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Rabbit Anti-MMP9 antibody

SL4593R

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 metallopeptidase 9 (gelatinase B, 92kDa gelatinase, 92kDa type IV collagenase); Matrix Metalloproteinase 9; Type V collagenase.
文献引用 PubMed :	**Specific References(8)**|SL4593R has been referenced in 8 publications. **[IF=2.94]**Deng, XiaHeng, et al. "MiR-21 involve in ERK-mediated upregulation of MMP9 in the rat hippocampus following cerebral ischemia." Brain Research Bulletin (2013).**WB;Rat**. PubMed:23473787 **[IF=2.52]**Liu, Tianbo, et al. "Correlation of TNFAIP8 overexpression with the proliferation, metastasis, and disease-free survival in endometrial cancer." Tumor Biology (2014): 1-10.**IHC-P;Human**. PubMed:24590269 **[IF=1.93]**Lee, Hye Sook, et al. "Anti-neovascular effect of chondrocyte-derived extracellular matrix on corneal alkaline burns in rabbits." Graefes Archive for Clinical and Experimental Ophthalmology (2014): 1-11.**IHC-P;Rabbit**. PubMed:24789464 **[IF=1.43]**Wang, Xiao-yan, et al. "AMD3100 attenuates MMP-3 and MMP-9

	expressions and prevents cartilage degradation in a monosodium iodoacetate-induced rat model of temporomandibular osteoarthritis." Journal of Oral and Maxillofacial Surgery (2016).**IHC-P;Rat**. PubMed:26851314 **[IF=1.55]**Yang, Jinjiang, Ying Lu, and Ai Guo. "Platelet-rich plasma protects rat chondrocytes from interleukin-1β-induced apoptosis." Molecular Medicine Reports 14.5 (2016): 4075-4082.**WB;Rat**. PubMed:27665780 **[IF=2.54]**Wang, Li, et al. "Ghrelin inhibits atherosclerotic plaque angiogenesis and promotes plaque stability in a rabbit atherosclerotic model." Peptides (2017).**IHC-P;Rabbit**. PubMed:28189525 **[IF=0.00]**Wang, Menglei, et al. "The Effect of High Intensity Focused Ultrasound Keratoplasty on Rabbit Anterior Segment." Journal of Ophthalmology 2017 (2017).**IHC-P;Rabbit**. PubMed:28280636 **[IF=3.14]**Varghese, Sheeja, et al. "The inhibitory effect of anti-tumor polysaccharide from Punica granatum on metastasis." International Journal of Biological Macromolecules (2017).**WB;Human**. PubMed:28552725
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Horse,Rabbit,Sheep,
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:	78kDa
Cellular localization:	Extracellular matrixSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human MMP9:151-250/707
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:	All cells within tissues are surrounded by an extracellular matrix (ECM) giving the tissues shape and structure. The ECM is constantly being remodeled and constant communication is maintained between cells through this matrix. Secreted proteins, termed matrix metalloproteinases (MMPs), are involved in the modulation of cell matrix interactions. MMPs are Zn(2+) binding endopeptidases that degrade various components of the ECM. MMPs are enzymes implicated in normal and pathologic tissue remodeling processes, wound healing, angiogenesis, and tumor invasion. These enzymes are very potent when active, and are associated with extracellular space inhibitors called TIMPs (tissue inhibitors of matrix metalloproteinases). TIMPs have been shown to block tumor cell invasion suggesting that they act as metastasis suppressor genes. **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 **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:** Defects in MMP9 may be a cause of susceptibility to intervertebral disc disease (IDD) [MIM:603932]; also known as lumbar disk herniation (LDH). IDD is one of the most common musculo-skeletal disorders and the predominant cause of low-back pain and unilateral leg pain. 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.

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

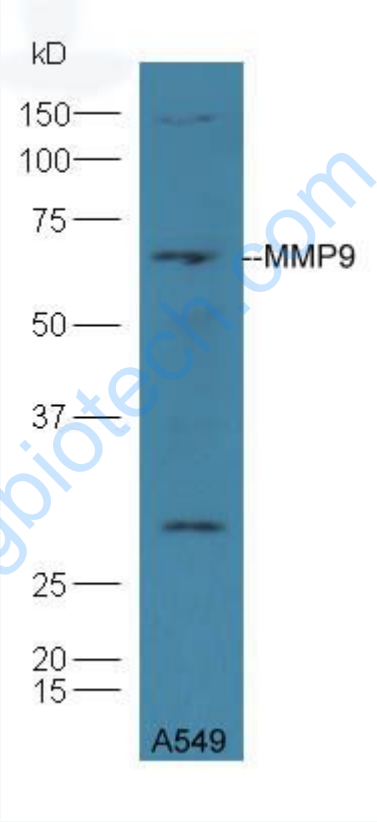
Unigene: 297413Human

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。Extracel

	lular 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: A549 Cell (Human) Lysate at 40 ug Primary: Anti-MMP9 (SL4593R) at 1/300 dilution Secondary: HRP conjugated Goat-Anti-rabbit IgG (SL4593R) at 1/5000 dilution Predicted band size: 78 kD Observed band size: 70 kD