



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Interleukin-3

Catalog No.
228-10917

Source:
E. Coli

Synonyms

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

Introduction:

IL3 is a potent growth promoting cytokine. This cytokine is capable of supporting the proliferation of a broad range of hematopoietic cell types. It is involved in a variety of cell activities such as cell growth, differentiation and apoptosis. This cytokine has been shown to also possess neurotrophic activity, and it may be associated with neurologic disorders.

Description:

Interleukin-3 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 133 amino acids and having a molecular mass of 15000 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 0.3 mg/ml of NaHCO₃.

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 IL3 should be stored at 4°C between 2-7 days and for future use below -18°C.

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 Ala-Pro-Met-Thr-Gln.

Biological Activity

The ED₅₀ as determined by the dose-dependant stimulation of TF-1 cells is < 0.1 ng/ml, corresponding to a Specific Activity of 1×10^7 IU/mg.

Protein content

Protein quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 0.84 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-3 as a Reference Standard.

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