Human MMP-13 Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF511

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MMP-13 in Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) MMP-3 and rhMMP-8 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human MMP-13 Leu20-Cys471 Accession # P45452
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.

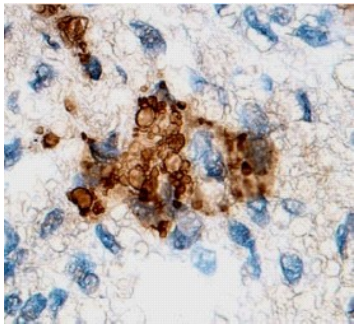
APPLICATIONS

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	0.1 µg/mL	Recombinant Human MMP-13 Western Blot Standard (Catalog # WBC020)
Immunohistochemistry	5-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human MMP-13 (Catalog # 511-MM), see our available Western blot detection antibodies

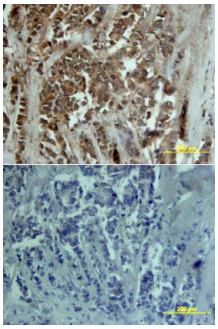
DATA

Immunohistochemistry



MMP-13 in Human Ovarian Cancer Tissue. MMP-13 was detected in immersion fixed paraffin-embedded sections of human ovarian cancer tissue using 15 µg/mL Goat Anti-Human MMP-13 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF511) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Immunohistochemistry



MMP-13 in Human Breast. MMP-13 was detected in immersion fixed paraffin-embedded sections of human breast array using Goat Anti-Human MMP-13 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF511) 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). 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.

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-13 (Collagenase-3) has been demonstrated to degrade a range of extracellular matrix proteins, including collagen types I, II, III, IV, IX, X and XIV, gelatin, aggrecan, perlecan and fibronectin. MMP-13 is distinguished from the other human collagenases by its effecient degradation of type II collagen. MMP-13 is expressed by fibroblasts, chrondrocytes and squamous epithelial cells. Structurally, MMP-13 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.

References:

1. Jeffery, J.J. (1998) in *Collagenase 3.* A.J. Barrett, *et al.* (eds): Handbook of Proteolytic Enzymes, San Diego: Academic Press, p. 1167.

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