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Myeloperoxidase Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1249a

Product Information

Application	WB, E
Primary Accession	P05164
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	9B12G7; 4D8B12; 9B12D9; 9C11A5
Isotype	IgG1
Calculated MW	83869
Description	Myeloperoxidase (MPO) is a heme protein synthesized during myeloid differentiation that constitutes the major component of neutrophil azurophilic granules. Produced as a single chain precursor, myeloperoxidase is subsequently cleaved into a light and heavy chain. The mature myeloperoxidase is a tetramer composed of 2 light chains and 2 heavy chains. This enzyme produces hypohalous acids central to the microbicidal activity of netrophils.
Immunogen	Purified recombinant fragment of MPO (aa1-193) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	4353
Other Names	Myeloperoxidase, MPO, 1.11.2.2, Myeloperoxidase, 89 kDa myeloperoxidase, 84 kDa myeloperoxidase, Myeloperoxidase light chain, Myeloperoxidase heavy chain, MPO
Dilution	WB~~1/500 - 1/2000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Myeloperoxidase Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MPO (HGNC:7218)

Function	Part of the host defense system of polymorphonuclear leukocytes. It is responsible for microbicidal activity against a wide range of organisms. In the stimulated PMN, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid in physiologic situations, and other toxic intermediates that greatly enhance PMN microbicidal activity (PubMed:9922160). Mediates the proteolytic cleavage of alpha-1-microglobulin to form t-alpha-1-microglobulin, which potently inhibits oxidation of low-density lipoprotein particles and limits vascular damage (PubMed:25698971).
Cellular Location	Lysosome.

References

1. J Pediatr Hematol Oncol. 2007 May;29(5):293-7. 2. PLoS ONE. 2008 Jun 30;3(7):e2816.

Images

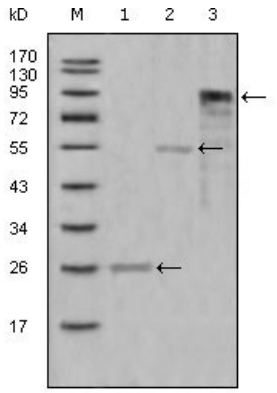

Figure 1: Western blot analysis using MPO mouse mAb against truncated Trx-MPO recombinant protein (1),truncated MBP-MPO (aa1-193) recombinant protein (2) and truncated MPO(aa165-745)-hIgGFc transfected CHO-K1 cell lysate(3).