

## FITC anti-human MPO Flow Kit

<b>Catalog# / Size</b>	347201 / 50 tests
<b>Clone</b>	MPO421-8B2
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Myeloperoxidase
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	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.

### Kit Contents

<b>Kit Contents</b>	<ol style="list-style-type: none"> <li>1. Anti-human MPO FITC, Part No. 78079, 50 tests</li> <li>2. Mouse IgG1 isotype control FITC, Part No. 78080, 50 tests</li> <li>3. MPO Fixation Buffer, Part No. 78078, 50 ml (25 ml x 2 bottles)</li> <li>4. Intracellular Staining Perm Wash Buffer, Cat. No. 421002, 100 ml</li> </ol>
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### Product Details

<b>Verified Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	This kit should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">ICFC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">intracellular immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 20 µl per million cells in 100 µl staining volume or 20 µl per 100 µl of whole blood.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	<p><b>MPO Staining Procedure:</b></p> <ol style="list-style-type: none"> <li>1. Prepare cells of interest, perform cell surface antigen staining as described in BioLegend's Cell Surface Immunofluorescence Staining Protocol, then fix cells in 1.0 ml/tube Fixation Buffer (Part No.78078) in the dark for 20 minutes at room temperature.</li> <li>2. Centrifuge at 350 x g for 5 minutes, discard supernatant.</li> <li>3. Dilute 10X Intracellular Staining Perm Wash Buffer (Cat. No. 421002) to 1X in DI water.</li> <li>4. Resuspend fixed cells in 1.0 ml/tube Intracellular Staining Perm Wash Buffer and centrifuge at 350 x g for 5-10 minutes.</li> <li>5. Repeat step 4 twice.</li> <li>6. Resuspend fixed/permeabilized cells in the approximate 50-100 µl residual Intracellular Staining Perm Wash Buffer and add 20 µl FITC-conjugated MPO antibody (Part No.78079) or mouse IgG1, isotype control (Part No.78080). Incubate for 30 minutes in the dark at room temperature.</li> <li>7. Wash 2x with 1.0 ml of Intracellular Staining Perm Wash Buffer and centrifuge at 350 x g for 5</li> </ol>

minutes.

8. Resuspend the cells in 0.5 ml Cell Staining Buffer and interrogate by flow cytometry using proper machine settings.

#### Product Citations

1. Vogelgesang A, *et al.* 2017. J Neuroinflammation. 10.1186/s12974-017-0914-6. [PubMed](#)
2. Locke M, *et al.* 2020. Sci Rep. 10:11694. [PubMed](#)
3. Carestia A, *et al.* 2016. J Leukoc Biol. 99: 153 - 162. [PubMed](#)
4. Carestia A, *et al.* 2016. PLoS One. 11:e0168647. [PubMed](#)
5. Callahan S, *et al.* 2020. Cell Microbiol. 22:e13210. [PubMed](#)

## Antigen Details

<b>Structure</b>	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.
<b>Distribution</b>	Neutrophils, monocytes, and some acute myeloid leukemia cells
<b>Cell Type</b>	Leukemia, Monocytes, Neutrophils
<b>Biology Area</b>	Immunology
<b>Molecular Family</b>	Enzymes and Regulators
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Goedken M, <i>et al.</i> 2007. <i>J. Biol. Chem.</i> 282:27994</li><li>2. Nauseef WM, <i>et al.</i> 1988. <i>Euro. J. Haemat.</i> 40:97</li><li>3. Kelebanoff SJ, <i>et al.</i> 1999. <i>Proc. Assoc. Am. Phys.</i> 111:383</li></ol>
<b>Gene ID</b>	<a href="#">4353</a>

## Related Protocols

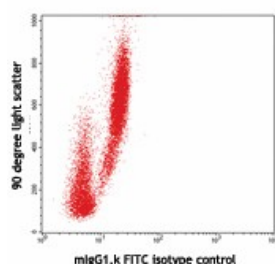
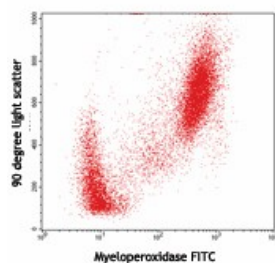
[Intracellular Cytokine Staining Protocol - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

## Other Formats

FITC anti-human MPO Flow Kit

## Product Data



Human peripheral blood intracellularly stained using the myeloperoxidase antibody (top) or isotype control (bottom) included in the BioLegend MPO FITC Flow Kit.

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