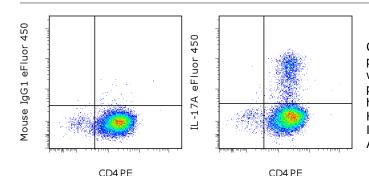


Anti-Human IL-17A eFluor® 450

Catalog Number: 48-7179

Also known as: Interleukin-17A, CTLA-8 RUO: For Research Use Only. Not for use in diagnostic procedures.



CD4-enriched human peripheral blood cells were polarized under Th17 conditions for 6 days. Cells were restimulated with the Cell Stimulation Cocktail plus protein transport inhibitors (cat. 00-4975) for 5 hours and then intracellularly stained with Anti-Human CD4 PE (cat. 12-0049) and Mouse IgG1 K Isotype Control eFluor® 450 (cat. 12-4714) (left) or Anti-Human IL-17A eFluor® 450 (right).

Product Information

Contents: Anti-Human IL-17A eFluor® 450
Image: Contents: Anti-Human IL-17A eFluor® 450

REF
Catalog Number: 48-7179

Clone: eBio64DEC17
Image: Concentration: 5 uL (0.5 ug)/test

Host/Isotype: Mouse IgG1, kappa
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Description

The eBio64DEC17 antibody reacts with human IL-17A. The eBio64DEC17 antibody is a neutralizing antibody. Interleukin-17A (IL-17A) is a CD4+ T cell-derived cytokine that promotes inflammatory responses in cell lines and is elevated in rheumatoid arthritis, asthma, multiple sclerosis, psoriasis, and transplant rejection. The cDNA encoding human IL-17A was isolated from a library of CD4+ T cells; the encoded protein exhibits 72 percent amino acid identity with HVS13, an open reading frame from a T lymphotropic Herpesvirus saimiri, and 63 percent with mouse CTLA-8 (cytotoxic T-lymphocyte associated antigen-8). Human IL-17A exists as glycosylated 20-30 kD homodimers. High levels of IL-17A homodimer are produced by activated peripheral blood CD4+ T-cells. IL-17A enhances expression of the intracellular adhesion molecule-1 (ICAM-1) in human fibroblasts. Human IL-17A also stimulates epithelial, endothelial, or fibroblastic cells to secrete IL-6, IL-8, G-CSF, and PGE2. In the presence of human IL-17A, fibroblasts can sustain the proliferation of CD34+ hematopoietic progenitors and induce maturation into neutrophils. Mouse, rat, and human IL-17A can induce IL-6 secretion in mouse stromal cells, indicating that all homologs can recognize the mouse IL-17A receptor.

IL-23-dependent, IL-17A-producing CD4+ T cells (Th-17 cells) have been identified as a unique subset of Th cells that develops along a pathway that is distinct from the Th1- and Th2- cell differentiation pathways. The hallmark effector molecules of Th1 and Th2 cells, e.g., IFN-g and IL-4, have each been found to negatively regulate the generation of these Th-17 cells.

Intracellular staining by eBio64DEC17 antibody identifies the same cell population as the eBio64CAP17 antibody, as can be seen in co-staining experiments using both antibodies. Click here for link to data 51-7179.

Applications Reported

This eBio64DEC17 antibody has been reported for intracellular staining followed by flow cytometric analysis.

Applications Tested

This eBio64DEC17 antibody has been pre-titrated and tested by intracellular staining and flow cytometric analysis of stimulated normal human peripheral blood cells or Th17 polarized cells. This can be used at 5 μ L (0.5 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.



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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

Acosta-Rodriguez EV, Napolitani G, et al. 2007. Interleukins 1beta and 6 but not transforming growth factor-beta are essential for the differentiation of interleukin 17-producing human T helper cells. Nat Immunol. 8(9):942-9. (FC, PubMed)

Chen Z, Tato CM, Muul L, Laurence A, O'Shea JJ. Distinct regulation of interleukin-17 in human T helper lymphocytes. Arthritis Rheum. 2007 Sep;56(9):2936-46. (ebio64Dec17, FC PubMed)

Related Products

00-4975 Cell Stimulation Cocktail (plus protein transport inhibitors) (500X) 12-6988 Anti-Human/Mouse ROR gamma (t) PE (AFKJS-9) 12-7219 Anti-Human IL-21 PE (eBio3A3-N2 (3A3-N2)) 12-7229 Anti-Human IL-22 PE (22URTI) 46-7169 Anti-Human IL-17F PerCP-eFluor® 710 (SHLR17) 48-4714 Mouse IgG1 K Isotype Control eFluor® 450 (P3.6.2.8.1) 51-9860 Anti-Human BATF Alexa Fluor® 647 (MBM7C7) 88-8823 Fixation & Permeabilization Buffers