

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse MMP-7 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human MMP-7 is observed, and less than 2% cross-reactivity with recombinant mouse (rm) MMP-2, rmMMP-3, rmMMP-8, and rmMMP-9 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse MMP-7 Leu18-Leu264 Accession # AAA99983
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.

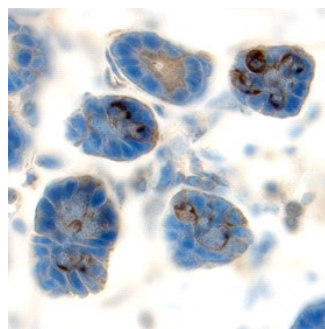
APPLICATIONS

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
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	50 µg/mL	See Below

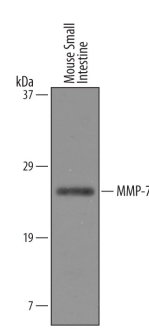
DATA

Immunohistochemistry



MMP-7 in Mouse Intestine. MMP-7 was detected in perfusion fixed frozen sections of mouse small intestine using Goat Anti-Mouse MMP-7 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2967) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific labeling was localized to the cytoplasm of cells in intestinal glands. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

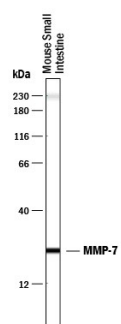
Western Blot



Detection of Mouse MMP-7 by Western Blot.

Western blot shows lysates of mouse small intestine tissue. PVDF Membrane was probed with 1 µg/mL of Goat Anti-Mouse MMP-7 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2967) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for MMP-7 at approximately 28 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 8](#).

Simple Western



Detection of Mouse MMP-7 by Simple Western™. Simple Western lane view shows lysates of mouse small intestine tissue, loaded at 0.2 mg/mL. A specific band was detected for MMP-7 at approximately 25 kDa (as indicated) using 50 µg/mL of Goat Anti-Mouse MMP-7 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2967) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system. Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody.



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

Matrix metalloproteinases (MMPs) are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. MMP-7 (matrilysin) is expressed in epithelial cells of normal and diseased tissues, and is capable of digesting a large series of proteins of the extracellular matrix including collagen IV and X, gelatin, casein, laminin, aggrecan, entactin, elastin and versican (1). MMP-7 is implicated in the activation of other proteinases such as plasminogen, MMP-1, MMP-2, and MMP-9. In addition to its roles in connective tissue remodeling and cancer, MMP-7 also regulates intestinal α -defensin activation in innate host defense, releases tumor necrosis factor- α in a model of herniated disc resorption, and cleaves FasL to generate a soluble form in a model of prostate involution. Structurally, MMP-7 is the smallest of the MMPs and consists of two domains: a pro-domain that is cleaved upon activation and a catalytic domain containing the zinc-binding site.

References:

1. Woessner, J.F. (2004) in *Handbook of Proteolytic Enzymes*, Barrett, A.J. et al. eds. p. 532.