

# Interferon alpha 2a, human recombinant (rHuIFN-alpha)

Catalog No: 51563 Lot No: XXXXX Source: *E. coli* 

**Synonyms:** Leukocyte interferon, B cell interferon, Type I interferon, IFNA2, IFN-a 2a

## **Background**

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 2a human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 19241 Dalton. The Interferon-a 2a gene was obtained from human leukocytes. The IFN-A 2a is purified by proprietary chromatographic techniques.

## **Physical Appearance**

Sterile filtered white lyophilized (freeze-dried) powder.

## **Formulation**

Lyophilized without additives.

## Solubility

It is recommended to reconstitute the lyophilized IFN-a 2a in sterile 18 M $\Omega$ -cm H $_2$ O not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

## Stability

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

## 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 Cys-Asp-Leu-Pro-Gln, conforming to the sequence of native human IFN-a. N-terminal methionine has been completely removed enzymatically.

## Activity

The specific activity as determined in a viral resistance assay using bovine kidney MDBK cells was found to be  $2.7 \times 10^8$  IU/mg.

# Usage

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