**DATASHEET**
Version 20181206

# IFN-γ, Human

**Cat. No.**: Z02915-50

**Size**: 50.0 ug

**Synonyms**: Immune Interferon, type II interferon, T cell interferon, MAF, IFNG, IFG, IFI,IFN-gamma.

**Description:**

Human Interferon gamma (hIFN-γ) is amacrophage□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-γR1 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 *E. coli* 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 at GenScript.

**Amino Acid Sequence:**

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00001 MQDPYVKEAE NLKKYFNAGH SDVADNGTLF LGILKNWKEE
00041 SDRKIMQSQI VSFYFKLFKN FKDDQSIQKS VETIKEDMNV
00081 KFFNSNKKKR DDFEKLTNYS VTDLNVQRKA IHELIQVMAE
00121 LSPAAKTGKR KRSQMLFRGR RASQ
```

**Source**: *E. coli*

**Species**: Human

**Biological Activity**: $ED_{50}$<0.05ng/ml, measured by cytotoxicity assay using HT□29 cells.

**Molecular Weight**: 17kDa, observed by reducing SDS□PAGE.

**Sequence Analysis**: $Gln^{24}$□$Gln^{166}$ (accession number:P01579). Expression construct with an N□terminal Met.

**Formulation**: Lyophilized after extensive dialysis against PBS.

**Reconstitution**: Reconstituted in dd$H_2O$ or PBS at 100 μg/ml.

**Purity**: > 95% as analyzed by reducing SDS□PAGE.

**Endotoxin Level**: <1 EU/μg, determined by LAL

**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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