

Active Recombinant Human PRTN3 Protein, His-tagged

Cat. No. PRTN3-2633H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human PRTN3 Protein(28-248 aa), fused with N-terminal His tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	28-248 aa
Form	PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose.
Bio-activity	Proteinase 3 (PR3) is a neutrophil-derived serine protease involved in inflammatory and immune responses, as well as the regulation of apoptosis. It contributes to the pathogenesis of autoimmune diseases such as granulomatosis with polyangiitis (GPA), where anti-PR3 autoantibodies (ANCA) induce neutrophil activation and vasculitis. PR3 modulates immune activity through proteolytic processing of extracellular matrix components and cytokines. Additionally, PR3 cleaves and inactivates XIAP, an anti-apoptotic protein, thereby promoting apoptosis and enhancing cellular sensitivity to death signals. This interaction links inflammation to programmed cell death regulation. Thus a functional ELISA assay was conducted to detect the interaction of recombinant human PR3 and recombinant human XIAP. Briefly, PR3 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to XIAP-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-PR3 pAb, then

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aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μ stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human PR3 and recombinant human XIAP was shown in Figure 1, and this effect was in a dose dependent manner.

Molecular Mass	27.9kDa
Endotoxin	<1.0EU per 1 μ g (determined by the LAL method).
Purity	>90%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month, -20°C for 12 months. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	PRTN3 proteinase 3 [Homo sapiens]
Official Symbol	PRTN3
Synonyms	PRTN3; proteinase 3; myeloblastin; ACPA; AGP7; C ANCA; MBT; P29; PR 3; serine proteinase; neutrophil; Wegener granulomatosis autoantigen; NP-4; C-ANCA antigen; wegenger autoantigen; leukocyte proteinase 3; neutrophil proteinase 4; azurophil granule protein 7; serine proteinase, neutrophil; MBN; NP4; PR3; PR-3; CANCA; C-ANCA;

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Gene ID 5657

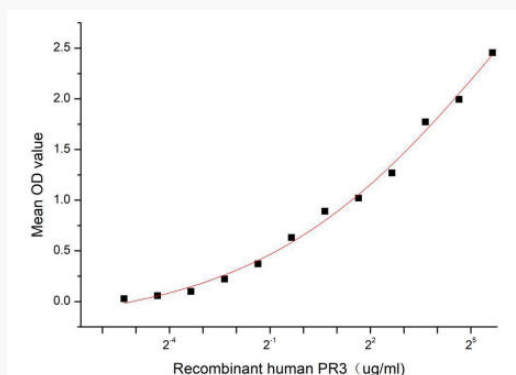
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Protein Refseq NP_002768

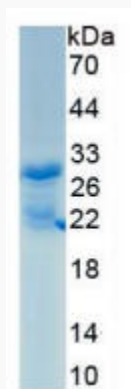
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UniProt ID P24158

Activity



SDS-PAGE



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