SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

[Primary Antibody]

Rabbit Anti-MMP12 antibody

Catalog Number: SL23567R

FOR RESEARCH USE ONLY

[DATASHEET]

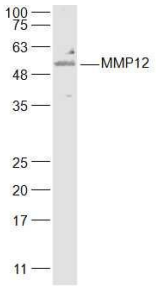
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	MMP12
Immunogen:	KLH conjugated synthetic peptide derived from mouse MMP12: 151-250/473
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Mouse(predicted:Rat)
Predicted MW.:	52kDa
Subcellular Location:	Extracellular matrix Secretory protein
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, metastasis, and atherosclerosis. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. MMP12 was first described in murine macrophages, later in human macrophages, and more recently in other cell types. Also known as metalloelastase, MMP12 is able to degrade elastin, entactin, laminin 1, fibronectin, type IV collagen as well as insulin B-chain and casein. MMP12 is often confused with the Serine proteinase, Leukocyte elastase (EC 3.4.21.37) because of similar nomenclature. MMP12 is structurally similar to the classical MMPs (MMP1, MMP3); it contains a propeptide with autoinhibitory cysteine switch site, a well-conserved zinc site, hinge region and hemopexin domain. MMP12 lacks a

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	transmembrane domain and furin cleavage site. The zymogen for MMP-12 is about 54 kD, and is quickly activated to the 45 kD form; and this breaks down to cascade of active forms, ending with the common 22 kD form. Stimulated macrophages produce MMP12; it has also been found in osteosarcoma cells, synovial fibroblasts and lung fibroblasts. **Subcellular Location:** Secreted, extracellular space, extracellular matrix (Probable). **Tissue Specificity:** Found in alveolar macrophages but not in peripheral blood monocytes. **Similarity:** Belongs to the peptidase M10A family. Contains 4 hemopexin-like domains. **Database links:** **Entrez Gene:** 4321 Human **Entrez Gene:** 17381 Mouse **Entrez Gene:** 117033 Rat Omim: 601046 Human **SwissProt:** P39900 Human **SwissProt:** P34960 Mouse **SwissProt:** Q63341 Rat **Unigene:** 1695 Human **Unigene:** 2055 Mouse **Unigene:** 33193 Rat MMP12 (macrophage metalloelastase) can convert plasminogen into the angiogenesis inhibitor angiostatin, and is an important inhibitor of tumor angiogenesis.

[VALIDATION IMAGES]



Sample:
Lung (Mouse) Lysate at 40 ug
Primary: Anti-MMP12 (SL23567R) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 52 kD
Observed band size: 52 kD

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