

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

<b>Catalog# / Size</b>	505803 / 50 $\mu$ g 505804 / 500 $\mu$ g
<b>Clone</b>	XMG1.2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Interferon- $\gamma$ , Immune interferon, Type II interferon, T cell interferon, Macrophage-activating factor (MAF)
<b>Isotype</b>	Rat IgG1, $\kappa$
<b>Description</b>	IFN- $\gamma$ 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>	<i>E. coli</i> -expressed, recombinant 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, and conjugated with biotin under optimal conditions.
<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>Do not freeze.</b>
<b>Application</b>	<a href="#">ELISA Detection</a> , <a href="#">ELISPOT Detection</a> , <a href="#">ICFC</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">ELISA assay</a> . For use as an ELISA detection antibody, 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. For use as an ELISPOT detection antibody, a concentration range of 1-4 $\mu$ g/ml is recommended. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Application Notes</b>	<b>ELISA<sup>1-4,11,14</sup> or ELISPOT<sup>5</sup> Detection:</b> The biotinylated XMG1.2 antibody is useful as a detection antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with purified R4-6A2 antibody (Cat. No. 505702/505706) as the capture antibody and recombinant mouse IFN- $\gamma$ (Cat. No. 575309) as the standard. <b>ELISA or ELISPOT Capture:</b> The purified XMG1.2 antibody is useful as a capture antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with biotinylated R4-6A2 antibody (Cat. No. 505704) as the detection antibody and recombinant mouse IFN- $\gamma$ (Cat. No. 575309) as the standard. The LEAF™ purified antibody is suggested for ELISPOT capture (Cat. No. 505812). <b>Flow Cytometry<sup>7,8,12,13,16</sup>:</b> The fluorochrome-labeled XMG1.2 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IFN- $\gamma$ -producing cells within mixed cell populations. <b>Neutralization<sup>1-3,9,10</sup>:</b> The XMG1.2 antibody can neutralize the bioactivity of natural or recombinant IFN- $\gamma$ . The LEAF™ purified antibody (Endotoxin <0.1 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. No. 505812). For <i>in vivo</i> studies or highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 505834) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/ $\mu$ g). <b>Additional reported applications (for the relevant formats) include:</b> Western blotting, immunohistochemical staining of frozen tissue sections <sup>6,22,23</sup> , and immunocytochemistry. <b>Note:</b> For testing mouse IFN- $\gamma$ in serum, plasma or supernatant, BioLegend's ELISA Max™ Sets (Cat. No. 430801 to 430806) are specially developed and recommended.

## Application References

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2. Sander B, *et al.* 1993. *J. Immunol. Meth.* 166:201. (ELISA, Neut)
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5. Klinman D, *et al.* 1994. *Curr. Prot. Immunol.* John Wiley and Sons, New York. Unit 6.19. (ELISPOT)
6. Sander B, *et al.* 1991. *Immunol. Rev.* 119:65. (IHC)
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12. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366. (FC)
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14. Xu G, *et al.* 2007. *J. Immunol.* 179:5358. (ELISA) [PubMed](#)
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## Product Citations

1. Peng Y 2017. *PLoS One.* 10.1371/journal.pone.0188112. [PubMed](#)
2. Mulder R, *et al.* 2017. *Front Immunol.* 1.464583333. [PubMed](#)
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## RRID

AB\_315397 (BioLegend Cat. No. 505803)  
AB\_315398 (BioLegend Cat. No. 505804)

## 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 APCs
<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- $\gamma$ R $\alpha$ (CDw119) dimerized with IFN- $\gamma$ R $\beta$ (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- $\alpha$ -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](#)

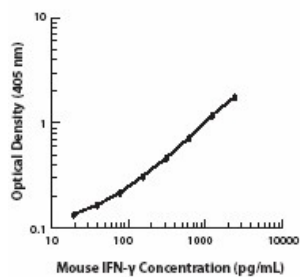
## Other Formats

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APC anti-mouse IFN- $\gamma$ , Biotin anti-mouse IFN- $\gamma$ , FITC anti-mouse IFN- $\gamma$ , PE anti-mouse IFN- $\gamma$ , Purified anti-mouse IFN- $\gamma$ , Alexa Fluor® 488 anti-mouse IFN- $\gamma$ , Alexa Fluor® 647 anti-mouse IFN- $\gamma$ , Pacific Blue™ anti-mouse IFN- $\gamma$ , PerCP/Cyanine5.5 anti-mouse IFN- $\gamma$ , PE/Cyanine7 anti-mouse IFN- $\gamma$ , Brilliant Violet 421™ anti-mouse IFN- $\gamma$ , Brilliant Violet 650™ anti-mouse IFN- $\gamma$ , Ultra-LEAF™ Purified anti-mouse IFN- $\gamma$ , Brilliant Violet 711™ anti-mouse IFN- $\gamma$ , Brilliant Violet 785™ anti-mouse IFN- $\gamma$ , Brilliant Violet 605™ anti-mouse IFN- $\gamma$ , Brilliant Violet 510™ anti-mouse IFN- $\gamma$ , Purified anti-mouse IFN- $\gamma$  (Maxpar® Ready), PE/Dazzle™ 594 anti-mouse IFN- $\gamma$ , Alexa Fluor® 700 anti-mouse IFN- $\gamma$ , APC/Cyanine7 anti-mouse IFN- $\gamma$ , GolnVivo™ Purified anti-mouse IFN- $\gamma$ , APC/Fire™ 750 anti-mouse IFN- $\gamma$ , Spark NIR™ 685 anti-mouse IFN- $\gamma$

## Product Data

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