

# Human IL-7 Protein, Ultra Low Endotoxin

Cat. No. IL7-HE001-UL

## Description

<b>Source</b>	Recombinant Human IL-7 Protein is expressed from E.coli without tag. It contains Asp26-His177.
<b>Accession</b>	P13232
<b>Molecular Weight</b>	The protein has a predicted MW of 17.5 kDa same as 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 > 95% as determined by HPLC

## Formulation and Storage

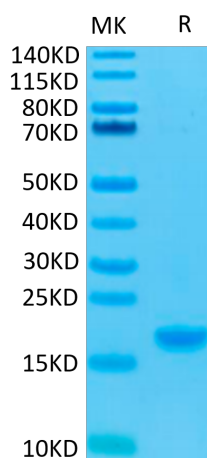
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in PBS (pH 8.0). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
<b>Storage</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-7 (IL7) plays a nonredundant role in T cell survival and homeostasis, which is illustrated in the severe T cell lymphopenia of IL7-deficient mice, or demonstrated in animals or humans that lack expression of either the IL7R $\alpha$  or  $\gamma$  c chain, the two subunits that constitute the functional IL7 receptor.

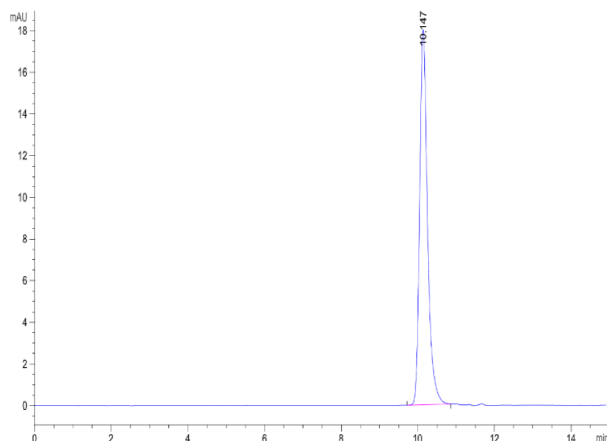
## Assay Data

### Bis-Tris PAGE



Human IL-7 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC

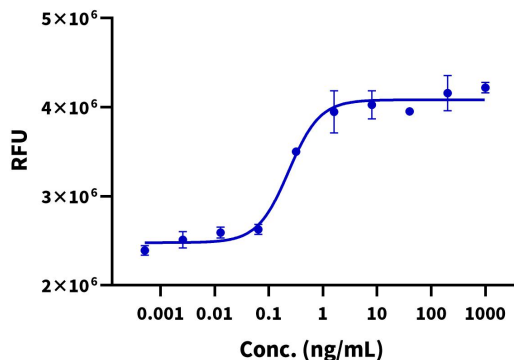


The purity of Human IL-7 is greater than 95% as determined by SEC-HPLC.

**Assay Data**

**Cell Based Assay**

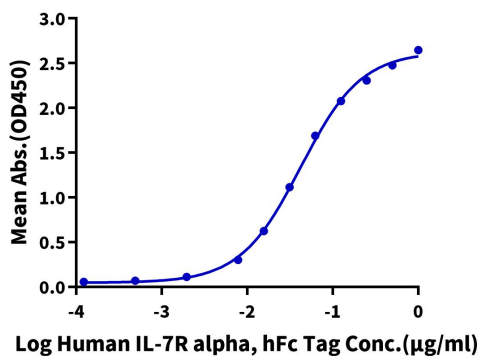
**Recombinant Human IL-7 Bioactivity**



Measured in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes (PBL). The ED50 for this effect is 0.100-1 ng/mL.

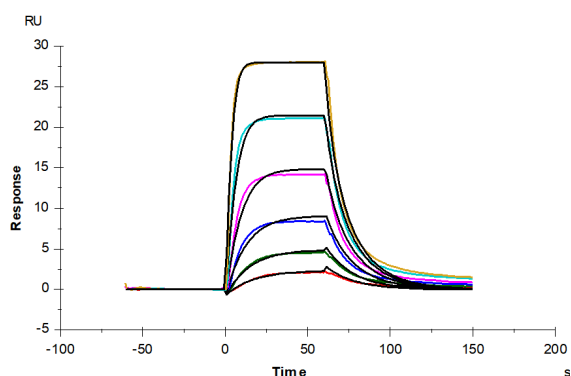
**ELISA Data**

**Human IL-7, No Tag ELISA**  
0.2µg Human IL-7, No Tag Per Well



Immobilized Human IL-7 at 2µg/ml (100µl/Well) on the plate. Dose response curve for Human IL-7R alpha, hFc Tag with the EC50 of 42.1ng/ml determined by ELISA (QC tested).

**SPR Data**



Human IL-7R alpha, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human IL-7, No Tag with an affinity constant of 35.38 nM as determined in SPR assay (Biacore S200).