

**Brilliant Violet 605™ anti-mouse IFN-γ**

**Catalog # / Size:** 3129195 / 125 μl

**Clone:** XMG1.2

**Isotype:** Rat IgG1, κ

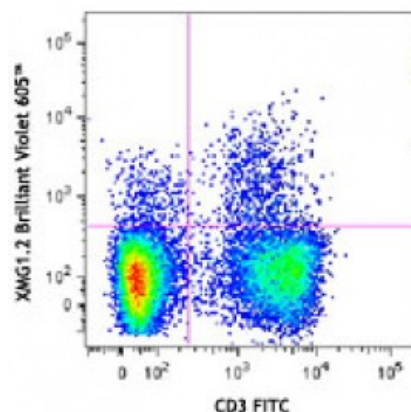
**Immunogen:** *E. coli*-expressed, recombinant mouse IFN-γ

**Reactivity:** Mouse

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 605™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 605™ and unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).

**Concentration:** Lot-specific



PMA+ionomycin-stimulated C57BL/6 mouse splenocytes (6 hours, in the presence of monensin) were surface stained with CD3 FITC and then intracellularly stained with IFN-γ (clone XMG1.2) Brilliant Violet 605™.

**Applications:**

**Applications:** Flow Cytometry

**Recommended Usage:** Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤5 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 605™ excites at 405 nm and emits at 603 nm. The bandpass filter 610/20 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 605™ is a trademark of Sirigen Group Ltd.

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**Application Notes:** **ELISA<sup>1-4,11,14</sup> or ELISPOT<sup>5</sup> Detection:** 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-γ (Cat. No. 575309) as the standard.

**ELISA or ELISPOT Capture:** 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-γ (Cat. No. 575309) as the standard. The LEAF™ purified antibody is suggested for ELISPOT capture (Cat. No. 505812).

**Flow Cytometry<sup>7,8,12,13,16</sup>:** 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.

**Neutralization<sup>1-3,9,10</sup>:** The XMG1.2 antibody can neutralize the bioactivity of natural or recombinant IFN- $\gamma$ . The LEAF<sup>™</sup> purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m filtered) is recommended for neutralization of mouse IFN- $\gamma$  bioactivity *in vivo* and *in vitro* (Cat. No. 505812). For *in vivo* studies or highly sensitive assays, we recommend Ultra-LEAF<sup>™</sup> purified antibody (Cat. No. 505834) with a lower endotoxin limit than standard LEAF<sup>™</sup> purified antibodies (Endotoxin <0.01 EU/microg).

**Additional reported applications (for the relevant formats) include:**

Western blotting, immunohistochemical staining of frozen tissue sections<sup>6,22,23</sup>, and immunocytochemistry.

**Note:** For testing mouse IFN- $\gamma$  in serum, plasma or supernatant, BioLegend's ELISA Max<sup>™</sup> Sets (Cat. No. 430801 to 430806) are specially developed and recommended.

**Application  
References:**

1. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. (ELISA, Neut)
2. Sander B, *et al.* 1993. *J. Immunol. Meth.* 166:201. (ELISA, Neut)
3. Abrams J, *et al.* 1995. *Curr. Prot. Immunol.* John Wiley and Sons, New York. Unit 6.20. (ELISA, Neut)
4. Yang X, *et al.* 1993. *J. Immunoassay* 14:129. (ELISA)
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)
7. Ferrick D, *et al.* 1995. *Nature* 373:255. (FC)
8. Ko SY, *et al.* 2005. *J. Immunol.* 175:3309. (FC) [PubMed](#)
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10. DeKrey GK, *et al.* 1998. *Infect. Immun.* 66:827. (Neut)
11. Dzhagalov I, *et al.* 2007. *J. Immunol.* 178:2113. (ELISA)
12. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366. (FC)
13. Lee JW, *et al.* 2006. *Nature Immunol.* 8:181. (FC) [PubMed](#)
14. Xu G, *et al.* 2007. *J. Immunol.* 179:5358. (ELISA) [PubMed](#)
15. Montfort M, *et al.* 2004. *J. Immunol.* 173:4084. [PubMed](#)
16. Haring JS, *et al.* 2008. *J. Immunol.* 180:2855. (FC) [PubMed](#)
17. Jordan JM, *et al.* 2008. *Infect Immun.* 76:3717. [PubMed](#)
18. Tonkin DR, *et al.* 2008. *J. Immunol.* 181:4516. [PubMed](#)
19. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
20. Cui Y, *et al.* 2009. *Invest. Ophth. Vis. Sci.* 50:5811. (FC) [PubMed](#)
21. Mykkanen OT, *et al.* 2014. *PLoS One.* 9:114790. [PubMed](#)
22. Yokogawa M, *et al.* 2013. *Mol. Carcinog.* 52:760. (IHC)
23. Mottram PL, *et al.* 1998. *J Immunol.* 161:602. (IHC)

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**Description:**

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.

**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