APA766Hu01 50μg
Active A Disintegrin And Metalloprotease 10 (ADAM10)
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: Arg420~Val641
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: 250μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 6.5
Predicted Molecular Mass: 25.4kDa
Accurate Molecular Mass: 30kDa 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]

RATSGDKLNNNKFSLCSIRNISQVLEKKRNNCFVESGQPICGNGMVEQGEECDCGYSDQ
CKDECCFDANQPEGRKCKLKPGKQCSPSQGPCCTAQCAFKSKSEKCRDDSDCAREGICN
GFTALCPASDPKPNFTDCNRHTQVCINGQCAGSICEKYGLEECTCASSDGKDDKELCHVC
CMKKMDPSTCASTGSVQWSRHFSGRTITLQPGSPCNDFRGYCDV

[ACTIVITY]

A Disintegrin and Metalloprotease 10 (ADAM10) is a membrane-anchored enzyme belonging to the ADAM family. It functions as a sheddase, cleaving the extracellular domains of numerous transmembrane proteins. This activity regulates key biological processes including cell adhesion, signaling, and proteolysis. ADAM10 is essential for embryonic development and is involved in the cleavage of substrates such as Notch, amyloid precursor protein (APP), and E-cadherin. Its function is critical for neural development, immune response, and tissue regeneration.Besides,A Disintegrin And Metalloprotease 17 (ADAM17) has been identified as an interactor of ADAM10, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human ADAM10 and recombinant rat ADAM17. Briefly, ADAM10 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to ADAM17-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-ADAM10 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 ADAM10 and recombinant rat ADAM17 was shown in

Figure 1, the EC50 for this effect is 0.136μg/mL.

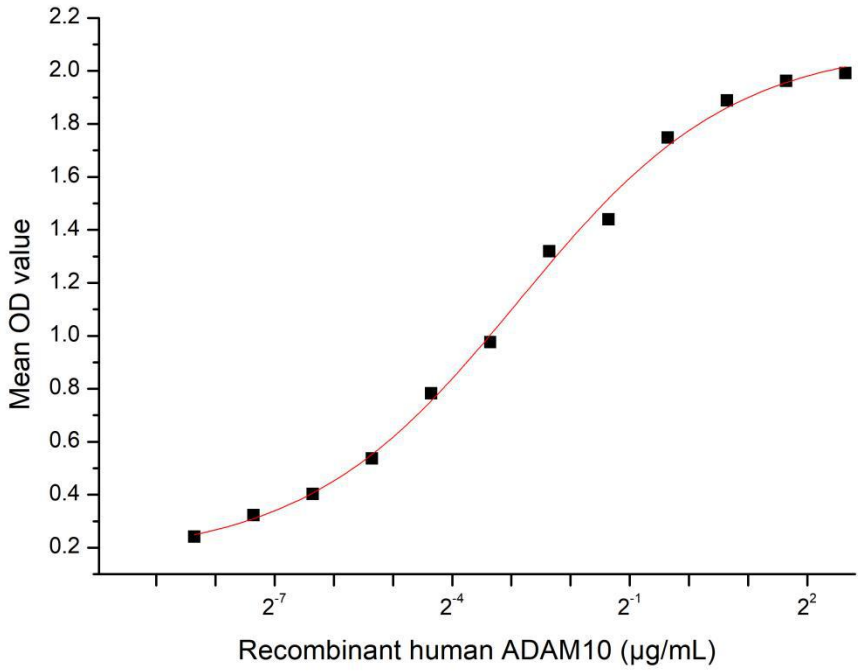

Figure 1. The binding activity of recombinant human ADAM10 and recombinant rat ADAM17

[IDENTIFICATION]

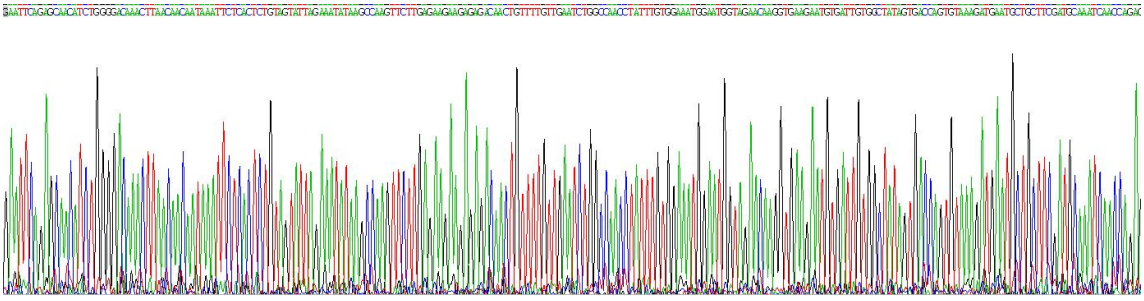

Figure 2. Gene Sequencing (extract)

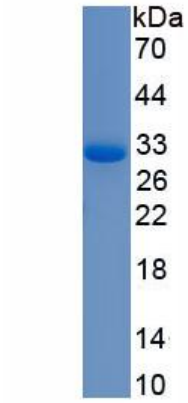

Figure 3. SDS-PAGE

Sample: Active recombinant ADAM10, 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.