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MMP3 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP6211a

Specification

MMP3 Antibody (Center) Blocking Peptide - Product Information

Primary Accession	P08254
Other Accession	NP_002413

MMP3 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 4314

Other Names
Stromelysin-1, SL-1, Matrix metalloproteinase-3, MMP-3, Transin-1, MMP3, STMY1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6211a was selected from the Center region of human MMP3 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MMP3 Antibody (Center) Blocking Peptide - 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). Acts also intracellularly (PubMed:<a href="http://www.uniprot.org/citations/22265821"

target="_blank">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 (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

MMP3 Antibody (Center) Blocking Peptide - Images

MMP3 Antibody (Center) Blocking Peptide - 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 MMPs are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. MMP3 is 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.

MMP3 Antibody (Center) Blocking Peptide - References

Sage, E.H., et al., J. Biol. Chem. 278(39):37849-37857 (2003).Matsuyama, A., et al., Circulation 108(12):1469-1473 (2003).Mercapide, J., et al., Int. J. Cancer 106(5):676-682 (2003).Bodemer, C., et al., J. Invest. Dermatol. 121(2):273-279 (2003).Kang, M.K., et al., Exp. Cell Res. 287(2):272-281 (2003).