

Datasheet for 009-001-B93**IL-4 Human Recombinant Protein****Overview**

Description:	IL-4 Human Recombinant Protein - 009-001-B93
Item No.:	009-001-B93
Size:	20 µg
Applications:	SDS-PAGE
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	Interleukin (IL)-4, secreted 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. It participates in several B-cell activation processes as well as of other cell types. It is a costimulator of DNA-synthesis. It induces the expression of class II MHC molecules on resting B-cells. It enhances both secretion and cell surface expression of IgE and IgG1. It also regulates the expression of the low affinity Fc receptor for IgE (CD23) on both lymphocytes and monocytes. 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 15,000 Daltons.
Synonyms:	B Cell Growth/Stimulatory Factor 1, BSF1, B cell IgG differentiation factor, Lymphocyte stimulatory factor 1, Binetrakin, Pitracinra, IL4e12 cytokine, HCGF, IA Inducing Factor, MFF, MCGF2, MGC79402, T cell growth factor 2, IGG1 induction factor
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	IL4
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Purity/Specificity: Purity was determined to be greater than 98% as determined by analysis by RP-HPLC, and by reducing and non-reducing SDS-PAGE, against known standard.

Relevant Links:

- [UniProtKB - P05112](#)
- [NCBI](#)

Application Details

Tested Applications: SDS-PAGE

Application Note: IL-4 protein has been tested by SDS-PAGE and is suitable as a control for polyclonal or monoclonal anti-IL-4 in immunological assays.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

Other: Biological 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.

Endotoxin Level: Measured by LAL is <0.01ng/μg or <0.1EU/μg.

Formulation

Physical State: Lyophilized

Concentration: 0.1 mg/mL by UV absorbance at 280 nm

Buffer: 0.1% Trifluoroacetic acid

Preservative: None

Stabilizer: None

Reconstitution Volume: 20μl (20-200μl)

Reconstitution Buffer: Restore with deionized water (or equivalent)

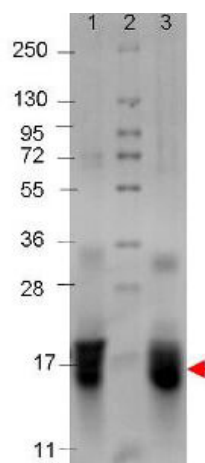
Shipping & Handling

Shipping Condition: Ambient

Storage Condition: Store vial at 4° C prior to restoration. Dilute only prior to immediate use. Maintain sterility. This product DOES NOT contain preservative. DO NOT VORTEX. We recommend adding a carrier protein such as HSA or BSA to 0.1% (i.e. 1.0 mg/mL) . For best results aliquot contents and freeze at -20° C or colder. Avoid cycles of freezing and thawing. Centrifuge vial before each opening to dislodge contents from the cap and to clarify if contents are not clear after standing at room temperature.

Expiration: Expiration date is six (6) months from date of receipt.

Images



SDS-PAGE

SDS-PAGE shows bands corresponding to IL-4 (1µg) in lane 1 (reduced) and lane 3 (non-reduced, arrowhead). Molecular weight estimation was made by comparison to prestained MW markers, lane 2.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.