CD95 (FAS)
CD138	HLA-DR	CD138
PD-L1 (CD274)	PD-1 (CD279)	IgD
BCMA (TNFRSF17)	LAG-3 (CD223)	
	TIM-3 (CD366)	
	4-1BB (CD137)	
	Ki-67	
	Granzyme B	

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OTS Panels for PBMC Samples

T cell - PBMC1	T cell - PBMC2	B cell - PBMC2	ICS - PBMC1
• T cell memory • T cell activation • T cell exhaustion • Treg • Immune checkpoints	• T cell memory • T cell proliferation • Immune checkpoints	• Plasma cell/plasmablast • B cell memory • B cell class switching • B cell activation	• T cell memory • Th1/Th2/Tfh Functionality • T cell activation • Cytotoxicity • Requires stimulation
Viability	Viability	Viability	Viability
CD3	CD3	CD45	CD3
CD4	CD4	CD19	CD4
CD8	CD8	CD20	CD8
CD25	CD45RA	CD21	CD14/CD19/CD56
CD28	CD57	CD24	CD45RA
CD38	CD95	CD38	CD69
CD45RA	CD127	CD138	CD107a
CD69	CD197 (CCR7)	CD27	CD154 (CD40L)
CD197 (CCR7)	ICOS (CD278)	IgD	CD197 (CCR7)
FoxP3	Ki-67	IgM	CXCR5
HLA-DR	KLRG1	IgG	IFN-γ
Ki-67	PD-1 (CD279)	CD95	TNFα
PD-1 (CD279)	T-bet	CD86	IL-2
TIM-3 (CD366)	TCF1	CD40	IL-4/ IL-13
	TIM-3 (CD366)		IL-21
			Perforin

■ T cells
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Catalogue Panels

Catalogue panels were pre-developed and validated at specific sites and can be rapidly deployed upon request.

Catalogue Panels for Whole Blood Samples

Spectral - Immune Cells - WB1	T cell - WB2	T cell - WB3	T cell - WB4	T cell - WB5
- B cell/subset, plasma cells, plasmablasts, memory, class switching - Dendritic cell/subset, maturation, activation - Granulocyte - NK cell/subset - Monocyte/subset - NKT	- Memory T cell - Th1 - Th2 - Th17 - Th polarization	- Memory T cell - T follicular helper cells - Th1 - Th2 - Th9 - Th17 - Th polarization - NKT - NK cells/subsets - Immune Checkpoints	- T cell memory - T cell proliferation - Treg - Immune Checkpoints	- T cell activation - T cell exhaustion - T cell proliferation - Treg - Immune Checkpoints
CD45	CD45	CD45	CD45	CD45
CD3	CD3	CD3	CD3	CD3
CD14	CD4	CD4	CD4	CD4
CD16	CD8	CD8	CD8	CD8
CD19	CD45RA	CD16	CD25	CD25
CD20	CXCR3 (CD183)	CD25	CD45RA	CD38
CD56	CCR4 (CD194)	CD45RA	CCR7 (CD197)	CD69
CD66b	CCR6 (CD196)	CD56	OX-40 (CD134)	CD127
CD21	CCR7 (CD197)	CD127	PD-1 (CD279)	LAG-3 (CD223)
CD24	CCR10	CCR7 (CD197)	TIM-3 (CD366)	PD-1 (CD279)
CD38		CXCR3 (CD183)	FoxP3	TIM-3 (CD366)
CD138		CXCR5 (CD185)	Ki-67	FoxP3
CD27		CCR4 (CD194)		HLA-DR
IgD		CCR6 (CD196)		Ki-67
IgM		PD-1 (CD279)		
CD1c				
CD11c				
CD23				
CD123				
CD141				
CD303				
CD304				
HLA-DR				

■ T cells
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Catalogue Panels for Whole Blood Samples

B cell - WB2	B cell - WB3	NK cell - WB1	Monocyte - WB1	Dendritic cells - WB1
- B cell memory - B cell class switching - B cell activation - Plasma cells/plasmablasts - Regulatory B cells	- B cell memory - B cell class switching - Abnormal B cells	- NK cell/subsets - CD8 T cells - NKT cells - Monocytes/subsets - Cell activation - Cell cytotoxicity - Cell proliferation	- Monocytes/subsets - Dendritic cells (mDC1, mDC2, pDC) - DC maturation	- Dendritic cells (mDC1, mDC2, pDC) - DC maturation - DC activation
CD45	CD45	CD45	CD45	CD45
CD1d	CD3/CD14/CD56	CD3	CD3/CD56/CD19/CD20	CD3/CD19/CD20/CD56/CD14
CD5	CD19	CD8	CD1c	CD1c
CD19	CD20	CD14	CD11c	CD11c
CD20	CD27	CD16	CD14	CD40
CD24	IgD	CD19	CD16	CD80
CD27	IgM	CD56	CD83	CD83
CD38	IgG	CD69	CD123	CD123
CD40	CD5	CD107a	CD141	CD141
CD80	CD10	Granzyme B	CCR2 (CD192)	CD40L (CD154)
CD86	CD22	Ki-67	CX3CR1	BDCA-2 (CD303)
CD138	CD79b	Perforin	BDCA-2 (CD303)	BDCA-4 (CD304)
IgD	CD200		BDCA-4 (CD304)	HLA-DR
IgM			HLA-DR	

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Catalogue Panels for PBMC Samples

Spectral - T Cell - PBMC1	T cell - PBMC3	T cell - PBMC4	ICS - PBMC2	Lympho/Myeloid - PBMC1	B cell - PBMC1	B cell - PBMC3
- Treg - Memory T cell - T cell activation - T cell proliferation - T cell exhaustion - Immune checkpoint	- T cell memory - T cell activation - Helper T cell polarization - Treg - Immune Checkpoints	- Treg - Memory T cell - T cell activation - T cell proliferation - T cell exhaustion - Immune checkpoint	- CD4 and CD8 T cells - Th1/Th2 cytokines - IL-6 - Cytotoxicity - B cell help - Requires stimulation	- T cells - NKT cells - γδ T cells - NK cells/subsets - Monocytes/subsets - mMDSC/eMDSC - Dendritic cells (pDC, mDC1, mDC2)	- B cell memory - B cell class switching - B cell activation - Plasma cells/plasmablasts	- B cell memory - Abnormal B cells
Viability	Viability	Viability	Viability	Viability	Viability	Viability
CD45	CD19	CD3	CD3	CD1c	CD45	CD3/CD56/CD14
CD3	CD3	CD4	CD4	CD3	CD19	CD19
CD4	CD4	CD8	CD8	CD11b	CD20	CD20
CD8	CD8	CD25	CD14/CD19/CD56	CD11c	CD21	CD27
CD14	CD25	CD127	CD40L (CD154)	CD14	CD24	IgD
CD16	CD69	FoxP3	Granzyme B	CD15	CD27	CD79b (Igβ)
CD19	CD45RA	CD45RA	IFN-γ	CD16	CD38	CD5
CD56	CCR4 (CD194)	CD197 (CCR7)	IL-2	CD33	CD40	CD10
HLA-DR	CCR6 (CD196)	CD27	IL-4	CD56	CD86	CD22
CD25	CCR7 (CD197)	CD95	IL-6	CD64	CD95 (FAS)	
CD127	CCR10	CD38	IL-5	CD86	CD138	
FoxP3	CXCR3 (CD183)	ICOS	IL-13	CD123	IgD	
CD45RA	FoxP3	Ki-67	Perforin	CD141		
CD197 (CCR7)	HLA-DR	CD57	TNFα	CD370		
CD28	PD-1 (CD279)	PD-1 (CD279)		HLA-DR		
CD39		LAG3 (CD223)		TCRγδ		
TOX		TIM-3 (CD366)				
TCF1/7						
Granzyme B						
CD38						
Ki-67						
PD-1 (CD279)						
LAG3 (CD223)						
TIM-3 (CD366)						

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 Spectral Modules

Immune Cell Markers	
Population Name	Common markers
Lymphocyte	CD45
T Cell	CD3/CD4/CD8
T Memory	CCR7/CD45RA/CD27 /CD28/ CD95/TCF1/7
T Regulatory	CD25/CD127/FoxP3
TCR	TCR $\gamma\delta$
Monocyte	CD14/CD16/HLA-DR
NK Cell	CD56/CD16/NKG2D
B Cell	CD19/CD20/CD27/IgD/IgM/CD21/CD24/CD38/CD138/CD1d/ IgG
Granulocytes/Neutrophils	CD15/CD16
Myeloid Cell	CD33/CD11b/CD11c/CD1c/CD123/CD141/CD303/CD304/CD370/CD64/CD23/CD66b
Intracellular Cytokines	IFN- γ /IL-2/IL-22/IL-4/IL-17A/IL-21/IL-13/IL-5/IL-6/TNF α
Cytotoxic/Degranulation Markers	CD107a/Granzyme B/Perforin
Activation/Proliferation Markers	Ki-67/CD69/HLA-DR/CD38/CD154/CD137/CD86/CD40/CD134/CD95/CD80/CD83
Immune Checkpoint	PD-1/PD-L1/TIM-3/LAG3
Exhaustion Markers	KLRG1/T-bet/TCF-1/CD57/CD39/TOX
Homing Receptors	CCR10/CXCR3/CCR4/CCR6/CXCR5/CX3CR1/CCR2
Immunological Malignancy Markers	BCMA/CD38/CD5

Reach out to our team for details on your panel(s) of interest.

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ABOUT CELLCARTA

Leading provider of specialized precision medicine laboratory services to the biopharmaceutical industry. Leveraging its integrated analytical platforms in immunology, histopathology, proteomics and genomics, as well as related specimen collection and logistics services, CellCarta supports the entire drug development cycle, from discovery to late-stage clinical trials. The company operates globally with 9 facilities located in Canada, USA, Belgium, Australia and China.

For more information on how CellCarta can partner with you, please contact us:

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