

# Human IL-15 Protein

Cat. No. IL5-HE015

## Description

<b>Source</b>	Recombinant Human IL-15 Protein is expressed from E.coli without tag. It contains Asn49-Ser162.
<b>Accession</b>	P40933
<b>Molecular Weight</b>	The protein has a predicted MW of 12.8 kDa same as Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 0.05 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

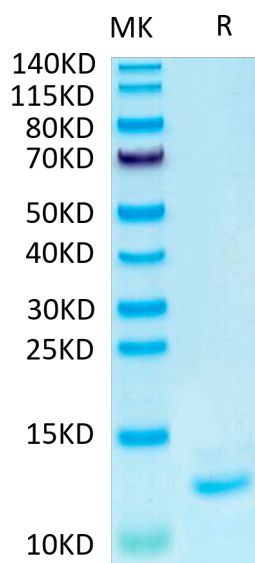
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in 20 mM Tris, 150 mM NaCl (pH 7.5). Normally 8% mannitol is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve 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 15 (IL-15) is a widely expressed 14 kDa cytokine that is structurally and functionally related to IL-2 and plays an important role in many immunological diseases. IL-15 is a cytokine that stimulates the proliferation of T-lymphocytes. Stimulation by IL15 requires interaction of IL15 with components of the IL2 receptor, including IL2RB and probably IL2RG but not IL2RA.

## Assay Data

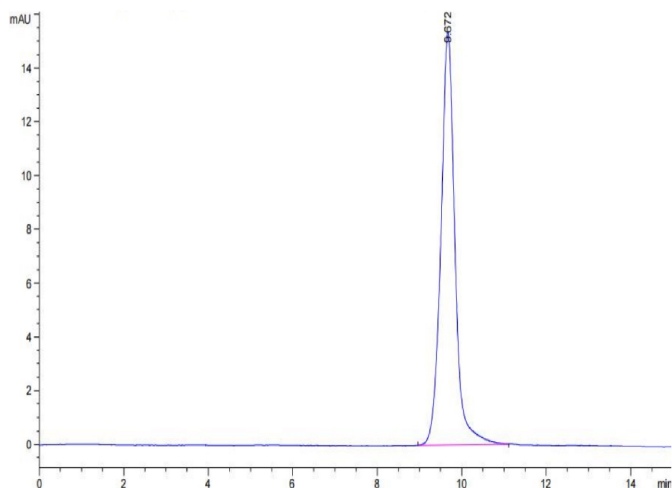
### Bis-Tris PAGE



Human IL-15 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

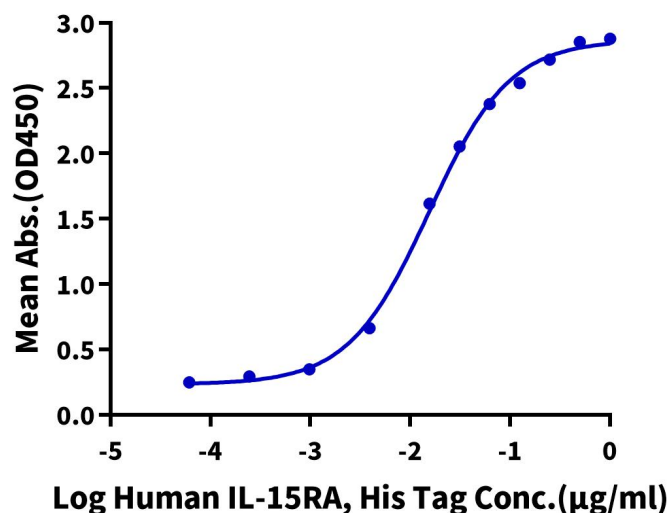
Assay Data



The purity of Human IL-15 is greater than 95% as determined by SEC-HPLC.

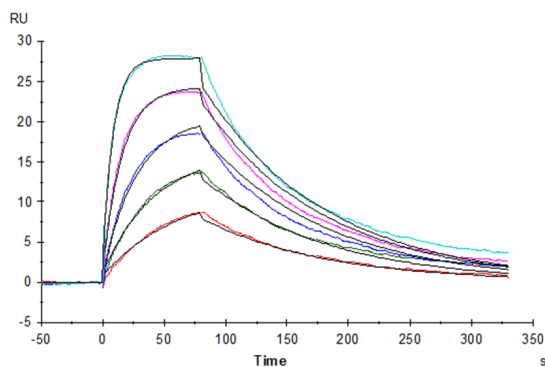
ELISA Data

**Human IL-15, No Tag ELISA**  
0.2µg Human IL-15, No Tag Per Well



Immobilized Human IL-15, No Tag at 2 µg/ml (100 µl/Well) on the plate. Dose response curve for Human IL-15RA, His Tag with the EC50 of 15.4 ng/ml determined by ELISA.

SPR Data

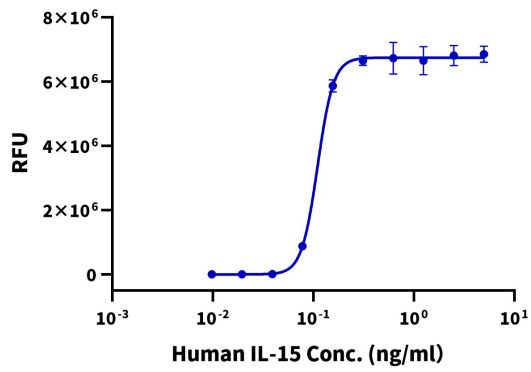


Human IL-2 R beta, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human IL-15, No Tag with an affinity constant of 5.9 nM as determined in SPR assay (Biacore T200).

Cell Based Assay

## Assay Data

## Recombinant Human IL-15 Bioactivity



Measured in a cell proliferation assay using CTLL-2 cells. The ED50 for this effect is 0.1 - 0.3 ng/mL. The specific activity of recombinant human IL-15 is  $> 1 \times 10^7$  units/mg, which is calibrated against the human IL-15 reference standard (NIBSC code: 95/554) (QC Test).