

Technical Data Sheet

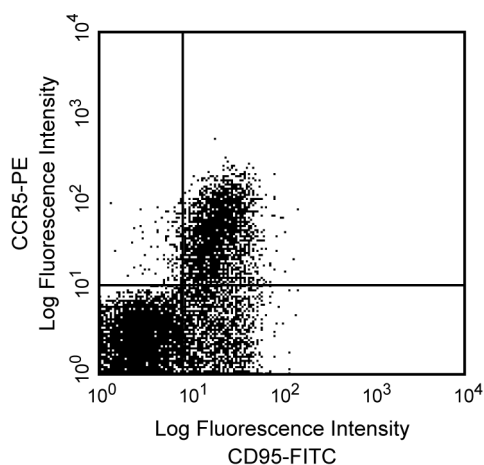
PE Mouse Anti-Human CD195

Product Information

Material Number:	560935
Alternate Name:	CCR5; C-C chemokine receptor type 5; CC-CCR-5; CKR5; CHEMR13
Size:	25 Tests
Vol. per Test:	20 µl
Clone:	2D7/CCR5
Immunogen:	Human CCR5 Transfected Cell Line
Isotype:	Mouse (C57BL/6) IgG2a, κ
Reactivity:	QC Testing: Human
Workshop:	VII 70307
Storage Buffer:	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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Recommended Assay Procedure:

Flow Cytometry: 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-Paque™ separation, freezing, or exposure to cold temperature prior to staining have been shown to cause a decrease in staining intensity and inconsistent results.

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Suggested Companion Products

<u>Catalog Number</u>	<u>Name</u>	<u>Size</u>	<u>Clone</u>
555574	PE Mouse IgG2a, κ Isotype Control	100 Tests	G155-178
554656	Stain Buffer (FBS)	500 mL	(none)
555899	Lysing Buffer	100 mL	(none)

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- μ l experimental sample (a test).
2. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. 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.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. An isotype control should be used at the same concentration as the antibody of interest.
7. Ficoll-Paque is a trademark of Amersham Biosciences Limited.

References

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- 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)
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- Ponath P. Leukosite, Inc.. (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)
- 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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