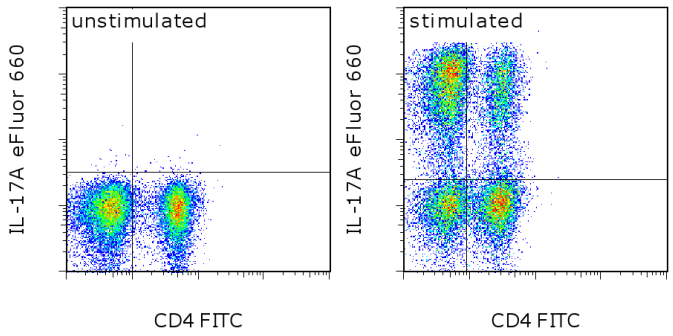
Anti-Mouse/Rat IL-17A eFluor® 660 (Alexa Fluor® 647 Replacement)

Catalog Number: 50-7177
Also known as: Interleukin-17A, Cytotoxic T-lymphocyte-associated antigen 8, CTLA-8
RUO: For Research Use Only. Not for use in diagnostic procedures.



Mouse splenocytes were cultured for 7 days under Th17-polarization conditions. Cells were unstimulated (left) or stimulated (right) with Cell Stimulation Cocktail (plus protein transport inhibitors) (cat. 00-4975) and intracellularly stained with Anti-Mouse CD4 FITC (cat. 11-0041) and 0.125 ug of Anti-Mouse/Rat IL-17A eFluor® 660. Viable cells, as determined by Fixable Viability Dye eFluor® 780 (cat. 65-0865), were used for analysis.

Product Information

Contents: Anti-Mouse/Rat IL-17A eFluor® 660 (Alexa Fluor® 647 Replacement)
REF **Catalog Number:** 50-7177
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.
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 in intracellular staining followed by flow cytometric analysis.

Applications Tested

This eBio17B7 antibody has been tested by intracellular staining and flow cytometric analysis of stimulated 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.

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

eFluor® 660 is a replacement for Alexa Fluor® 647. eFluor® 660 emits at 659 nm and is excited with the red laser (633 nm). Please make sure that your instrument is capable of detecting this fluorochome.

References

Cao H, Lan Q, Shi Q, Zhou X, Liu G, Liu J, Tang G, Qiu C, Qiu C, Xu J, Fan H, Liu Z. Anti-IL-23 antibody blockade of IL-23/IL-17 pathway attenuates airway obliteration in rat orthotopic tracheal transplantation. Int Immunopharmacol. 2011 May;11(5):569-75.(**eBio17B7**, crossreactivity to rat, PubMed)

Yan S, Wang L, Liu N, Wang Y, Chu Y. Critical role of interleukin-17/interleukin-17 receptor axis in mediating Con A-induced hepatitis. Immunol Cell Biol. 2011 Jun 21:1-8. (**eBio17B7**, IHC paraffin, PubMed)

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)

Wu S, Rhee KJ, Albesiano E, Rabizadeh S, Wu X, Yen HR, Huso DL, Brancati FL, Wick E, McAllister F, Housseau F, Pardoll DM, Sears CL. A human colonic commensal promotes colon tumorigenesis via activation of T helper type 17 T cell responses. Nat Med. 2009 Aug 23.(**eBio17B7**, IC flow, PubMed)

Ellestad KK, Tsutsui S, Noorbakhsh F, Warren KG, Yong VW, Pittman QJ, Power C. Early life exposure to lipopolysaccharide suppresses experimental autoimmune encephalomyelitis by promoting tolerogenic dendritic cells and regulatory T cells. J Immunol. 2009 Jul 1;183(1):298-309. (**eBio17B7**, IC flow, PubMed)

Related Products

00-4975 Cell Stimulation Cocktail (plus protein transport inhibitors) (500X)
11-0041 Anti-Mouse CD4 FITC (GK1.5)
16-0031 Anti-Mouse CD3e Functional Grade Purified (145-2C11)
16-0281 Anti-Mouse CD28 Functional Grade Purified (37.51)
50-4321 Rat IgG2a K Isotype Control eFluor® 660 (Alexa Fluor® 647 Replacment) (eBR2a)
65-0865 Fixable Viability Dye eFluor® 780
88-8823 Fixation & Permeabilization Buffers

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