

Product Information

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Interferon- α /D human, recombinant expressed in *Escherichia coli*

Catalog Number **I4401**

Storage Temperature -70°C

Synonym: IFN- α /D

Product Description

Interferon- α /D (*Bg*/II), also known as Universal Type I Interferon, is an alpha interferon hybrid that crosses the species barrier. The *Bg*/II denotes the restriction enzyme site from which this hybrid is constructed from recombinant human interferons α A and α D.

Interferon- α /D has been proven to be active on many mammalian cells.¹ It can substitute for human, monkey, mouse, bovine, rat, cat, dog, rabbit, sheep, goat, horse, pig, or hamster type I interferon (α , β , ω , and τ).¹

Type I Interferons are a closely related family of 165-172 amino acid proteins that are produced by leucocytes (α subtypes), fibroblasts (β subtypes), lymphocytes (ω subtypes), and ruminant embryos (τ subtypes).² This cytokine has antiviral, antiproliferative, immunoregulatory, and proinflammatory activities.

Molecular mass: 19 kDa

This product is supplied in a solution of phosphate buffered saline (PBS) with 0.1% bovine serum albumin (BSA).

Purity: $\geq 95\%$

Lot specific activity is reported on the Certificate of Analysis. The biological activity of recombinant human IFN- α /D is tested in the cytopathic effect inhibition assay using MDBK cells with vesicular stomatitis virus (VSV).^{3,4} A cytopathic effect of 50% is produced with 1 unit/ml interferon. The units are determined with respect to NIH international standard reference for human interferon- α A (IFN- α A).⁵

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 only in a solution containing a carrier protein such as 0.1% bovine serum albumin (BSA).

Storage/Stability

The product ships on dry ice and storage at -70°C is recommended. After thawing, contents of the vial should be stored in frozen aliquots. Repeated freezing and thawing are **not** recommended and will result in decreased biological activity.

References

1. PBL Biomedical Labs, New Jersey, personal communication, 1998.
2. The Cytokine Facts Book, eds., Callard, R., and Gearing, A., (Academic Press, 1994), p. 148.
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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