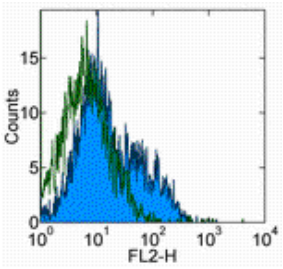
full spectrum cell analysis®
eBioscience®

Anti-Mouse CD223 (Lag-3) Functional Grade Purified

Catalog Number: 16-2231

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



Staining of 3-day Anti-Mouse CD3 and anti-CD28-stimulated C57Bl/6 splenocytes with 0.25 ug of Rat IgG1 Isotype Control Purified (cat. 14-4301) (open histogram) or 0.25 ug of Anti-Mouse CD223 (LAG-3) Purified (filled histogram) followed by Anti-Rat IgG Biotin (cat. 13-4813)and Streptavidin PE (cat. 12-4317). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD223 (Lag-3) Functional Grade Purified

REF **Catalog Number:** 16-2231

Clone: eBioC9B7W (C9B7W)

Concentration: 1 mg/mL

Host/Isotype: Rat IgG1, 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 eBioC9B7W monoclonal antibody recognizes mouse CD223 (LAG-3, LAG3) protein expressed by activated alpha/beta-TCR bearing T cells, a subset of gamma/delta-TCR bearing T cells and a subset of NK cells. CD223 is a 70 kDa type I transmembrane protein with a structure that is similar to CD4. However, a soluble form of human CD223 has been detected by ELISA in human serum, and data suggest that mouse CD223 is proteolytically cleaved in the D4 domain. This results in a 54 kDa fragment containing all the extracellular domains, and a 16 kDa fragment containing the intracellular and transmembrane domains. The 54 kDa can remain membrane-associated or be released as soluble CD223.

CD223 binds to MHC class II with higher affinity than CD4, and it is thought that this interaction is involved in the negative regulation of T-cell activation and homeostatic proliferation. Furthermore, CD223 is expressed by CD4+CD25+ regulatory T cells, and it has been suggested that CD223 may be involved in their regulatory function.

Applications Reported

This eBioC9B7W (C9B7W) antibody has been reported for use in flow cytometric analysis, immunoprecipitation, and ELISA. The functional grade eBioC9B7W has been reported for the *in vitro* and *in vivo* blocking of CD223 function.

Applications Tested

This eBioC9B7W (C9B7W) antibody has been tested by flow cytometric analysis of anti-CD3 and anti-CD28-activated 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

Workman CJ, Vignali DA. Negative regulation of T cell homeostasis by lymphocyte activation gene-3 (CD223). J Immunol. 2005 Jan 15;174(2):688-95. (C9B7W, FA, PubMed)

Li N, Workman CJ, Martin SM, Vignali DA. Biochemical analysis of the regulatory T cell protein lymphocyte activation gene-3 (LAG-3; CD223). J Immunol. 2004 Dec 1;173(11):6806-12. (C9B7W, IP, PubMed)

Huang CT, Workman CJ, Flies D, Pan X, Marson AL, Zhou G, Hipkiss EL, Ravi S, Kowalski J, Levitsky HI, Powell JD, Pardoll DM, Drake CG, Vignali DA. Role of LAG-3 in regulatory T cells.Immunity. 2004 Oct;21(4):503-13. (C9B7W, FC, FA, PubMed)

Workman CJ, Rice DS, Dugger KJ, Kurschner C, Vignali DA. Phenotypic analysis of the murine CD4-related glycoprotein, CD223 (LAG-

3). Eur J Immunol. 2002 Aug;32(8):2255-63. (C9B7W, FC, FA, PubMed)

Baixeras E, Huard B, Miossec C, Jitsukawa S, Martin M, Hercend T, Auffray C, Triebel F, Piatier-Tonneau D. Characterization of the lymphocyte activation gene 3-encoded protein. A new ligand for human leukocyte antigen class II antigens. J Exp Med. 1992 Aug 1;176 (2):327-37.

Related Products
16-4301 Rat IgG1 K Isotype Control Functional Grade Purified
24-2232 Anti-Mouse CD223 (Lag-3) Serum

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.eBioscience.com • info@eBioscience.com