10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

MMP12 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP6196a

Specification

MMP12 Antibody (C-term) - Product Information

Application	**IF, WB, IHC-P,E**
Primary Accession	P39900
Other Accession	NP_002417
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit Ig**
Antigen Region	**391-420**

MMP12 Antibody (C-term) - Additional Information

Gene ID 4321

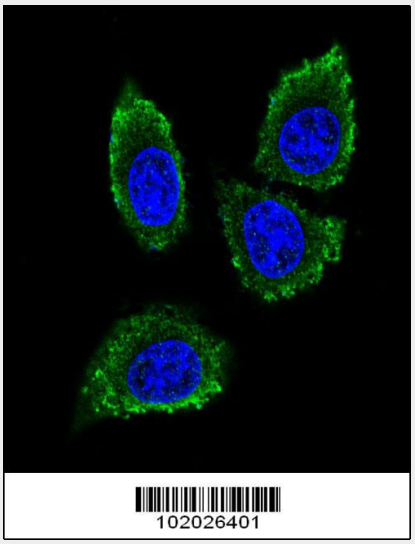
Other Names
Macrophage metalloelastase, MME, Macrophage elastase, ME, hME, Matrix metalloproteinase-12, MMP-12, MMP12, HME

Target/Specificity
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.

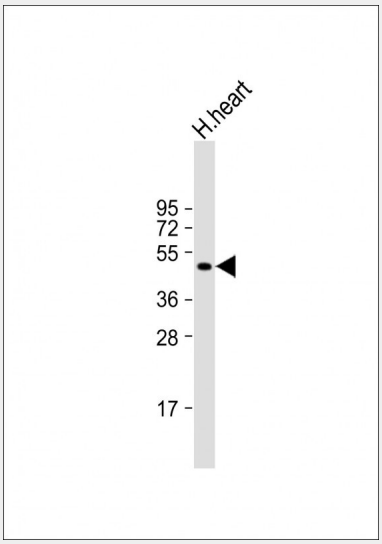
Dilution
IF~~1:10~50
WB~~1:1000
IHC-P~~1:25

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
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.



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).



Anti-MMP12 Antibody at 1:2000 dilution + human heart lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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Precautions
MMP12 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

MMP12 Antibody (C-term) - Protein Information

Name MMP12

Synonyms HME

Function
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.

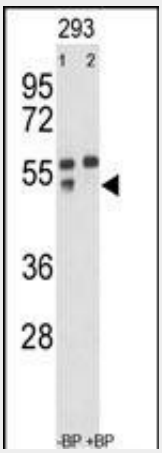
Cellular Location
Secreted, extracellular space, extracellular matrix

Tissue Location
Found in alveolar macrophages but not in peripheral blood monocytes

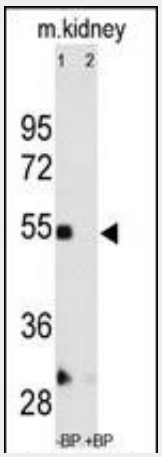
MMP12 Antibody (C-term) - Protocols

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



Western blot analysis of anti-hMMP12-R406 Pab (Cat. #AP6196a) pre-incubated without(lane 1) and with(lane 2) blocking peptide in 293 cell line lysate. MMP12(arrow) was detected using the purified Pab;



Western blot analysis of anti-hMMP12-R406 Pab (Cat. #AP6196a) pre-incubated without(lane 1) and with(lane 2) blocking peptide in mouse kidney tissue lysates. MMP12(arrow) was detected using the purified Pab.

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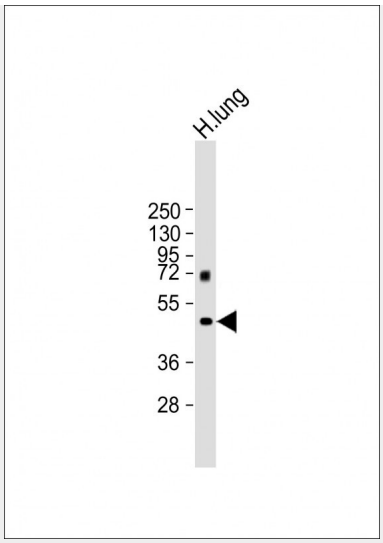
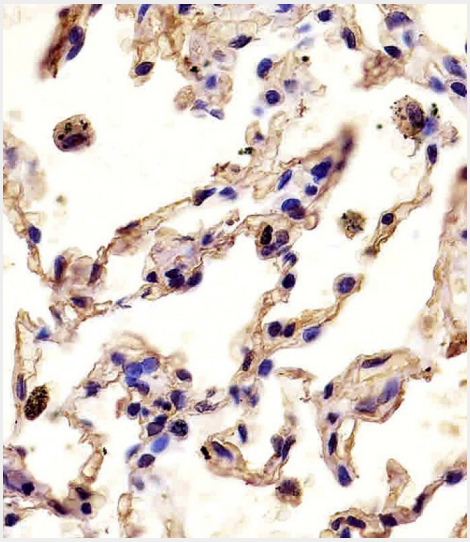


Anti-MMP12 Antibody at 1:1000 dilution + human lung lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



AP6196a staining MMP12 in human lung 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.

MMP12 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 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, wtih small hydrophobic residues (prefereably alanine) occupying P3. The protein is found in alveolar macrophages but not in peripheral blood monocytes. MMP12 can be induced by exposure to lypopolysaccharide, and is inhibited by dexamethasone.

MMP12 Antibody (C-term) - 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).

MMP12 Antibody (C-term) - Citations

- 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.