

## IFN-gamma Protein, Rat (CHO)

Cat. No.:	HY-P7095A
Synonyms:	rRtIFN- $\gamma$ ; IFNG; IFN-gamma; Interferon gamma
Species:	Rat
Source:	CHO
Accession:	P01581 (Q23-C156)
Gene ID:	25712
Molecular Weight:	15-25 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>           Q G T L I E S L E S    L K N Y F N S S S M    D A M E G K S L L L    D I W R N W Q K D G            N T K I L E S Q I I    S F Y L R L F E V L    K D N Q A I S N N I    S V I E S H L I T N            F F S N S K A K K D    A F M S I A K F E V    N N P Q I Q H K A V    N E L I R V I H Q L            S P E S S L R K R K    R S R C         </p>
<b>Biological Activity</b>	The ED <sub>50</sub> is <2.5 ng/mL as measured by WEHI-279 cells, corresponding to a specific activity of >4 × 10 <sup>5</sup> units/mg.
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
<b>Endotoxin Level</b>	<0.2 EU/ $\mu$ g, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 $\mu$ g/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>Interferon-gamma (IFN-<math>\gamma</math>) is a cytokine with potent immunomodulatory, anti-proliferative, and antiviral properties. IFN-<math>\gamma</math> activates cells via a different receptor than IFN-<math>\alpha</math> and IFN-<math>\beta</math>, which accounts for the different physiological properties of the proteins. Production of IFN-<math>\gamma</math> is largely restricted to activated CD4<sup>+</sup> TH1 T cells, CD8<sup>+</sup> T cells, and natural killer cells. One of the most important consequences of IFN-<math>\gamma</math> secretion is the activation of macrophages. In addition, IFN-<math>\gamma</math> plays a central role in inflammatory responses by activating endothelial cells, promoting TH1 cell development and cellular immune responses, and up-regulation of major histocompatibility complex protein expression on antigen-presenting cells<sup>[1]</sup>.</p>
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## REFERENCES

[1]. Fam CM, et al. PEGylation improves the pharmacokinetic properties and ability of interferon gamma to inhibit growth of a human tumor xenograft in athymic mice. J Interferon Cytokine Res. 2014 Oct;34(10):759-68.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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