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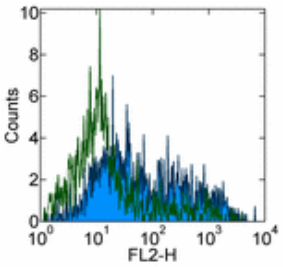
Anti-Mouse CD209b (SIGN-R1) Purified

Catalog Number: 14-2093
Also Known As:C-type lectin, SIGNR1
RUO: For Research Use Only



Staining of C57BL/6 splenocytes with 0.5 µg of Armenian Hamster IgG Isotype Control Purified (cat. 14-4888) (open histogram) or 0.5 µg of Anti-Mouse CD209b (SIGN-R1) Purified (filled histogram) followed by Anti-Armenian Hamster IgG PE (cat. 12-4112). Cells in the lymphocyte and monocyte gates were used for analysis, and events displayed are gated on CD11c+ cells.

Product Information

Contents: Anti-Mouse CD209b (SIGN-R1) Purified
REF Catalog Number: 14-2093
Clone: eBio22D1 (22D1)
Concentration: 0.5 mg/ml
Host/Isotype: Armenian Hamster IgG

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C.
LOT Batch Code: Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

The eBio22D1 monoclonal antibody reacts with mouse SIGNR1 (CD209b). SIGNR1 is a type II transmembrane C-type lectin that was identified in a search for mouse homologues of human DC-SIGN. It is expressed at high levels in splenic marginal zone macrophages and lymph node medullary macrophages, where it functions to uptake dextran polysaccharides, including the capsular polysaccharide of Streptococcus pneumoniae. It has also been demonstrated that SIGNR1 physically associates with TLR4/MD2, and it has been suggested that this association plays a role in recognition of LPS. Furthermore, recently it has been shown that SIGNR1 deficient mice have a defect in catabolism of the complement component C3, and that SIGNR1 binds directly to the complement C1 subcomponent, C1q to assemble a non-conventional C3 convertase. The eBio22D1 monoclonal antibody does not cross-react with the closely related SIGNR1, SIGNR2, SIGNR3 or SIGNR4.

Applications Reported

This eBio22D1 (22D1) antibody has been reported for use in flow cytometric analysis, immunoprecipitation, immunohistology staining of frozen tissue sections, and ELISA. (Please use Functional Grade purified eBio22D1 (22D1), cat. 16-2093, in functional assays.)

Applications Tested

This eBio22D1 (22D1) antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 1 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Kang YS, Kim JY, Bruening SA, Pack M, Charalambous A, Pritsker A, Moran TM, Loeffler JM, Steinman RM, Park CG. The C-type lectin SIGN-R1 mediates uptake of the capsular polysaccharide of Streptococcus pneumoniae in the marginal zone of mouse spleen. Proc Natl Acad Sci U S A. 2004 Jan 6;101(1):215-20. (22D1, FC, FA, IHC, PubMed)

Kang YS, Do Y, Lee HK, Park SH, Cheong C, Lynch RM, Loeffler JM, Steinman RM, Park CG. A dominant complement fixation pathway for pneumococcal polysaccharides initiated by SIGN-R1 interacting with C1q. Cell. 2006 Apr 7;125(1):47-58. (22D1, IHC frozen, FA, PubMed)

Kang YS, Yamazaki S, Iyoda T, Pack M, Bruening SA, Kim JY, Takahara K, Inaba K, Steinman RM, Park CG. SIGN-R1, a novel C-type lectin expressed by marginal zone macrophages in spleen, mediates uptake of the polysaccharide dextran. Int Immunol. 2003 Feb;15(2):177-86.

Nagaoka K, Takahara K, Tanaka K, Yoshida H, Steinman RM, Saitoh S, Akashi-Takamura S, Miyake K, Kang YS, Park CG, Inaba K. Association of SIGNR1 with TLR4-MD-2 enhances signal transduction by recognition of LPS in gram-negative bacteria. Int Immunol. 2005 Jul;17(7):827-36.

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