

Interferon alpha2a, His Tag, human recombinant, tobacco (rHuIFN-alpha2a-His)

Catalog No: 97075 Lot No: XXXXX

Source: Nicotiana benthamiana

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 plant is a single, glycosylated, polypeptide chain containing 165 amino acids and having a molecular mass of 19 kDa. Interferon-a 2a contains a 6xHis Tag at C-terminus. IFN-A 2a is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized, containing 50% SDS.

Solubility

It is recommended to reconstitute the lyophilized IFN-a 2a in sterile 18 M Ω -cm H $_2$ O not less than 100 μ 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 99.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

The sequence of the first twelve N-terminal amino acids was determined and was found to be Cys-Asp-Leu-Pro-Gln-Thr-His-Ser-Leu-Gly-Ser-Arg.

Activity

The specific activity was determined by a quantitative gene report bioassay using human Type I interferon-sensitive cells. Compared with bacterial derived recombinant IFN-a 2a, assayed in the same conditions, plant derived IFN-alpha 2a showed 6.1×10^8 units/mg in reference to a viral resistance assay using bovine kidney MDBK cells.





Usage

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