APA363Hu61 100μg
Active Platelet/Endothelial Cell Adhesion Molecule (PECAM1)
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: Gln28~Lys601
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: 7.1
Predicted Molecular Mass: 65.6kDa
Accurate Molecular Mass: 90kDa as determined by SDS-PAGE reducing conditions.
Phenomenon explanation:
The possible reasons that the actual band size differs from the predicted are as follows:
1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[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 2-8°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]

QEN SFTINSVDMK SLPDWTVQNG
KNLTLQCFAD VSTTSHVKPQ HQMLFYKDDV LFYNISSMKS TESYFIPEVR
IYDSGTYKCT VIVNNKEKTT AEYQVLVEGV PSPRVTLDKK EAIQGGIVRV
NCSVPEEKAP IHFTIEKLEL NEKMVKLKRE KNSRDQNFVI LEFPVEEQDR
VLSFRCQARI ISGIHMQTSE STKSELVTVT ESFSTPKFHI SPTGMIMEGA
QLHIKCTIQV THLAQEFPEI IIQKDKAIVA HNRHGNKAVY SVMAMVEHSG
NYTCKVESSR ISKVSSIVVN ITELFSKPEL ESSFTHLDQG ERLNLSCSIP
GAPPANFTIQ KEDTIVSQTQ DFTKIASKSD SGTYICTAGI DKVVKKSNTV
QIVVCEMLSQ PRISYDAQFE VIKGQTIEVR CESISGTLPI SYQLLKTSKV
LENSTKNSND PAVFKDNPTE DVEYQCVADN CHSHAKMLSE VLRVKVIAPV
DEVQISILSS KVVESGEDIV LQCAVNEGSG PITYKFYREK EGKPFYQMTS
NATQAFWTKQ KASKEQEGEY YCTAFNRANH ASSVPRSKIL TVRVILAPWK
K

[ACTIVITY]

PECAM-1 (platelet-endothelial cell adhesion molecule-1; also known as CD31) is a 130 kDa type I transmembrane glycoprotein adhesion molecule in the immunoglobulin superfamily. Expression is restricted to cells involved in circulation, especially endothelial cells, platelets, monocytes, neutrophils and lymphocyte subsets. PECAM-1 is concentrated at cell-cell junctions and is required for transendothelial migration (TEM). Besides, Cadherin 5 (CDH5) has been identified as an interactor of PECAM-1, thus a binding ELISA assay was conducted to detect

the interaction of recombinant human PECAM-1 and recombinant human CDH5. Briefly, PECAM-1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100μl were then transferred to CDH5-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-PECAM-1 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 50μL stop solution to the wells and read at 450/630nm immediately. The binding activity of PECAM-1 and CDH5 was shown in Figure 1, the ED50 for this effect is 126.6 ng/mL.

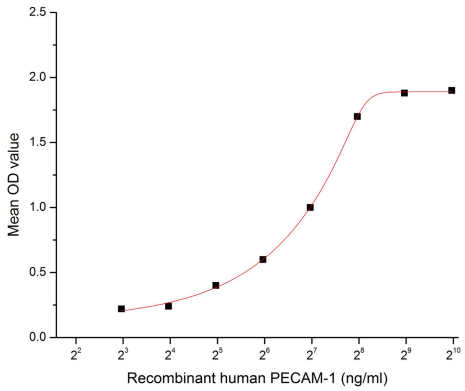

Figure 1. The binding activity of PECAM1 and CDH5

[IDENTIFICATION]

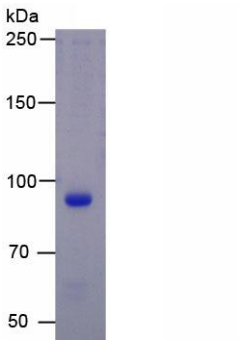

Figure 2. SDS-PAGE

Sample: Active recombinant PECAM1, 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.