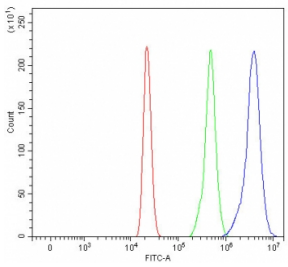
Myeloperoxidase Antibody for FACS / MPO Flow Cytometry Antibody (RQ7843)

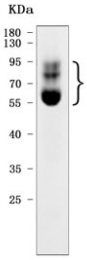
Catalog No.	Formulation	Size
RQ7843	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

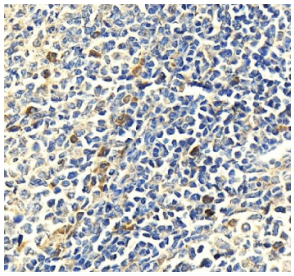
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P05164
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml Immunohistochemistry (FFPE): 2-5ug/ml
Limitations	This Myeloperoxidase antibody is available for research use only.



Myeloperoxidase Antibody for FACS / MPO Flow Cytometry Antibody. Flow cytometry analysis of human HL60 cells using Myeloperoxidase Antibody for FACS at 1 ug per million cells following blocking with goat serum. A clear rightward fluorescence shift of the antibody-stained population (blue) relative to the isotype control (green) and unstained cells (red) demonstrates specific intracellular detection of Myeloperoxidase / MPO by flow cytometry.



Western blot testing of human HL60 cell lysate with Myeloperoxidase antibody. Expected molecular weight: 59-64 kDa (alpha chain, may be observed at higher molecular weights due to glycosylation), 150+ kDa (glycosylated mature form).



IHC staining of FFPE human tonsil tissue with Myeloperoxidase antibody, HRP-secondary and DAB substrate. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.

Description

Myeloperoxidase (MPO) is a heme-containing peroxidase enzyme encoded by the MPO gene and is abundantly expressed in neutrophils and other cells of the myeloid lineage. MPO is localized to azurophilic granules where it contributes to host defense by catalyzing the formation of reactive oxidant species during the respiratory burst of activated phagocytes. Because MPO expression is highly enriched in granulocytes and early myeloid precursors, the protein has become a widely used marker for identifying and analyzing myeloid cell populations in immunological and hematological research. Myeloperoxidase Antibody for FACS enables sensitive detection of Myeloperoxidase / MPO at the single-cell level using flow cytometry, supporting quantitative analysis of neutrophils and other MPO-positive cells within heterogeneous samples.

Flow cytometry analysis with a Myeloperoxidase Antibody for FACS allows researchers to rapidly evaluate intracellular MPO expression across thousands of individual cells in suspension. Following fixation and permeabilization, MPO-positive cells can be clearly distinguished based on fluorescence intensity, enabling accurate identification of granulocytic populations in peripheral blood, bone marrow, or cultured cell preparations. This approach is particularly valuable for distinguishing myeloid lineage cells from lymphoid populations during immune profiling experiments and hematopoietic differentiation studies.

Myeloperoxidase Antibody for FACS can be incorporated into multiparameter flow cytometry panels alongside established leukocyte surface markers such as CD45, CD11b, CD15, or other lineage-specific markers. Combining intracellular MPO detection with cell surface immunophenotyping allows detailed characterization of granulocytes, immature myeloid cells, and inflammatory cell subsets within complex biological samples. These multiparameter flow cytometry strategies are widely used to study immune responses, granulocyte development, and changes in myeloid cell composition under inflammatory or disease conditions.

Flow cytometry detection of MPO is also useful in studies examining neutrophil recruitment, immune activation, and tumor-associated inflammation. Quantitative FACS analysis can measure shifts in MPO-positive populations during infection, tissue injury, or immune-mediated disease. Because flow cytometry provides both high sensitivity and rapid single-cell analysis, the Myeloperoxidase Antibody for FACS serves as a powerful tool for identifying and quantifying myeloid lineage cells in immunology, hematology, and inflammatory disease research.

Explore our Myeloperoxidase Antibody / Neutrophil Marker Antibody page for additional validation data and applications involving neutrophil identification, myeloid lineage analysis, and innate immune cell detection.

Application Notes

Optimal dilution of the Myeloperoxidase Antibody for FACS should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids K556-I697) was used as the immunogen for the Myeloperoxidase antibody.

Storage

After reconstitution, the Myeloperoxidase antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

MPO antibody, Myeloperoxidase antibody, Myeloid peroxidase antibody, Neutrophil MPO antibody

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