

## Recombinant Rat IL-4 Protein

**Catalog Number: GPMR0003**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

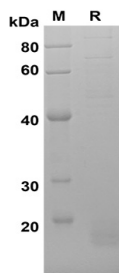
### Description

|                      |                                                                           |
|----------------------|---------------------------------------------------------------------------|
| <b>Species</b>       | Rat                                                                       |
| <b>Source</b>        | HEK293 Cells-derived Rat IL-4 protein Met1-Ser147, with an C-terminal His |
| <b>Calculated MW</b> | 16.5 kDa                                                                  |
| <b>Observed MW</b>   | 17 kDa                                                                    |
| <b>Accession</b>     | P20096                                                                    |
| <b>Bio-activity</b>  | Not validated for activity                                                |

### Properties

|                       |                                                                                                                                                                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>         | > 85% as determined by reducing SDS-PAGE.                                                                                                                                                                                              |
| <b>Endotoxin</b>      | < 1.0 EU/mg of the protein as determined by the LAL method                                                                                                                                                                             |
| <b>Storage</b>        | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months. |
| <b>Shipping</b>       | This product is provided as lyophilized powder which is shipped with ice packs.                                                                                                                                                        |
| <b>Formulation</b>    | Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.                                                                                                                                                  |
| <b>Reconstitution</b> | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.                                                                                               |

### Data



SDS-PAGE analysis of Rat IL-4 proteins, 2µg/lane of  
Recombinant Rat IL-4 proteins was resolved with SDS-  
PAGE under reducing conditions, showing bands at 17 KD.

### Background

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.