

Recombinant Human IL-7 Protein

Catalog No.: RP01040 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3574	P13232-1

Tags

C-His

Synonyms

IL7;IL-7

Product Information

Source	Purification
HEK293 cells	> 90% by SDS-PAGE.

Calculated MW	Observed MW
18.23 kDa	30-35 kDa

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

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.

Contact

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Background

Basic Information

Description

Active Recombinant Human IL-7 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Asp26-His177) of human IL-7 (Accession #NP_000871.1) fused with a 6×His tag at the C-terminus.

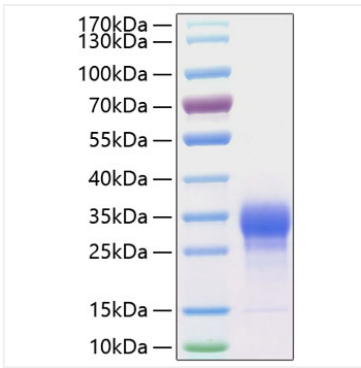
Bio-Activity

1. Measured by its binding ability in a functional ELISA. Immobilized Human IL7 at 2 μg/mL (100 μL/well) can bind human IL7R with a linear range of 0.97 -159.1 ng/mL. 2. Measured in a cell proliferation assay using IL-2 (Catalog: RP01384)-activated mouse spleen cell. The ED₅₀ for this effect is 0.1-0.4 ng/mL, corresponding to a specific activity of 2.5×10⁶~1×10⁷ units/mg. 3. Measured in a cell proliferation assay using murine 2E8 cells. The ED₅₀ for this effect is 0.78-3.1 ng/mL, corresponding to a specific activity of 3.23×10⁵~1.28×10⁶ units/mg.

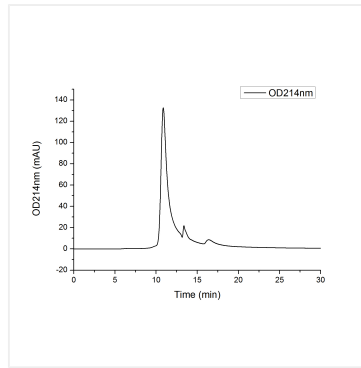
Storage

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.

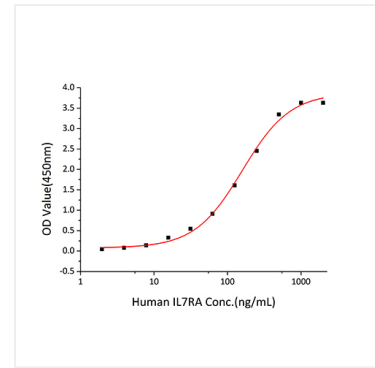
Validation Data



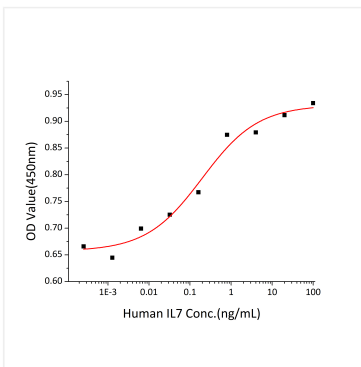
Recombinant Human IL-7 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 30-35 kDa.



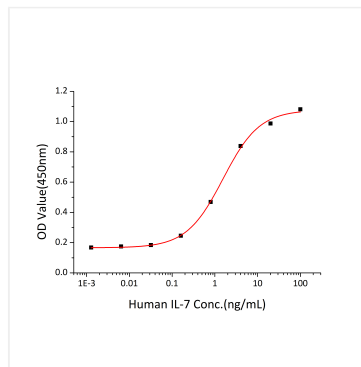
The purity of Human IL-7 Protein (Cat.RP01040) was greater than 90% as determined by SEC-HPLC.



Immobilized Human IL7 at 2 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) can bind human IL7R with a linear range of 0.97 -159.1 ng/mL.



Recombinant Human IL-7 stimulates cell proliferation of the IL-2(Catalog: RP01384)-activated mouse spleen cell. The ED_{50} for this effect is 0.1-0.4 ng/mL, corresponding to a specific activity of $2.5 \times 10^6 \sim 1 \times 10^7$ units/mg.



Recombinant Human IL-7 stimulates cell proliferation of the murine 2E8 cells. The ED_{50} for this effect is 0.78-3.1ng/mL, corresponding to a specific activity of $3.23 \times 10^5 \sim 1.28 \times 10^6$ units/mg.