

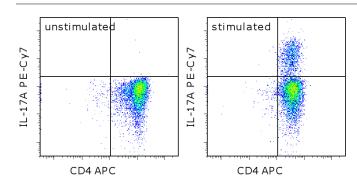
An Affymetrix Company

# Anti-Human IL-17A PE-Cyanine7

Catalog Number: 25-7179

Also known as: Interleukin-17A, CTLA8

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



CD4-enriched human peripheral blood cells were polarized under Th17 conditions for 10 days. Cells were restimulated with Protein Transport Inhibitor Cocktail (cat. 00-4980) (left) or Cell Stimulation Cocktail (plus protein transport inhibitors) (cat. 00-4975) (right) for 6 hours. Cells were stained with Fixable Viability Dye eFluor® 450 (cat. 65-0863) followed by intracellular staining with Anti-Human CD4 APC (cat. 17-0049) and Anti-Human IL-17A PE-Cyanine7 using the Fixation & Permeabilization Buffers (cat. 88-8823). Viable cells were used for analysis.

## **Product Information**

Contents: Anti-Human IL-17A PE-Cyanine7

Clone: eBio64DEC17

**Concentration:** 5 uL (0.125 ug)/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. This tandem dye is sensitive to photo-induced oxidation. Protect this vial from light during storage, handling &



experimental procedures. Batch Code: Refer to vial Use By: Refer to vial Contains sodium azide

### 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**

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



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## **Applications Tested**

This eBio64DEC17 antibody has been pre-titrated and tested by intracellular stainign and flow cytometric analysis. This can be used at 5  $\mu$ L (0.125  $\mu$ 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.

Light sensitivity: This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 uL cell sample + 100 uL IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

#### 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**

00-4980 Protein Transport Inhibitor Cocktail (500X)
17-0049 Anti-Human CD4 APC (RPA-T4)
25-4714 Mouse IgG1 K Isotype Control PE-Cyanine7 (P3.6.2.8.1)
65-0863 Fixable Viability Dye eFluor® 450
88-8419 Human Th17 Cytokine Staining Panel
88-8823 Intracellular Fixation & Permeabilization Buffer (plus Brefeldin A) (previously named

88-8823 Intracellular Fixation & Permeabilization Buffer (plus Brefeldin A) (previously named IC Fixation & Permeabilization Buffer)

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