

Recombinant Human IL-7 Protein

Catalog No.: RP01040

Sequence Information

Species Gene ID

Human 3574

Swiss Prot Tags

P13232-1 C-His

Synonyms

IL7,IL-7

Product Information

Source Purification

HEK293 cells
≥ 90 % as determined by SDS-PAGE; ≥ 90 % as determined by HPLC.

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.

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.

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.

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.

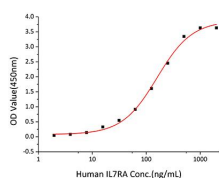
Contact

☎ | 400-999-6126

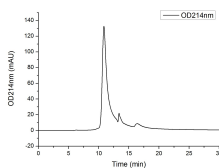
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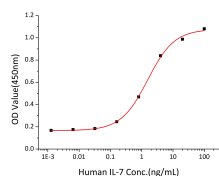
Validation Data



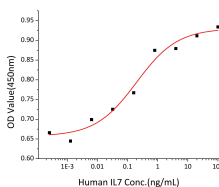
Immobilized Human IL7 at 2 µg/mL (100 µL/well) can bind human IL7R with a linear range of 0.97 -159.1 ng/mL.



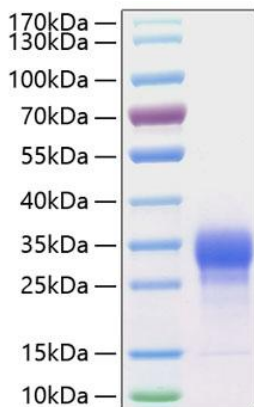
The purity of Human IL-7 Protein (Cat.RP01040) was greater than 90% as determined by SEC-HPLC.



Recombinant Human IL-7 stimulates cell proliferation of the murine 2E8 cells. The ED₅₀ 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.



Recombinant Human IL-7 stimulates cell proliferation of the 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 $2.5 \times 10^6 \sim 1 \times 10^7$ units/mg.



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