



## RayBiotech, Inc.

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### Certificate of Analysis and Data Sheet

## Recombinant Human Interferon-alpha 2b *Saccharomyces*

**Catalog No.**  
228-10820

**Source:**  
*Saccharomyces cerevisiae*.

### **Synonyms**

Interferon alpha 2b, IFNA, INFA2, IFN- $\alpha$  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- $\alpha$  2b is purified by proprietary chromatographic techniques.

### **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

### **Formulation**

Lyophilized from a 0.2 $\mu$ m filtered concentrated (1mg/ml) solution in PBS, pH-7.4.

### **Solubility**

It is recommended to reconstitute the lyophilized glycosylated IFN  $\alpha$  2b in sterile 18M $\Omega$ -cm H<sub>2</sub>O 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

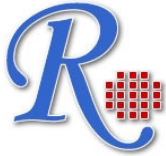
(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

### **Stability**

Lyophilized glycosylated IFN- $\alpha$  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.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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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  $3.0 \times 10^8$  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.

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