

# Recombinant Human IL-4 Protein

Catalog No.: RP00995 **Recombinant** **5 Publications**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	3565	P05112-1

### Tags

C-His

### Synonyms

BCGF-1; BCGF1; BSF-1; BSF1;  
IL-4; IL4; BCGF1; BSF-1; BSF1; IL-4

## Product Information

Source	Purification
HEK293 cells	≥ 95 % as determined by SDS-PAGE. ≥ 95 % as determined by HPLC.

Calculated MW	Observed MW
15.8 kDa	20-23 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

Interleukin-4, also known as IL4, is a secreted protein that belongs to the IL-4 / IL-13 family. Interleukin-4 / IL4 has many biological roles, including the stimulation of activated B-cell and T-cell proliferation. It enhances both secretion and cell surface expression of IgE and IgG1. Interleukin-4 / IL4 also regulates the expression of the low-affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. Interleukin-4 is essential for the switching of B cells to IgE antibody production and the maturation of T helper (Th) cells toward the Th2 phenotype.

## Basic Information

### Description

Recombinant Human IL-4 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (His25-Ser153) of human IL-4 (Accession #NP\_000580.1) fused with a 6×His tag at the C-terminus.

### Bio-Activity

Measured in a cell proliferation assay using TF 1 human erythroleukemic cells. The ED<sub>50</sub> for this effect is 85-340 pg/mL, corresponding to a specific activity of 2.94 × 10<sup>6</sup>~1.17 × 10<sup>7</sup> units/mg.

### Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### 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.

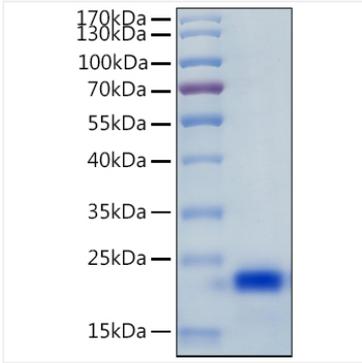
Avoid repeated freeze/thaw cycles.

### Operational Notes

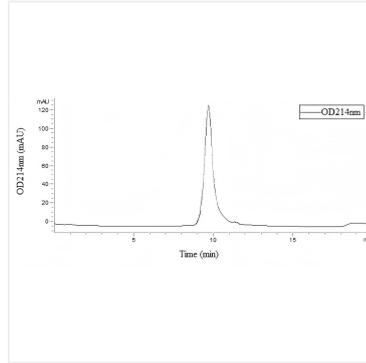
For your safety and health, please wear a lab coat and disposable gloves for handling.



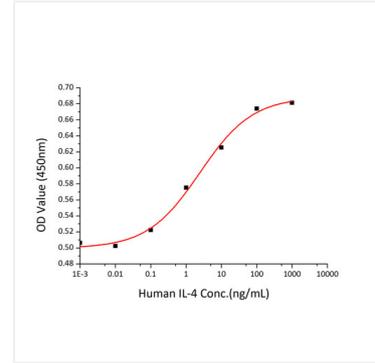
## Validation Data



Recombinant Human IL-4 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human IL-4 Protein is greater than 95% as determined by SEC-HPLC.



Recombinant Human IL-4 stimulates cell proliferation of the TF-1 human erythroleukemic cells. The  $ED_{50}$  for this effect is 85-340 pg/mL, corresponding to a specific activity of  $2.94 \times 10^6 \sim 1.17 \times 10^7$  units/mg.