

GAMMA INTERFERON MOUSE, RECOMBINANT
Expressed in *E. Coli*

Product No. **I5517**

Description

Gamma Interferon (γ -IFN) is produced by activated T cells, and natural killer cells stimulated by alloantigens, tumors, and mitogens.¹ γ -IFN exerts a variety of biological effects including antiviral activity², inhibition of cell or tumor growth^{3,4} and promotion of terminal differentiation of B cells into immunoglobulin-producing cells.^{5,6} In addition, γ -IFN activates macrophages, boosts the cytotoxicity of natural killer cells, and stimulates T cell cytotoxicity.^{7,8} γ -IFN is synergistic with TNF α in its cytotoxicity.⁹ γ -IFN acts on cells via specific cell surface receptors.¹⁰

Performance Characteristics

This product has been tested in culture by measuring the cytopathic effect on L929 cells challenged with VSV^{11,12}. One unit of activity is defined as the reciprocal of the endpoint dilution of an interferon preparation which protects 50% of the indicator cell population from viral destruction.

Product Information

Expressed in *E. coli*
Molecular Weight: 15.5 kD
Purity: $\geq 90\%$ by SDS-PAGE
Specific activity: $\geq 5 \times 10^6$ un/mg
Volume: 0.5 ml
Package Size: $\geq 100,000$ units
Diluent: Phosphate buffered saline
Carrier Protein: 0.1% BSA
Sterility: 0.2 μ m-filtered, aseptic fill
Endotoxin: ≤ 0.2 ng/ μ g γ IFN

Dilution and Use

γ -IFN is supplied as an aseptically prepared frozen liquid which can be used in tissue culture manipulations.

Immediately before use, thaw mouse γ -IFN in an ice-cold bath. The γ -IFN may be diluted to working concentrations of 0.1-400 units/ml in PBS or tissue culture media containing 1-10% BSA or serum. Use polypropylene containers for diluting material.

Storage

Store stock solution or dilutions of stock solution in aliquots at -70°C for 3 months. Store at dilution no greater than 1:5. Repeated freezing and thawing is not recommended.

References

- Hibino, Y., et al., J. Biol. Chem., **266**, 6948 (1991).
- Vilcek, J., et al., Lymphokines, **11**, 1 (1985).
- Gresser, I., et al., Proc. Natl. Acad. Sci. USA, **66**, 1052 (1970).
- Knight, E., Jr., Nature, **262**, 302 (1976).
- Perussia, B., et al., J. Exp. Med., **158**, 1092 (1983).
- Opdenakker, G., et al., Experimenta (Basel), **45**, 513 (1989).
- Friedman, R.M., et al., Adv. Immunol., **34**, 97 (1983).
- Vilcek, J., et al., Interferon and the Immune System, (1984).
- Fransen, L., et al., Cell Immunol., **100**, 260, (1986).
- Pestka, S., et al., Annu. Rev. Biochem., **56**, 727 (1987).
- Reynolds, D.S., et al., Journal of Immunology, **139**, 767 (1987).
- Rubinstein et al., Journal of Virology, **37**, 755 (1981).
- Familletti et al., Methods in Enzymology, **78**, 387 (1981).