

## Recombinant Human Interferon, Gamma, HQ-tagged

Cat. No. IFNG-685H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant human IFNG contains 143 amino acid residues and a 13 amino acid Histidine-based tag for a total length of 156 amino acids. The predicted molecular weight of the recombinant IFNG with His tag polypeptide is 16.6 kDa, but the recombinant protein migrates as two bands with an apparent molecular mass of 25 and 27 kDa in SDS-PAGE as a result of glycosylation.
<b>Species</b>	Human
<b>Source</b>	Hordeum Vulgare
<b>Description</b>	IFNG is a dimerized soluble cytokine that is the only member of the type II class of interferons. This interferon was originally called macrophage-activating factor, a term now used to describe a larger family of proteins to which IFN- $\gamma$ belongs. In humans, the IFN- $\gamma$ protein is encoded by the IFNG gene.
<b>Form</b>	Lyophilized from a 0.2 $\mu$ m sterile filtered solution in PBS, pH 7.4.
<b>Purity</b>	>98% as determined by SDS-PAGE analysis. Purified product carries no pyrogenic or pro-inflammatory contaminants, as assayed with monocyte activation test using Human 10-plex Cytokine Assay measuring IL-6, TNF- $\alpha$ and IL-1 $\beta$ induction.
<b>Endotoxin Level</b>	<0.005 ng/ $\mu$ g of IFN- $\gamma$
<b>Biological Activity</b>	Determined by the dose-dependent cytostatic effects of serial dilutions of IFN- $\gamma$

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	in the presence of TNF-alpha, on HT-29 (human carcinoma) cells. The EDSO is typically below 5 ng/ml.
<b>Amino Acid Sequence</b>	2.00 x 10 <sup>5</sup> units/mg
<b>Reconstitution</b>	Centrifuge vial prior to opening. Add sterile PBS to the vial to fully solubilize the protein to a concentration not less than 100 ug/ml.
<b>Storage</b>	Store lyophilized protein at -20°C and reconstituted protein in working aliquots at -20°C with a carrier protein (0.1% HSA or BSA) as a stabilizer for long term storage. Please note that the addition of any carrier protein into this product may produce unwanted endotoxin. This depends upon the particular application employed. Avoid repeated freeze-thaw cycles.
<b>Official Symbol</b>	IFNG

## GENE INFORMATION

<b>Gene Name</b>	IFNG interferon, gamma [ <i>Homo sapiens</i> ]
<b>Synonyms</b>	IFNG; interferon, gamma; IFG; IFI; interferon gamma; IFN-gamma; immune interferon; OTTHUMP00000240111
<b>Gene ID</b>	3458
<b>mRNA Refseq</b>	NM_000619
<b>Protein Refseq</b>	NP_000610
<b>MIM</b>	147570

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<b>UniProt ID</b>	P01579
<b>Chromosome Location</b>	12q14
<b>Pathway</b>	ATF-2transcription factor network; Africantrypanosomiasis; Allograft rejection;Amoebiasis; Antigen processing and presentation; Cytokine Signaling in Immune system; Graft-versus-host disease; Herpessimplex infection; Hypertrophy Model;IFN-gamma pathway; IL2-mediated signaling events; Immune System; InfluenzaA; Interferon Signaling; Leishmaniasis; Measles
<b>Function</b>	cytokineactivity; interferon-gamma receptor binding
<b>Linerepresentation of the crystallographic structure of interferon gamma.</b>	

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