

Human IL-4

Human Interleukin-4, recombinant

Synonyms: IL4, BSF1, IL-4, BCGF1, BSF-1, BCGF-1

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
5 µg	1518.950.005		
25 µg	1518.950.025		
50 µg	1518.950.050		
100 µg	1518.950.100		
200 µg	1518.950.200		
500 µg	1518.950.500		
1 mg	1518.950.199		

Please enquire for bulk quantities and other vial sizes

Description

Recombinant human Interleukin-4, is a 14.9 kDa globular protein containing 130 amino acid residues. 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.

- **Biological Activity** ≥ 4 x 10⁶ units/mg
- **Source** *E. Coli*
- **Purity** ≥ 98 % (SDS-PAGE, silver stained)
- **Endotoxin level** ≤ 0.1ng/µg (≤ 1EU/µg)
- **Stabilizer** None
- **Buffer** PBS*
- **Physical state** Sterile filtered, lyophilized

Biological Activity

The ED₅₀ of ≤ 0.25 ng/ml was determined by the dose-dependent stimulation of the proliferation of human TF-1 cells. It corresponds to a specific activity of ≥ 4 x 10⁶ units/mg.

Reconstitution

We recommend a quick spin followed by reconstitution in water to a concentration of at least 0.1mg/ml. This solution can then be diluted into other aqueous buffers and stored at 4°C for 1 week or -20°C for future use.

Stability

The lyophilized protein is stable for at least 2 years from date of receipt at -20°C. Reconstituted IL-4 is stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. **Please avoid repeated freeze-thaw cycles.**

Amino Acid Sequence

MHKCDITLQE IIKTLNSLTE QKTLCTELTV TDIFAASKNT TEKETFCAA TVLRQFYSHH EKDTRCLGAT
 AQQFHRHKQL IRFLKRLDRN LWGLAGLNSC PVKEANQSTL ENFLERLKTI MREKYSKCSS

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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