



Recombinant Human Interferon gamma

Catalog Number: SJC03

Strength: 20µg, 100µg

Specifications and Use

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	E. coli.
Molecular Mass	Approximately 16.5kD.
Purity	≥97%, as determined by SDS-PAGE and HPLC method.
Endotoxin Level	≤1EU/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 0.2mm filtered solution in 20mM Phosphate buffer.
Reconstitution	It is recommended that sterile ddH ₂ O containing at least 0.1% human serum albumin or bovine serum albumin be added to the vial to prepare a stock solution of not less than 10mg/ml of the cytokine.
Storage	Lyophilized samples are stable for greater than six months from date of receipt at -20°C to -70°C. Upon reconstitution, this cytokine can be stored under sterile conditions at 2- 8°C for one month or at -20°C to -70°C in a manual defrost freezer for three months without detectable loss of activity. Avoid repeated freeze-thaw cycles.

Human Interferon gamma

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 T_H1 cell expansion and may be required for T_H1 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.

FOR RESEARCH USE ONLY. NOT FOR HUMAN USE.