

Active Recombinant Human IFNG

Cat. No. IFNG-510H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human Interferon gamma /IFNG Protein, HEK293 Expressed (rhIFNG) Gln 24 - Gln 166 (Accession # AAH70256) was produced in human 293 cells (HEK293).
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Species	Human
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Source	HEK293
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ProteinLength	24-166 a.a.
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Description	Interferon-gamma (IFN-γ/IFNG) is a dimerized soluble cytokine that is the only member of the type II class of interferon. This interferon was originally called macrophage-activating factor, a term now used to describe a larger family of proteins to which IFN-γ belongs. IFN-gamma has been used in a wide variety of clinical indications. Interferon-gamma (IFNgamma) is a central regulator of the immune response and signals via the Janus Activated Kinase (JAK)-Signal Transducer and Activator of Transcription (STAT) pathway. Interferon gamma has broader roles in activation of innate and adaptive immune responses to viruses and tumors, in part through upregulating transcription of genes involved in cell cycle regulation, apoptosis, and antigen processing/presentation. Despite this, rodent and human trophoblast cells show dampened responses to IFNG that reflect the resistance of these cells to IFNG-mediated activation of major histocompatibility complex (MHC) class II transplantation antigen expression.
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Predicted N Terminal	Gln 24
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Bio-activity	Determined by a cytotoxicity assay using HT-29 cells. The ED ₅₀ < 0.05 µg/ml, corresponding to a specific activity of > 2X10 ⁷ Unit/mg.
Molecular Mass	rhIFNG, contains no "tag", has a calculated MW of 16.8 kDa. DTT-reduced Protein migrates as 25 kDa due to glycosylation.
Endotoxin	Less than 1.0 EU per µg of the rhIFNG by the LAL method.
Purity	>93% as determined by SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles. No activity loss was observed after storage at: In lyophilized state for 1 year (4 centigrade-8 centigrade); After reconstitution under sterile conditions for 1 month (4 centigrade-8 centigrade) or 3 months (-20 centigrade to -70 centigrade).

GENE INFORMATION

Gene Name	IFNG interferon, gamma [Homo sapiens]
Official Symbol	IFNG
Synonyms	IFNG; interferon, gamma; interferon gamma; IFN-gamma; immune interferon; IFG; IFI;
Gene ID	3458

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mRNA Refseq	NM_000619
Protein Refseq	NP_000610
MIM	147570
UniProt ID	P01579
Chromosome Location	12q14
Pathway	ATF-2 transcription factor network, organism-specific biosystem; African trypanosomiasis, organism-specific biosystem; African trypanosomiasis, conserved biosystem; Allograft rejection, organism-specific biosystem; Allograft rejection, conserved biosystem; Amoebiasis, organism-specific biosystem; Amoebiasis, conserved biosystem;
Function	cytokine activity; interferon-gamma receptor binding;

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