



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet Recombinant Mouse Interleukin-3

Catalog No.
228-10919

Source:
Escherichia Coli

Synonyms

MC GF (Mast cell growth factor), Multi-CSF, HCGF, P-cell stimulation factor, IL-3, MGC79398, MGC79399.

Introduction

Interleukin-3 is a pleiotropic cytokine produced primarily by activated T cells. IL-3 is thought to function via specific cell surface receptors to stimulate the proliferation, differentiation and survival of haematopoietic cell lines. IL-3 has also been shown to affect the functional activity of a variety of other cell types including mast cells, eosinophils, megakaryocytes and basophils.

Description

Interleukin-3 mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 135 amino acids and having a molecular mass of 15100 Dalton. The IL-3 is purified by proprietary chromatographic techniques.

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-3 in sterile 18MΩ-cm H₂O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Interleukin-3 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-3 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 97.0% 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-Asp-Thr-His-Arg.

Biological Activity

The ED₅₀ as determined by the dose-dependant stimulation of murine M-NFS-60 cells is < 0.05 ng/ml, corresponding to a Specific Activity of 2×10^7 IU/mg.

Protein content

Protein quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 0.154 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 IL3 as a Reference Standard.

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