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

MMP3 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51354

Product Information

Application	WB, ICC, IHC-P
Primary Accession	P08254
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53977

Additional Information

Gene ID	4314
Other Names	Stromelysin-1, SL-1, Matrix metalloproteinase-3, MMP-3, Transin-1, MMP3, STMY1
Dilution	WB~~1:1000 ICC~~N/A IHC-P~~N/A
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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

Can degrade fibronectin, laminin, gelatins of type I, III, IV, and V; collagens III, IV, X, and IX, and cartilage proteoglycans. Activates procollagenase.

References

Saus J.,et al.J. Biol. Chem. 263:6742-6745(1988).
Whitham S.E.,et al.Biochem. J. 240:913-916(1986).
Wilhelm S.M.,et al.Proc. Natl. Acad. Sci. U.S.A. 84:6725-6729(1987).
Lin D.,et al.Submitted (DEC-1996) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Citations

- Metalloproteinases 1 and 3 as Potential Biomarkers in Breast Cancer Development
- Nkx2-5 Is Expressed in Atherosclerotic Plaques and Attenuates Development of Atherosclerosis in Apolipoprotein E-Deficient Mice.