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

MMP9 Antibody

Catalog # ASC11696

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	P14780
Other Accession	NP_004985, 74272287
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	78458
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	MMP9 antibody can be used for detection of MMP9 by Western blot at 1 - 2 g/ml.

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
Target/Specificity	MMP9; MMP9 antibody is human, mouse and rat reactive. At least three isoforms of MMP9 are known to exist; this antibody only recognizes the two longest isoforms.
Reconstitution & Storage	MMP9 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
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.

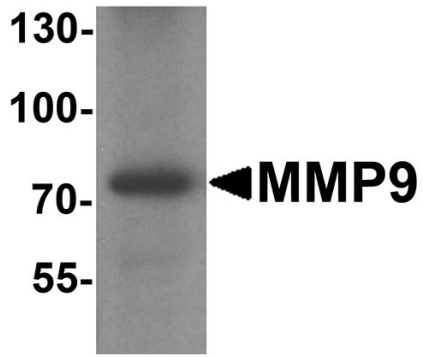
Background

The matrix metalloproteinase (MMP) family are a family of proteins that 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 (1). MMP9 degrades type IV and V collagens (2) and studies suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow (3) and plays a role in tumor-associated tissue remodeling (4).

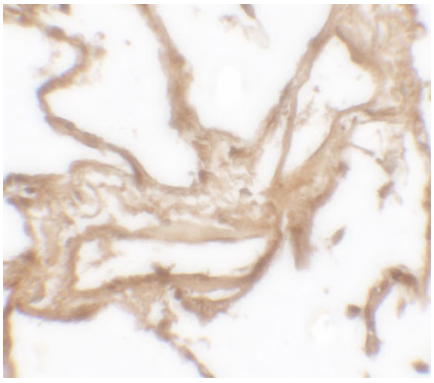
References

Iyer RP, Patterson NL, Fields GB, et al. The history of matrix metalloproteinases: milestones, myths, and misperceptions. Am. J. Heart Circ. Physiol 2012; 303:H919-30.
Murphy G, Knauper V, Atkinson S, et al. Matrix metalloproteinases in arthritic disease. Arthritis Res. 2002; 4 Suppl. 3:S39-49.
Sweeney EA, Lortat-Jacob H, Priestley GV, et al. Sulfated polysaccharides increase plasma levels of SDF-1 in monkeys and mice: involvement in mobilization of stem/progenitor cells. Blood 2002; 99:44-51.
Rhee JW, Lee KW, Sohn WJ, et al. Regulation of matrix metalloproteinase-9 gene expression and cell migration by NF-kappa B in response to CpG-oligodeoxynucleotides in RAW 264.7 cells. Mol. Immunol. 2007; 44:1393-400.

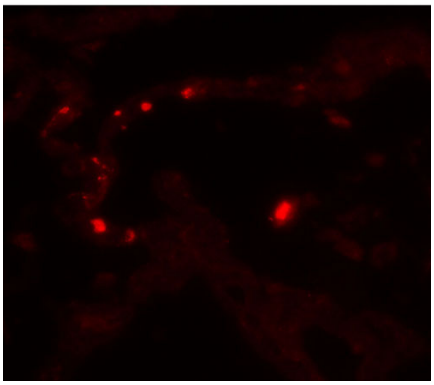
Images



Western blot analysis of MMP9 in mouse lung tissue lysate with MMP9 antibody at 1 µg/ml.



Immunohistochemistry of MMP9 in human lung tissue with MMP9 antibody at 2.5 µg/mL.



Immunofluorescence of MMP9 in human lung tissue with MMP9 antibody at 20 µg/mL.

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