

RayBiotech, Inc.

3607 Parkway Lane suite 200 Norcross,GA 30092 Tel: 770-729-2992, 1-888-494-8555

Fax: 770-206-2393

Website: www.raybiotech.com Email: info@raybiotech.com

Certificate of Analysis and Data Sheet

Recombinant Mouse Interleukin-7

Catalog No. Source
228-10945 Escherichia Coli

Synonyms

Lymphopoietin 1 (LP-1), pre-B cell factor, IL-7.

Introduction

Interleukin-7 is a potent lymphoid cell growth factor produced primarily by stromal cells. IL-7 has been shown to support the proliferation and differentiation of pre B- and early T cells as well as displaying a biological effect on cells of NK and myeloid lineages.

Description

Interleukin-7 Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 130 amino acids and having a molecular mass of 15.0 kDa. The IL-7 is purified by proprietary chromatographic techniques.

Source

Escherichia Coli.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a concentrated (1mg/ml) solution in water containing no additives.

Solubility

It is recommended to reconstitute the lyophilized Interleukin 7 in sterile $18M\Omega$ -cm H_2O not less than $100\mu g/ml$, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-7 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL7 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.



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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-Glu-Cys-His-Ile.

Biological Activity

The ED50 as determined by the dose-dependant stimulation of murine 2E8 cells is < 0.2ng/ml, corresponding to a Specific Activity of 5MIU/mg.

Protein content

Protein quantitation was carried out by two independent methods

- 1. UV spectroscopy at 280 nm using the absorbency value of 0.48 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 standard solution of IL-7 as a Reference Standard.