

Overview

Synonyms	Immune Interferon, type II interferon, T cell interferon, MAF, IFNG, IFG, IFI, IFN-gamma.
Description	Human Interferon gamma (hIFN- γ) is a macrophage-activating factor and the lone member of Interferon type II. The active form of IFN- γ is an antiparallel dimer that interacts with the receptor IFN- γ R1 and sets off IFN- γ /JAK/STAT pathway. IFN- γ signaling does diverse biological functions primarily related to host defense and immune regulation, including antiviral and antibacterial defense, apoptosis, inflammation, and innate and acquired immunity. While IFN- γ -induced inflammatory cascade summons a variety of immune-related cell types, such as macrophages, natural killer (NK) cells and cytotoxic T lymphocytes (CTLs), IFN- γ is also implicated in resistance to NK cell and CTL responses and in immune escape in a variety of cancers. Recombinant human Interferon gamma (rhIFN- γ) produced in <i>E. coli</i> is a non-glycosylated polypeptide chain of 144 amino acids. A fully biologically active molecule, rhIFN- γ has a molecular mass of 17 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary refolding and chromatographic techniques.
Species	Human
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 0.05 ng/ml, measured by cytotoxicity assay using HT-29 cells.
Sequence	MQDPYVKEAE NLKKYFNAGH SDVADNGTLF LGILKNWKEE SDRKIMQSQI VSFYFKLFKN FKDDQSIQKS VETIKEDMNV KFFNSNKKKR DDFEKL TNYS VTDLNVQRKA IHELIQVMAE LSPAAKTGKR KRSQMLFRGR RASQ

Properties

Measured Molecular Weight	17 kDa, observed by reducing SDS-PAGE.
Purity	> 95% as analyzed by reducing SDS-PAGE.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 μ g/ml.
Endotoxin Level	< 1 EU/ μ g, determined by LAL
Sequence Analysis	Gln ²⁴ -Gln ¹⁶⁶ (accession number: P01579). Expression construct with an N-terminal Met.
Storage	Lyophilized recombinant human Interferon gamma (rhIFN- γ) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhIFN- γ should be stable up to 1 week at 4°C or up to 2 months at -20°C.

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