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# **Active Recombinant Human IL-4 Protein**

Catalog No.: RP00995 Recombinant 1 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% by SDS-PAGE.

Endotoxin

< 0.1 EU/ $\mu g$  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 votex or vigorously pipetting the
protein. For long term storage, it is
recommended to add a carrier protein or
stablizer (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

Active 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  $6\times His$  tag at the C-terminus.

#### **Bio-Activity**

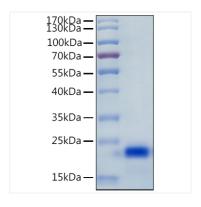
Measured in a cell proliferation assay using TF 1 human erythroleukemic cells. The ED $_{50}$  for this effect is 85-340 pg/mL, corresponding to a specific activity of 2.94  $\times$   $10^6 \sim 1.17 \times 10^7$  units/mg.

#### Storage

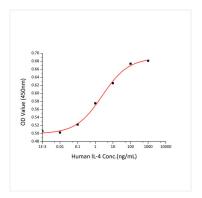
Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## **Validation Data**



Active Recombinant Human IL-4 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 20-23 kDa.



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  $2.94\times10^6\sim1.17\times10^7$  units/mg.