## Recombinant Human IL-25 protein(His Tag)

Catalog Number: PKSH034110



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

Description	
Species	Human
Mol_Mass	17.7 kDa
Accession	Q9H293
Bio-activity	1. Measure by its ability to induce IL-8 secretion in human PBMCs. The $\rm ED_{50}$ for this effect is <5 ng/mL.
	2. Measure by its ability to induce CXCL1 secretion in HT29 cells. The ED <sub>50</sub> for this effect is <1 ng/mL.

Properties	
Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	$< 0.1  \mathrm{EU}  \mathrm{per}  \mu \mathrm{g}$ 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	Lyophilized from sterile PBS,pH 8.0.
	Normally $5\%$ - $8\%$ trehalose, mannitol and $0.01\%$ Tween $80$ are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
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-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.

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