

Technical Data Sheet

Comprehensive Immuno-Oncology Protein Panel

Product Information

Material Number:	572618
Size:	2 Tests
Vol. per Test:	NA
Reactivity:	Tested in Development: Human
Storage Buffer:	Lyophilized powder containing BSA and $\leq 0.25\%$ sodium azide.
Component:	51-9024945
Description:	T-CELL Protein Panel
Size:	1 Test (2 ea)
Component:	51-9024946
Description:	B-cell Protein Panel
Size:	1 Test (2 ea)
Component:	51-9025129
Description:	Tumor Protein Panel
Size:	1 Test (2 ea)
Component:	51-9025299
Description:	NK-Cell Protein Panel
Size:	1 Test (2 ea)
Vol. per Test:	NA
Component:	51-9025300
Description:	APC/Myeloid-Cell Protein Panel
Size:	1 Test (2 ea)
Vol. per Test:	NA

Description

The BD® OMICS-One Comprehensive Immuno-Oncology Protein Panel consists of 10 single tubes, 2 tubes of T-Cell Protein Panel (1 test/tube) containing 30 different specificities against major T-cell markers, 2 tubes of B-Cell Protein Panel (1 test/tube) containing 30 different specificities against major B-cell markers, 2 tubes of Tumor Protein Panel (1 test/tube) containing 30 different specificities against major tumor markers, 2 tubes of NK-Cell Protein Panel (1 test/tube) containing 30 different specificities against major NK-cell markers and 2 tubes of APC/Myeloid-Cell Protein Panel (1 test/tube) containing 30 different specificities against major APC/myeloid-cell markers. Designed and optimized to work on the BD Rhapsody™ System, the Comprehensive Immuno-Oncology Protein Panel is tested to work seamlessly alongside the BD Rhapsody™ Whole Transcriptome Analysis (WTA) Assay, Targeted mRNA Assay, BD® Single-Cell Multiplexing Kit (SMK), BD® Intracellular CITE-seq (IC-AbSeq) Assay, and BD Rhapsody™ TCR/BCR Next Multiomic Assay for human. The individual antibodies were each conjugated to an oligonucleotide that contains a specific antibody barcode sequence flanked by a polyA tail on the 3' end and a common PCR handle (PCR primer binding site) on the 5' end. All AbSeq barcode sequences were generated in-silico with minimal sequence similarity to the human genomes, have low predicted secondary structure, and have high Hamming distance within the BD antibody-oligo portfolio, to allow for sequencing error correction and unique mapping. The polyA tail of the oligonucleotide allows the barcode sequence to be captured by BD Rhapsody™ Enhanced Cell Capture Beads. The 5' PCR handle allows for efficient library generation for various sequencing platforms. Each individual antibody exists at an optimal concentration within the 129-plex panel to enable superior target and population resolution.

The Comprehensive Immuno-Oncology Protein Panel is designed with SMART technology. SMART technology helps lower sequencing cost while increasing data resolution by attenuating antibodies that target high-expressing primary markers and allowing reallocation of sequencing reads to markers expressed at lower levels. With SMART technology, markers low in expression can be quantified without having to do deeper sequencing and incurring high sequencing cost. There are eight specificities attenuated in the Comprehensive Immuno-Oncology Protein Panel, CD2, CD4, , CD31, CD43, CD44, CD45, HLA-DR, and HLA-ABC.

BD Biosciences

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Preparation and Storage

Store at 2-8°C and protected from prolonged exposure to light.

Do not freeze.

Application Notes

Application

Single Cell 3' Sequencing	Qualified
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Recommended Assay Procedure:

This reagent is provided lyophilized in a pre-titrated format. Each test can stain up to 2 million cells.

1. Remove one tube of BD® OMICS-One T-Cell Protein Panel, one tube of BD® OMICS-One B-Cell Protein Panel, one tube of BD® OMICS-One Tumor Protein Panel, one tube of BD® OMICS-One NK-Cell Protein Panel and one tube of BD® OMICS-One APC/Myeloid-Cell Protein Panel from foil bags and bring up to room temperature for 5 minutes.
2. Make sure all pellets are located at the bottom of the tubes. If not, briefly centrifuge to collect the contents at the tube bottom.
3. For each tube, add 35 µL of nuclease-free water to the bottom of the tube and allow antibodies to reconstitute for 5 minutes at room temperature.
4. Place the reconstituted antibodies on ice until the cells are ready for staining.
Note: Reconstitute antibody **immediately** before cell staining. Prolonged incubation of reconstituted antibodies may increase the non-specific background.
Note: For options for BD® AbSeq Antibody-Oligo drop-in, reach out to technical support for calculation.
5. Prepare the staining solution with cells using the table below for substeps a–e.

Component	Co-labeling with Sample Tags		Sequential labeling with Sample Tags or no Sample Tags	
	Fc Block (µL)	No Fc Block (µL)	Fc Block (µL)	No Fc Block (µL)
5-panel pool (35 µL × 5)	175	175	175	175
SMK	20	20	0	0
Cell suspension in Fc Block	25	0	25	0
Cell suspension in FBS	0	25	0	25
Total staining volume	220	220	200	200

Prepare the 5-panel pool by combining the five tubes of 35-µL rehydrated solutions from step 4.

- a. For co-labeling with Sample Tags, for each sample, add 20 µL Sample Tag to the 5-panel pool.
- b. Pipet-mix the mixture, briefly centrifuge to collect the contents at the tube bottom, and place back on ice.
- c. Centrifuge cells at 400 × g for 5 minutes. If Fc Block is used, proceed to substep d. If Fc Block is not used, skip to substep e.
- d. (Optional) For samples containing myeloid and B lymphocytes, BD Biosciences recommends blocking nonspecific Fc Receptor-mediated false-positive signals with Human BD Fc Block (catalog number 564220).

- i. To perform blocking, pipet the Fc Block MasterMix into a new 1.5-mL LoBind tube on ice:

Component	1 sample (µL)*	1 sample + 20% overage (µL)
FBS† (catalog number 554656)	20.0	24.0
Fc Block‡ (catalog number 564220)	5.0	6.0
Total	25.0	30.0

* Sufficient for up to 1 million cells. To block more cells, adjust the volume.

† FBS = BD Pharmingen™ Stain Buffer.

‡ Fc Block = BD Pharmingen™ Human BD Fc Block.

- ii. Pipet-mix the Fc Block MasterMix and briefly centrifuge. Place on ice.
 - iii. Remove the supernatant from the cells without disturbing the pellet.
 - iv. Resuspend the cells in 25 µL of Fc Block MasterMix.
 - v. Incubate the cells at room temperature (15°C to 25°C) for 10 minutes.
 - vi. Add the mixture from substep c to the cell suspension. Pipet-mix and proceed to step 6.
- e. Remove the supernatant from the cells without disturbing the pellet. Add 25 µL Stain Buffer (FBS) to resuspend the cell pellet. Pipet-mix.
6. Transfer the cells with BD® AbSeq labeling MasterMix into a new 5-mL polystyrene Falcon tube.

7. Stain the cells on ice for 30 minutes.
 8. Add 3–4 mL Stain Buffer (FBS) to labelled cells and pipet-mix.
 9. Centrifuge at $400 \times g$ for 5 minutes.
 10. Uncap the tube and invert to decant supernatant into biohazardous waste. Keep the tube inverted and gently blot on a lint-free wiper to remove residual supernatant from tube rim.
 11. Repeat steps 8–10 twice more for a total of three washes.
 12. Resuspend the final washed cell pellet in 620 μ L cold Sample Buffer from the BD Rhapsody™ Enhanced Cartridge Reagent V3 (catalog number 667052) and proceed to single cell capture with on-cartridge washing described in substeps a–c. Refer to the *BD Rhapsody™ HT Single-Cell Analysis System Single-Cell Capture and cDNA Synthesis Protocol* (Doc ID 23-24252) or *BD Rhapsody™ HT Xpress System Single-Cell Capture and cDNA Synthesis Protocol* (Doc ID 23-24253) for additional details.
- Note:** Perform on-cartridge washing after cell settling (8-minute incubation) as described in the following substeps.
- a. At the protocol section of “Loading cells in BD Rhapsody™ 8-Lane Cartridge”, after cell load, incubate the cartridge in the dark at room temperature for 8 minutes.
 - b. Place the cartridge on the BD Rhapsody™ HT Xpress and perform the On-Cartridge Wash steps as follows:

Material to load	Volume (μ L) 1 lane	Pipette Mode
Air	380	Prime/Wash
Cold Sample Buffer	380	Prime/Wash
Air	380	Prime/Wash
Cold Sample Buffer	380	Prime/Wash

- c. (Optional) Perform the scanner step: Cell Load Scan, if using *BD Rhapsody™ HT Single-Cell Analysis System Single-Cell Capture and cDNA Synthesis Protocol* (Doc ID 23-24252). No need for 8-minute delay before scanning.

Warning: All biological specimens and materials are considered biohazardous. Handle as if capable of transmitting infection and dispose using proper precautions in accordance with federal, state, and local regulations. Never pipette by mouth. Wear suitable protective clothing, eyewear, and gloves.

List of all 30 Human AbSeq specificities included in the BD® OMICS-One T-Cell Protein Panel:

Specificity	Clone	Oligo ID	BD® AbSeq Barcode Sequence
CD103**	Ber-ACT8	AHS0001	AAATAGTATCGAGCGTAGTTAAGTTGCGTAGCCGTT
CD137	4B4-1	AHS0003	TGACAAGCAACGAGCGATACGAAAGCGAAATTAGT
CD45RA	HI100	AHS0009	AAGCGATTGCGAAGGGTTAGTCAGTACGTTATGTTG
CD69	FN50	AHS0010	CAATAACGGGTCATAGTAAGTCGCGAGTAAGAGGGC
CD278	DX29	AHS0012	ATAGTCCGCCGTAATCGTTGTGTCGCTGAAAGGGTT
CD134 (OX40)	ACT35	AHS0013	GGTGTGGTAAGACGGACGGAGTAGATATTCGAGGT
CD279 (PD-1)†	EH12.1	AHS0014	ATGGTAGTATCAGCAGTAGTAGGTAATTGGCAGT
CD366 (TIM-3)	7D3	AHS0016	TAGGTAGTAGTCCCGTATATCCGATCCGTGTTGTTT
CD223 (Lag3)	T47-530	AHS0018	CGGCATGAATTAGGCGAGACTTAGTATACGAGCTGG
CD95 (Fas)*	DX2	AHS0023	GGCCCGTTAGAGTTGGTATCCGTATGAAGGTTAGCT
CD25	2A3	AHS0026	AGTTGTATGGGTTAGCCGAGAGTAGTGCGTATGATT
CD127	HIL-7R-M21	AHS0028	AGTTATTAGGCTCGTAGGTATGTTAGGTTATCGCG
CD183	1C6/CXCR3	AHS0031	AAAGTGTTGGCGTTATGTGTTTCGTTAGCGGTGTGGG
CD4	SK3	AHS0032	TCGGTGTTATGAGTAGGTCGTCGTCGGTTTGATGT
CD196 (CCR6)	11A9	AHS0034	ACGTGTTATGGTGTGTTTGAATTGTGGTAGTCAGT
CD45RO	UCHL1	AHS0036	TGAGAGGTTATTGGGCGTATGACTTCGGTGATTGTG
CD194 (CCR4)	1G1	AHS0038	AATATTAGTGGGTCCTCGCGTTGGCCGGTTGTTAGT
CD62L	DREG-56	AHS0049	ATGGTAAATATGGGCGAATGCGGGTTGTGCTAAAGT
CD272	J168-540	AHS0052	GTAGGTTGATAGTCGGCGATAGTCGGGTTGAAAGCT
CD154	TRAP1	AHS0077	TAAGAGGTAAGTGCATTCGGGTATAGCGGTGATTTG
CD357 (GITR)	V27-580	AHS0104	TCTGTGTGTCGGGTTGAATCGTAGTGAGTTAGCGTG
CD28	L293	AHS0138	TTGTTGAGGATACGATGAAGCGGTTAAGGGTGTGG
TCRgd	11F2	AHS0142	CTCGTGGGTTAGGCTTGATCGTAGTTATGTATGGTT
CD44†	L178	AHS0167	GTGATTGATTAGGACAGTTCGTTGCTTAGTAGTGGG
TCR Va24-Ja18	6B11	AHS0175	TTCTGGTTCGGTTGAGCTACTAATTTTCGTTGGATGG
CD161 (KLRB1)‡	HP-3G10	AHS0205	TTTAGGACGATTAGTTGTGCGGCATAGGAGGTGTTT
CD8	SK1	AHS0228	AGGACATAGAGTAGGACGAGGTAGGCTTAAATTGCT
CD3‡	UCHT1	AHS0231	AGCTAGGTGTTATCGGCAAGTTGTACGGTGAAGTCG
CD197 (CCR7)	2-L1-A	AHS0273	AATGTGTGATCGGCAAGGGTTCTCGGGTTAATATG
TIGIT	tgMab-2	AHS0411	AGAGGGTTTAGTCAAGGTCGTGCGTATAGTTCAGGT

List of all 30 Human AbSeq specificities included in the BD® OMICS-One B-Cell Panel:

Specificity	Clone	Oligo ID	BD® AbSeq Barcode Sequence
CD20	2H7	AHS0008	TTGCTTGTTGCGCGTTAGAGAGTATGTCGGGAGATG
CD275	2D3/B7-H2	AHS0011	GTTTATATGTACGACGCCGTTGACGAGTGGAAGT
CD38††	HIT2	AHS0022	GTCAACGATGGGTAGCGGTAGAAATAACGGAAGTGG
CD95 (Fas)*	DX2	AHS0023	GGCCCGTTAGAGTTGGTATCCGTATGAAGTTAGCT
CD27††	M-T271	AHS0025	TGTCCGTTTAGCGAATTGGGTTGAGTCACGTAGGT
CD19	SJ25C1	AHS0030	TAGTAATGTGTTCTAGCCGGTAATAATCTTCGTGG
HLA-DR***	G46-6	AHS0035	TGTTGGTTATTCTGTTAGTGCATCCGTTTGGCGTGG
CD185 (CXCR5)	RF8B2	AHS0039	AGGAAGGTCGATTGTATAACGCGGCATTGTAAACGGC
CD24††	ML5	AHS0042	ACTTTGGGTTGAGCGCATGATTATTCGTGACACTTT
CD80***	L307.4	AHS0046	GAGGGTAACGGGTGTCCAAATATCGGCTGTGTAAGT
CD5	UCHT2	AHS0047	ACGAAGCGAGCGAAGAACCCTATGCGATTGAGTAAGT
CD10	HI10a	AHS0051	CCTGTTTGATGCGTACGGAGATTAGCGGATTTATG
IgD	IA6-2	AHS0058	TGAGGGATGTATAGCGAGAATTGCGACCGTAGACTT
IgG	G18-145	AHS0059	AGGTAGGTTATCGTAGGGTAGACTTAGCGGGCATTG
CD184 (CXCR4)††	12G5	AHS0060	CAGTGTTTAGAGCGGGTTGCATATGTCGTTTAGAGG
CD34††	581	AHS0061	TGGGTGTATTACGGTTAGTTTATGCGCGAAGGTGTT
CD21	B-1y4	AHS0074	GTATTCGCGTATTGTCAGTCGGTAGGGTTATGGTCT
CD9	M-L13	AHS0082	GGGTTGTAAGTCGTCGGAAGTGTGAAGCGTATAGTG
CD126	M5	AHS0096	AATGGTGAATCGCCCTAGCAAGTGGTATCGGAATCG
CD30	BERH8	AHS0114	CCAGTGTAGATTGAGCCGTCGATTAGTTAGCAGTG
CD40***	5C3	AHS0117	GGTGTAATTGGGCTAGAACGTATATGCGGTAAAGCG
CD138	MI15	AHS0121	TAAGCTGCCGGTATTGGAAACGTATCGATCTATTGG
CD79B	CB3-1	AHS0153	CATCATGAGTAGTTGCTTCGGCGAGTAGGTTTAATT
CD22	HIB22	AHS0195	TGGTTCGTGACTGTATAGGCTTAGCTTAGGCAATTT
IgM	G20-127	AHS0198	TTTGGAGGGTAGCTAGTTGCAGTTCTGGTCGTTTC
CD43	1G10	AHS0200	ATGGCGGATGGATTGTCGGTGATATTGCTCTCGTT
CD268 (BAFF-R)	11C1	AHS0206	TGTGAATGAGTTAAGCGTCGCGGATATGTAGAGCCT
CD23	EBVCS-5	AHS0210	TTTGATGTGGCGGGTTGTATTACGGTTTCGAGTCT
CD73	AD2	AHS0216	AAAGTAGGGTCGATCAAGGGAGTTAACGGTAGCGCT
CD1d	CD1d42	AHS0219	GTTAGGATTATTGACGTACCGAGTTAGGAGTGATTG

List of all 30 Human AbSeq specificities included in the BD® OMICS-One Tumor Protein Panel:

Specificity	Clone	Oligo ID	BD® AbSeq Barcode Sequence
CD274 (PD-L1)†††	MIH1	AHS0004	ATCGTAAGGCTCGTGGTTCGTAAGTAAGTTCGTATC
CD279 (PD-1)†	EH12.1	AHS0014	ATGGTAGTATCACGACGTAGTAGGTAATTGGCAGT
CD45†††	HI30	AHS0040	GTGCGAAATGGCGGAATGTTATCTGCGAATGTAGTC
CD324 (E-cad)	67A4	AHS0041	GATATGAATGGGTTGCGGTGTAAGTCGTAATGGTT
CD24††	ML5	AHS0042	ACTTTGGGTTGAGCGCATGATTATTCGTGACACTTT
CD90	5E10	AHS0045	GACTATATGTACGGTGTTAATTCGGGATCCTGCGCT
CD34††	581	AHS0061	TGGGTGTATTACGGTTAGTTTATGCGCGAAGGTGTT
CD117	YB5.B8	AHS0064	GGATTAGTTGTCGTTATAGGGAGTGCCTTCTAGCG
HLA-A,B,C	G46-2.6	AHS0066	GATATGCATGGCGAGTAGGTAGAACGAAGCTTAGGT
CD54†††	HA58	AHS0076	AAGAGAATATATGCGTGCGTTGTTAAGGGAATGCGT
CD29	MAR4	AHS0080	TGGTAAGGTGGTTGCGAGTAAGTAGCGGTGAGTTGT
CD47	B6H12	AHS0087	TGTTAGGTTTCGACGTATTATGTGTAGATCCGCAAGG
CD326 (EpCam)	EBA-1	AHS0089	TTGAGCGTAAAGTTGCGTCCGGTAATTGAGTTGCGT
CD66	B1.1/CD66	AHS0094	GTCTGCGCAAGGTAAGCTAAGTAACGAAAGGGATCT
CD133	W6B3C1	AHS0103	TTTGGTATTGGCACGGTTTGTAAGCGAGTTGACGGTC
CD26	M-A261	AHS0109	TGTAGGTTGCGCGGTTATTAGGGTATTATCGATCTG
CD155	TX24	AHS0111	GCGGTGGATCGATGGGTATAGTTGGTAATTTGCGTC
CD146	P1H12	AHS0127	AGGTTATTTAGGTGACGGTTGATTGACGAGAGAGG
C-MET	3D6	AHS0132	AGCGTGAGTTGTCGGTAGTTAATTATCGGAGAGTTT
ITGRN BTA 7	FIB504	AHS0158	TTTCAGTTTGGTCGCAGTTAAGGTATCGTATGGGTC
CD44	L178	AHS0167	GTGATTGATTAGGACAGTTTCGTTGCTTAGTAGTGGG
CD31 (PECAM1)†††	WM59	AHS0170	CTAAGGGACGTAATTGAGTTTCGGTGATCGCAGTTT
EphB2	2H9	AHS0176	TATTGCGGGTAGGATTTGTCTCGAAGCGTAGGTAGC
Vista†††	MIH65.RMAB	AHS0187	ATCAGGGAATCTCGGTAAGTTAAACGTGTATAGTGC
PDPLN	LPMAB-17	AHS0192	TTTATGAGTATTACGTCGTTGCGATTGTTGGCGGT
NOTCH1	MHN1-519	AHS0214	CGTAGTAGGAGCGTGTTTCATCGGCATTATCGTTTG
CD325 (n-Cad)	8C11	AHS0223	TAGGATGAGTTTCGTAAGTAAGGTAGTCGTATGGCT
CD58	1C3	AHS0237	TTGGTGAGTATTGGTGCGTAGTATGCGGGATGTTTG
EGFR	EGFR.1	AHS0241	ATATGATTGATGCGGGTTAGCCTACAGATTCGAGTT
CD227 (MUC1)	HMF62	AHS0247	AGTGCATGGTTAGTAGGTGTAGTCGTTAGATATTC

List of all 30 Human AbSeq specificities included in the BD® OMICS-One NK-Cell panel:

Specificity	Clone	Oligo ID	BD® AbSeq Barcode Sequence
CD11b****	M1/70	AHS0005	ATCGTTATTCGTTGTAGTTCGCCCGTTTGAGTAGT
CD56	NCAM16.2	AHS0019	AGAGGTTGAGTCGTAATAATAATCGGAAGCGTTGG
CD38‡‡	HIT2	AHS0022	GTCAACGATGGGTAGCGGTAGAAAATAACGGAACGG
CD27‡‡	M-271	AHS0025	TGTCCGGTTTAGCGAATTGGGTTGAGTCACGTAGGT
CD2	RPA-2.10	AHS0029	AAACGTAGATTAGAGCCGGGTATGTCGCAACTGATT
CD16****	3G8	AHS0053	TAAATCTAATCGCGGTAACATAACGGTGGGTAAGGT
CD184 (CXCR4)‡‡	12G5	AHS0060	CAGTGTTTAGAGCGGGTTGCATATGTCGTTTAGAGG
CD49d	9F10	AHS0063	TAGGGTGACTTAGCGATTGATGCGTATGTTTGGGCG
CD314 (NKG2D)	1D11	AHS0065	TTGAAATGCGATGAGACGTAGAGCGATGTAGGTAGC
CD335 (NKP46)	9E2/NKP46	AHS0068	CAATTTGTTTCGCGTTTAGTAGTCGTCGTTATGGG
CD54†††	HA58	AHS0076	AAGAGAATATATGCGTGCCTTGTAAAGGAATGCGT
CD226	DX11	AHS0079	GAGTTTATGATTCGTTTCTTCGGTAGTTCGTCGCTT
CD94	HP-3D9	AHS0085	GAGGTTAGGATAGGTGTACGGGTCGAGTTGAATTC
CD336 (NKP44)	p44-8	AHS0090	AATGCAAACGATATCACGAAGGGTAGTACACGACGG
CD49a	SR84	AHS0101	ATGACACGAATGCGACGAGAGGCGAAATAGGTTGGT
CX3CR1	2A9-1	AHS0125	GGGTTACGAGGTTTAAAGCGGTAGTATAGGATGCC
CD122	Mik-β3	AHS0146	TTAAAGAGATTTCGTGGGTATTGGCGCAGTCATTCT
CD140b (PDGFR)	28D4	AHS0151	GACAACATTTAGGACGTGACGAGAGATAGCTTC
CD248	B1/35	AHS0156	ATCACTTATTTTCGTTTGGAGGGTTCGTAGGCGTTGC
CD63	H5C6	AHS0157	TGCAGCGTTAGGACCAAGCGTTTACCGTAGAATATT
CD140a	α-R1	AHS0160	TTACTGACTTTCGGACGTTGGTTACTTAGGGTTATG
CD31 (PECAM1)†††	WM59	AHS0170	CTAAGGGACGTAATTGAGTTTCGGTGATCGCAGTTT
CD96	6F9	AHS0194	CTAATGTAAGAGCGGACGTTTGGGCACTATATGTTT
CD161 (KLRB1)‡	HP-3G10	AHS0205	TTTAGGACGATTAGTTGTGCGGCATAGGAGGTGTTT
CD158b (KIR)	DX27	AHS0209	CGTAGGAGGATTTTCGTCGATGGGTTTGTAGCGTTC
CD158e1	DX9	AHS0211	AGGTTTATTGCGGCATTAGGCGTCATATAGTAGGTG
CD337/NKp30	P30-15	AHS0213	GGTAACTGACATGACGGAGCGATAATTTCTGGCGGT
CD3‡	UCHT1	AHS0231	AGCTAGGTGTTATCGGCAAGTTGTACGGTGAAGTCG
CD329 (Siglec-9)	E10-286	AHS0239	CGGGCGCAAGATAGGATAATAGGTAACGTCAAATG
CD106	51-10C9	AHS0251	TCTGATTTAGCGGGTGGACGTATTATAGTGATTGGC

List of all 30 Human AbSeq specificities included in the BD® OMICS-One APC/Myeloid-Cell panel:

Specificity	Clone	Oligo ID	BD® AbSeq Barcode Sequence
CD103**	BER-ACT8	AHS0001	AAATAGTATCGAGCGTAGTTAAGTTGCGTAGCCGTT
CD274 (PD-L1)†††	MIH1	AHS0004	ATCGTAAGGCTCGTGGTTCGTAAGTAAGTTCGTATC
CD11b****	M1/70	AHS0005	ATCGTTATTCGTTGTAGTTCGCCGGTTTGAGTAGT
CD123	7G3	AHS0020	ACAGTTTAGTAGGACGTGAGGTATCGCGAGAATGCC
HLA-DR***	G46-6	AHS0035	TGTTGGTTATTCGTTAGTGCATCCGTTTGGGCGTGG
CD14	MPHIP9	AHS0037	TGGCCCGTGGTAGCGCAATGTGAGATCGTAATAAGT
CD45†††	HI30	AHS0040	GTGCGAAATGGCGGAATGTTATCTGCGAATGTAGTC
CD33	WM53	AHS0044	GTGTTAGTGATTTGATAGGACGCTTACGAGAGATT
CD80***	L307.4	AHS0046	GAGGGTAACGGGTGTCCAAATATCGGCTGTGTAAGT
CD16****	3G8	AHS0053	TAAATCTAATCGCGTAACATAACGGTGGGTAAGGT
CD64	10.1	AHS0055	TTGTGCGGCGTAGTATGGTTATCTCGAGTGAAAGTC
CD11c	B-LY6	AHS0056	ATGCGTTGCGAGAGATATGCGTAGGTTGCTGATTGG
CD163	GHI/61	AHS0062	TATTATGTGCGAACTATGGTATCCGTATTGAGGGCT
CD195 (CCR5)	2D7/CCR5	AHS0070	ATGGTTTAGTCGTACGTGGGTTTAGATTGGCGGTGC
CD206	19.2	AHS0072	GCTGGTTATCGTTTGAGAGTCGGTATGGAATGCGGT
CD32	FLI8.26	AHS0073	GGTTGTAGGTGCGGAATATAAGCGTCGTGAGGTGT
CD273	MIH18	AHS0075	TGAGTAACCGTATGTAATCCGTAATCGTAGAAGCGC
CD141	1A4	AHS0083	TGGAAGTAAGTATGGGTGCGCGTAAATTGTGCGTGT
CD1c	F10/21A3	AHS0088	ATAGATTACATTGTTTACGCTTGGGTTGCGTCCGT
CD40***	5C3	AHS0117	GGTGAATTGGGCTAGAACGTATATGCGGTAAGGCG
FCeR1a	AER-37	AHS0129	GATATGGCGTGATGGTAGGTTCCGTTTAAAGTAGCG
CD169	7-239	AHS0133	CATTAAGCACGAAGGGTATAGGTAGGAACGGTTGGC
CD36	IVC7	AHS0135	AATTGTAGTAGTCCGGTGTATGTAGAGTAGGCGTTT
CD115 (CSF1R)	9-4D2-1E4	AHS0136	CTGGTGGCGGCGAATTGGTTACGACATATAGGGTT
CD162	KPL-1	AHS0139	CCAGATAGGCGATAGTGTTTAGGAGCGATTAGTGTG
CD85K	ZM3.8	AHS0179	AGTAGTCGTAGTTGGCGTGAATTGGGCTTATATCTG
VISTA†††	MIH65.RMAB	AHS0187	ATCAGGGAATCTCGGTAAGTTAAACGTGTATAGTGC
CD15	W6D3	AHS0196	ATAGGCATGGACGACGTAGATAATAAGTGCCGGGTT
CD192 (CCR2)	LS132.1D9	AHS0208	CATGAGTGAGGCGATATAGTGAGCGGTTGTAGATT
CD116	Hgmcsfr1-M1	AHS0238	CTTAGTTGTAGGATCGAGAGTAGGTTGTCATTGCGT

- * T-Cell and B-Cell Protein Panels contain the same CD95 antibody.
- † T-Cell and Tumor-Cell Protein Panels contain the same CD279 (PD-1) and CD44 antibody.
- ‡ T-Cell and NK-Cell Protein Panels contain the same CD161 (KLRB1), and CD3 antibody.
- ** T-Cell and APC/Myeloid -Cell Protein Panels contain the same CD103 antibody.
- †† B-Cell and Tumor-Cell Protein Panels contain the same CD24 and CD34 antibody.
- ‡‡ B-Cell and NK-Cell Protein Panels contain the same CD27, CD38, and CD184 (CXCR4) antibody.
- *** B-Cell and APC/Myeloid -Cell Protein Panels contain the same HLA-DR, CD40, and CD80 antibody.
- ††† Tumor and NK-Cell Protein Panels contain the same CD54 and CD31 (PECAM1) antibody.
- ‡‡‡ Tumor and APC/Myeloid-Cell Protein Panels contain the same CD274 (PD-L1), CD45, and VISTA antibody.
- **** NK-Cell and APC/Myeloid-Cell Protein Panels contain the same CD11b and CD16 antibody.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 mL	(none)
633801	Whole Transcriptome Analysis (WTA) Amplification Kit	1 Each	(none)
633774	Targeted mRNA and AbSeq Amplification Kit	1 Each	(none)
667058	TCR/BCR Next Amplification Kit	1 Each	(none)
633773	cDNA Kit	1 Each	(none)
666262	8-Lane Cartridge	1 Each	(none)
667052	Enhanced Cartridge Reagent Kit V3	1 Each	(none)
633781	Hu Single Cell Sample Multiplexing Kit	1 Each	(none)
633849	Flex Single-Cell Multiplexing Kit A, Flex Sample Tag 1-6	1 Each	(none)
633850	Flex Single-Cell Multiplexing Kit B, Flex Sample Tag 7-12	1 Each	(none)
633851	Flex Single-Cell Multiplexing Kit C, Flex Sample Tag 13-18	1 Each	(none)
633852	Flex Single-Cell Multiplexing Kit D, Flex Sample Tag 19-24	1 Each	(none)
666625	BD® Rhapsody™ HT Xpress Package		(none)
633701	BD Rhapsody Scanner		(none)
570742	Intracellular AbSeq Buffer Kit	1 Each	(none)
570911	OMICS-Guard Sample Preservation Buffer	50 mL	(none)
570750	AbSeq Enhancer Kit	1 Each	(none)
570751	RNase Inhibitor	1 Each	(none)

Product Notices

1. The production process underwent stringent testing and validation to assure that it generates a high-quality conjugate with consistent performance and specific binding activity. However, verification testing has not been performed on all conjugate lots.
2. Please refer to <https://www.bdbiosciences.com/en-us/resources/protocols/single-cell-multiomics> for technical protocols.
3. Go to <https://abseq-ref-gen.genomics.bd.com/to> access AbSeq reference files in FASTA format for bioinformatics analyses.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. Follow state and local guidelines when disposing of hazardous waste.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. For U.S. patents that may apply, see bd.com/patents.
7. Read and understand the safety data sheets (SDSs) before handling chemicals. To obtain SDSs, go to regdocs.bd.com or contact BD Biosciences technical support at scomix@bd.com.