

Matrix Metalloproteinase 2 Active Protein | MMP2 active protein

Active Matrix Metalloproteinase 2 (MMP2)

CATALOG #
AAA150070

APPLICATIONS
Activity Assay, Cell Culture

PRODUCT SYNONYMS

Matrix Metalloproteinase 2; Active Matrix Metalloproteinase 2 (MMP2); CLG4; CLG4A; MMP-II; MONA; TBE-1; PEX; Gelatinase A; 72kDa Gelatinase; 72kDa Type IV Collagenase; MMP2 active protein

PRODUCT SPECIFICATIONS

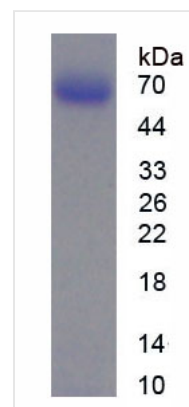
Purity/Purification	>95%
Form/Format	Freeze-dried powder 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Sequence Positions	Tyr110–Cys662
Sequence Length	650
Applicable Applications for MMP2 active protein	Activity Assay, Cell Culture
Species	Mouse
Tag	N-terminal His Tag
Isoelectric Point	5.2
Reconstitution	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Avoid repeated freeze/thaw cycles. Stability: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

IMAGES



Application Data

Mechanism: MMP2 is a zinc-dependent enzymes capable of cleaving components of the extracellular matrix, which belongs to the matrix metalloproteinase (MMP) family. It is a gelatinase A, 72kDa type IV collagenase which can hydrolyze gelatin under certain conditions. Gelatin zymography is mainly used for the detection of the gelatinases, MMP-2 and MMP-9 and it is extremely sensitive because levels of 10pg of MMP-2 can already be detected. Briefly, various concentrations of MMP2 were denatured by SDS loading buffer, electrophoresed through sodium dodecylsulphate–polyacrylamide gel (SDS–PAGE; 10% gels) containing gelatin (1 mg/mL) with nonreducing conditions. After renaturation, incubation and CCB-stained, active MMP2 would hydrolyze gelatin nearby, which was indicated by the white bands on the gel. In this experiment we use heat-denatured MMP2 protein as negative control, and blood sample as positive control. Result: Gelatin hydrolysis by recombinant mouse MMP2 was shown in figure 1. Figure 1. Hydrolysis of gelatin by recombinant mouse MMP2.



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for MMP2 active protein	Enzyme & Kinase; Tumor immunity; Infection immunity
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NCBI AND UNIPROT INFORMATION

NCBI GI #	442623038
NCBI GeneID	35997
NCBI GenBank Nucleotide #	NP_610511.3
UniProt Accession #	Q8MPP3
Molecular Weight	Predicted Molecular Mass: 63.5kDa Accurate Molecular Mass: 63kDa
NCBI Official Full Name	matrix metalloproteinase 2, isoform D
NCBI Official Synonym Full Names	Matrix metalloproteinase 2
NCBI Official Symbol	Mmp2
NCBI Official Synonym Symbols	2-MMP; anon-WO0118547.84; CG1794; dm-2MMP; Dm2-MMP; DmelCG1794; dmmp2; dMMP2; I(2)02353; mmp2; MMP2
NCBI Protein Information	matrix metalloproteinase 2
UniProt Protein Name	FI21212p1
UniProt Gene Name	Mmp2
UniProt Entry Name	Q8MPP3_DROME

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.