

Anti-Mouse CD223 (Lag-3) eFluor® 450

Catalog Number: 48-2231 RUO: For Research Use Only. Not for use in diagnostic procedures.



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 C9B7W antibody has been reported for use in flow cytometric analysis.

Applications Tested

This C9B7W antibody has been tested by flow cytometric analysis of stimulated mouse splenocytes. This can be used at less than or equal to 1 μ g per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ L. 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.

eFluor® 450 is a replacement for Pacific Blue®. eFluor® 450 emits at 456 nm and is excited with the Violet laser (405 nm). Please make sure that your instrument is capable of detecting this fluorochome.

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)



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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.

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