**Technical Data Sheet**

**BV421 Hamster Anti-Mouse CD183**

**Product Information**

- **Material Number:** 562937
- **Alternate Name:** CXCR3
- **Size:** 50 µg
- **Concentration:** 0.2 mg/ml
- **Clone:** CXCR3-173
- **Isotype:** Armenian Hamster IgG1
- **Reactivity:** Mouse
- **Storage Buffer:** Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

**Description**

The CXCR3-173 monoclonal antibody specifically binds to mouse CD183, also known as CXCR3. CD183 is a seven transmembrane spanning, G protein-coupled chemokine receptor for CXC chemokines including CXCL9 (Mig), CXCL10 (IP-10) and CXCL11 (I-TAC). These chemokines are induced by inflammatory cytokines including IFN-γ, IFN-α/β, and TNF. CXCR3 is primarily expressed on activated/memory CD4+ and CD8+ T lymphocytes, Foxp3+ regulatory T cells, natural killer T (NKT) cells and mature NK cells. Binding of chemokines to CXCR3 induces integrin activation, cytoskeletal changes, and chemotactic migration of activated lymphocytes. CD183 has been reported to play important roles in T cell recruitment and immune responses in a number of inflammatory and autoimmune diseases. The CXCR3-173 antibody reportedly inhibited in vitro chemotactic responses to CXCL10 or CXCL11 significantly but not to CXCL9. When administered systemically to mouse hosts, the CXCR3-173 antibody reportedly prolonged cardiac and pancreatic islet cell allograft survival. In the presence of CXCR3 ligands, especially, CXCL10 and CXCL11, staining with the antibody can be significantly blocked.

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.

**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

Flow cytometry Routinely Tested

Suggested Companion Products

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<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
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<tr>
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<td>Brilliant Violet™ 421 Hamster IgG1, κ Isotype Control</td>
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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
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.
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.
9. Although hamster immunoglobulin isotypes have not been well defined, BD Biosciences Pharmingen has grouped Armenian and Syrian hamster IgG monoclonal antibodies according to their reactivity with a panel of mouse anti-hamster IgG mAbs. A table of the hamster IgG groups, Reactivity of Mouse Anti-Hamster Ig mAbs, may be viewed at http://www.bdbiosciences.com/documents/hamster_chart_11x17.pdf.

References