

# Anti- IL-17F Monoclonal Antibody

Catalog # ABO15021

## Product Information

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|--------------------------|---------------------------------------------------------------------------------------------------|
| <b>Application</b>       | IHC-P                                                                                             |
| <b>Primary Accession</b> | <a href="#">Q7TNI7</a>                                                                            |
| <b>Host</b>              | Mouse                                                                                             |
| <b>Isotype</b>           | Mouse IgG1, $\kappa$                                                                              |
| <b>Reactivity</b>        | Mouse                                                                                             |
| <b>Clonality</b>         | Monoclonal                                                                                        |
| <b>Format</b>            | Lyophilized                                                                                       |
| <b>Description</b>       | Anti- IL-17F Monoclonal Antibody . Tested in IHC-P applications. This antibody reacts with Mouse. |
| <b>Reconstitution</b>    | Add 0.2ml of distilled water will yield a concentration of 500 $\mu$ g/ml.                        |

## Additional Information

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|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene ID</b>                         | 257630                                                                                                                                     |
| <b>Other Names</b>                     | Interleukin-17F, IL-17F, Il17f                                                                                                             |
| <b>Calculated MW</b>                   | 17941                                                                                                                                      |
| <b>Application Details</b>             | Immunohistochemistry (Paraffin-embedded Section), 2-5 $\mu$ g/ml, Mouse                                                                    |
| <b>Source</b>                          | Eukaryota                                                                                                                                  |
| <b>Protein Name</b>                    | Interleukin-17F                                                                                                                            |
| <b>Contents</b>                        | PBS, pH 7.0. Contains no stabilizers or preservatives                                                                                      |
| <b>Clone Names</b><br><b>Immunogen</b> | Clone: AFIC-9<br>Mouse IL-17F                                                                                                              |
| <b>Purification</b>                    | Immunogen affinity purified.                                                                                                               |
| <b>Storage</b>                         | Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles. |

## Protein Information

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|-----------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Name</b>     | Il17f                                                                                                                             |
| <b>Function</b> | Effector cytokine of innate and adaptive immune system involved in antimicrobial host defense and maintenance of tissue integrity |

(PubMed:[18025225](#), PubMed:[19144317](#), PubMed:[23255360](#)). IL17A- IL17F signals via IL17RA-IL17RC heterodimeric receptor complex, triggering homotypic interaction of IL17RA and IL17RC chains with TRAF3IP2 adapter through SEFIR domains. 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:[15477493](#), PubMed:[17911633](#), PubMed:[18025225](#)). IL17A-IL17F is primarily involved in host defense against extracellular bacteria and fungi by inducing neutrophilic inflammation (PubMed:[18025225](#), PubMed:[23255360](#)). As signature effector cytokine of T-helper 17 cells (Th17), primarily induces neutrophil activation and recruitment at infection and inflammatory sites (PubMed:[18025225](#)). Stimulates the production of antimicrobial beta-defensins DEFB1, DEFB103A, and DEFB104A by mucosal epithelial cells, limiting the entry of microbes through the epithelial barriers (PubMed:[19144317](#)). IL17F homodimer can signal via IL17RC homodimeric receptor complex, triggering downstream activation of TRAF6 and NF-kappa-B signaling pathway (PubMed:[28813677](#)). Via IL17RC induces transcriptional activation of IL33, a potent cytokine that stimulates group 2 innate lymphoid cells and adaptive T-helper 2 cells involved in pulmonary allergic response to fungi (PubMed:[28813677](#)). Likely via IL17RC, promotes sympathetic innervation of peripheral organs by coordinating the communication between gamma-delta T cells and parenchymal cells. Stimulates sympathetic innervation of thermogenic adipose tissue by driving TGFB1 expression (PubMed:[32076265](#)). Regulates the composition of intestinal microbiota and immune tolerance by inducing antimicrobial proteins that specifically control the growth of commensal Firmicutes and Bacteroidetes (PubMed:[29915298](#)).

#### Cellular Location

Secreted.

#### Tissue Location

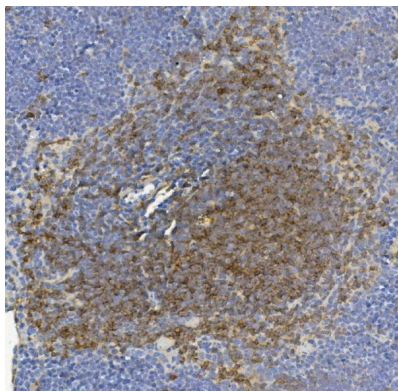
Expressed by T-helper 17 cells (Th17) (at protein level). The expression pattern reflects the differentiation state. In fully differentiated Th17 cells, IL17A-IL17F heterodimers are produced at higher levels than IL17A-IL17A and IL17F-IL17F dimers (PubMed:[18025225](#)). Dominantly secreted in intestine (PubMed:[29915298](#)) Expressed by resident cells of the lamina propria, both epithelial cells and immune cell subsets including natural killer cells, dendritic cells, macrophages and various T and B cell subsets (PubMed:[16990136](#), PubMed:[29915298](#)). Expressed by epithelial cells and innate immune cells in the colon (PubMed:[19144317](#)). Expressed in group 3 innate lymphoid cells (PubMed:[23255360](#), PubMed:[29915298](#)).

## Background

Interleukin 17F, also called IL17F is involved in the regulation of normal versus aberrant T-cell responses. This gene is mapped to 6p12.2. The protein encoded by this gene is a cytokine that shares sequence similarity with IL17. This cytokine is expressed by activated T cells, and has been shown to stimulate the production of several other cytokines, including IL6, IL8, and CSF2/GM-CSF. This cytokine is also found to inhibit the angiogenesis of endothelial cells and induce endothelial cells to produce IL2, TGFB1/TGFB, and monocyte chemoattractant protein-1. It is suggested that targeting IL17 and IL17F or antagonizing IL17R might mitigate neutrophil-mediated inflammation in CF.

## Images

Figure 1. IHC analysis of IL-17F using anti-IL-17F antibody (M02062).  
IL-17F was detected in paraffin-embedded section of



mouse spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 µg/ml mouse anti-IL-17F Antibody (M02062) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB as the chromogen.

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