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

MMP14 Antibody (C-term)
Mouse Monoclonal Antibody (Mab)
Catalog # AM1832a

Specification

MMP14 Antibody (C-term) - Product Information

Application	**WB, IF,E**
Primary Accession	P50281
Other Accession	Q10739, Q95220, Q9XT90, P53690, Q9GLE4, NP_004986.1
Reactivity	**Human**
Predicted	**Bovine, Mouse, Pig, Rabbit, Rat**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgM**
Antigen Region	**470-499**

MMP14 Antibody (C-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 mice immunized with a KLH conjugated synthetic peptide between 470-499 amino acids from the C-terminal region of human MMP14.

Dilution
WB~~1:1000
IF~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
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 (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

MMP14 Antibody (C-term) - Protein Information

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

Name MMP14

Function Endopeptidase that degrades various components of the extracellular matrix such as collagen (PubMed:8015608). 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:22065321, PubMed:8015608). Involved in the formation of the fibrovascular tissues in association with pro-MMP2 (PubMed:12714657, PubMed:22065321). May be involved in actin cytoskeleton reorganization by cleaving PTK7 (PubMed:20837484). Acts as a regulator of Notch signaling by mediating cleavage and inhibition of DLL1 (PubMed:21572390). Cleaves ADGRB1 to release vasculostatin-40 which inhibits angiogenesis (PubMed:22330140). Acts as a negative regulator of the GDF15-GFRAL aversive response by mediating cleavage and inactivation of GFRAL (PubMed:35177851).

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)

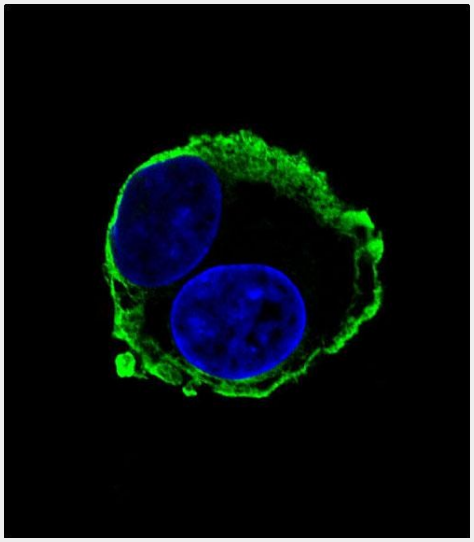
Tissue Location
Expressed in stromal cells of colon, breast, and head and neck. Expressed in lung tumors.

MMP14 Antibody (C-term) - Protocols

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

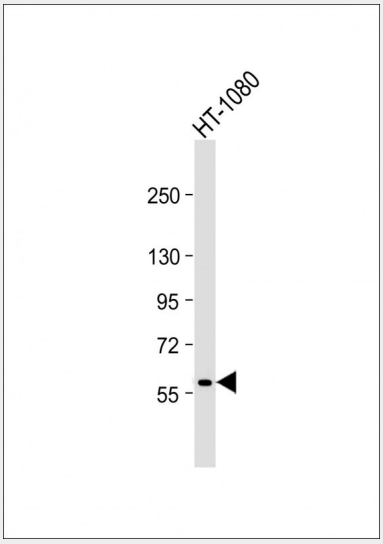
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

MMP14 Antibody (C-term) - Images



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

Confocal immunofluorescent analysis of MMP14 Antibody (C-term) (Cat#AM1832a) with HepG2 cell followed by Alexa Fluor® 488-conjugated goat anti-mouse lgG (green). DAPI was used to stain the cell nuclear (blue).



Anti-MMP14 Antibody (C-term) at 1:1000 dilution + HT-1080 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgM, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 65 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

MMP14 Antibody (C-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 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.

MMP14 Antibody (C-term) - References

Onimaru, M., et al. Arterioscler. Thromb. Vasc. Biol. 30(4):818-826(2010)
Wipff, J., et al. J. Rheumatol. 37(3):599-602(2010)
Liao, M.C., et al. Biochemistry 49(6):1127-1136(2010)