

APA100Hu61 100µg

Active Matrix Metalloproteinase 2 (MMP2)

Organism Species: *Homo sapiens (Human)*

Instruction manual

FOR RESEARCH USE ONLY

NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Eukaryotic expression.

Host: 293F cell

Residues: Ala30~Cys660

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 5% trehalose.

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 5.2

Predicted Molecular Mass: 72.6kDa

Accurate Molecular Mass: 75kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.6) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°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°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.

[**SEQUENCE**]

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                                     A PSPIIKFPGD VAPKTDKELA
VQYLNTFYGC PKESC�LFVL KDTLKKMQKF FGLPQTGDLD QNTIETMRKP
RCGNPDVANY NFFPRKPKWD KNQITYRIIG YTPDLDPETV DDAFARAFQV
WSDVTPLRFS RIHDGEADIM INFGRWEHGD GYPFDGKDGL LAHAFAPGTG
VGGDSHFDDD ELWTLGEGQV VRVKYGNADG EYCKPFPLFN GKEYNSCTDT
GRSDGFLWCS TTYNFEKDGK YGFCPHEALF TMGGNAEQQP CKFPFRFQGT
SYDSCTEGR TDGYRWCGTT EDYDRDKKYG FCPETAMSTV GGNSEGAPCV
FPFTFLGNKY ESCTSAGRSD GKMWCATTAN YDDDRKWGFC PDQGYSFLFLV
AAHEFGHAMG LEHSQDPGAL MAPIYTYTKN FRLSQDDIKG IQELYGASPD
IDLGTGPTPT LGPVTPEICK QDIVFDGIAQ IRGEIFFFKD RFIWRTVTPR
DKPMGPLLVA TFWPELPEKI DAVYEAPQEE KAVFFAGNEY WIYSASTLER
GYPKPLTSLG LPPDVQRVDA AFNWSKNKKT YIFAGDKFWR YNEVKKKMDP
GFPKLIADAW NAIPDNLDAV VDLQGGGHSY FFKGAYYLLK ENQSLKSVKF
GSIKSDWLGC
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[**ACTIVITY**]

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, 72 kDa 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 10 pg of MMP-2 can already be detected .Briefly , various concentrations of MMP2 (50ng, 25ng, 13ng, 6.5ng, 3.3ng, 1.7ng) 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 binds on the gel. In this experiment we use trypsin as positive control. The result was shown in figure 1.

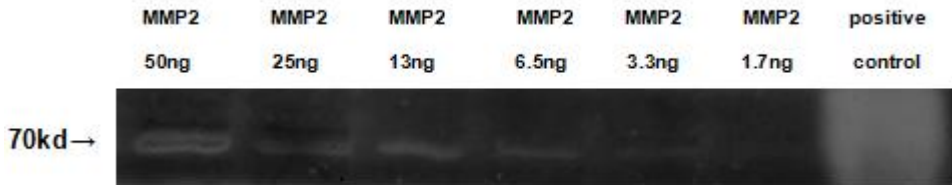


Figure 1. Hydrolysis of gelatin by recombinant human MMP2

[IDENTIFICATION]

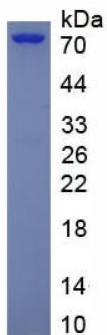


Figure 2. SDS-PAGE

Sample: Active recombinant MMP2, Human

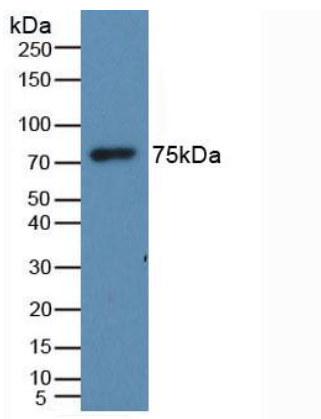


Figure 3. Western Blot

Sample: Recombinant MMP2, Human;

Antibody: Rabbit Anti-Human MMP2 Ab (PAA100Hu06)

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.