

# Human IL17 / IL17A Protein (His Tag)

Catalog Number: 12047-H07B



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

CTLA-8; CTLA8; IL-17; IL-17A; IL17

### Protein Construction:

A DNA sequence encoding the mature form of human IL17A (Q16552) (Gly24-Ala155) was expressed, with a polyhistidine tag at the N-terminus.

**Source:** Human

**Expression Host:** Baculovirus-Insect Cells

## 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 0.5-2.5 ng/mL.

### Endotoxin:

< 1.0 EU per  $\mu$ g of the protein as determined by the LAL method

### Stability:

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

**Predicted N terminal:** His

### Molecular Mass:

The recombinant human IL17A consists of 152 amino acids and predicts a molecular mass of 17.3 KDa. It migrates as an approximately 19 KDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, 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:

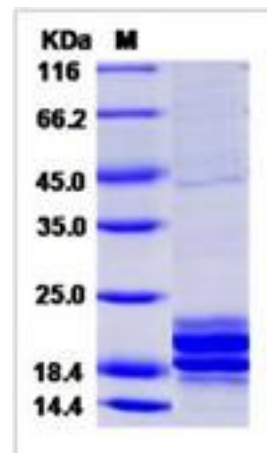
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

IL17, also known as IL17a, is a cytokine belongs to the IL-17 family. Cytokines are proteinaceous signaling compounds that are major mediators of the immune response. They control many different cellular functions including proliferation, differentiation and cell survival/apoptosis but are also involved in several pathophysiological processes including viral infections and autoimmune diseases. Cytokines are synthesized under various stimuli by a variety of cells of both the innate (monocytes, macrophages, dendritic cells) and adaptive (T- and B-cells) immune systems. The IL-17 family of cytokines includes six members, IL-17/IL-17A, IL-17B, IL-17C, IL-17D, IL-17E/IL-25, and IL-17F, which are produced by multiple cell types. IL-17 regulates the activities of NF-kappaB and mitogen-activated protein kinases. This cytokine can stimulate the expression of IL6 and cyclooxygenase-2 (PTGS2/COX-2), as well as enhance the production of nitric oxide (NO). High levels of IL-17 are associated with several chronic inflammatory diseases including rheumatoid arthritis, psoriasis and multiple sclerosis.

## References

- 1.Andoh A, *et al.* (2002) IL-17 selectively down-regulates TNF-alpha-induced RANTES gene expression in human colonic subepithelial myofibroblasts. *J Immunol.* 169(4):1683-7.
- 2.Kotake S, *et al.* (1999) IL-17 in synovial fluids from patients with rheumatoid arthritis is a potent stimulator of osteoclastogenesis. *J Clin Invest.* 103(9):1345-52.
- 3.Laan M, *et al.* (1999) Neutrophil recruitment by human IL-17 via C-X-C chemokine release in the airways. *J Immunol.* 162(4):2347-52.

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