

# Non-biotinylated Human IL-4 Protein, Ultra Low Endotoxin

Cat. No. IL4-HM401-UL

## Description

<b>Source</b>	Recombinant Human IL-4 is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains His25-Ser153.
<b>Accession</b>	P05112-1
<b>Molecular Weight</b>	The protein has a predicted MW of 17.8 kDa. Due to glycosylation, the protein migrates to 23-25 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.01 EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE

## Formulation and Storage

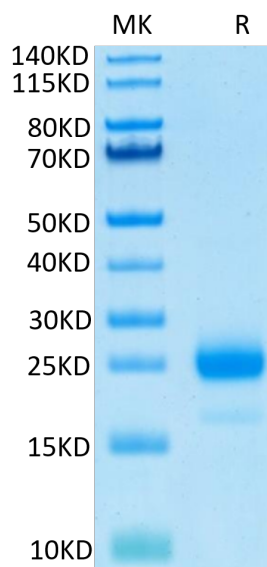
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</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



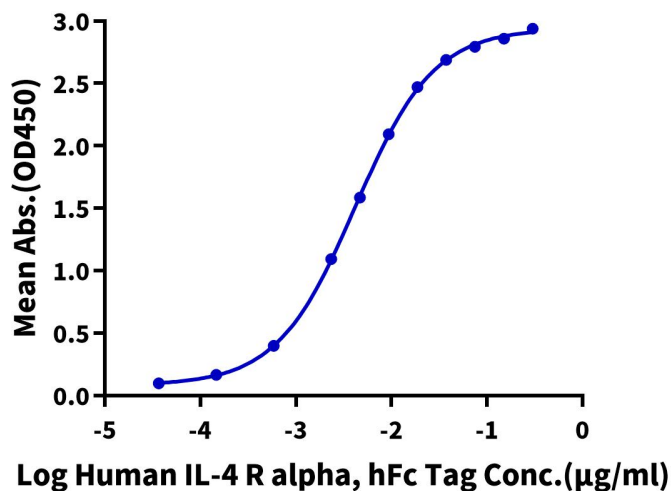
Human IL-4 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### ELISA Data

Assay Data

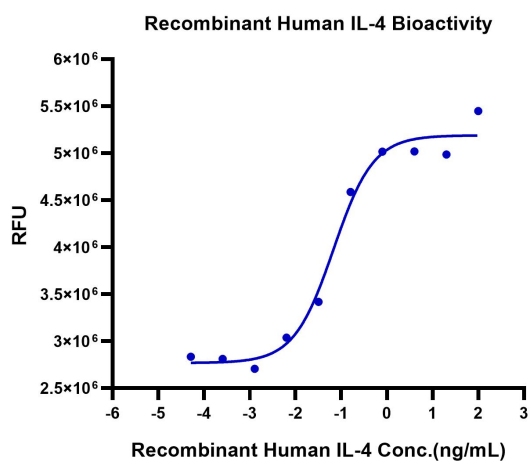
**Human IL-4, His Tag ELISA**

0.1µg Human IL-4, His Tag Per Well



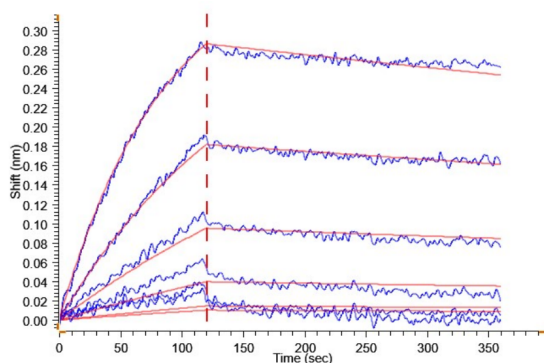
Immobilized Human IL-4 at 1 µg/ml (100 µl/well) on the plate. Dose response curve for Human IL-4 R alpha, hFc Tag (Cat. ILA-HM24R) with the EC50 of 4.2 ng/ml determined by ELISA (QC Test).

Cell Based Assay



Measured in a cell proliferation assay using TF1 human erythroleukemic cells. The ED50 for this effect is <0.2 ng/mL.

BLI Data



Loaded Human IL-4, His Tag on Anti-His-Biosensor can bind Human IL-4 R alpha, hFc Tag (Cat. ILA-HM24R) with an affinity constant of 0.54 nM as determined in BLI assay .