

# Recombinant Rat IL-7 Protein

Catalog No.: RP01721

## Sequence Information

|                   |                |
|-------------------|----------------|
| <b>Species</b>    | <b>Gene ID</b> |
| Rat               | 25647          |
| <b>Swiss Prot</b> | <b>Tags</b>    |
| Q91Y32            | C-6His         |

### Synonyms

IL-7, Interleukin-7; IL7

## Product Information

|               |                                   |
|---------------|-----------------------------------|
| <b>Source</b> | <b>Purification</b>               |
| HEK293 cells  | ≥ 90 % as determined by SDS-PAGE. |

### Calculated MW/Observed MW

15.73 kDa      15-35 kDa

### Endotoxin

< 1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

IL7, also known as interleukin 7, is a hematopoietic growth factor that belongs to the IL-7/IL-9 family. It is secreted by stromal cells in the bone marrow and thymus. IL7 stimulates the proliferation of lymphoid progenitors. It is important for proliferation during certain stages of B-cell maturation. IL7 and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. It is found to be a cofactor for V (D)J rearrangement of the T cell receptor beta (TCR?) during early T cell development. IL7 can be produced locally by intestinal epithelial and epithelial goblet cells and may serve as a regulatory factor for intestinal mucosal lymphocytes.

## Basic Information

### Description

Recombinant Rat IL-7 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Asp26-Ile154) of rat IL-7 (Accession #NP\_037242.2) fused with a 6×His tag at the C-terminus.

### Activity

Measured in a cell proliferation assay using murine 2E8 cells. The ED<sub>50</sub> for this effect is 0.9-3.6 ng/mL, corresponding to a specific activity of 2.9×10<sup>5</sup>~1.2×10<sup>6</sup> units/mg.

### Shipping

Lyophilized proteins are shipped at ambient temperature.  
Liquid proteins are shipped at frozen temperature with dry ice.  
Upon receipt, store it immediately at the temperature recommended below.

### Storage

Store at -20°C

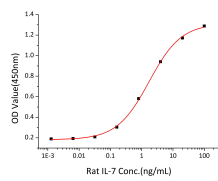
### Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

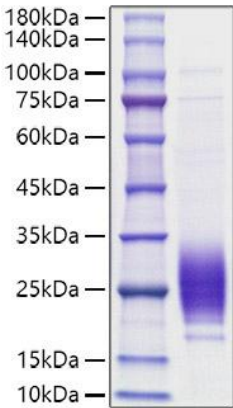
## Contact

|                                                                                     |  |                                                                          |
|-------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------|
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# Validation Data



Recombinant Rat IL-7 stimulates cell proliferation of the murine 2E8 cells. The ED<sub>50</sub> for this effect is 0.9-3.6 ng/mL, corresponding to a specific activity of 2.9×10<sup>5</sup>~1.2×10<sup>6</sup> units/mg.



Recombinant Rat IL-7 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.