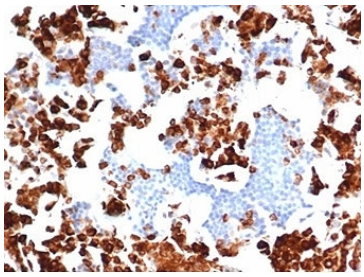
Myeloperoxidase Antibody / Neutrophil Marker Antibody [clone rMPO/6904] (V9329)

Catalog No.	Formulation	Size
V9329-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V9329-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V9329SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

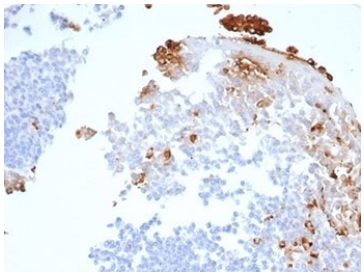
Recombinant | MOUSE MONOCLONAL

Bulk quote request

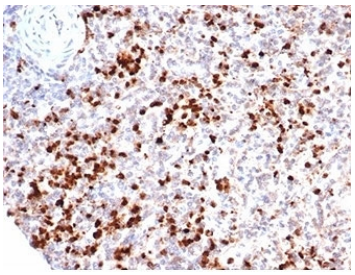
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rMPO/6904
Purity	Protein A/G affinity
UniProt	P05164
Localization	Cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 1-2ug/ml
Limitations	This Myeloperoxidase Antibody / Neutrophil Marker Antibody is available for research use only.



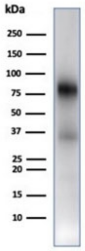
Myeloperoxidase (MPO) Antibody Human Bone Marrow IHC. Immunohistochemistry staining of FFPE human bone marrow tissue using Myeloperoxidase Antibody / Neutrophil Marker Antibody (clone rMPO/6904) demonstrates strong granular cytoplasmic HRP-DAB brown staining in numerous granulocytic cells and developing myeloid precursors throughout the marrow compartment. The staining pattern is consistent with the established localization of Myeloperoxidase (MPO), a heme-containing peroxidase enzyme abundantly expressed within neutrophils and cells undergoing granulocytic differentiation. Non-granulocytic hematopoietic populations exhibit minimal staining, highlighting the lineage specificity of MPO expression within the myeloid compartment. The robust cytoplasmic immunoreactivity observed in maturing granulocytes is consistent with the widespread use of MPO as a marker of neutrophilic differentiation, myeloid lineage identification, and hematopoietic cell characterization. HIER: boil tissue sections in pH 9 Tris-EDTA buffer (10 mM Tris, 1 mM EDTA) for 20 minutes and allow to cool before staining.



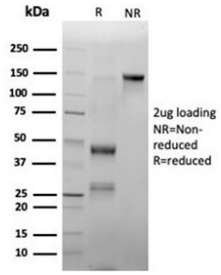
Myeloperoxidase (MPO) Antibody Human Tonsil IHC. Immunohistochemistry staining of FFPE human tonsil tissue using Myeloperoxidase Antibody / Neutrophil Marker Antibody (clone rMPO/6904) demonstrates distinct granular cytoplasmic HRP-DAB brown staining within scattered myeloid and granulocytic cells localized predominantly within interfollicular and stromal regions. The staining pattern is consistent with expression of Myeloperoxidase (MPO), a heme-containing peroxidase enzyme characteristically expressed by neutrophils, granulocytes, and other cells of myeloid lineage. MPO-positive cells are readily distinguished from the surrounding lymphoid populations, which show little to no staining, highlighting the specificity of MPO as a marker of granulocytic differentiation and innate immune cell identification. HIER: boil tissue sections in pH 9 Tris-EDTA buffer (10 mM Tris, 1 mM EDTA) for 20 minutes and allow to cool before testing.



Myeloperoxidase (MPO) Antibody Human Spleen IHC. Immunohistochemistry staining of FFPE human spleen tissue using Myeloperoxidase Antibody / Neutrophil Marker Antibody (clone rMPO/6904) demonstrates strong granular cytoplasmic HRP-DAB brown staining in numerous myeloid lineage cells distributed throughout the splenic tissue. The staining pattern is consistent with expression of Myeloperoxidase (MPO), a heme-containing peroxidase enzyme abundantly expressed in neutrophils, granulocytes, and developing myeloid cells. MPO-positive cells are readily identifiable against a background of largely negative lymphoid populations, highlighting the specificity of MPO as a marker of granulocytic differentiation and innate immune cell identification. The dense distribution of positively stained cells is consistent with the presence of myeloid and inflammatory cell populations within the spleen. HIER: boil tissue sections in pH 9 Tris-EDTA buffer (10 mM Tris, 1 mM EDTA) for 20 minutes and allow to cool before testing.



Myeloperoxidase (MPO) Antibody Human Spleen WB. Western blot analysis of human spleen tissue lysate using Myeloperoxidase Antibody / Neutrophil Marker Antibody (clone rMPO/6904) demonstrates a prominent immunoreactive band at approximately 60-70 kDa, consistent with the expected molecular weight of the mature Myeloperoxidase (MPO) heavy chain. MPO is a heme-containing lysosomal peroxidase abundantly expressed in neutrophils, granulocytes, and other myeloid lineage cells, where it contributes to antimicrobial defense through the generation of reactive oxidant species. The observed molecular weight is consistent with the heavily glycosylated nature of MPO, which frequently migrates above its calculated molecular mass during SDS-PAGE analysis. Detection in spleen tissue is consistent with the presence of resident and circulating myeloid cell populations expressing MPO. Expected molecular weight: approximately 59-64 kDa for the mature heavy chain, with higher molecular weight glycosylated and precursor forms potentially observed in myeloid tissues. Observed molecular weight: ~60-70 kDa.



SDS-PAGE analysis of purified, BSA-free MPO / Myeloperoxidase antibody (clone rMPO/6904) as confirmation of integrity and purity.

Description

Myeloperoxidase Antibody / Neutrophil Marker Antibody recognizes Myeloperoxidase (MPO), a heme-containing peroxidase enzyme abundantly expressed within neutrophils, granulocytes, and other cells of myeloid lineage. MPO is localized primarily within azurophilic granules, where it contributes to host defense through the generation of reactive oxidant species used to destroy invading microorganisms. As one of the most widely used markers of neutrophilic and granulocytic differentiation, MPO is extensively employed in immunology, hematology, oncology, and pathology research. Detection of MPO expression is particularly valuable for identifying myeloid lineage cells and evaluating inflammatory cell infiltration in normal and diseased tissues.

MPO catalyzes the conversion of hydrogen peroxide and chloride ions into hypochlorous acid and other reactive oxidants that participate in antimicrobial defense mechanisms. These oxidant species contribute to destruction of bacteria, fungi, and other pathogens engulfed by phagocytic immune cells. Through this activity, Myeloperoxidase serves as a critical component of innate immune responses and plays an essential role in the microbicidal functions of neutrophils. Because MPO expression is closely associated with granulocytic differentiation, it has become a well-established marker for identifying neutrophils and cells of myeloid origin in tissue sections and cellular preparations.

Myeloperoxidase is widely used in hematopathology and leukemia research, where it serves as a marker for myeloid lineage determination and differentiation status. MPO expression is commonly evaluated in studies of acute myeloid leukemia, myeloproliferative disorders, granulocytic maturation, and bone marrow biology. Researchers frequently examine MPO-positive cell populations when investigating immune responses, inflammatory diseases, infection biology, and mechanisms regulating myeloid cell development. The restricted expression pattern of MPO within granulocytic and myeloid cell populations makes it a highly useful marker for lineage characterization and cellular identification.

Beyond its established role in innate immunity, MPO has also been implicated in chronic inflammation, cardiovascular disease, cancer biology, and tissue injury. Infiltrating MPO-positive neutrophils and myeloid cells are frequently observed within tumor microenvironments and sites of active inflammation, where they can influence disease progression and tissue remodeling. Consequently, Myeloperoxidase is often evaluated in studies examining inflammatory infiltrates, immune cell recruitment, tumor-associated myeloid populations, and pathological responses involving oxidative stress and immune activation.

At NSJ Bioreagents, we provide highly validated antibodies for immunology, cancer research, hematology, and cell biology applications. Myeloperoxidase Antibody / Neutrophil Marker Antibody (clone rMPO/6904) is useful for investigating neutrophil biology, myeloid cell differentiation, innate immune responses, inflammatory cell infiltration, and granulocytic lineage identification. Continued research into MPO is expanding our understanding of innate immunity, inflammatory disease mechanisms, and the roles of myeloid cells in health and disease.

Myeloperoxidase is a widely used marker of neutrophils and myeloid lineage cells, making it an important target within our Immunology Antibodies collection.

Application Notes

Optimal dilution of the Myeloperoxidase Antibody / Neutrophil Marker Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 150-250 was used as the immunogen for the recombinant MPO / Myeloperoxidase antibody.

Storage

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

Alternate Names

MPO Antibody, Myeloperoxidase Antibody, Neutrophil Marker Antibody, Granulocyte Marker Antibody, Myeloid Cell Marker Antibody, Peroxidase Enzyme Antibody

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