

## Technical Data Sheet

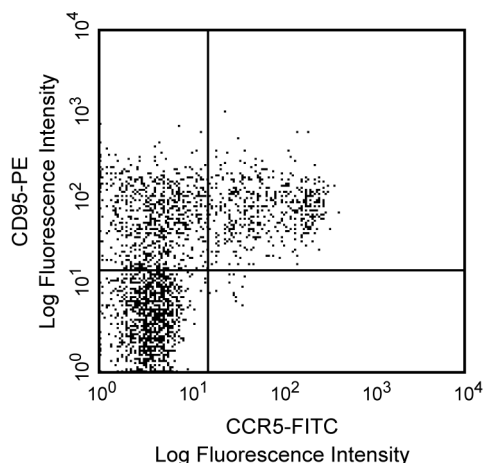
## FITC Mouse Anti-Human CD195

## Product Information

|                         |  |
|-------------------------|--|
| <b>Material Number:</b> | 561747   |
| <b>Alternate Name:</b>  | CCR5; C-C chemokine receptor type 5; CC-CKR-5; CKR5; CHEMR13                           |
| <b>Size:</b>            | 25 tests   |
| <b>Vol. per Test:</b>   | 20 µl  |
| <b>Clone:</b>           | 2D7/CCR5   |
| <b>Isotype:</b>         | Mouse (C57BL/6) IgG2a, κ   |
| <b>Reactivity:</b>      | QC Testing: Human  |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide. |

## Description

The 2D7/CCR5 monoclonal antibody specifically binds to the human chemokine receptor, CCR5. CCR5 is also known as CD195. CCR5 is a seven transmembrane-spanning G protein-associated molecule. CCR5 belongs to the beta 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: Regulated upon Activation Normal T-cell Expressed and Secreted (RANTES), Macrophage Inflammatory Protein-1 (MIP-1) and Monocyte Chemoattractant Protein 2 (MCP-2). Additionally, CCR5 has been found to be a coreceptor 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. This antibody has been shown to block ligand and gp120 binding. It is also able to neutralize HIV infection.



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 FITC under optimum conditions, and unreacted FITC was removed.

## Application Notes

## Application

|                |                  |
|----------------|------------------|
| 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    |
|----------------|--|-----------|----------|
| 555573         | FITC Mouse IgG2a, $\kappa$ Isotype Control | 100 tests | G155-178 |
| 554656         | Stain Buffer (FBS)                         | 500 ml    | (none)   |
| 561976         | PE Mouse Anti-Human CD95                   | 25 tests  | DX2      |

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100- $\mu$ l experimental sample (a test).
2. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
4. This antibody has been optimized and preassayed with its matched isotype control to be used at the recommended volume of 20  $\mu$ l/test. Titration of the reagents or substituting with other (non-matched) isotype control is NOT recommended.
5. 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.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
8. An isotype control should be used at the same concentration as the antibody of interest.

## References

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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)

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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)

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