

Active Recombinant Human Interleukin 4

Cat. No. IL4-468H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL-4 produced in E.Coli is a single, non-glycosylated polypeptide chain containing 130 amino acids and having a molecular mass of 15000 Dalton.
Species	Human
Source	E.coli
Description	Interleukin (IL)-4, produced primarily by CD4(+) T cells is an immunomodulatory cytokine, which can inhibit the growth of tumour cells.IL-4 has been known as a Th2 cytokine and can act on B cells, T cells, and monocytes.Interleukin (IL)-4 exhibits antitumor activity in rodent experimental gliomas, which is likely mediated by the actions of IL-4 on a variety of immune cells present in and around the tumor masses.
Form	Lyophilized with no additives.
Purity	Purity Greater than 98% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	Recombinant Human Interleukin-4 is fully biologically active when compared to standard. The ED50 as measured by CD23 receptor binding on human proliferal macrophages at a concentration of 1.8 ng/ml.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Solubility	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/μl, which can be further diluted into other aqueous solutions.
Purity Greater than 98% as determined by	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Protein Content determined by	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
Endotoxin Level	Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.
Amino acid sequence	MHKCDITLQE IIKTLNSLTE QKTLCTELTV TDIFAASKNT TEKETFCRAA TVLRQFYSHH EKDTRCLGAT AQQFHRHKQL IRFLKRLDRN LWGLAGLNSC PVKEANQSTL ENFLERLTKI MREKYSKCSS
Storage	Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

GENE INFORMATION

Gene Name	IL4 interleukin 4 [Homo sapiens]
Official Symbol	IL4
Synonyms	BSF1; IL-4; BCGF1; BCGF-1; MGC79402; BCGF; BCDF; B cell stimulating factor 1; Lymphocyte stimulatory factor 1; Binetrakin, Pitrakinra; Interleukin-4; BSF-1; B-cell

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	stimulatory factor 1; Interleukin-4 precursor; IL4; interleukin 4
Gene ID	3565
mRNA Refseq	NM_000589
Protein Refseq	NP_000580
MIM	147780
UniProt ID	P05112
Chromosome Location	5q31.1
Pathway	Cytokine-cytokine receptor interaction; Fc epsilon RI signaling pathway; Hematopoietic cell lineage; Jak-STAT signaling pathway; T cell receptor signaling pathway
Function	interleukin-4 receptor binding; protein binding