

DA3546S**Recombinant Human Interleukin-4 (IL-4)****Alternate names:**

B-cell stimulatory factor 1, BSF1, Binetrakin, IL-4, Lymphocyte stimulatory factor 1, Pitrakinra

Quantity:

2 µg

Background:

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.

Uniprot ID:

[P05112](#)

NCBI:

[NP_000580.1](#)

GeneID:

[3565](#)

Species:

Human

Source:

E. coli

Format:

State: Lyophilized purified protein.

Purity: >98% pure by SDS-PAGE and HPLC analyses.

Buffer System: PBS without stabilizer.

Endotoxin Level: < 0.1 ng per µg (IEU/µg) of IL-4

Reconstitution: The lyophilized IL-4 is soluble in water and most aqueous buffers. Restore in water to a concentration of 100 ng/ml.

This solution can be diluted into water or other buffered solutions or stored at -20°C for future use.

Description:

Recombinant Human IL-4 produced in E. coli is a single, non-glycosylated polypeptide chain having a molecular mass of 14.9 kDa and containing 129 amino acid residues.

Biological Activity: Recombinant Human IL-4 is fully biologically active when compared to standards.

The ED50 as determined by the dose-dependent stimulation of Human TF-1 cells is 0.1-0.3 ng/ml.

For most in vitro applications, IL-4 exerts its biological activity in the concentration range of 0.1 to 10.0 ng/ml.

Specific Activity: 5 x 10⁶ units/mg

Molecular weight: 15 kDa (129 aa)

Add. Information:

Centrifuge vial before opening!

Storage:

Store lyophilized at 2-8°C for 6 months or at -20°C long term.
After reconstitution store the antibody undiluted at 2-8°C for one month
or (in aliquots) at -20°C long term.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.