

Technical Data Sheet

Oligo Mouse Anti-Human CD93

Product Information

Material Number:	940215
Size:	25 Tests
Clone:	R139
Alternative Name:	C1QR1; C1qRP; C1qR(P); C1q/MBL/SPA Receptor; MXRA4; GR11; Dj737e23.1
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG2b, κ
Immunogen:	C1q-CLF-binding proteins
Application:	Single Cell 3' Sequencing (Qualified)
Barcode Sequence:	TTAGGAACGCATTGCACGAAGGGTACATTAGATAGC
SeqID:	AHS0124
Volume Per Test:	2 μ l
Entrez Gene ID:	22918
Storage Buffer:	Aqueous buffered solution containing BSA and $\leq 0.09\%$ sodium azide.
Regulatory Status:	RUO

Description

The R139 monoclonal antibody specifically binds to CD93 which is also known as Complement component C1q receptor (C1qR), C1q receptor 1 (C1qR1), or Matrix-remodeling-associated protein 4 (MXRA4). The immunogen used to generate the R139 hybridoma was a preparation of CD93 protein. Human CD93 is a transmembrane glycoprotein that is highly expressed on monocytes, macrophages, granulocytes, and endothelial cells but not on T and B lymphocytes. CD93 is also known as the C1q/MBL/SPA Receptor as it binds C1q, the recognition subunit of the first component (C1) of the complement pathway, as well as MBL (Mannose-binding-lectin) and SPA (Pulmonary Surfactant Protein A). Human C1qRp is involved in the C1q-mediated enhancement of phagocytosis. R139 is suitable to detect CD93 expression on cells of myeloid lineage by flow cytometry, and CD93 in cellular lysates by Western blotting or immunoprecipitation. In addition, R139 reportedly neutralizes C1q-mediated enhancement of phagocytosis. CD93 has also been reported to define a human stem cell population with hematopoietic and hepatic potential.

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™	50 mg
564220	Human BD Fc Block™	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

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