

Rat Interleukin 25 / IL25 / IL17E Protein (Fc Tag)

Catalog Number: 80194-R01H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

IL17E; IL-17e; IL17e

Protein Construction:

A DNA sequence encoding the rat IL25 (D3ZLB1) (Val17-Ala169) was expressed, fused with Fc region of human IgG1 at the N-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized mouse IL17BR-His (Cat:51109-M08H) at 10 µg/mL (100 µl/well) can bind rat Fc-IL25 (Cat:80194-R01H). The EC_{50} of rat Fc-IL25 is 0.12-0.27 µg/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

Molecular Mass:

The recombinant rat IL25 comprises 413 amino acids and predicts a molecular mass of 46.1 kDa. The apparent molecular mass of the recombinant protein is approximately 49 kDa in SDS-PAGE under reducing conditions due to glycosylation.

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:

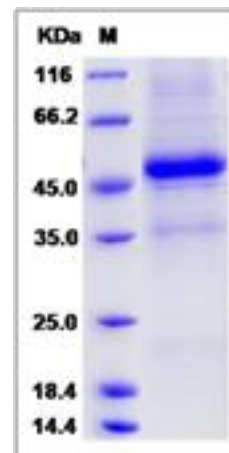
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

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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