# Mouse IL25 Protein (His Tag)

Catalog Number: 50138-M07H



# **General Information**

#### Gene Name Synonym:

IL-17e: II17e

#### **Protein Construction:**

A DNA sequence encoding the mature form of mouse IL25 (NP\_542767.1) (Val 17-Ala 169) was expressed with a N-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

**QC** Testing

Purity: > 80 % as determined by SDS-PAGE

# **Bio Activity:**

1. Measured by its binding ability in a functional ELISA. Immobilized mouse IL25-His (Cat: 50138-M07H) at 10  $\mu$ g/mL (100  $\mu$ l/well) can bind biotinylated mouse IL17BR-His (Cat:51109-M08H) with a linear range of 3.125-50 ng/mL. 2. Measured by its ability to induce CXCL1/GRO $\alpha$  secretion in HT29. The ED<sub>50</sub> for this effect is 4-14ng/mL.

#### **Endotoxin:**

< 1.0 EU per µg of the protein as determined by the LAL method

#### Stability:

Samples are stable for up to twelve months from date of receipt  $% \left( 1\right) =1$  at -70  $^{\circ}\mathrm{C}$ 

Predicted N terminal: Gly

### **Molecular Mass:**

The secreted recombinant mouse IL25 consists of 175 amino acids and has a calculated molecular mass of 20 kDa. As a result of glycosylation, rmIL25 migrates with the MW of approximately 30-35 kDa 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:

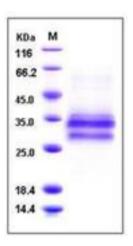
Store it under sterile conditions at  $-20\,^\circ\mathbb{C}$  to  $-80\,^\circ\mathbb{C}$  upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

### Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

#### SDS-PAGE:



# **Protein Description**

Interleukin-25 (IL-25) is a cytokine that shares sequence similarity with interleukin 17. This cytokine can induce NF-kappaB activation, and stimulate the production of interleukin 8. Both this cytokine and interleukin 17B are ligands for the cytokine receptor IL17BR. IL-25 is a member of the IL-17 family of cytokines. However, unlike the other members of this family, IL-25 promotes T helper (Th) 2 responses. IL-25 also regulates the development of autoimmune inflammation mediated by IL-17-producing T cells. IL-25 and IL-17, being members of the same cytokine family, play opposing roles in the pathogenesis of organ-specific autoimmunity. IL-25 promotes cell expansion and Th2 cytokine production when Th2 central memory cells are stimulated with thymic stromal lymphopoietin (TSLP)activated dendritic cells (DCs), homeostatic cytokines, or T cell receptor for antigen triggering. Elevated expression of IL-25 and IL-25R transcripts was observed in asthmatic lung tissues and atopic dermatitis skin lesions, linking their possible roles with exacerbated allergic disorders. A plausible explanation that IL-25 produced by innate effector eosinophils and basophils may augment the allergic inflammation by enhancing the maintenance and functions of adaptive Th2 memory cells had been provided.

#### References

1.Rickel EA, et al.. (2008) Identification of functional roles for both IL-17RB and IL-17RA in mediating IL-25-induced activities. J Immunol. 181(6): 4299-310. 2.Tamachi T, et al.. (2006) IL-25 enhances allergic airway inflammation by amplifying a TH2 cell-dependent pathway in mice. J Allergy Clin Immunol. 118(3): 606-14. 3.Kleinschek MA, et al.. (2007) IL-25 regulates Th17 function in autoimmune inflammation. J Exp Med. 204(1): 161-70.

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