



Rabbit Anti-MMP9 antibody

SL0397R

Product Name:	MMP9
Chinese Name:	基质金属蛋白酶-9抗体
Alias:	Matrix metalloproteinase-9 precursor; MMP-9; MMP9; MMP 9; 92 kDa type IV; Collagenase; 92 kDa gelatinase; Gelatinase B; GELB; MMP9_HUMAN; 82 kDa matrix metalloproteinase-9; 92 kDa type IV collagenase; CLG 4B; CLG-4B; CLG4B; Collagenase Type 4 beta; Collagenase Type-4 beta; Collagenase type IV 92 KD; Collagenase type IV 92 KD; EC 3.4.24.35; Gelatinase 92 KD; Gelatinase 92 KD; Gelatinase beta; Gelatinase-beta; GelatinaseB; GELB; Macrophage gelatinase; MANDP2; Matrix metalloproteinase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); Matrix Metalloproteinase 9; Type V collagenase.
文献引用 PubMed :	<p>Specific References(5) SL0397R has been referenced in 5 publications.</p> <p>[IF=2.79]Qin, YuanHua, et al. "Recombinant human CXCL8 (3-72) K11R/G31P regulates smooth muscle cell proliferation and migration through blockage of interleukin-8 receptor." IUBMB life 65.1 (2013): 67-75.Mouse. PubMed:23281038</p> <p>[IF=2.39]Basak, Sanjay, et al. "The interplay between glucose and fatty acids on tube formation and fatty acid uptake in the first trimester trophoblast cells, HTR8/SVneo." Molecular and Cellular Biochemistry (2014): 1-9.WB;Human. PubMed:25413343</p> <p>[IF=0.56]Sulistyowati, Sri, Yuniarsih Zakia, and Soetrisno Khasan. "High MMP-9 and TNF-α expression increase in preterm premature rupture of membranes."Universa Medicina 35.1 (2016): 33-39.IHC;Human. PubMed:0</p> <p>[IF=3.03]Zhao, Zhe, et al. "Inhibition of NF-kappaB activation by Pyrrolidine</p>

	<p>dithiocarbamate partially attenuates hippocampal MMP-9 activation and improves cognitive deficits in streptozotocin-induced diabetic rats."Behavioural brain research 238 (2013): 44-47.WB;Rat.</p> <p style="text-align: right;">PubMed:23089644</p> <p>[IF=3.23]Borin, Thaiz F., et al. "HET0016 decreases lung metastasis from breast cancer in immune-competent mouse model." PLoS One 12.6 (2017).IHC-P;Mouse.</p> <p style="text-align: right;">PubMed:28609459</p>
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	<p>ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair)</p> <p>not yet tested in other applications.</p> <p>optimal dilutions/concentrations should be determined by the end user.</p>
Molecular weight:	78kDa
Cellular localization:	Extracellular matrixSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human MMP9:611-707/707
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	<p>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. The enzyme encoded by this gene degrades type IV and V collagens. Studies in rhesus monkeys suggest that the enzyme is involved in IL-8-induced mobilization of hematopoietic progenitor cells from bone marrow, and murine studies suggest a role in tumor-associated tissue remodeling. [provided by RefSeq, Jul 2008]</p> <p>Function: May play an essential role in local proteolysis of the extracellular matrix and in leukocyte migration. Could play a role in bone osteoclastic resorption. Cleaves KiSS1 at a Gly- -Leu bond. Cleaves type IV and type V collagen into large C-terminal three quarter fragments and shorter N-terminal one quarter fragments. Degrades fibronectin</p>

but not laminin or Pz-peptide.

Subunit:

Exists as monomer or homodimer; disulfide-linked. Exists also as heterodimer with a 25 kDa protein. Macrophages and transformed cell lines produce only the monomeric form. Interacts with ECM1.

Subcellular Location:

Secreted; extracellular space; extracellular matrix.

Tissue Specificity:

Produced by normal alveolar macrophages and granulocytes.

Post-translational modifications:

Processing of the precursor yields different active forms of 64, 67 and 82 kDa. Sequentially processing by MMP3 yields the 82 kDa matrix metalloproteinase-9.

DISEASE:

Defects in MMP9 are the cause of metaphyseal anadysplasia type 2 (MANDP2) [MIM:613073]. Metaphyseal anadysplasia consists of an abnormal bone development characterized by severe skeletal changes that, in contrast with the progressive course of most other skeletal dysplasias, resolve spontaneously with age. Clinical characteristics are evident from the first months of life and include slight shortness of stature and a mild varus deformity of the legs. Patients attain a normal stature in adolescence and show improvement or complete resolution of varus deformity of the legs and rhizomelic micromelia.

Similarity:

Belongs to the peptidase M10A family.
Contains 3 fibronectin type-II domains.
Contains 4 hemopexin-like domains.

SWISS:

P14780

Gene ID:

4318

Database links:

[Entrez Gene: 403885](#)Dog

[Entrez Gene: 4318](#)Human

[Entrez Gene: 17395](#)Mouse

[Entrez Gene: 81687](#)Rat

[Omim: 120361](#)Human

[SwissProt: O18733](#)Dog

[SwissProt: P14780](#)Human

[SwissProt: P41245](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Synthesis and Degradation(Synthesis and Degradation)

MMP9亦称IV型胶原酶或明胶酶B, 其主要功能为降解IV型胶原。因而它在Tumour细胞突破基底膜屏障和浸润转移中起重要作用。

目前主要用于各种恶性Tumour(如乳腺癌、胃肠道癌、卵巢癌、膀胱癌等)中的基底膜检测与转移浸润的研究。Extracellular

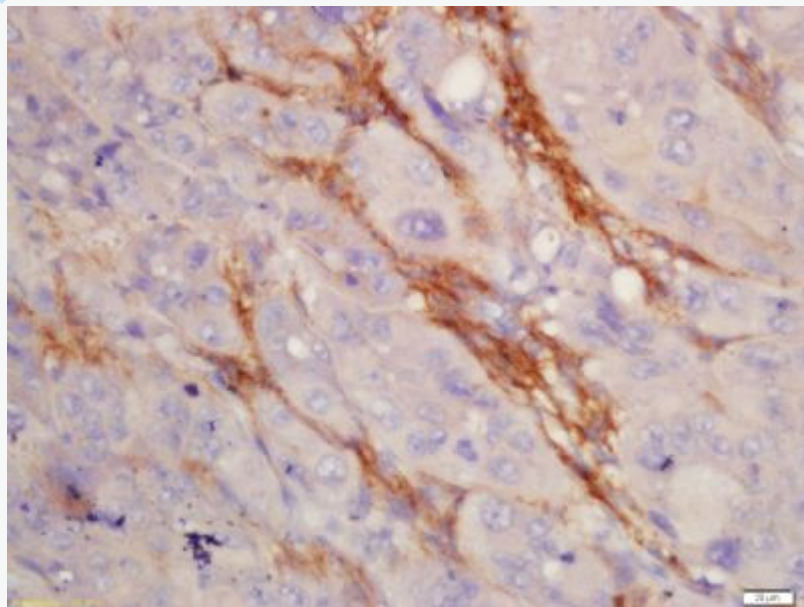
matrix在维持正常组织结构与功能以及细胞生长和分化过程中起重要作用。Extracellular

matrix动态平衡的失调与Tumour细胞侵袭、转移和复发密切相关, 基质金属蛋白酶(MMP-9)是Extracellular

matrix的降解酶, 可降解IV、V、IX、XI型胶原, 在Tumour的浸润、转移过程中起重要作用, 近年为Tumour研究的热点。

Kiss-1与MMP-9、MMP-2 是转移浸润研究的热门课题。

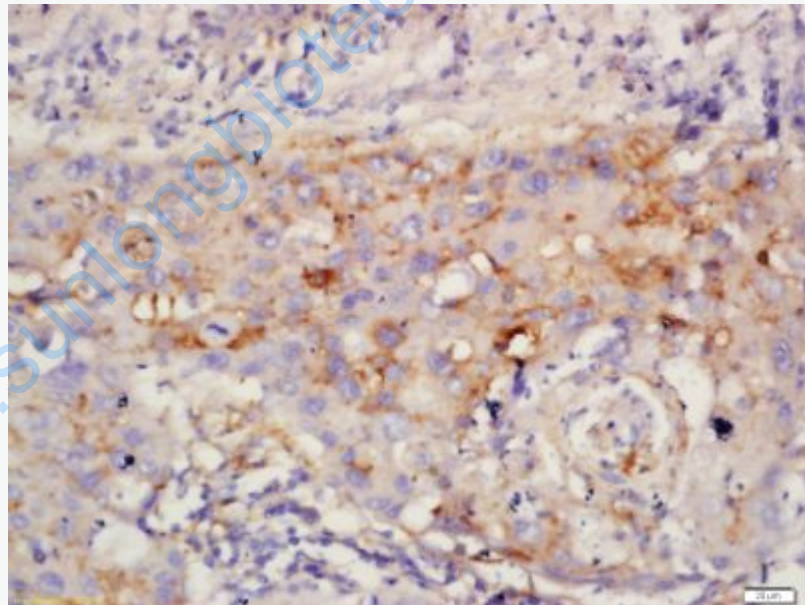
Picture:



Tissue/cell: Human laryngeal tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

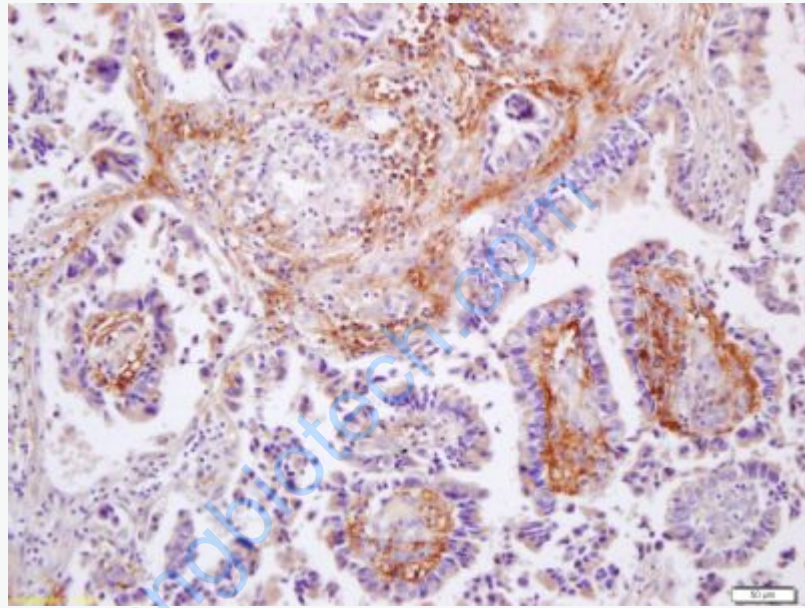
Incubation: Anti-MMP9 Polyclonal Antibody, Unconjugated(SL0397R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: Human lung cancer tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citr Human lung cancerate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

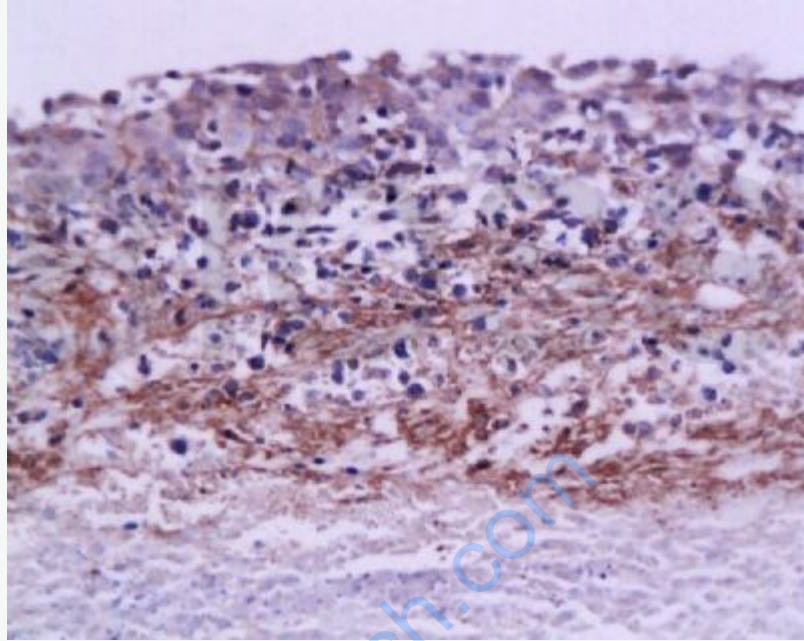
Incubation: Anti-MMP9 Polyclonal Antibody, Unconjugated(SL0397R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-MMP-9 Polyclonal Antibody, Unconjugated(SL0397R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat ovary carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-MMP-9 Polyclonal Antibody, Unconjugated(SL0397R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining