

# Human IL-13 Protein

Cat. No. IL1-HM213

## Description

<b>Source</b>	Recombinant Human IL-13 Protein is expressed from HEK293 with hFc tag at the N-Terminus. It contains Gly21-Asn132.
<b>Accession</b>	AAK53823
<b>Molecular Weight</b>	The protein has a predicted MW of 39.6 kDa. Due to glycosylation, the protein migrates to 50-70 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1 EU per µg by the LAL method.
<b>Purity</b>	>95% as determined by Bis-Tris PAGE >95% as determined by HPLC

## Formulation and Storage

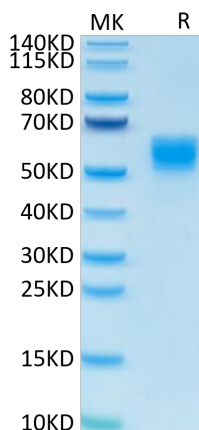
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Interleukin-13 (IL-13) is a monomeric 17 kDa immunoregulatory cytokine that plays a key role in the pathogenesis of allergy, cancer, and tissue fibrosis. It is secreted by several helper T cell subsets, NK cells, mast cells, eosinophils, basophils, and visceral smooth muscle cells. Inhibits inflammatory cytokine production. Synergizes with IL2 in regulating interferon-gamma synthesis. May be critical in regulating inflammatory and immune responses. Positively regulates IL31RA expression in macrophages (By similarity).

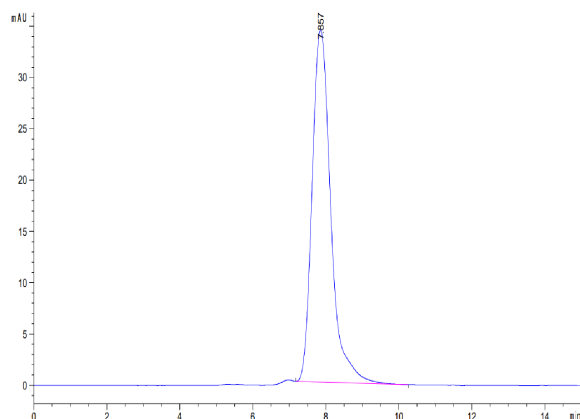
## Assay Data

### Bis-Tris PAGE



Human IL-13 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



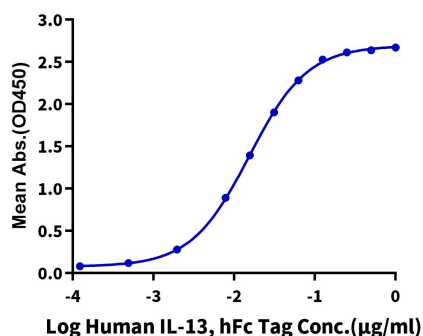
The purity of Human IL-13 is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

**Human IL-13, hFc Tag ELISA**

0.2µg Biotinylated Human IL-13Ra1, His Tag Per Well

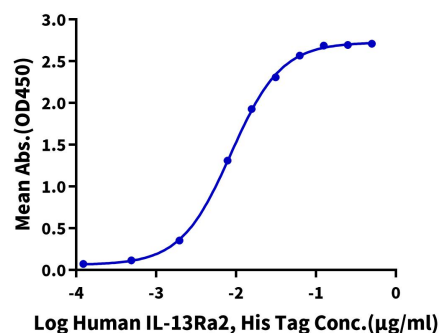


Immobilized Biotinylated Human IL-13Ra1, His Tag at 2 µg/ml (100 µl/well) on the streptavidin precoated plate (5 µg/ml). Dose response curve for Human IL-13, hFc Tag with the EC50 of 15.4 ng/ml determined by ELISA (QC Test).

ELISA Data

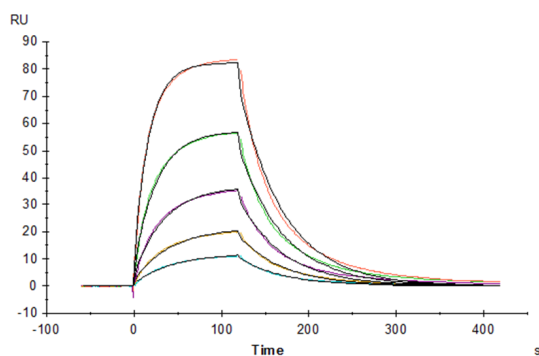
**Human IL-13, hFc Tag ELISA**

0.1µg Human IL-13, hFc Tag Per Well



Immobilized Human IL-13, hFc Tag at 1 µg/ml (100 µl/well) on the plate. Dose response curve for Human IL-13Ra2, His Tag with the EC50 of 7.1 ng/ml determined by ELISA.

SPR Data



Human IL-13, hFc Tag captured on CM5 Chip via Protein A can bind Human IL-13Ra1, His Tag with an affinity constant of 0.399 µM as determined in SPR assay (Biacore T200).