

IL-17A Monoclonal Antibody (eBio64DEC17), PE-Cyanine7, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Published Species	Hamster, Human, Mouse, Rhesus monkey
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PE-Cyanine7, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBio64DEC17
Conjugate	PE-Cyanine7
Excitation/Emission Max	569/780 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_11063994

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.125 µg)/test	25 Publications
ELISA (ELISA)	-	1 Publication

Product Specific Information

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.

Applications Tested: This eBio64DEC17 antibody has been pre-titrated and tested by intracellular stainign and flow cytometric analysis. This can be used at 5 µL (0.125 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.

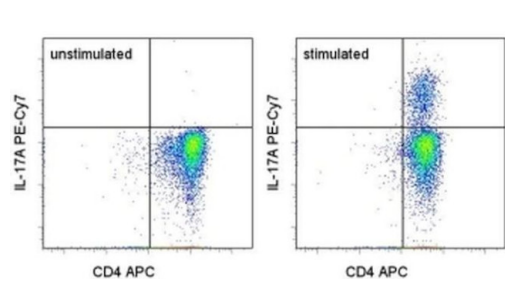
Light sensitivity: This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222-49) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix/Lyse Solution () 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: 775 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For IL-17A Monoclonal Antibody (eBio64DEC17), PE-Cyanine7, eBioscience™



IL-17A Antibody (25-7179-42) in Flow
CD4-enriched human peripheral blood cells were polarized under Th17 conditions (with Human IL-23 Recombinant Protein (Product # 14-8239-63) for 10 days. Cells were restimulated with Protein Transport Inhibitor Cocktail (Product # 00-4980-03) (left) or Cell Stimulation Cocktail (plus protein transport inhibitors) (Product # 00-4975-03) (right) for 6 hours. Cells were intracellularly stained with Anti-Human CD4 APC (Product # 17-0049-42) and Anti-Human IL-17A PE-Cyanine7 using the Fixation & Permeabilization Buffers (Product # 88-8823-88). Viable cells, as determined by Fixable Viability Dye eFluor® 450 (Product # 65-0863-14), were used for analysis.

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Flow Cytometry (25)

<p>PloS one</p> <p>Small molecule allosteric inhibitors of RORt block Th17-dependent inflammation and associated gene expression in vivo.</p> <p>"Published figure using IL-17A monoclonal antibody (Product # 25-7179-42) in Flow Cytometry"</p> <p>Authors: Saenz SA,Local A,Carr T,Shakya A,Koul S,Hu H,Chourb L,Stedman J,Malley J,D'Agostino LA,Shanmugasundaram V,Malona J,Schwartz CE,Beebe L,Clements M,Rajaraman G,Cho J,Jiang L,Dubrovskiy A,Kreilein M,Shimanovich R,Hamann LG,Escoubet L,Ellis JM</p>	<p>Year 2021</p>
<p>JCI insight</p> <p>YY1 regulation by miR-124-3p promotes Th17 cell pathogenicity through interaction with T-bet in rheumatoid arthritis.</p> <p>"Published figure using IL-17A monoclonal antibody (Product # 25-7179-42) in Flow Cytometry"</p> <p>Authors: Lin J,Tang J,Lin J,He Y,Yu Z,Jiang R,Yang B,Ou Q</p>	<p>Year 2021</p>

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ELISA (1)

<p>PLoS pathogens</p> <p>A Quantitative Analysis of Complexity of Human Pathogen-Specific CD4 T Cell Responses in Healthy M. tuberculosis Infected South Africans.</p> <p>"25-7179 was used in an ELISpot assay to estimate the breadth of T cell responses for the first time in the context of an infection and human population setting."</p> <p>Authors: Lindestam Arlehamn CS,McKinney DM,Carpenter C,Paul S,Rozot V,Makgotlho E,Gregg Y,van Rooyen M,Ernst JD,Hatherill M,Hanekom WA,Peters B,Scriba TJ,Sette A</p>	<p>Year 2016</p> <p>Species Human</p>
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