

RP01874

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# Recombinant Rat IL-4 Protein

Catalog No.: RP01874 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
HEK293 cells	287287	P20096

### Tags

C-His

### Synonyms

B-cell growth factor 1; B-cell IGG differentiation factor; B-cell stimulatory factor 1; BSF-1; H-IL-4; IL-4; ILN; Interleukin; Interleukin-4; Interleukin4; Lymphocyte stimulatory factor 1; M-IL-4; MGC79402

## Product Information

Source	Purification
HEK293 cells	≥ 90% as determined by SDS-PAGE.

### Endotoxin

< 0.01 EU/μg of the protein by LAL method

### Formulation

Lyophilized from a 0.22 μm 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



[www.abclonal.com](http://www.abclonal.com)

## Background

Interleukin-4 (IL-4) is a pleiotropic, immune-modulatory cytokine produced by activated T cells, and serves as a ligand for interleukin 4 receptor. IL-4 has been found to have the broadest range of actions. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play an important role in mediating the immune regulatory signal of IL-4. The IL-4 gene, IL-3, IL-5, IL-13, and CSF2 form a cytokine gene cluster on chromosome 5q. In particular, IL-4 is located in close proximity to IL13 on the chromosome. Further, the IL-4 gene, IL13 and IL5 are found to be coordinated by several long-range regulatory elements over a 120 kilobase range on the chromosome. IL-4 delta 2 is a known splice variant of IL-4.

## Basic Information

### Description

Recombinant Rat IL-4 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Cys25-Ser147) of Rat IL-4 (Accession #NP\_958427.1) fused with a His 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 0.65-2.6 μg/mL, corresponding to a specific activity of 3.85×10<sup>2</sup>~1.54×10<sup>3</sup> units/mg.

### Shipping

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

### Operational Notes

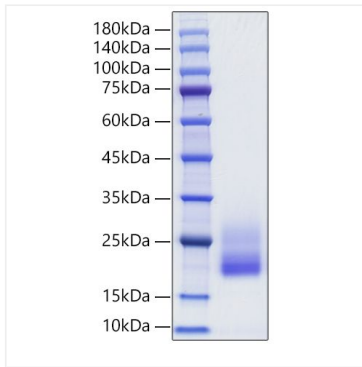
For your safety and health, please wear a lab coat and disposable gloves for handling.

### Storage

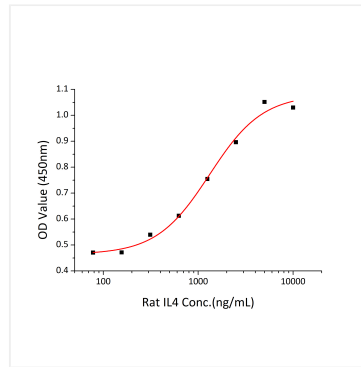
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

\* For your safety and health, please wear a lab coat and disposable gloves when handling.

## Validation Data



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



Recombinant Rat IL-4 stimulates cell proliferation assay using TF-1 Human erythroleukemic cells. The  $ED_{50}$  for this effect is 0.65-2.6  $\mu\text{g/mL}$ , corresponding to a specific activity of  $3.85 \times 10^2 \sim 1.54 \times 10^3$  units/mg.