
Product Data Sheet

Product Name: IL 4 Rat
 Cat. No.: GP20501
 Batch No.: 1

Product Data

Purity	Greater than 95.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.	Source	Escherichia Coli.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.	Shipping Condition	Shipped at Room temp.
Synonyms	BCGF; BCDF; B cell stimulating factor; BSF-1; Lymphocyte stimulatory factor 1; IL-4; MGC79402; Binetrakin; Pitrakinra.		
Amino Acid Sequence	HGCNDSPLR EIINTLNQVT EKGTPCTEMF VPDVLTATR N TTENELICRA SRVLRKFYFP RDVPPCLKNK SGVLGELRKL CRGVSGLNSL RSCTVNESTL TTLKDFLESL KSILRGKYLQ SCTSMS.		
Solubility	It is recommended to reconstitute the lyophilized Interleukin 4 in sterile 18MΩ-cm H ₂ O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a 0.2μm filtered concentrated solution in PBS pH 7.4 and 5% trehalose.		

Introduction

IL4 is a pleiotropic cytokine produced by activated T cells. IL4 is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. 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, IL3, IL5, IL13, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL13. IL4, IL13 and IL5 are found to be regulated coordinately by several long-range regulatory elements in an over 120 kilobase range on the chromosome. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported.

Caution: Product has not been fully validated for medical applications. For research use only.

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Biological Activity

The ED50 as determined in a cell proliferation assay using rat splenocytes is less than 2ng/ml corresponding to a specific activity of 500,000IU/mg.

Stability

Lyophilized Interleukin-4 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution IL4 should be stored at 4°C between 2-7 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.

Background

Interleukin-4 Rat Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 125 amino acids and having a molecular mass of 14kDa. The IL-4 is purified by proprietary chromatographic techniques.

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