APA173Hu01 100μg
Active Meprin A Beta (MEP1b)
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: Prokaryotic expression.
Host: *E. coli*
Residues: Trp432~Tyr676
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 7.4
Predicted Molecular Mass: 31.3kDa
Accurate Molecular Mass: 29kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) 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]

WHIRNFTQF IGSPNGTLYS PPFYSSKGYA FQIYLNLAHV TNAGIYFHLI SGANDDQLQW PCPWQQATMT LLDQNPDIRQ RMSNQRSITT DPFMTTDNGN YFWDRPSKVG TVALFSNGTQ FRRGGGYGTS AFITHERLKS RDFIKGDDVY ILLTVEDISH LNSTQIQLTP APSVQDLCSK TTCKNDGVCT VRDGKAECRC QSGEDWWYMG ERCEKRGSTR DTIVIAVSST VAVFALMLII TLVSVY

[ACTIVITY]

Meprin A Beta, also known as MEP1B, is a zinc-dependent metalloprotease that belongs to the astacin family. This protease can form oligomeric complexes, such as with Meprin A Alpha, and is predominantly expressed in the kidney, intestine, and immune cells. Meprin A Beta plays a crucial role in extracellular matrix remodeling, inflammatory responses, and cell adhesion by cleaving various substrates, including collagen, cytokines like IL-1 β and IL-6, and adhesion molecules. It exists in both membrane-anchored and soluble forms.Besides,MMP9 has been identified as an interactor of MEP1B, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human MEP1B and recombinant bovine MMP9. Briefly, Matrix Metalloproteinase 9 (MMP9) was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to MMP9-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-MEP1B pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human MEP1B and recombinant bovine MMP9 was shown in Figure 1, the EC50 for this effect is 0.029μg/mL.

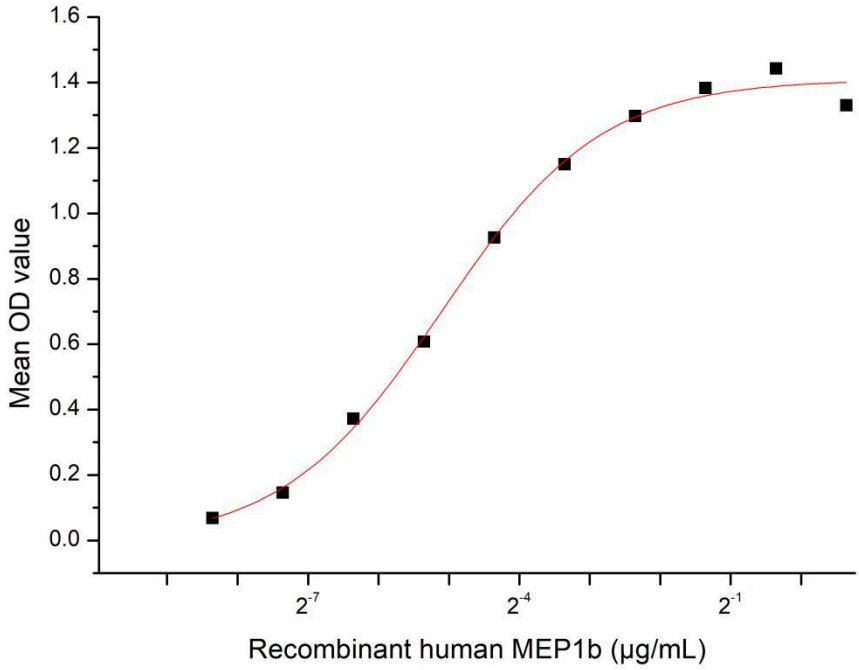

Figure 1. The binding activity of recombinant human MEP1B and recombinant bovine MMP9

[IDENTIFICATION]

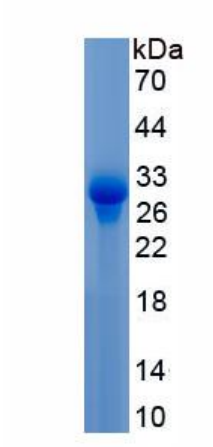

Figure 2. SDS-PAGE

Sample: Active recombinant MEP1b, 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.