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MMP9 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1601a

Specification

MMP9 Antibody - Product Information

Application	**WB, IHC, FC, ICC, E**
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
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
FC~~1/200 - 1/400
ICC~~N/A
E~~1/10000

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-|-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 Cytomety
- Cell Culture

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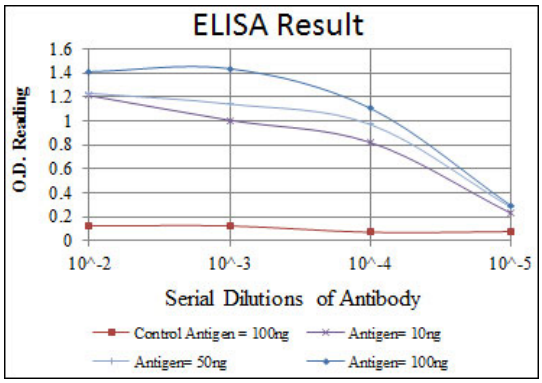

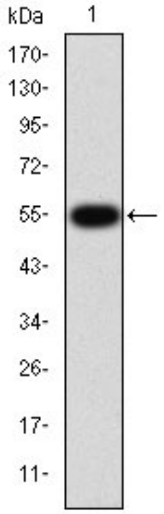

Figure 1: Western blot analysis using MMP9 mAb against human MMP9 (AA: 238-465) recombinant protein. (Expected MW is 50.6 kDa)

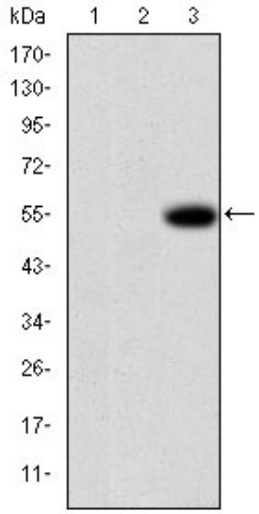

Figure 2: Western blot analysis using MMP9 mAb against HEK293 (1), MMP7-hIgGFc transfected HEK293 (2) cell lysate and MMP9-hIgGFc transfected HEK293 (3) cell lysate.

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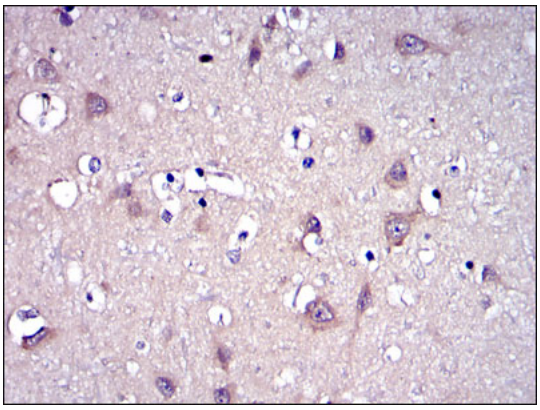

Figure 3: Immunohistochemical analysis of paraffin-embedded brain tissues using MMP9 mouse mAb with DAB staining.

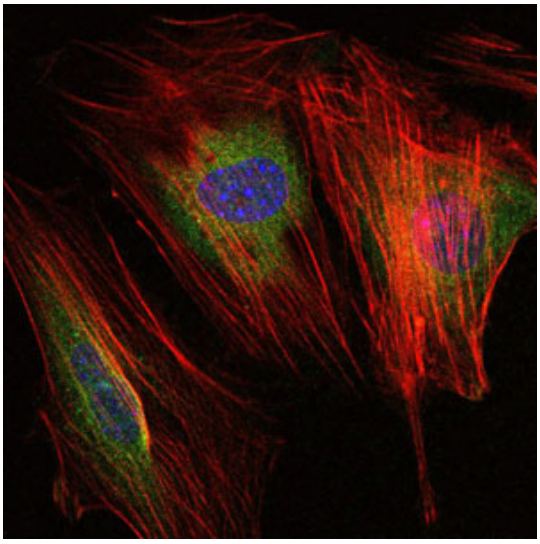

Figure 4: Immunofluorescence analysis of NIH/3T3 cells using MMP9 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

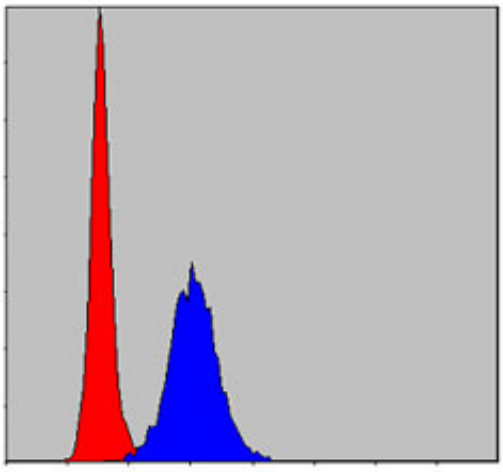

Figure 5: Flow cytometric analysis of Hela cells using MMP9 mouse mAb (blue) and negative control (red).

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.