

Product Specification Sheet

Proteinase 3, Human Neutrophil protein

□ Cat. # PRT35-N-100

Proteinase 3, Human Neutrophil

SIZE: 25 ug

Proteinase 3 also known as PR3 is an 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 c-ANCA (cytoplasmic subtype) class, a type of antibody frequently found in the disease Wegener's granulomatosis.

Anti-neutrophil cytoplasmic antibodies (ANCA) are autoantibodies produced in response to neutrophil cytoplasmic enzymes, and evaluating the levels of ANCA is useful for making a diagnosis of systemic vasculitis such as granulomatosis with polyangiitis (Wegener's) (GPA) or microscopic polyarteritis (MPA). The majority of p-ANCA and c-ANCA have been proven to be equivalent to MPO- and PR3-ANCA, respectively. Patients with MPA and Churg-Strauss syndrome are positive for p-ANCA, and those with GPA are positive for c-ANCA (3-5). In patients with active systemic GPA, MPA or Churg-Strauss syndrome, ANCA are reported to be positive in over 80%, 70% or 50% of cases, respectively. Moreover, as ELISA provides a good detection rate and useful results, we analyzed the levels of MPO- and PR3-ANCA to make a diagnosis of systemic vasculitis in the current clinical setting.

Source of Antigen, Antibodies, and positive controls

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Human Proteinase-3 was purified from plasma (>95%, 29 Kda). It is supplied lyophilized in a buffer (50 mM MES, pH 4.5 with 700 mM NaCl, or see lot sp. conc on the vial) or lyophilized powder. All human derived material has been tested negative for HIV, HCV, and HbSAg. Nevertheless, all precautions should be taken and samples be treated as potentially hazardous. Store powder at -20oC.

Reconstitute powder in water or in other buffers. Store at -20oC in suitable aliquots. Stable for up to 6 months.

Recommended Usage

Western Blotting use at 100-500 ng per lane and detect with appropriate antibodies. Proteinase 3 is approx. ~29 KDa.

ELISA (1:10K-1:100K; using 50-100 ng of control peptide/well).

General References: Sturroch AB (1992) JBC 267, 21193-2139; Labbaye C (1991) PNAS 88, 9253-9256; Ludemann J (1990) J. Exp. Med. 171, 357-362; Rao NV (1991) JBC 266, 9540-9548; Campanelli D (1991) J. Exp. Med. 172, 1709-1715

*This product is for In vitro research use only.

Related material available from ADI

Catalog#	ProdDescription
AZCL11-N	Substrate for matrilysin/MMP7 (matrix metalloproteinase 7) (Azocoll substrate)
MA-20058	Rabbit Polyclonal Antibody Tissue inhibitor of metalloproteinases-3 (TIMP-3)
MA-20373	Mouse Monoclonal Anti-Human Proteinase 3 (PRTN3)
MAPF15-P	DABCYL-ERNieFLSFP-EDANS, Malaria Aspartyl Proteinase FRET (Fluorescence Resonance Energy Transfer) Substrate I
MAPF15-P-5	DABCYL-ERNieFLSFP-EDANS, Malaria Aspartyl Proteinase FRET Substrate I
MMP71-C	Human recombinant purified matrilysin/MMP7 (matrix metalloproteinase 7) protein control for WB
MMP71-M	Monoclonal Anti-Human matrilysin/MMP7 (matrix metalloproteinase 7) IgG
MMP71-R	Human recombinant purified matrilysin/MMP7 (matrix metalloproteinase 7) biologically active
PRT35-N-100	Proteinase 3, Human Neutrophil
RP-360	Recombinant (E.Coli) Human Matrix Metalloproteinase-7
RP-361	Recombinant (E.Coli) ProMatrix Metalloproteinase-7
RP-372	Recombinant (HEK293) Human Matrix Metalloproteinase-3
RP-387	Recombinant (E.Coli) Human Matrix Metalloproteinase-8
RP-403 R	Recombinant (E.Coli) Human Matrix Metalloproteinase-13

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