

Human IL25 Protein (Fc Tag)

Catalog Number: 10096-H01H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

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.

Source: Human

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized human IL17BR-His (Cat:13091-H08H) at 10 µg/ml (100 µl/well) can bind human Fc-IL25 (Cat:10096-H01H), The EC₅₀ of human Fc-IL25 (Cat:10096-H01H) 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.

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 at -70 °C

Predicted N terminal: Glu 20

Molecular Mass:

The recombinant human IL25/Fc chimera is a disulfide-linked homodimeric protein. The reduced monomer consists of 403 amino acids and predicts a molecular mass of 45 KDa. As a result of glycosylation, the apparent molecular mass of rh IL25/Fc monomer is approximately 50-60 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:

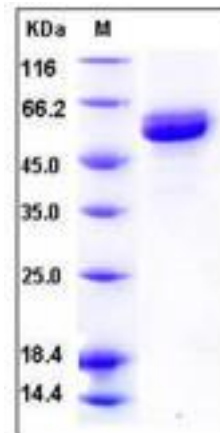
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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

Global Customer: Fax :+86-10-5862-8288 ● Tel:+86-400-890-9989 ● <http://www.sinobiological.com>