OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for AM39041FC-N

Interferon gamma (IFNG) Mouse Monoclonal Antibody [Clone ID: 45-14]

Product data:

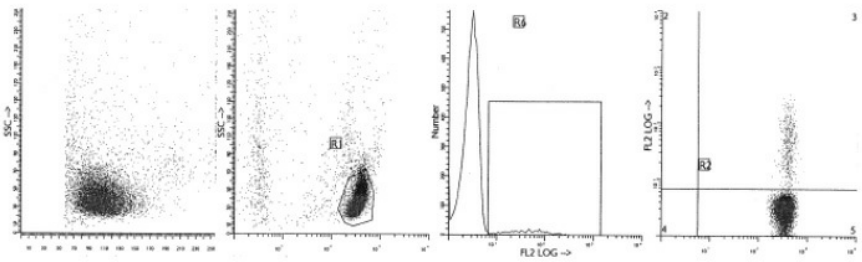
Product Type:	Primary Antibodies
Clone Name:	45-14
Applications:	FC, IF
Recommended Dilution:	- Flow cytometry - to detect IFN-gamma producing TH1 cells. Dual staining with a membrane marker such as CD4 (or CD3 and CD8) enables enumeration of the TH1 cells producing IFN-gamma. Please note: The level of most of the cytokines produced by immune unstimulated cells is too low to be detected by flow cytometry analysis. (19) After stimulation the level of cytokines is rising and depending on the way of stimulation, the cell population, the secretion inhibitor that is used and several other factors several cytokines are upregulated and in detectable concentrations present. Therefore, a method comprising cell stimulation, fixation and permeabilization should be used to make detection of the intracellularly expressed cytokines possible. Fluorochrome-labelled antibodies are effectively formulated for direct immunofluorescent staining of human cells in flow cytometric analysis using 10 µl/10e6 leucocytes for singles and 20 µl/10e6 leucocytes in case of dual and triple combinations. - Clone 45-15 is suitable for intracellular staining of cytospots and frozen tissue sections by immunohistochemistry.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	The antibody detects human IFN-gamma, a 20-25 kD glycoprotein expressed by subsets of T cells and NK cells, that have been stimulated by antigens or mitogens (1-4). Other species not tested.

View online »

Formulation:	0.01 M sodium phosphate, 0.15 M NaCl, pH 7.3, 0.2% BSA, 0.09% sodium azide Label: FITC State: Liquid purified Ig fraction Label: Cat. No. Label EX-max (nm) / EM-max (nm): AM39041AC-N APC 595, 633, 635, 647 / 660 AM39041FC-N FITC 488 / 519 AM39041RP-N 488, 532 / 578 AM39041PU-N Pure . /
Concentration:	lot specific
Purification:	Affinity chromatography
Conjugation:	FITC
Storage:	Store the antibody undiluted at 2-8°C. Fluorochrome labelled product is photosensitive and should be protected from light.
Stability:	Shelf life: one year from despatch.
Gene Name:	interferon, gamma
Database Link:	Entrez Gene 3458 Human P01579
Background:	The immune system reacts to a pathogen by activation of balanced network of the humoral and cellular immune responses. Subsequently the activated condition of the immune system will, after the elimination of the pathogen, be down-regulated to a balanced situation again. Control of the immune response requires efficient communication between the different cells involved in this response. This interaction is provided by cell/cell contact and by a complex array of mediators. Among these mediators cytokines, soluble factors produced by these cells, play an important role. Cytokines can act on other cells locally or distantly, but can be even auto regulating. Cytokines can behave stimulatory or inhibitory, or can even perform both activities, depending on the (pre)activation stage of the target cell. (3, 4) IFN-gamma has antiviral activity and multiple immunoregulatory functions such as upregulation of MHCClass I antigens on monocytes/macrophages and specific adhesion molecules (e.g. ICAM1 and VCAM1) on endothelial cells. IFN-gamma enhances IgG production by activated B cells, displays chemotactic activities, and plays a role in induction of inflammation.
Synonyms:	IFN-gamma, gamma IFN
Note:	1. Conjugates with brighter fluorochromes, like PE and APC, will have a greater separation than those with dyes like FITC. When populations overlap, the percentage of positive cells using a selected marker can be affected by the choice of fluorescent label. 2. Use of monoclonal antibodies in patient treatment can interfere with antigen target recognition by this reagent. This should be taken into account when samples are analyzed from patients treated in this fashion. 3. Reagent data performance is based on EDTA-treated blood. Reagent performance can be affected by the use of other anticoagulants.
Protein Families:	Druggable Genome, Secreted Protein

Protein Pathways: Allograft rejection, Cytokine-cytokine receptor interaction, Graft-versus-host disease, Jak-STAT signaling pathway, Natural killer cell mediated cytotoxicity, Proteasome, Regulation of autophagy, Systemic lupus erythematosus, T cell receptor signaling pathway, TGF-beta signaling pathway, Type I diabetes mellitus

Product images:



Representative Data Clone 45-15 (anti-IFN gamma) was analyzed by flow cytometry: Peripheral blood leucocytes were isolated from a blood sample obtained from a healthy volunteer and subsequently activated, fixed and permeabilized. Direct staining was performed using 10 µl of PE-conjugated monoclonal antibody in combination with 10 µl of anti-CD45 FITC per sample.