

Datasheet

Interleukin 4

Human Recombinant

Product	Description	Catalogue-No.	Size
IL-4	Interleukin 4, human recombinant	CB-2130405 CB-2130407	2 µg 10 µg

Product description

Synonyms: IL4, BCDF, B cell stimulating factor, Lymphocyte stimulatory factor 1.

Interleukin 4 (IL-4) is a pleiotropic cytokine produced by activated T cells. IL-4 is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL-13, which may contribute to many overlapping functions of this cytokine and IL-13. STAT6, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. This gene, IL-3, IL-5, IL-13, and CSF-2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL-13. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported.

IL-4 human recombinant produced in E. coli is a single, non-glycosylated polypeptide chain containing 130 amino acids and having a molecular mass of 15,000 Dalton. The IL-4 is purified by proprietary chromatographic techniques.

Solubility and storage conditions

It is recommended to reconstitute the lyophilized IL-4 in sterile distilled water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions. Lyophilized IL-4 although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution IL-4 should be stored at 2-8° C up to 7 days and for future use below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Composition

Lyophilized from a 0.2 µm filtered concentrated (1 mg/ml) solution in PBS, pH 7.4. Sterile filtered white lyophilized (freeze-dried) powder.

Purity: Greater than 98% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Amino acid sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Met-His-Lys-Cys-Asp.

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.594 as the extinction coefficient for a 0.1% (1 mg/ml) solution.
2. Analysis by RP-HPLC, using a standard solution of IL-4 as a Reference Standard.

Biological activity: The ED50 as determined by the dose-dependent stimulation of TF-1 cells is <0.2 ng/ml, corresponding to a specific activity of 5,000,000 IU/mg.

Suitability

FOR RESEARCH USE ONLY!

Not approved for human or animal diagnostic or therapeutic procedures.

Technical Support

Additional information will be available on our website: www.pan-biotech.com

For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com) or phone +49-8543-601630.