

Product Information

Interferon β from rat recombinant, expressed in CHO cells

Catalog Number **I8907**
Storage Temperature -70°C

Synonym: IFN- β

Product Description

Recombinant, rat interferon β (IFN- β) is obtained from rat DNA expressed in CHO (Chinese Hamster Ovary) cells. It is reactive on mouse and rat cells, and has a molecular mass of ~ 20 kDa.

Type I Interferons are a closely related family of proteins, which 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

Interferon β is known to affect many important cell mediated immune responses, including enhanced expression of MHC molecules, β_2 -microglobulin, tumor associated antigens, and cytokine receptors for tumor necrosis factor, interleukin-1, interleukin-2, and colony stimulating factors.²

This product is lyophilized from phosphate buffered saline (PBS) with 125 mM trehalose.

Purity: $\geq 95\%$

Activity: $\geq 1 \times 10^5$ units/vial

Rat Interferon β activity is measured in a bioassay system for interferon β by the inhibition of cytopathic effect in rat epithelial-like (RATEC) cells with vesicular stomatitis virus (VSV).³⁻⁵ Since there is no international rat interferon β 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, ~ 1 unit/ml of interferon is the quantity necessary to produce a cytopathic effect of 50%. See CoFA for lot-specific activity.

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 of 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 the product 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.

References

1. The Cytokine Facts Books, eds., Callard, R., and Gearing, A., (Academic Press, 1994) p. 148.
2. Volz, M., and Kirkpatrick, C., *Drugs*, **43**, 285-294 (1992).
3. Rubinstein, *et al.*, *J. Virol.*, **37**, 755-758 (1981).
4. Familletti, P., *et al.*, *Meth. Enzymol.*, **78**, 387-394 (1981).
5. Pestka, S., *Meth. Enzymol.*, **119**, 14-23 (1986).

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