

Product Data Sheet

Pacific Blue™ anti-mouse IFN-γ

Catalog # / Size: 505817 / 25 µg
505818 / 100 µg

Clone: XMG1.2

Isotype: Rat IgG1, κ

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

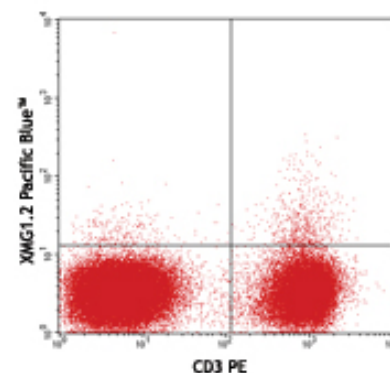
Reactivity: Mouse

Preparation: The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Concentration: 0.5 mg/ml

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



PMA and Ionomycin-stimulated (6hrs)
BALB/c splenocytes stained with
XMG1.2 Pacific Blue™ and CD3 PE

Applications:

Applications: ICFC - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 1.0 µg per 10⁶ cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

** Pacific Blue™ is a registered trademark of Molecular Probes, Inc. Pacific Blue™ dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

Application Notes: **ELISA^{1,4,11,14} 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-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^{7,8,12,13,16}: The fluorochrome-labeled XMG1.2 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IFN-γ-producing cells within mixed cell populations.
Neutralization^{1-3,9,10}: The XMG1.2 antibody can neutralize the bioactivity of natural or recombinant IFN-γ. The LEAF™ 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™ purified antibody (Cat. No. 505834) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/µg).

Additional reported applications (for the relevant formats) include: Western blotting, immunohistochemical staining of paraformaldehyde-fixed, saponin-treated frozen tissue sections⁶, and immunocytochemistry.

Note: For testing mouse IFN-γ in serum, plasma or supernatant, BioLegend's ELISA Max™ 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



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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

Description: Interferon- γ is a potent multifunctional cytokine which is secreted primarily by activated NK cells and T cells. Originally characterized based on anti-viral activities, IFN- γ also exerts anti-proliferative, immunoregulatory, and proinflammatory activities. IFN- γ 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.
 4. Gray P, *et al.* 1987. *Lymphokines* 13:151.

Related Products:	Product	Clone	Application
	Cell Staining Buffer		FC, ICC, ICFC
	Fixation Buffer		ICC, ICFC
	Permeabilization Wash Buffer (10X)		ICC, ICFC, IHC
	Brefeldin A Solution (1,000X)		ICFC
	Monensin Solution (1,000X)		ICFC
	7-AAD Viability Staining Solution		FC
	Pacific Blue™ Rat IgG1, κ Isotype Ctrl	RTK2071	FC, ICFC



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