RayBiotech, Inc.
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Certificate of Analysis and Data Sheet

Recombinant Porcine Interferon-gamma

Catalog No.
228-10826

Source
Escherichia Coli.

Synonyms
Immune Interferon, type II interferon, T cell interferon, MAF, IFNG, IFG, IFI, IFN-gamma.

Introduction:
IFN-gamma produced by lymphocytes activated by specific antigens or mitogens.
IFN-gamma, in addition to having antiviral activity, has important immunoregulatory functions, it is a potent activator of macrophages, and has antiproliferative effects on transformed cells and it can potentiate the antiviral and antitumor effects of the type I interferons.

Description:
Interferon-gamma Porcine Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 146 amino acids and having a molecular mass of 17140 Dalton.
The IFN-gamma is purified by proprietary chromatographic techniques.

Formulation:
The protein was lyophilized with no additives.

Physical Appearance
Sterile Filtered White lyophilized (freeze-dried) powder.

Solubility:
It is recommended to reconstitute the lyophilized Interferon-gamma in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability:
Lyophilized Interferon-g although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IFN gamma 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.

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Purity:

Greater than 95.0% as determined by(a) Analysis by RP-HPLC. (b) Analysis by SDS-PAG.

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Tyr-Cys-Gln-Ala.

Biological Activity

The ED50 as determined by the amount of interferon that inhibited 50% of the cytopathic effect of vesicular stomatitis virus in MDBK cells was found to be 0.2-0.6 ng/ml.

Protein content

Protein quantitation was carried out by two independent methods
1. UV spectroscopy at 280 nm using the absorbency value of 0.556 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 IFNg as a Reference Standard.