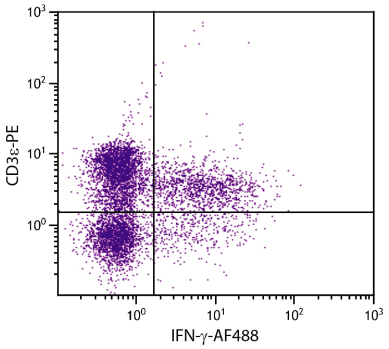
SouthernBiotech

Rat Anti-Mouse IFN-γ

Cat. No.	Format	Size
10240-01	Purified (UNLB)	0.5 mg
10240-02	Fluorescein (FITC)	0.1 mg
10240-08	Biotin (BIOT)	0.5 mg
10240-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg
10240-26	Pacific Blue™ (PACBLU)	0.1 mg
10240-30	Alexa Fluor® 488 (AF488)	0.1 mg
10240-31	Alexa Fluor® 647 (AF647)	0.1 mg



PMA and ionomycin stimulated BALB/c mouse splenocytes were stained with Rat Anti-Mouse CD3ε-PE (SB Cat. No. 1535-09) followed by intracellular staining with Rat Anti-Mouse IFN-γ-AF488 (SB Cat. No. 10240-30).

Overview

Clone	XMG1.2
Isotype	Rat $IgG_{1\kappa}$
Immunogen	*E. coli*-expressed IFN-γ
Specificity	Mouse IFN-γ
Alternate Name(s)	Interferon-γ, immune interferon, IIF, type II interferon, type 2 interferon, T interferon, T cell interferon, mitogen induced interferon, pH2-labile interferon, macrophage-activating factor, MAF

Applications

FC – Quality tested [9,12-16]
ELISA-Detection – Quality tested [2-4,6,7]
ELISA-Capture – Reported in literature [1,5]
ELISPOT-Detection – Reported in literature [6,8-11]
IHC-FS – Reported in literature [7,17-22]
IHC-PS – Reported in literature [23]
ICC – Reported in literature [3,24]
WB – Reported in literature [24]
Neut – Reported in literature [1-3,25-27]
Multiplex-Detection – Reported in literature [4]

Working Dilutions

ELISA	BIOT conjugate	1:2,000 – 1:4,000
Flow Cytometry	FITC conjugate	≤ 1 μg/10^6 cells
	PACBLU conjugate	≤ 0.3 μg/10^6 cells
	AF488 and AF647 conjugates	≤ 0.1 μg/10^6 cells
	For flow cytometry, the suggested use of these reagents is in a final volume of 100 μL	
Other Applications	Since applications vary, you should determine the optimum working dilution for the product that is appropriate for your specific need.	

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Corporate Offices: 160 Oxmoor Blvd • Birmingham, AL 35209 • USA **Mailing Address:** P.O. Box 26221 • Birmingham, AL 35260 • USA
Tel: 205.945.1774 • U.S. and Canada: 800.722.2255 • **Fax:** 205.945.8768
Email: info@southernbiotech.com • **Website:** www.southernbiotech.com

Handling and Storage

- The purified (UNLB) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. *No preservatives or amine-containing buffer salts added*. Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN_3. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN_3. Store at 2-8°C.
- The Alexa Fluor® 488 (AF488), Alexa Fluor 647® (AF647), and Pacific Blue™ (PACBLU) conjugates are supplied as 0.1 mg in 0.2 mL of PBS/NaN_3. Store at 2-8°C.
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. Contains no preservative; handle under aseptic conditions. Store at 2-8°C or aliquot into smaller volumes and store at -20°C. Avoid multiple freeze / thaw cycles.
- Protect fluorochrome-conjugated forms from light. Reagents are stable for the period shown on the label if stored as directed.

Warning

Some reagents contain sodium azide. Please refer to product specific SDS.

References

1. Cherwinski HM, Schumacher JH, Brown KD, Mosmann TR. Two types of mouse helper T cell clone. III. Further differences in lymphokine synthesis between Th1 and Th2 clones revealed by RNA hybridization, functionally monospecific bioassays, and monoclonal antibodies. J Exp Med. 1987;166:1229-44. (Immunogen, ELISA-Capture, Neut)
2. Abrams JS, Roncarolo M, Yssel H, Andersson U, Gleich GJ, Silver JE. Strategies of anti-cytokine monoclonal antibody development: immunoassay of IL-10 and IL-5 in clinical samples. Immunol Rev. 1992;127:5-24. (ELISA-Detection, Neut)
3. Sander B, Höidén I, Andersson U, Möller E, Abrams JS. Similar frequencies and kinetics of cytokine producing cells in murine peripheral blood and spleen. Cytokine detection by immunoassay and intracellular immunostaining. J Immunol Methods. 1993;166:201-14. (ELISA-Detection, ICC, Neut)
4. Carson RT, Vignali DA. Simultaneous quantitation of 15 cytokines using a multiplexed flow cytometric assay. J Immunol Methods. 1999;227:41-52. (ELISA-Detection, Multiplex-Detection)
5. Ferreira BR, Silva JS. Successive tick infestations selectively promote a T-helper 2 cytokine profile in mice. Immunology. 1999;96:434-9. (ELISA-Capture)
6. Pack CD, Cestra AE, Min B, Legge KL, Li L, Caprio-Young JC, et al. Neonatal exposure to antigen primes the immune system to develop responses in various lymphoid organs and promotes bystander regulation of diverse T cell specificities. J Immunol. 2001;167:4187-95. (ELISA-Detection, ELISPOT-Detection)
7. da Fonseca DM, Silva CL, Wowk PF, Paula MO, Ramos SG, Horn C, et al. Mycobacterium tuberculosis culture filtrate proteins plus CpG Oligodeoxynucleotides confer protection to Mycobacterium bovis BCG-primed mice by inhibiting interleukin-4 secretion. Infect Immun. 2009;77:5311-21. (ELISA-Detection, IHC-FS)
8. Bordmann G, Rudin W, Favre N. Immunization of mice with phosphatidylcholine drastically reduces the parasitaemia of subsequent Plasmodium chabaudi chabaudi blood-stage infections. Immunology. 1998;94:35-40. (ELISPOT-Detection)
9. Karulin AY, Hesse MD, Tary-Lehmann M, Lehmann PV. Single-cytokine-producing CD4 memory cells predominate in type 1 and type 2 immunity. J Immunol. 2000;164:1862-72. (ELISPOT-Detection, FC)
10. Stern BV, Boehm BO, Tary-Lehmann M. Vaccination with tumor peptide in CpG adjuvant protects via IFN-γ-dependent CD4 cell immunity. J Immunol. 2002;168:6099-105. (ELISPOT-Detection)
11. Faust SM, Lu G, Marini BL, Zou W, Gordon D, Iwakura Y, et al. Role of T cell TGFβ signaling and IL-17 in allograft acceptance and fibrosis associated with chronic rejection. J Immunol. 2009;183:7297-306. (ELISPOT-Detection)
12. Groux H, O'Garra A, Bigler M, Rouleau M, Antonenko S, de Vries JE, et al. A $CD4^+$ T-cell subset inhibits antigen-specific T-cell responses and prevents colitis. Nature. 1997;389:737-42. (FC)
13. Campbell DJ, Butcher EC. Rapid acquisition of tissue-specific homing phenotypes by $CD4^+$ T cells activated in cutaneous or mucosal lymphoid tissues. J Exp Med. 2002;195:135-41. (FC)
14. Bending D, Newland S, Krejcí A, Phillips JM, Bray S, Cooke A. Epigenetic changes at Il12rb2 and Tbx21 in relation to plasticity behavior of Th17 cells. J Immunol. 2011;186:3373-82. (FC)
15. Nakamura T, Nakao T, Yoshimura N, Ashihara E. Rapamycin prolongs cardiac allograft survival in a mouse model by inducing myeloid-derived suppressor cells. Am J Transplant. 2015 May 5. doi: 10.1111/ajt.13276. [Epub ahead of print]. (FC)
16. Shindo Y, Yoshimura K, Kuramasu A, Watanabe Y, Ito H, Kondo T, et al. Combination immunotherapy with 4-1BB activation and PD-1 blockade enhances antitumor efficacy in a mouse model of subcutaneous tumor. Anticancer Res. 2015;35:129-36. (FC)
17. McKnight AJ, Zimmer GJ, Fogelman I, Wolf SF, Abbas AK. Effects of IL-12 on helper T cell-dependent immune responses in vivo. J Immunol. 1994;152:2172-9. (IHC-FS)
18. Martinelli TM, Van Driel IR, Alderuccio F, Gleeson PA, Toh B. Analysis of mononuclear cell infiltrate and cytokine production in murine autoimmune gastritis. Gastroenterology. 1996;110:1791-802. (IHC-FS)
19. Yamagami S, Tsuru T. Increase in orthotopic murine corneal transplantation rejection rate with anterior synechiae. Invest Ophthalmol Vis Sci. 1999;40:2422-6. (IHC-FS)
20. Cardona AE, Restrepo BI, Jaramillo JM, Teale JM. Development of an animal model for neurocysticercosis: immune response in the central nervous system is characterized by a predominance of γδ T cells. J Immunol. 1999;162:995-1002. (IHC-FS)
21. Schön MP, Schön M, Warren HB, Donohue JP, Parker CM. Cutaneous inflammatory disorder in integrin α_E (CD103)-deficient mice. J Immunol. 2000;165:6583-9. (IHC-FS)
22. Nishiwaki T, Yoneyama H, Eishi Y, Matsuo N, Tatsumi K, Kimura H, et al. Indigenous pulmonary Propionibacterium acnes primes the host in the development of sarcoid-like pulmonary granulomatosis in mice. Am J Pathol. 2004;165:631-9. (IHC-FS)
23. Whiteland JL, Shimeld C, Nicholls SM, Easty DL, Williams NA, Hill TJ. Immunohistochemical detection of cytokines in paraffin-embedded mouse tissues. J Immunol Methods. 1997;210:103-8. (IHC-PS)
24. Morales-Tirado V, Johannson S, Hanson E, Howell A, Zhang J, Siminovitch KA, et al. Cutting edge: selective requirement for the Wiskott-Aldrich syndrome protein in cytokine, but not chemokine, secretion by $CD4^+$ T cells. J Immunol. 2004;173:726-30. (ICC, WB)
25. Reed SG, Brownell CE, Russo DM, Silva JS, Grabstein KH, Morrissey PJ. IL-10 mediates susceptibility to Trypanosoma cruzi infection. J Immunol. 1994;153:3135-40. (Neut)
26. Hidalgo LG, Urmson J, Halloran PF. IFN-γ decreases CTL generation by limiting IL-2 production: A feedback loop controlling effector cell production. Am J Transplant. 2005;5:651-61. (Neut)
27. Jin J, Shinohara Y, Yu Q. Innate immune signaling induces interleukin-7 production from salivary gland cells and accelerates the development of primary Sjögren's syndrome in a mouse model. PLoS One. 2013;8(10):e77605. (Neut)

Corporate Offices: 160 Oxmoor Blvd • Birmingham, AL 35209 • USA **Mailing Address:** P.O. Box 26221 • Birmingham, AL 35260 • USA
Tel: 205.945.1774 • U.S. and Canada: 800.722.2255 • **Fax:** 205.945.8768
Email: info@southernbiotech.com • **Website:** www.southernbiotech.com