

DATASHEET

Version 20181206

IFN- γ , Rat**Cat. No.:** Z03274-50**Size:** 50.0 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- γ R1 and activates the IFN- γ /JAK/STAT pathway. IFN- γ signaling promotes biological 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 IWRNWQKDG  
00041 TKILESQIIS FYLRLEVLK DNQAISNNIS VIESHLITNF  
00081 FSNKAKKDA FMIAKFEVN NPQIQHKAVN ELIRVIHQLS  
00121 PESSLRKRKR SRC
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Source: *E. coli***Species:** Rat**Biological Activity:** ED₅₀ <0.5 ng/ml, measured by cytotoxicity assay using WEHI-279 cells, corresponding to a specific activity of >2×10⁶ units/mg.**Molecular Weight:** 15.5 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O 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.