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MMP3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AW5090

Specification

MMP3 Antibody (N-term) - Product Information

Application	**IF, IHC-P, WB,E**
Primary Accession	P08254
Other Accession	NP_002413.1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**H=54 KDa**
Isotype	**Rabbit IgG**
Antigen Source	**HUMAN**

MMP3 Antibody (N-term) - 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~~1:10~50
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.

MMP3 Antibody (N-term) - 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

MMP3 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MMP3 Antibody (N-term) - Images

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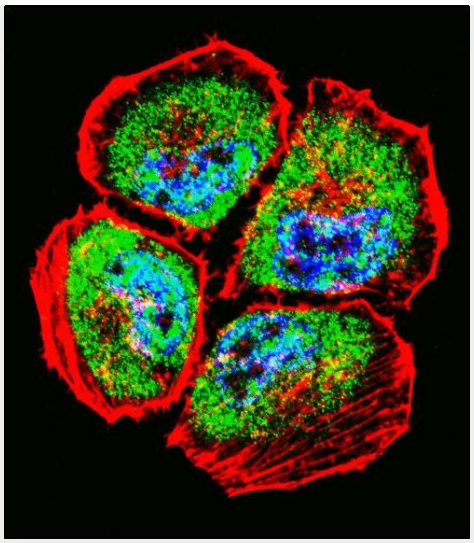
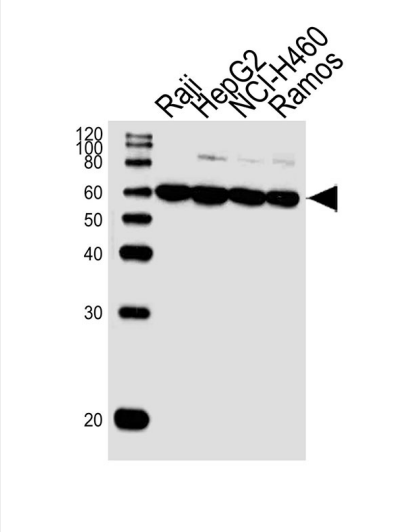


Confocal immunofluorescent analysis of MMP3 Antibody (N-term)(Cat#AW5090) with NCI-H460 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green).Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).DAPI was used to stain the cell nuclear (blue).



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.

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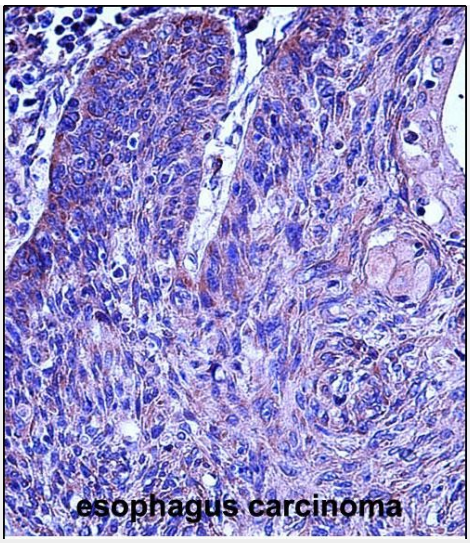
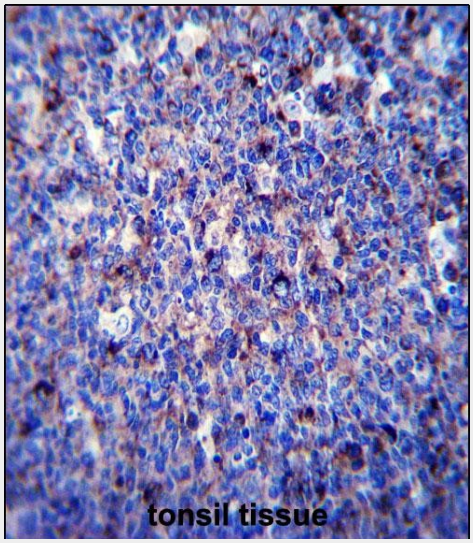


MMP3 Antibody (N-term) (Cat. #AW5090)immunohistochemistry analysis in formalin fixed and paraffin embedded human esophagus carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of MMP3 Antibody (N-term) for immunohistochemistry. Clinical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



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) - 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.

MMP3 Antibody (N-term) - References

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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) :