

MMP-9 Polyclonal Antibody

Catalog No :	YT1892
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	MMP-9
Fields :	>>Endocrine resistance;>>IL-17 signaling pathway;>>TNF signaling pathway;>>Leukocyte transendothelial migration;>>Estrogen signaling pathway;>>Relaxin signaling pathway;>>Hepatitis B;>>Pathways in cancer;>>Transcriptional misregulation in cancer;>>Proteoglycans in cancer;>>MicroRNAs in cancer;>>Prostate cancer;>>Bladder cancer;>>Diabetic cardiomyopathy;>>Lipid and atherosclerosis;>>Fluid shear stress and atherosclerosis
Gene Name :	MMP9
Protein Name :	Matrix metalloproteinase-9
Human Gene Id :	4318
Human Swiss Prot No :	P14780
Mouse Swiss Prot No :	P41245
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
Dilution :	WB 1:500 - 1:2000. IHC: 1:100-300 ELISA: 1:20000. IF 1:100-300 Not yet tested in other applications.

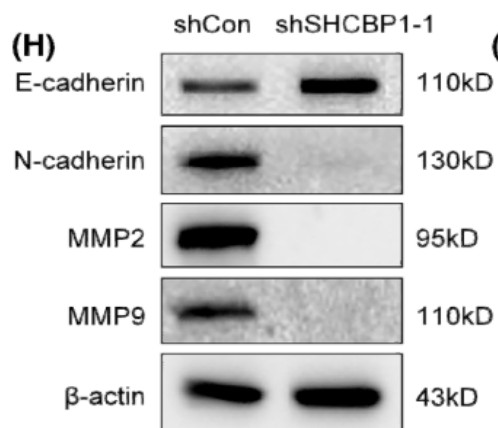
The antibody was affinity-purified from rabbit antiserum by affinity-

Purification :	<u>chromatography using epitope-specific immunogen.</u>
Concentration :	<u>1 mg/ml</u>
Storage Stability :	<u>-15°C to -25°C/1 year(Do not lower than -25°C)</u>
Observed Band :	<u>78kD</u>
Cell Pathway :	<u>Leukocyte transendothelial migration;Pathways in cancer;Bladder cancer;</u>
Background :	<u>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],</u>
Function :	<u>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</u>
Subcellular Location :	<u>Secreted, extracellular space, extracellular matrix .</u>
Expression :	<u>Detected in neutrophils (at protein level) (PubMed:7683678). Produced by normal alveolar macrophages and granulocytes.</u>
Tag :	<u>orthogonal,overexpression</u>
Sort :	<u>1</u>
No3 :	<u>ab76003</u>
No4 :	<u>1</u>

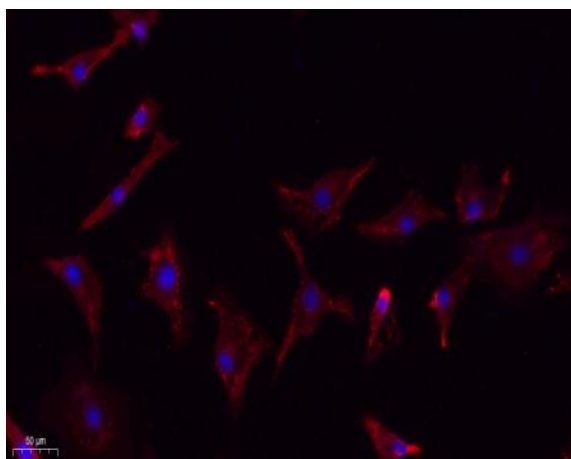
Host : Rabbit

Modifications : Unmodified

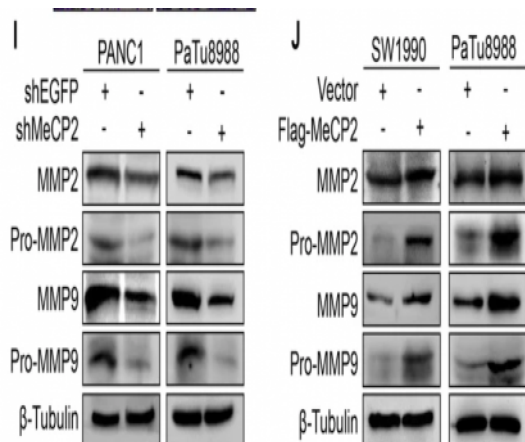
Products Images



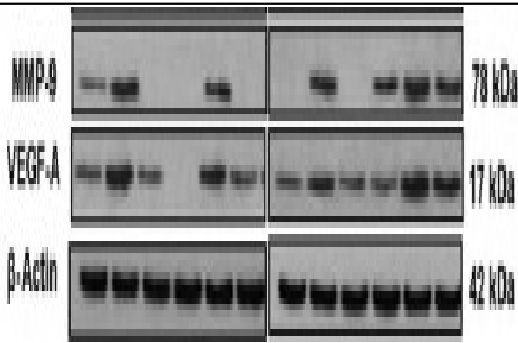
Rucaparib inhibits lung adenocarcinoma cell proliferation and migration via the SHCBP1/CDK1 pathway. FEBS Journal Rong Zhang WB Human 1 : 1000 A549 cell



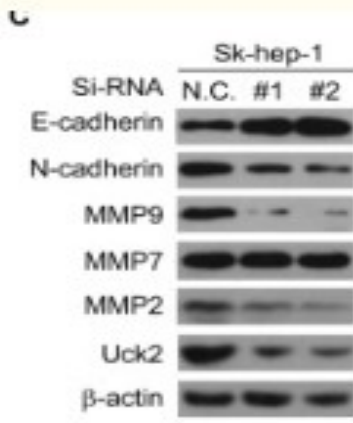
Immunofluorescence analysis of A549. 1, primary Antibody (red) was diluted at 1:200 (4°C overnight). 2, Goat Anti Rabbit IgG (H&L) - Alexa Fluor 594 Secondary antibody was diluted at 1:1000 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min.



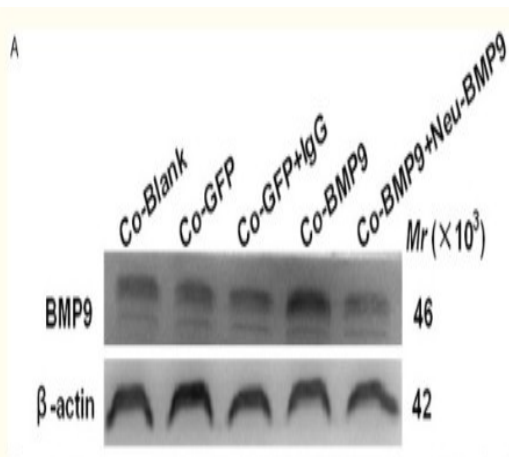
Wang, H., Li, J., He, J. et al. Methyl-CpG-binding protein 2 drives the Furin/TGF- β 1/Smad axis to promote epithelial-mesenchymal transition in pancreatic cancer cells. *Oncogenesis* 9, 76 (2020).



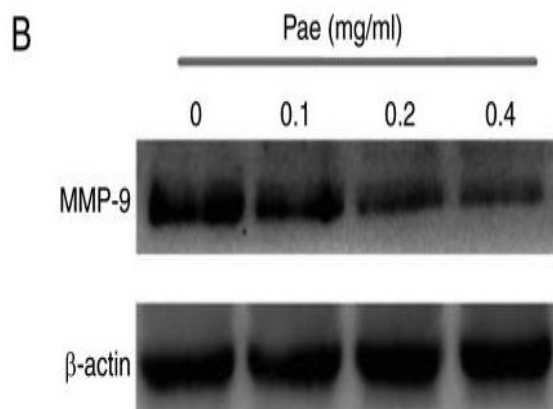
Zou, Guoying, et al. "Inhibin B suppresses anoikis resistance and migration through the transforming growth factor- β signaling pathway in nasopharyngeal carcinoma." *Cancer science* 109.11 (2018): 3416.



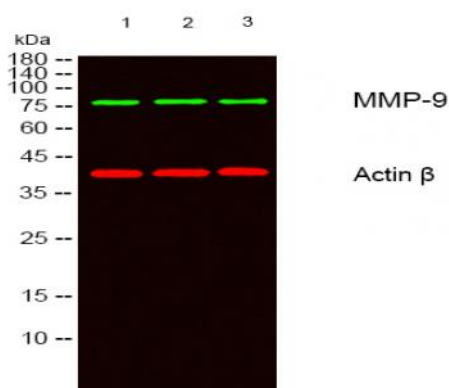
Zhou, Qiming, et al. "Uridine-cytidine kinase 2 promotes metastasis of hepatocellular carcinoma cells via the Stat3 pathway." *Cancer management and research* 10 (2018): 6339.



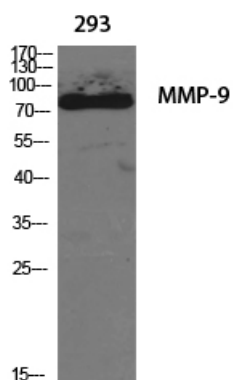
Wang, Wei, et al. "Biological roles of human bone morphogenetic protein 9 in the bone microenvironment of human breast cancer MDA-MB-231 cells." *American journal of translational research* 7.9 (2015): 1660.



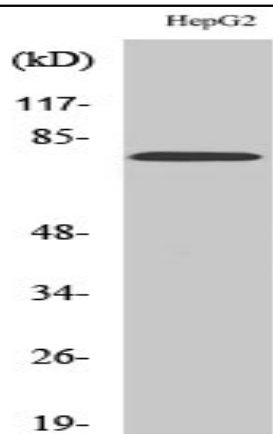
Lyu, Zhong-Kuan, et al. "Paeonol exerts potential activities to inhibit the growth, migration and invasion of human gastric cancer BGC823 cells via downregulating MMP-2 and MMP-9." *Molecular medicine reports* 16.5 (2017): 7513-7519.



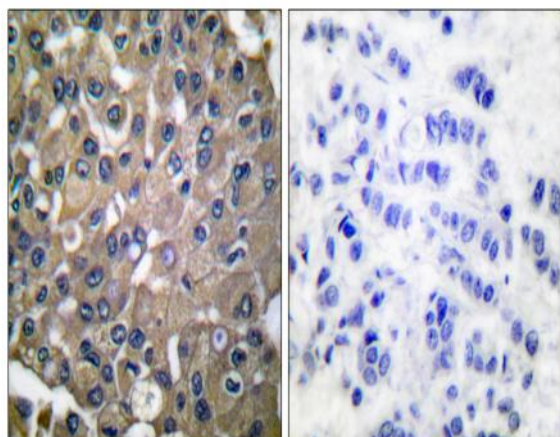
Western blot analysis of lysates from 1) 293, 2) HEPG2, 3) K562 cells, primary antibody was diluted at 1:1000, 4° over night, secondary antibody (cat:RS23920) was diluted at 1:10000, 37° 1 hour. Actin β Monoclonal Antibody (5B7) (cat:YM3028) antibody was diluted at 1:5000 as loading control, 4° over night, secondary antibody (cat:RS23710) was diluted at 1:10000, 37° 1 hour.



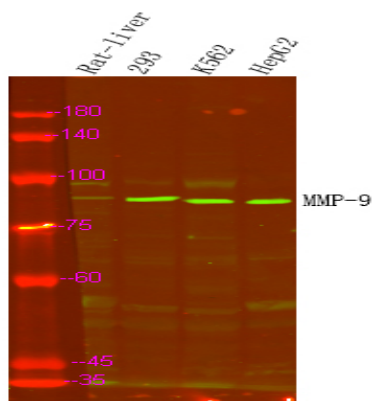
Western Blot analysis of various cells using MMP-9 Polyclonal Antibody diluted at 1:1000



Western Blot analysis of HepG2 cells using MMP-9 Polyclonal Antibody diluted at 1:1000



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using MMP-9 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from 1) Rat-liver ,2)293,3)HepG2,4)Hela, (Green) primary antibody was diluted at 1:1000, 4° over night, secondary antibody(cat:RS23920)was diluted at 1:10000, 37° 1hour.