

**Animal-Free Recombinant Murine IL-4**  
**Catalog # PBG10530****Specification**

---

**Animal-Free Recombinant Murine IL-4 - Product Information****Animal-Free Recombinant Murine IL-4 - Additional Information****Description**

IL-4 is a pleiotropic cytokine that regulates diverse T and B cell responses including cell proliferation, survival and gene expression. Produced by mast cells, T cells and bone marrow stromal cells, IL-4 regulates the differentiation of naive CD4+ T cells into helper Th2 cells, characterized by their cytokine-secretion profile that includes secretion of IL-4, IL-5, IL-6, IL-10, and IL-13, which favor a humoral immune response. Another dominant function of IL-4 is the regulation of immunoglobulin class switching to the IgG1 and IgE isotypes. Excessive IL-4 production by Th2 cells has been associated with elevated IgE production and allergy. Recombinant murine IL-4 is a 13.5 kDa globular protein containing 121 amino acid residues.

**Biological Activity**

The ED<sub>50</sub> was determined by the dose-dependent proliferation of murine HT-2 cells is < 2.0 ng/ml, corresponding to a specific activity of > 5 x 10<sup>5</sup> units/mg.

**Authenticity**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**Endotoxin**

Endotoxin level is <0.1 ng/ µg of protein (<1EU/ µg).

**Protein Content**

Verified by UV Spectroscopy and/or SDS-PAGE gel.

**Storage**

-20°C

**Precautions**

Animal-Free Recombinant Murine IL-4 is for research use only and not for use in diagnostic or therapeutic procedures.

**Animal-Free Recombinant Murine IL-4 - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

### **Animal-Free Recombinant Murine IL-4 - Images**