

# MMP12 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6196a

## Product Information

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<b>Application</b>	WB, IF, IHC-P, E
<b>Primary Accession</b>	<a href="#">P39900</a>
<b>Other Accession</b>	<a href="#">NP_002417</a>
<b>Reactivity</b>	Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	Rabbit IgG
<b>Calculated MW</b>	54002
<b>Antigen Region</b>	391-420

## Additional Information

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<b>Gene ID</b>	4321
<b>Other Names</b>	Macrophage metalloelastase, MME, Macrophage elastase, ME, hME, Matrix metalloproteinase-12, MMP-12, MMP12, HME
<b>Target/Specificity</b>	This MMP12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 391-420 amino acids from the C-terminal region of human MMP12.
<b>Dilution</b>	WB~~1:1000 IF~~1:10~50 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
<b>Format</b>	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
<b>Storage</b>	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.
<b>Precautions</b>	MMP12 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	MMP12
<b>Synonyms</b>	HME
<b>Function</b>	May be involved in tissue injury and remodeling. Has significant elastolytic

activity. Can accept large and small amino acids at the P1' site, but has a preference for leucine. Aromatic or hydrophobic residues are preferred at the P1 site, with small hydrophobic residues (preferably alanine) occupying P3.

#### Cellular Location

Secreted, extracellular space, extracellular matrix

#### Tissue Location

Found in alveolar macrophages but not in peripheral blood monocytes

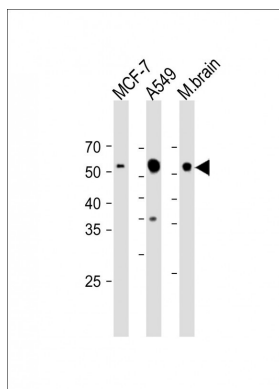
## Background

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. MMP12 may be involved in tissue injury and remodeling. This protein has significant elastolytic activity. MMP12 can accept large and small amino acids at the P1' site, but has a preference for leucine. Aromatic or hydrophobic residues are preferred at the P1 site, with small hydrophobic residues (preferably alanine) occupying P3. The protein is found in alveolar macrophages but not in peripheral blood monocytes. MMP12 can be induced by exposure to lipopolysaccharide, and is inhibited by dexamethasone.

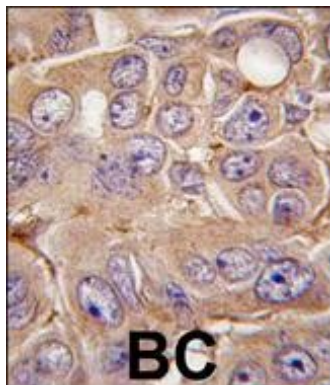
## References

- Nar, H., et al., J. Mol. Biol. 312(4):743-751 (2001).  
Lang, R., et al., J. Mol. Biol. 312(4):731-742 (2001).  
Gronski, T.J. Jr., et al., J. Biol. Chem. 272(18):12189-12194 (1997).  
Shapiro, S.D., et al., J. Biol. Chem. 268(32):23824-23829 (1993).

## Images

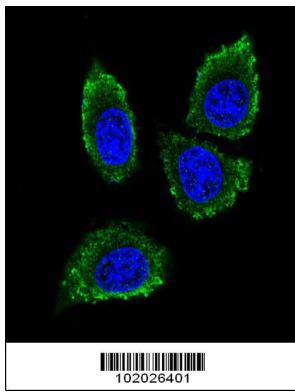


All lanes: Anti-MMP12 Antibody (C-term) at 1:1000 dilution  
Lane 1: MCF-7 whole cell lysate  
Lane 2: A549 whole cell lysate  
Lane 3: Mouse brain lysate  
Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 54 KDa  
Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with MMP12 antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Confocal immunofluorescent analysis of MMP12 Antibody



(C-term) (Cat. #AP6196a) with 293 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).

## Citations

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- [Nkx2-5 Is Expressed in Atherosclerotic Plaques and Attenuates Development of Atherosclerosis in Apolipoprotein E-Deficient Mice.](#)
- [Optimization of total protein and activity assays for the detection of MMP-12 in induced human sputum.](#)
- [Blockade of the c-Jun amino terminal kinase prevents crescent formation and halts established anti-GBM glomerulonephritis in the rat.](#)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.