Product Information

Interferon-γ, human recombinant, expressed in E. coli

Catalog Number I3265
Storage Temperature –20 °C

Synonyms: IFN-γ, immune interferon, type II interferon, T cell interferon, MAF

Product Description
Human Interferon-γ (IFN-γ) exerts a variety of biological effects including antiviral activity, inhibition of cell or tumor growth, and promotion of terminal differentiation of B cells into immunoglobulin-producing cells. In addition to antiviral activity, recombinant human interferon-γ is a potent modulator of immune responses and modifies cellular processes. It functions as an activating factor to prime macrophages for nonspecific tumoricidal activity and activates monocytes to exert enhanced cytotoxicity against tumor cells. IFN-γ acts as a signal for major histocompatibility antigen expression, 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. Human IFN-γ does not bind specifically to mouse, hamster, nor to bovine cells.

Human IFN-γ is a 17 kDa protein containing 143 amino acid residues. The recombinant human protein is expressed in E. coli. It is lyophilized from 10 mM sodium phosphate, pH 7.4.

Purity: ≥98% (SDS-PAGE)

Endotoxin: ≤0.1 ng/mg (1 EU/µg)

The biological activity is measured in a viral resistance assay. The ED50 is defined as the effective concentration of growth factor that allows 50% cell growth in an antiviral cell based bioassay.

Preparation Instructions
The lyophilized powder can be reconstituted in sterile water to a concentration of 0.5–1.0 mg/mL. This stock solution can be diluted further with RPMI medium containing 10% fetal calf serum or 5% human serum albumin. Use polypropylene containers for dilutions.

Storage/Stability
Store the lyophilized product at –20 °C. It remains active for a few weeks at room temperature. The 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.

References