

MMP9 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1601a

Specification

MMP9 Antibody - Product Information

Application	E, WB, IHC, IF, FC
Primary Accession	P14780
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Calculated MW	92kDa KDa

Description

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. The enzyme encoded by this gene degrades type IV and V collagens. Studies in rhesus monkeys suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow, and murine studies suggest a role in tumor-associated tissue remodeling.

Immunogen

Purified recombinant fragment of human MMP9 expressed in E. Coli.

Formulation

Ascitic fluid containing 0.03% sodium azide.

MMP9 Antibody - Additional Information

Gene ID 4318

Other Names

Matrix metalloproteinase-9, MMP-9, 3.4.24.35, 92 kDa gelatinase, 92 kDa type IV collagenase, Gelatinase B, GELB, 67 kDa matrix metalloproteinase-9, 82 kDa matrix metalloproteinase-9, MMP9, CLG4B

Dilution

E~~1/10000
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
IF~~1/200 - 1/1000
FC~~1/200 - 1/400

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

MMP9 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

MMP9 Antibody - Protein Information

Name MMP9

Synonyms CLG4B

Function

Matrix metalloproteinase that plays an essential role in local proteolysis of the extracellular matrix and in leukocyte migration (PubMed:12879005, PubMed:1480034, PubMed:2551898). Could play a role in bone osteoclastic resorption (By similarity). Cleaves KISS1 at a Gly-I-Leu bond (PubMed:12879005). Cleaves NINJ1 to generate the Secreted ninjurin-1 form (PubMed:32883094). Cleaves type IV and type V collagen into large C-terminal three quarter fragments and shorter N-terminal one quarter fragments (PubMed:1480034). Degrades fibronectin but not laminin or Pz-peptide.

Cellular Location

Secreted, extracellular space, extracellular matrix

Tissue Location

Detected in neutrophils (at protein level) (PubMed:7683678). Produced by normal alveolar macrophages and granulocytes.

MMP9 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](#)

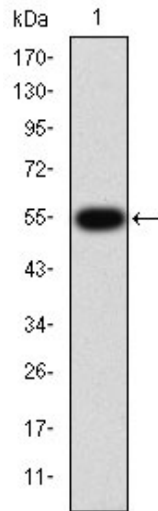
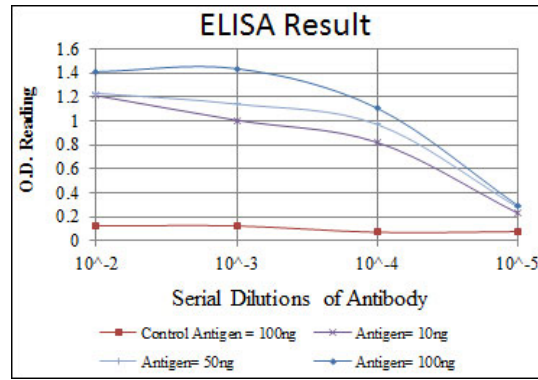


Figure 1: Western blot analysis using MMP9 mAb against human MMP9 (AA: 238-465) recombinant protein. (Expected MW is 50.6 kDa)

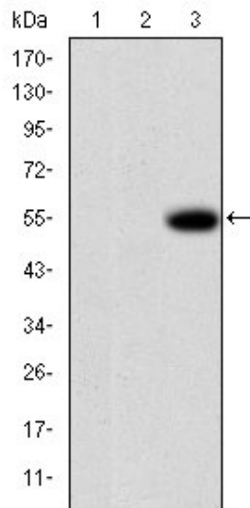


Figure 2: Western blot analysis using MMP9 mAb against HEK293 (1), MMP7-hlgGfc transfected HEK293 (2) cell lysate and MMP9-hlgGfc transfected HEK293 (3) cell lysate.

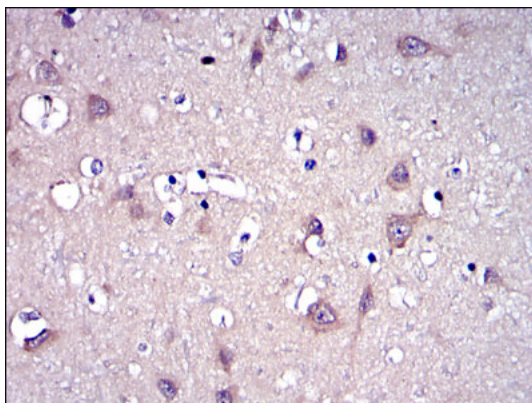


Figure 3: Immunohistochemical analysis of paraffin-embedded brain tissues using MMP9 mouse mAb with DAB staining.

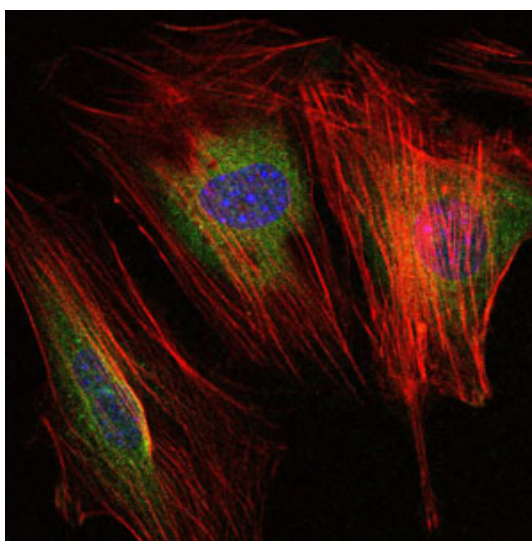


Figure 4: Immunofluorescence analysis of NIH/3T3 cells using MMP9 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

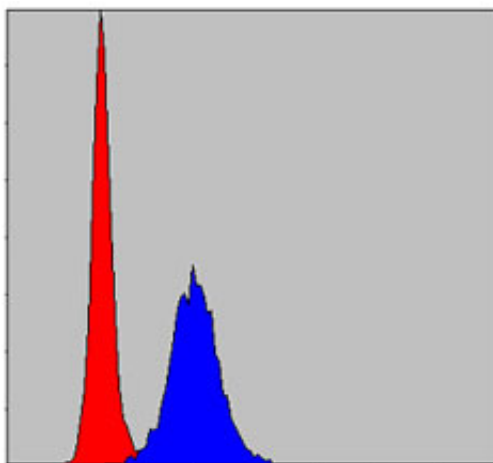


Figure 5: Flow cytometric analysis of Hela cells using MMP9 mouse mAb (blue) and negative control (red).

MMP9 Antibody - References

1. IUBMB Life. 2009 Dec;61(12):1143-52. 2. J Biol Regul Homeost Agents. 2009 Oct-Dec;23(4):259-67.