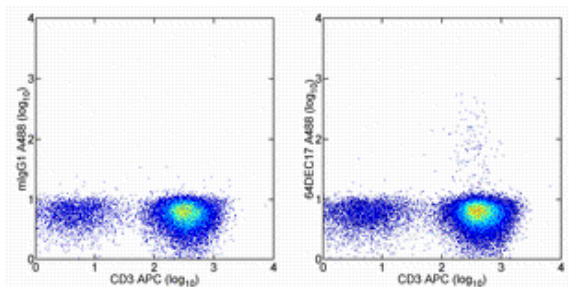


## Anti-Human IL-17A Alexa Fluor<sup>®</sup> 488

**Catalog Number:** 53-7179

**Also Known As:** Interleukin-17A, CTLA8

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



Intracellular staining of normal human peripheral blood cells stimulated overnight with PMA/Ionomycin in the presence of monensin with Anti-Human CD3 APC (cat. 17-0038) and Mouse IgG1 K Isotype Control Alexa Fluor<sup>®</sup> 488 (cat. 53-4714) (left) or Anti-Human IL-17A Alexa Fluor<sup>®</sup> 488 (right). Cells in the lymphocyte gate were used for analysis.

### Product Information

**Contents:** Anti-Human IL-17A Alexa Fluor<sup>®</sup> 488

**REF** **Catalog Number:** 53-7179

**Clone:** eBio64DEC17

**Concentration:** 5  $\mu$ L (0.25  $\mu$ g)/test

**Host/Isotype:** Mouse IgG1, 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.



**Batch Code:** Refer to Vial



**Use By:** Refer to Vial

### 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 gamma 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.

### Applications Reported

The eBio64DEC17 antibody has been reported for use as the detection antibody in human IL-17A ELISA and ELISPOT assays, as well as for neutralization and intracellular staining.

### Applications Tested

This eBio64DEC17 antibody has been pre-titrated and tested by intracellular staining and flow cytometric analysis. This can be used at 5  $\mu$ L (0.25  $\mu$ g) per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test.

### 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**

12-7169 Anti-Human IL-17F PE (SHLR17)  
12-7219 Anti-Human IL-21 PE (eBio3A3-N2 (3A3-N2))  
12-7229 Anti-Human IL-22 PE (22URTI)  
14-8179 Human IL-17A Recombinant Protein  
17-0038 Anti-Human CD3 APC (UCHT1)  
53-4714 Mouse IgG1 K Isotype Control Alexa Fluor® 488 (P3.6.2.1)  
88-7876 Human IL-17A ELISPOT Ready-SET-Go!®  
88-8419 Human Th17 Cytokine Staining Panel  
88-8823 Fixation & Permeabilization Buffers

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