

MMP-1 Mouse mAb

CatalogNo: YM0445

Key Features

Host Species

- Mouse

Reactivity

- Human

Applications

- WB,IHC,IF,FC,ELISA

MW

- 54kD (Calculated)

Storage

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

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000

IHC 1:200-1:1000

IF 1:200-1:1000

Flow Cyt 1:200-1:400

ELISA 1:10000

Not yet tested in other applications.

Basic Information

Clonality Monoclonal

Clone Number 12F9

Immunogen Information

Immunogen Purified recombinant fragment of human MMP-1 expressed in E. Coli.

Specificity MMP-1 Monoclonal Antibody detects endogenous levels of MMP-1 protein.

| Target Information

Gene name MMP1

Protein Name Interstitial collagenase

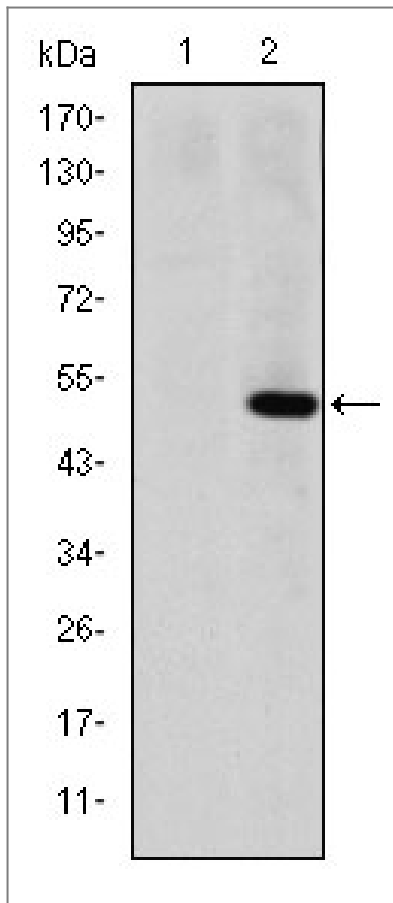
| Organism | Gene ID | UniProt ID |
|----------|------------------------|--------------------------|
| Human | 4312 ; | P03956 ; |

Cellular Localization Secreted, extracellular space, extracellular matrix .

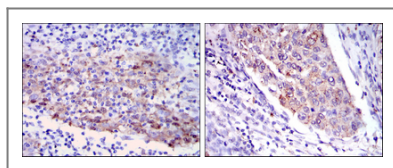
Tissue specificity Fibroblast,Ovary,Synovial cell,Synovial membrane,Thyroid,

Function Catalytic activity: Cleavage of the triple helix of collagen at about three-quarters of the length of the molecule from the N-terminus, at 775-Gly-I-Ile-776 in the alpha-1(I) chain. Cleaves synthetic substrates and alpha-macroglobulins at bonds where P1' is a hydrophobic residue., cofactor: Binds 2 zinc ions per subunit., cofactor: Binds 4 calcium ions per subunit., 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., Domain: There are two distinct domains in this protein; the catalytic N-terminal, and the C-terminal which is involved in substrate specificity and in binding TIMP (tissue inhibitor of metalloproteinases)., enzyme regulation: Can be activated without removal of the activation peptide., Function: Cleaves collagens of types I, II, and III at one site in the helical domain. Also cleaves collagens of types VII and X. In case of HIV infection, interacts and cleaves the secreted viral Tat protein, leading to a decrease in neuronal Tat's mediated neurotoxicity., online information: Collagenase entry, PTM: Undergoes autolytic cleavage to two major forms (22 kDa and 27 kDa). A minor form (25 kDa) is the glycosylated form of the 22 kDa form. The 27 kDa form has no activity while the 22/25 kDa form can act as activator for collagenase., similarity: Belongs to the peptidase M10A family., similarity: Contains 4 hemopexin-like domains., subunit: Interacts with HIV-1 Tat.,

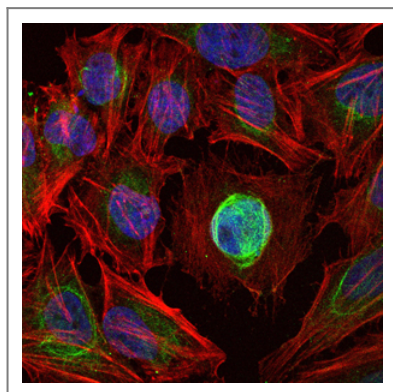
| Validation Data



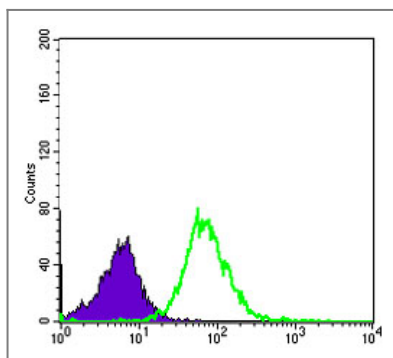
Western Blot analysis using MMP-1 Monoclonal Antibody against HEK293 (1) and MMP1-hlgGfc transfected HEK293 (2) cell lysate.



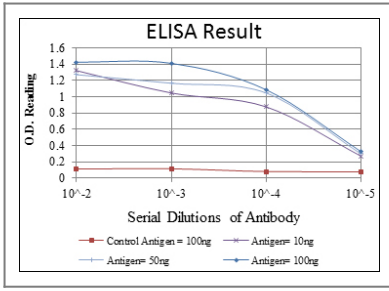
Immunohistochemistry analysis of paraffin-embedded human cervical cancer tissues (left) and human kidney cancer tissues (right) with DAB staining using MMP-1 Monoclonal Antibody.



Immunofluorescence analysis of HeLa cells using MMP-1 Monoclonal Antibody. Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Flow cytometric analysis of HeLa cells using MMP-1 Monoclonal Antibody (green) and negative control (purple).



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Please scan the QR code to access additional product information:
MMP-1 Mouse mAb

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