Human MMP-2 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF902

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MMP-2 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human MMP-2 Ile34-Cys660 Accession # P08253
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 either lyophilized or as a 0.2 μm filtered solution in PBS.

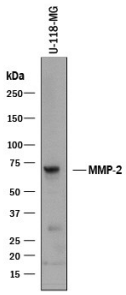
APPLICATIONS

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
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human MMP-2 (Catalog # 902-MP), see our available Western blot detection antibodies
Simple Western	10 µg/mL	See Below

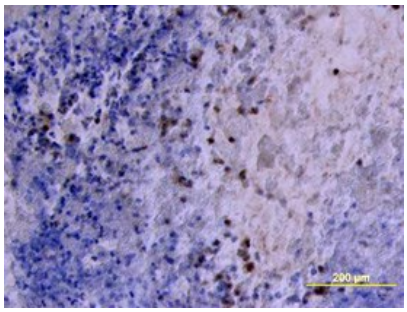
DATA

Western Blot



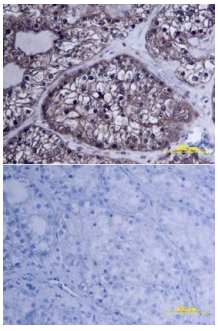
Detection of Human MMP-2 by Western Blot. Western blot shows lysate of U-118-MG human glioblastoma/astrocytoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human MMP-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF902) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for MMP-2 at approximately 72 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



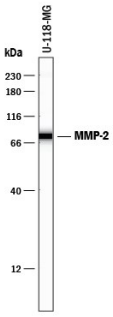
MMP-2 in Human Ovarian Cancer Tissue. MMP-2 was detected in immersion fixed paraffin-embedded sections of human ovarian cancer tissue using Goat Anti-Human MMP-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF902) at 10 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counter-stained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Immunohistochemistry



MMP-2 in Human Ovary. MMP-2 was detected in immersion fixed paraffin-embedded sections of human ovarian array using Goat Anti-Human MMP-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF902) 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). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Simple Western



Detection of Human MMP-2 by Simple Western™. Simple Western lane view shows lysates of U-118-MG human glioblastoma/astrocytoma cell line, loaded at 0.2 mg/mL. A specific band was detected for MMP-2 at approximately 78 kDa (as indicated) using 10 µg/mL of Goat Anti-Human MMP-2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF902) 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.

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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.** • 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 are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. MMP-2 (gelatinase A), a type IV collagenase, can degrade a broad range of substrates including type IV, V, VII and X collagens as well as elastin and fibronectin. It is believed to act synergistically with interstitial collagenase (MMP-1) in the degradation of fibrillar collagens as it degrades their denatured gelatin forms. MMP-2 has been shown to be associated with many connective tissue cells as well as neutrophils, macrophages and monocytes. Structurally, MMP-2 may be divided into several distinct domains: a pro-domain which is cleaved upon activation; a catalytic domain containing the zinc binding site; a fibronectin-like domain thought to play a role in substrate targeting; and a carboxyl terminal (hemopexin-like) domain containing 2 N-linked glycosylation sites.

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