

Datasheet for 009-001-B95**IL-2 Human Recombinant Protein****Overview**

Description:	IL-2 Human Recombinant Protein - 009-001-B95
Item No.:	009-001-B95
Size:	50 µg
Applications:	SDS-PAGE
Origin:	Human
Expressed in:	E. coli

Product Details**Background:**

Interleukin-2 (IL2) is a secreted immunomodulatory cytokine that is essential in regulation and proliferation of T and B lymphocytes, and other activities crucial to regulation of the immune response. The receptor of this cytokine (the IL-2R receptor) is a heterotrimeric protein complex whose gamma chain is also shared by interleukin 4 (IL4) and interleukin 7 (IL7). The expression of this gene in mature thymocytes is monoallelic, which represents an unusual regulatory mode for controlling the precise expression of a single gene. The targeted disruption of a similar gene in mice leads to ulcerative colitis like disease, which suggests an essential role of this gene in the immune response to antigenic stimuli. IL2 has been shown to have antitumor effects in some studies. This is probably mediated by cytotoxic effector cells. Produced by T-cells in response to antigenic or mitogenic stimulation, this protein can stimulate B-cells, monocytes, lymphokine-activated killer cells, natural killer cells, and glioma cells. Recombinant IL-2 produced in E. coli is a single, non-glycosylated polypeptide chain containing 134 amino acids and having a molecular mass of 15,517 Daltons. Recombinant human IL-2 has a Ser substitute for Cysteine at position 126.

Synonyms:	Interleukin-2 cytokine, aldesleukin, T cell growth factor2, TCGF,
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	IL2
Purity/Specificity:	Purity was determined to be greater than 90% as determined by analysis by RP-HPLC and by reducing and non-reducing SDS- PAGE, against known standard.
Relevant Links:	• UniProtKB - Q6QWN0 • NCBI - 4DTS6HJD015

Application Details

Tested Applications:	SDS-PAGE
Application Note:	IL-2 protein has been tested by SDS-PAGE and is suitable as a control for polyclonal or monoclonal anti-IL-2 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 IL-2 is fully bioactive when compared to standard. The ED50 as measured by the dose-dependent proliferation of CTLL-2 cells is typically 1.0 ng/ml. Endotoxin Level: Measured by LAL is <0.5 EU/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:	50μL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

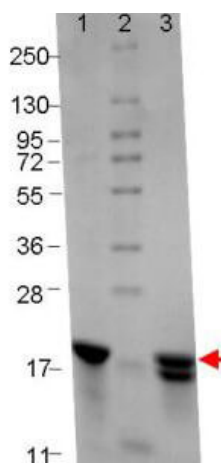
Shipping & Handling

Shipping Condition:	Ambient
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Storage Condition: Store vial at -20° 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-2 (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.