

# Recombinant Human IL-4 Protein

Catalog No.: RP01703 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	3565	P05112-1

### Tags

No-tag

### Synonyms

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

## Product Information

Source	Purification
HEK293 cells	> 92% by SDS-PAGE.

### Endotoxin

<0.1EU/ $\mu$ g

### Formulation

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

### 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 no additional amino acid.

### Bio-Activity

Measured in a cell proliferation assay using TF-1 human erythroleukemic cells. The ED<sub>50</sub> for this effect is 0.06-0.24 ng/mL, corresponding to a specific activity of 4.17 $\times$ 10<sup>6</sup>-1.67 $\times$ 10<sup>7</sup> units/mg.

### Storage

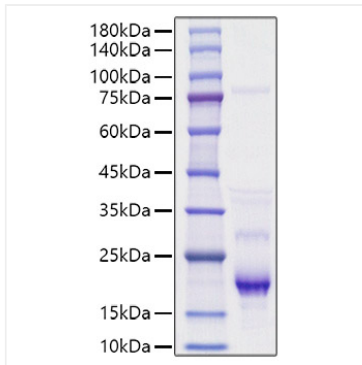
Store the lyophilized protein at -20°C to -80°C for 12 months.

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

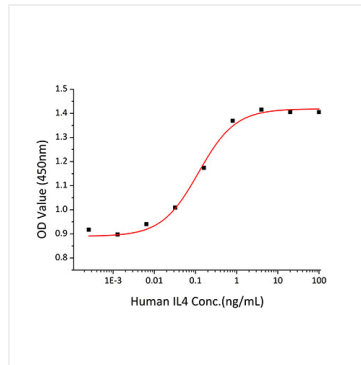
Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant Human IL-4 was determined by SDS-PAGE with Coomassie Blue, showing a band at 18-25 kDa.



Recombinant Human IL-4 stimulates cell proliferation of the TF-1 human erythroleukemic cells. The ED<sub>50</sub> for this effect is 0.06-0.24 ng/mL, corresponding to a specific activity of  $4.17 \times 10^6$ - $1.67 \times 10^7$  units/mg.