

Product Information

Interferon α rat

recombinant, expressed in bacteria
cell culture tested

Catalog Number **I8657**

Storage Temperature -70°

Product Description

Recombinant rat Interferon α (IFN- α) is obtained from rat cDNA expressed in bacteria. Its molecular weight is ~19 kDa.

Type I Interferons are a closely related family of proteins that induce a variety of effects on target cells including antiviral, antiproliferative and immunomodulatory activities. They are divided into subtypes according to their cell type specific activities:

α subtypes (leukocytes), β subtypes (fibroblasts), ω subtypes (lymphocytes), and τ subtypes (ruminant embryos).¹

Reagent

Supplied as a lyophilized powder from 0.5 mL citric acid buffered saline (CBS pH 5.0) containing 125 mM trehalose.

Minimum 1×10^5 units/vial

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitute the contents of the vial with 1 mL sterile distilled water. After reconstitution, the concentration is 1×10^5 units/mL. If further dilutions are to be made, use buffers containing 0.1% bovine serum albumin.

Storage/Stability

Store at -70°C or below for retention of full activity. After reconstitution, freeze in working aliquots at -70°C . Repeated freezing and thawing is not recommended and may cause significant loss of activity.

Product Profile

Rat Interferon α activity is measured in a bioassay system for interferon α by the inhibition of cytopathic effect in rat epithelial-like (RATEC) cells with VSV in the presence of 2 mM glutathione.³⁻⁵ Since there is no international rat interferon α standard, units are determined with respect to the international reference standard for mouse interferon α/β provided by the National Institutes of Health (NIH). In this antiviral assay for interferon, approximately 1 unit/mL of interferon is the quantity necessary to produce a cytopathic effect of 50%.

Note: Specific activity is lot specific.

Purity: $\geq 95\%$

References

1. The Cytokine Facts Books, eds., R. Callard and A. Gearing, p. 148 (Academic Press, 1994).
2. Rubinstein, S., et al., *J. Virol.*, **37**, 755-758 (1981).
3. Familletti, P., et al., *Meth. Enzymol.*, **78**, 387-394 (1981).
4. Pestka, S., *Meth. Enzymol.*, **119**, 14-23 (1986).

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