

Technical Data Sheet

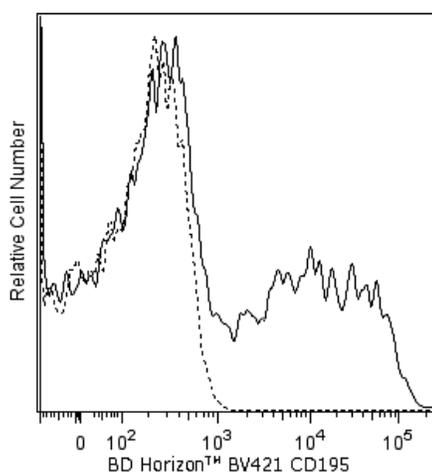
BV421 Mouse Anti-Human CD195**Product Information**

Material Number:	562576
Alternate Name:	CCR5; C-C chemokine receptor type 5; CC-CCR-5; CKR5; CHEMR13
Size:	50 tests
Vol. per Test:	5 µl
Clone:	2D7/CCR5
Immunogen:	Human CCR5 Transfected Cell Line
Isotype:	Mouse (C57BL/6) IgG2a, κ
Reactivity:	QC Testing: Human
Workshop:	HLDA VII
Storage Buffer:	Aqueous buffered solution containing BSA 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.

The antibody was conjugated to BD Horizon™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



Flow cytometric analysis of CD195 expression on human peripheral blood lymphocytes. Whole blood was stained with either BD Horizon™ BV421 Mouse Anti-Human CD195 antibody (Cat. No. 562576; solid line histogram) or with a BD Horizon™ BV421 Mouse IgG2a, κ Isotype Control (Cat. No. 562439; dashed line histogram). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.

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 BD Horizon™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 were removed.

Application Notes**Application**

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
555899	Lysing Buffer	100 ml	(none)
562439	BV421 Mouse IgG2a, k Isotype Control	50 µg	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. An isotype control should be used at the same concentration as the antibody of interest.
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. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
7. Brilliant Violet™ 421 is a trademark of Sirigen.
8. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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