

**MMP1 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO1586a****Specification****MMP1 Antibody - Product Information**

Application	<b>E, WB, IHC, FC, IF</b>
Primary Accession	<a href="#">P03956</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>54kDa KDa</b>

**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. This gene encodes a secreted enzyme which breaks down the interstitial collagens, types I, II, and III. The gene is part of a cluster of MMP genes which localize to chromosome 11q22.3. Alternative splicing results in multiple transcript variants.

**Immunogen**

Purified recombinant fragment of human MMP1 expressed in E. Coli. <br />

**Formulation**

Ascitic fluid containing 0.03% sodium azide.

**MMP1 Antibody - Additional Information**

**Gene ID** 4312

**Other Names**

Interstitial collagenase, 3.4.24.7, Fibroblast collagenase, Matrix metalloproteinase-1, MMP-1, 22 kDa interstitial collagenase, 27 kDa interstitial collagenase, MMP1, CLG

**Dilution**

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

**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**

MMP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## MMP1 Antibody - Protein Information

**Name** MMP1

**Synonyms** CLG

### Function

Cleaves collagens of types I, II, and III at one site in the helical domain. Also cleaves collagens of types VII and X (PubMed: [1645757](http://www.uniprot.org/citations/1645757), PubMed: [2153297](http://www.uniprot.org/citations/2153297), PubMed: [2557822](http://www.uniprot.org/citations/2557822)). In case of HIV infection, interacts and cleaves the secreted viral Tat protein, leading to a decrease in neuronal Tat's mediated neurotoxicity (PubMed: [16807369](http://www.uniprot.org/citations/16807369)).

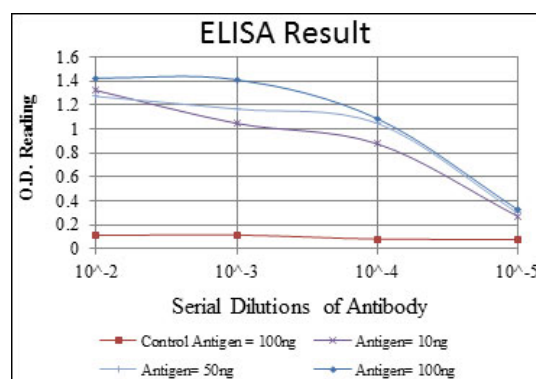
### Cellular Location

Secreted, extracellular space, extracellular matrix

## MMP1 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](#)



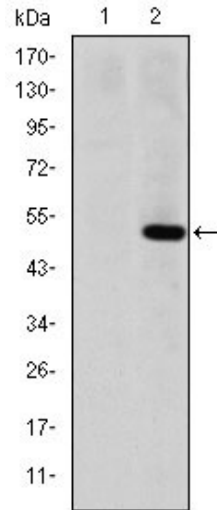


Figure 1: Western blot analysis using MMP1 mAb against HEK293 (1) and MMP1(AA: 24-213)-hIgGFc transfected HEK293 (2) cell lysate.

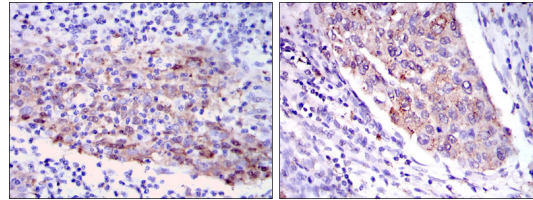


Figure 2: Immunohistochemical analysis of paraffin-embedded human cervical cancer tissues (left) and human kidney cancer tissues (right) using MMP1 mouse mAb with DAB staining.

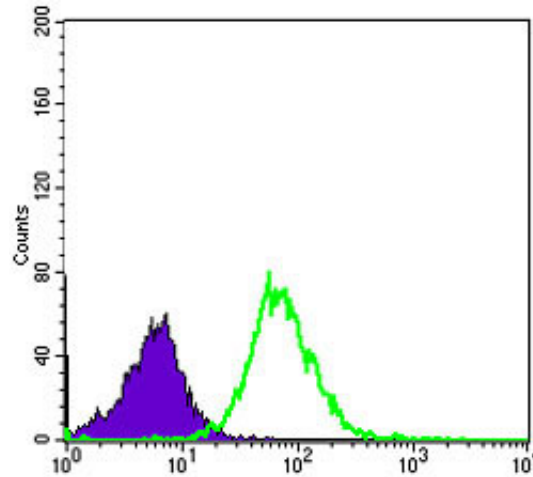


Figure 3: Flow cytometric analysis of Hela cells using MMP1 mouse mAb (green) and negative control (purple).

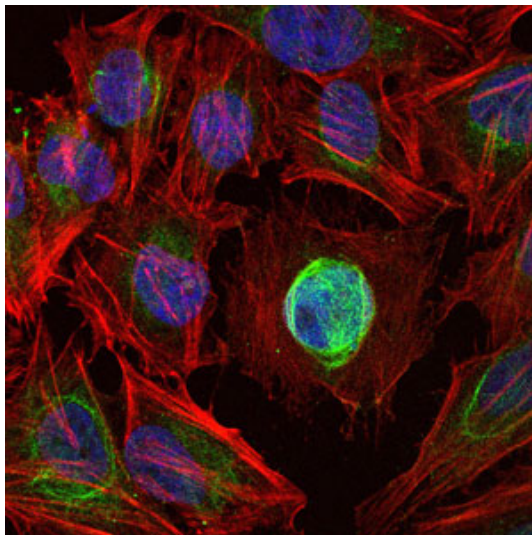


Figure 4: Immunofluorescence analysis of HeLa cells using MMP1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

#### **MMP1 Antibody - References**

1. Arthritis Res Ther. 2009;11(6):R169.
2. FEMS Microbiol Lett. 2009 Oct;299(2):214-22.