

Interferon-gamma (INF- γ)

CATALOG NUMBER: INF-G2-020P, 20 μ g

Introduction	Interferon-gamma (IFN- γ , also known as Type II interferon or immune interferon) is a cytokine produced primarily by T-lymphocytes and natural killer cells. The protein shares no significant homology with IFN- β or the various IFN- α family proteins. Mature IFN- γ exists as noncovalently-linked homodimers. Human IFN- γ is highly species specific and is biologically active only in human and primate cells. IFN- γ 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- γ 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- γ also augments TH1 cell expansion and may be required for TH1 cell differentiation. IFN- γ exerts its biological activities by binding to specific cell surface receptors with high-affinity binding sites. The IFN- γ receptor is present on almost all cell types except mature erythrocytes and has been cloned and characterized. The IFN- γ receptor is structurally related to the recently cloned IL-10 receptor.
Description	Recombinant human IFN- γ produced in E. coli. is a non-covalent Dimer non-glycosylated, containing 140 amino acids, and having a molecular mass of approximately 16.5kD.
Source	Yeast
Purity	\geq 97% purity (by SDS PAGE and HPLC)
Endotoxin Level	\leq 1 EU/mg, determined by the LAL method
Biological Activity	Bioactivity is detected using WISH cell (a heteroploid human amnion cell line). The specific activity shall be not less than 2.0×10^7 IU/mg of protein.
Formulation	Lyophilized from a 0.2 μ m filtered solution in 20mM Phosphate Buffer Reconstitute with double distilled water at a concentration of no less than 10 μ g/ml with 0.1% human serum albumin (A highly purified plant-derived human serum albumin is strongly suggested to be used, Cat# HAS-1r) or bovine serum albumin as a stock.
Storage	Stable for 6-months from the date of shipment when kept at -20 $^{\circ}$ C or -70 $^{\circ}$ C. Upon reconstitution, it can be stored at 4 $^{\circ}$ C for at least one month or -20 $^{\circ}$ C for at least three months. Avoid repeated freeze-thaw cycles.
Usage	This product is produced for LABORATORY RESEARCH USE ONLY.

