

# Human IL-4 Protein

Cat. No. IL4-HM001

## Description

<b>Source</b>	Recombinant Human IL-4 Protein is expressed from HEK293 without tag. It contains His25-Ser153.
<b>Accession</b>	P05112-1
<b>Molecular Weight</b>	The protein has a predicted MW of 14.96 kDa. Due to glycosylation, the protein migrates to 23-25 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1 EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

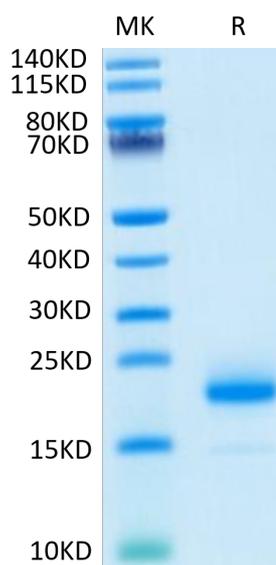
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<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-4, also known as IL4, is a secreted protein which belongs to the IL-4 / IL-13 family. Interleukin-4 / IL4 has many biological roles, including the stimulation of activated B-cell and T-cell proliferation. In the presence of IL-4 and IL-13, cytokines that are produced in a Th-2 type response, particularly during allergy and parasitic infections, macrophages become differentially activated, And this cytokine is a ligand for interleukin 4 receptor.

## Assay Data

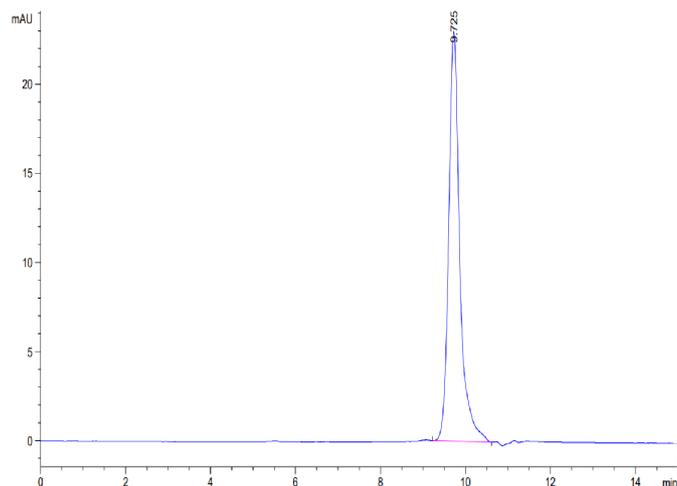
### Bis-Tris PAGE



Human IL-4 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

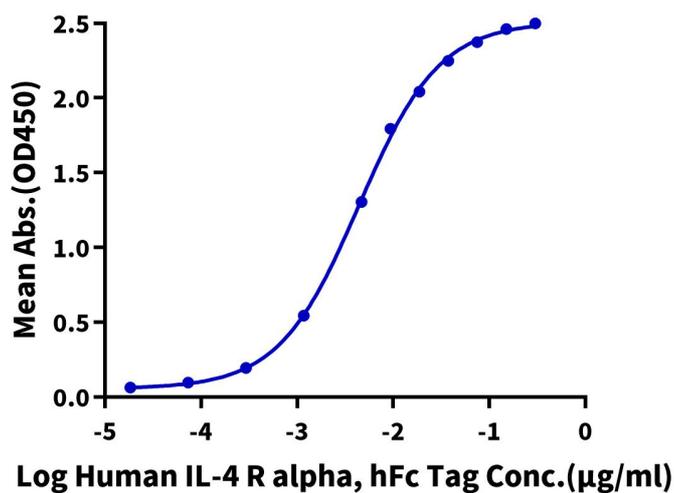
Assay Data



The purity of Human IL-4 is greater than 95% as determined by SEC-HPLC.

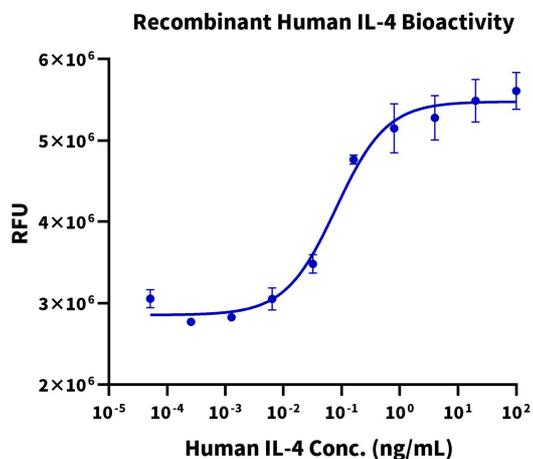
ELISA Data

**Human IL-4, No Tag ELISA**  
0.1µg Human IL-4, No Tag Per Well



Immobilized Human IL-4, No Tag at 1µg/ml (100µl/well) on the plate. Dose response curve for Human IL-4 R alpha, hFc Tag with the EC50 of 4.4ng/ml determined by ELISA.

Cell Based Assay



Measured in a cell proliferation assay using TF1 human erythroleukemic cells. The ED50 for this effect is 0.05-0.35 ng/mL