

Animal-Free Recombinant Human IL-4
Catalog # PBG10513**Specification**

Animal-Free Recombinant Human IL-4 - Product Information**Animal-Free Recombinant Human 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 human IL-4 is a 15.1 kDa globular protein containing 130 amino acid residues.

Biological Activity

The **ED₅₀** as determined by the dose-dependent stimulation of human TF-1 cells is ≤ 0.2 ng/ml, corresponding to a specific activity of $\geq 5 \times 10^6$ units/mg.

Authenticity

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

Endotoxin

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

Protein Content

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

Storage

-20°C

Precautions

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

Animal-Free Recombinant Human 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 Human IL-4 - Images