

DATASHEET

Version 20181206

IFN- γ , Human

Cat. No.: Z02915-10

Size: 10.0 ug

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

Description:

Human Interferon gamma (hIFN- γ) is a macrophage-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- γ R1 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:

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

Source: *E. coli*

Species: Human

Biological Activity: ED₅₀ < 0.05 ng/ml, measured by cytotoxicity assay using HT-29 cells.

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

Sequence Analysis: Gln²⁴-Gln¹⁶⁶ (accession number: P01579). Expression construct with an N-terminal Met.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O 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.