Datasheet for ABIN5518776

anti-MMP2 antibody (AA 429-660)

1 Image | 28 Publications

Go to Product page

Overview

Quantity:	100 µg
Target:	MMP2
Binding Specificity:	AA 429-660
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MMP2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA

Product Details

Purpose:	Rabbit IgG polyclonal antibody for 72 kDa type IV collagenase(MMP2) detection. Tested with WB, ELISA in Human,Mouse,Rat.
Immunogen:	E. coli-derived human MMP2 recombinant protein (Position: K429-C660). Human MMP2 shares 95.7% and 95.3% amino acid (aa) sequence identity with mouse and rat MMP2, respectively.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for 72 kDa type IV collagenase(MMP2) detection. Tested with WB, ELISA in Human,Mouse,Rat. Gene Name: matrix metallopeptidase 2 Protein Name: 72 kDa type IV collagenase
Purification:	Immunogen affinity purified.

Target Details

Target:	MMP2
Alternative Name:	MMP2 (MMP2 Products)
Background:	Matrix metalloproteinase-2 (MMP2) is a Type IV collagenase, 72-kD, which is also known as gelatinase and is a member of a group of secreted zinc metalloproteases. The MMP2 gene is 17 kb long with 13 exons varying in size from 110 to 901 bp and 12 introns ranging from 175 to 4,350 bp, located within a region of human chromosome 16q13. In addition, the extra exons encode the amino acids of the fibronectin-like domain which has so far been found in only the 72- and 92- kDa type IV collagenase. MMP2, which has a critical role in the binding of progelatinase A and TIMP4 via the C-terminal hemopexin-like domain (C domain), is functionally associated on the surface of angiogenic blood vessels. Not only is a likely effector of endometrial menstrual breakdown, MMP2 is also effector and regulator of the inflammatory response. Moreover, MMP2 could be helpful in diagnosing Takayasu arteritis. Synonyms: CLG 4A | CLG4 | CLG4A | EC 3.4.24.24 | Matrix metalloproteinase-2 | MMP 2 | MMP-2 | MMP2 | MONA | P08253 | TBE 1 | TBE-1
Gene ID:	4313
UniProt:	P08253
Pathways:	Activation of Innate immune Response

Application Details

Application Notes:	WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Mouse, Rat ELISA: Concentration: 0.1-0.5 µg/mL, Tested Species: Human Notes: Tested Species: Species with positive results. Other applications have not been tested. Optimal dilutions should be determined by end users.
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.
Concentration:	500 µg/mL

Handling

Buffer:	Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na2HPO4, 0.05 mg Sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Publications

Product cited in:

Tang, Pei, Yang, Wang, Wang, Gao, Li, Yang, Yang: "The inhibition of calpains ameliorates vascular restenosis through MMP2/TGF-β1 pathway." in: **Scientific reports**, Vol. 6, pp. 29975, (2018) (PubMed).

Liu, Li, Li, Teng, Wang, Zhang, Xiao: "TGF-β1 promotes scar fibroblasts proliferation and transdifferentiation via up-regulating MicroRNA-21." in: **Scientific reports**, Vol. 6, pp. 32231, (2018) (PubMed).

"Retraction: Naringin Alleviates Diabetic Kidney Disease through Inhibiting Oxidative Stress and Inflammatory Reaction." in: **PLoS ONE**, Vol. 13, Issue 2, pp. e0192465, (2018) (PubMed).

Jia, Jiang, Liu, Wang, Zhu, Zhu, Liu, Zhong, Xie, Huang, Jia, Li, Liu, Zuo, Cheng, Dai, Ren: "Effects of three-dimensional collagen scaffolds on the expression profiles and biological functions of glioma cells." in: **International journal of oncology**, Vol. 52, Issue 6, pp. 1787-1800, (2018) (PubMed).

Li, Liu, Zhang, Cui, Ge, Wang, Chen: "Upregulation of E-cadherin expression mediated by a novel dsRNA suppresses the growth and metastasis of bladder cancer cells by inhibiting β-catenin/TCF target genes." in: **International journal of oncology**, Vol. 52, Issue 6, pp. 1815-1826 , (2018) (PubMed).

There are more publications referencing this product on: Product page

Western Blotting

Image 1. Western blot analysis of MMP2 using anti-MMP2 antibody . Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant human MMP2 protein 1ng After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MMP2 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for MMP2 at approximately 71KD. The expected band size for MMP2 is at 71KD.