

# Proteinase 3 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1309a

## Product Information

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<b>Application</b>	WB, E
<b>Primary Accession</b>	<a href="#">P24158</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	3B4
<b>Isotype</b>	IgG2b
<b>Calculated MW</b>	27807
<b>Description</b>	Proteinase 3, also known as PRTN3. PRTN3 is a serine protease enzyme expressed mainly in neutrophil granulocytes. Its exact role in the function of the neutrophil is unknown but in human neutrophils proteinase 3 contributes to the proteolytic generation of antimicrobial peptides. It is also the epitope of anti-neutrophil cytoplasmic antibodies (ANCA) of the cANCA (cytoplasmic subtype) class, a type of antibody frequently found in the disease Wegener's granulomatosis.
<b>Immunogen</b>	Purified recombinant fragment of human Proteinase 3 expressed in E. Coli.
<b>Formulation</b>	Antibody are purified by protein G affinity chromatography. Liquid in PBS containing 50% glycerol and 0.03% sodium azide.

## Additional Information

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<b>Gene ID</b>	5657
<b>Other Names</b>	Myeloblastin, 3.4.21.76, AGP7, C-ANCA antigen, Leukocyte proteinase 3, PR-3, PR3, Neutrophil proteinase 4, NP-4, P29, Wegener autoantigen, PRTN3, MBN
<b>Dilution</b>	WB~~1/500 - 1/2000 E~~N/A
<b>Storage</b>	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.
<b>Precautions</b>	Proteinase 3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	PRTN3
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## Synonyms

MBN

## Function

Serine protease that degrades elastin, fibronectin, laminin, vitronectin, and collagen types I, III, and IV (in vitro) (PubMed:[2033050](#), PubMed:[28240246](#), PubMed:[3198760](#)). By cleaving and activating receptor F2RL1/PAR-2, enhances endothelial cell barrier function and thus vascular integrity during neutrophil transendothelial migration (PubMed:[23202369](#)). Plays a role in neutrophil transendothelial migration, probably when associated with CD177 (PubMed:[22266279](#)). Triggers inflammatory processes in neutrophils by interacting with ADGRG3 upstream of F2RL1/PAR2 activation (PubMed:[36302784](#)).

## Cellular Location

Cytoplasmic granule. Secreted. Cell membrane; Peripheral membrane protein; Extracellular side. Membrane raft; Peripheral membrane protein; Extracellular side. Note=Localizes predominantly to azurophil granules (primary secretory granules) in neutrophils (PubMed:18462208, PubMed:2033050, PubMed:3198760, PubMed:7897245) Secreted upon neutrophil stimulation by TNF-alpha, lipopolysaccharide (LPS), fMLP and CXCL8/IL8 or during neutrophil transmigration (PubMed:22266279, PubMed:28240246). Following secretion tethered to the cell membrane by CD177 (PubMed:18462208, PubMed:22266279)

## Tissue Location

Expressed in polymorphonuclear leukocytes (at protein level) (PubMed:2033050, PubMed:3198760, PubMed:7897245) Expressed in neutrophils (at protein level) (PubMed:17244676, PubMed:18462208, PubMed:21193407, PubMed:22266279, PubMed:28240246) Expressed in differentiating neutrophils (PubMed:18462208)

## References

1. Blood. 2007 Dec 1;110(12):4086-95.
2. Clin Exp Immunol. 2006 Jul;145(1):63-70.

## Images

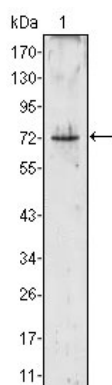


Figure 1: Western blot analysis using PRTN3 mouse mAb against PRTN3 (aa28-256)-hIgGfC transfected HEK293 cell lysate (1).

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