Technical Data Sheet

# PE Mouse Anti-Human CD195

## Product Information

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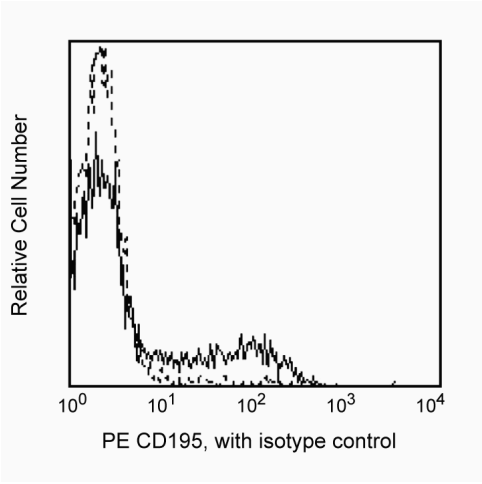
| **Material Number:** | **560932** |
| **Alternate Name:** | CCR5 |
| **Size:** | 25 tests |
| **Vol. per Test:** | 20 µl |
| **Clone:** | 3A9 |
| **Isotype:** | Mouse IgG2a, κ |
| **Reactivity:** | QC Testing: Human |
| **Workshop:** | VII, 70309 |
| **Storage Buffer:** | Aqueous buffered solution containing BSA and ≤0.09% sodium azide. |

## Description

Reacts with the chemokine receptor, CCR5, a seven transmembrane-spanning G protein-associated molecule. 3A9 antibody has also been reported to cross-react with human CCR8. Results of epitope mapping and sequence comparison between CCR5 and CCR8 reveals that the first three amino acid residues for these two receptors are identical: MDY (Met-Asp-Tyr). CCR5 belongs to the β-chemokine receptor family. It is expressed on a subset of T lymphocytes (CD3+, CD45RO+, CD95+). CCR5 regulates lymphocyte chemotaxis activation and transendothelial migration during inflammation. It signals a response to at least three chemokines: RANTES and macrophage inflammatory protein-1 (MIP-1) α and β. Additionally, CCR5 has been found to be a co-receptor for macrophage-tropic HIV-1 on CD4+ cells, a characteristic that is important in viral transmission. Reports indicate that individuals who have partial (heterozygous) or complete (homozygous) deletion of the CCR5 allele, demonstrate resistance to HIV infection. CCR5 has been clustered as CD195 in the VIIth HLDA workshop.




***Profile of peripheral blood lymphocytes analyzed by flow cytometry***

## 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.
The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

## Application Notes

**Application**

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| Flow cytometry | Routinely Tested |

**Recommended Assay Procedure:**

Immunophenotyping studies of chemokine receptors need to be performed on freshly collected whole blood (<24 Hrs). Incubation with the antibody should be done at room temperature in the dark. Cellular manipulation, such as Ficoll™ separation, freezing, or exposure to cold temperatures prior to staining have been shown to cause a decrease in staining intensity and inconsistent results.

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## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 555574 | PE Mouse IgG2a, κ Isotype Control | 100 tests | G155-178 |

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
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. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

## References


Choe H, Farzan M, Sun Y, et al. The beta-chemokine receptors CCR3 and CCR5 facilitate infection by primary HIV-1 isolates. *Cell.* 1996; 85(7):1135-1148. (Biology)

Deng H, Liu R, Ellmeier W, et al. Identification of a major co-receptor for primary isolates of HIV-1. *Nature.* 1996; 381(6584):661-666. (Biology)

Doranz BJ, Rucker J, Yi Y, et al. A dual-tropic primary HIV-1 isolate that uses fusin and the beta-chemokine receptors CKR-5, CKR-3, and CKR-2b as fusion cofactors. *Cell.* 1996; 85(7):1149-1158. (Biology)

Dragic T, Litwin V, Allaway GP, et al. HIV-1 entry into CD4+ cells is mediated by the chemokine receptor CC-CKR-5. *Nature.* 1996; 381(6584):667-673. (Biology)

Hancock WW. Chemokines and the pathogenesis of T cell-dependent immune responses. *Am J Pathol.* 1996; 148(3):681-684. (Biology)

Mason D, Andre P, Bensussan A, ed. *Leukocyte Typing VII.* New York: Oxford University Press; 2002. (Biology)

Raport CJ, Gosling J, Schweickart VL, Gray PW, Charo IF. Molecular cloning and functional characterization of a novel human CC chemokine receptor (CCR5) for RANTES, MIP-1beta, and MIP-1alpha. *J Biol Chem.* 1996; 271(29):17161-17166. (Biology)

Rottman JB, Ganley KP, Williams K, Wu L, Mackay CR, Ringler DJ. Cellular localization of the chemokine receptor CCR5. Correlation to cellular targets of HIV-1 infection. *Am J Pathol.* 1997; 151(5):1341-1351. (Biology)

Wu L, Paxton WA, Kassam N, et al. CCR5 levels and expression pattern correlate with infectability by macrophage-tropic HIV-1, in vitro. *J Exp Med.* 1997; 185(9):1681-1689. (Biology)