

**Catalog No.: RP01721** **Recombinant**

Species	Gene ID	Swiss Prot
Rat	25647	O91Y32

C-6His

## IL-7: Interleukin-7 □ IL7

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

Calculated MW	Observed MW
15.73 kDa	17-35 kDa

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

Lyophilized from a 0.22  $\mu\text{m}$  filtered solution of PBS, pH 7.4.

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.

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 $\beta$ ) 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.

**Recombinant protein:** 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 and a 6xHis tag at the C-terminus.

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  $2.9 \times 10^5 \sim 1.2 \times 10^6$  units/mg.


Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

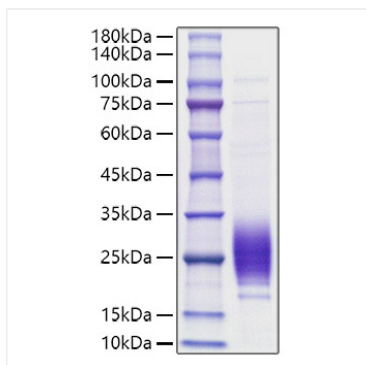
Avoid repeated freeze/thaw cycles.

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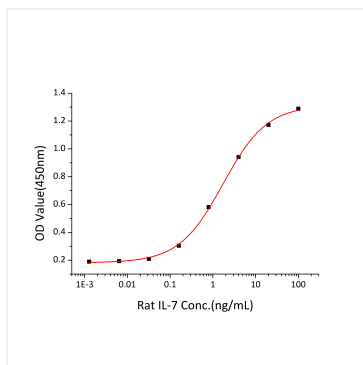
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## Validation Data



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



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  $2.9 \times 10^5 \sim 1.2 \times 10^6$  units/mg.