

GMP Recombinant Human IFNG protein

Cat. No. IFNG-4347HG Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human IFNG protein was expressed in Escherichia coli. This product is produced under cGMP guidelines.
Species	Human
Source	E.coli
ProteinLength	144
Description	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.
Form	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 5.0, with 3 % Trehalose.

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Bio-activity	Fully biologically active when compared to standard. The ED50 as measured in anti-viral assays using human HeLa cells infected with encephalomyocarditis (EMC) virus is 0.15-0.80 ng/ml.
Molecular Mass	Approximately 16.9 kDa, a single non-glycosylated polypeptide chain containing 144 amino acids.
AA Sequence	MQDPYVKEAENLKKYFNAGHSDVADNGTLFLGILKNWKEESDRKIMQSQIVSFYFKL FKNFKDDQSIQKSVETIKEDMNVKFFNSNKKKRDDFEKLTNYSVTDLNVQRKAIHELI QVMAELSPAAGTKGRKRSQMLFRGRRASQ
Endotoxin	Less than 0.01 EU/g of rHuIFN- γ GMP as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq$ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	IFNG
Official Symbol	IFNG

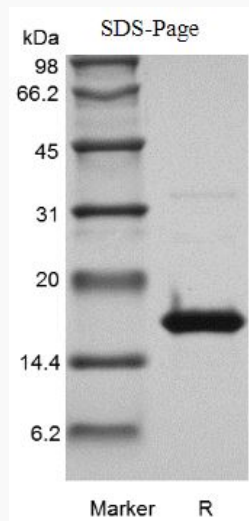
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Synonyms	IFNG; interferon, gamma; interferon gamma; IFN-gamma; immune interferon; IFG; IFI;
Gene ID	3458
mRNA Refseq	NM_000619
Protein Refseq	NP_000610
MIM	147570
UniProt ID	P01579

SDS-PAGE of IFNG-4347HG



**HPLC of IFNG-
4347HG**

