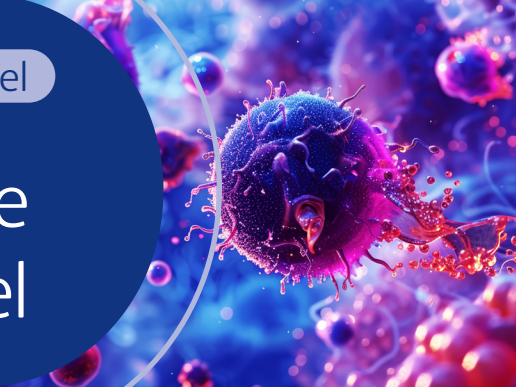
129-plex Comprehensive Immuno-Oncology Discovery Panel

BD® OMICS-One Comprehensive Immuno-Oncology Protein Panel



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

Characterize the interaction of tumor biology and immune system response with a comprehensive view into major immune cell types and subsets using a validated panel that simplifies the CITE-seq workflow and minimizes your sequencing cost. This panel is designed with 129 key specificities that profile T-cell, B-cell, natural killer (NK) cell, antigen-presenting cell (APC)/myeloid cell and tumor markers with ease to reveal new insights into the adaptive and innate immune system's response to cancer. 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

The BD® OMICS-One Comprehensive Immuno-Oncology Protein Panel comprises five individual lyophilized 30-plex protein panels—the BD® OMICS-One T-Cell, B-Cell, NK-Cell, APC/Myeloid-Cell and Tumor Protein Panels.

BD® OMICS-One Comprehensive Immuno-Oncology Protein Panel

Scan the QR code to link to our website for a list of the 129 individual specificities included in the panel.

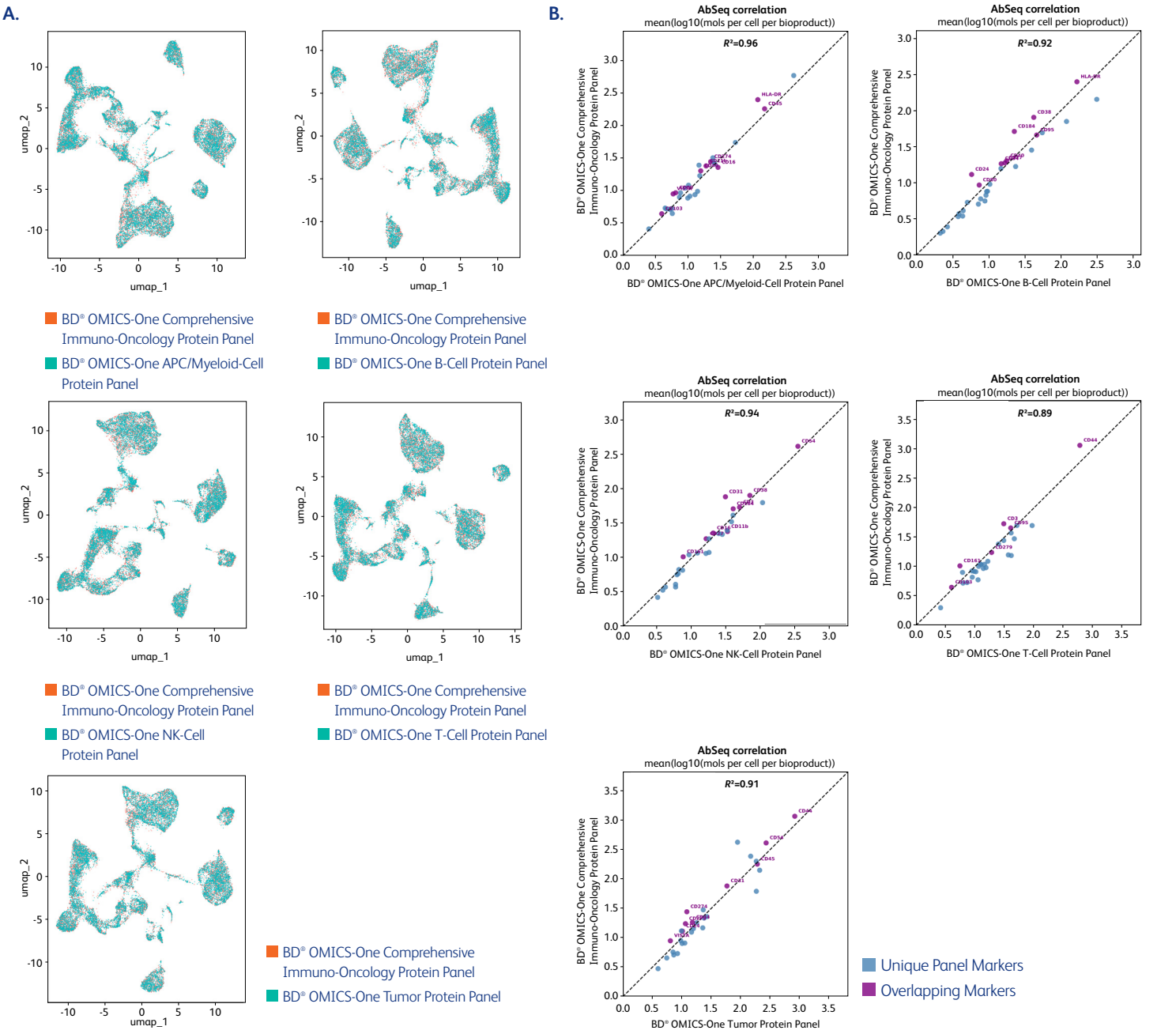
Manage sequencing costs and improve detection sensitivity with SMART panel design

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.

BD

Scalable high-plex protein profiling solution with modular panel design

The 129-plex BD® OMICS-One Comprehensive Immuno-Oncology Protein Panel offers unmatched flexibility by combining five independently lyophilized 30-plex antibody-oligo panels—while preserving the performance of each individual panel. This modular design also allows the addition of individual BD® AbSeq Antibody-Oligo Reagents of interest to further expand coverage to more cell types and state and evolve with your research.

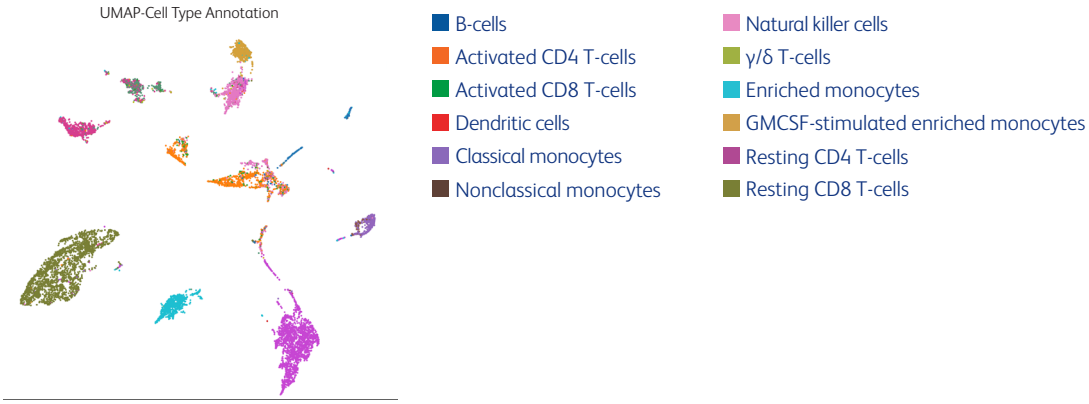


Similar performance between the lyophilized BD® OMICS-One Comprehensive Immuno-Oncology Protein Panels versus each lyophilized component panel. PPBMCs (resting, PHA stimulated and CD3/CD28/IL2 stimulated), enriched monocytes, GMCSF-stimulated enriched monocytes, enriched NK cells and HEPM cell line were 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 129-plex BD® OMICS-One Comprehensive 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 R^2 >0.89 when compared to the combined 129-plex BD® OMICS-One Comprehensive Immuno-Oncology Protein Panel, indicating that protein marker detection was not impacted by the combination of the individual lyophilized BD® OMICS-One Protein Panels.

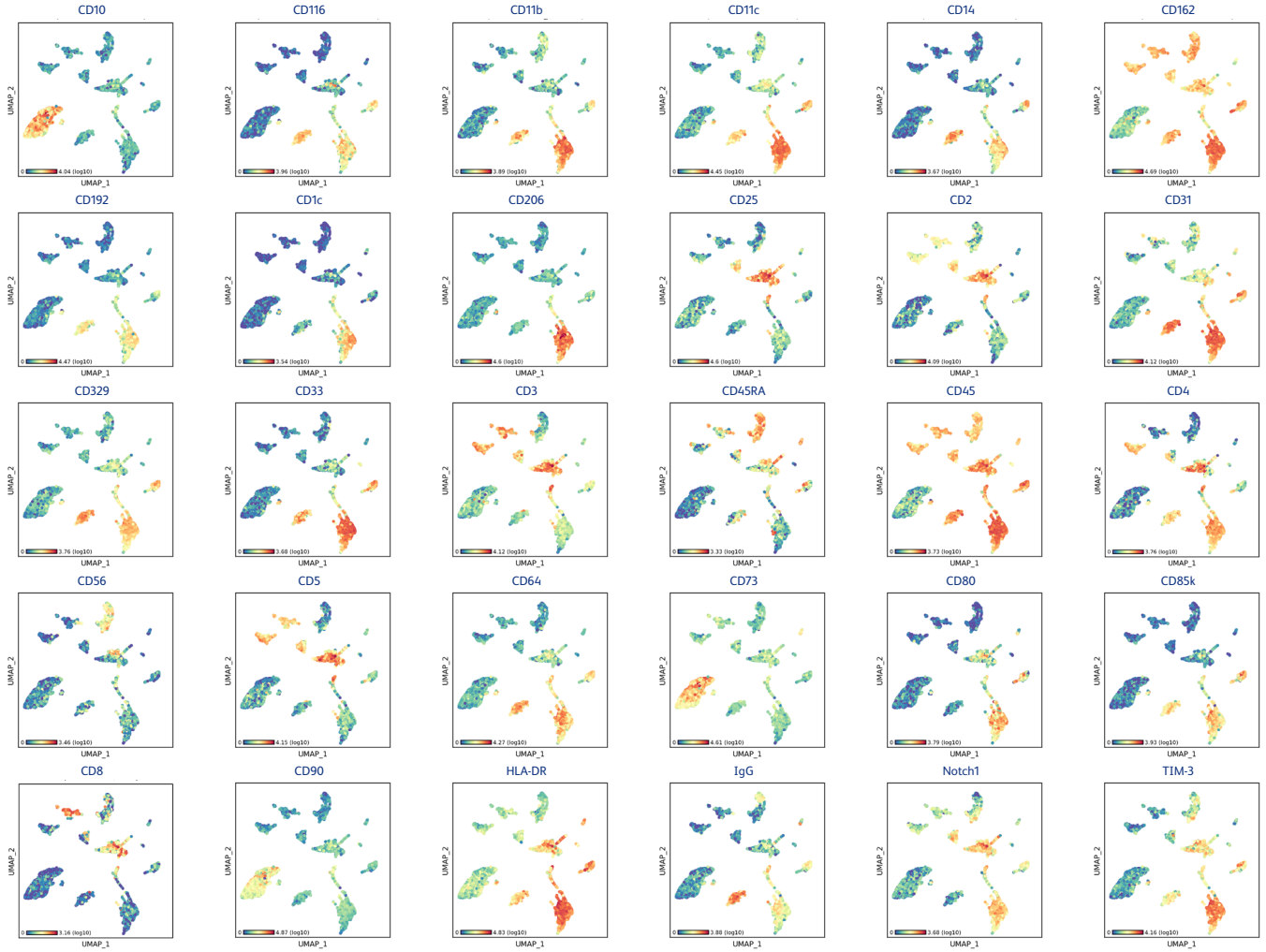
Reliably detect 129 critical markers that characterize the adaptive and innate immune cell types in the context of your tumor samples

Performance of all 129 markers included in the BD® OMICS-One Comprehensive Immuno-Oncology Protein Panel is optimized for detection in each cell type.

A.

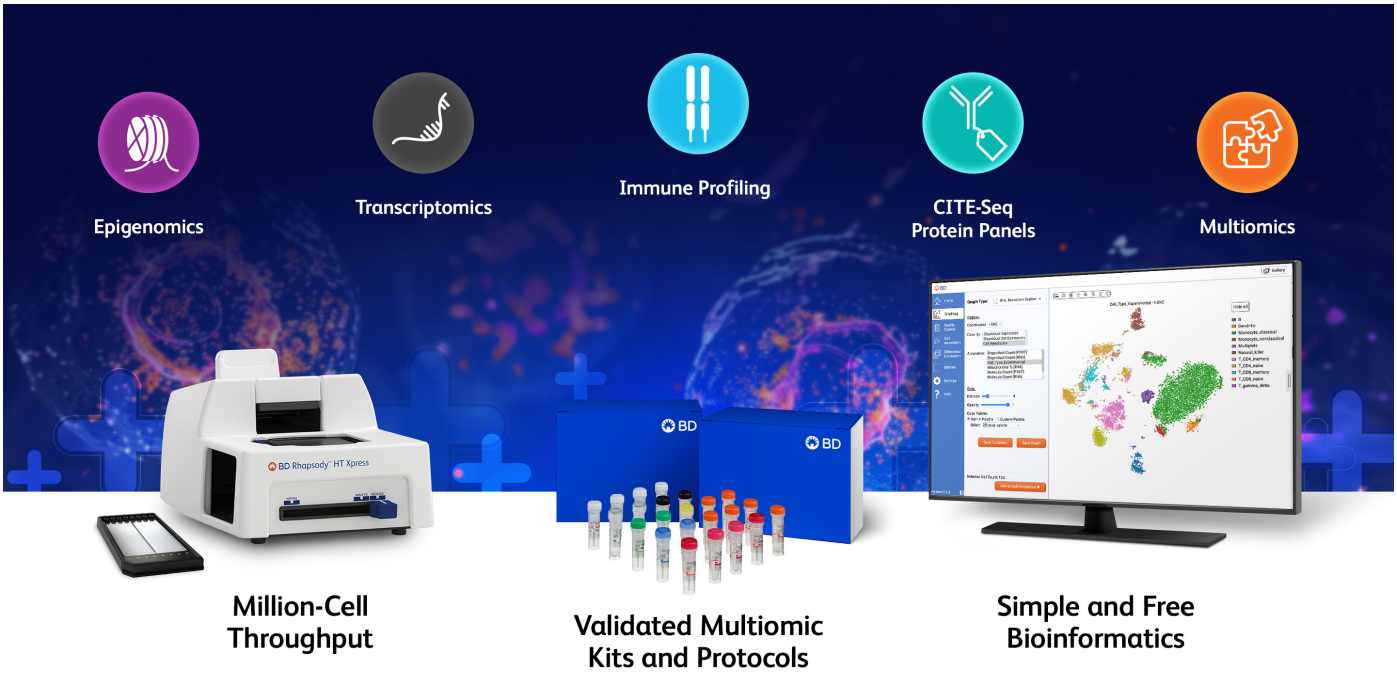


B.



Performance of 30 selected specificities included in the BD® OMICS-One Comprehensive 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 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.** 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 Comprehensive Immuno-Oncology Protein Panel on UMAP showing the specificity of detection for individual cell types in the cell population.

Part of a complete single-cell multiomics solution



Ordering information

Description	Cat. No.
BD® OMICS-One Comprehensive Immuno-Oncology Protein Panel	572618

Visit **bdbiosciences.com/ComprehensivePanel** 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