

Spark NIR™ 685 anti-human IFN-γ Antibody

Catalog# / Size	502551 / 25 tests 502552 / 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 Spark NIR™ 685 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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. * Spark NIR™ 685 has a maximum excitation of 665 nm and a maximum emission of 685 nm.
Excitation Laser	Red Laser (633 nm)
Application Notes	ELISA or ELISPOT Detection ⁵ : 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 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, <i>et al.</i> 1984. <i>J. Interferon Res.</i> 4:619. (Neut)
	2. Meager A, 1987. <i>Lymphokines and Interferons: A Practical Approach</i> . IRL Press Ltd, Oxford, p. 105. (Neut)
	3. Sester M, <i>et al.</i> 2002. <i>J. Virol.</i> 76:3748. (ICFC)
	4. Infante-Duarte C, <i>et al.</i> 2000 <i>J. Immunol.</i> 165:6107. (ICFC)
	5. Goodier M, <i>et al.</i> 2000. <i>J. Immunol.</i> 165:139. (ELISA)
	6. Chen H, <i>et al.</i> 2005. <i>J. Immunol.</i> 175:591. (ICFC)
	7. Smeltz RB, 2007. <i>J. Immunol.</i> 178:4786. (ICFC)
	8. Iwamoto S, <i>et al.</i> 2007. <i>J. Immunol.</i> 179:1449. (ICFC) PubMed
	9. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (ICFC)
RRID	AB_2888716 (BioLegend Cat. No. 502551) AB_2888716 (BioLegend Cat. No. 502552)

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

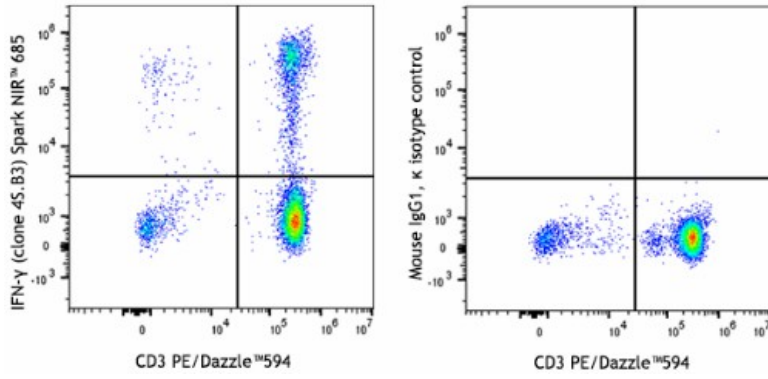
Related Protocols

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

PE anti-human IFN- γ , APC anti-human IFN- γ , FITC anti-human IFN- γ , Biotin anti-human IFN- γ , Purified anti-human IFN- γ , Alexa Fluor[®] 488 anti-human IFN- γ , Alexa Fluor[®] 647 anti-human IFN- γ , Alexa Fluor[®] 700 anti-human IFN- γ , Pacific Blue[™] anti-human IFN- γ , PerCP/Cyanine5.5 anti-human IFN- γ , APC/Cyanine7 anti-human IFN- γ , PE/Cyanine7 anti-human IFN- γ , Brilliant Violet 421[™] anti-human IFN- γ , Brilliant Violet 570[™] anti-human IFN- γ , Brilliant Violet 605[™] anti-human IFN- γ , Brilliant Violet 650[™] anti-human IFN- γ , Brilliant Violet 711[™] anti-human IFN- γ , Brilliant Violet 785[™] anti-human IFN- γ , Brilliant Violet 510[™] anti-human IFN- γ , PE/Dazzle[™] 594 anti-human IFN- γ , APC/Fire[™] 750 anti-human IFN- γ , PerCP 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

Product Data



PMA+ ionomycin stimulated (6 hours) human peripheral blood lymphocytes (in the presence of monensin) were fixed, permeabilized then stained with CD3 PE/Dazzle™ 594 and IFN-γ (clone 4S.B3) Spark NIR™ 685 (left) or mouse IgG1, κ Spark NIR™ 685 isotype control (right).

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