

Human IL-13 Protein

Cat. No. IL1-HM013

Description

Source	Recombinant Human IL-13 Protein is expressed from HEK293 without tag. It contains Gly21-Asn132.
Accession	AAK53823
Molecular Weight	The protein has a predicted MW of 12.35 kDa. Due to glycosylation, the protein migrates to 20-45 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE

Formulation and Storage

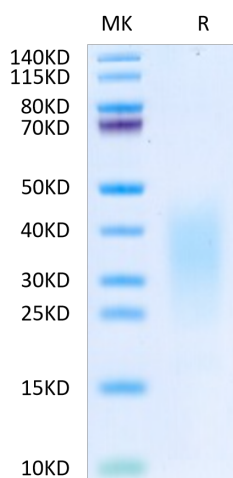
Formulation	Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-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

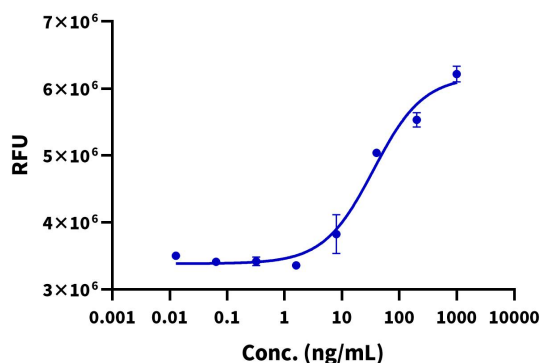
Bis-Tris PAGE



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

Cell Based Assay

Recombinant Human IL-13 Bioactivity



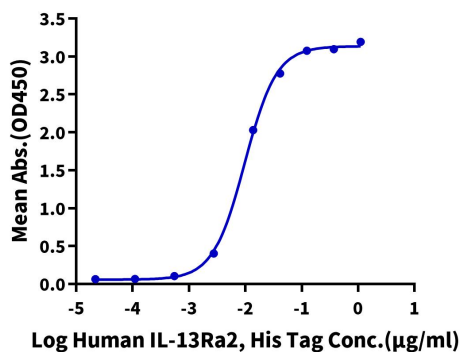
Measured in a cell proliferation assay using TF1 human erythroleukemic cells. The ED50 for this effect is typically 0.04-0.08 $\mu\text{g}/\text{mL}$ (QC Test).

Assay Data

ELISA Data

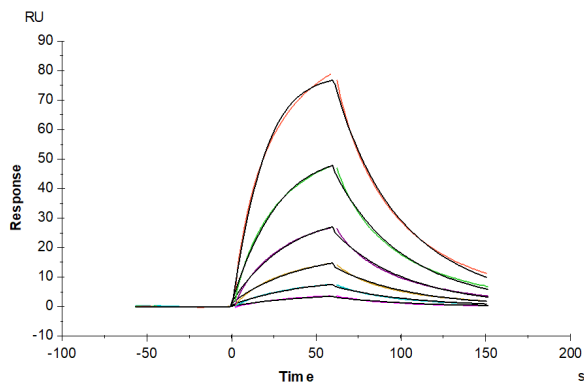
Human IL-13, No Tag ELISA

0.1µg Human IL-13, No Tag Per Well



Immobilized Human IL-13, No Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Human IL-13Ra2, His Tag with the EC50 of 9.8ng/ml determined by ELISA.

SPR Data



Human IL-13, No Tag immobilized on CM5 Chip can bind Human IL-13Ra1, His Tag with an affinity constant of 0.55 µM as determined in SPR assay (Biacore T200).