

Human IL-4, cct-premium (HSA)

Human Interleukin-4, recombinant, cct-premium (HSA)

Synonyms: IL4, BCGF, BCDF, B cell stimulating factor (BSF-1)

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
5 µg	1515.951.005		
10 µg	1515.951.010		
25 µg	1515.951.025		
100 µg	1515.951.100		

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 naïve CD4+ T cells into helper Th2 cells, characterized by their cytokine-secretion profile that includes secretion of IL-4, IL-5, IL-6, and IL-13, which favour 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** ≥ 8 x 10⁶ IU/mg
- **Source** *E. Coli*
- **Purity** ≥ 98 % (SDS-PAGE, HPLC)
- **Endotoxin level** ≤ 0.01ng/µg (≤ 0.1EU/µg)
- **Stabilizer** 0.05mg HSA per µg IL-4
- **Buffer** 0.043mg NaCl per µg IL-4*
- **Physical state** Sterile filtered, lyophilized

Biological Activity

The ED₅₀ of ≤ 0.12 ng/ml was determined by the dose-dependent stimulation of the proliferation of human TF-1 cells. In direct comparison with the WHO standard (NIBSC 88/656) it corresponds to a specific activity of ≥ 8 x 10⁶ IU/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 ENFLERLTKI 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.