

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Proteinase 3/Myeloblastin/PRTN3 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) Cathepsin B and rhGranzyme B is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human Proteinase 3/Myeloblastin/PRTN3 Ala26-Arg249 Accession # P24158
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Simple Western	10 µg/mL	See Below

DATA

Western Blot

Detection of Human Proteinase 3/Myeloblastin/PRTN3 by Western Blot. Western blot shows lysates of HL-60 human acute promyelocytic leukemia cell line, human peripheral blood lymphocytes (PBL), and human peripheral blood mononuclear cells (PBMC). PVDF Membrane was probed with 1 µg/mL of Sheep Anti-Human Proteinase 3/Myeloblastin/PRTN3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6134) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Proteinase 3/Myeloblastin/PRTN3 at approximately 32 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Simple Western

Detection of Human Proteinase 3/Myeloblastin/PRTN3 by Simple Western™. Simple Western lane view shows lysates of human peripheral blood mononuclear cell tissue, loaded at 0.2 mg/mL. A specific band was detected for Proteinase 3/Myeloblastin/PRTN3 at approximately 32 kDa (as indicated) using 10 µg/mL of Sheep Anti-Human Proteinase 3/Myeloblastin/PRTN3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6134) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Proteinase 3 (PRTN3), also known as Myeloblastin (MBN), is a 32-33 kDa member of the peptidase S1 family of enzymes. It is expressed by monocytes and neutrophils, the latter of which either secretes it, sequesters it in azurophilic granules, or expresses it on the cell surface. When secreted, it acts on HK and activates the kinin pathway. In azurophilic granules, it aids in the digestion of phagocytosed material. On the cell surface, it likely acts on ECM. Human PRTN3 precursor is 231 amino acids (aa) in length. It contains an Ala26Glu27 propeptide that is removed during maturation, a 221 aa mature enzyme (aa 28-248), and an eight aa C-terminal propeptide (aa 249-256). Within the cell, a 35 kDa immature form exists; on the cell surface, both constitutively inactive, and induced active forms may be found, often in a noncovalent association with CD177/NB1. Over aa 26-249, human PRTN3 shares 68% aa identity with mouse PRTN3.