

For Research Use Only

# MMP1 Polyclonal antibody

Catalog Number: 10371-2-AP

Featured Product

179 Publications



## Basic Information

### Catalog Number:

10371-2-AP

### Size:

150ul, Concentration: 700 µg/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG0547

### GenBank Accession Number:

BC013875

### GeneID (NCBI):

4312

### UNIPROT ID:

P03956

### 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 1:1000-1:4000

IF 1:50-1:500

## Applications

### Tested Applications:

WB, IF, FC, ELISA

### Cited Applications:

WB, IF, IHC

### Species Specificity:

human, mouse, rat

### Cited Species:

human, rat, mouse, rabbit, bovine

### Positive Controls:

WB : U-87 MG cells, NIH/3T3 cells

IF : MCF-7 cells, 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 X. 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 |
|--------------|-----------|----------------------|-------------|
| Wei-Lin Teng | 34679686  | Antioxidants (Basel) | WB          |
| Wenbin Pei   | 34650433  | Front Pharmacol      | WB          |
| Hana Nopia   | 36167912  | Biometals            | WB          |

## Storage

### Storage:

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

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

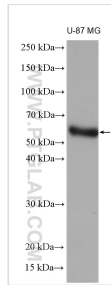
For technical support and original validation data for this product please contact:

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

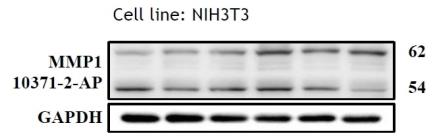
E: proteintech@ptglab.com  
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

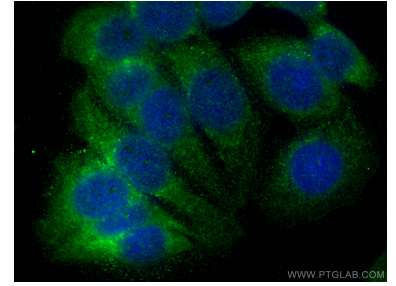
## Selected Validation Data



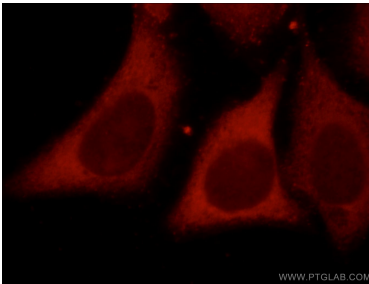
U-87 MG cells were subjected to SDS PAGE followed by western blot with 10371-2-AP (MMP1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



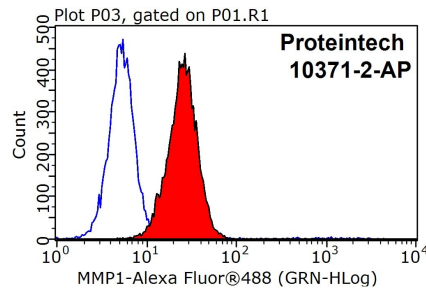
WB results of MMP1 antibody (10371-1-AP, 1:500) with NIH3T3 cells, 62 kDa for pro-MMP1 and 54 kDa for Active MMP1. Data from Dr. Hui-Wen Chiu, Taipei Medical University.



Immunofluorescent analysis of (-20°C Methanol) fixed MCF-7 cells using MMP1 antibody (10371-2-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



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



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.