

Proteinase 3 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1309a**Specification**

Proteinase 3 Antibody - Product Information

Application	WB, E
Primary Accession	P24158
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	28kDa KDa

Description

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.

Immunogen

Purified recombinant fragment of human Proteinase 3 expressed in E. Coli.

Formulation

Antibody are purified by protein G affinity chromatography.
Liquid in PBS containing 50% glycerol and 0.03% sodium azide.

Proteinase 3 Antibody - Additional Information

Gene ID 5657

Other Names

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

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

Proteinase 3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Proteinase 3 Antibody - Protein Information

Name PRTN3

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

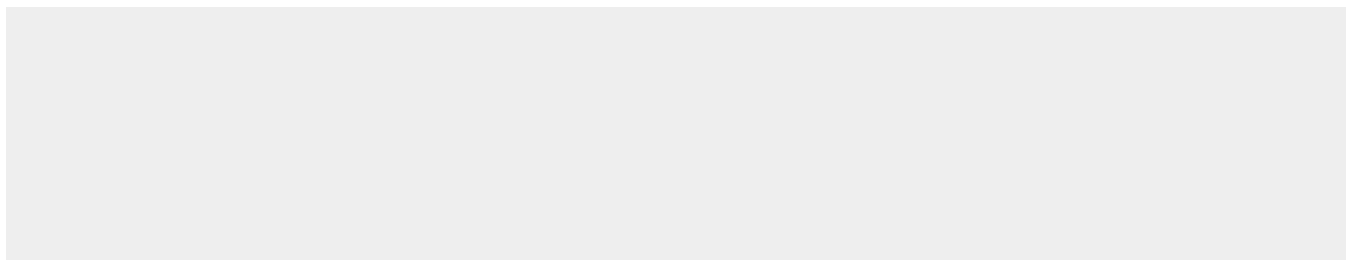
Expressed in polymorphonuclear leukocytes (at protein level) (PubMed:2033050, PubMed:3198760, PubMed:7897245) Expressed in neutrophils (at protein level) (PubMed:17244676, PubMed:18462208, PubMed:21193407, PubMed:22266279, PubMed:28240246) Expressed in differentiating neutrophils (PubMed:18462208)

Proteinase 3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Proteinase 3 Antibody - Images



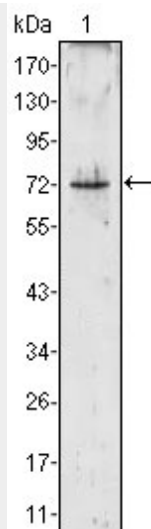


Figure 1: Western blot analysis using PRTN3 mouse mAb against PRTN3 (aa28-256)-hIgGFc transfected HEK293 cell lysate (1).

Proteinase 3 Antibody - References

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