Technical Data Sheet

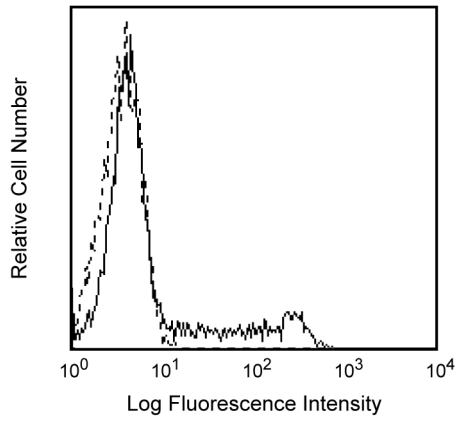
Purified Mouse Anti-Human CD195

Product Information

Material Number:	**555991**
Alternate Name:	CCR5; C-C chemokine receptor type 5; CC-CKR-5; CKR5; CHEMR13
Entrez Gene ID:	1234
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	2D7/CCR5
Isotype:	Mouse IgG2a, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing ≤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: RANTES and macrophage inflammatory protein-1 (MIP-1), and monocyte chemoattractant protein 2 (MCP-2). 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. 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 cytomery.

Preparation and Storage

Store undiluted at 4°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Flow cytometry	Routinely Tested
Immunofluorescence	Tested During Development

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

Suggested Companion Products

Catalog Number	Name	Size	Clone
555571	Purified Mouse IgG2a, κ Isotype Control	0.1 mg	G155-178
555988	FITC Goat Anti-Mouse IgG/IgM	0.5 mg	Polyclonal

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554656	Stain Buffer (FBS)	500 ml	(none)
555899	Lysing Buffer	100 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Ficoll-Paque is a trademark of Amersham Biosciences Limited.
5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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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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