**APA553Mu61 100μg**
**Active Matrix Metalloproteinase 9 (MMP9)**
**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:** Ser225~Asp390
**Tags:** N-terminal His-tag
**Purity:** >90%
**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:** 5.7
**Predicted Molecular Mass:** 19.9kDa
**Accurate Molecular Mass:** 19kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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 ]

SNGAPC HFPFTFEGRS YSACTTDGRN
DGTPWCSTTA DYDKDGKFGF CPSERLYTEH GNGEGKPCVF PFIFEGRSYS
ACTTKGRSDG YRWCATTANY DQDKLYGFCP TRVDATVVGG NSAGELCVFP
FVFLGKQYSS CTSDGRRDGR LWCATTSNFD TDKKWGFCPD

## [ ACTIVITY ]

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, 92 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 recombinant mouse MMP9 (100ng, 50ng, 25ng, 12.5ng, 6.25ng, 3.1ng, 1.5ng and 0.7ng) were denatured by SDS loading buffer, electrophoresed through sodium dodecylsulphate–polyacrylamide gel (SDS–PAGE; 15% gels) containing gelatin (1 mg/ml) with nonreducing conditions. After renaturation, incubation and CCB-stained, active MMP9 would hydrolyze gelatin nearby, which was indicated by the white binds on the gel. In this experiment we use trypsin as positive control.

Result: Gelatin hydrolysis by recombinant mouse MMP9(10-70kd) was shown in figure 1.

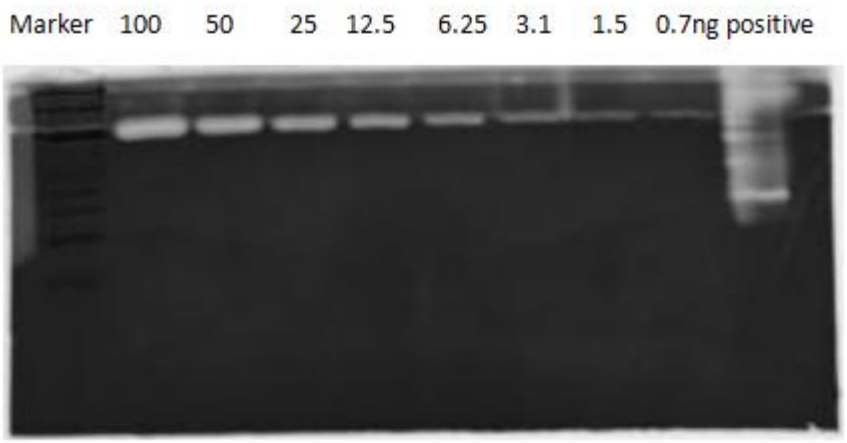


Figure 1

## [ IDENTIFICATION ]

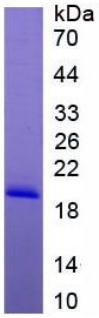


**Figure 2. SDS-PAGE**

**Sample: Active recombinant Mouse, MMP9**

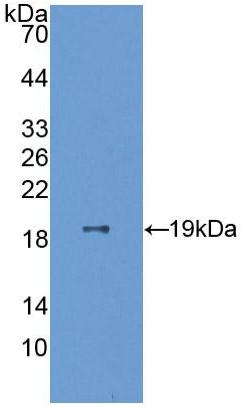


**Figure 3. Western Blot**

**Sample: Recombinant Mouse, MMP9;**

**Antibody: Rabbit Anti-MMP9 Mouse Ab (PAA553Mu06)**

## [ 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.