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antibody and ELISA experts

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Anti-Myeloperoxidase/MPO Antibody Picoband™

Catalog Number: PB9057

About MPO

Myeloperoxidase (MPO) is a mammalian phagocyte hemoprotein thought to primarily mediate host defense reactions. It is abundantly expressed in neutrophils and secreted during their activation. Myeloperoxidase is part of the host defense system of human polymorphonuclear leukocytes, responsible for microbicidal activity against a wide range of organisms. It is located in the nucleus as well as in the cytoplasm. Intranuclear MPO may help to protect DNA against damage resulting from oxygen radicals produced during myeloid cell maturation and function. The standard product used in this kit is the product of gene recombination, consisting of 697 (A49-S745) amino acids with the molecular mass of 80KDa.

Overview

Product Name	Anti-Myeloperoxidase/MPO Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-Myeloperoxidase/MPO Antibody Picoband™ catalog # PB9057. Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human.
Application	Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
Storage Instructions	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P05164

Technical Details

Immunogen	E.coli-derived human Myeloperoxidase recombinant protein (Position:S406-S745). Human Myeloperoxidase shares 90% amino acid (aa) sequence identity with mouse Myeloperoxidase.
Predicted Reactive Species	Bovine, Horse
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

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Purification	Immunogen affinity purified.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Flow Cytometry, 1-3 ug/1x10^6 cells, Human

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Anti-Myeloperoxidase/MPO Antibody Picoband™ (PB9057) Images

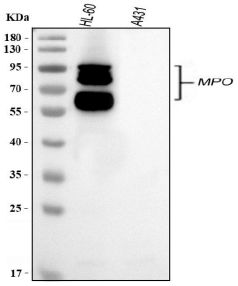

Figure 1. Western blot analysis of MPO using anti-MPO antibody (PB9057).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HL-60 whole cell lysates,
Lane 2: human A431 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MPO antigen affinity purified polyclonal antibody (Catalog # PB9057) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MPO at approximately 60-65kDa, 80-90 kDa. The expected band size for MPO is at 84 kDa.

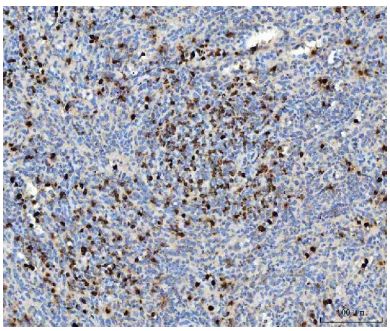

Figure 2. IHC analysis of MPO using anti-MPO antibody (PB9057).
MPO was detected in a paraffin-embedded section of human spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MPO Antibody (PB9057) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

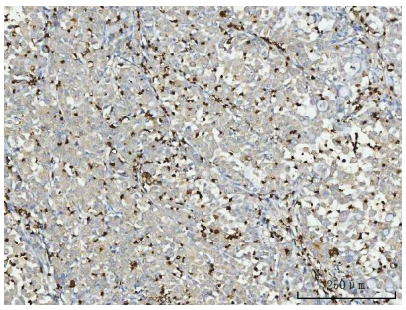

Figure 3. IHC analysis of MPO using anti-MPO antibody (PB9057).
MPO was detected in a paraffin-embedded section of human lung adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MPO Antibody (PB9057) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

Figure 4. IHC analysis of MPO using anti-MPO antibody (PB9057).

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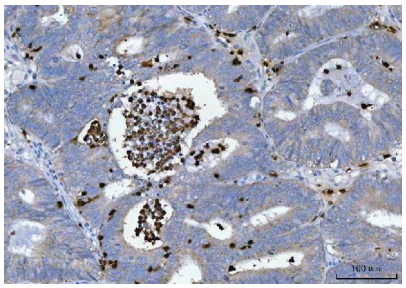

MPO was detected in a paraffin-embedded section of human endometrial adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-MPO Antibody (PB9057) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

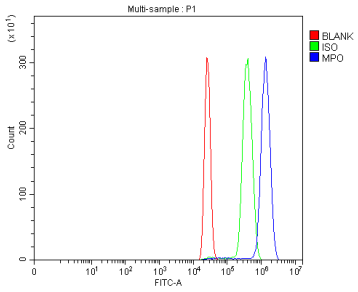

Figure 5. Flow Cytometry analysis of HL-60 cells using anti-MPO antibody (PB9057).
Overlay histogram showing HL-60 cells stained with PB9057 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MPO Antibody (PB9057, 1 ug/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

14 Publications Citing This Product

1. PubMed ID: 10.3748/wjg.v23.i26.4735, Lactobacillus acidophilus alleviates pouchitis after ileal pouch-anal anastomosis in rats

2. PubMed ID: 10.1111/jop.12663, Epithelial disruptions, but not immune cell invasion, induced secretory dysfunction following innate immune activation in a novel model of acute salivary gland injury

3. PubMed ID: 10.1016/j.jep.2020.113143, From nutrition to medicine: Assessing hemorrhoid healing activity of Solanum melongena L. via in vivo experimental models and its major chemicals

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