

Active Recombinant Rat Ifng Protein (134 aa)

Cat. No. Ifng-378l **Lot. No.** (See product label)

SPECIFICATION

Product Overview	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.
Species	Rat
Source	E.coli
ProteinLength	134
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.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 0.5 ng/mL, measured by cytotoxicity assay using WEHI-279 cells,

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corresponding to a specific activity of $>2 \times 10^6$ units/mg.

Molecular Mass	15.5 kDa, observed by reducing SDS-PAGE.
AA Sequence	GTLIESLES LKNYFNSSSMDAMEGKSLLLDIWRNWQKDGNTKILESQIISFYLRRLFV L KDNQAISNNISVIESHLITNFFSNSKAKKDAFMSIAKFEVNNPQIQHKAVNELIRVIHQL SPESSLRKRKRSRC
Endotoxin	< 0.2 EU/μg, determined by LAL method.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Storage	Lyophilized recombinant Rat IFN-γ remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, recombinant Rat IFN-γ should be stable up to 1 week at 4 centigrade or up to 2 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 μg/mL.

GENE INFORMATION

Gene Name	<i>Ifng</i> interferon gamma [<i>Rattus norvegicus</i>]
Official Symbol	<i>Ifng</i>
Synonyms	IFNG; interferon gamma; IFN-gamma; IFNG2;
Gene ID	25712
mRNA Refseq	NM_138880

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Protein Refseq	NP_620235
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UniProt ID	P01581
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