# Mouse IL17 / IL17A Protein

Catalog Number: 51065-MNAE



# **General Information**

### Gene Name Synonym:

Ctla-8; Ctla8; IL-17; IL-17A; II17

#### **Protein Construction:**

A DNA sequence encoding the mature form of mouse IL17a (Q62386) (Thr 22-Ala158) was expressed and purified.

Source: Mouse Expression Host: E. coli

**QC** Testing

Purity: > 97 % as determined by SDS-PAGE

## **Bio Activity:**

1. Measured by its binding ability in a functional ELISA. 2. Measured by its ability to induce IL-6 secretion by NIH?3T3 mouse embryonic fibroblast cells in the presense of 20 ng/mL TNF $\alpha$ . The ED $_{50}$  for this effect is 0.15-0.6 ng/mL.

#### **Endotoxin:**

Please contact us for more information.

#### Stability:

Samples are stable for up to twelve months from date of receipt at -70  $^{\circ}\mathrm{C}$ 

Predicted N terminal: Met

#### **Molecular Mass:**

The recombinant mouse IL17a consists of 138 amino acids and predicts a molecular mass of 15.5 KDa. It migrates as an approximately 16 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**

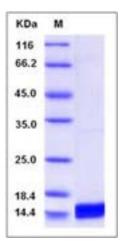
### Storage:

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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