

PE/Fire™ 744 anti-human IFN-γ Antibody

Catalog# / Size	502563 / 25 tests 502564 / 100 tests
Clone	4S.B3
Regulatory Status	RUO
Other Names	Interferon-γ, Immune interferon, Type II interferon, T cell interferon, Macrophage-activating factor (MAF), IFN-g, IFN-gamma
Isotype	Mouse IgG1, κ
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.

Product Details

Verified Reactivity	Human
Reported Reactivity	Chimpanzee, Baboon, Cynomolgus, Rhesus
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Partially purified, native human IFN-γ
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Fire™ 744 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool).
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
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 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. True-Stain Monocyte Blocker™ (Cat No. 426102) is recommended to minimize non-specific staining of PE/Fire™ 744 on monocytes and macrophages. * PE/Fire™ 744 has a maximum excitation of 565 nm and a maximum emission of 744 nm.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)

Application Notes	ELISA or ELISPOT Detection⁵: The biotinylated 4S.B3 antibody is useful as a detection antibody for a sandwich ELISA or ELISPOT assay, when used in conjunction with purified NIB42 antibody (Cat. No. 502402/502404) or purified MD-1 antibody (Cat. No. 507502/507513) as the capture antibody. Flow Cytometry^{3,4,6-8}: The fluorochrome-labeled 4S.B3 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IFN-γ -producing cells within mixed cell populations. Additional reported applications (for the relevant formats) include: neutralization^{1,2}, Western
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blotting, immunohistochemical staining of paraformaldehyde-fixed, saponin-treated tissue sections, and immunocytochemistry. The 4S.B3 antibody can neutralize the bioactivity of natural or recombinant IFN- γ .

Note: For testing human IFN- γ in serum or plasma, BioLegend's ELISA Max™ Sets (Cat. No. 430101 to 430106) are specially developed and recommended.

Application References

(PubMed link indicates
BioLegend citation)

1. Meager A, *et al.* 1984. *J. Interferon Res.* 4:619. (Neut)
2. Meager A, 1987. *Lymphokines and Interferons: A Practical Approach*. IRL Press Ltd, Oxford, p. 105. (Neut)
3. Sester M, *et al.* 2002. *J. Virol.* 76:3748. (ICFC)
4. Infante-Duarte C, *et al.* 2000 *J. Immunol.* 165:6107. (ICFC)
5. Goodier M, *et al.* 2000. *J. Immunol.* 165:139. (ELISA)
6. Chen H, *et al.* 2005. *J. Immunol.* 175:591. (ICFC)
7. Smeltz RB, 2007. *J. Immunol.* 178:4786. (ICFC)
8. Iwamoto S, *et al.* 2007. *J. Immunol.* 179:1449. (ICFC) [PubMed](#)
9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (ICFC)

Antigen Details

Structure	Cytokine; dimer; 20-25 kD (Mammalian)
Bioactivity	Antiviral/antiparasitic activities; inhibits proliferation; enhances MHC class I and II expression on APC
Cell Sources	CD8 ⁺ and CD4 ⁺ T cells, NK cells
Cell Targets	T cells, B cells, macrophages, NK cells, endothelial cells, fibroblasts
Receptors	IFN- γ R α (CDw119) dimerized with IFN- γ R β (AF-1)
Cell Type	Tregs
Biology Area	Cell Biology, Immunology, Neuroinflammation, Neuroscience
Molecular Family	Cytokines/Chemokines
Antigen References	1. Fitzgerald K, <i>et al.</i> Eds. 2001. <i>The Cytokine FactsBook</i>. Academic Press, San Diego. 2. De Maeyer E, <i>et al.</i> 1992. <i>Curr. Opin. Immunol.</i> 4:321. 3. Farrar M, <i>et al.</i> 1993. <i>Annu. Rev. Immunol.</i> 11:571. 4. Gray P, <i>et al.</i> 1987. <i>Lymphokines</i> 13:151.
Regulation	Upregulated by IL-2, FGF-basic, EGF; downregulated by vitamin D3 or DMN; labile at pH2
Gene ID	3458

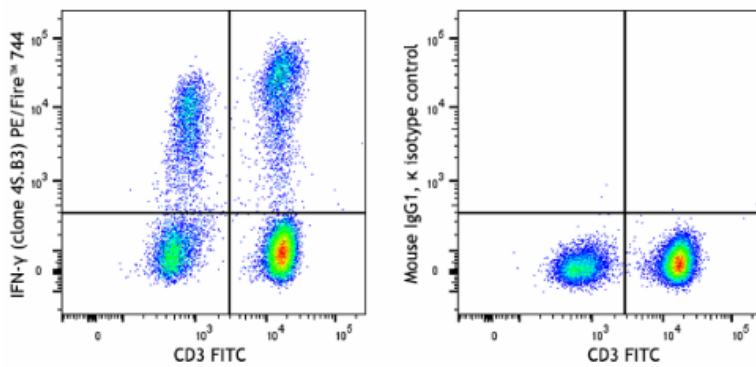
Related Protocols

- [Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human IFN- γ , Spark PLUS UV395™ anti-human IFN- γ , PE anti-human IFN- γ , FITC anti-human IFN- γ , Biotin anti-human IFN- γ , Purified anti-human IFN- γ , PerCP anti-human IFN- γ , PE/Cyanine7 anti-human IFN- γ , APC/Cyanine7 anti-human IFN- γ , Brilliant Violet 421™ anti-human IFN- γ , Brilliant Violet 570™ anti-human IFN- γ , Brilliant Violet 510™ anti-human IFN- γ , Spark Blue™ 515 anti-human IFN- γ , Spark UV™ 387 anti-human IFN- γ , StarBright UltraViolet 740 anti-human IFN- γ , Alexa Fluor® 647 anti-human IFN- γ , PE/Fire™ 744 anti-human IFN- γ Antibody, Alexa Fluor® 700 anti-human IFN- γ , PerCP/Cyanine5.5 anti-human IFN- γ , APC/Fire™ 750 anti-human IFN- γ , Brilliant Violet 750™ anti-human IFN- γ , KIRAVIA Blue 520™ anti-human IFN- γ Antibody, Spark NIR™ 685 anti-human IFN- γ Antibody, Brilliant Violet 711™ anti-human IFN- γ , Brilliant Violet 785™ anti-human IFN- γ , GMP APC anti-human IFN- γ , Alexa Fluor® 488 anti-human IFN- γ , Brilliant Violet 605™ anti-human IFN- γ , Brilliant Violet 650™ anti-human IFN- γ , PE/Dazzle™ 594 anti-human IFN- γ , Pacific Blue™ anti-human IFN- γ

Product Data



PMA+ionomycin stimulated (6 hours, in the presence of Brefeldin A) human peripheral blood mononuclear cells were surface stained with anti-human CD3 (clone UCHT1) FITC. Cells were then fixed, permeabilized, and intracellularly stained with anti-human IFN- γ (clone 4S.B3) PE/Fire™ 744 (left) or mouse IgG1, κ PE/Fire™ 744 isotype control (right).

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