**BD Horizon™ Technical Data Sheet**

**BUV395 Mouse Anti-Human CD183**

### Product Information

**Material Number:** 565223

**Alternate Name:** CXCR3; C-X-C chemokine receptor type 3; GPR9; IP10R; MigR; CKRL2; CMKAR3

**Size:**

- 50 Tests
- 5 µl

**Clone:** 1C6/CXCR3 (also known as 1C6, LS177-1C6)

**Immunogen:** Human CXCR3 Peptide

**Isotype:** Mouse (BALB/c) IgG1, κ

**Reactivity:**

- QC Testing: Human
- Tested in Development: Rhesus, Cynomolgus, Baboon

**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 BUV395 which has been exclusively developed by BD Biosciences as an optimal dye for use on a 355 nm laser equipped instrument. With an Ex Max at 348 nm and an Em Max at 395 nm, this dye has virtually no spillover into any other detector. BD Horizon BUV395 can be excited with a 355 nm laser and detected with a 379/28 filter.

**Flow cytometric analysis of CD183 (CXCR3) expression on human peripheral blood lymphocytes.** Whole blood was stained with either BD Horizon™ BUV395 Mouse IgG1, κ Isotype Control (Cat. No. 563547; dashed line histogram) or BD Horizon BUV395 Mouse Anti-Human CD183 antibody (Cat. No. 565223; solid line histogram). Erythrocytes were lysed with BD FACS Lysing Solution (Cat. No. 349202). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of intact lymphocytes. Flow cytometric analysis was performed using a BD LSRFortessa™ Cell Analyzer 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™ BUV395 under optimum conditions, and unconjugated antibody and free BD Horizon™ BUV395 were removed.

**BD Biosciences**

bdbiosciences.com

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**Application Notes**

**Application**

| Flow cytometry | Routinely Tested |

**Recommended Assay Procedure:**

For optimal and reproducible results, BD Horizon Brilliant Stain Buffer should be used anytime two or more BD Horizon Brilliant dyes (including BD OptiBuild Brilliant reagents) are used in the same experiment. Fluorescent dye interactions may cause staining artifacts which may affect data interpretation. The BD Horizon Brilliant Stain Buffer was designed to minimize these interactions. More information can be found in the Technical Data Sheet of the BD Horizon Brilliant Stain Buffer (Cat. No. 563794/566349) or the BD Horizon Brilliant Stain Buffer Plus (Cat. No. 566385).

**Suggested Companion Products**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
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<tbody>
<tr>
<td>563547</td>
<td>BUV395 Mouse IgG1, k Isotype Control</td>
<td>50 µg</td>
<td>X40</td>
</tr>
<tr>
<td>563794</td>
<td>Brilliant Stain Buffer</td>
<td>100 Tests</td>
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<tr>
<td>349202</td>
<td>BD FACSTM Lysing Solution</td>
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<td>Lysing Buffer</td>
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<td>Stain Buffer (BSA)</td>
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<tr>
<td>566349</td>
<td>Brilliant Stain Buffer</td>
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</tr>
<tr>
<td>566385</td>
<td>Brilliant Stain Buffer Plus</td>
<td>1000 Tests</td>
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</table>

**Product Notices**

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use $1 \times 10^6$ 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. 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.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Species testing during development may have been performed with a different format of the same clone. Selected applications have been tested for cross-reactivity.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. BD Horizon Brilliant Ultraviolet 395 is covered by one or more of the following US patents: 8,158,444; 8,575,303; 8,354,239.
8. BD Horizon Brilliant Stain Buffer is covered by one or more of the following US patents: 8,110,673; 8,158,444; 8,575,303; 8,354,239.

**References**


