APA102Hu61 10μg
Active Matrix Metalloproteinase 7 (MMP7)
Organism Species: *Homo sapiens (Human)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[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: 20mM Tris, 150mM NaCl, pH8.0, containing 5%Trehalose.
Original Concentration: 50μg/mL
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 ddH_2O to a concentration of 0.1-0.2 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]

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 can degrade a variety of extracellular matrix substrates and other substrates and plays important regulatory roles in many human pathophysiological processes.Besides,Matrix Metalloproteinase 2 (MMP2) has been identified as an interactor of MMP7, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human MMP7 and recombinant human MMP2. Briefly, biotin-linked MMP7 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to MMP2-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μl stop solution to the wells and read at 450nm immediately. The binding activity of MMP7 and MMP2 was shown in Figure 1, the EC50 for this effect is 0.30ug/mL.

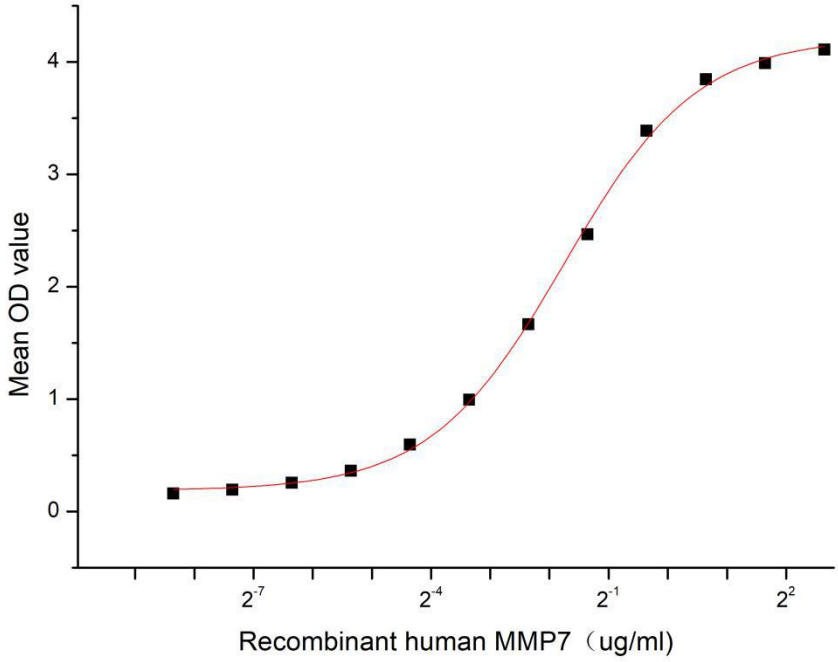

Figure 1. The binding activity of recombinant human MMP7 and recombinant human MMP2

[IDENTIFICATION]

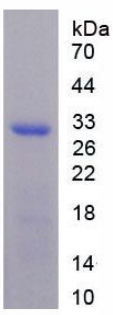

Figure 2. SDS-PAGE

Sample: Active recombinant MMP7, Human

[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.