

## RECOMBINANT RAT INTERFERON GAMMA

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**CATALOG NUMBER:** IF006 **QUANTITY:** 100 µg

**LOT NUMBER:**

**BACKGROUND:** 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+) cells. IFN-gamma signaling in antigen-presenting cells and antigen-recognizing B and T lymphocytes regulate 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 is species-specific and is biologically active only in human and primate cells. Recombinant rat IFN-gamma is a 15.6 kDa protein containing 135 amino acid residues.

**SOURCE:** *E. coli*

**PURITY:** Greater than 98% by SDS-PAGE and HPLC analysis. Endotoxin level is less than 0.1 ng per µg (1EU/ug) of IFN gamma.

**ACTIVITY:** The ED<sub>50</sub> as determined by a cytopathic affect inhibition assay with murine L929 cells challenged with EMC virus was ≤ 0.1 ng/mL, corresponding to a specific activity of ≥ 1 x 10<sup>7</sup> units/mg.

**PRESENTATION:** The sterile filtered solution was lyophilized from 10 mM Sodium Phosphate, pH 7.2.

**STORAGE/HANDLING:** The lyophilized protein is stable for a few weeks at room temperature, but best stored at -20°C. After a quick spin, reconstitute in 10 mM Sodium Phosphate, pH 8.0, to a concentration of 0.1-1.0 mg/mL. This solution can then be diluted into other aqueous buffers and stored at 4°C for 1 week or -20°C for future use. Reconstituted rat IFN gamma should be stored in undiluted aliquots at -20°C. Avoid repeated freeze/thaw cycles.

**Important Note:** *During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µL or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.*

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