

### IL17 Antibody (clone TC11-18H10)

Rat Monoclonal Antibody Catalog # ALS13687

#### **Specification**

#### IL17 Antibody (clone TC11-18H10) - Product Information

Application IHC
Primary Accession O62386
Reactivity Mouse
Host Rat

Clonality Monoclonal

## IL17 Antibody (clone TC11-18H10) - Additional Information

#### **Gene ID 16171**

#### Target/Specificity

Recognizes mouse Interleukin 17, a 32kDa disulfide-linked homodimer consisting of two 136 amino acid chains, which belong to the IL-17 family (classified as IL-17A to IL-17F), and signal through the IL-17 receptor (IL-17R/CDw217).

### **Reconstitution & Storage**

Aliquot and store at -20°C. Minimize freezing and thawing.

#### **Precautions**

IL17 Antibody (clone TC11-18H10) is for research use only and not for use in diagnostic or therapeutic procedures.

#### IL17 Antibody (clone TC11-18H10) - Protein Information

#### Name II17a

Synonyms Ctla8, II17

#### **Function**

Effector cytokine of innate and adaptive immune system involved in antimicrobial host defense and maintenance of tissue integrity (PubMed:<a href="http://www.uniprot.org/citations/18025225" target="\_blank">18025225</a>, PubMed:<a href="http://www.uniprot.org/citations/19144317" target="\_blank">19144317</a>, PubMed:<a href="http://www.uniprot.org/citations/26431948" target="\_blank">26431948</a>). Signals via IL17RA-IL17RC heterodimeric receptor complex, triggering homotypic interaction of IL17RA and IL17RC chains with TRAF3IP2 adapter. This leads to downstream TRAF6-mediated activation of NF-kappa-B and MAPkinase pathways ultimately resulting in transcriptional activation of cytokines, chemokines, antimicrobial peptides and matrix metalloproteinases, with potential strong immune inflammation (PubMed:<a href="http://www.uniprot.org/citations/17911633" target="\_blank">17911633</a>, PubMed:<a href="http://www.uniprot.org/citations/16200068" target="\_blank">16200068</a>, PubMed:<a href="http://www.uniprot.org/citations/19144317" target="\_blank">19144317</a>, PubMed:<a href="http://www.uniprot.org/citations/26431948" target="\_blank">26431948</a>). Plays an



important role in connecting T cell-mediated adaptive immunity and acute inflammatory response to destroy extracellular bacteria and fungi. As a signature effector cytokine of T-helper 17 cells (Th17), primarily induces neutrophil activation and recruitment at infection and inflammatory sites (PubMed:<a href="http://www.uniprot.org/citations/18025225" target=" blank">18025225</a>). In airway epithelium, mediates neutrophil chemotaxis via induction of CXCL1 and CXCL5 chemokines (PubMed:<a href="http://www.uniprot.org/citations/18025225" target=" blank">18025225</a>, PubMed:<a href="http://www.uniprot.org/citations/27923703" target="\_blank">27923703</a>). In secondary lymphoid organs, contributes to germinal center formation by regulating the chemotactic response of B cells to CXCL12 and CXCL13, enhancing retention of B cells within the germinal centers, B cell somatic hypermutation rate and selection toward plasma cells (PubMed:<a href="http://www.uniprot.org/citations/18157131" target=" blank">18157131</a>). Effector cytokine of a subset of gamma-delta T cells that functions as part of an inflammatory circuit downstream IL1B, TLR2 and IL23A-IL12B to promote neutrophil recruitment for efficient bacterial clearance (PubMed: <a href="http://www.uniprot.org/citations/17372004" target=" blank">17372004</a>, PubMed:<a href="http://www.uniprot.org/citations/20364087" target="blank">20364087</a>, PubMed:<a href="http://www.uniprot.org/citations/28709803" target="blank">28709803</a>). Effector cytokine of innate immune cells including invariant natural killer cell (iNKT) and group 3 innate lymphoid cells that mediate initial neutrophilic inflammation (PubMed: <a href="http://www.uniprot.org/citations/17470641" target=" blank">17470641</a>, PubMed:<a href="http://www.uniprot.org/citations/23255360" target=" blank">23255360</a>). Involved in the maintenance of the integrity of epithelial barriers during homeostasis and pathogen infection. Upon acute injury, has a direct role in epithelial barrier formation by regulating OCLN localization and tight junction biogenesis (PubMed: <a href="http://www.uniprot.org/citations/26431948" target=" blank">26431948</a>). As part of the mucosal immune response induced by commensal bacteria, enhances host's ability to resist pathogenic bacterial and fungal infections by promoting neutrophil recruitment and antimicrobial peptides release (PubMed:<a href="http://www.uniprot.org/citations/28709803" target=" blank">28709803</a>). In synergy with IL17F, mediates the production of antimicrobial beta-defensins DEFB1, DEFB103A, and DEFB104A by mucosal epithelial cells, limiting the entry of microbes through the epithelial barriers (PubMed:<a href="http://www.uniprot.org/citations/19144317" target=" blank">19144317</a>). Involved in antiviral host defense through various mechanisms (PubMed: <a href="http://www.uniprot.org/citations/21946434" target=" blank">21946434</a>, PubMed:<a href="http://www.uniprot.org/citations/26735852" target="\_blank">26735852</a>, PubMed:<a href="http://www.uniprot.org/citations/27795421" target="\_blank">27795421</a>). Enhances immunity against West Nile virus by promoting T cell cytotoxicity (PubMed: <a href="http://www.uniprot.org/citations/27795421" target=" blank">27795421</a>). May play a beneficial role in influenza A virus (H5N1) infection by enhancing B cell recruitment and immune response in the lung (PubMed: <a href="http://www.uniprot.org/citations/21946434" target=" blank">21946434</a>). Contributes to influenza A virus (H1N1) clearance by driving the differentiation of B-1a B cells, providing for production of virus-specific IgM antibodies at first line of host defense (PubMed:<a href="http://www.uniprot.org/citations/26735852" target=" blank">26735852</a>).

Cellular Location Secreted.

### **Tissue Location**

Expressed by Th17 cell lineage (at protein level). The expression pattern reflects the differentiation state, with IL17A-IL17F heterodimers produced at higher levels than IL17A-IL17A and IL17F-IL17F dimers in fully differentiated Th17 cells (PubMed:18025225, PubMed:16990136). Expressed in innate lymphoid cells (at protein level) (PubMed:23255360, PubMed:28709803). Expressed in gamma-delta T cell subsets (at protein level) (PubMed:17372004, PubMed:20364087, PubMed:28709803, PubMed:26431948). Expressed in iNKT cells (at protein level) (PubMed:17470641).



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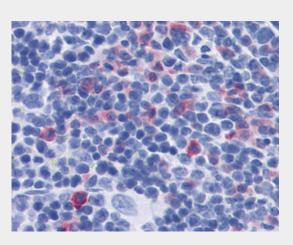


# IL17 Antibody (clone TC11-18H10) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

## IL17 Antibody (clone TC11-18H10) - Images



Anti-IL-17 antibody IHC of mouse spleen.

# IL17 Antibody (clone TC11-18H10) - Citations

• Identification and analysis of key genes associated with ulcerative colitis based on DNA microarray data.