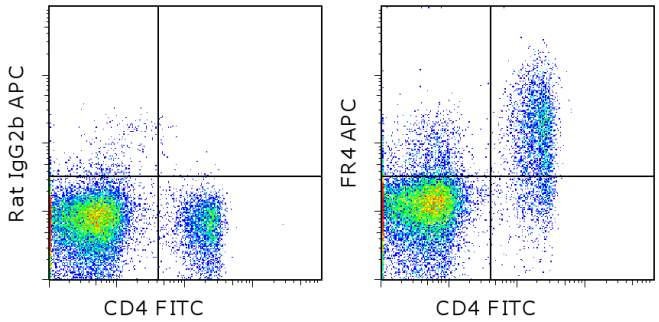
Anti-Mouse FR4 APC

Catalog Number: 17-5445
Also known as: Folate receptor 4, FOLR4, FRdelta, FRd
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of C57Bl/6 splenocytes with Anti-Mouse CD4 FITC (cat. 11-0042) and 0.125 ug of Rat IgG2b kappa Isotype Control APC (cat. 17-4031) (left) or 0.125 ug of Anti-Mouse FR4 APC (right). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Mouse FR4 APC
REF **Catalog Number:** 17-5445
Clone: eBio12A5
Concentration: 0.2 mg/mL
Host/Isotype: Rat IgG2b, kappa

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

The monoclonal antibody eBio12A5 recognizes FR4, also known as Folate receptor 4, FR δ and FBP3 (folate binding protein3). FR4 is a heavily glycosylated 35 kD receptor for folic acid and the physiologic circulating form of the vitamin, N5-methyltetrahydrofolate. Natural T regs have high levels of FR4 and together with CD25 can be used to distinguish natural Tregs, effector T cells, memory-like T cells and naïve T cells. $FR4^{hi}$ $CD25^{hi}$ cells are natural Tregs with high levels of Foxp3. $FR4^{hi}$ $CD25^{lo}$ cells are identified as central memory T cells which upon stimulation can proliferate and produce large amounts of IL-2. In contrast $FR4^{lo}$ $CD25^{hi}$ secrete proinflammatory cytokines such as IFNγ and IL-17 and have been characterized as effector memory T cells.

Based on co-staining studies, the epitopes recognized by eBioTH6 (cat 51-5446) and eBio12A5 are different thereby allowing functional studies with eBioTH6 to be evaluated with eBio12A5.

Applications Reported

This eBio12A5 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This eBio12A5 antibody has been tested by flow cytometric analysis of 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

Elnakat H, Ratnam M. Distribution, functionality and gene regulation of folate receptor isoforms: implications in targeted therapy. Adv Drug Deliv Rev. 2004 Apr 29;56(8):1067-84.

Spiegelstein O, Eudy JD, Finnell RH. Identification of two putative novel folate receptor genes in humans and mouse. Gene. 2000 Nov 27;258(1-2):117-25.

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Sugimoto N, Oida T, Hirota K, Nakamura K, Nomura T, Uchiyama T, Sakaguchi S. Foxp3-dependent and -independent molecules specific for CD25+CD4+ natural regulatory T cells revealed by DNA microarray analysis. Int Immunol. 2006 Aug;18(8):1197-209.

Yamaguchi T, Hirota K, Nagahama K, Ohkawa K, Takahashi T, Nomura T, Sakaguchi S.Control of immune responses by antigen-specific regulatory T cells expressing the folate receptor. Immunity. 2007 Jul;27(1):145-59. (**eBio12A5**, FC, IP, PubMed))

Related Products
00-5523 Foxp3 / Transcription Factor Staining Buffer Set
11-0042 Anti-Mouse CD4 FITC (RM4-5)
12-5773 Anti-Mouse/Rat Foxp3 PE (FJK-16s)
17-4031 Rat IgG2b K Isotype Control APC

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