



# MMP-1 Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-02676
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Rat;Mouse;
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	MMP1
<b>Protein Name</b>	Interstitial collagenase
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human MMP-1. AA range:411-460
<b>Specificity</b>	MMP-1 Polyclonal Antibody detects endogenous levels of MMP-1 protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	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.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	MMP1; CLG; Interstitial collagenase; Fibroblast collagenase; Matrix metalloproteinase-1; MMP-1
<b>Observed Band</b>	54kD
<b>Cell Pathway</b>	Secreted, extracellular space, extracellular matrix .
<b>Tissue Specificity</b>	Fibroblast,Ovary,Synovial cell,Synovial membrane,Thyroid,
<b>Function</b>	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**

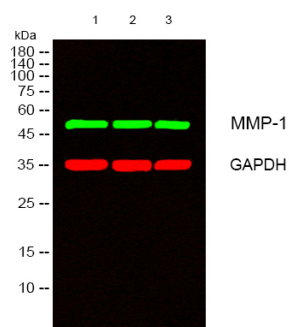
Avoid repeated freezing and thawing!

**Usage suggestions**

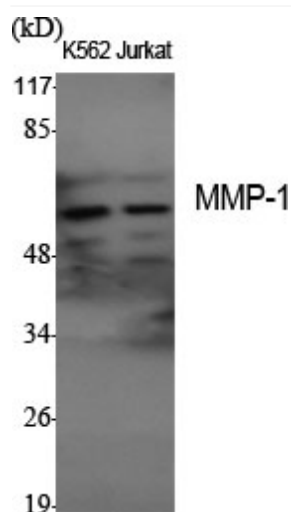
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



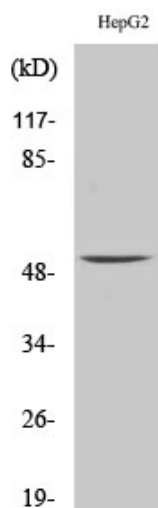
## Products Images



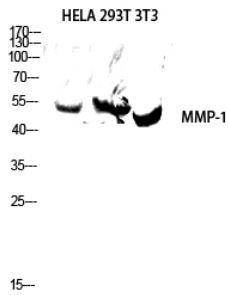
Western blot analysis of lysates from 1) K562, 2) Jurkat, 3) Hela cells, (Green) primary antibody was diluted at 1:1000, 4° over night, secondary antibody (cat:RS23920) was diluted at 1:10000, 37° 1 hour. (Red) GAPDH Monoclonal Antibody (2B8) (cat:YM3029) antibody was diluted at 1:5000 as loading control, 4° over night, secondary antibody (cat:RS23710) was diluted at 1:10000, 37° 1 hour.



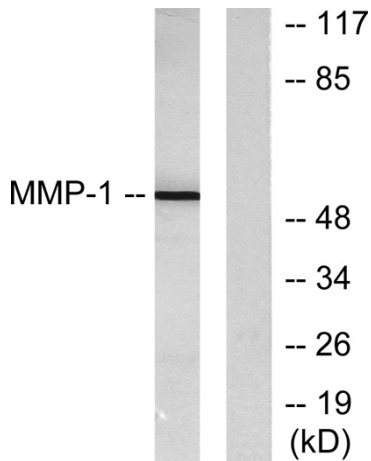
Western Blot analysis of various cells using MMP-1 Polyclonal Antibody diluted at 1:1000



Western Blot analysis of HepG2 cells using MMP-1 Polyclonal Antibody diluted at 1:1000



Western blot analysis of HELA 293T 3T3 lysis using MMP-1 antibody. Antibody was diluted at 1:1000



Western blot analysis of lysates from HepG2 cells, using MMP-1 Antibody. The lane on the right is blocked with the synthesized peptide.