

## 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.

**LOT** **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 10<sup>5</sup> to 10<sup>8</sup> 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, Hollt 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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