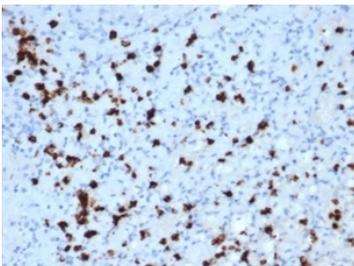


MPO Antibody / Myeloperoxidase [clone MPO/7118] (V9354)

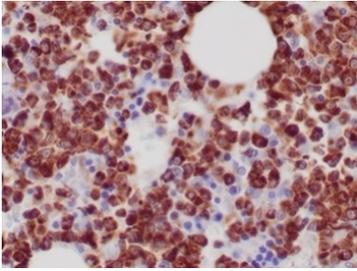
Catalog No.	Formulation	Size
V9354-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9354-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9354SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

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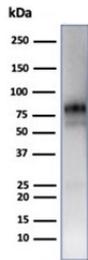
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	MPO/7118
Purity	Protein A/G affinity
UniProt	P05164
Localization	Cytoplasm
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This Myeloperoxidase/MPO antibody is available for research use only.



IHC analysis of Myeloperoxidase/MPO antibody in human bone marrow tissue. Formalin-fixed, paraffin-embedded human bone marrow shows HRP-DAB brown granular cytoplasmic staining in myeloid lineage cells using Myeloperoxidase/MPO antibody (clone MPO/7118). Hematoxylin counterstain highlights nuclei in blue. Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to staining.



IHC analysis of Myeloperoxidase/MPO antibody in human bone marrow tissue. Formalin-fixed, paraffin-embedded human bone marrow demonstrates strong HRP-DAB brown cytoplasmic staining in numerous myeloid precursor cells using Myeloperoxidase/MPO antibody (clone MPO/7118). Nuclear detail is visualized with hematoxylin counterstain (blue). Heat induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 minutes followed by cooling prior to immunostaining.



Western blot testing of human spleen tissue lysate using Myeloperoxidase/MPO antibody (clone MPO/7118). Expected molecular weight: 59-64 kDa (alpha chain, may be observed at higher molecular weights due to glycosylation), 150+ kDa (glycosylated mature form).

Description

MPO antibody detects myeloperoxidase, an enzyme encoded by the MPO gene. Myeloperoxidase is abundantly expressed in neutrophil granules, where it catalyzes the production of hypochlorous acid from hydrogen peroxide and chloride ions during the respiratory burst. Because MPO plays critical roles in antimicrobial defense, inflammation, and cardiovascular pathology, MPO antibody is widely used in immunology, pathology, and inflammation research.

Myeloperoxidase is a heme-containing enzyme that contributes to the microbicidal activity of neutrophils and monocytes. Its oxidative products damage pathogens but can also harm host tissues when dysregulated. Elevated MPO activity has been linked to chronic inflammatory diseases, including atherosclerosis, rheumatoid arthritis, and neurodegeneration. In pathology, MPO staining is used to identify myeloid lineage cells and diagnose leukemias.

The MPO antibody clone MPO/7118 provides specific and reproducible recognition. Clone MPO/7118 has been cited in peer-reviewed studies examining oxidative stress, innate immunity, and cardiovascular disease. Its reproducibility makes it suitable for immunohistochemistry, Western blotting, and ELISA applications where accurate detection of MPO is needed.

Research using clone MPO/7118 has clarified how MPO contributes to vascular inflammation and plaque instability in atherosclerosis. In oncology, MPO detection aids in distinguishing myeloid leukemias from other hematologic malignancies. In immunology, MPO analysis has supported studies of host-pathogen interactions and mechanisms of innate defense. This antibody has also been applied in studies linking oxidative damage to tissue injury in neuroinflammatory conditions.

NSJ Bioreagents provides this MPO antibody to support immunology, oncology, and inflammation research. Alternate names include myeloperoxidase antibody, neutrophil peroxidase antibody, heme peroxidase antibody, azurophilic granule enzyme antibody, oxidative burst enzyme antibody, and MPO gene product antibody.

Application Notes

Optimal dilution of the Myeloperoxidase/MPO antibody should be determined by the researcher.

Immunogen

A recombinant protein fragment was used as the immunogen for the Myeloperoxidase/MPO antibody.

Storage

Aliquot the Myeloperoxidase/MPO antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.