



MMP-1 Monoclonal Antibody

Catalog No	YP-Ab-02332
Isotype	IgG
Reactivity	Human
Applications	WB;IHC;IF;FCM;ELISA
Gene Name	MMP1
Immunogen	Purified recombinant fragment of human MMP-1 expressed in E. Coli.
Specificity	MMP-1 Monoclonal Antibody detects endogenous levels of MMP-1 protein.
Formulation	Ascitic fluid containing 0.03% sodium azide,0.5% BSA, 50%glycerol.
Source	Monoclonal, Mouse
Purification	Affinity purification
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/200 - 1/1000. Immunofluorescence: 1/200 - 1/1000. Flow cytometry: 1/200 - 1/400. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	22 kDa interstitial collagenase;27 kDa interstitial collagenase;CLG;CLGN; EC:3.4.24.7;MMP-1;MMP1;Interstitial collagenase;Fibroblast collagenase;Matrix metalloproteinase-1
Observed Band	
Calculated Molecular Weight	
Cell Pathway	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-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 col

Background

matrix metalloproteinase 1(MMP1) Homo sapiens This gene encodes a member of the peptidase M10 family of matrix metalloproteinases (MMPs). Proteins in this 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. The encoded preproprotein is proteolytically processed to generate the mature protease. This secreted protease breaks down the interstitial collagens, including types I, II, and III. The gene is part of a cluster of MMP genes on chromosome 11. Mutations in this gene are associated with chronic obstructive pulmonary disease (COPD). Alternative splicing results in multiple transcript variants, at least one of which encodes an isoform that is proteolytically processed. [provided by RefSeq, Jan 2016],

matters needing attention

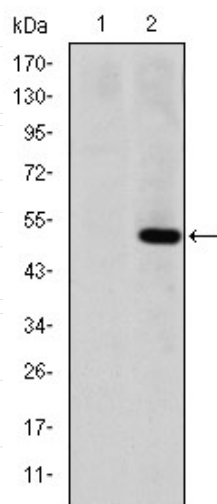
Avoid repeated freezing and thawing!

Usage suggestions

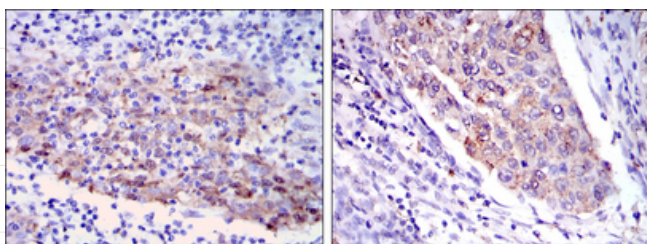
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



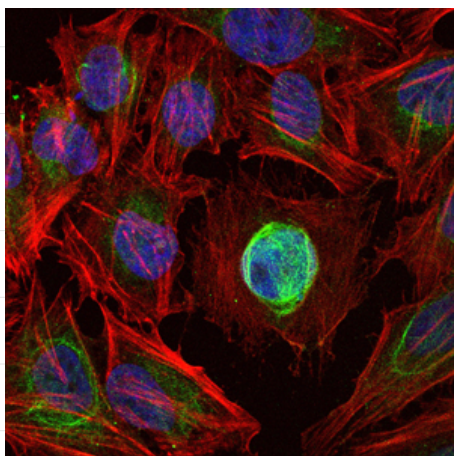
Products Images



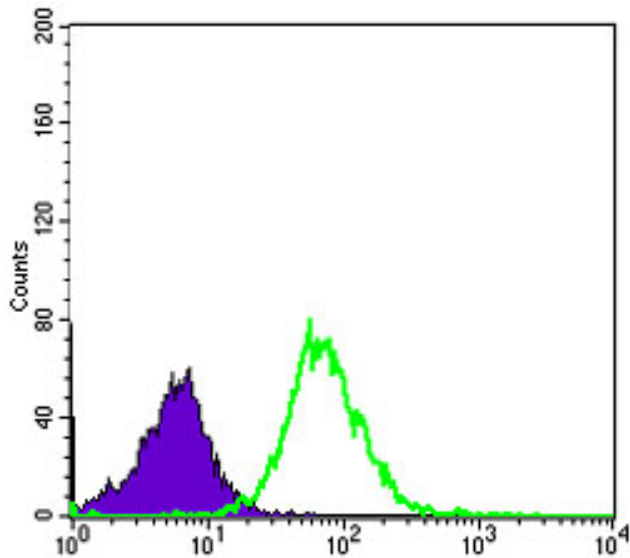
Western Blot analysis using MMP-1 Monoclonal Antibody against HEK293 (1) and MMP1-hlgGfc transfected HEK293 (2) cell lysate.



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).

