

Basic Information

Product Name	Anti-MMP1 Antibody	
Gene Name	MMP1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human	
Tested Application	WB, IHC, ICC/IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human MMP1 recombinant protein (Position: D124-N469).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	54 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied.

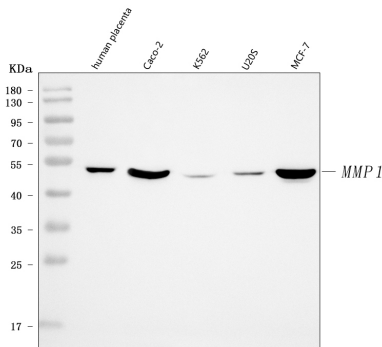
Background Information

Matrix metalloproteinase-1 (MMP-1), also known as interstitial collagenase and fibroblast collagenase, is an enzyme that in humans is encoded by the MMP1 gene. MMP-1 was the first vertebrate collagenase both purified to homogeneity as a protein, and cloned as a cDNA. Proteins of the matrix metalloproteinase (MMP) 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. Most MMP's are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. This gene encodes a secreted enzyme which breaks down the interstitial collagens, types I, II, and III. It is part of a cluster of MMP genes which localize to chromosome 11q22.3. Alternative splicing results in multiple transcript variants.

Reference

Anti-MMP1 Antibody被引用在18文献中。

Selected Validation Data



Western blot analysis of MMP1 using anti-MMP1 antibody (A00733-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates,

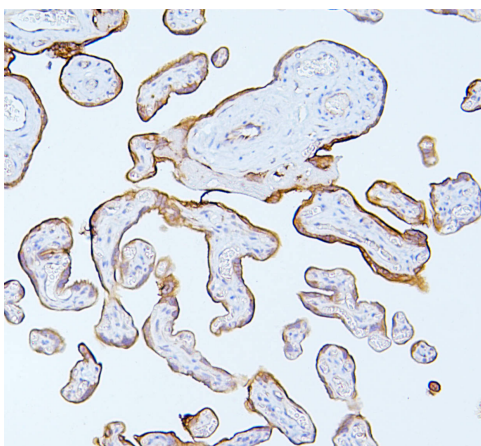
Lane 2: human Caco-2 whole cell lysates,

Lane 3: human K562 whole cell lysates,

Lane 4: human U2OS whole cell lysates,

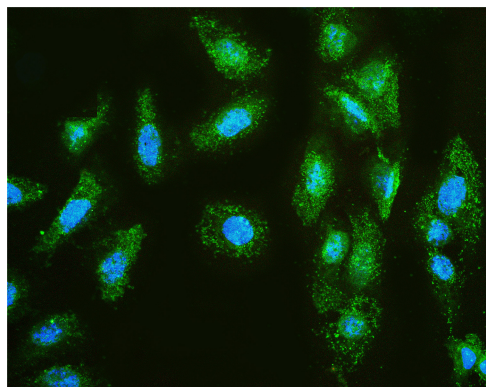
Lane 5: human MCF-7 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-MMP1 antigen affinity purified polyclonal antibody (A00733-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for MMP1 at approximately 54 kDa. The expected band size for MMP1 is at 54 kDa.



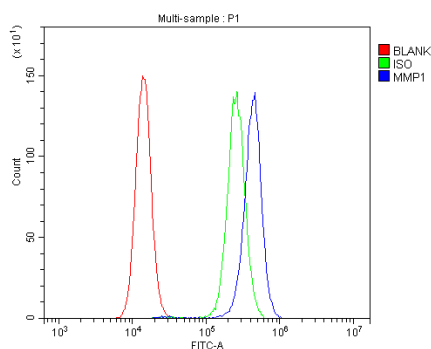
IHC analysis of MMP1 using anti-MMP1 antibody (A00733-1).

MMP1 was detected in a paraffin-embedded section of human placenta tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-MMP1 Antibody (A00733-1) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of MMP1 using anti-MMP1 antibody (A00733-1).

MMP1 was detected in an immunocytochemical section of U2OS cells. The section was incubated with rabbit anti-MMP1 Antibody (A00733-1) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of PC-3 cells using anti-MMP1 antibody (A00733-1).

Overlay histogram showing PC-3 cells stained with A00733-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MMP1 Antibody (A00733-1) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.