

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human 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.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human MMP-3 Tyr18-Cys477 (Lys45Glu) Accession # P08254
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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-3 Western Blot Standard (Catalog # WBC015)
Immunohistochemistry	5-15 µg/mL	Immersion fixed paraffin-embedded sections of human lung cancer and colon cancer tissue
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human MMP-3 (Catalog # 513-MP), see our available Western blot detection antibodies
Human MMP-3 Sandwich Immunoassay		Reagent
ELISA Capture	0.2-0.8 µg/mL	Human MMP-3 Antibody (Catalog # AF513)
ELISA Detection	0.1-0.4 µg/mL	Human MMP-3 Biotinylated Antibody (Catalog # BAF513)
Standard		Recombinant Human MMP-3 (Catalog # 513-MP)

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. <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

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 α chains, aggrecan, laminin, fibronectin, elastin, casein, α -1 antitrypsin, myelin basic protein, IL-1 β , 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.