FITC anti-human MPO Antibody

Catalog# / Size	347205 / 25 tests
Clone	MPO421-8B2
Regulatory Status	RUO
Other Names	Myeloperoxidase
Isotype	Mouse IgG1, κ
Description	Myeloperoxidase (MPO) is a heterotetrameric protein consisting of two 60 kD heavy units and two 12 kD light units. A lysosomal enzyme, MPO is able to catalyze the production of hypochlorous acid, a potent microbicidal agent, from hydrogen peroxide and chloride anion during the neutrophil respiratory burst. MPO is a major enzyme involved in the inflammatory responses of polymorphonuclear leucocytes. MPO is localized to the azurophilic granules of mature granulocytes and monocytes and is also expressed in some acute myeloid leukemia cells.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool.)
Storage & Handling	The 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	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 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
Excitation Laser	Blue Laser (488 nm)
Additional Product Notes	**MPO Staining Procedure** 1. Prepare cells of interest and perform cell surface antigen staining as described in BioLegend's Cell Surface Immunofluorescence Staining Protocol or Cell Surface Immunofluorescence Staining Protocol for Whole Blood. 2. Add 50 µL of cell suspension to each tube. 3. Add 100 µL of FluoroFix™ Buffer (Cat. No. 422101) to each tube and vortex immediately for at least 3 seconds. Assure no sample remains on the side of each tube. 4. Incubate at room temperature in the dark for 15 minutes. 5. During fixation, prepare antibody dilutions (if needed) in 1X Intracellular Staining Permeabilization Wash Buffer (Cat. No. 421002) (typically in final volume of 50 µL) 6. Vortex fixed samples briefly, then add 600 µL of 1X Intracellular Staining Permeabilization Wash Buffer to each tube and vortex immediately for at least 3 seconds. 7. Add appropriate amount of antibody diluted in 1X Intracellular Staining Permeabilization Wash Buffer, vortex briefly, and incubate for 30 minutes in the dark at room temperature. 8. Add 1 mL of FluoroFix™ Buffer and vortex immediately for at least 10 seconds. 9. Centrifuge at 300 x g for 5 minutes, decant to discard supernatant 10. Resuspend cells of each tube in 350 µL of FluoroFix™ buffer

11. Interrogate by flow cytometry using proper machine settings. Acquire samples within 2 hours.

RRID	AB_3698993 (BioLegend Cat. No. 347205)

Antigen Details

Structure	MPO is a tetrameric protein, each tetramer contains a two 60 kD heavy units and two 12 kD light units. It is a lysosomal hemoprotein stored in azurophilic granules.
Distribution	Neutrophils, monocytes, and some acute myeloid leukemia cells
Cell Type	Leukemia, Monocytes, Neutrophils
Biology Area	Immunology
Molecular Family	Enzymes and Regulators
Antigen References	1. Goedken M, *et al.* 2007. *J. Biol. Chem.* 282:27994 2. Nauseef WM, *et al.* 1988. *Euro. J. Haemat.* 40:97 3. Kelebanoff SJ, *et al.*1999. *Proc. Assoc. Am. Phys.* 111:383
Gene ID	4353

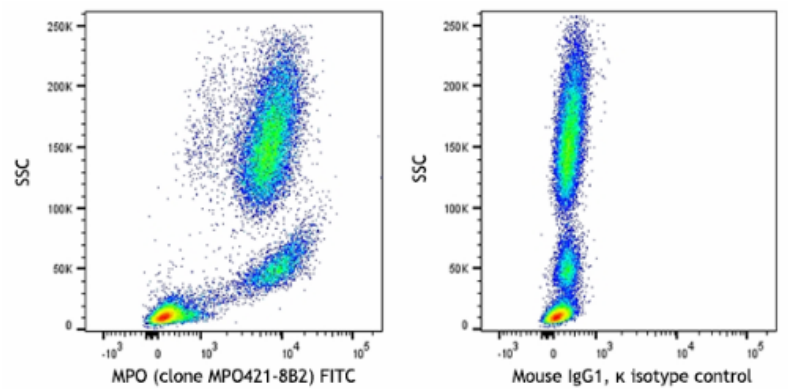
Related Protocols

- Intracellular Flow Cytometry Staining Protocol

Other Formats

FITC anti-human MPO Flow Kit, FITC anti-human MPO, PE/Cyanine7 anti-human MPO, APC anti-human MPO Antibody, PE anti-human MPO

Product Data



Human peripheral blood leukocytes were fixed and permeabilized, then intracellularly stained with anti-human MPO (MPO421-8B2) FITC (left) or mouse IgG1, κ FITC isotype control (right).

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