

# Recombinant Rat IL4 Protein

**For Research Use Only**

## 1. Basic Product Information

Catalog No.: REP52301

Size: 10ug, 100ug

Protein Name: Interleukin-4 (IL-4) (B-cell IGG differentiation factor) (B-cell growth factor 1) (B-cell stimulatory factor 1) (BSF-1) (Lymphocyte stimulatory factor 1)

Synonym: Il4, Il-4

UniProt ID: P20096

UniProt Link: [www.uniprot.org/uniprotkb/P20096/entry](http://www.uniprot.org/uniprotkb/P20096/entry)

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 147 AA

Molecular Weight: 16 KD

Protein Tag: C-terminal His6

## 2. Amino Acid Sequence

MGLSPHLAVTLFCFLICTGNGIHGCNDSPLREIINTLNQVTEKGTPCTEMFVPDVLTA TRNTTENELIC  
RASRVLRKFYFPRDVPPCLKNKSGVLGELRKLGRGVSGLSLRSC TVNESTLTTLKDFLESLKSILRG  
KYLQSCTSMS

## 3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

## 4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

## 5. Product Description

This product is recombinant Interleukin-4 (IL-4) (B-cell IGG differentiation factor) (B-cell growth factor 1) (B-cell stimulatory factor 1) (BSF-1) (Lymphocyte stimulatory factor 1) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

**Protein Function:** Participates in at least several B-cell activation processes as well as of other cell types. It is a costimulator of DNA-synthesis. It induces the expression of class II MHC molecules on resting B-cells. It enhances both secretion and cell surface expression of IgE and IgG1. It also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. Positively regulates IL31RA expression in macrophages. Stimulates autophagy in dendritic cells by interfering with mTORC1 signaling and through the induction of RUFY4.

**Subcellular Localization:** Secreted.

## 6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.