Datasheet for ABIN1981884

# anti-Interferon gamma antibody (FITC)

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## Overview

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| Quantity: | 100 tests |
| Target: | Interferon gamma (IFNG) |
| Reactivity: | Human, Non-Human Primate |
| Host: | Mouse |
| Clonality: | Monoclonal |
| Conjugate: | This Interferon gamma antibody is conjugated to FITC |
| Application: | Flow Cytometry (FACS) |

## Product Details

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| Immunogen: | Interferon gamma derived from human leukocytes |
| Clone: | 4S-B3 |
| Isotype: | IgG1 kappa |
| Specificity: | The mouse monoclonal antibody 4S.B3 recognizes IFN-gamma, a 16-25 kDa cytokine produced by activated Th1 cells and NK cells. Binds both glycosylated and non-glycosylated protein. |
| Cross-Reactivity (Details): | Human, Non-Human Primates |
| Purification: | Purified antibody is conjugated with fluorescein isothiocyanate (FITC) under optimum conditions and unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography. |

## Target Details

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| Target: | Interferon gamma (IFNG) |

## Target Details

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| Alternative Name: | IFN-gamma (IFNG Products) |
| Background: | Interferon gamma,The interferon gamma (IFN-gamma, 16-25 kDa) is an important regulator of the immune response, produced in activated Th1 cells and NK cells, particularly in response to IL-2, TNF-alpha and IL-12, its production is suppressed by IL-4, IL-10, and TGF-beta. The producing of IFN-gamma is activated by specific antigens or mitogens through the T cell antigen receptor. IFN-gamma polypeptide forms: 40-60 kDa forms are observable under non-denaturing conditions as dimers and trimers, 20 kDa and 25 kDa forms exist due to variable glycosylation. IFN-gamma belongs to the type II interferons, also called immune IFN. IFN-gamma shows antiviral activity and has important immunoregulatory functions. It is a potent activator of macrophages and had antiproliferative effects on transformed cells. IFN-gamma plays an important role in regulating B cell differentiation by simultaneously stimulating class switch recombination to the IgG3 and IgG2a isotypes while represing class switch recombination to the IgE and IgG1 isotypes. It also appears to promote antigen presentation by B cells through its effects on MHC. Binding of IFN-gamma to its receptor increases the expression of class I MHC on all somatic cells. It also enhances the expression of class II MHC on antigen-presenting cells. IFN-gamma is the major means by which T cells activate macrophages, increasing their ability to kill bacteria, parasites, and tumours. The activation of macrophages by IFN-gamma is essential for the elimination of bacteria that replicate within the phagosomes of macrophages (f.e. Mycobacteria and Listeria monocytogenes). IFN-gamma can potentiate the high antiviral and antitumor effects of the type I interferons (IFN-alpha, IFN-beta). IFN-gamma may also activate neutrophils and NK cells.,Interferon gamma, IFN-gamma |
| Gene ID: | 3458 |
| UniProt: | P01579 |
| Pathways: | Interferon-gamma Pathway, Cellular Response to Molecule of Bacterial Origin, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process, Production of Molecular Mediator of Immune Response, ER-Nucleus Signaling, Regulation of Carbohydrate Metabolic Process, Protein targeting to Nucleus, Autophagy |

## Application Details

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| Application Notes: | Flow cytometry: The reagent is designed for analysis of human blood cells using 4 µL reagent / 100 µL of whole blood or $10^6$ cells in a suspension. The content of a vial (0.4 ml) is sufficient for 100 tests. Intracellular staining. |
| Comment: | The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum |

## Application Details

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| | conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary. |
| Restrictions: | For Research Use only |

## Handling

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| Buffer: | Stabilizing phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Handling Advice: | Do not freeze. Avoid prolonged exposure to light.<br>Do not use after expiration date stamped on vial label.<br>Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user. |
| Storage: | 4 °C |
| Storage Comment: | Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze. |

## Publications

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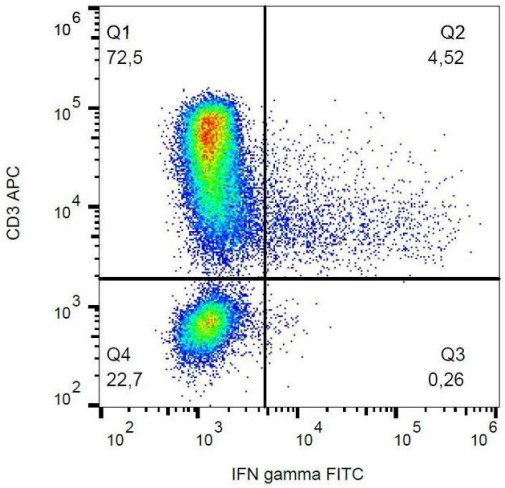
| Product cited in: | Brincks, Kucaba, Legge, Griffith: "Influenza-induced expression of functional tumor necrosis factor-related apoptosis-inducing ligand on human peripheral blood mononuclear cells." in: **Human immunology**, Vol. 69, Issue 10, pp. 634-46, (2008) (PubMed).<br><br>Janke, Witsch, Mages, Hutloff, Kroczek: "Eminent role of ICOS costimulation for T cells interacting with plasmacytoid dendritic cells." in: **Immunology**, Vol. 118, Issue 3, pp. 353-60, ( 2006) (PubMed).<br><br>Coles, Wing, Smith, Coraddu, Greer, Taylor, Weetman, Hale, Chatterjee, Waldmann, Compston: " Pulsed monoclonal antibody treatment and autoimmune thyroid disease in multiple sclerosis." in: **Lancet (London, England)**, Vol. 354, Issue 9191, pp. 1691-5, (1999) (PubMed).<br><br>Caulfield, Fernandez, Sousa, Lane, Lee, Hawrylowicz: "Regulation of major histocompatibility complex class II antigens on human alveolar macrophages by granulocyte-macrophage colony-stimulating factor in the presence of glucocorticoids." in: **Immunology**, Vol. 98, Issue 1, pp. 104- |

10, (1999) (PubMed).

## Images




**Flow Cytometry**

**Image 1.** Intracellular staining of IFN gamma in PHA-activated human PBMC with anti-IFN gamma (4S.B3) FITC.