

Matrix Metalloproteinase 9 (MMP9) Active Protein | MMP9 active protein

Active Matrix Metalloproteinase 9 (MMP9)

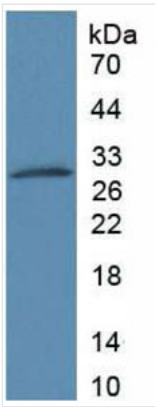
CATALOG # AAA149237	HOST E. coli	REACTIVITY Sus scrofa; Porcine (Pig)	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

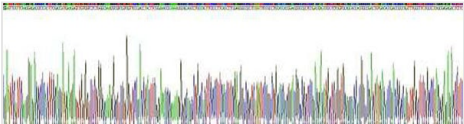
Matrix Metalloproteinase 9 (MMP9); Active Matrix Metalloproteinase 9 (MMP9); GELB; Gelatinase B; CLG4B; CLG4-B; 92 KDa Gelatinase; 92kDa Type IV Collagenase; MMP9 active protein

PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Sus scrofa; Porcine (Pig)
Purity/Purification	>94%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 0.01% skl and 5% trehalose.
Applicable Applications for MMP9 active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Ile169~Glu387
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	4.8
Usage	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: 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.



WB (Western Blot)
Sample: Recombinant MMP9, Porcine; Antibody: Rabbit Anti-Porcine MMP9 Ab



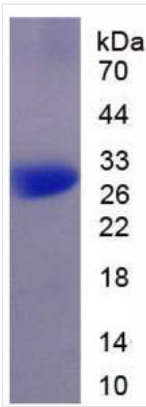
Gene Sequencing
Gene Sequencing (extract)

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      IQ  GDAHFDDEEL  WSLGKGVVVP  TYFGNAKGAA
CHFPPTFEGR  SYSACTTDGR  SDDMLWCSTT  ADYDTRQFG  FCPSERLFTR
DGNADGKPCV  FPFTFEGRSY  SSCTDGRSD  GYRWCGTTAN  YDQKLYGFC
PTRADSTVTG  QNSAGDLCVF  PFTFLGKEYS  ACTREGSDG  HLWCATTSNF
DKDKKKGFCP  DQGYSLFLVA  AHEFGHALGL  DHSTVPE

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Sequence



SDS_PAGE
Sample: Active recombinant MMP9, Porcine



Figure 1. Hydrolysis of gelatin by MMP9.

Bioactivity
Mechanism: MMP9 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, 92kDa 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 recombinant pig MMP9 (1000ng, 500ng, 100ng, 10ng, 1ng, 0.1ng) were denatured by SDS loading buffer, electrophoresed through sodium dodecylsulphatepolyacrylamide gel (SDS–PAGE; 10% gels) containing gelatin (1mg/mL) with nonreducing conditions. After renaturation, incubation and CCB-stained, active MMP2 would hydrolyze gelatin nearby, which was indicated by the white binds on the gel. In this experiment we use heat-denatured MMP9 protein as negative control, and blood sample as positive control. Result: Gelatin hydrolysis by recombinant pig MMP9 (10-70kd) was shown in figure 1.

ADDITIONAL INFORMATION

Product Categories/Family for MMP9 active protein	Enzyme & Kinase; Tumor immunity; Infection immunity; Cardiovascular biology; Hepatology
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NCBI AND UNIPROT INFORMATION

NCBI GI #	269849668
NCBI GeneID	4318
UniProt Accession #	P14780
Molecular Weight	Predicted Molecular Mass: 27.9kDa Accurate Molecular Mass: 30kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	Matrix metalloproteinase-9
NCBI Official Synonym Full Names	matrix metallopeptidase 9
NCBI Official Symbol	MMP9
NCBI Official Synonym Symbols	GELB; CLG4B; MMP-9; MANDP2

NCBI Protein Information	matrix metalloproteinase-9
UniProt Protein Name	Matrix metalloproteinase-9
UniProt Gene Name	MMP9
UniProt Synonym Gene Names	CLG4B; MMP-9; GELB
UniProt Entry Name	MMP9_HUMAN

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/e-coli-pig-porcine-sus-scrofa-active-protein/matrix-metalloproteinase-9-mmp9/149237>