Product Name: MMP2(1H1)Mouse Monoclonal Antibody
Catalog #: AMM13989
For research use only.

Summary

Description	Mouse monoclonal Antibody
Host	Mouse
Application	WB,IHC,ICC/IF
Reactivity	Human,Rat,Mouse
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Monoclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:200,ICC/IF 1:50-1:200
Molecular Weight	64，72kDa

Antigen Information

Gene Name	MMP2
Alternative Names	MMP2
Gene ID	4313.0
SwissProt ID	P08253
Immunogen	Synthetic Peptide of MMP2 at AA range of INTERNAL

Background

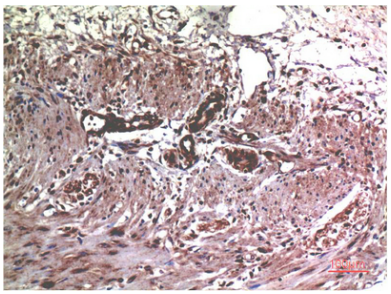
matrix metallopeptidase 2(MMP2) Homo sapiens This gene is a member of the matrix metalloproteinase (MMP) gene family, that are zinc-dependent enzymes capable of cleaving components of the extracellular matrix and molecules involved in signal

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, intracellulary 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 Wincatalytic 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 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:In addition to gelatin and collagens, it cleaves KiSS1 at a Gly-|-Leu bond.,PTM:The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP3).,similarity:Belongs to the peptidase M10A family.,similarity:Contains 3 fibronectin type-II domains.,similarity:Contains 4 hemopexin-like domains.,subunit:Ligand for integrin alpha-V/beta-3.,tissue specificity:Produced by normal skin fibroblasts.,

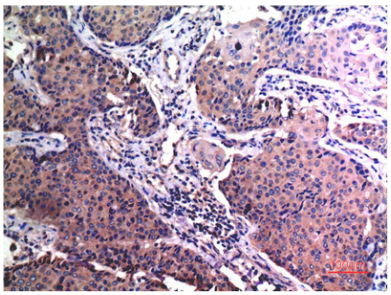
Research Area

Leukocyte transendothelial migration;GnRH;Pathways in cancer;Bladder cancer;

Image Data



Immunohistochemical analysis of paraffin-embedded Human Colon Carcinoma Tissue using MMP2 Mouse mAb diluted at 1:200.



Immunohistochemical analysis of paraffin-embedded Human Breast Carcinoma Tissue using MMP2 Mouse mAb diluted at 1:200.