

Datasheet for 009-001-B94**IL-7 Human Recombinant Protein****Overview**

Description:	IL-7 Human Recombinant Protein - 009-001-B94
Item No.:	009-001-B94
Size:	10 µg
Applications:	SDS-PAGE
Origin:	Human
Expressed in:	E. coli

Product Details

Background:	Interleukin 7 (IL-7), which is constitutively produced particularly by stromal cells from the bone marrow and thymus, plays a crucial role in T cell homeostasis. This cytokine is implicated in thymopoiesis because it sustains thymocyte proliferation and survival. It regulates peripheral naive T cell survival by modulating the expression of the anti-apoptotic molecule Bcl-2, and sustains peripheral T cell expansion in response to antigenic stimulation. Infection by the human immunodeficiency virus (HIV) leads to severe T lymphopenia and general immune dysfunction. Increased IL-7 plasma levels are generally observed in HIV-infected patients. IL-7 may also support bioenergetics that control cell fate decisions in lymphocytes. Recombinant Human IL-7 produced in E. coli is a single, non-glycosylated polypeptide chain containing 153 amino acids and having a molecular mass of 17,412 Daltons.
Synonyms:	Interleukin 7 cytokine, Interleukin-7, IL-7
Species of Origin:	Human
Expressed in:	E. coli
Type:	Recombinant Protein
Low Endotoxin:	Yes

Target Details

Gene Name:	IL7
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:

- [NCBI](#)
- [UniProtKB - D0EYG7](#)

Application Details

Tested Applications:	SDS-PAGE
Application Note:	IL-7 protein has been tested by SDS-PAGE and is suitable as a control for polyclonal or monoclonal anti-IL-7 in immunological assays. Buffer Formulation: 10 mM Acetic Acid.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
Other:	Biological Activity: Recombinant H-IL-7 is fully biologically active when compared to standard. The ED50 as determined by the dose-dependent stimulation of mouse 2E8 cells is less than 0.5ng/ml. Endotoxin Level: Measured by LAL is 0.01EU/μg.

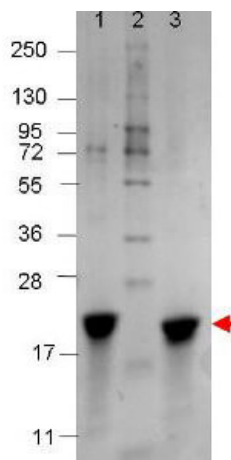
Formulation

Physical State:	Lyophilized
Concentration:	0.1 mg/mL by UV absorbance at 280 nm
Buffer:	See application note.
Preservative:	None
Stabilizer:	None
Reconstitution Volume:	10μl (10-100μl)
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-7 (1 μ g) 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.