10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MMP3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5090

Product Information

Application	IF, IHC-P, WB
Primary Accession	P08254
Other Accession	NP_002413.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53977
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	4314
Antigen Region	30-59
Other Names	MMP3; STMY1; Stromelysin-1; Matrix metalloproteinase-3; Transin-1
Dilution	IF~~1:10~50 IHC-P~~1:100~500 WB~~1:1000
Target/Specificity	This MMP3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 30-59 amino acids from the N-terminal region of human MMP3.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MMP3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MMP3
Synonyms	STMY1
Function	Metalloproteinase with a rather broad substrate specificity that can degrade

fibronectin, laminin, gelatins of type I, III, IV, and V; collagens III, IV, X, and IX, and cartilage proteoglycans. Activates different molecules including growth factors, plasminogen or other matrix metalloproteinases such as MMP9 (PubMed:11029580, PubMed:1371271). Once released into the extracellular matrix (ECM), the inactive pro-enzyme is activated by the plasmin cascade signaling pathway (PubMed:2383557). Also acts intracellularly (PubMed:22265821). For example, in dopaminergic neurons, gets activated by the serine protease HTRA2 upon stress and plays a pivotal role in DA neuronal degeneration by mediating microglial activation and alpha- synuclein/SNCA cleavage (PubMed:21330369). In addition, plays a role in immune response and possesses antiviral activity against various viruses such as vesicular stomatitis virus, influenza A virus (H1N1) and human herpes virus 1 (PubMed:35940311). Mechanistically, translocates from the cytoplasm into the cell nucleus upon virus infection to influence NF-kappa-B activities (PubMed:35940311).

Cellular Location Secreted, extracellular space, extracellular matrix. Nucleus. Cytoplasm

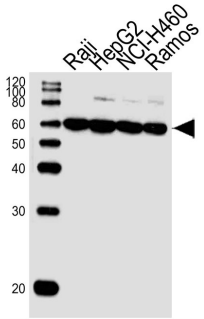
Background

Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. This gene encodes an enzyme which degrades fibronectin, laminin, collagens III, IV, IX, and X, and cartilage proteoglycans. The enzyme is thought to be involved in wound repair, progression of atherosclerosis, and tumor initiation. The gene is part of a cluster of MMP genes which localize to chromosome 11q22.3.

References

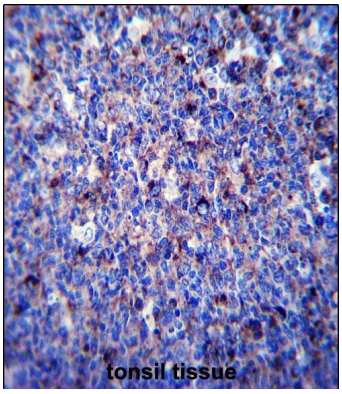
Fallah, S., et al. J. Physiol. Biochem. 66(4):359-364(2010)
Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) :
Nikopensius, T., et al. Birth Defects Res. Part A Clin. Mol. Teratol. 88(9):748-756(2010)
Skorupski, P., et al. Ginekol. Pol. 81(8):594-599(2010)
Yeh, Y.C., et al. BMC Microbiol. 10, 218 (2010) :

Images

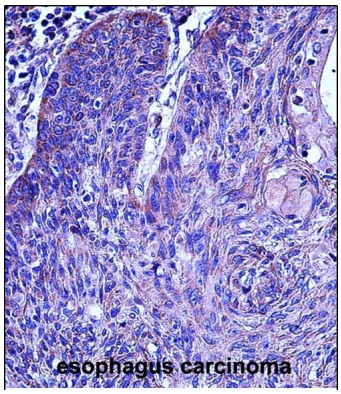


Western blot analysis of lysates from Raji,HepG2,NCI-H460,Ramos cell line (from left to right), using MMP3 Antibody (N-term)(Cat. #AW5090). AW5090 was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.Lysates at 20ug per lane.

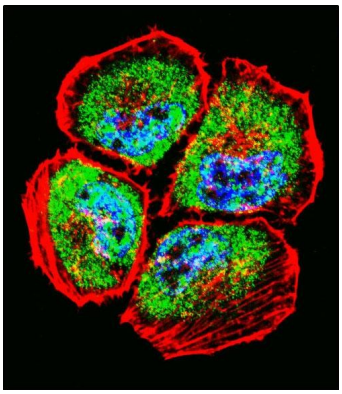
MMP3 Antibody (N-term) (Cat. #AW5090)immunohistochemistry analysis in formalin fixed and paraffin embedded human tonsil tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the



use of MMP3 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



MMP3 Antibody (N-term) (Cat. #AW5090)immunohistochemistry analysis in formalin fixed and paraffin embedded human esophagus carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of MMP3 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of MMP3 Antibody (N-term)(Cat#AW5090) with NCI-H460 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.