

# Human IL-12 Protein

Cat. No. IL1-HM412

## Description

<b>Source</b>	Recombinant Human IL-12 Protein is expressed from HEK293 with His tag and Avi tag at the C-Terminus. It contains Ile23-Ser328 (IL-12B) & Arg23-Ser219 (IL-12A).
<b>Accession</b>	P29460(IL-12B)&P29459(IL-12A)
<b>Molecular Weight</b>	The protein has a predicted MW of 34.7 kDa(IL-12B) & 25.5 kDa(IL-12A). Due to glycosylation, the protein migrates to 40-45 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by SEC-HPLC

## Formulation and Storage

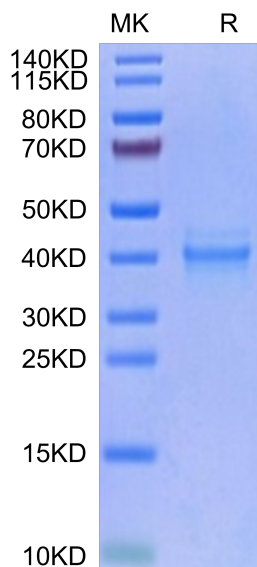
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Interleukin 12 (IL-12) is a pleiotropic cytokine that plays an essential role in Th1-type immune response against cancer, a condition where cells in a particular part of the body grow and reproduce uncontrollably.

## Assay Data

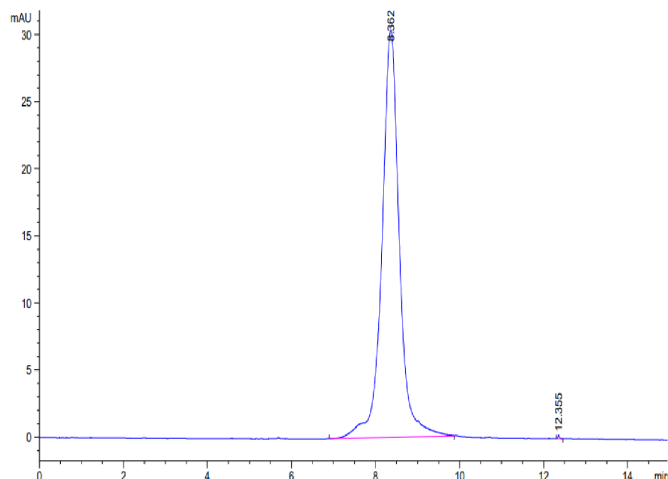
### Bis-Tris PAGE



Human IL-12 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

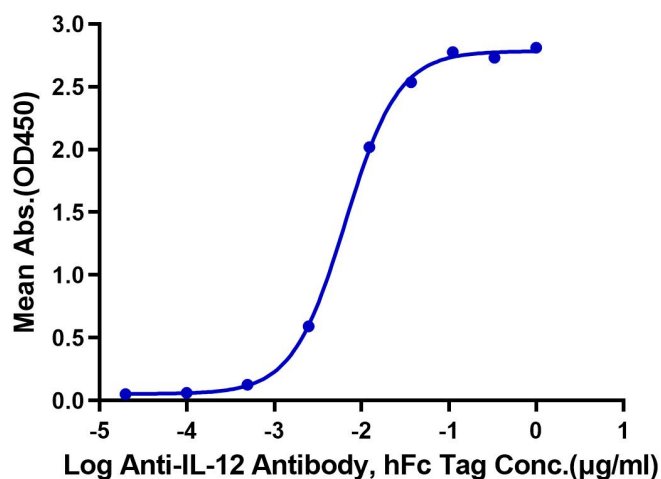
Assay Data



The purity of Human IL-12 is greater than 95% as determined by SEC-HPLC.

ELISA Data

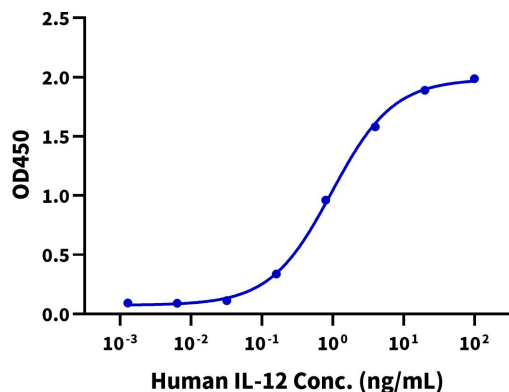
**Human IL-12, His Tag ELISA**  
0.05µg Human IL-12, His Tag Per Well



Immobilized Human IL-12, His Tag at 0.5µg/ml (100µl/well) on the plate. Dose response curve for Anti-IL-12 Antibody, hFc Tag with the EC50 of 2.1ng/ml determined by ELISA (QC Test).

Cell Based Assay

**Recombinant Human IL-12 Bioactivity**



Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED50 for this effect is 0.1 - 1 ng/mL.