

DESCRIPTION	
<b>Species Reactivity</b>	Human/Primate
<b>Specificity</b>	Detects human and primate MMP-3 in ELISAs and Western blots. In sandwich ELISAs, less than 2.5% cross-reactivity with recombinant human (rh) MMP-10 is observed and less than 0.1% cross-reactivity with rhMMP-1, -2, -7, -8, -9, -12, -13, and recombinant mouse MMP-9 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human MMP-3 Tyr18-Cys477 (Lys45Glu) Accession # P08254
<b>Formulation</b>	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
<b>Western Blot</b>	2 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below
<b>Immunoprecipitation</b>	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human MMP-3 (Catalog # 513-MP), see our available <a href="#">Western blot detection antibodies</a>
<b>Human/Primate MMP-3 Sandwich Immunoassay</b>		<b>Reagent</b>
<b>ELISA Capture</b>	0.2-0.8 µg/mL	Human/Primate MMP-3 Antibody (Catalog # AF513)
<b>ELISA Detection</b>	0.1-0.4 µg/mL	Human/Primate MMP-3 Biotinylated Antibody (Catalog # BAF513)
<b>Standard</b>		Recombinant Human MMP-3 (Catalog # 513-MP)

**DATA**

**Western Blot**

**Detection of Human MMP-3 by Western Blot.** Western blot shows Recombinant Human MMP-3 Western Blot Standard Protein (Catalog # WBC015) and lysate of U-118-MG human glioblastoma/astrocytoma cell line. PVDF membrane was probed with 2 µg/mL of Goat Anti-Human/Primate MMP-3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF513) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for MMP-3 at approximately 57-60 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

**Immunohistochemistry**

**MMP-3 in Human Bladder Cancer Tissue.** MMP-3 was detected in immersion fixed paraffin-embedded sections of human bladder cancer tissue using Goat Anti-Human/Primate MMP-3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF513) at 10 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 staining was localized to epithelial cells. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**Immunohistochemistry**

**MMP-3 in Human Lung Cancer.** MMP-3 was detected in immersion fixed paraffin-embedded sections of human lung cancer using Goat Anti-Human/Primate MMP-3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF513) 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 staining was localized to cytoplasm. View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	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
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>

## BACKGROUND

Matrix metalloproteinases are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. MMP-3 (stromelysin-1) can degrade a broad range of substrates including collagen  $\alpha$  chains, aggrecan, laminin, fibronectin, elastin, casein,  $\alpha$ -1 antitrypsin, myelin basic protein, IL-1 $\beta$ , IGFBP-3, pro-MMP-1, pro-MMP-7, pro-MMP-8, pro-MMP-9, and pro-MMP-13. MMP-3 does not cleave the triple helical region of interstitial collagens, a characteristic which distinguishes the stromelysins from the collagenases. The MMP-3 substrate repertoire extends beyond extracellular matrix proteins and implicates MMP-3 in roles other than direct tissue remodelling, for instance, enzyme cascades and cytokine regulation. MMP-3 is expressed by fibroblasts, chondrocytes, osteoblasts, endothelial cells, smooth muscle cells, and macrophages. Structurally, MMP-3 may be divided into several distinct domains; a pro-domain which is cleaved upon activation; a catalytic domain containing the zinc binding site; a short hinge region and a carboxyl terminal (hemopexin-like) domain.