Recombinant Human Interferon-gamma

### Description:
Interferon-gamma (IFN-gamma), also known as Type II interferon or immune interferon, is a cytokine produced primarily by lymphocytes and natural killer cells. The protein shares no significant homology with IFN-beta or the various IFN-alpha family proteins. Mature IFN-gamma exists as noncovalently-linked homodimers. Human IFN-gamma is highly species specific and is biologically active only in human and primate cells. IFN-gamma was originally characterized based on its antiviral activities. The protein also exerts antiproliferative, immunoregulatory and proinflammatory activities and is thus important in host defense mechanisms. IFN-gamma induces the production of cytokines, upregulates the expression of class I and II MHC antigens, Fc receptor and leukocyte adhesion molecules. It modulates macrophage effector functions, influences isotype switching and potentiates the secretion of immunoglobulins by B cells. IFN-gamma also augments TH1 cell expansion and may be required for TH1 cell differentiation.

Recombinant Human IFN-gamma is a single non-glycosylated polypeptide chain containing 144 amino acids.

### Formulation:
NOTE: FORMULATION HAS CHANGED. Lyophilized from a sterile-filtered solution in 5 mM sodium phosphate + 50 mM sodium chloride, pH 7.2.

### Purity:
>95% by HPLC and SDS-PAGE

### Endotoxin Level:
≤0.5 EU/µg of protein by kinetic LAL analysis (50% confidence range).

### Biological Activity:
Activity is measured by antiviral assay using EMC-infected A549 cells.

### Amino Acid Sequence:
MQDPYKAE NLYKYNAGH SDVADNTLF LGILKNWKEE SDRKIMQSQI VSFYFKLFK N FKDDOSIQKS VETIKEDMN KFFNSNKKKK DFDEKLTNYS VTDLNVQRKA IHELIQVM AE LSPAALKGKR KRSQMLFQGR RASQ

### Reconstitution:
Centrifuge vial prior to opening. Add sterile distilled water to a concentration of 0.1 mg/ml. DO NOT VORTEX. Allow several minutes for complete reconstitution. Upon reconstitution, a small amount of precipitate may remain. 10% overfill has been added to compensate. Further dilutions should be made in appropriate buffered solutions.

### Storage & Stability:
Lyophilized product is stable at room temperature for shipping purposes. Upon receipt, store desiccated at -20°C for up to 1 year. Upon reconstitution, the preparation is stable for up to one month at 2-8°C. For long term storage, freeze in working aliquots and store at -20 to -80°C. For maximal stability, dilute to working aliquots in a 0.1% BSA solution.

Avoid repeated freeze-thaw cycles.

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