

#### DESCRIPTION

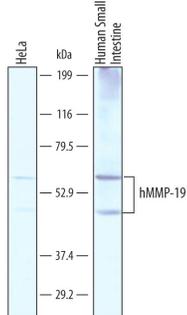
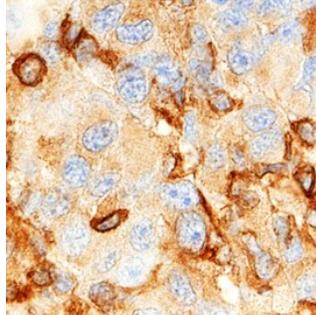
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human MMP-19 in direct ELISAs.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human MMP-19 Leu229-Tyr508 Accession # Q99542
<b>Formulation</b>	Lyophilized 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

#### DATA

<p><b>Western Blot</b></p>  <p><b>Detection of Human MMP-19 by Western Blot.</b> Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line and human small intestine tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human MMP-19 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6790) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). Specific bands were detected for MMP-19 at approximately 57 and 50 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunohistochemistry</b></p>  <p><b>MMP-19 in Human Melanoma.</b> MMP-19 was detected in immersion fixed paraffin-embedded sections of human melanoma using Goat Anti-Human MMP-19 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6790) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Goat HRP-DAB Cell &amp; Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and plasma membranes. View our protocol for <a href="#">Chromogenic IHC Staining of Paraffin-embedded Tissue Sections</a>.</p>
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#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.2 mg/mL.
<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

MMP-19 (Matrix metalloprotease 19; also MMP-18 and MMP RASI) is a 55-59 kDa member of the peptidase M10A family of enzymes. It is widely expressed, being secreted by stratum basale keratinocytes, smooth muscle cells, epiphyseal cartilage chondrocytes and monocytes/macrophages. MMP-19 has multiple substrates, including components of the basement membrane (type IV collagen; laminin; nidogen), fibronectin, aggrecan plus COMP, and IGFBP3, this latter cleavage resulting in the release of active IGF-I. Studies involving MMP-19 demonstrate an antiangiogenic function. This is attributable to the processing of plasminogen, generating angiotatin-like molecules, and the creation of an environment that promotes the ECM retention of soluble VEGF. Human proMMP-19 is 490 amino acids (aa) in length. It contains an autocleavable 9 kDa propeptide (aa 19-97) plus a 411 aa mature region (aa 98-508). The mature region contains a Zn catalytic region (aa 103-256) plus four hemopexin-like domains (aa 293-508). There are three additional potential isoforms. One shows an 88 aa substitution for aa 300-508, a second contains a 12 aa substitution for aa 1-298, while a third possesses an alternative start site at Met80. Over aa 229-508, human MMP-19 shares 76% aa identity with mouse MMP-19.