

**MMP14 Antibody**  
**Purified Mouse Monoclonal Antibody**  
**Catalog # AO2127a****Specification****MMP14 Antibody - Product Information**

Application	<b>E, WB, FC, IHC</b>
Primary Accession	<a href="#">P50281</a>
Reactivity	<b>Human</b>
Host	<b>Mouse</b>
Clonality	<b>Monoclonal</b>
Isotype	<b>IgG1</b>
Calculated MW	<b>65.9kDa 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. However, the protein encoded by this gene is a member of the membrane-type MMP (MT-MMP) subfamily; each member of this subfamily contains a potential transmembrane domain suggesting that these proteins are expressed at the cell surface rather than secreted. This protein activates MMP2 protein, and this activity may be involved in tumor invasion.

**Immunogen**

Purified recombinant fragment of human MMP14 (AA: 112-246) expressed in E. Coli.

**Formulation**

Purified antibody in PBS with 0.05% sodium azide

**MMP14 Antibody - Additional Information**

**Gene ID** 4323

**Other Names**

Matrix metalloproteinase-14, MMP-14, 3.4.24.80, MMP-X1, Membrane-type matrix metalloproteinase 1, MT-MMP 1, MTMMP1, Membrane-type-1 matrix metalloproteinase, MT1-MMP, MT1MMP, MMP14

**Dilution**

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

MMP14 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## MMP14 Antibody - Protein Information

**Name** MMP14

### Function

Endopeptidase that degrades various components of the extracellular matrix such as collagen (PubMed:<a href="http://www.uniprot.org/citations/8015608" target="\_blank">8015608</a>). Essential for pericellular collagenolysis and modeling of skeletal and extraskeletal connective tissues during development (By similarity). Activates progelatinase A/MMP2, thereby acting as a positive regulator of cell growth and migration (PubMed:<a href="http://www.uniprot.org/citations/22065321" target="\_blank">22065321</a>, PubMed:<a href="http://www.uniprot.org/citations/8015608" target="\_blank">8015608</a>). 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>, PubMed:<a href="http://www.uniprot.org/citations/22065321" target="\_blank">22065321</a>). 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 regulator of Notch signaling by mediating cleavage and inhibition of DLL1 (PubMed:<a href="http://www.uniprot.org/citations/21572390" target="\_blank">21572390</a>). Cleaves ADGRB1 to release vasculostatin-40 which inhibits angiogenesis (PubMed:<a href="http://www.uniprot.org/citations/22330140" target="\_blank">22330140</a>). Acts as a negative regulator of the GDF15-GFRAL aversive response by mediating cleavage and inactivation of GFRAL (PubMed:<a href="http://www.uniprot.org/citations/35177851" target="\_blank">35177851</a>).

### Cellular Location

Cell membrane; Single-pass type I membrane protein. Melanosome. Cytoplasm Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065). Forms a complex with BST2 and localizes to the cytoplasm (PubMed:17081065)

### Tissue Location

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

## MMP14 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](#)