Datasheet for ABIN2749151

anti-Interferon gamma antibody (PE)

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Overview

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

Product Details

Purpose:	Anti-IFN gamma PE
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 R-phycoerythrin (PE) under optimum conditions. Unconjugated antibody and free fluorochrome are removed by size-exclusion chromatography.

Target Details

Target:	Interferon gamma (IFNG)
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

Application Notes:	Flow cytometry: The reagent is designed for analysis of human blood cells using 10 µL reagent / 100 µL of whole blood or 10^6 cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests. Intracellular staining.

Application Details

Restrictions:	For Research Use only

Handling

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.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Protect from prolonged exposure to light. Do not freeze.

Publications

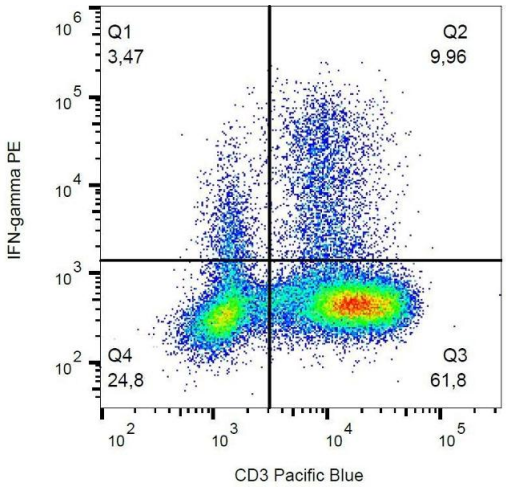
Product cited in:

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).

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).

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).

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).



Flow Cytometry

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