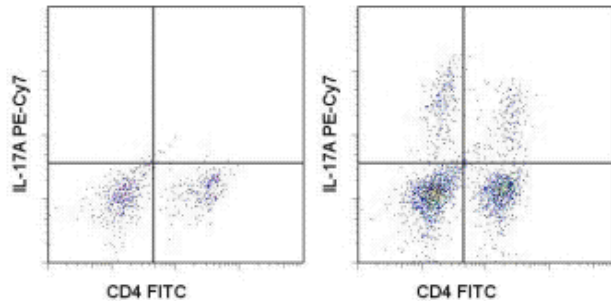


## Anti-Mouse/Rat IL-17A PE-Cyanine7

**Catalog Number:** 25-7177

**Also Known As:** Interleukin-17A, Cytotoxic T-lymphocyte-associated antigen 8, CTLA-8

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



Intracellular staining of 10-day Th17-polarized mouse splenocytes either unstimulated (left) or stimulated with PMA and ionomycin in the presence of Brefeldin A (right) with Anti-Mouse CD4 FITC (cat. 11-0042) and 0.25  $\mu$ g of Anti-Mouse/Rat IL-17A (Interleukin-17A) PE-Cyanine7.

### Product Information

**Contents:** Anti-Mouse/Rat IL-17A PE-Cyanine7

**REF** **Catalog Number:** 25-7177

**Clone:** eBio17B7

**Concentration:** 0.2 mg/mL

**Host/Isotype:** Rat IgG2a, 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.

**LOT** **Batch Code:** Refer to Vial

**Use By:** Refer to Vial

**Contains sodium azide**

### Description

The eBio17B7 antibody reacts with mouse and rat IL-17A with no recognition of IL-17F. 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.

### Applications Reported

This eBio17B7 antibody has been reported for use intracellular staining followed by flow cytometric analysis.

### Applications Tested

This eBio17B7 antibody has been tested by intracellular staining and flow cytometric analysis of PMA and Ionomycin-restimulated splenocytes cultured under Th17-polarizing conditions. This can be used at less than or equal to 0.5  $\mu$ 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  $10^5$  to  $10^8$  cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Staining has been successfully done using the Foxp3 buffer system (cat 00-5523).

**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  $\mu$ L cell sample + 100  $\mu$ L 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

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Tousif S, Singh Y, Prasad DV, Sharma P, Van Kaer L, Das G. T cells from Programmed Death-1 deficient mice respond poorly to Mycobacterium tuberculosis infection. *PLoS One*. 2011 May 12;6(5):e19864. (eBio17B7, IC flow, PubMed)

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## Related Products

00-4975 Cell Stimulation Cocktail (plus protein transport inhibitors) (500X)

11-0042 Anti-Mouse CD4 FITC (RM4-5)

14-8231 Mouse IL-23 Recombinant Protein

17-7211 Anti-Mouse IL-21 APC (FFA21)

25-4321 Rat IgG2a K Isotype Control PE-Cyanine7 (eBR2a)

53-7471 Anti-Mouse IL-17F Alexa Fluor® 488 (eBio18F10)

88-7272 Mouse IL-17AF (heterodimer) ELISA Ready-SET-Go!® (To Be Discontinued. Please refer to 88-8711 for the 2nd generation kit)

88-7371 Mouse IL-17A (homodimer) ELISA Ready-SET-Go!®

88-8411 Mouse Th17 Cytokine Staining Panel

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

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