



# Recombinant Mouse IFN-gamma

20180503BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>M10-010S</b>
Size:	20 µg
Lot. No.:	According to product label

## Scientific Background

<b>Gene-ID (NCBI):</b>	15978
<b>Synonyms:</b>	Ifng; Ifg; IFN-g;

IFN- $\gamma$  is an acid-labile interferon produced by CD4 and CD8 T lymphocytes as well as activated NK cells. IFN- $\gamma$  receptors are present in most immune cells, which respond to IFN- $\gamma$  signaling by increasing the surface expression of class I MHC proteins. This promotes the presentation of antigen to T-helper (CD4<sup>+</sup>) cells. IFN- $\gamma$  signaling in antigen-presenting cells and antigen-recognizing B and T lymphocytes regulates the antigen-specific phases of the immune response. Additionally, IFN- $\gamma$  stimulates a number of lymphoid cell functions including the anti-microbial and anti-tumor responses of macrophages, NK cells, and neutrophils. Human IFN- $\gamma$  species-specific and is biologically active only in human and primate cells. Recombinant murine IFN- $\gamma$  is a 15.6 kDa protein containing 134 amino acid residues.

### Sequence

```
MHGTVIESLE SLNNYFNSSG IDVEEKSLFL DIWRNWQKDG  
DMKILQSQII SFYLRLEFVL KDNQAISNNI SVIESHLITT  
FFSNSKAKKD AFMSIAKFEV NNPQVQRQAF NELIRVVHQL  
LPESLRKRK RSRK
```

### Database References

<b>Protein RefSeq:</b>	NP_032363
<b>Uniprot ID:</b>	P01580
<b>mRNA RefSeq:</b>	NM_008337

## Product Specifications

<b>Expressed in</b>	E. coli
<b>Purity</b>	> 98% by SDS-PAGE & HPLC analyses
<b>Endotoxin level</b>	< 0.1 ng /µg of protein (<1EU/µg).
<b>Formulation</b>	lyophilized
<b>Length (aa):</b>	134
<b>MW:</b>	15.6 kDa

**Stability:** The lyophilized protein is stable at room temperature for 1 month and at 4°C for 6 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 12 months at -20°C to -80°C.

**Reconstitution:** Centrifuge vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. *Do not vortex.* This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

**Biological Activity:** Determined by its ability to inhibit the proliferation of murine WEHI-279 cells. The expected ED<sub>50</sub> is ≤ 0.2 ng/ml, corresponding to a specific activity of ≥ 5 x 10<sup>6</sup> units/mg.