

Anti-Mouse CD184 (CXCR4) Functional Grade Purified

Catalog Number: 16-9991

Also Known As: Fusin

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Contents: Anti-Mouse CD184 (CXCR4) Functional Grade Purified

REF **Catalog Number:** 16-9991

Clone: 2B11

Concentration: 1 mg/mL

Host/Isotype: Rat IgG2b, kappa

Handling Conditions: Use in sterile environment.

Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Formulation: aqueous buffer, no sodium azide



Temperature Limitation: Store at 2-8°C.



Batch Code: Refer to Vial



Use By: Refer to Vial

Description

The 2B11 monoclonal antibody reacts with mouse and human CXCR4, also known as CD184, Fusin, LESTR, or HUMSTR. Fusin is a member of the G-protein-coupled chemokine receptor family with seven membrane-spanning domains, and functions as a coreceptor for X4 HIV-1 entry into CD4+ cells. In addition it has been shown to play a role in lymphocyte migration. The ligand for CXCR4 is SDF1. CXCR4 is required for maintenance of granulocyte progenitors in the bone marrow and essential for B cell development. Expression of CXCR4 is different between mice and human. In the thymus CXCR4 is restricted to CD4+CD8+ cells while in the spleen predominant expression is found on B lymphocytes.

The monoclonal antibody 2B11 recognizes the amino terminus of CXCR4 and has been reported to have functional activity; it does not block SDF1a but causes internalization of the receptor.

Applications Reported

This 2B11 antibody has been reported for use in flow cytometric analysis and functional assays.

Applications Tested

This 2B11 antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Forster R, Kremmer E, Schubel A, Breitfeld D, Kleinschmidt A, Nerl C, Bernhardt G, Lipp M. Intracellular and surface expression of the HIV-1 coreceptor CXCR4/fusin on various leukocyte subsets: rapid internalization and recycling upon activation. J Immunol. 1998 Feb 1;160(3):1522-31. (2B11, FC, WB, FA, PubMed)

Schabath R, Muller G, Schubel A, Kremmer E, Lipp M, Forster R. The murine chemokine receptor CXCR4 is tightly regulated during T cell development and activation. J Leukoc Biol. 1999 Dec;66(6):996-1004. (2B11, FC, WB PubMed)

Stumm RK, Rummel J, Junker V, Culmsee C, Pfeiffer M, Kriegelstein J, Holtt V, Schulz S. A dual role for the SDF-1/CXCR4 chemokine receptor system in adult brain: isoform-selective regulation of SDF-1 expression modulates CXCR4-dependent neuronal plasticity and cerebral leukocyte recruitment after focal ischemia. J Neurosci. 2002 Jul 15;22(14):5865-78. (2B11, WB, PubMed)

Related Products

11-4317 Streptavidin FITC

11-4811 Anti-Rat IgG FITC

12-4317 Streptavidin PE

13-4813 Anti-Rat IgG Biotin (Polyclonal)

16-4031 Rat IgG2b K Isotype Control Functional Grade Purified

16-9999 Anti-Human CD184 (CXCR4) Functional Grade Purified (12G5)

17-4317 Streptavidin APC

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