

For Research Use Only

# MMP1

## Polyclonal ANTIBODY



Catalog Number: 10371-2-AP

Featured Product

64 Publications

### Basic Information

**Catalog Number:**

10371-2-AP

**Size:**

150UL, Concentration: 380 µg/ml by Bradford method using BSA as the standard;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG0547

**GenBank Accession Number:**

BC013875

**GeneID (NCBI):**

4312

**Full Name:**

matrix metalloproteinase 1 (interstitial collagenase)

**Calculated MW:**

54 kDa

**Observed MW:**

52-56 kDa, 62 kDa

**Purification Method:**

Antigen affinity purification

**Recommended Dilutions:**

WB 1:500-1:1000

IP 0.5-4.0 µg for IP and 1:500-1:2000 for WB

IHC 1:100-1:400

IF 1:20-1:200

### Applications

**Tested Applications:**

FC, IF, IHC, IP, WB, ELISA

**Cited Applications:**

IF, IHC, WB

**Species Specificity:**

human, mouse, rat

**Cited Species:**

human, mouse, rabbit, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

**Positive Controls:**

WB: A549 cells, NIH/3T3 cells

IP: A549 cells,

IHC: human cervical cancer tissue, rat testis tissue

IF: HepG2 cells,

### Background Information

MMP1, also named as CLG, belongs to the peptidase M10A family. MMP is the main enzyme that cleaves fibrillar collagen, namely types I, II, III, VII, and XI. It is involved in cell migration and invasion, and is frequently up-regulated in cancer cells. It can be cleavage to two major forms (22 kDa and 27 kDa) by undergoing autolytic, and the 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. The sizes of pro-MMP-1 and active MMP-1 from human synovial fibroblasts have been reported as 52 to 56 kDa, depending on glycosylation, and 41 to 45 kDa, respectively. In addition, a band of 62-kDa observed in the current study is pro-MMP-1 (PMID:9418730).

### Notable Publications

Author	Pubmed ID	Journal	Application
Weijie Wen	30222953	Arch Biochem Biophys	WB
Xiao-Xiao He	30219235	Biochem Biophys Res Commun	WB
Henrique Bregolin Dias	31509566	PLoS One	WB

### Storage

**Storage:**

Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

PBS with 0.1% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

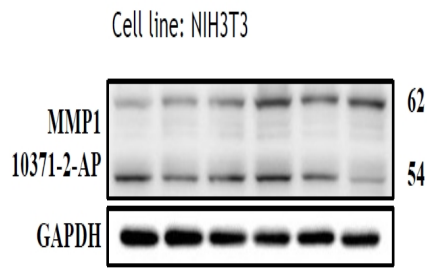
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

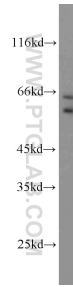
E: proteintech@ptglab.com  
W: ptglab.com

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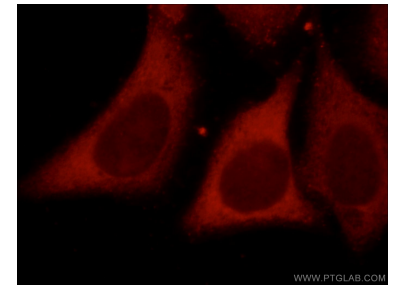
## Selected Validation Data



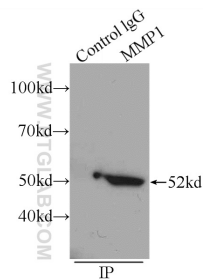
WB results of MMP1 antibody (10371-1-AP, 1:500) with NIH3T3 cells, 62 kDa for pro-MMP1 and 54 kDa for Active MMP1. Data from Dr. Hui-Wen Chiu, Taipei Medical University.



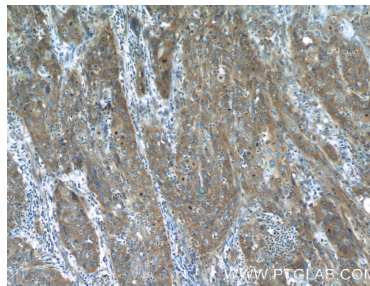
A549 cells were subjected to SDS PAGE followed by western blot with 10371-2-AP (MMP1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



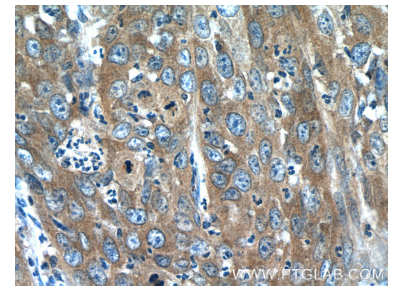
Immunofluorescent analysis of HepG2 cells, using MMP1 antibody 10371-2-AP at 1:50 dilution and Rhodamine-labeled goat anti-rabbit IgG (red).



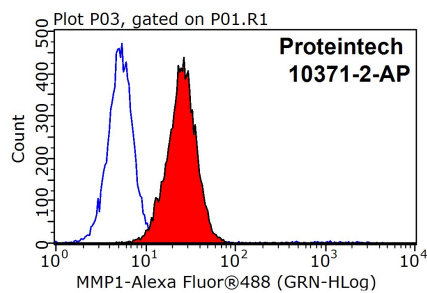
IP Result of anti-MMP1 (IP:10371-2-AP, 4ug; Detection:10371-2-AP 1:1000) with A549 cells lysate 1200ug.



Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue slide using 10371-2-AP (MMP1 Antibody) at dilution of 1:200 (under 10x lens).



Immunohistochemical analysis of paraffin-embedded human cervical cancer tissue slide using 10371-2-AP (MMP1 Antibody) at dilution of 1:200 (under 40x lens).



1X10<sup>6</sup> HepG2 cells were stained with 0.2ug MMP1 antibody (10371-2-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.