



MMP-9 Polyclonal Antibody

Catalog No	YP-Ab-02639
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	MMP9
Protein Name	Matrix metalloproteinase-9
Immunogen	The antiserum was produced against synthesized peptide derived from human MMP-9. AA range:651-700
Specificity	MMP-9 Polyclonal Antibody detects endogenous levels of MMP-9 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. IF 1:100-300 Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	MMP9; CLG4B; Matrix metalloproteinase-9; MMP-9; 92 kDa gelatinase; 92 kDa type IV collagenase; Gelatinase B; GELB
Observed Band	78kD
Cell Pathway	Secreted, extracellular space, extracellular matrix .
Tissue Specificity	Detected in neutrophils (at protein level) (PubMed:7683678). Produced by normal alveolar macrophages and granulocytes.
Function	catalytic activity: Cleavage of gelatin types I and V and collagen types IV and V., cofactor: Binds 2 zinc ions per subunit., cofactor: Binds 3 calcium ions per subunit., disease: Defects in MMP9 may be a cause of susceptibility to lumbar disk herniation (LDH) [MIM:603932]. LDH is the predominant cause of low-back pain and unilateral leg pain., 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., enzyme regulation: Inhibited by histatin-3 1/24 (histatin-5), 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-I-Leu bond. Cleaves type IV and type V collagen into large C-terminal three qua

**Background**

matrix metalloproteinase 9(MMP9) Homo sapiens 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],

matters needing attention

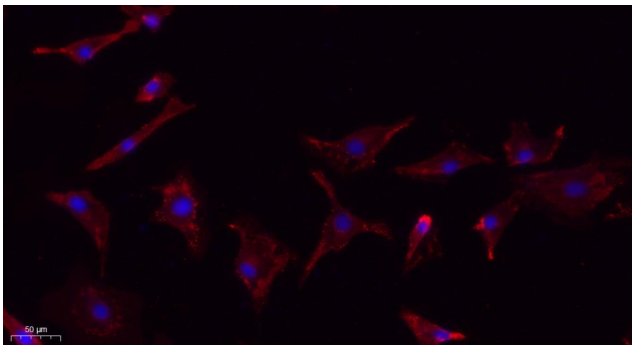
Avoid repeated freezing and thawing!

Usage suggestions

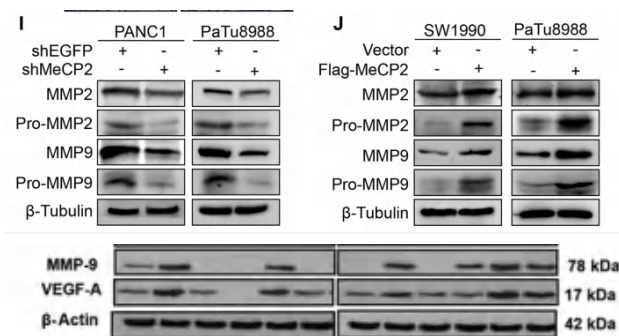
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Products Images



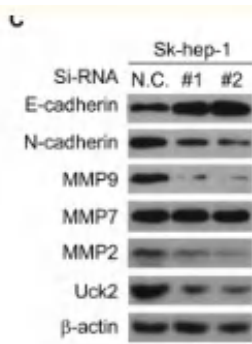
Immunofluorescence analysis of A549. 1,primary Antibody(red) was diluted at 1:200(4°C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000(room temperature, 50min).3, Picture B: DAPI(blue) 10min.



Wang, H., Li, J., He, J. et al. Methyl-CpG-binding protein 2 drives the Furin/TGF-β1/Smad axis to promote epithelial-mesenchymal transition in pancreatic cancer cells. *Oncogenesis* 9, 76 (2020).

Zou, Guoying, et al. "Inhibin B suppresses anoikis resistance and migration through the transforming growth factor-β signaling pathway in nasopharyngeal carcinoma." *Cancer science* 109.11 (2018): 3416.

Zhou, Qiming, et al. "Uridine-cytidine kinase 2 promotes metastasis of hepatocellular carcinoma cells via the Stat3 pathway." *Cancer management and research* 10 (2018): 6339.



Wang, Wei, et al. "Biological roles of human bone morphogenetic protein 9 in the bone microenvironment of human breast cancer MDA-MB-231 cells." *American journal of translational research* 7.9 (2015): 1660.

