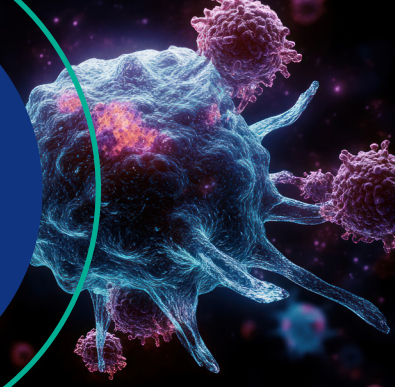
83-plex Innate Immuno-Oncology Discovery Panel

BD® OMICS-One Innate Immuno-Oncology Protein Panel



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

Deep dive into tumor and innate immune cell biology using a validated panel that simplifies the CITE-seq workflow and minimizes your sequencing cost. This panel is designed with 83 key specificities that will help you profile most major natural killer (NK) cell, antigen-presenting cell (APC)/myeloid cell and tumor markers to uncover innate immune cell type and states within your oncology research 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
CD2*	RPA-2.10
CD3**	UCHT1
CD11b**	M1/70
CD11c	B-LY6
CD14	MPHIP9
CD15	W6D3
CD16**	3G8
CD24	ML5
CD26	M-A261
CD27**	M-T271
CD29	MAR4
CD31 (PECAM1) */**	0
CD32	FLI8.26
CD33	WM53
CD34**	581
CD36	IVC7
CD38**	HIT2
CD40**	5C3
CD44*/**	L178
CD45*/**	HI30
CD47	B6H12
CD49a	SR84
CD49d	9F10
CD54**	HA58
CD56	NCAM16.2
CD58	1C3
CD63	H5C6

Specificity	Clone
CD64	10.1
CD66	B1.1/CD66
CD80**	L307.4
CD85K	ZM3.8
CD90	5E10
CD94	HP-3D9
CD96	6F9
CD103**	BER-ACT8
CD106	51-10C9
CD115 (CSF1R)	9-4D2-1E4
CD116	Hgmcsfr1-M1
CD117	YB5.B8
CD122	Mik-β3
CD123	7G3
CD133	W6B3C1
CD140b (PDGFR)	28D4
CD140a	α-R1
CD141	1A4
CD146	P1H12
CD155	TX24
CD158b (KIR)	DX27
CD158e1	DX9
CD161 (KLRB1)	HP-3G10
CD162	KPL-1
CD163	GHI/61
CD169	7-239
CD184 (CXCR4)**	12G5
CD192 (CCR2)	LS132.1D9

Specificity	Clone
CD195 (CCR5)	2D7/CCR5
CD206	19.2
CD226	DX11
CD227 (MUC1)	HMFG2
CD248	B1/35
CD273	MIH18
CD274 (PD-L1)**	MIH1
CD279 (PD-1)**	EH12.1
CD314 (NKG2D)	1D11
CD324 (E-Cad)	67A4
CD325 (N-Cad)	8C11
CD326 (EpCam)	EBA-1
CD329 (Siglec-9)	E10-286
CD335 (NKP46)	9E2/NKP46
CD336 (NKP44)	p44-8
CD337/NKp30	P30-15
CX3CR1	2A9-1
C-MET	3D6
EGFR	EGFR.1
EphB2	2H9
FCeR1a	AER-37
HLA-A,B,C*	G46-2.6
HLA-DR*/**	G46-6
ITGRN BTA 7	FIB504
NOTCH1	MHN1-519
PDPLN	LPMAB-17
VISTA**	MIH65.RMAB

*SMART-titrated targets

**The BD® OMICS-One Innate Immuno-Oncology Protein Panel comprises three individual lyophilized 30-plex protein panels—the BD® OMICS-One NK-Cell, APC/Myeloid-Cell and Tumor Protein Panels; these are overlapping specificities in the three protein panels.

BD

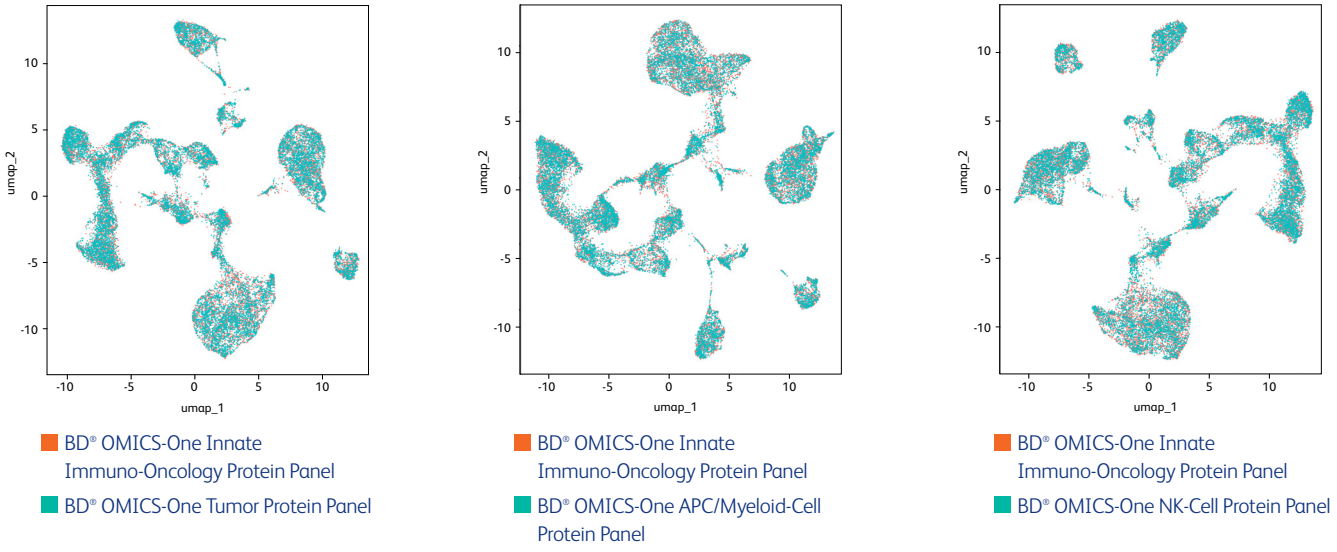
Manage sequencing costs and improve detection sensitivity with SMART panel design

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.

Scalable high-plex protein profiling solution with modular panel design

The 83-plex BD® OMICS-One Innate Immuno-Oncology Protein Panel offers unmatched flexibility by combining three independently lyophilized 30-plex antibody-oligo panels—BD® OMICS-One NK-Cell, APC/Myeloid and Tumor Protein Panels—while preserving the performance of each individual panel. This modular design also allows the seamless combination of BD® OMICS-One Protein Panels or the addition of drop-ins from BD® AbSeq Antibody-Oligo Reagents of interest.

A.



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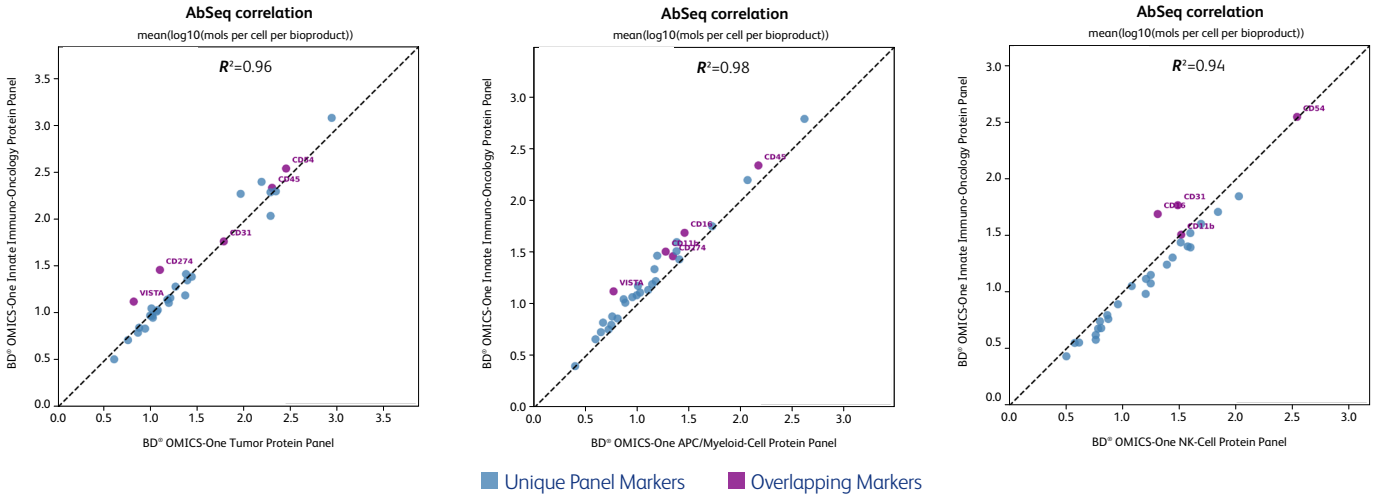
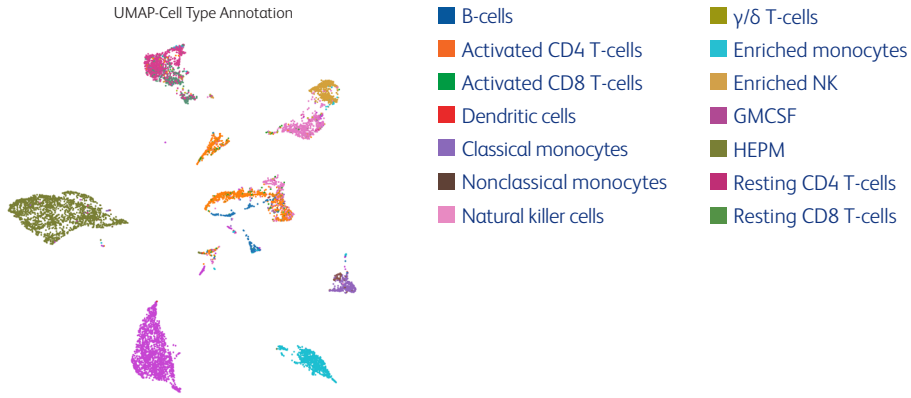


Similar performance between the lyophilized BD® OMICS-One Innate Immuno-Oncology Protein Panels versus each lyophilized component panel. PBMCs (resting, PHA-stimulated and CD3/CD28/IL2-stimulated), enriched monocytes, GMCSF-stimulated enriched monocytes, enriched NK cells and HEPM cell line were labeled with BD® Human Single-Cell Multiplexing Kit Sample Tags and pooled. Aliquots of the pooled cell suspension were stained with reconstituted BD® OMICS-One T-Cell, B-Cell, NK-Cell, APC/Myeloid, and Tumor or Comprehensive Immuno-Oncology Protein Panels. AbSeq, Sample Tag and WTA libraries of each sample were prepared and sequenced (500 reads/specificity per cell). Data were analyzed using the BD Rhapsody™ Sequence Analysis Pipeline. **A.** mRNA-driven UMAP demonstrated strong overlap in the cell groups identified between each 30-plex component protein panel and the combined 83-plex BD® OMICS-One Innate Immuno-Oncology Protein Panel, indicating that mRNA detection was not impacted by the combination of the individual lyophilized BD® OMICS-One Protein Panels. **B.** The total number of antibody-oligo molecules detected by each 30-plex component protein panel showed a high AbSeq correlation with R2 >0.94 when compared to the combined 83-plex BD® OMICS-One Innate Immuno-Oncology Protein Panel, indicating that protein marker detection was not impacted by the combination of the individual lyophilized BD® OMICS-One Protein Panels.

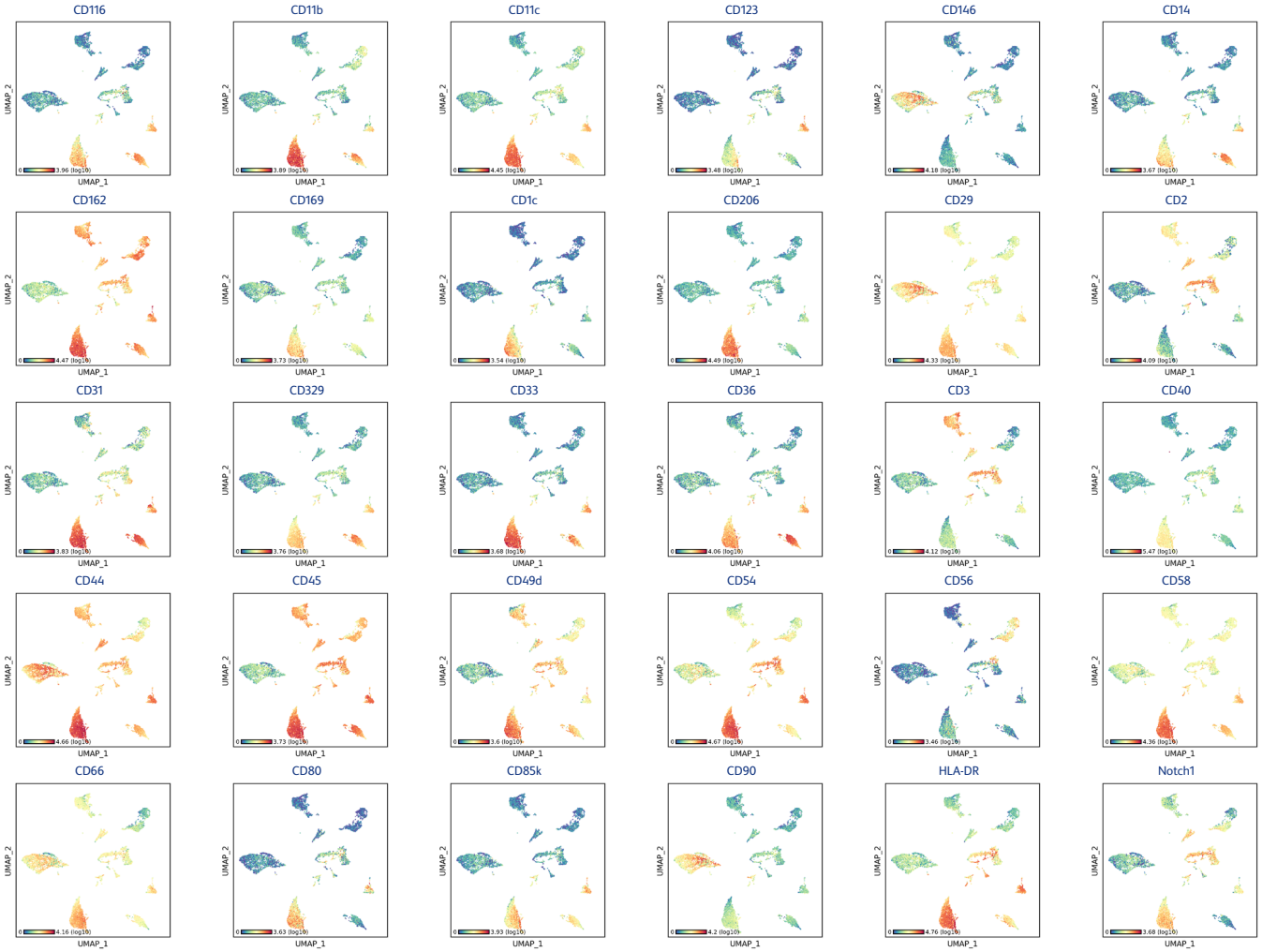
Reliably detect 83 critical markers that characterize innate immune cell types in the context of your tumor samples

Performance of all 83 markers included in the BD® OMICS-One Innate Immuno-Oncology Protein Panel is optimized for detection in each cell type.

A.

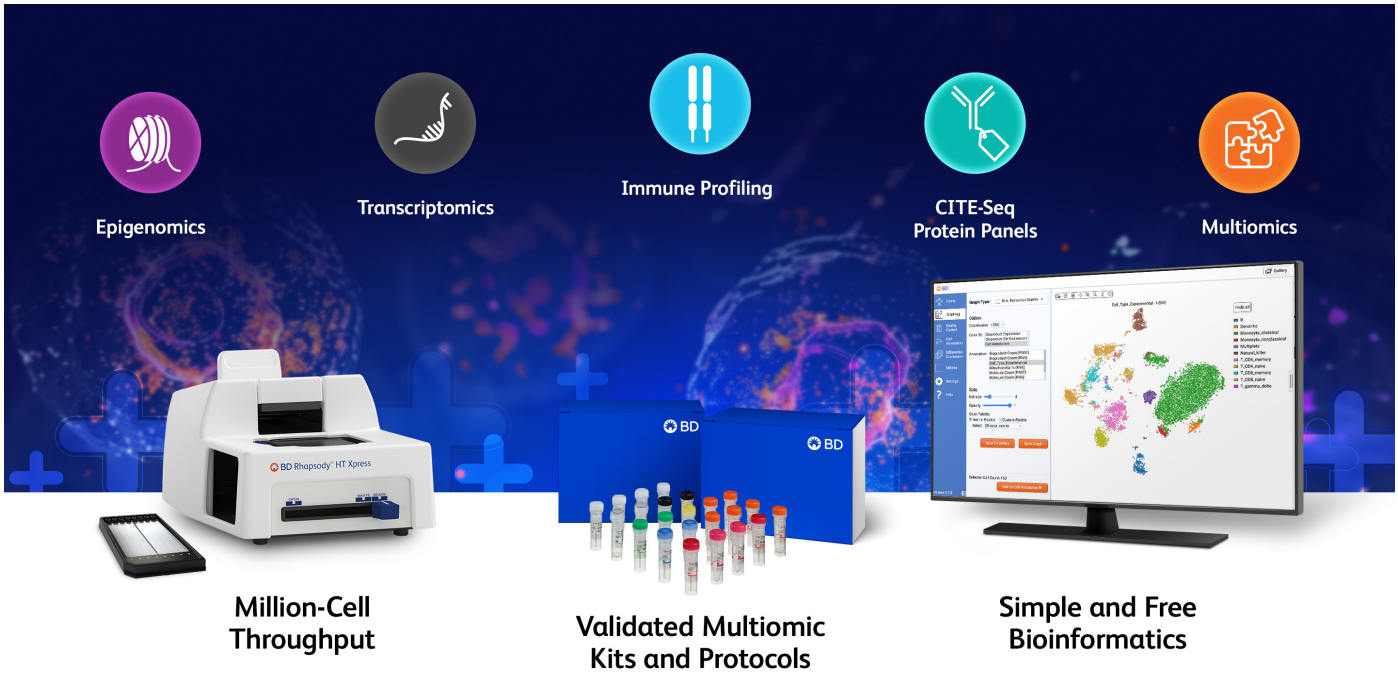


B.



Performance of 30 selected specificities included in the BD® OMICS-One Innate Immuno-Oncology Protein Panel. PBMCs (resting, PHA-stimulated, CD3/CD28/IL2-stimulated), enriched monocytes, GMCSF-stimulated enriched monocytes, enriched NK cells and HEPM cell line were labeled with BD® Human Single-Cell Multiplexing Kit Sample Tags and pooled. Aliquots of the pooled cell suspension were stained with reconstituted BD® OMICS-One NK-Cell, APC/Myeloid and Tumor or Innate Immuno-Oncology Protein Panels. AbSeq, Sample Tag and WTA libraries of each sample were prepared and sequenced (500 reads/specificity per cell). Data were analyzed using the BD Rhapsody™ Sequence Analysis Pipeline. **A.** Cell annotation on UMAP of resting + activated PBMCs, enriched monocytes, GMCSF-stimulated enriched monocytes, enriched NK cells and HEPM cell line resolved by the mRNA profile. **B.** Heat maps of 30 select specificities from the BD® OMICS-One Innate Immuno-Oncology Protein Panel on UMAP showing the specificity of detection for individual cell types in the pooled sample.

Part of a complete single-cell multiomics solution



Ordering information

Description	Cat. No.
BD® OMICS-One Innate Immuno-Oncology Protein Panel	572615

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

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

BD Life Sciences, Milpitas, CA 95035, U.S.

bdbiosciences.com