

# Technical Data Sheet

## Oligo Mouse Anti-Human CCR2 (CD192)

### Product Information

Material Number:	940286
Size:	25 Tests
Clone:	LS132.1D9 (also known as 1D9)
Alternative Name:	CCR2; CD192; CKR2; CC-CKR-2; CMKBR2; MCP-1 receptor; MCP-1-R
Reactivity:	Human (Tested in Development)
Isotype:	Mouse BALB/c IgG2a, κ
Immunogen:	Human CCR2 Transfected Cell Line
Application:	Single Cell 3' Sequencing (Qualified)
Barcode Sequence:	CATGAGTGAGGCGATATAGTGAGCGGTTTTGTAGATT
SeqID:	AHS0208
Volume Per Test:	2 µl
Entrez Gene ID:	729230
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.
Regulatory Status:	RUO

### Description

The LS132.1D9 (aka, 1D9) monoclonal antibody specifically recognizes C-C chemokine receptor type 2 (CCR2 or CC-CKR-2) which is also known as CD192, CKR2, CMKBR2, or Monocyte chemoattractant protein 1 receptor (MCP-1 Receptor or MCP-1-R). CCR2 (CD192) is a seven-transmembrane, G-protein-coupled, glycoprotein receptor that belongs to the beta chemokine receptor family. It is expressed on basophils, monocytes/macrophages, dendritic cells, activated T cells and B cells. CCR2 (CD192) serves as a receptor for Monocyte chemoattractant protein 1 (MCP-1/CCL2), MCP-2/CCL8, MCP-3/CCL7, and MCP-4/CCL13. CD192 exists in two forms, CD192A and CD192B. The two forms are derived from alternatively spliced variants of a single gene and differ at their intracellular C-terminal ends. CD192 plays an important role in inflammatory responses including monocytic infiltration of tissues associated with certain diseases, eg, atherosclerosis, rheumatoid arthritis, and tumors.

### 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 µL 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 × 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	
564220	Human BD Fc Block™ RUO	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 × 10<sup>6</sup> 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](http://bd.com/genomics-resources) for technical protocols.

## References

Andrew DP, Ruffing N, Kim CH, et al. C-C chemokine receptor 4 expression defines a major subset of circulating nonintestinal memory T cells of both Th1 and Th2 potential. *J Immunol.* 2000; 166(1):103-111.

Martinelli R, Sabroe I, LaRosa G, Williams TJ, Pease JE. The CC chemokine eotaxin (CCL11) is a partial agonist of CC chemokine receptor 2b. *J Biol Chem.* 2001; 276(46):42957-64.

Sica A, Saccani A, Bottazzi B, et al. Defective expression of the monocyte chemotactic protein-1 receptor CCR2 in macrophages associated with human ovarian carcinoma. *J Immunol.* 2000; 164(2):733-8.

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