

Rabbit MMP2 Polyclonal Antibody | anti-MMP2 antibody

MMP2 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321116	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

MMP2; Polyclonal Antibody; MMP2 Antibody; 72 kDa gelatinase; 72kD type IV collagenase; CLG 4; CLG 4A; CLG4; CLG4A; Collagenase Type 4 alpha; Collagenase type IV A; Gelatinase A; Gelatinase alpha; Gelatinase neutrophil; Matrix metalloproteinase 2 gelatinase A 72kDa gelatinase 72kDa type IV collagenase; Matrix metalloproteinase 2 (gelatinase A; 72kDa gelatinase; 72kDa type IV collagenase); Matrix Metalloproteinase 2; Matrix metalloproteinase II; Matrix metalloproteinase-2; MMP 2; MMP II; MMP-2; MMP2_HUMAN; MONA; Neutrophil gelatinase; PEX; TBE 1; TBE-1; anti-MMP2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	MMP2 antibody detects endogenous levels of MMP2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	610
Applicable Applications for anti-MMP2 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MMP2
Subcellular Location	Secreted > Extracellular Space > Extracellular Matrix. Membrane. Nucleus. Colocalizes with integrin alphaV/beta3 at the membrane surface in angiogenic blood vessels and melanomas. Found in mitochondria, along microfibrils, and in nuclei of cardiomyocytes.
Tissue Specificity	Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA321116 staining LOVO by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



IHC (Immunohistochemistry)

AAA321116 at 1/100 staining human brain tissues sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C



WB (Western Blot)

Western blot analysis on LOVO cell lysate using MMP2 Antibody, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-MMP2 antibody	Description: MMP2 Ubiquitinous metalloproteinase that is involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta-type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly- -Leu bond. Appears to have a role in myocardial cell death pathways. Function: Ubiquitinous metalloproteinase that is involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta-type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly- -Leu bond. Appears to have a role in myocardial cell death pathways. Contributes to myocardial oxidative stress by regulating the activity of GSK3beta. Cleaves GSK3beta in vitro. Involved in the formation of the fibrovascular tissues in association with MMP14. Subunit Structure: Interacts (via the C-terminal hemopexin-like domains-containing region) with the integrin alpha-V/beta-3; the interaction promotes vascular invasion in angiogenic vessels and melamoma cells. Interacts (via the C-terminal PEX domain) with TIMP2 (via the C-terminal); the interaction inhibits the degradation activity. Interacts with GSK3B. Post-translational Modifications: Phosphorylation on multiple sites modulates enzymatic activity. Phosphorylated by PKC in vitro. The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP3). Autocatalytic cleavage in the C-terminal produces the anti-angiogenic peptide, PEX. This processing appears to be facilitated by binding integrinv/beta3. Similarity: The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme. Belongs to the peptidase M10A family.
References	Liu Y, Zheng J, Zhang Y, Wang Z, Yang Y, Bai M, Dai Y; Journal: Neurochem Res. Fucoxanthin Activates Apoptosis via Inhibition of PI3K/Akt/mTOR Pathway and Suppresses Invasion and Migration by Restriction of p38-MMP-2/9 Pathway in Human Glioblastoma Cells. Yang Z, Wu B, Jia S, Zhao Y, Hou R, Liu X, Wang X, Chen L, Yang X, Lei D, Wang L; Journal: Arch Oral Biol. The mechanically activated p38/MMP-2 signaling pathway promotes bone marrow mesenchymal stem cell migration in rats. He Y, Cao X, Liu X, Li X, Xu Y, Liu J, Shi J; Journal: Exp Cell Res. Quercetin reverses experimental pulmonary arterial hypertension by modulating the TrkA pathway. Meng J, Chen S, Lei YY, Han JX, Zhong WL, Wang XR, Liu YR, Gao WF, Zhang Q, Tan Q, Liu HJ, Zhou HG, Sun T, Yang C; Journal: Oncogene. Hsp90beta promotes aggressive vasculogenic mimicry via epithelial-mesenchymal transition in hepatocellular carcinoma. Yi L, Shen H, Zhao M, Shao P, Liu C, Cui J, Wang J, Wang C, Guo N, Kang L, Lv P, Xing L, Zhang X; Journal: Sci Rep. Inflammation-mediated SOD-2 upregulation contributes to epithelial-mesenchymal transition and migration of tumor cells in aflatoxin G1-induced lung adenocarcinoma.

NCBI AND UNIPROT INFORMATION

NCBI GI #	189217853
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NCBI GeneID	4313
NCBI Accession #	NP_001121363.1
NCBI GenBank Nucleotide #	NM_001127891.2
UniProt Accession #	P08253 ; Q9UCJ8 ; B2R6U1 ; B4DWH3 ; E9PE45
Molecular Weight	Observed: 74 kDa Predicted: 74 kDa
NCBI Official Full Name	72 kDa type IV collagenase isoform 2
NCBI Official Synonym Full Names	matrix metalloproteinase 2
NCBI Official Symbol	MMP2
NCBI Official Synonym Symbols	CLG4; MONA; CLG4A; MMP-2; TBE-1; MMP-II
NCBI Protein Information	72 kDa type IV collagenase
UniProt Protein Name	72 kDa type IV collagenase
UniProt Gene Name	MMP2
UniProt Synonym Gene Names	CLG4A; MMP-2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/mmp2-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/321116>