

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Human Interferon-alpha 2b

Catalog No. Source
228-10819 Escherichia Coli.

Synonyms

Interferon alpha 2b, IFNA, INFA2, MGC125764, MGC125765.

Introduction

IFN-alpha is produced by macrophages and has antiviral activities. Interferon stimulates the production of two enzymes: protein kinase and an oligoadenylate synthetase.

Description

Interferon-a 2b Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 166 amino acids and having a molecular mass of 19400 Dalton.

The Interferon-alpha 2b gene was obtained from human leukocytes.

The IFN-a 2b is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a (1 mg/ml) solution in containing 2.3 mg Sodium phosphate dibasic and 0.55 mg sodium phosphate monobasic buffer.

Solubility

It is recommended to reconstitute the lyophilized Interferon-alpha 2b in sterile $18M\Omega$ -cm H2O not less than $100\mu g/ml$, which can then be further diluted to other aqueous solutions.

Purity

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.



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Amino Acid Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Cys-Asp-Leu-Pro

Biological Activity

The specific activity as determined in a viral resistance assay using bovine kidney MDBK cells was found to be 2.6×10^8 IU/ mg.

Protein Content

Protein quantitation was carried out by two independent methods:

- 1. UV spectroscopy at 280 nm using the absorbency value of 0.924 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 IFN alpha 2b as a Reference Standard.

Stability

Lyophilized Interferon although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IFN alpha 2b 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.