

Recombinant Human IL-25 protein(His Tag)

Catalog Number: PKSH034110

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Species	Human
Source	E.coli-derived Human IL-25 protein Tyr 33-Gly 177, with an C-terminal His
Calculated MW	17.7 kDa
Observed MW	19 kDa
Accession	Q9H293
Bio-activity	<p>1. Measure by its ability to induce IL-8 secretion in human PBMCs. The ED₅₀ for this effect is <5 ng/mL.</p> <p>2. Measure by its ability to induce CXCL1 secretion in HT29 cells. The ED₅₀ for this effect is <1 ng/mL.</p>

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	<p>Lyophilized from sterile PBS, pH 8.0.</p> <p>Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.</p> <p>Please refer to the specific buffer information in the printed manual.</p>
Reconstitution	Please refer to the printed manual for detailed information.

Background

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