



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet Recombinant Human Interleukin-2

Catalog No.
228-10899

Source:
Escherichia Coli.

Synonyms

T-cell growth factor (TCGF), Aldesleukin, Lymphokine, IL-2.

Introduction

IL2 is a secreted cytokine that is important for the proliferation of T and B lymphocytes. The receptor of this cytokine 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.

Description

Interleukin-2 Human Recombinant produced in E.Coli is a single, non-glycosylated mutein (variant form) of human IL-2 polypeptide chain containing 134 amino acids and having a molecular mass of 15517 Dalton. Our Interleukin -2 has a Ser substitute for Cysteine at position 126. The IL-2 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

The protein (1.1mg/ml) was lyophilized after extensive dialysis against 0.17mg sodium monobasic & 0.89mg dibasic sodium phosphate buffer to a pH=7.5.

Solubility

It is recommended to reconstitute the lyophilized Interleukin 2 in sterile 20mM AcOH not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL2 should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please prevent freeze-thaw cycles.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Purity

Greater than 98.0% as determined by (a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Pro-Thr-Ser.

Biological Activity

The ED50 as determined by the dose-dependant stimulation of murine CTLL-2 cells is < 0.0645 ng/ml, corresponding to a Specific Activity of 16.9 MIU/mg.

Protein content

Protein quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 0.614 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of IL-2 as a Reference Standard.

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