

## Recombinant Human IFN- $\gamma$ (carrier-free)

**Catalog # / Size:** 570202 / 10  $\mu$ g  
570204 / 25  $\mu$ g  
570206 / 100  $\mu$ g  
570208 / 500  $\mu$ g

**Source:** Human IFN- $\gamma$ , amino acids Gln24-Gln166 (Accession # NM\_000619) was expressed in *E. coli*.

**Molecular Mass:** The 144 amino acid N-terminal methionylated recombinant protein has a predicted molecular mass of 16,907 Da. The DTT-reduced protein and the non-reduced protein migrate at approximately 17 kDa by SDS-PAGE.

**Purity:** Purity is >98%, as determined by Coomassie stained SDS-PAGE.

**Endotoxin Level:** Endotoxin level is <0.1 EU/ $\mu$ g (<0.01ng/ $\mu$ g) protein as determined by the LAL method.

**Activity:** The ED<sub>50</sub> is 0.416 ng/ml, corresponding to a specific activity of 2.4 X10<sup>6</sup> units/mg, as determined by a dose dependent stimulation of HT-29 cells.

**Preparation:** 10-100 $\mu$ g sizes are bottled at 100 $\mu$ g/ml. 500 $\mu$ g and larger sizes are bottled at the concentration indicated on the vial.

**Formulation:** 0.22  $\mu$ m filtered protein solution is in 20mM NaH<sub>2</sub>PO<sub>4</sub>, 150mM NaCl, pH 7.2.

**Storage:** Unopened vial can be stored at 4°C for three months or from -20°C to -70°C for six months. For maximum results, quick spin vial prior to opening. Stock solutions should be prepared at no less than 10  $\mu$ g/ml in buffer containing carrier protein such as 1% BSA or HSA or 10% FBS. After dilution, the cytokine can be stored at 4°C for one month or from -20°C to -70°C for up to 3 months. **Avoid repeated freeze/thaw cycles.**

## Applications:

**Applications:** Bioassay

**Recommended Usage:** Use when high specific biological activity is required.

**Application References:** 1. Meissner TB, *et al.* 2012. *J. Immunol.* 188:4951. PubMed  
2. Meissner TB, *et al.* 2010. *Proc. Natl. Acad. Sci. USA* 107:13794. PubMed

**Description:** Interferon- $\gamma$  is a potent multifunctional cytokine which is secreted primarily by activated NK cells and T cells. Originally characterized based on anti-viral activities, IFN- $\gamma$  also exerts anti-proliferative, immunoregulatory, and proinflammatory activities. IFN- $\gamma$  can upregulate MHC class I and II antigen expression by antigen-presenting cells.

**Antigen References:** 1. Fitzgerald K, *et al.* Eds. 2001. *The Cytokine FactsBook*. Academic Press San Diego.  
2. De Maeyer E, *et al.* 1992. *Curr. Opin. Immunol.* 4:321.  
3. Farrar M, *et al.* 1993. *Annu. Rev. Immunol.* 11:571.  
4. Gray P, *et al.* 1987. *Lymphokines* 13:151.



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