

## Recombinant Mouse IFN- $\gamma$ (Animal-Free)

<b>Catalog# / Size</b>	714006 / 100 $\mu$ g
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interferon- $\gamma$ , Immune interferon, Type II interferon, T cell interferon, Macrophage-activating factor (MAF)
<b>Description</b>	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 expression by antigen presenting cells.

### Product Details

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<b>Source</b>	Mouse IFN- $\gamma$ , amino acids His23-Cys155 (Accession # NM_008337), was expressed in <i>E. coli</i> .
<b>Molecular Mass</b>	The 134 amino acid N-terminal methionylated recombinant protein has a predicted molecular mass of 15.7 kD. The predicted N-terminal amino acid is Met.
<b>Purity</b>	>98%, as determined by Coomassie stained SDS-PAGE and HPLC analysis.
<b>Formulation</b>	Lyophilized, carrier-free.
<b>Endotoxin Level</b>	Less than 0.1 ng per $\mu$ g of protein.
<b>Storage &amp; Handling</b>	Unopened vial can be stored at -20°C or -70°C. For maximum results, quick spin vial prior to opening. Reconstitute in water to a concentration of 1.0 mg/ml. Do not vortex. It is recommended to further dilute in a buffer, such as 5% Trehalose, and store working aliquots at -20°C to -80°C. <b>Avoid repeated freeze/thaw cycles.</b>
<b>Activity</b>	ED <sub>50</sub> is $\leq$ 0.2 ng/mL, corresponding to a specific activity $\geq$ 5 x 10 <sup>6</sup> units/mg as determined by its ability to inhibit the proliferation of murine WEHI-279 cells.
<b>Application</b>	<a href="#">Bioassay</a>
<b>Product Citations</b>	<ol style="list-style-type: none"><li>1. He X, <i>et al.</i> 2020. J Immunother Cancer. 8:00. <a href="#">PubMed</a></li><li>2. Tripathi A, <i>et al.</i> 2020. J Biol Chem. 295:10032. <a href="#">PubMed</a></li><li>3. Termini C, Lidke K, Gillette J 2016. J Leukoc Biol. 100: 203 - 212. <a href="#">PubMed</a></li><li>4. Crisler WJ, <i>et al.</i> 2019. Life Sci Alliance. 2:e201900447. <a href="#">PubMed</a></li><li>5. Muik A, <i>et al.</i> 2022. Oncoimmunology. 11:2030135. <a href="#">PubMed</a></li></ol>

### Antigen Details

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<b>Structure</b>	Cytokine
<b>Distribution</b>	CD8 <sup>+</sup> and CD4 <sup>+</sup> T cells, NK cells.
<b>Function</b>	Upregulated by IL-2, FGF-basic, EGF; downregulated by vitamin D3 or DMN; labile at pH2.
<b>Interaction</b>	T cells, B cells, macrophages, NK cells, endothelial cells, fibroblasts.
<b>Ligand/Receptor</b>	IFN- $\gamma$ R $\alpha$ (CDw119) dimerized with IFN- $\gamma$ R $\beta$ (AF-1).
<b>Bioactivity</b>	Antiviral/antiparasitic activities; inhibits proliferation; enhances MHC class I and II expression on antigen presenting cells.
<b>Cell Type</b>	Embryonic Stem Cells
<b>Biology Area</b>	Cell Biology, Immunology, Neuroinflammation, Neuroscience, Stem Cells
<b>Molecular Family</b>	Cytokines/Chemokines

**Antigen References**

1. Reynolds DS, *et al.* 1987. *J. Immunol.* 139:767.
2. Dey S, *et al.* 2010. *Mol. Cell. Biol.* 30:2181.
3. Sun T, *et al.* 2012. *Proc. Natl. Acad. Sci. USA* 109:E2117.

**Gene ID**

[15978](#)

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BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587