For Research Use Only

MMP1 Polyclonal antibody

Catalog Number:10371-2-AP Featured Product 215 Publications

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Basic Information

Catalog Number:
10371-2-AP

Size:
150ul , Concentration: 700 ug/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG0547

GenBank Accession Number:
BC013875

GeneID (NCBI):
4312

UNIPROT ID:
P03956

Full Name:
matrix metallopeptidase 1 (interstitial collagenase)

Calculated MW:
54 kDa

Observed MW:
45-48 kDa, 55-62 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:1000-1:4000
IHC 1:200-1:800
IF/ICC 1:50-1:500

Applications

Tested Applications:
WB, IHC, IF/ICC, ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, rabbit, bovine

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

IHC : human skin cancer tissue,

IF/ICC : 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, pH7.3
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)
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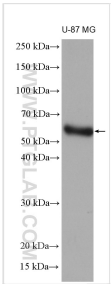
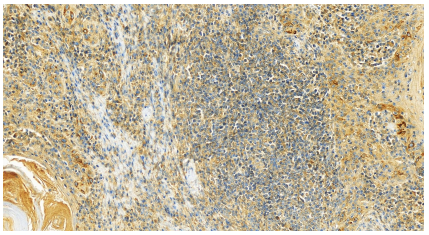
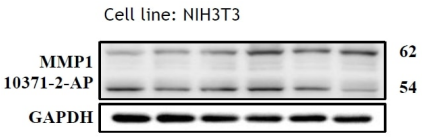
Selected Validation Data



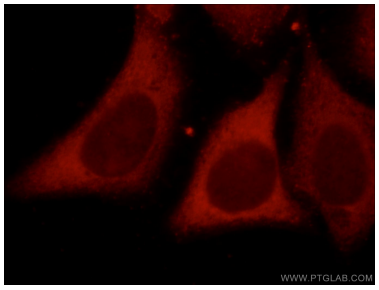
U-87 MG cells were subjected to SDS PAGE followed by western blot with 10371-2-AP (MMP1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



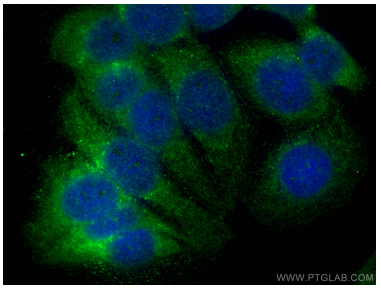
Immunohistochemical analysis of paraffin-embedded human skin cancer tissue slide using 10371-2-AP (MMP1 antibody) at dilution of 1:400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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



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).