

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant IFN- γ , Rat

Catalog Number: BK0082-1mg

Source: Escherichia coli.

Quantity: 1mg

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.

Molecular Weight:

15.5 kDa, observed by reducing SDS-PAGE.

Purity:

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

Biological Activity:

ED50 <0.5 ng/ml, measured by cytotoxicity assay using WEHI-279 cells, corresponding to a specific activity of $>2 \times 10^6$ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

GTLIESLES LKNYFNSSMDAMEGKSLLLDI-
WRNWQKDGNTKILESQIISFYLRRLF-
VLKDNQAISNNISVIESHLITNFFSN-
SKAKKDAFMSIAKFEVNNPQIQHKAVNELIRVI-
HQLSPESSLRKRKR SRC

Endotoxin:

< 0.2 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS at 100 μ g/ml.

Storage:

Lyophilized recombinant Rat IFN- γ remains stable up to 6 months at -80 $^{\circ}$ C from date of receipt. Upon reconstitution, recombinant Rat IFN- γ should be stable up to 1 week at 4 $^{\circ}$ C or up to 2 months at -20 $^{\circ}$ C.

Usage:

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