

# GMP Human IL-15

Cat. No. GMP-CKS-HE015

## Description

<b>Source</b>	Recombinant GMP Human IL-15 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>	≤ 0.01 EU per µg by the LAL method.
<b>Purity</b>	≥ 95% as determined by SEC-HPLC.

## Formulation and Storage

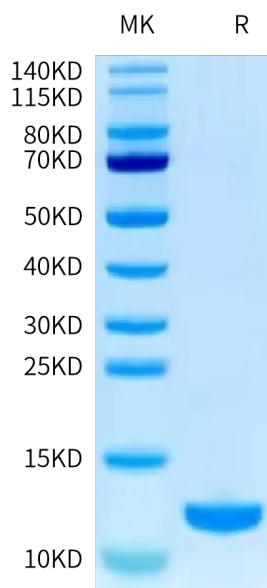
<b>Formulation</b>	Lyophilized from 0.22 µm filtered solution in 20 mM Tris, 150 mM NaCl (pH 7.5). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	The product is shipped with ice bag. Store it immediately at -20°C±5°C upon arrival. -20°C±5°C for 36 months in lyophilized state. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

IL-15 belongs to the common gamma chain cytokine family and has pleiotropic immunological functions, and the protein is mainly produced by monocytes, dendritic cells, and epithelial cells. IL-15 plays a crucial role in the development, homeostasis, and function of T, NK, and NK-T cells, and is additionally required for various functions of the B cells, dendritic cells (DC), macrophages, and mast cells. Stimulation by IL15 requires interaction of IL15 with components of the IL2 receptor, including IL2RB and probably IL2RG but not IL2RA.

## Assay Data

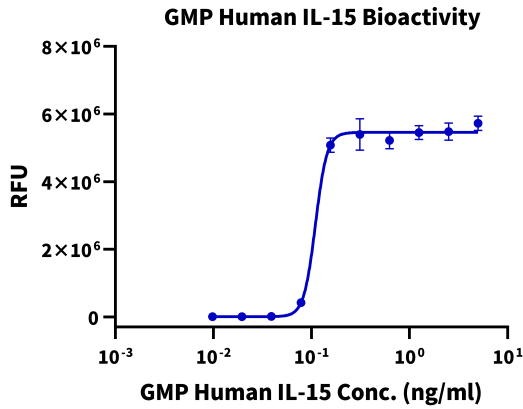
### Bis-Tris PAGE



GMP Human IL-15 on Bis-Tris PAGE under reduced condition.

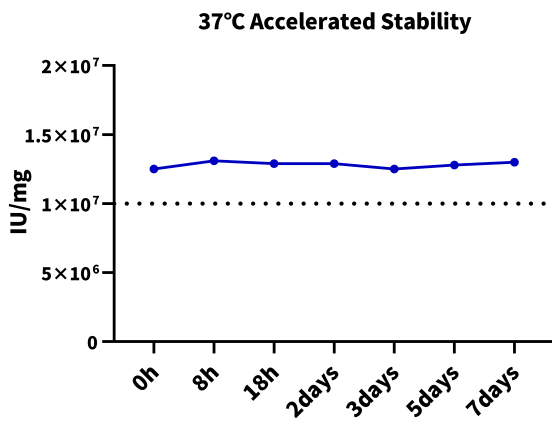
### Cell Based Assay

Assay Data



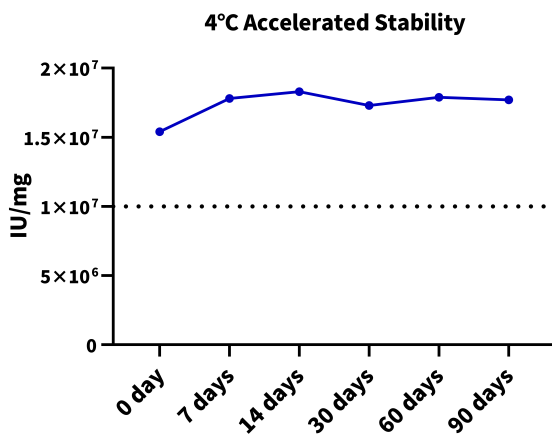
Measured in a cell proliferation assay using CTLL-2 cells. The ED50 for this effect is 0.1 - 0.3 ng/mL. The specific activity of GMP Human IL-15 is  $> 1 \times 10^7$  IU/mg, which is calibrated against the human IL-15 WHO reference standard (NIBSC code: 95/554) (QC Test).

37 Stability Test



GMP Human IL-15 (reconstituted protein) was stored at 37°C, the protein is stable for 7 days determined by cell based assay.

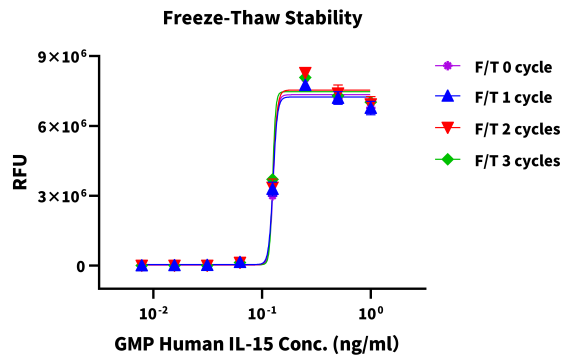
4 Stability Test



GMP Human IL-15 (reconstituted protein) was stored at 4°C, the protein is stable for 90 days determined by cell based assay.

Freeze-Thaw Stability Test

## Assay Data



GMP Human IL-15 (reconstituted protein) was repeatedly frozen at -80°C and thawed at 37°C, the protein is stable after freezing and thawing 3 cycles determined by cell based assay.