## **Product Data Sheet**

### Biotin anti-mouse IFN-γ

**Catalog # / Size:** 3129015 / 50 μg

3129020 / 500 μg

Clone: XMG1.2 Isotype: Rat IgG1, κ

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

IFN-γ

Reactivity: Mouse

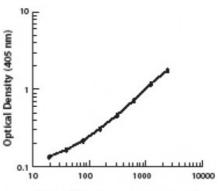
**Preparation:** The antibody was purified by affinity

chromatography, and conjugated with biotin under optimal conditions. The solution is free of unconjugated biotin.

Formulation: Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide.

Concentration: 0.5



Mouse IFN-γ Concentration (pg/mL)

### **Applications:**

**Applications:** Other

Recommended

Usage:

Each lot of this antibody is quality control tested by ELISA assay. For use as an ELISA detection antibody, a concentration range of 0.5-2.0 microg/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 microg/ml is recommended. It is recommended that the reagent be titrated for optimal

performance for each application.

Application Notes:

**ELISA**<sup>1-4,11,14</sup> **or ELISPOT5 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- $\gamma$  (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- $\gamma$  (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-γ. The LEAF  $^{\text{TM}}$  purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for neutralization of mouse IFN-γ bioactivity *in vivo* and *in vitro* (Cat. No. 505812). For *in vivo* studies or highly sensitive assays, we recommend Ultra-LEAF  $^{\text{TM}}$  purified antibody (Cat. No. 505834) with a lower endotoxin limit than standard LEAF  $^{\text{TM}}$  purified antibodies (Endotoxin <0.01 EU/microg).

Additional reported applications (for the relevant formats) include:

Western blotting, immunohistochemical staining of frozen tissue sections  $^{6,22,23}$ , and immunocytochemistry.

**Note:** For testing mouse IFN-γ 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
- 9. Peterson KE, et al. 2000. J. Virol. 74:5363. (Neut)
- 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)

#### **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