IL-17A Monoclonal Antibody (eBio17B7), PE-eFluor™ 610, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse, Rat
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE-eFluor™ 610, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBio17B7
Conjugate	PE-eFluor™ 610
Excitation/Emission Max	565/606 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2574656

Applications	Tested Dilution	Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Flow Cytometry (Flow)	0.25 µg/test	71 Publications
Functional Assay (FN)	-	1 Publication

Product Specific Information

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 restimulated, Th17-polarized mouse splenocytes using the Intracellular Fixation and Permeabilization Buffer Set (cat. 88-8824) and protocol. 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.

Staining has been successfully done using the Foxp3/Transcription Factor Staining Buffer Set (cat. 00-5523) and protocol.

PE-eFluor® 610 can be excited with laser lines from 488-561 nm and emits at 607 nm. We recommend using a 610/20 band pass filter (equivalent to PE-Texas Red®). Please make sure that your instrument is capable of detecting this fluorochome.

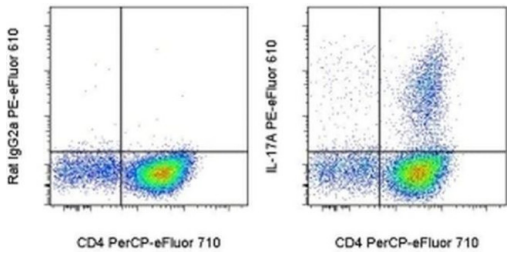
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL of cell sample + 100 µL of 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.

Excitation: 488-561 nm; Emission: 607 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For IL-17A Monoclonal Antibody (eBio17B7), PE-eFluor™ 610, eBioscience™



IL-17A Antibody (61-7177-82) in Flow
Splenocytes were cultured under Th17-polarizing conditions for 6 days then restimulated for 5 hours with the Cell Stimulation Cocktail (plus protein transport inhibitors) (Product # 00-4975-03). Cells were intracellularly stained with Anti-Mouse CD4 PerCP-eFluor® 710 (Product # 46-0042-82) and 0.125 µg of Rat IgG2a K Isotype Control PE-eFluor® 610 (Product # 61-4321-82) (left) or 0.125 µg of Anti-Mouse/Rat IL-17A PE-eFluor® 610 (right) using the Intracellular Fixation & Permeabilization Buffer Set (Product # 88-8824-00) and protocol. Viable cells, as determined by Fixable Viability Dye eFluor® 660 (Product # 65-0864-14), in the lymphocyte gate were used for analysis.

View more figures on thermofisher.com

73 References

Immunohistochemistry (Paraffin) (1)

BMC immunology

Year
2011

Role of epithelial integrin-linked kinase in promoting intestinal inflammation: effects on CCL2, fibronectin and the T cell repertoire.

Authors: Assi K,Patterson S,Dedhar S,Owen D,Levings M,Salh B

Flow Cytometry (71)

Therapeutic advances in chronic disease

Year
2023

Prevention of EAE by tolerogenic vaccination with PEGylated antigenic peptides.

"Published figure using IL-17A monoclonal antibody (Product # 61-7177-82) in Flow Cytometry"

Authors: Pfeil J,Simonetti M,Lauer U,von Thülen B,Durek P,Poulsen C,Pawlowska J,Kröger M,Krähmer R,Leenders F, Hoffmann U,Hamann A

Cell communication and signaling : CCS

Year
2023

SARS-CoV-2 spike protein promotes inflammatory cytokine activation and aggravates rheumatoid arthritis.

"Published figure using IL-17A monoclonal antibody (Product # 61-7177-82) in Flow Cytometry"

Authors: Lee AR,Woo JS,Lee SY,Lee YS,Jung J,Lee CR,Park SH,Cho ML

View more Flow references on thermofisher.com

Functional Assay (1)

International immunopharmacology

Year
2011

Anti-IL-23 antibody blockade of IL-23/IL-17 pathway attenuates airway obliteration in rat orthotopic tracheal transplantation.

Authors: Cao H,Lan Q,Shi Q,Zhou X,Liu G,Liu J,Tang G,Qiu C,Qiu C,Xu J,Fan H,Liu Z

More applications with references on thermofisher.com