

## Purified anti-mouse IFN- $\gamma$ Antibody

<b>Catalog# / Size</b>	505701 / 50 $\mu$ g 505702 / 500 $\mu$ g
<b>Clone</b>	R4-6A2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interferon- $\gamma$ , Immune interferon, Type II interferon, T cell interferon, Macrophage-activating factor (MAF), IFN-g, IFN-gamma
<b>Isotype</b>	Rat IgG1, $\kappa$
<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 antigen expression by antigen-presenting cells.

### Product Details

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<b>Verified Reactivity</b>	Mouse
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Rat
<b>Immunogen</b>	Partially-purified, native mouse IFN- $\gamma$
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
<b>Preparation</b>	The antibody was purified by affinity chromatography.
<b>Concentration</b>	0.5 mg/ml
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C.
<b>Application</b>	<a href="#">ELISA Capture - Quality tested</a> <a href="#">IHC - Reported in the literature, not verified in house</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">ELISA assay</a> . For ELISA capture applications, a concentration range of 0.5-2.0 $\mu$ g/ml is recommended. To obtain a linear standard curve, serial dilutions of IFN- $\gamma$ recombinant protein ranging from 2000 to 15 pg/ml are recommended for each ELISA plate. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	<b>ELISA Capture</b> <sup>1,4,6,10,11</sup> or <b>ELISPOT Capture</b> <sup>5</sup> : The purified R4-6A2 antibody is useful as the capture antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the biotinylated XMG1.2 antibody (Cat. No. 505804) as the detecting antibody and recombinant mouse IFN- $\gamma$ (Cat. No. 575309) as the standard. The Ultra-LEAF™ purified antibody is suggested for ELISPOT capture. For ELISPOT Capture, the suggested use of this antibody is 1.0 - 4.0 $\mu$ g/mL. <b>ELISA or ELISPOT Detection</b> : The biotinylated R4-6A2 antibody is useful as the detecting antibody in a sandwich ELISA or ELISPOT assay, when used in conjunction with the purified XMG1.2 antibody (Cat. Nos. 505802 & 505812) as the capture antibody and recombinant mouse IFN- $\gamma$ (Cat. No. 575309) as the standard. <b>Neutralization</b> <sup>1,2,9</sup> : The Ultra-LEAF™ purified antibody (Endotoxin <0.01 EU/ $\mu$ g, Azide-Free, 0.2 $\mu$ m filtered) is recommended for neutralization of mouse IFN- $\gamma$ bioactivity <i>in vivo</i> and <i>in vitro</i> (Cat. Nos. 505708 - 505713). <b>Additional reported applications (for the relevant formats) include</b> : immunohistochemical staining <sup>3,6,8</sup> of acetone-fixed frozen tissue sections. <b>Note</b> : For testing mouse IFN- $\gamma$ in serum, plasma or supernatant, BioLegend's ELISA Max™ Sets (Cat. No. 430801 and 430804) are specially developed and recommended.

#### Application References

(PubMed link indicates BioLegend citation)

1. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5.
2. Stevenson M, *et al.* 1990. *Infect. Immun.* 58:3225.
3. Sander B, *et al.* 1993. *J. Immunol. Meth.* 166:201.
4. Yang X, *et al.* 1993. *J. Immunoassay* 14:129.

5. Klinman D, *et al.* 1994. *Curr. Prot. Immunol.*. John Wiley and Sons, New York. Unit 6.19.
6. Sander B, *et al.* 1991. *Immunol. Rev.* 119:65.
7. Finkelman F, *et al.* 2003. *Curr. Prot. Immunol.* John Wiley & Sons, New York. Unit 6.28.
8. Khanna A, *et al.* 2000. *J. Immunol.* 164:1346.
9. Terrazas LI, *et al.* 2005. *Intl. J. Parasitology.* 35:1349.
10. Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113.
11. Xu G, *et al.* 2007. *J. Immunol.* 179:5358.

#### Product Citations

1. Singh R, *et al.* 2017. *J Immunol.* 10.4049/jimmunol.1602010. [PubMed](#)
2. Godoy-Calderón MJ, *et al.* 2018. *Oncotarget.* 8:11370. [PubMed](#)
3. Rauschenberger T, *et al.* 2019. *Front Immunol.* 10:1917. [PubMed](#)
4. Simula L *et al.* 2018. *Cell reports.* 25(11):3059-3073 . [PubMed](#)
5. Komuczki J, *et al.* 2019. *Immunity.* 50:1289. [PubMed](#)
6. Xu G, *et al.* 2007. *J Immunol.* 179:5358. [PubMed](#)
7. Lai L, *et al.* 2011. *Cancer Res.* 71:61. [PubMed](#)

#### RRID

AB\_315389 (BioLegend Cat. No. 505701)  
 AB\_315390 (BioLegend Cat. No. 505702)

### Antigen Details

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<b>Structure</b>	Cytokine; dimer; 40-80 kD (Mammalian)
<b>Bioactivity</b>	Antiviral/antiparasitic activities; inhibits proliferation; enhances MHC class I and II expression on APC
<b>Cell Sources</b>	CD8 <sup>+</sup> and CD4 <sup>+</sup> T cells, NK cells
<b>Cell Targets</b>	T cells, B cells, macrophages, NK cells, endothelial cells, fibroblasts
<b>Receptors</b>	IFN-γRα (CDw119) dimerized with IFN-γRβ (AF-1)
<b>Cell Type</b>	Tregs
<b>Biology Area</b>	Cell Biology, Immunology, Neuroinflammation, Neuroscience
<b>Molecular Family</b>	Cytokines/Chemokines
<b>Antigen References</b>	<ol style="list-style-type: none"> <li>1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook.</i> Academic Press, San Diego.</li> <li>2. De Maeyer E, <i>et al.</i> 1992. <i>Curr. Opin. Immunol.</i> 4:321.</li> <li>3. Farrar M, <i>et al.</i> 1993. <i>Annu. Rev. Immunol.</i> 11:571.</li> <li>4. Gray P, <i>et al.</i> 1987. <i>Lymphokines</i> 13:151.</li> </ol>
<b>Regulation</b>	Upregulated by IL-2, FGF-basic, EGF; downregulated by 1-α-25-Dihydroxy vitamin D3, dexamethasone
<b>Gene ID</b>	<a href="#">15978</a>

### Related Protocols

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[Active Protocols: Sandwich ELISA - Video](#)

[Sandwich ELISA Protocol](#)

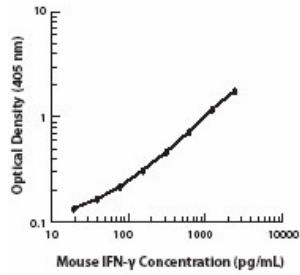
### Other Formats

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Biotin anti-mouse IFN-γ, Purified anti-mouse IFN-γ, Ultra-LEAF™ Purified anti-mouse IFN-γ

### Product Data

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