



Recombinant Human IFN-gamma

20200131BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-039S
Size:	20 µg
Lot. No.:	According to product label

Sequence

MQDPYVKEAE NLKKYFNAGH SDVADNGTLF LGILKNWKEE
 SDRKIMQSQI VSFYFKLFKN FKDDQSIQKS VETIKEDMNV
 KFFNSNKKKR DDFEKLTNYS VTDLNVQRKA IHELIQVMAE
 LSPAAKTGKR KRSQMLFQGR RASQ

Database References

Protein RefSeq:	NP_000610.2
Uniprot ID:	P01579
mRNA RefSeq:	NM_000619

Scientific Background

Gene-ID (NCBI):	3458
Synonyms:	IFNG; IFG; IFI;

IFN-gamma is an acid-labile interferon produced by CD4 and CD8 T lymphocytes as well as activated NK cells. IFN-gamma receptors are present in most immune cells, which respond to IFN-gamma signaling by increasing the surface expression of class I MHC proteins. This promotes the presentation of antigen to T-helper (CD4+) cells. IFN-gamma signaling in antigen-presenting cells, and antigen-recognizing B and T lymphocytes, regulates the antigen-specific phases of the immune response. Additionally, IFN-gamma stimulates a number of lymphoid cell functions, including the anti-microbial and anti-tumor responses of macrophages, NK cells, and neutrophils. Human IFN-gamma is species-specific and is biologically active only in human and primate cells. Recombinant Human IFN-gamma is a 16.8 kDa protein containing 144 amino acid residues.

Product Specifications

Expressed in	E. coli
Purity	> 98% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	Lyophilized (10mM Sodium Phosphate, pH 7.4)
Length (aa):	144
MW:	16.8 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 12 months at -20°C to -80°C.

Reconstitution: Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



AVOID REPEATED FREEZE AND THAW CYCLES!

Biological Activity: Assay #1: Determined by its ability to induce apoptosis in HeLa cells. The expected ED₅₀ for this effect is 5-10 ng/ml. Assay #2: The ED₅₀ was determined by a cytotoxicity assay using HT-29 cells is ≤ 0.05 ng/ml (> 2 x 10⁷ units/mg).