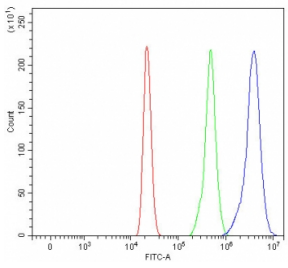
Myeloperoxidase Antibody / MPO (RQ7843)

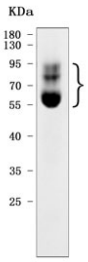
Catalog No.	Formulation	Size
RQ7843	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

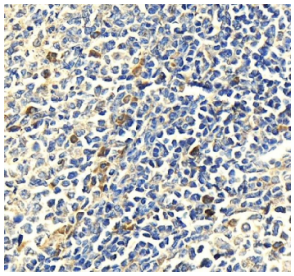
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P05164
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million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



Flow cytometry testing of human HL60 cells with Myeloperoxidase antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= Myeloperoxidase antibody.



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 enzyme predominantly expressed in neutrophils and, to a lesser extent, in monocytes. It is stored in azurophilic granules and released during degranulation to support the innate immune response. MPO catalyzes the conversion of hydrogen peroxide and chloride ions into hypochlorous acid, a potent antimicrobial oxidant that contributes to pathogen clearance. Researchers frequently use a Myeloperoxidase antibody to investigate innate immunity, inflammation, and host defense mechanisms.

While MPO plays a critical role in antimicrobial activity, excessive or dysregulated production of hypochlorous acid can lead to oxidative stress and tissue damage. Elevated MPO activity has been linked to chronic inflammatory diseases, including atherosclerosis, rheumatoid arthritis, and inflammatory bowel disease. Employing a Myeloperoxidase antibody allows scientists to assess protein expression and localization in both normal immune responses and pathological inflammation.

MPO is also studied as a biomarker for cardiovascular disease, since increased circulating levels correlate with vascular injury and plaque instability. Beyond cardiovascular research, it has been implicated in neurodegeneration and cancer, where oxidative stress contributes to disease progression. Using a Myeloperoxidase antibody provides a reliable means of studying MPOÃ¢Â€Â™s dual role as both a protective antimicrobial enzyme and a potential driver of tissue injury.

NSJ Bioreagents offers a high-quality Myeloperoxidase antibody validated for applications including western blot, immunohistochemistry, and flow cytometry. Selecting a Myeloperoxidase antibody from NSJ Bioreagents ensures consistent detection and reproducible results in studies of immunity, inflammation, and disease pathology.

Application Notes

Optimal dilution of the Myeloperoxidase antibody 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.