

Pacific Blue™ anti-human IFN-γ Antibody

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| Catalog# / Size | 502521 / 25 µg 502522 / 100 µg |
| 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

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| 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. |
| Preparation | The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. |
| Concentration | 0.5 mg/ml |
| Storage & Handling | The IFN-γ 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 | <p>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 ≤ 0.25 µg per 10⁶ cells in 100 µl volume. It is highly recommended that the reagent be titrated for optimal performance for each application.</p> <p>* 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.</p> <p>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p>View full statement regarding label licenses</p> |
| Excitation Laser | Violet Laser (405 nm) |
| Application Notes | <p>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.</p> <p>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.</p> <p>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</p> |

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)

Product Citations

1. Kobayashi Y, *et al.* 2020. *Int J Oncol.* 999:56. [PubMed](#)
2. Ridley ML, *et al.* 2020. *J Immunol.* 204:2940. [PubMed](#)
3. Longhi M, *et al.* 2014. *PLoS One.* 9:87956. [PubMed](#)
4. Hong H, *et al.* 2012. *PLoS One.* 7:e44820. [PubMed](#)
5. Gleason M, *et al.* 2014. *Blood.* 123:3016. [PubMed](#)
6. Ackerley CG, *et al.* 2022. *Front Immunol.* 13:972170. [PubMed](#)
7. Zhu H, *et al.* 2020. *Cell Stem Cell.* 27:224. [PubMed](#)
8. Haque A, *et al.* 2011. *J Immunol.* 186:6148. [PubMed](#)
9. Whitfield SJC, *et al.* 2017. *J Immunol.* 198:3989. [PubMed](#)
10. Li Y *et al.* 2018. *Cell Stem Cell.* 23(2):181-192. [PubMed](#)
11. Strowig T, *et al.* 2010. *Blood.* 116:4158. [PubMed](#)

RRID

AB_893527 (BioLegend Cat. No. 502521)

AB_893525 (BioLegend Cat. No. 502522)

Antigen Details

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|---------------------------|--|
| 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 | <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

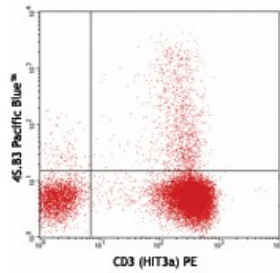
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[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
intracellularly stained with 4S.B3 Pacific
Blue™ and CD3 (HIT3a) PE

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