

Brilliant Violet 421™ anti-human IFN-γ Antibody

Catalog# / Size	506537 / 25 tests 506538 / 100 tests
Clone	B27
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. The B27 antibody reacts with the human interferon-γ. The B27 antibody can neutralize the bioactivity of natural or recombinant IFN-γ.

Product Details

Verified Reactivity	Human
Reported Reactivity	Chimpanzee, Baboon, Cynomolgus, Rhesus, African Green, Pigtailed Macaque, Sooty Mangabey
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	<i>E. coli</i> -expressed recombinant 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 Brilliant Violet 421™ 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.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

[Learn more about Brilliant Violet™.](#)

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Excitation Laser Violet Laser (405 nm)

Application Notes **Flow Cytometry²:** The fluorochrome-labeled B27 antibody is useful for intracellular immunofluorescent staining and flow cytometric analysis to identify IFN-γ-producing cells within mixed cell populations. For intracellular cytokine staining protocol, please visit www.biolegend.com and click on the support section.

Neutralization^{1,3,6,7}: The Ultra-LEAF™ Purified antibody (Endotoxin <0.01 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for neutralization of human IFN-γ bioactivity (Cat. No. 506531).

Application References

1. Favre C, *et al.* 1989. *Molec. Immunol.* 26:17. (Neut)
2. Kaur A, *et al.* 2002. *J Virol.* 76:3646.
3. Abrams J, *et al.* 1992. *Immunol. Rev.* 127:5. (Neut)
4. Andersson U, *et al.* 1999. *Detection and quantification of gene expression.* New York:Springer-Verlag.
5. Rout N, *et al.* 2010. *PLoS One* 5:e9787. (FC)
6. Acosta-Rodriguez EV, *et al.* 2007. *Nat. Immunol.* 9:942-9. (Neut)
7. Gangur V, *et al.* 1998. *FASEB J.* 12:705-13. (Neut)

Product Citations

1. Jiang G, *et al.* 2020. *Aging (Albany NY).* 12:11466. [PubMed](#)
2. Yuan Y, *et al.* 2019. *Cancer Med.* 8:3811. [PubMed](#)

RRID

AB_2801097 (BioLegend Cat. No. 506537)
AB_2801098 (BioLegend Cat. No. 506538)

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-γRα (CDw119) dimerized with IFN-γRβ (AF-1)
Cell Type	Tregs
Biology Area	Cell Biology, Immunology, Neuroinflammation, Neuroscience
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none">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

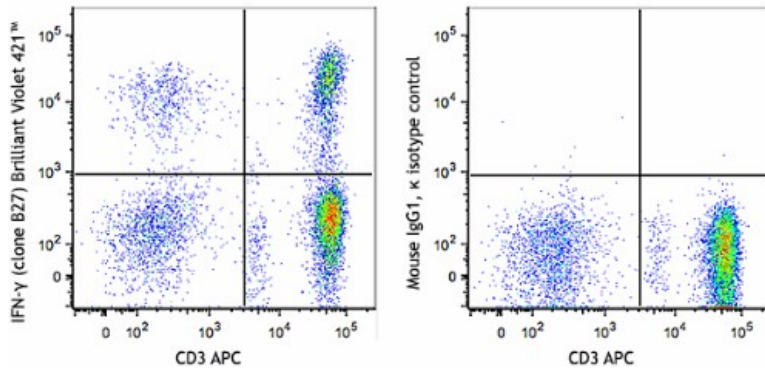
Related Protocols

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

APC anti-human IFN-γ, FITC anti-human IFN-γ, PE anti-human IFN-γ, Purified anti-human IFN-γ, Alexa Fluor® 700 anti-human IFN-γ, PE/Cyanine7 anti-human IFN-γ, Purified anti-human IFN-γ (Maxpar® Ready), APC/Cyanine7 anti-human IFN-γ, Pacific Blue™ anti-human IFN-γ, PerCP/Cyanine5.5 anti-human IFN-γ, PE/Dazzle™ 594 anti-human IFN-γ, Ultra-LEAF™ Purified anti-human IFN-γ, Brilliant Violet 605™ anti-human IFN-γ, Brilliant Violet 510™ anti-human IFN-γ, Brilliant Violet 421™ anti-human IFN-γ

Product Data



PMA+Ionomycin-stimulated (4 hours) human peripheral blood lymphocytes were fixed and permeabilized then intracellularly stained with CD3 APC (clone UCHT1) and either IFN- γ (clone B27) Brilliant Violet 421™ (left) or mouse IgG1, κ Brilliant Violet 421™ isotype control (right).

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