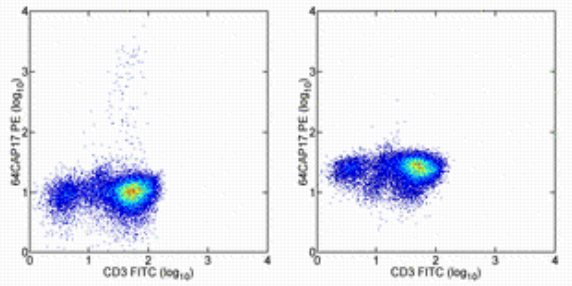
full spectrum cell analysis®
eBioscience®

Anti-Human IL-17A PE

Catalog Number: 12-7178
Also Known As: Interleukin-17A, IL17A
RUO: For Research Use Only



Normal human peripheral blood cells were stimulated overnight with PMA and Ionomycin in the presence of monensin. Cells were stained with Anti-Human CD3 FITC (cat. 11-0037), then fixed, permeablized, and stained with Anti-Human IL-17A PE (Left figure). The ligand blocking control demonstrates that pre-blocking Anti-Human IL-17A PE with 1.0 ug of Human IL-17A Recombinant Protein (cat. 14-8179) prior to staining abrogates specific IL-17A staining (Right figure). Cells in the lymphocyte gate were used for analysis.

Product Information

Contents: Anti-Human IL-17A PE
REF **Catalog Number:** 12-7178
Clone: eBio64CAP17
Concentration: 5 uL (0.25 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.
LOT **Batch Code:** Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

The eBio64CAP17 antibody reacts with human IL-17A; the antibody has been reported to cross react with Rhesus monkey IL-17A, as verified by intracellular staining experiments. The eBio64CAP17 antibody is a neutralizing antibody. Reactivity of the eBio64CAP17 antibody with other IL-17 family members has not been evaluated. 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-g and IL-4, have each been found to negatively regulate the generation of these Th-17 cells.

Additionally, activated human CD4+ T cells have been found to produce the IL-17A/F heterodimer, as well as the corresponding homodimers. In comparing the relative potency of IL-17A, IL-17F, and IL-17A/F, all three were found to induce GRO-a secretion; IL-17A was most potent, followed by IL-17A/F heterodimer, then IL-17F (100fold lower than IL-17A). eBio64CAP17 can be used to detect IL-17 heterodimers by immunoprecipitation followed by immunoblot withH17F10A7 anti-IL17F monoclonal antibody.

The eBio64CAP17 has been shown to react to rhesus and marmoset primates.

Applications Reported

The eBio64CAP17 antibody has been reported for use as the capture antibody in human IL-17A ELISA and ELISPOT assays, for neutralization of IL-17A bioactivity, and for intracellular staining and flow cytometric analysis of IL-17A-producing cells.

Applications Tested

This eBio64CAP17 antibody has been pre-titrated and tested by intracellular staining for flow cytometric analysis of stimulated normal human peripheral blood cells. This can be used at 5 µL (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.

References

Kap YS, van Meurs M, van Driel N, Koopman G, Melief MJ, Brok HP, Laman JD, 't Hart BA. A monoclonal antibody selection for immunohistochemical examination of lymphoid tissues from non-human primates. J Histochem Cytochem. 2009 Dec;57(12):1159-67. (eBio64CAP17, IHC frozen on rhesus and marmoset primates, PubMed)

Related Products

11-0037 Anti-Human CD3 FITC (OKT3)
13-7179 Anti-Human IL-17A Biotin (eBio64DEC17)
14-8179 Human IL-17A Recombinant Protein
14-8239 Human IL-23 Recombinant Protein
88-7176 Human IL-17A (homodimer) ELISA Ready-SET-Go!®
88-7876 Human IL-17A ELISPOT Ready-SET-Go!®
88-7976 Human IL-17A (Interleukin-17A, IL17A) ELISA Ready-SET-Go! Kit (See replacement item BMS2017)

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