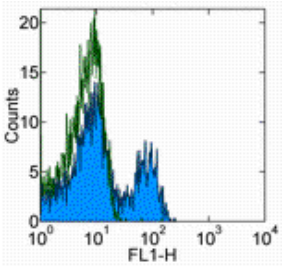
full spectrum cell analysis®
eBioscience®

Anti-Human CD244 Functional Grade Purified

Catalog Number: 16-5838
Also Known As:2B4, p38, SLAMF4
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of normal human peripheral blood cells with 0.25 ug of Mouse IgG1 K Isotype Control Purified (cat. 14-4714) (open histogram) or 0.25 ug of Anti-Human CD244 Purified (filled histogram) followed by Anti-Mouse IgG FITC (cat. 11-4011). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD244 Functional Grade Purified
REF **Catalog Number:** 16-5838
Clone: eBioC1.7 (C1.7)
Concentration: 1 mg/mL
Host/Isotype: Mouse 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 eBioC1.7 monoclonal antibody reacts with human CD244 (2B4, p38). In human, CD244 is a 38 kDa protein expressed on NK cells, a subset of CD8+ T cells, γδ T cells, monocytes, basophils and eosinophils. Binding of the CD244 ligand, CD48, results in NK cell activation, unlike mouse CD244, which is an inhibitory receptor. For CD244 expressed on NK cells, binding of CD48 results in enhanced NK cell cytotoxicity and secretion of IFN-γ. Recently, it was demonstrated that binding of the C1.7 monoclonal antibody and CD48 involve the same residue in the V domain of human CD244, which explains the ability of C1.7 binding to induce activation of NK cells. Binding of C1.7 to CD244 leads to tyrosine phosphorylation and recruitment of the adaptor molecule SAP (SLAM-associated protein). Patients with X-linked lymphoproliferative disorder (XLPD) have a mutation in SAP which renders it unable to bind to phosphorylated CD244.

Applications Reported

This eBioC1.7 (C1.7) antibody has been reported for use in flow cytometric analysis, and immunoblotting (WB).

Applications Tested

This eBioC1.7 (C1.7) antibody has been tested by flow cytometric analysis of normal human peripheral blood. 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

Valiante NM, Trinchieri G. Identification of a novel signal transduction surface molecule on human cytotoxic lymphocytes. J Exp Med. 1993 Oct 1;178(4):1397-406. (**C1.7**, mAb development, FC, FA, WB, PubMed)

Chuang SS, Kim MH, Johnson LA, Albertsson P, Kitson RP, Nannmark U, Goldfarb RH, Mathew PA. 2B4 stimulation of YT cells induces natural killer cell cytolytic function and invasiveness. Immunology. 2000 Jul;100(3):378-83. (**C1.7**, FC, FA, PubMed)

Mathew SO, Kumaresan PR, Lee JK, Huynh VT, Mathew PA. Mutational analysis of the human 2B4 (CD244)/CD48 interaction: Lys68 and Glu70 in the V domain of 2B4 are critical for CD48 binding and functional activation of NK cells. J Immunol. 2005 Jul 15;175(2):1005-13. (**C1.7**, FC, PubMed)

van Emmerik NE, Knoop CJ, Vaessen LM, Balk AH, Mochtar B, Claas FH, Weimar W. C1.7 monoclonal antibody designates high-avidity CD4+ cytotoxic T lymphocytes involved in clinical heart rejection. Transplantation. 1998 Jul 15;66(1):135-8. (**C1.7**, FC, PubMed)

Related Products
11-4011 Anti-Mouse IgG FITC
14-4714 Mouse IgG1 K Isotype Control Purified (P3.6.2.1)
16-4714 Mouse IgG1 K Isotype Control Functional Grade Purified (P3.6.2.1)

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