

Product Information

Interferon β from mouse recombinant, expressed in *E. coli*

Catalog Number **I9032**
Storage Temperature -70°C

Synonym: IFN β

Product Description

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

Interferon β (IFN 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

The recombinant Interferon β from mouse is obtained from mouse DNA expressed in *E. coli*. Its molecular mass is ~ 20 kDa.

The product is supplied as a solution in 20 mM HEPES, pH 6.0, 0.5 M NaCl, 6% glycerol, and 0.1% bovine serum albumin.

Purity: $\geq 95\%$

Interferon β activity is measured in a bioassay system against the NIH International Standard Reference for mouse interferon β by the inhibition of cytopathic effect in mouse L929 cells with encephalomyocarditis virus (EMCV).³⁻⁵ In this antiviral assay for interferon, ~ 1 unit/ml of interferon is the quantity necessary to produce a cytopathic effect of 50%.

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

The contents of the vial may be further diluted in a buffer solution (phosphate buffered saline) containing a protein such as 0.1% bovine serum albumin.

Storage/Stability

The product ships on dry ice and storage at -70°C or below is recommended for retention of full activity.

After thawing, 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, Callard, R., and Gearing, A., eds., Academic Press, (New York, NY: 1994) p. 148.
2. Volz, M., and Kirkpatrick, C., *Drugs*, **43**, 285-294 (1992).
3. Rubinstein, S. *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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