



Product Information

Interferon- γ (IFN- γ)

Human, Recombinant
Expressed in *E. coli*

Product Number **I 1520**

Product Description

Human Interferon- γ (IFN- γ) exerts a variety of biological effects including antiviral activity,¹ inhibition of cell or tumor growth,^{2,3} and promotion of differentiation of B cells into immunoglobulin-producing cells.^{4,5} In addition to antiviral activity, human IFN- γ is a potent modulator of immune responses and modifies cellular processes.⁶ IFN- γ is classified as immune interferon.⁶ IFN- γ functions as an activating factor to prime macrophages (MAF) for non-specific tumoricidal activity⁷ and activates monocytes to exert enhanced cytotoxicity against tumor cells.⁸ IFN- γ acts as a signal for major histocompatibility antigen expression.⁹ IFN- γ boosts cytotoxicity of natural killer cells and stimulates T cell cytotoxicity. The species specificity of IFN- γ resides in the interaction of IFN- γ with its receptor.¹⁰ Human IFN- γ does not bind specifically to mouse, hamster, or bovine cells.¹⁰ Human IFN- γ is a 16.7 kDa protein containing 143 amino acid residues.

Reagent

The product is lyophilized from a 0.2 μ m filtered buffered solution.

Storage/Stability

The lyophilized product is best stored at -20°C . It is stable for up to a few weeks at room temperature. Reconstituted product should be stored in working aliquots at -20°C . Repeated freezing and thawing is not recommended. Do not store in frost-free freezer.

Reconstitution

Reconstitute the contents of the vial using 0.2 μ m-filtered 1x phosphate buffered saline, pH 8.0, to a concentration of 0.5-1.0 mg/ml.

Note: Further dilutions should be made into RPMI containing 10% fetal calf serum (FCS) or 5% bovine serum albumin (BSA) or 5% human serum albumin (HSA). This solution may be stored for up to one week at 2-8 $^{\circ}\text{C}$. For extended storage, freeze in working aliquots at -20°C . Additional filtration of the stock solution is not recommended and may result in product loss due to adsorption onto the filter membrane.

Product Profile

The biological activity was measured in a viral resistance assay.¹¹ The ED₅₀ is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Purity: $\geq 98\%$ as determined by SDS-PAGE and HPLC.

Endotoxin: < 0.1 ng/ μ g cytokine.

References

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