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# Proteinase 3 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1309a

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P24158 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Clone Names** | 3B4 |
| **Isotype** | IgG2b |
| **Calculated MW** | 27807 |
| **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 (ANCAs) 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.<br>Liquid in PBS containing 50% glycerol and 0.03% sodium azide. |

## Additional Information

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| **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. |

## Protein Information

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| **Name** | 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, 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

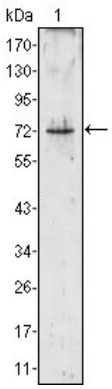



Figure 1: Western blot analysis using PRTN3 mouse mAb against PRTN3 (aa28-256)-hIgGFc transfected HEK293 cell lysate (1).

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