

Product datasheet for **AM05455PU-N**

Myeloperoxidase (MPO) Mouse Monoclonal Antibody [Clone ID: 4A4]

Product data:

Product Type:	Primary Antibodies
Clone Name:	4A4
Applications:	WB
Recommended Dilution:	Western Blot. ELISA: suitable for use as the coating antibody in a sandwich ELISA, with AM05456PU-N as the detection antibody.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Human myeloperoxidase
Specificity:	This antibody is specific for myeloperoxidase (MPO).
Formulation:	Phosphate buffered saline, pH 7.4 containing 0.09% Sodium Azide (NaN ₃) State: Purified State: Liquid purified IgG
Concentration:	lot specific
Purification:	Affinity chromatography on Protein A
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	myeloperoxidase
Database Link:	Entrez Gene 4353 Human P05164



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Background:

Myeloperoxidase is a hemoprotein that is abundantly expressed in neutrophils and secreted during their activation. Native Myeloperoxidase is represented as a covalently bound tetrameric complex of two glycosylated alpha chains (MW 59 - 64 kDa) and two unglycosylated beta chains (MW 14 kDa) with total MW 150 kDa and theoretical pI 9.2. Traditionally Myeloperoxidase was considered as a main target of anti-neutrophil cytoplasm antibodies (ANCA), the serological markers for certain systemic vasculitides e.g. periarteriitis nodosa, microscopic polyarteriitis and pulmonary eosinophilic granulomatosis (Churg-Strauss syndrome). Low to moderate anti-Myeloperoxidase autoantibody levels are also reported in rheumatoid arthritis. Recently it was shown that Myeloperoxidase participates in the initiation and progression of cardiovascular disease. It possesses potent proinflammatory properties and may contribute directly to tissue injury. Now Myeloperoxidase is under consideration as one of the most promising cardiac markers.

MPO is an important component of azurophilic granules in neutrophils, being involved in microbicidal processes. The protein is a multimer of 2 heavy chains (55kD) and two light chains (15kD), the heavy chains being linked by a disulphide bond.

Synonyms:

MPO