Product Name: Cleaved-MMP-12 (G106) Rabbit Polyclonal Antibody
Catalog #: APRab09010

Summary

Production Name	Cleaved-MMP-12 (G106) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	MMP12
Alternative Names	MMP12; HME; Macrophage metalloelastase; MME; Macrophage elastase; ME; hME; Matrix metalloproteinase-12; MMP-12
Gene ID	4321.0
SwissProt ID	P39900.The antiserum was produced against synthesized peptide derived from human MMP12. AA range:87-136

Application

Dilution Ratio	WB 1:500 - 1:2000. ELISA: 1:20000. Not yet tested in other applications.
Molecular Weight	42kD

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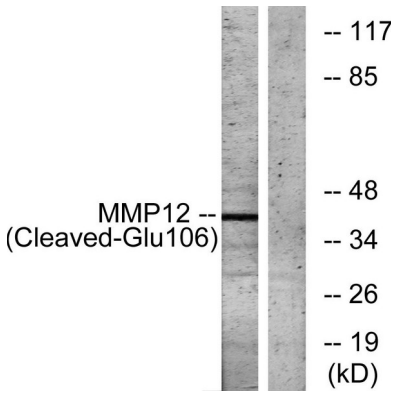
Background

This gene encodes a member of the peptidase M10 family of matrix metalloproteinases (MMPs). Proteins in this 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. The encoded preproprotein is proteolytically processed to generate the mature protease. This protease degrades soluble and insoluble elastin. This gene may play a role in aneurysm formation and mutations in this gene are associated with lung function and chronic obstructive pulmonary disease (COPD). This gene is part of a cluster of MMP genes on chromosome 11. [provided by RefSeq, Jan 2016],catalytic activity:Hydrolysis of soluble and insoluble elastin. Specific cleavages are also produced at 14-Ala-|-Leu-15 and 16-Tyr-|-Leu-17 in the B chain of insulin.,cofactor:Binds 2 zinc ions per subunit.,cofactor:Binds 4 calcium ions per subunit.,domain:The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.,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.,induction:By exposure to lipopolysaccharide. Inhibited by dexamethasone.,similarity:Belongs to the peptidase M10A family.,similarity:Contains 4 hemopexin-like domains.,tissue specificity:Found in alveolar macrophages but not in peripheral blood monocytes.,

Research Area

Angiogenesis

Image Data



Western blot analysis of lysates from NIH/3T3 cells, treated with etoposide 25uM 1h, using MMP12 (Cleaved-Glu106) Antibody. The lane on the right is blocked with the synthesized peptide.

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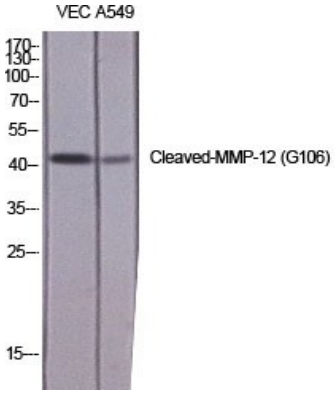
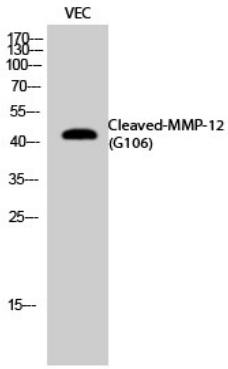


Western Blot analysis of various cells using Cleaved-MMP-12 （G106） Polyclonal Antibody diluted at 1：1000



Western Blot analysis of VEC cells using Cleaved-MMP-12 （G106） Polyclonal Antibody diluted at 1：1000

Note

For research use only.