

## IL-25/IL17E Protein, Human, Recombinant (hFc)

### General Information

Synonyms:	interleukin 25;IL17E
Protein Construction:	A DNA sequence encoding the mature form of human IL25 (Tyr 33-Gly177) (NP_073626.1) was fused with the Fc region of human IgG1 at the N-terminus via a polypeptide linker. Predicted N terminal: Glu 20
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q9H293-1
Molecular Weight:	45 kDa (predicted); 50-60 kDa (reducing condition, due to glycosylation)

### QC Testing

Biological Activity:	1. Measured by its binding ability in a functional ELISA. Immobilized human IL17BR-His at 10 µg/ml (100 µl/well) can bind human Fc-IL25, The EC50 of human Fc-IL25 is 1.7-4.2 µg/mL. 2. Measured by its ability to induce CXCL1/GROα secretion in HT29. The ED50 for this effect is 15-60 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/µg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 µm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

**Reconstitution:**  
Reconstituted with sterile deionized water to 0.56 mg/mL. Reconstitution conditions may vary depending on the lot.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

*Actual storage temperature shall be subject to the COA.*

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Interleukin-25 (IL-25) is a cytokine that shares sequence similarity with interleukin 17. This cytokine can induce NF-κappaB 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.

### Reference

- 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.
- 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.
- Kleinschek MA, et al.. (2007) IL-25 regulates Th17 function in autoimmune inflammation. *J Exp Med.* 204(1): 161-70.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E\_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481