

Technical Data Sheet

Oligo Mouse Anti-Human CD46

Product Information

Material Number:	940211
Size:	25 Tests
Clone:	E4.3
Alternative Name:	AHUS2; Membrane cofactor protein; MCP; MIC10; TLX; TRA2.10
Reactivity:	Human (Tested in Development)
Isotype:	Mouse IgG2a, κ
Application:	Single Cell 3' Sequencing (Qualified)
Barcode Sequence:	GATTGCGTGTTTAGTCGTATTATAGCCGGATGAGGT
SeqID:	AHS0071
Volume Per Test:	2 μ l
Entrez Gene ID:	4179
Storage Buffer:	Aqueous buffered solution containing BSA and \leq 0.09% sodium azide.
Regulatory Status:	RUO

Description

The E4.3 monoclonal antibody specifically binds to CD46. CD46 is also known as membrane cofactor protein (MCP). CD46 is a type I membrane glycoprotein composed of two non-disulfide linked α (66 kDa) and β (56 kDa) chains expressed on lymphocytes, monocytes and granulocytes. It is not expressed on erythrocytes or platelets. There are four isoforms of the dimer which function as complement regulatory factors. CD46 promotes the enzymatic degradation of activated C3b and/or C4b deposited on host cells. It also serves as the measles virus receptor.

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 Section

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 \geq 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	Clone
554656	Stain Buffer (FBS) RUO	500 mL	
633701	Single-Cell Analysis System RUO	1 Each	
564219	Human BD Fc Block™ RUO	50 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

- Johnstone RW, Loveland BE, McKenzie IF. Identification and quantification of complement regulator CD46 on normal human tissues. *Immunology*. 1993; 79(3):341-347.
- Knapp W. W. Knapp .. et al., ed. *Leucocyte typing IV : white cell differentiation antigens*. Oxford New York: Oxford University Press; 1989; :1-1182.
- Kurita M, Yanagi Y, Hara T, Nagasawa S, Matsumoto M, Seya T. Human lymphocytes are more susceptible to measles virus than granulocytes, which is attributable to the phenotypic differences of their membrane cofactor protein (CD46). *Immunol Lett*. 1995; 48(2):91-95.
- Schlossman SF, Stuart F, Schlossman .. et al., ed. *Leucocyte typing V : white cell differentiation antigens : proceedings of the fifth international workshop and conference held in Boston, USA, 3-7 November, 1993*. Oxford: Oxford University Press; 1995; .

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