

Anti-MMP-3 Antibody
Catalog # ABO11958

Specification

Anti-MMP-3 Antibody - Product Information

Application	WB
Primary Accession	P08254
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Stromelysin-1(MMP3) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-MMP-3 Antibody - Additional Information

Gene ID 4314

Other Names

Stromelysin-1, SL-1, 3.4.24.17, Matrix metalloproteinase-3, MMP-3, Transin-1, MMP3, STMY1

Calculated MW

53977 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Secreted, extracellular space, extracellular matrix .

Protein Name

Stromelysin-1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminal of human MMP3(410-439aa RFDEKRNSMEPGFPPKQIAEDFPGIDSKIDA), different from the related mouse sequence by seven amino acids, and from the related mouse sequence by ten amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the peptidase M10A family.

Anti-MMP-3 Antibody - 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](http://www.uniprot.org/citations/11029580)), PubMed: [1371271](http://www.uniprot.org/citations/1371271)). Once released into the extracellular matrix (ECM), the inactive pro-enzyme is activated by the plasmin cascade signaling pathway (PubMed: [2383557](http://www.uniprot.org/citations/2383557)). Acts also intracellularly (PubMed: [22265821](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/35940311)). Mechanistically, translocates from the cytoplasm into the cell nucleus upon virus infection to influence NF-kappa-B activities (PubMed: [35940311](http://www.uniprot.org/citations/35940311)).

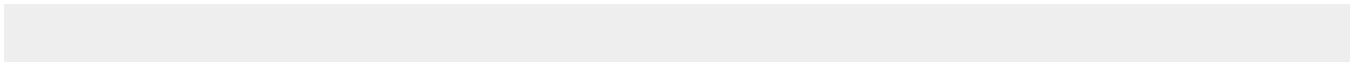
Cellular Location

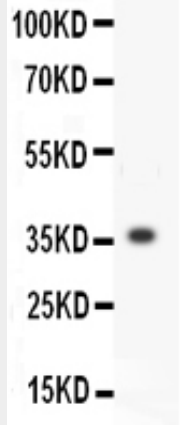
Secreted, extracellular space, extracellular matrix. Nucleus. Cytoplasm

Anti-MMP-3 Antibody - Protocols

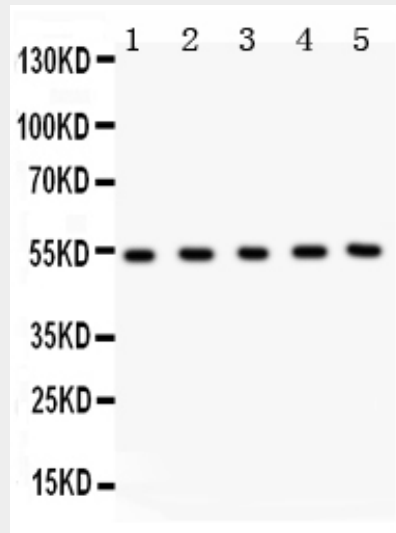
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-MMP-3 Antibody - Images



Anti- MMP3 Picoband antibody, ABO11958, Western blotting All lanes: Anti MMP3 (ABO11958) at 0.5ug/ml WB: Recombinant Human MMP3 Protein 0.5ng Predicted bind size: 36KD Observed bind size: 36KD



Anti- MMP3 Picoband antibody, ABO11958, Western blotting All lanes: Anti MMP3 (ABO11958) at 0.5ug/ml Lane 1: Human Placenta Tissue Lysate at 50ug Lane 2: U20S Whole Cell Lysate at 40ug Lane 3: HELA Whole Cell Lysate at 40ug Lane 4: PANC Whole Cell Lysate at 40ug Lane 5: COLO320 Whole Cell Lysate at 40ug Predicted bind size: 54KD Observed bind size: 54KD

Anti-MMP-3 Antibody - Background

Stromelysin-1, also known as matrix metalloproteinase-3 (MMP-3), is an enzyme that in humans is encoded by the MMP3 gene. It is mapped to 11q22.2. Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix and during tissue remodeling in normal physiological processes, such as embryonic development and reproduction, as well as in disease processes, such as arthritis, and tumour metastasis. The MMP-3 enzyme degrades collagen types II, III, IV, IX, and X, proteoglycans, fibronectin, laminin, and elastin. In addition, MMP-3 can also activate other MMPs such as MMP-1, MMP-7, and MMP-9, rendering MMP-3 crucial in connective tissue remodeling. The enzyme is thought to be involved in wound repair, progression of atherosclerosis, and tumor initiation.