

BD® OMICS-One APC/Myeloid-Cell Protein Panel

The power of protein + RNA without the high cost and complexity

Deep dive into antigen-presenting cell (APC)/myeloid cell-centric innate biology using a validated panel that simplifies the CITE-seq workflow and minimizes your sequencing costs. This panel is designed with 30 key specificities that will help you explore APC and myeloid cell populations and functional states with ease. BD® OMICS-One Protein Panels also support single-cell protein-only profiling studies. Reach out to your BD sales representative for more information.



Flexible: Compatible with other BD® OMICS-One Protein Panels or drop-ins from our growing library of more than 470 single-vial BD® AbSeq Antibody-Oligo Reagents



SMART: Designed to lower your sequencing cost without compromising sensitivity



Multiomics enabled: Optimized to work with single-cell RNA-seq assays for multiomics studies

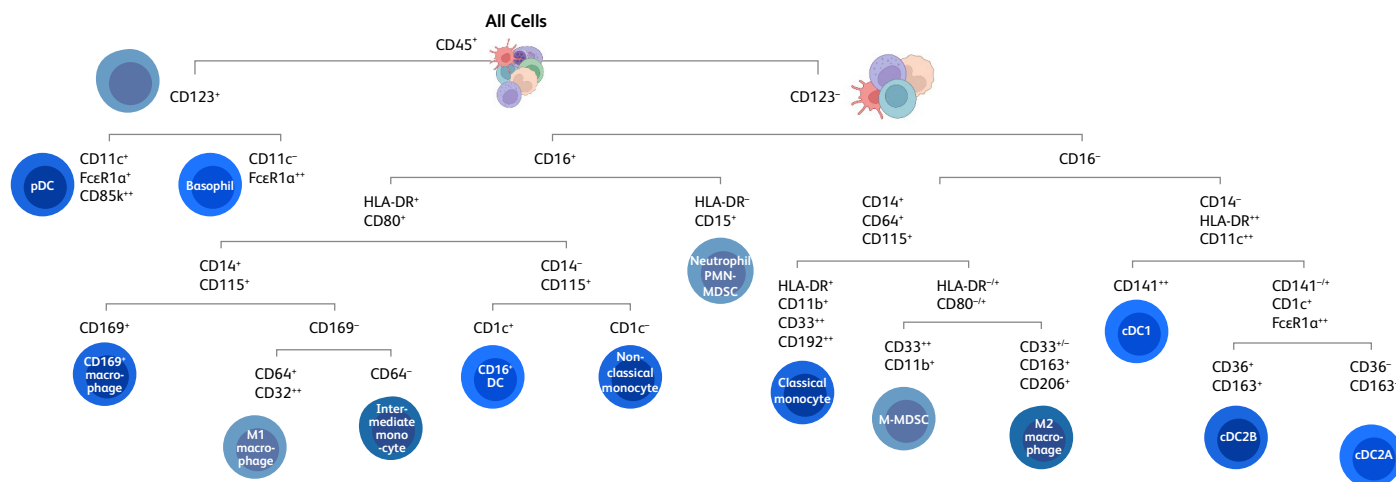
Panel content

Specificity	Clone
CD1c	F10/21A3
CD11b	M1/70
CD11c	B-LY6
CD14	MφP9
CD15	W6D3
CD16	3G8
CD32	FLI8.26
CD33	WM53
CD36	IVC7
CD40	5C3

Specificity	Clone
CD45*	HI30
CD64	10.1
CD80	L307.4
CD85k	ZM3.8
CD103	Ber-ACT8
CD115 (CSF1R)	9-4D2-1E4
CD116	hGMCSFR-M1
CD123	7G3
CD141	1A4
CD162	KPL-1

Specificity	Clone
CD163	GHI/61
CD169	7-239
CD192 (CCR2)	LS132.1D9
CD195 (CCR5)	2D7/CCR5
CD206	19.2
CD273	MIH18
CD274 (PD-L1)	MIH1
FcεR1α	AER-37
HLA-DR*	G46-6
VISTA	MIH65.rMAb

*SMART-titrated targets



SMART-titrated markers
CD45 and HLA-DR

Immune-checkpoint regulation
CD273 (PD-L2)
CD274 (PD-L1)
CD40
VISTA

Cell growth, trafficking and adhesion
CD103 (ITGAE)
CD162 (PSGL-1)
CD195 (CCR5)
CD116 (CSF2R)

Symbols

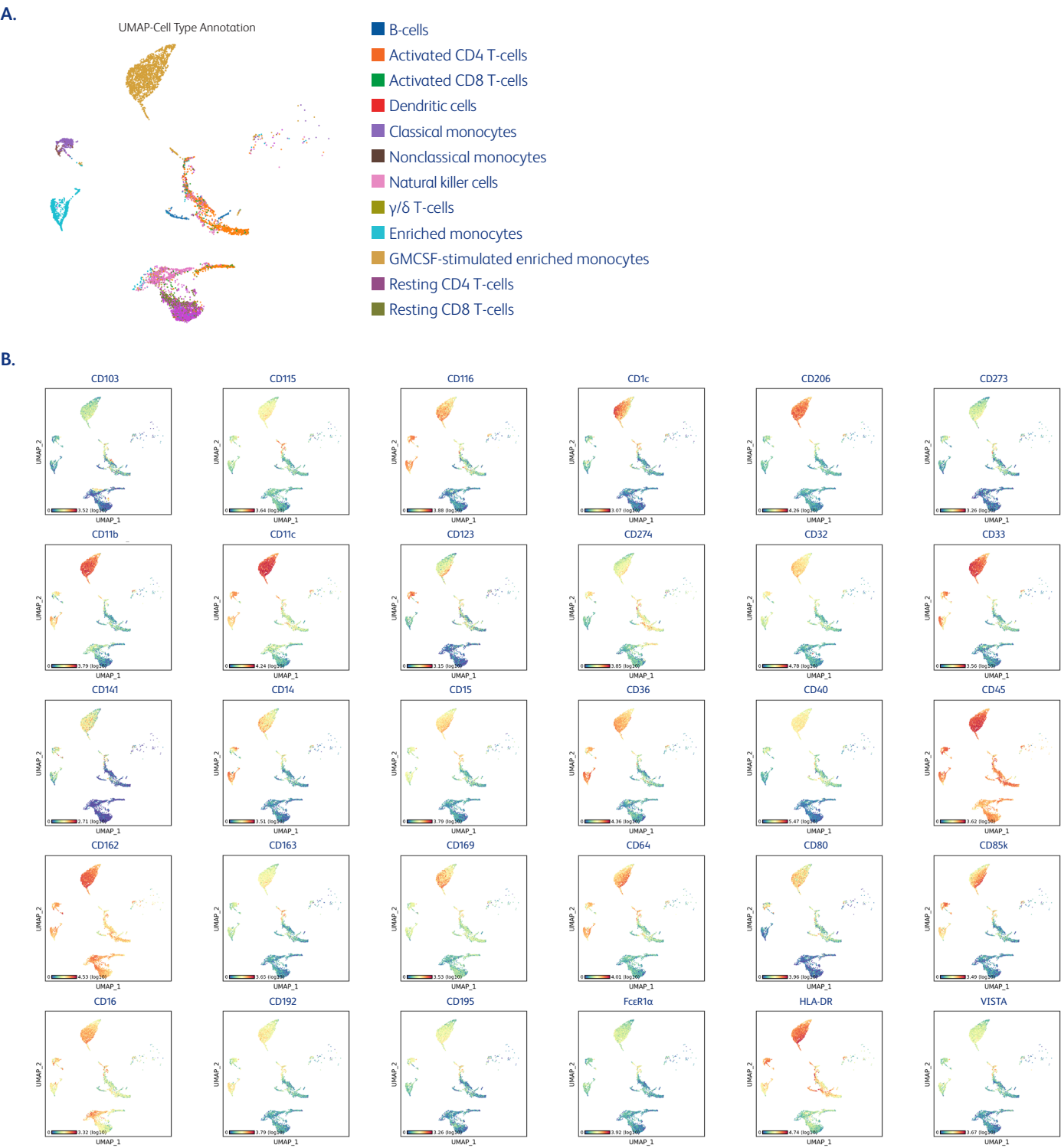
Positive expression: + or ++
Low or negative expression: -

APC and myeloid cell populations, activation status and immunoregulatory functions monitored by this panel



Reliably detect 30 key APC and myeloid cell protein markers

Performance of all 30 markers included in the BD® OMICS-One APC/Myeloid-Cell Protein Panel is optimized for detection in each cell type.



Performance of all 30 antibody-oligos included in the BD® OMICS-One APC/Myeloid-Cell Protein Panel. PBMCs (resting, PHA stimulated and CD3/CD28/IL2 stimulated), enriched monocytes and GM-CSF-stimulated enriched monocytes were labeled with BD® Human Single-Cell Multiplexing Kit Sample Tags and pooled. The single-cell suspension was stained with reconstituted BD® OMICS-One APC/Myeloid-Cell Protein Panel. After staining, cells were captured on the BD Rhapsody™ Single-Cell Analysis System. AbSeq, WTA and SMK libraries were generated and sequenced. **A.** Cell annotation on UMAP of various cell types resolved by the WTA mRNA profile. **B.** Heat maps of each marker detected by the BD® OMICS-One APC/Myeloid-Cell Protein Panel on UMAP showing the specificity of detection for individual cell types.

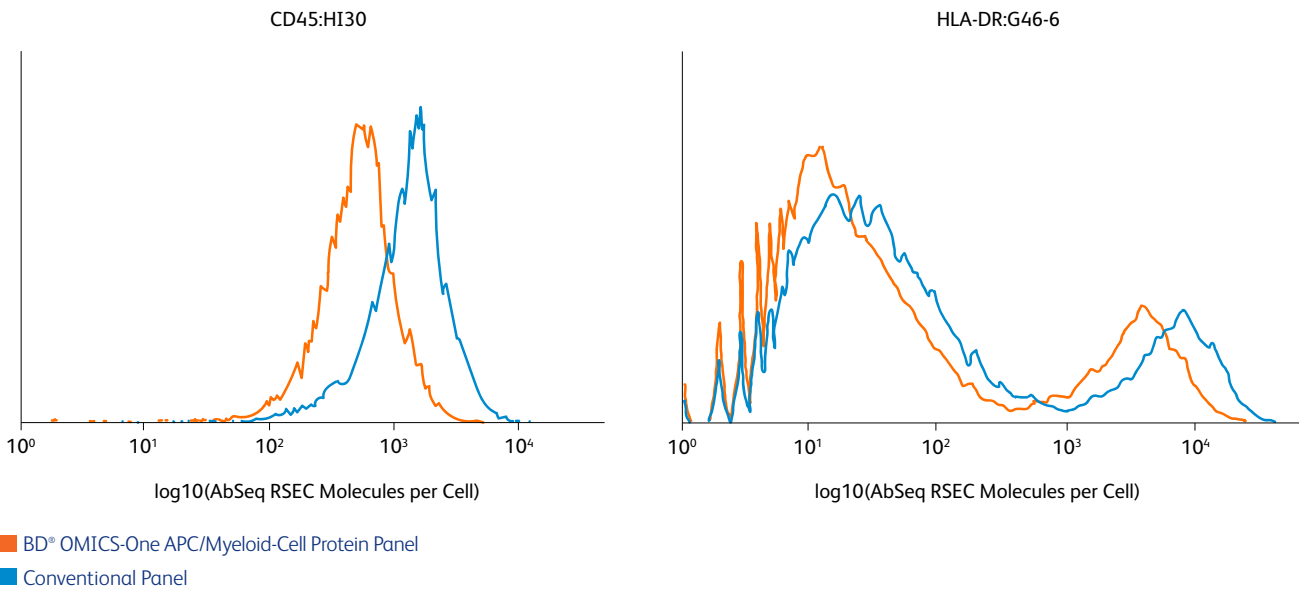
Manage sequencing costs and improve detection sensitivity with SMART panel design

SMART panel design helps lower sequencing costs while increasing data resolution by using pretitrated, optimal concentrations of antibody-oligos against select high-expressing primary markers in the panel. This allows reallocation of sequencing reads otherwise allotted to these high expressors to now detect secondary and tertiary cell surface markers expressed at lower levels.

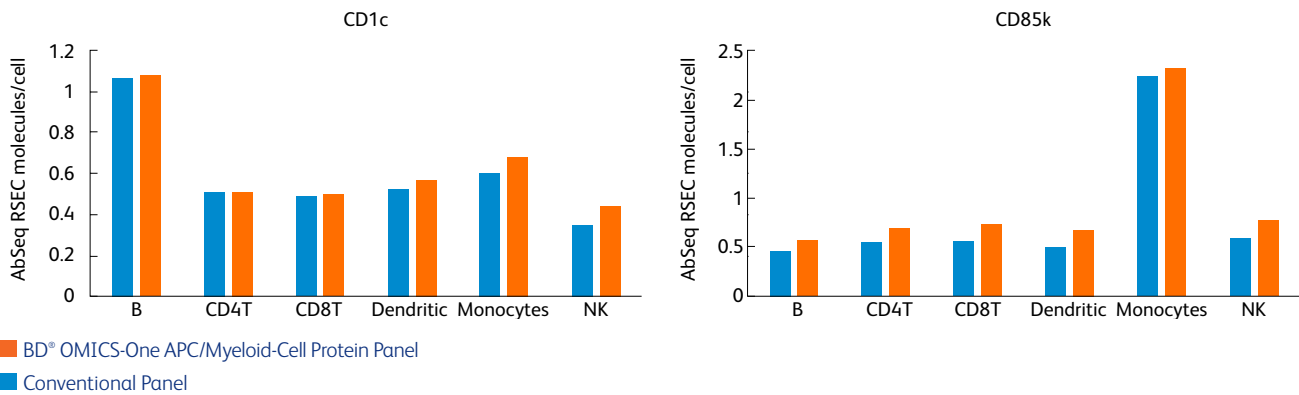
The two specificities selected for SMART panel design in the BD® OMICS-One APC/Myeloid-Cell Protein Panel are CD45 and HLA-DR.

A.

Marker	SMART Panel	Conventional Panel
CD45	99% Positive	99% Positive
HLA-DR	23% Positive	23% Positive




B.




CD45 and HLA-DR detection is not compromised, while better resolution of low expressors is achieved with SMART panel design A. CD45 and HLA-DR detection with SMART panel design is not compromised compared to a freshly pooled antibody-oligo panel without SMART panel design, indicated by a comparable number of positive cells in the test sample, albeit with lower AbSeq molecule count. B. Lowly expressed proteins CD1c and CD85k are better resolved with the BD® OMICS-One APC/Myeloid-Cell Protein Panel with SMART panel design (orange bars) compared to a freshly pooled antibody-oligo panel (blue bars).


Part of a complete single-cell multiomics solution




Epigenomics




Transcriptomics




Immune Profiling




CITE-Seq
Protein Panels



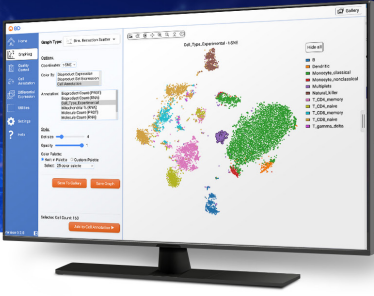
Multiomics



Million-Cell
Throughput



Validated Multiomic
Kits and Protocols



Simple and Free
Bioinformatics

Ordering information

Description	Cat. No.
BD® OMICS-One APC/Myeloid-Cell Protein Panel	572435



Visit bdbiosciences.com/APCPanel to learn more about this panel and review complete performance data.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

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