

Technical Data Sheet

Oligo Mouse Anti-Human CXCR6 (CD186)

Product Information

Material Number:	940234
Size:	25 Tests
Clone:	13B 1E5
Alternative Name:	C-X-C chemokine receptor type 6; BONZO; STRL33; TYMSTR
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG2a, κ
Immunogen:	Human CXCR6
Application:	Single Cell 3' Sequencing (Qualified)
Barcode Sequence:	GTGGTTGGTTATTTCGGACGGTTCTATTGTGAGCGCT
SeqID:	AHS0148
Volume Per Test:	2 μ l
Entrez Gene ID:	10663
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.
Regulatory Status:	RUO

Description

The 13B 1E5 monoclonal antibody specifically binds to C-X-C chemokine receptor type 6 (CXCR6), which is also known as CD186, BONZO, T-lymphocyte-expressed seven-transmembrane domain receptor (TYMSTR), and Seven transmembrane receptor-like from clone 33 (STRL33). CXCR6 is a G-protein coupled chemokine receptor that is expressed on subsets of activated and memory T cells and NKT cells. CXCR6 binds to soluble CXCL16 and membrane-anchored CXCL16 expressed by dendritic cells and macrophages. The CXCL16 and CXCR6 interaction activates Akt and mTor signaling. This regulates cellular migration including the recruitment of tumor-infiltrating lymphocytes and may contribute to the progression and metastasis of various cancers. CXCR6 also can serve as a coreceptor for certain strains of HIV-1 and HIV-2.

Application Notes

The antibody was conjugated to an oligonucleotide that contains an antibody clone-specific barcode (ABC) flanked by a poly-A tail on the 3' end and a PCR handle (PCR primer binding site) on the 5' end. The ABC for this antibody was designed to be used with other BD AbSeq oligonucleotides conjugated to other antibodies. All AbSeq ABC sequences were selected in silico to be unique from human and mouse genomes, have low predicted secondary structure, and have high Hamming distance within the BD AbSeq portfolio, to allow for sequencing error correction and unique mapping. The poly-A tail of the oligonucleotide allows the ABC to be captured by the BD Rhapsody™ system. The 5' PCR handle allows for efficient sequencing library generation for Illumina sequencing platforms.

NOTE: The BD Rhapsody Single-Cell Analysis System must be used with the BD Rhapsody Express Instrument.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze. The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography and conjugated to BD AbSeq oligonucleotide under optimal conditions.

Recommended Assay Procedure

Put all BD AbSeq Reagents to be pooled into a Latch Rack for 500 μ L Tubes (Thermo Fisher Scientific Cat. No. 4900). Arrange the tubes so that they can be easily uncapped and re-capped with an 8-Channel Screw Cap Tube Capper (Thermo Fisher Scientific Cat. No. 4105MAT) and the reagents aliquoted with a multi-channel pipette. BD AbSeq tubes should be centrifuged for ≥ 30 seconds at 400 \times g to ensure removal of any content in the cap/tube threads prior to the first opening.

Suggested Companion Products

Catalog Number	Name	Size
554656	Stain Buffer (FBS)	500 mL
633701	Single-Cell Analysis System	1 Each

564219 Human BD Fc Block™
564220 Human BD Fc Block™

50 mg
0.25 mg

Product Notices

1. This reagent has been pre-diluted for use at the recommended volume per test. Typical use is 2 µl for 1 × 10⁶ cells in a 200-µl staining reaction.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. 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.
4. 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.
5. Illumina is a trademark of Illumina, Inc.
6. This product is covered by one or more of the following patents: US 8,835,358; US 9,290,808; US 9,290,809; US 9,315,857; US 9,567,645; US 9,567,646; US 9,598,736; US 9,708,659; and US 9,816,137. This product, and only in the amount purchased by buyer, may be used solely for buyer's own internal research, in a manner consistent with the accompanying product literature. No other right to use, sell or otherwise transfer (a) this product, or (b) its components is hereby granted expressly, by implication or by estoppel. Diagnostic uses require a separate license.
7. Please refer to <http://regdocs.bd.com> to access safety data sheets (SDS).
8. Please refer to bd.com/genomics-resources for technical protocols.

References

Deng HK, Unutmaz D, KewalRamani VN, Littman DR. Expression cloning of new receptors used by simian and human immunodeficiency viruses.. *Nature*. 1997; 388(6639):296-300.

La Porta CA. CXCR6: the role of environment in tumor progression. *Challenges for therapy*.. *Stem Cell Rev*. 2012; 8(4):1282-5.

Liao F, Alkhatib G, Peden KW, Sharma G, Berger EA, Farber JM. STRL33, A novel chemokine receptor-like protein, functions as a fusion cofactor for both macrophage-tropic and T cell line-tropic HIV-1.. *J Exp Med*. 1997; 185(11):2015-23.

Loetscher M, Amara A, Oberlin E, et al. TYMSTR, a putative chemokine receptor selectively expressed in activated T cells, exhibits HIV-1 coreceptor function.. *Curr Biol*. 1997; 7(9):652-60.

Murphy PM. International Union of Pharmacology. XXX. Update on chemokine receptor nomenclature.. *Pharmacol Rev*. 2002; 54(2):227-9.

Xiao G, Wang X, Wang J, et al. CXCL16/CXCR6 chemokine signaling mediates breast cancer progression by pERK1/2-dependent mechanisms.. *Oncotarget*. 2015; 6(16):14165-78.

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