

Anti-Myeloperoxidase MPO Antibody

Catalog Number: A00372

About MPO

Human myeloperoxidase (MPO) is a dimeric protein composed of two heavy subunits (53 kDa) and two light subunits (15 kDa). Each MPO molecule contains two prosthetic porphyrins which play an important role in the catalytic cycle. Molecular weights for MPO isoforms from pools of normal human samples range from 114,000 to 140,000 daltons reflecting a heterogeneous mixture of isoforms when assayed under non-reducing conditions of SDS-PAGE. Often MPO from a single donor will yield a homogenous preparation reflecting a single isoform. The carbohydrate component of MPO, consisting of mannose, glucose and N-acetylglucosamine residues is 2.5%. MPO is inhibited by azide and other compounds. MPO is stored in primary granules of neutrophils and serves as a bactericidal agent in that MPO catalyzes the production of hypochlorous acid (HOCl), a powerful oxidant. HOCl is derived from chloride ion (Cl⁻) and hydrogen peroxide (H₂O₂). In a number of inflammatory situations, MPO is released into the extracellular matrix where its measurement can be used as an indication of neutrophil activation.

Overview

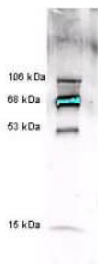
Product Name	Anti-Myeloperoxidase MPO Antibody
Reactive Species	Human
Description	Boster Bio Anti-Myeloperoxidase MPO Antibody (Catalog # A00372). Tested in WB applications. This antibody reacts with Human.
Application	ELISA, IP, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at 4°C prior to restoration. For extended storage aliquot contents and freeze at -20°C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship at ambient temperature.)
Host	Rabbit
Uniprot ID	P05164

Technical Details

Immunogen	Myeloperoxidase [Human Leukocytes]
Predicted Reactive Species	Mouse, Rat
Isotype	Antiserum
Form	Lyophilized

Concentration	75 mg/mL by Refractometry
Purification	This product was prepared from monospecific antiserum by a delipidation and defibrination. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-rabbit serum, purified and partially purified Myeloperoxidase [Human Leukocytes]. Cross-reactivity against Myeloperoxidase from other tissues and species may occur but have not been specifically determined.
Suggested Dilutions	ELISA: 1:200,000 IP: 1:100 WB: 1:5,000 Anti-myeloperoxidase antibody has been tested in western blotting. This antibody is suitable for ELISA and immunoprecipitation. The antibody detects a multiple bands corresponding to 53 kDa and 15 kDa polypeptides and chain combination (68 kDa and 106 kDa). Although not tested, this antibody is likely functional in immunohistochemistry and other immunological methods. Anti-Human Myeloperoxidase may react with MPO from other sources. Anti-Human Myeloperoxidase detects neutrophilic granulocytes and monocytes in blood and precursors of granulocytes in the bone marrow. This antibody may also detect myeloid leukemias of the bone marrow as well as other sites.

Anti-Myeloperoxidase MPO Antibody (A00372) Images



Anti-Myeloperoxidase [Human Leukocytes] detects multiple MPO subunits and chain combinations by western blot. Polyclonal rabbit-anti-Myeloperoxidase was used at a 1:5000 dilution to detect 1.0 ug of human myeloperoxidase. This antibody detects a multiple bands corresponding to 53 kDa and 15 kDa polypeptides and chain combinations forming 68 kDa and 106 kDa proteins. The staining of the 68 kDa band is so intense that it over saturates the signal detection. A 4-20% gradient gel was used to separate the protein by SDS-PAGE. The protein was transferred to nitrocellulose using standard methods. After blocking the membrane was probed with the primary antibody for 2 h at room temperature followed by washes and reaction with a 1:5,000 dilution of IRDye™ 800 conjugated Gt-a-Rabbit IgG [H&L] (code 611-132-122) for 30 min at room temperature. LICOR's Odyssey® Infrared Imaging System was used to scan and process the image. Other detection systems will yield similar results.

1 Publications Citing This Product

1. PubMed ID: 30043859, The Gastric Mucosa from Patients Infected with CagA or VacA Helicobacter pylori Has a Lower Level of Dual Oxidase-2 Expression than Uninfected or %u2026

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