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MMP9 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1601a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	P14780
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5G3
Isotype	IgG2a
Calculated MW	78458
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.

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.

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.

References

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

Images

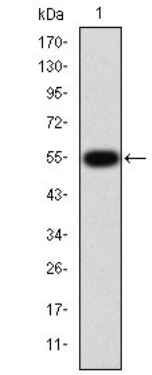


Figure 1: Western blot analysis using MMP9 mAb against human MMP9 (AA: 238-465) recombinant protein. (Expected MW is 50.6 kDa)

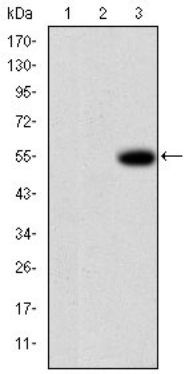
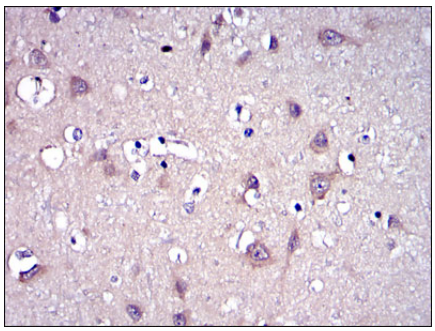


Figure 2: Western blot analysis using MMP9 mAb against HEK293 (1), MMP7-hIgGFc transfected HEK293 (2) cell lysate and MMP9-hIgGFc transfected HEK293 (3) cell lysate.

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



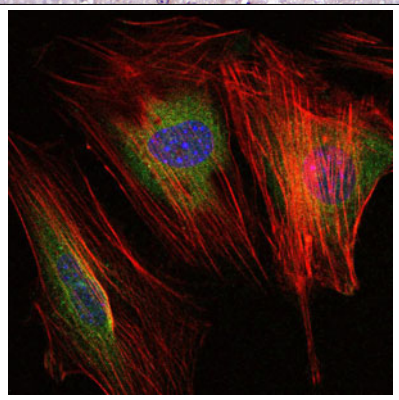


Figure 4: Immunofluorescence analysis of NIH/3T3 cells using MMP9 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

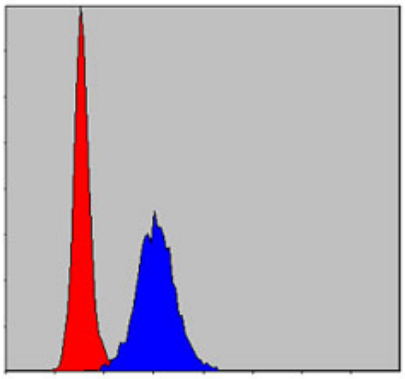


Figure 5: Flow cytometric analysis of Hela cells using MMP9 mouse mAb (blue) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.