

Technical Data Sheet

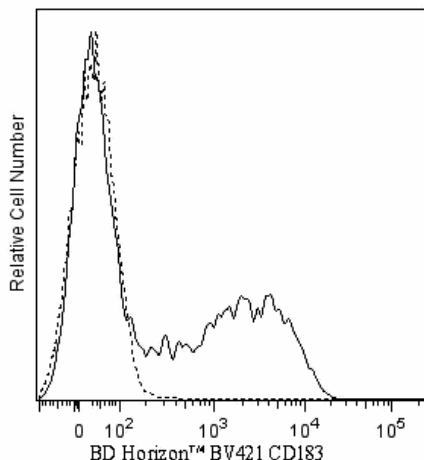
BV421 Mouse Anti-Human CD183**Product Information**

Material Number:	562558
Alternate Name:	CXCR3; C-X-C chemokine receptor type 3; GPR9; IP10R; MigR; CKRL2; CMKAR3
Size:	50 tests
Vol. per Test:	5 µl
Clone:	1C6/CXCR3
Immunogen:	Human CXCR3 Peptide
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VII 70500
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 1C6/CXCR3 monoclonal antibody specifically binds to human CD183, also known as the CXCR3 chemokine receptor. CD183 is a 40-41 kDa seven-transmembrane protein and member of the G protein-coupled receptor family. CD183 is expressed primarily on activated T cells that infiltrate inflammatory sites. It has also been detected on some circulating T cells, B cells, and NK cells. Reports show that some CXCR3-positive T cells also express CCR5 and are mostly CD45RO-positive cells. Three ligands for CXCR3 have been identified. They are CXCL9 (Mig/monokine induced by interferon-γ), CXCL10 (IP-10/interferon-γ inducible 10-kD protein), and CXCL11 (I-TAC/interferon-inducible T-cell alpha chemoattractant). These chemokines are produced by a variety of cells upon stimulation by IFN-γ and interact with CXCR3 to mediate T-cell chemotaxis. This reagent has been reported to be suitable for immunohistochemical staining of acetone-fixed, frozen sections and/or formalin-fixed, paraffin-embedded tissue sections with citrate pretreatment. Clone 1C6/CXCR3 also cross reacts with a subset of peripheral blood lymphocytes of baboon, and both rhesus and cynomolgus macaque monkeys. The distribution of lymphocytes is similar to that observed with CD183-positive peripheral blood lymphocytes from normal human donors. CXCR3 has been clustered as CD183 in the VIIth HLDA workshop.

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 CD183 expression on human peripheral blood lymphocytes. Whole blood was stained with BD Horizon™ BV421 Mouse Anti-Human CD183 antibody (Cat. No. 562558; solid line histogram) or with a BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat. No. 562438; 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)
562438	BV421 Mouse IgG1, k Isotype Control	50 µg	X40

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. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.

References

Loetscher M, Gerber B, Loetscher P, et al. Chemokine receptor specific for IP10 and mig: structure, function, and expression in activated T-lymphocytes. *J Exp Med*. 1996; 184(3):963-969. (Biology)

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Piali L, Weber C, LaRosa G, et al. The chemokine receptor CXCR3 mediates rapid and shear-resistant adhesion-induction of effector T lymphocytes by the chemokines IP10 and Mig. *Eur J Immunol*. 1998; 28(3):961-972. (Biology)

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Uguccioni M, Willmann K. Cytokine/Chemokine Receptors: Section report. In: Mason D, Andre P, Bensussan A, ed. *Leukocyte Typing VII*. New York: Oxford University Press; 2002:237-243. (Clone-specific: Flow cytometry)

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