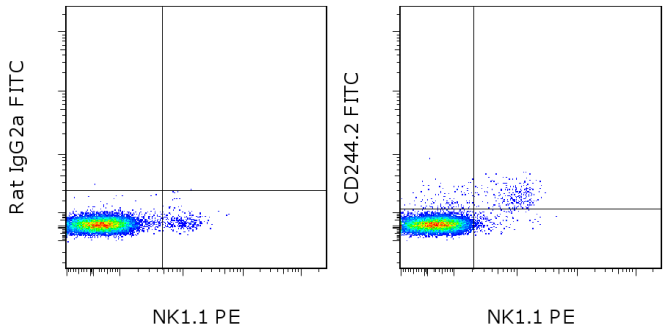
Anti-Mouse CD244.2 (2B4) FITC

Catalog Number: 11-2441
Also known as: B6 Alloantigen
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of C57Bl/6 splenocytes with Anti-Mouse NK1.1 PE (cat. 12-5941) and 0.125 ug of Rat IgG2a K Isotype Control FITC (cat. 11-4321) (left) or 0.125 ug of Anti-Mouse CD244.2 (2B4) FITC (right). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Mouse CD244.2 (2B4) FITC
REF **Catalog Number:** 11-2441
Clone: eBio244F4
Concentration: 0.5 mg/mL
Host/Isotype: Rat IgG2a

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Do not freeze. Light sensitive material.
LOT **Batch Code:** Refer to vial
Use By: Refer to vial

Description

Mouse CD244, also known as 2B4, is a receptor belonging to the CD2 family of proteins involved in non-MHC dependent cytotoxicity. Expression is found on natural killer (NK) cells and many NKT cells and CD8+ cells. In C57BL/6 mice, two splice variants exist that differ in the length of the cytoplasmic domain. The long form functions in an inhibitory manner through signaling through SHP-2, while the short form functions in an activating manner. The ligand for CD244 is CD48 which is expressed on all hematopoietic cells. Recent data suggests that CD244 interactions with CD48, but not CD2 interaction with CD48, is essential for IL-2–driven expansion and activation of murine NK cells.

Reports show CD244 expression can discriminate hematopoietic progenitors. Hematopoietic stem cells (HSC) are highly purified as CD150+CD244-CD48- cells while non-self-renewing multipotent hematopoietic progenitors (MPP) are CD244+CD150-CD48- and the most restricted progenitors are CD48+CD244+CD150-.

eBio244F4 was generated against cell lines expressing CD244. It reacts with the C57BL/6 but not Balb/c due to polymorphisms present in the immunoglobulin V domain of the protein. The epitope recognized by eBio244F4 is different from that of 2B4; therefore these antibodies do not cross-block the binding to the respective epitopes.

Applications Reported

This eBio244F4 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This eBio244F4 antibody has been tested by flow cytometric analysis of IL-2-stimulated mouse splenocytes. This can be used at less than or equal to 0.25 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

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Dittmer U. Virus-specific CD8+ T cells upregulate programmed death-1 expression during acute friend retrovirus infection but are highly cytotoxic and control virus replication.J Immunol. 2011 Oct 1;187(7):3730-7. (ebio244F4, FC)

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Kumaresan PR, Huynh VT, Mathew PA. Polymorphism in the 2B4 gene of inbred mouse strains. Immunogenetics. 2000 Jul;51(8-9):758-61

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Garni-Wagner BA, Purohit A, Mathew PA, Bennett M, Kumar V. A novel function-associated molecule related to non-MHC-restricted cytotoxicity mediated by activated natural killer cells and T cells. J Immunol. 1993 Jul 1;151(1):60-70

Related Products
11-4321 Rat IgG2a K Isotype Control FITC (eBR2a)
12-0481 Anti-Mouse CD48 PE (HM48-1)
12-5941 Anti-Mouse NK1.1 PE (PK136)
13-1501 Anti-Mouse CD150 Biotin (9D1)

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