

# Human IL-17F / IL17F Protein

Catalog Number: 11855-HNAE



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CANDF6; IL-17F; ML-1; ML1

### Protein Construction:

A DNA sequence encoding human IL17F (AAH70124.1) (Arg31-Gln163) was expressed with a N-terminal Met.

**Source:** Human

**Expression Host:** E. coli

## QC Testing

**Purity:** > 95 % as determined by SDS-PAGE

### Bio Activity:

Measured by its ability to induce IL-6 secretion by NIH3T3 mouse embryonic fibroblast cells in the presence of 20 ng/mL TNF $\alpha$ . The ED<sub>50</sub> for this effect is 4-20 ng/mL.

### Endotoxin:

Please contact us for more information.

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant human IL17F consists of 134 amino acids and predicts a molecular mass of 15.1 KDa. It migrates as an approximately 15 KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

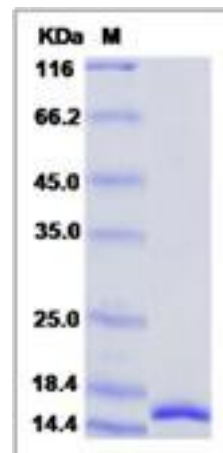
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Interleukin-17F (IL-17F) is a cytokine that shares sequence similarity with IL17. The most notable role of IL-17 is its involvement in inducing and mediating proinflammatory responses. IL-17 is commonly associated with allergic responses. IL-17F is expressed by activated T cells, and was expressed only in activated CD4+ T cells and activated monocytes. IL-17F has been shown to stimulate the production of several other cytokines, including IL6 and IL8. 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. Recombinant human IL-17F did not stimulate the proliferation of hematopoietic progenitors or the migration of mature leukocytes. However, it markedly inhibited the angiogenesis of human endothelial cells and induced endothelial cells to produce IL-2, TGF- $\beta$ , and monocyte chemoattractant protein-1. IL-17F stimulates the production of other cytokines and granulocyte colony-stimulating factor, and can regulate cartilage matrix turnover. IL-17F stimulates PBMC and T-cell proliferation. It also function in inhibiting angiogenesis. By similarity, IL-17F plays a role in the induction of neutrophilia in the lungs and in the exacerbation of antigen-induced pulmonary allergic inflammation.

## References

*et al.* 1.Starnes T, *et al.* (2001) Cutting edge: IL-17F, a novel cytokine selectively expressed in activated T cells and monocytes, regulates angiogenesis and endothelial cell cytokine production. *J Immunol.* 167(8): 4137-40. 2.Hymowitz SG, *et al.* (2001) IL-17s adopt a cystine knot fold: structure and activity of a novel cytokine, IL-17F, and implications for receptor binding. *EMBO J.* 20(19): 5332-41. 3.McAllister F, *et al.* (2005) Role of IL-17A, IL-17F, and the IL-17 receptor in regulating growth-related oncogene- $\alpha$  and granulocyte colony-stimulating factor in bronchial epithelium: implications for airway inflammation in cystic fibrosis. *J Immunol.* 175(1): 404-12.

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For US Customer: Fax: 267-657-0217 • Tel: 215-583-7898

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