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Rabbit Anti-MMP9 antibody

SL7059R

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.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Horse,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	66/76kDa
Cellular localization:	Secretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human MMP-9:371-470/707
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:	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].

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 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 (Probable).

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. N- and O-glycosylated.

DISEASE:
Intervertebral disc disease (IDD) [MIM:603932]: A common musculo-skeletal disorder caused by degeneration of intervertebral disks of the lumbar spine. It results in low-back pain and unilateral leg pain. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry.
Metaphyseal anadysplasia 2 (MANDP2) [MIM:613073]: A bone development disorder characterized by skeletal anomalies that 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. Note=The disease is caused by mutations affecting the gene represented in this entry.

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

SWISS:

P14780

Gene ID:
4318

Database links:

Entrez Gene: 403885Dog

Entrez Gene: 4318Human

Entrez Gene: 17395Mouse

Entrez Gene: 81687Rat

Omim: 120361Human

SwissProt: O18733Dog

SwissProt: P14780Human

SwissProt: P41245Mouse

SwissProt: P50282Rat

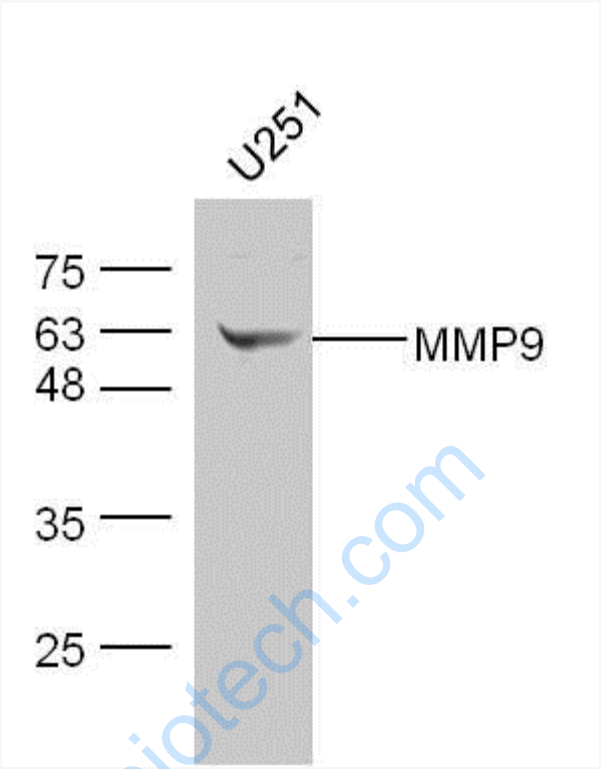
Unigene: 297413Human

Unigene: 4406Mouse

Unigene: 10209Rat

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

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(MMP9)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。

Picture:	 Sample: U251 Cell (Human) Lysate at 40 ug Primary: Anti-MMP9 (SL7059R) at 1/300 dilution Secondary: HRP conjugated Goat-Anti-rabbit IgG (SL7059R) at 1/5000 dilution Predicted band size: 66 kD Observed band size: 63 kD