

DESCRIPTION

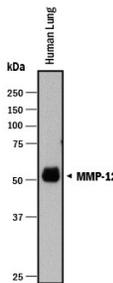
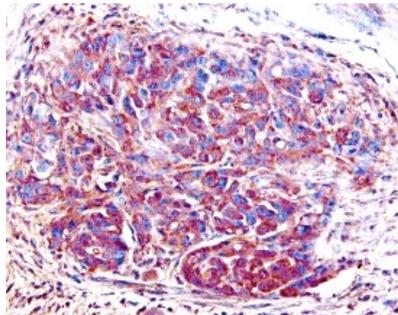
Species Reactivity	Human
Specificity	Detects recombinant human (rh) MMP-12 in Western blots. Recognizes forms of rhMMP-12 containing the C-terminal hemopexin-like domain only. Does not detect the fully mature 20 kDa proteolytic MMP-12 entity, where the C-terminal domain has been lost.
Source	Monoclonal Mouse IgG ₁ Clone # 4D2
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human MMP-12
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	75-150 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human MMP-12 (Catalog # 917-MP), see our available Western blot detection antibodies

DATA

<p>Western Blot</p>  <p>Detection of Human MMP-12 by Western Blot. Western blot shows lysates of human lung tissue. PVDF membrane was probed with 5 µg/mL of Mouse Anti-Human MMP-12 Hemopexin Domain Monoclonal Antibody (Catalog # MAB917) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for MMP-12 at approximately 50-55 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunohistochemistry</p>  <p>MMP-12 in Human Ovarian Cancer Tissue. MMP-12 was detected in immersion fixed paraffin-embedded sections of human ovarian cancer tissue using 25 µg/mL Mouse Anti-Human MMP-12 Hemopexin Domain Monoclonal Antibody (Catalog # MAB917) overnight at 4 °C. Tissue was stained with the Anti-Mouse HRP-AEC Cell & Tissue Staining Kit (red; Catalog # CTS003) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

MMP-12, also known as macrophage elastase, is a zinc and calcium dependent endopeptidase expressed constitutively in macrophages and can be induced in monocytes. MMP-12 can degrade a broad spectrum of substrates, including type IV collagen, fibronectin, laminin, vitronectin, proteoglycans, chondroitin sulfate, myelin basic protein, α1-antitrypsin, and plasminogen. It can also activate MMP-2 and MMP-3. The MMP-12 precursor consists of a pro domain, a catalytic domain containing the zinc-binding site, and a C-terminal hemopexin-like domain.