

Technical Data Sheet

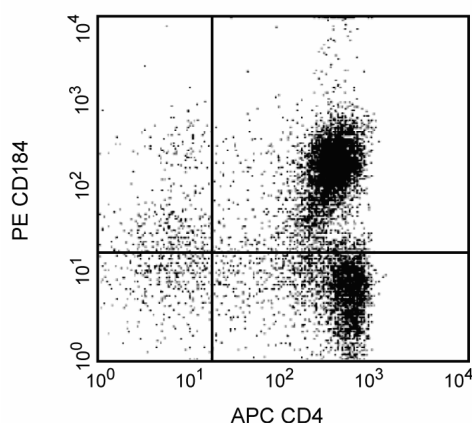
PE Rat Anti-Mouse CD184

Product Information

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|-------------------------|---|
| Material Number: | 551966 |
| Alternate Name: | CXCR4, C-X-C chemokine receptor type 4; Fusin; LESTR; PB-CKR; Sdf1r |
| Size: | 0.1 mg |
| Concentration: | 0.2 mg/ml |
| Clone: | 2B11/CXCR4 |
| Immunogen: | GST-NCXCR4 fusion protein |
| Isotype: | Rat IgG2b, κ |
| Reactivity: | QC Testing: Mouse |
| Storage Buffer: | Aqueous buffered solution containing $\leq 0.09\%$ sodium azide. |

Description

The 2B11/CXCR4 monoclonal antibody specifically binds to mouse CD184, which is also known as the C-X-C Chemokine Receptor type 4, CXCR4. CXCR4 (previously known as Fusin and LESTR), is a seven-transmembrane, G-protein-coupled receptor. It is the specific receptor for the CXC chemokine, SDF-1/CXCL12. Mouse CXCR4 shows 91% homology at the amino acid level with human CXCR4. CXCR4 is widely expressed by hematopoietic and non-hematopoietic cell types including neutrophils, monocytes, T cells, B cells, CD34-positive progenitor cells, endothelial cells, neurons and astrocytes. Human CXCR4 is used by T-tropic HIV-1 as a co-receptor for viral entry. The mouse *Cxcr4* gene has been mapped to chromosome 1.



Expression of CD184 on BALB/c thymocytes. BALB/c thymocytes were stained with 1.0 $\mu\text{g}/\text{test}$ of PE Rat anti-Mouse CD184 (Cat. No. 551966) and APC Rat anti-Mouse CD4 (Cat. No. 553051). The data reflects gating on lymphocytes, based on forward and side-scattered light signals. The level of nonspecific staining was assessed by using PE Rat IgG2b, κ Isotype Control (Cat. No. 553989). The quadrant markers for the bivariate dot plots were set based on the isotype control.

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 R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

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|----------------|------------------|
| Flow cytometry | Routinely Tested |
|----------------|------------------|

Recommended Assay Procedure:

Clone 2B11/CXCR4 has been reported to perform optimally when allowed to stain for 45 minutes. In addition, investigators are highly encouraged to titrate the antibody up to saturating levels for optimal performance, minimizing the risk for dim staining. Please refer to <http://www.bdbiosciences.com/support/resources/> for additional resources and protocols.

Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|----------------|--|--------|--------|
| 553989 | PE Rat IgG2b, κ Isotype Control | 0.1 mg | A95-1 |
| 554656 | Stain Buffer (FBS) | 500 mL | (none) |
| 553051 | APC Rat Anti-Mouse CD4 | 0.1 mg | RM4-5 |

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551966 Rev. 3



Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
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. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. An isotype control should be used at the same concentration as the antibody of interest.

References

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