

# Recombinant Human IL-2 Protein

Catalog No.: RP01039   **Recombinant**   **1 Publications**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	3558	P60568

### Tags

C-His

### Synonyms

IL2;IL-2;TCGF;lymphokine

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
16.26 kDa	16 kDa, 18 kDa

### Endotoxin

&lt; 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

The protein encoded by this gene is a secreted cytokine that is important for the proliferation of T and B lymphocytes. The receptor of this cytokine is a heterotrimeric protein complex whose gamma chain is also shared by interleukin 4 (IL4) and interleukin 7 (IL7). The expression of this gene in mature thymocytes is monoallelic, which represents an unusual regulatory mode for controlling the precise expression of a single gene. The targeted disruption of a similar gene in mice leads to ulcerative colitis-like disease, which suggests an essential role of this gene in the immune response to antigenic stimuli.

## Basic Information

### Description

Recombinant Human IL-2 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ala21-Thr153) of human IL2 (Accession #NP\_000577.2) fused with a 6×His tag at the C-terminus.

### Bio-Activity

1. Measured in a cell proliferation assay using CTLL-2 mouse T cells. The ED<sub>50</sub> for this effect is 0.255-1.02 ng/mL, corresponding to a specific activity of 9.80×10<sup>5</sup>~3.92×10<sup>6</sup> units/mg. | 2. Measured in a cell proliferation assay using HT-2 Mouse T cells. The ED<sub>50</sub> for this effect is 0.25-0.5 ng/mL, corresponding to a specific activity of 2.0 × 10<sup>6</sup>~4.0 × 10<sup>6</sup> units/mg. | 3. Measured by its binding ability in a functional ELISA. Immobilized Human IL2RA Protein at 2 μg/mL (100 μL/well) can bind Human IL2 with a linear range of 2.75-64.64 ng/mL.

### Storage

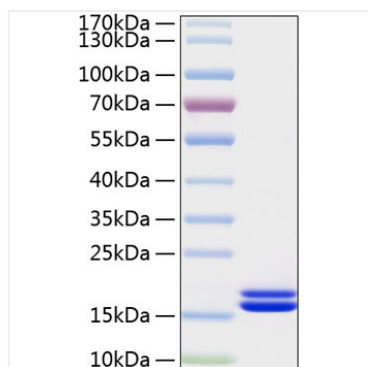
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.  
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.  
Avoid repeated freeze/thaw cycles.

## Contact

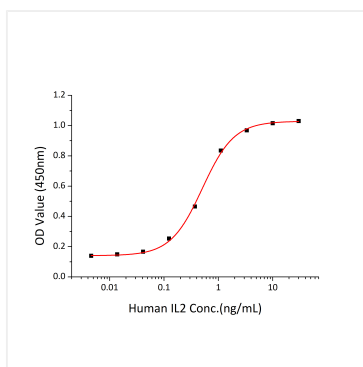
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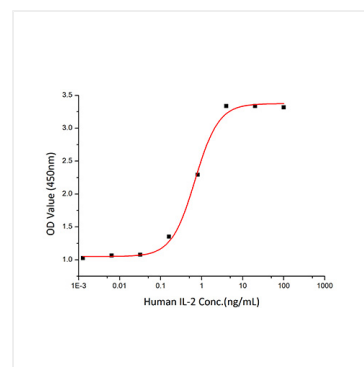
## Validation Data



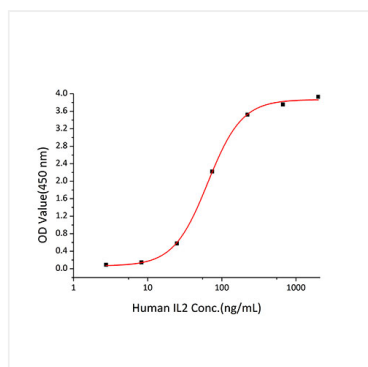
Recombinant Human IL-2 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Measured in a cell proliferation assay using CTLL-2 mouse T cells. The  $ED_{50}$  for this effect is 0.255-1.02 ng/mL, corresponding to a specific activity of  $9.80 \times 10^5 \sim 3.92 \times 10^6$  units/mg.



Recombinant Human IL2 stimulates cell proliferation of the HT-2 Mouse T cells. The  $ED_{50}$  for this effect is 0.25-0.5 ng/mL, corresponding to a specific activity of  $2.0 \times 10^6 \sim 4.0 \times 10^6$  units/mg.



Immobilized Human IL2RA Protein at 2  $\mu$ g/mL (100  $\mu$ L/well) can bind Human IL2 with a linear range of 2.75-64.64 ng/mL.