

Active Recombinant Mouse Interleukin 4

Cat. No. IL4-469M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant IL-4 is produced in E.coli as a single, non-glycosylated polypeptide chain containing 120 amino acids and having a molecular mass of 13,500 Daltons.
Species	Mouse
Source	E.coli
Description	Mouse Interleukin-4, also known as BCDF or BCGF, is a pleiotropic immunoregulatory cytokine. IL-4 activity is mediated through the IL-4R receptor.
Form	Lyophilized with no additives.
Purity	Purity Greater than 95% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
Bio-activity	Recombinant mouse IL-4 is fully biologically active when compared to standards. The ED50, as determined by dose-dependent induction of HT-2 cell proliferation, is 2.5 ng/ml.
Physical Appearance	Sterile Filtered white lyophilized (freeze-dried) powder.
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/μs/ml, which can be further diluted into other aqueous

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	solutions.
Purity Greater than 95% 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	MHIHGCDKNH LREIIGILNE VTGEGTPCTE MDVPNVLTAT KNTTESELVC RASKVLRIFY LKHGKTPCLK KNSSVLMELQ RLFRAFRCLD SSISCTMNES KSTSLKDFLE SLKSIMQMDY S
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.
Pathways	Cytokine-cytokine receptor interaction; Fc epsilon RI signaling pathway; Hematopoietic cell lineage; Jak-STAT signaling pathway; T cell receptor signaling pathway

GENE INFORMATION

Gene Name	IL4 interleukin 4 [<i>Mus musculus</i>]
Official Symbol	IL4
Synonyms	IL4; interleukin 4; IL-4; BSF-1; interleukin-4; OTTMUSP00000005817; OTTMUSP00000005817; B-cell growth factor 1; B-cell stimulatory factor 1;

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lymphocyte stimulatory factor 1; lymphocyte stimulatory factor; IL-4; BCGF-1; binetrakin; BCGF1; BSF1; pitrakinra; Binetrakin; MGC79402; B_cell stimulatory factor 1; Pitrakinra

Gene ID 16189

mRNA Refseq NM_021283

Protein Refseq NP_067258

UniProt ID P07750

Chromosome Location 11 B1.3; 11 29.0 cM

Function interleukin-4 receptor binding; protein binding

Crystal structure of human IL-4 (2INT)

