

Technical Data Sheet

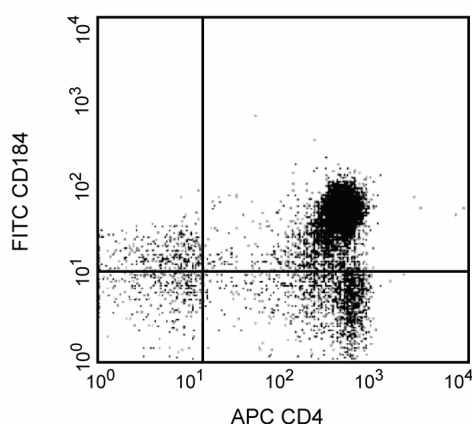
FITC Rat Anti-Mouse CD184

Product Information

Material Number:	561735
Alternate Name:	CXCR4, C-X-C chemokine receptor type 4; Fusin; LESTR; PB-CKR; Sdf1r
Entrez Gene ID:	12767
Size:	25 µg
Concentration:	0.5 mg/ml
Clone:	2B11/CXCR4
Immunogen:	GST-NCXCR4 fusion protein
Isotype:	Rat IgG2b, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 2B11/CXCR4 monoclonal antibody specifically reacts with mouse CD184, which is also known as CXC chemokine receptor, CXCR4. CXCR4 (previously known as Fusin and LESTR), a seven-transmembrane, G-protein-coupled receptor, is the specific receptor for CXC chemokines, SDF-1/CXCL12. Mouse CXCR4 shows 91% homology at 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.



Detection of CXCR4 expression on BALB/c thymocytes by FITC-conjugated 2B11/CXCR4. BALB/c thymocytes were stained with 1.0 µg/test of FITC-conjugated 2B11/CXCR4 and anti-mouse CD4-APC (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 FITC-conjugated rat IgG2b (Cat. No. 556923) as isotype control. 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 FITC under optimum conditions, and unreacted FITC was removed.

Application Notes

Application

Flow cytometry

Routinely Tested

Recommended Assay Procedure:

For detecting low expression levels of chemokine receptors, a multi-step staining procedure is recommended. Our purified and biotinylated formats of Clone 2B11/CXCR4, Cat. No. 551852 and 551968, respectively, are useful for use in detecting low levels of expression using multi-step staining protocols.

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Suggested Companion Products

Catalog Number	Name	Size	Clone
553051	APC Rat Anti-Mouse CD4	0.1 mg	RM4-5
556923	FITC Rat IgG2b, κ Isotype Control	0.1 mg	A95-1
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

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

References

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