

## MMP-2 Polyclonal Antibody

<b>Catalog No :</b>	YT2798
<b>Reactivity :</b>	Human;Mouse;Rat;Monkey
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	MMP-2
<b>Fields :</b>	>>Endocrine resistance;>>Leukocyte transendothelial migration;>>GnRH signaling pathway;>>Estrogen signaling pathway;>>Relaxin signaling pathway;>>AGE-RAGE signaling pathway in diabetic complications;>>Pathways in cancer;>>Proteoglycans in cancer;>>Bladder cancer;>>Diabetic cardiomyopathy;>>Fluid shear stress and atherosclerosis
<b>Gene Name :</b>	MMP2
<b>Protein Name :</b>	72 kDa type IV collagenase
<b>Human Gene Id :</b>	4313
<b>Human Swiss Prot No :</b>	P08253
<b>Mouse Gene Id :</b>	17390
<b>Mouse Swiss Prot No :</b>	P33434
<b>Rat Gene Id :</b>	81686
<b>Rat Swiss Prot No :</b>	P33436
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human MMP-2. AA range:611-660
<b>Specificity :</b>	MMP-2 Polyclonal Antibody detects endogenous levels of MMP-2 protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG

**Dilution :** WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:20000. Not yet tested in other applications.

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**Purification :** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

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**Concentration :** 1 mg/ml

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**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

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**Observed Band :** 74kD

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**Cell Pathway :** Leukocyte transendothelial migration;GnRH;Pathways in cancer;Bladder cancer;

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**Background :** matrix metalloproteinase 2(MMP2) Homo sapiens This gene is a member of the matrix metalloproteinase (MMP) gene family, that are zinc-dependent enzymes capable of cleaving components of the extracellular matrix and molecules involved in signal transduction. The protein encoded by this gene is a gelatinase A, type IV collagenase, that contains three fibronectin type II repeats in its catalytic site that allow binding of denatured type IV and V collagen and elastin. Unlike most MMP family members, activation of this protein can occur on the cell membrane. This enzyme can be activated extracellularly by proteases, or, intracellularly by its S-glutathiolation with no requirement for proteolytical removal of the pro-domain. This protein is thought to be involved in multiple pathways including roles in the nervous system, endometrial menstrual breakdown, regulation of vascularization, and metastasis. Mutations in this gene have been associated with Win

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**Function :** catalytic activity: Cleavage of gelatin type I and collagen types IV, V, VII, X. Cleaves the collagen-like sequence Pro-Gln-Gly-|-Ile-Ala-Gly-Gln., cofactor: Binds 2 zinc ions per subunit., cofactor: Binds 4 calcium ions per subunit., disease: Defects in MMP2 are the cause of Torg-Winchester syndrome [MIM:259600]; also called multicentric osteolysis nodulosis and arthropathy (MONA). Torg-Winchester syndrome is an autosomal recessive osteolysis syndrome. It is severe with generalized osteolysis and osteopenia. Subcutaneous nodules are usually absent. Torg-Winchester syndrome has been associated with a number of additional features including coarse face, corneal opacities, patches of thickened, hyperpigmented skin, hypertrichosis and gum hypertrophy. However, these features are not always present and have occasionally been observed in other osteolysis syndromes., domain: The conserved cysteine pres

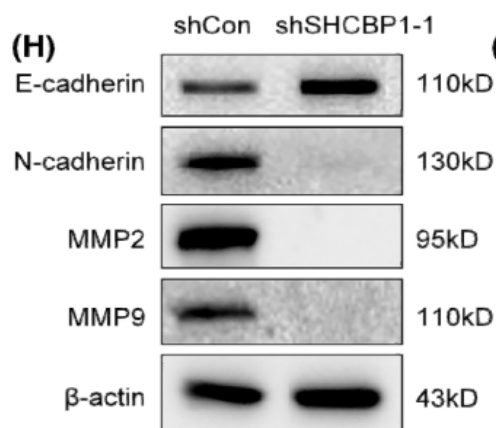
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**Subcellular Location :** [Isoform 1]: Secreted, extracellular space, extracellular matrix . Membrane. Nucleus. Colocalizes with integrin alphaV/beta3 at the membrane surface in angiogenic blood vessels and melanomas. Found in mitochondria, along microfibrils, and in nuclei of cardiomyocytes.; [Isoform 2]: Cytoplasm. Mitochondrion.

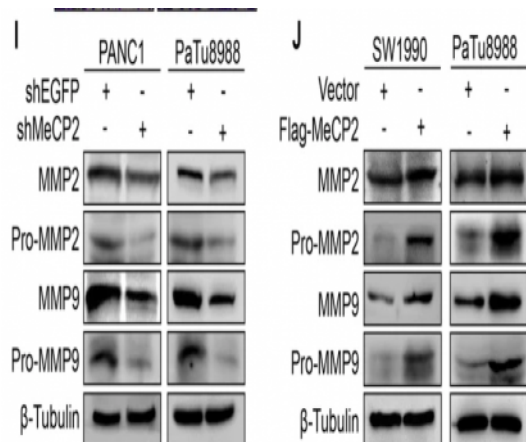
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<b>Expression :</b>	Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate.
<b>Tag :</b>	orthogonal,hot
<b>Sort :</b>	1
<b>No3 :</b>	ab92536
<b>No4 :</b>	1
<b>Host :</b>	Rabbit
<b>Modifications :</b>	Unmodified

## Products Images

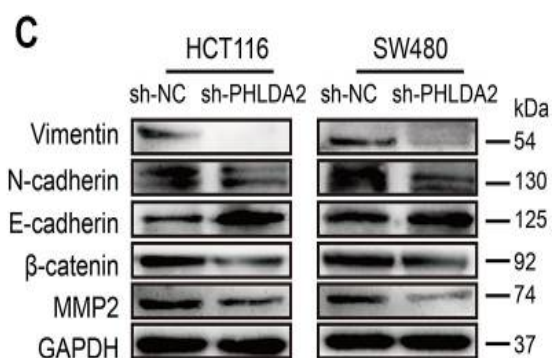


Rucaparib inhibits lung adenocarcinoma cell proliferation and migration via the SHCBP1/CDK1 pathway. FEBS Journal Rong Zhang WB Human 1 : 1000 A549 cell

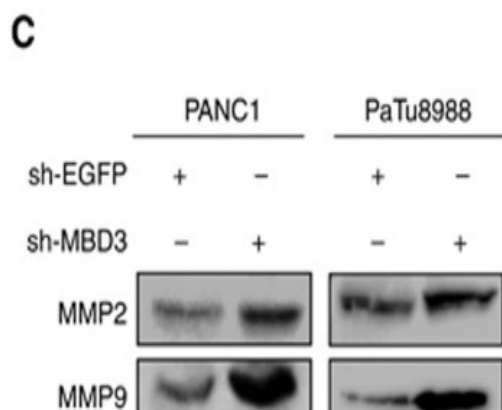


Wang, H., Li, J., He, J. et al. Methyl-CpG-binding protein 2 drives the Furin/TGF- $\beta$ 1/Smad axis to promote epithelial-mesenchymal transition in pancreatic cancer cells. *Oncogenesis*9, 76 (2020).

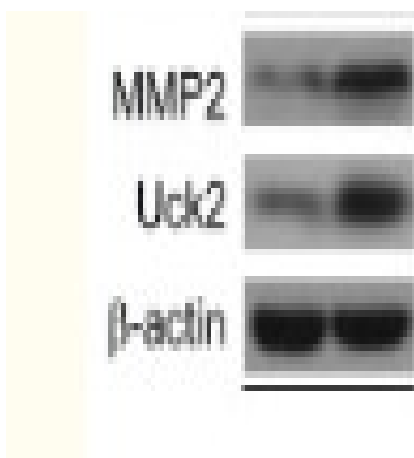
Ma, Zhan, Shuping Lou, and Zheng Jiang. "PHLDA2 regulates EMT and autophagy in colorectal cancer via the PI3K/AKT signaling pathway." *Aging (Albany NY)* 12.9 (2020): 7985.



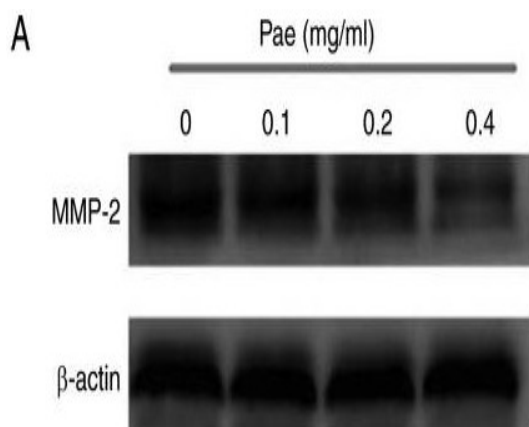
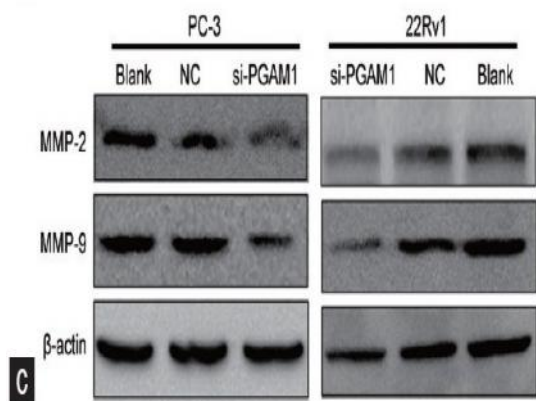
Xu, Min, et al. "Methyl-CpG-binding domain 3 inhibits epithelial-mesenchymal transition in pancreatic cancer cells via TGF-β/Smad signalling." *British journal of cancer* 116.1 (2017): 91.



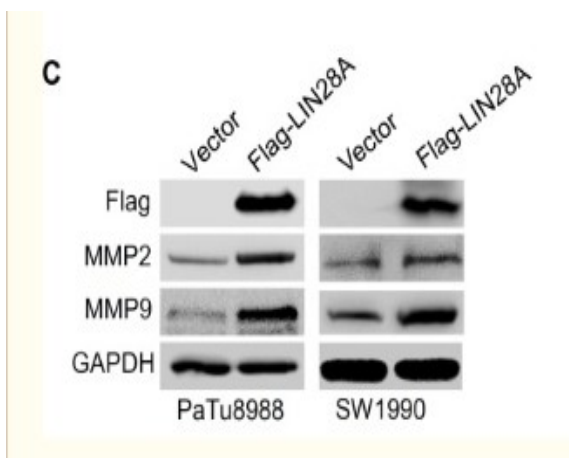
Zhou, Qiming, et al. "Uridine-cytidine kinase 2 promotes metastasis of hepatocellular carcinoma cells via the Stat3 pathway." *Cancer management and research* 10 (2018): 6339.



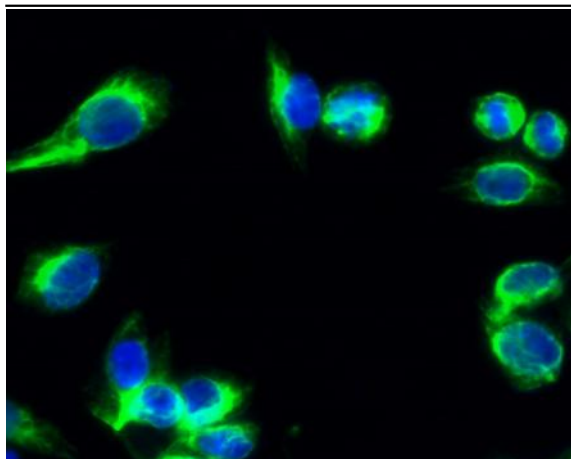
Wen, Yao-An, et al. "Phosphoglycerate mutase 1 knockdown inhibits prostate cancer cell growth, migration, and invasion." *Asian journal of andrology* 20.2 (2018): 178.



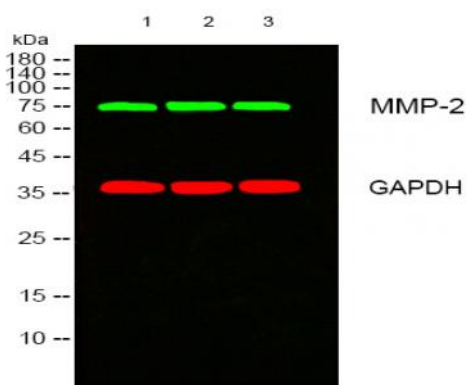
Lyu, Zhong-Kuan, et al. "Paeonol exerts potential activities to inhibit the growth, migration and invasion of human gastric cancer BGC823 cells via downregulating MMP-2 and MMP-9." *Molecular medicine reports* 16.5 (2017): 7513-7519.



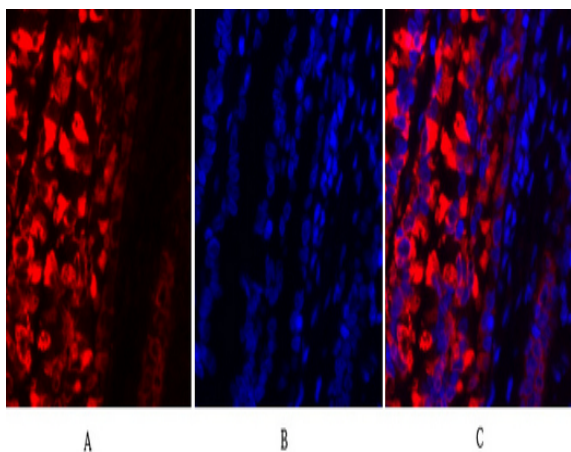
Xu, Min, et al. "MeCP2 suppresses LIN28A expression via binding to its methylated-CpG islands in pancreatic cancer cells." *Oncotarget* 7.12 (2016): 14476.



Immunofluorescence analysis of Hela cell. 1, MMP-2 Polyclonal Antibody (green) was diluted at 1:200 (4° overnight). 2, Goat Anti Rabbit Alexa Fluor 488 Catalog:RS3211 was diluted at 1:1000 (room temperature, 50min). 3 DAPI (blue) 10min.

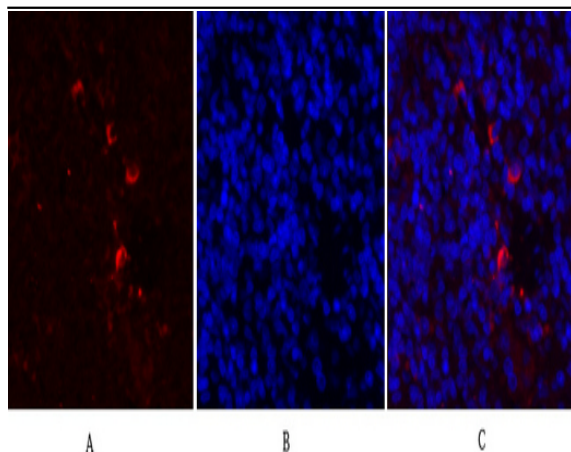


Western blot analysis of lysates from 1) 3T3, 2) Jurkat, 3) HT29 cells. [Green] primary antibody was diluted at 1:1000, 4° overnight, secondary antibody (cat:RS23920) was diluted at 1:10000, 37° 1 hour. [Red] GAPDH Monoclonal Antibody (2B8) (cat:YM3029) antibody was diluted at 1:5000 as loading control, 4° overnight, secondary antibody (cat:RS23710) was diluted at 1:10000, 37° 1 hour.

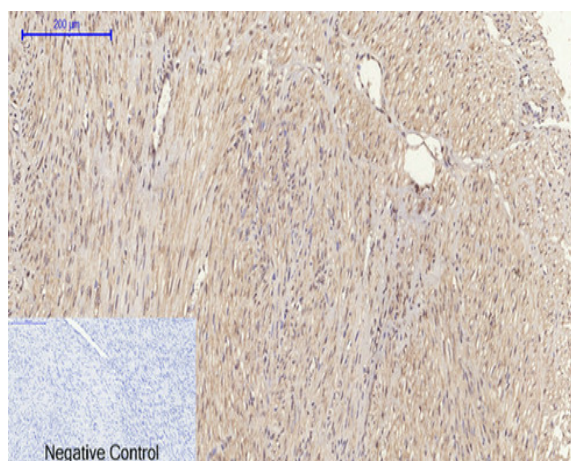


Immunofluorescence analysis of rat-lung tissue. 1, MMP-2 Polyclonal Antibody (red) was diluted at 1:200 (4° C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

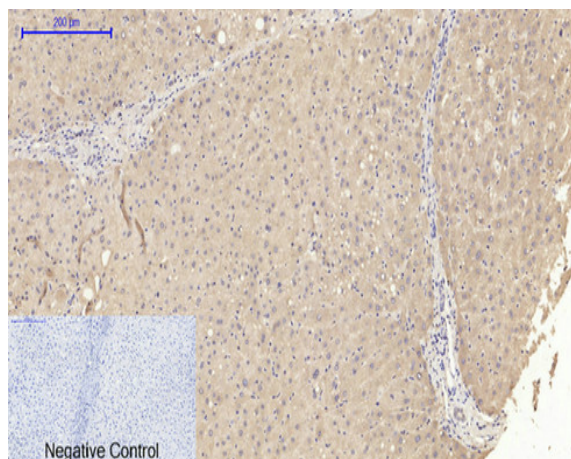




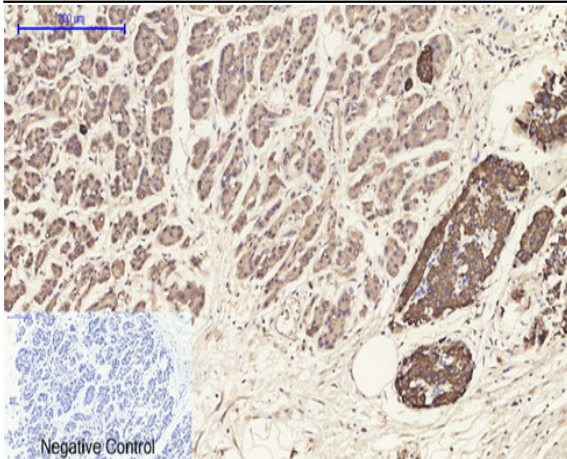
Immunofluorescence analysis of rat-spleen tissue. 1, MMP-2 Polyclonal Antibody (red) was diluted at 1:200 (4 °C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50 min). 3, Picture B: DAPI (blue) 10 min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



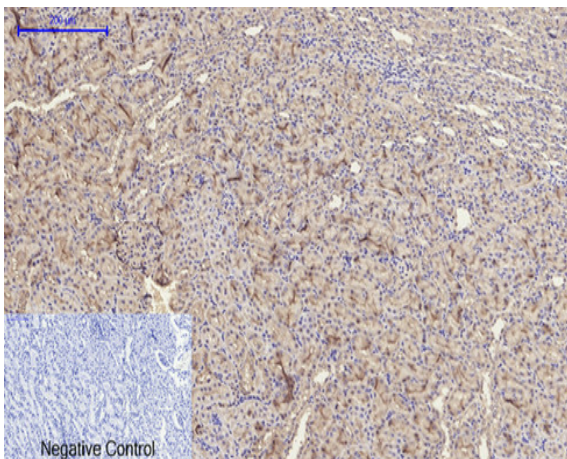
Immunohistochemical analysis of paraffin-embedded Human-uterus-cancer tissue. 1, MMP-2 Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20 min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30 min). Negative control was used by secondary antibody only.



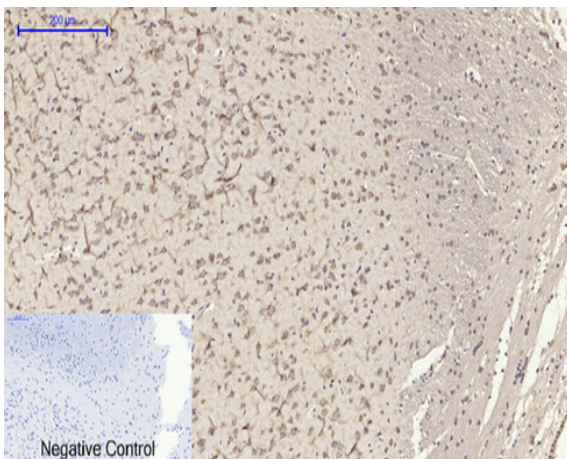
Immunohistochemical analysis of paraffin-embedded Human-liver tissue. 1, MMP-2 Polyclonal Antibody was diluted at 1:200 (4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98 °C, 20 min). 3, Secondary antibody was diluted at 1:200 (room temperature, 30 min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human-stomach-cancer tissue. 1, MMP-2 Polyclonal Antibody was diluted at 1:200(4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98 °C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.

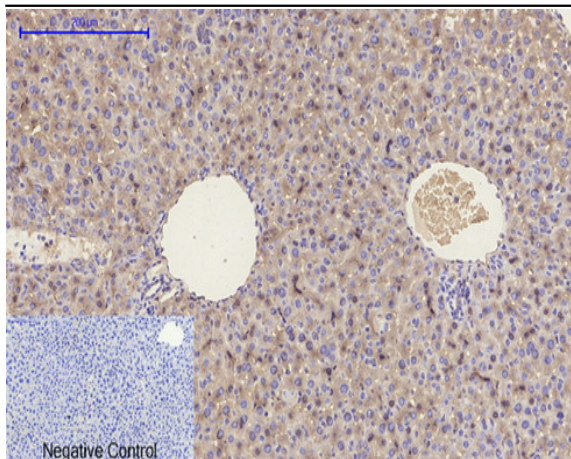


Immunohistochemical analysis of paraffin-embedded Rat-kidney tissue. 1, MMP-2 Polyclonal Antibody was diluted at 1:200(4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98 °C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.

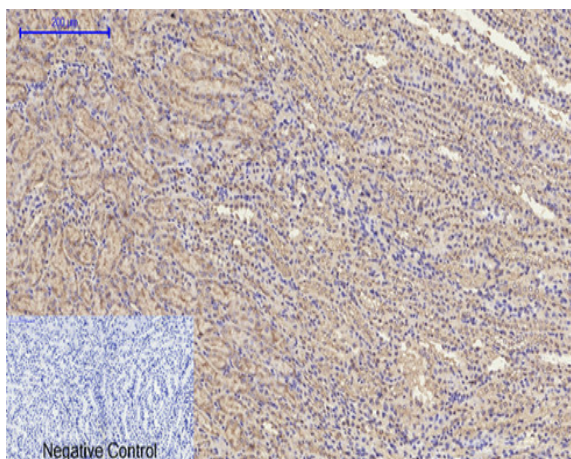


Immunohistochemical analysis of paraffin-embedded Rat-brain tissue. 1, MMP-2 Polyclonal Antibody was diluted at 1:200(4 °C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98 °C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.

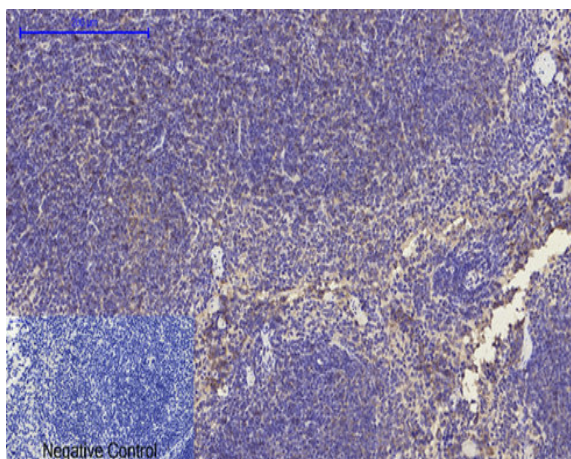




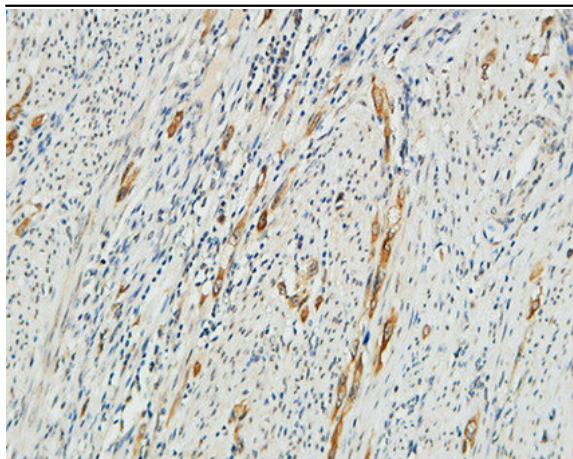
Immunohistochemical analysis of paraffin-embedded Mouse-liver tissue. 1, MMP-2 Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-kidney tissue. 1, MMP-2 Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Mouse-spleen tissue. 1, MMP-2 Polyclonal Antibody was diluted at 1:200(4°C, overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval(>98°C, 20min). 3, Secondary antibody was diluted at 1:200(room temperature, 30min). Negative control was used by secondary antibody only.



Immunohistochemical analysis of paraffin-embedded Human Endometrium. 1, Antibody was diluted at 1:200(4 ° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).