APA102Hu61 100μg
Active Matrix Metalloproteinase 7 (MMP7)
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: Leu18~Lys267
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: 7.8
Predicted Molecular Mass: 29.5kDa
Accurate Molecular Mass: 31kDa 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]

LPL PQEAGGMSEL QWEQAQDYLK RFYLYDSETK
NANSLEAKLK EMQKFFGLPI TGMLNSRVIE IMQKPRCGVP DVAEYSLFPN
SPKWTSKVVT YRIVSYTRDL PHITVDRLVS KALNMWGKEI PLHFRKVVWG
TADIMIGFAR GAHGDSYPFD GPGNTLAHAF APGTGLGGDA HFDEDERWTD
GSSLGINFLY AATHELGHSL GMGHSSDPNA VMYPTYGNGD PQNFKLSQDD
IKGIQKLYGK RSNSRKK

[ACTIVITY]

Matrix Metalloproteinase 7 (MMP7) is a member of the matrix metalloproteinases (MMPs) family which are zinc and calcium dependent endopeptidases. Structurally, MMP-7 is the smallest of the MMPs and consists of two domains: a pro-domain that is cleaved upon activation and a catalytic domain containing the zinc-binding site. MMP-7 (matrilysin) is expressed in epithelial cells of normal and diseased tissues, and is capable of digesting a large series of proteins of the extracellular matrix including collagen IV and X, gelatin, casein, laminin, aggrecan, entactin, elastin and versican. Thus we have chosen casein-zymography to measure the activity of MMP7. Briefly, various concentrations of MMP7 (10ug, 5ug, 1ug, 0.1ug ,0.01ug) were denatured by SDS loading buffer, electrophoresed through sodium dodecylsulphat-polyacrylamide gel (SDS-PAGE; 15% gels) containing casein (1 mg/ml) with nonreducing conditions. After renaturation, incubation and CCB-stained, active MMP7 would hydrolyze casein nearby, which was indicated by the white bands on the gel. In this experiment, we use heat-denatured MMP7 protein as negative control, and trypsin (1ug/ml) as positive control. The result was shown in figure 1.

Figure 1 Casein hydrolysis by recombinant human MMP7

[IDENTIFICATION]

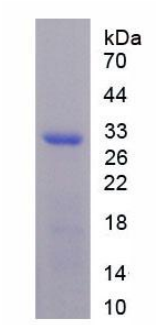

Figure 2. SDS-PAGE

Sample: Active recombinant MMP7, Human

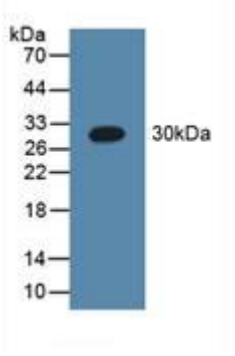

Figure 3. Western Blot

Sample: Recombinant MMP7, Human;

Antibody: Rabbit Anti-Human MMP7 Ab (PAA102Hu06)

[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.