**DATASHEET**
Version 20181206

# IFN-γ, Rat

**Cat. No.**: Z03274-10

**Size**: 10.0 ug

**Synonyms**: Type II interferon, T cell interferon, MAF

**Description:**

Interferon gamma (IFN-γ), also known as Type II interferon,is a cytokine produced primarily by T-lymphocytes and natural killer cells. The active form of IFN-γ is an antiparallel dimer that interacts with the receptor IFN-γR1 and activates the IFN-γ/JAK/STAT pathway. IFN-γ signaling promotesbiological functions primarily related to antiviral and antibacterial defense, apoptosis, inflammation, and regulation of innate and acquired immune responses. While IFN-γ–induced inflammatory cascades summon 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 Rat Interferon gamma (IFN-γ) produced in *E.coli* is a single non-glycosylated polypeptide chain containing 134 amino acids. A fully biologically active molecule, rrIFN-γ has a molecular mass of 15.5 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

**Amino Acid Sequence:**

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00001 GTLIESLESL KNYFNSSSMD AMEGKSLLLD IWRNWQKDGN
00041 TKILESQIIS FYLRLFEVLK DNQAISNNIS VIESHLITNF
00081 FSNSKAKKDA FMSIAKFEVN NPQIQHKAVN ELIRVIHQLS
00121 PESSLRKRKR SRC
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**Source**: *E. coli*

**Species**: Rat

**Biological Activity**: $ED_{50}$ <0.5 ng/ml, measured by cytotoxicity assay using WEHI-279 cells, corresponding to a specific activity of >$2\times10^6$ units/mg.

**Molecular Weight**: 15.5 kDa, observed by reducing SDS-PAGE.

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

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

**Purity**: > 95% as analyzed by SDS-PAGE and HPLC.

**Endotoxin Level**: < 0.2 EU/μg, determined by LAL method.

**Storage**: Lyophilized recombinant Rat IFN-γ remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, recombinant Rat IFN-γ should be stable up to 1 week at 4°C or up to 2 months at -20°C.



**GenScript USA, Inc.**
860 Centennial Ave. Piscataway, NJ 08854
Tel: 1-877-436-7274; 1-732-885-9188