APA670Mu03 100μg
Active Homing Associated Cell Adhesion Molecule (HCAM)
Organism Species: *Mus musculus (Mouse)*
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: Gln23~Pro258
Tags: N-terminal His and GST Tag
Purity: >80%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.1
Predicted Molecular Mass: 56.2kDa
Accurate Molecular Mass: 60kDa 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]

QIDLNVTC RYAGVFHVEK NGRYSISRTE
AADLCQAFNS TLPTMDQMKL ALSKGFETCR YGFIEGNVVI PRIHPNAICA
ANHTGVYILV TSNTSHYDTY CFNASAPPEE DCTSVTDLPN SFDGPVTITI
VNRDGTRYSK KGEYRTHQED IDASNIIDDD VSSGSTIEKS TPEGYILHTY
LPTEQPTGDQ DDSFFIRSTL ATIASTVHSK SHAAAQKQNN WIWSWFGNSQ
STTQTQEP

[ACTIVITY]

Homing Associated Cell Adhesion Molecule (HCAM), also known as CD44, is a ubiquitous multistructural and multifunctional cells surface adhesion molecule involved in cell-cell and cell-matrix interactions. CD44 is broadly expressed, including in the membranes of B cells, granulocytes, monocytes, and erythrocytes as well as on many thymocytes and mature T cells, besides it is highly expressed in many cancers and regulates metastasis via recruitment of CD44 to the cell surface. This protein is a receptor for hyaluronic acid (HA) and can also interact with other ligands, such as osteopontin, collagens, and matrix metalloproteinases (MMPs). Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse HCAM and biotinylated hyaluronan (HA). Briefly, biotin-linked HA was diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to HCAM-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 1 hour, then 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 450/630 nm immediately. The binding activity of recombinant mouse HCAM and biotinylated HA was shown in Figure 1, and this effect was in a dose dependent manner.

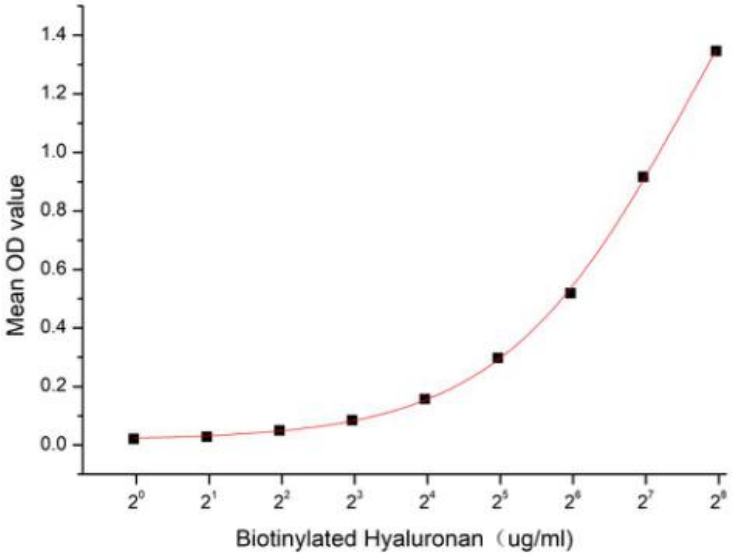

Figure 1. The binding activity of recombinant mouse CD44 and biotinylated HA

[IDENTIFICATION]

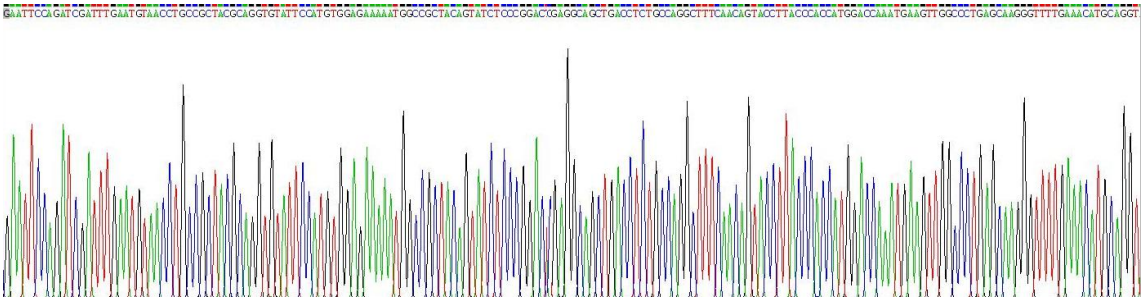

Figure 2. Gene Sequencing (extract)

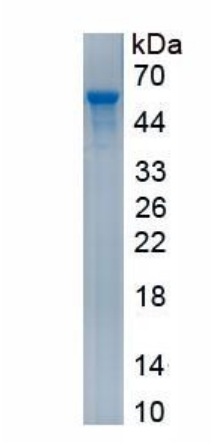

Figure 3. SDS-PAGE

Sample: Active recombinant HCAM, Mouse

[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.