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Certificate of Analysis and Data Sheet

Recombinant Human Interferon-alpha 2b Saccharomyces

Catalog No.	**Source:**
228-10820	*Saccharomyces cerevisiae.*

Synonyms

Interferon alpha 2b, IFNA, INFA2, IFN-? 2b, 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-alpha 2b Human Recombinant produced in yeast is a single, glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of approximately 19 kDa.
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 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH-7.4.

Solubility

It is recommended to reconstitute the lyophilized glycosylated IFN alpha 2b in sterile 18MΩ-cm H2O not less than 100µg/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.

Stability

Lyophilized glycosylated IFN-a 2b 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.

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For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.

Amino acid sequence

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

Biological Activity

The specific activity as determined in a viral resistance assay was found to be no less than 3.0×10^8 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-a 2b as a Reference Standard.