

**MMP9 Antibody**  
Catalog # ASC11696**Specification****MMP9 Antibody - Product Information**

Application	WB, IHC, IF
Primary Accession	<a href="#">P14780</a>
Other Accession	<a href="#">NP_004985</a> , <a href="#">74272287</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 76 kDa
Application Notes	Observed: 73kDa KDa MMP9 antibody can be used for detection of MMP9 by Western blot at 1 - 2 µg/ml.

**MMP9 Antibody - Additional Information**

Gene ID 4318

**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°C for three months and -20°C, stable for up to one year.

**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](http://www.uniprot.org/citations/12879005), PubMed: [1480034](http://www.uniprot.org/citations/1480034), PubMed: [2551898](http://www.uniprot.org/citations/2551898)). Could play a role in bone osteoclastic resorption (By similarity). Cleaves KiSS1 at a Gly-I-Leu bond (PubMed: [12879005](http://www.uniprot.org/citations/12879005)). Cleaves NINJ1 to generate the Secreted ninjurin-1 form (PubMed: [32883094](http://www.uniprot.org/citations/32883094)). Cleaves type IV and type V collagen into large C-terminal three quarter fragments and shorter N-terminal one quarter fragments (PubMed: [1480034](http://www.uniprot.org/citations/1480034))

target="\_blank">1480034</a>). Degrades fibronectin but not laminin or Pz-peptide.

#### Cellular Location

Secreted, extracellular space, extracellular matrix

#### Tissue Location

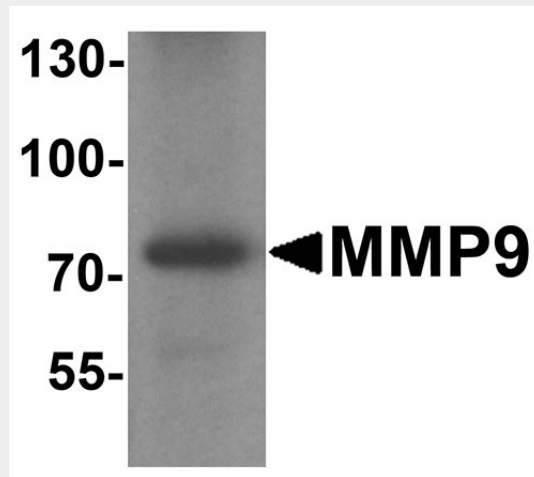
Detected in neutrophils (at protein level) (PubMed:7683678). Produced by normal alveolar macrophages and granulocytes.

### MMP9 Antibody - Protocols

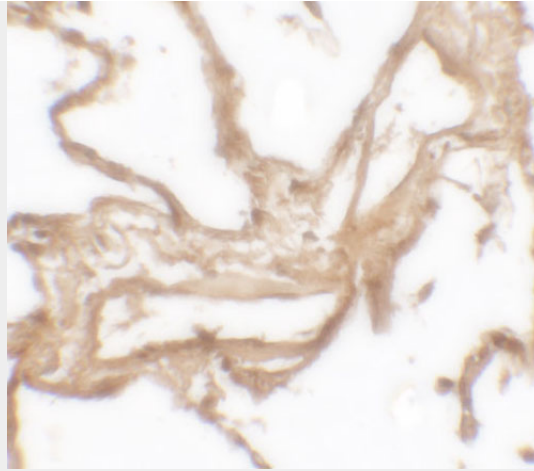
Provided below are standard protocols that you may find useful for product applications.

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

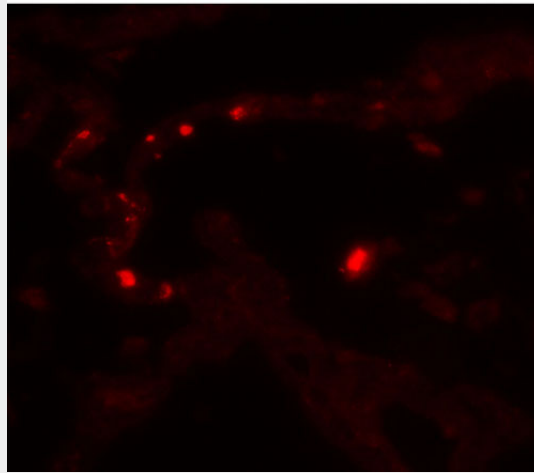
### MMP9 Antibody - Images



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.

### **MMP9 Antibody - 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).

### **MMP9 Antibody - 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.