



MMP-2 Polyclonal Antibody

Catalog No	YP-Ab-02682
Isotype	IgG
Reactivity	Human;Mouse;Rat;Monkey
Applications	WB;IHC;IF;ELISA
Gene Name	MMP2
Protein Name	72 kDa type IV collagenase
Immunogen	The antiserum was produced against synthesized peptide derived from human MMP-2. AA range:611-660
Specificity	MMP-2 Polyclonal Antibody detects endogenous levels of MMP-2 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. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	MMP2; CLG4A; 72 kDa type IV collagenase; 72 kDa gelatinase; Gelatinase A; Matrix metalloproteinase-2; MMP-2; TBE-1
Observed Band	74kD
Cell Pathway	[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 microfilaments, and in nuclei of cardiomyocytes.; [Isoform 2]: Cytoplasm. Mitochondrion.
Tissue Specificity	Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate.
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

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

matters needing attention

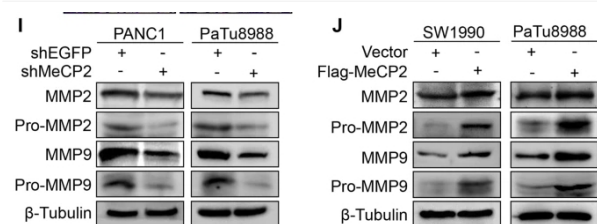
Avoid repeated freezing and thawing!

Usage suggestions

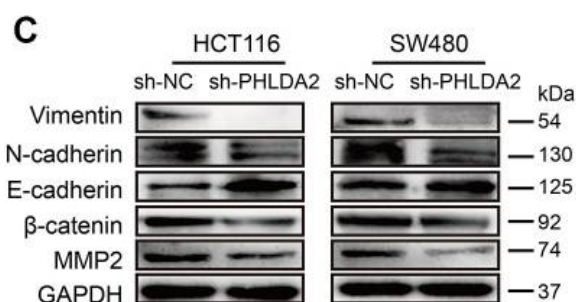
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



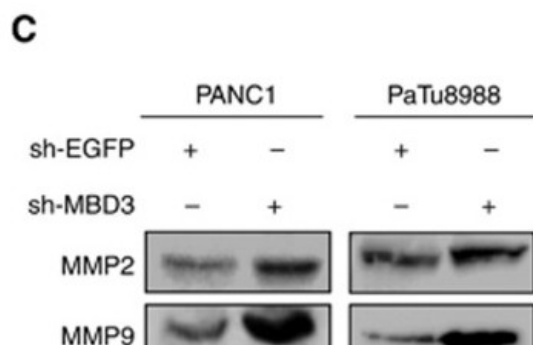
Products Images



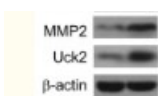
Wang, H., Li, J., He, J. et al. Methyl-CpG-binding protein 2 drives the Furin/TGF- β 1/Smad axis to promote epithelial-mesenchymal transition in pancreatic cancer cells. *Oncogenesis* 9, 76 (2020).



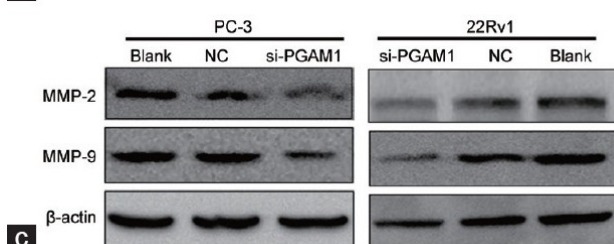
Ma, Zhan, Shuping Lou, and Zheng Jiang. "PHLDA2 regulates EMT and autophagy in colorectal cancer via the PI3K/AKT signaling pathway." *Aging* (Albany NY) 12.9 (2020): 7985.



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.