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Product datasheet for AM39038PU-N

IL4 Mouse Monoclonal Antibody [Clone ID: 8F-12]

Product data:

Product Type:	Primary Antibodies
Clone Name:	8F-12
Applications:	FC
Recommended Dilution:	Flow cytometry. 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.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	The antibody detects human Interleukin 4, which is a 14 kD molecular weight glycoprotein. Other species not tested.
Formulation:	0.01 M sodium phosphate, 0.15 M NaCl, pH 7.3, 0.2% BSA, 0.09% sodium azide State: Aff - Purified State: Liquid purified Ig fraction Label: Cat. No. Label EX-max (nm) / EM-max (nm): AM39038RP-N 488, 532 / 578 AM39038PU-N Pure . /
Concentration:	lot specific
Purification:	Affinity chromatography
Conjugation:	Unconjugated

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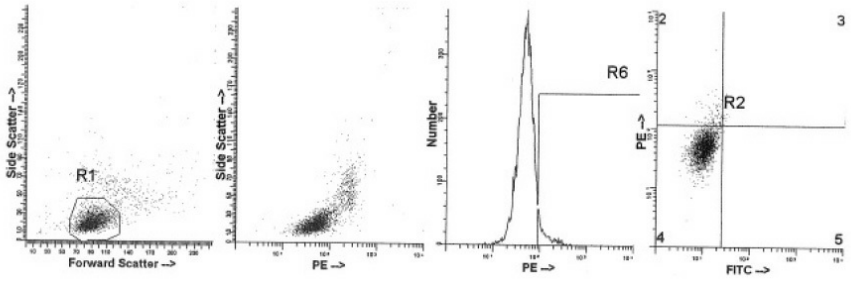
Storage:	Store the antibody undiluted at 2-8°C. Fluorochrome labelled product is photosensitive and should be protected from light.
Stability:	Shelf life: one year from despatch.
Gene Name:	interleukin 4
Database Link:	Entrez Gene 3565 Human P05112
Background:	The immune system reacts to a pathogen by 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) Interleukine 4 (IL-4) is a cytokine expressed by activated T cells, mast cells and bone marrow stromal cells. Originally, IL-4 was referred to as the B cell differentiation factor, B cell growth factor 1 or B cell stimulatory factor 1. The function of IL-4 is pleiotropic, i.e. stimulation, proliferation induction, and modulation of target cell functions. These target cells include B cells, but also T cells, NK and LAK cells, as well as antigen-processing cells like monocytes and macrophages.
Synonyms:	IL-4, BSF1, Lymphocyte stimulatory factor 1, Binetrakin, Pitrakinra
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, Asthma, Autoimmune thyroid disease, Cytokine-cytokine receptor interaction, Fc epsilon RI signaling pathway, Hematopoietic cell lineage, Jak-STAT signaling pathway, T cell receptor signaling pathway

Product images:



Representative Data Clone 8F-12 (anti-IL-4) was analyzed by flow cytometry. Peripheral blood (lymphocytes) 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.