

## MMP14 Antibody (N-term)

### Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6198a

### Specification

#### MMP14 Antibody (N-term) - Product Information

Application	WB, IHC-P, FC, E
Primary Accession	<a href="#">P50281</a>
Other Accession	<a href="#">Q10739</a> , <a href="#">Q9XT90</a> , <a href="#">P53690</a> , <a href="#">Q9GLE4</a> , <a href="#">NP_004986</a>
Reactivity	Human, Mouse, Rat
Predicted	Bovine, Pig
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit Ig
Antigen Region	145-174

#### MMP14 Antibody (N-term) - Additional Information

**Gene ID** 4323

#### Other Names

Matrix metalloproteinase-14, MMP-14, MMP-X1, Membrane-type matrix metalloproteinase 1, MT-MMP 1, MTMMP1, Membrane-type-1 matrix metalloproteinase, MT1-MMP, MT1MMP, MMP14

#### Target/Specificity

This MMP14 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 145-174 amino acids from the N-terminal region of human MMP14.

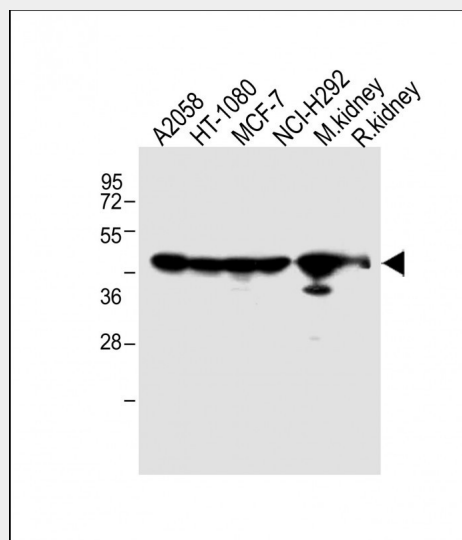
#### Dilution

WB~~1:2000  
IHC-P~~1:25  
FC~~1:10~50

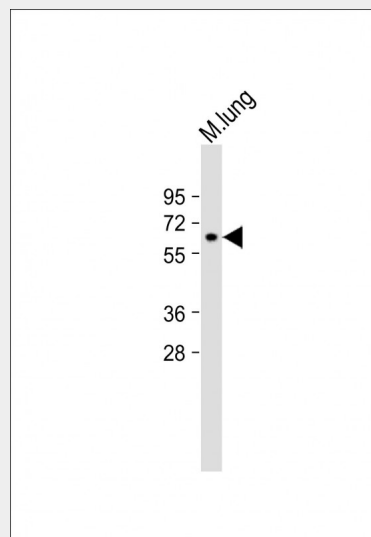
#### Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage



All lanes : Anti-MMP14 Antibody (N-term) at 1:2000 dilution Lane 1: A2058 whole cell lysate Lane 2: HT-1080 whole cell lysate Lane 3: MCF-7 whole cell lysate Lane 4: NCI-H292 whole cell lysate Lane 5: Mouse kidney lysate Lane 5: Rat kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 66 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-MMP14 Antibody (N-term) at 1:2000

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### Precautions

MMP14 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### MMP14 Antibody (N-term) - Protein Information

#### Name MMP14

#### Function

Endopeptidase that degrades various components of the extracellular matrix such as collagen. Activates progelatinase A. Essential for pericellular collagenolysis and modeling of skeletal and extraskeletal connective tissues during development (By similarity). May be involved in actin cytoskeleton reorganization by cleaving PTK7 (PubMed:<a href="http://www.uniprot.org/citations/20837484" target="\_blank">20837484</a>). Acts as a positive regulator of cell growth and migration via activation of MMP15. Involved in the formation of the fibrovascular tissues in association with pro-MMP2 (PubMed:<a href="http://www.uniprot.org/citations/12714657" target="\_blank">12714657</a>). Cleaves ADGRB1 to release vasculostatin-40 which inhibits angiogenesis (PubMed:<a href="http://www.uniprot.org/citations/22330140" target="\_blank">22330140</a>).

#### Cellular Location

Membrane; Single-pass type I membrane protein. Melanosome. Cytoplasm. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV Forms a complex with BST2 and localizes to the cytoplasm

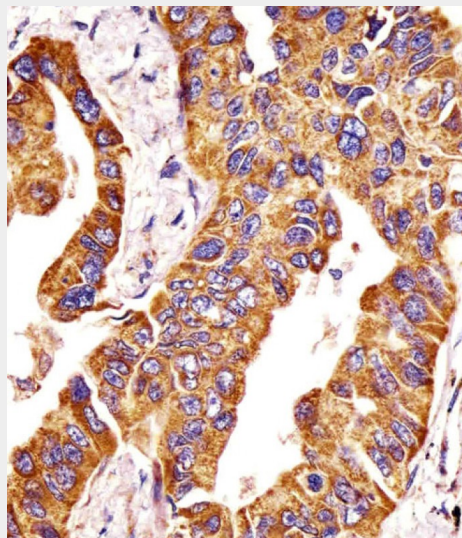
#### Tissue Location

Expressed in stromal cells of colon, breast, and head and neck. Expressed in lung tumors.

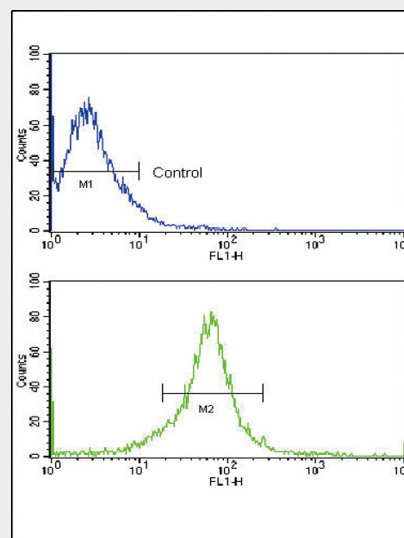
### MMP14 Antibody (N-term) - Protocols

Provided below are standard protocols that you

dilution + Mouse lung lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 66 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP6198a staining MMP14 in human lung adenocarcinoma tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0.5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



Flow cytometric analysis of MCF-7 cells using

may find useful for product applications.

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- [Blocking Peptides](#)
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- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
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MMP14 Antibody (N-term) (bottom histogram) compared to a negative control (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### **MMP14 Antibody (N-term) - Background**

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 MMPs are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. MMP14 seems to specifically activate progelatinase A, and may thus trigger invasion by tumor cells by activating progelatinase A on the tumor cell surface. Expression is significant in stromal cells of colon, breast, and head and neck.

### **MMP14 Antibody (N-term) - References**

Will, H., et al., Eur. J. Biochem. 231(3):602-608 (1995).  
Takino, T., et al., Gene 155(2):293-298 (1995).  
Okada, A., et al., Proc. Natl. Acad. Sci. U.S.A. 92(7):2730-2734 (1995).  
Sato, H., et al., Nature 370(6484):61-65 (1994).

### **MMP14 Antibody (N-term) - Citations**

- [Targeting the MMP-14/MMP-2/integrin  \$\alpha\$ v \$\beta\$ 3 axis with multispecific N-TIMP2-based antagonists for cancer therapy.](#)
- [Nkx2-5 Is Expressed in Atherosclerotic Plaques and Attenuates Development of Atherosclerosis in Apolipoprotein E-Deficient Mice.](#)
- [Regulation of CXCR4-mediated invasion by DARPP-32 in gastric cancer cells.](#)