

**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

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13th Edition (Revised in Aug, 2023)

## **[ 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 (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## [ STORAGE AND STABILITY ]

**Storage:** Avoid repeated freeze/thaw cycles.

Store at 2-8°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.

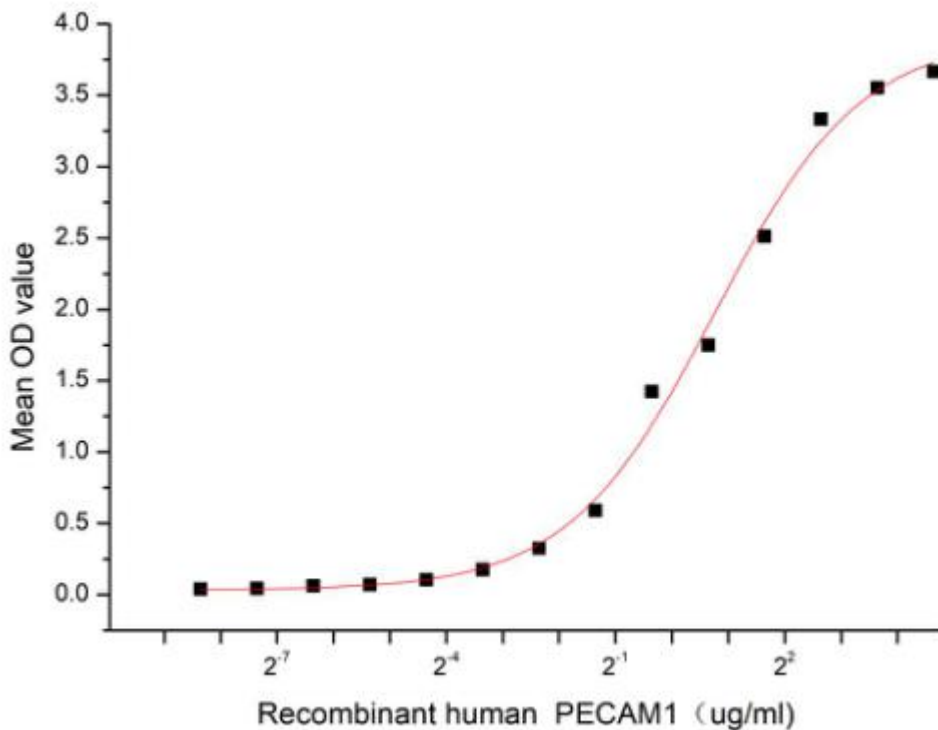
## [ SEQUENCE ]

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NCSVPEEKAP IHFTIEKLEL NEKMKVCLKRE KNSRDQNFVI LEFPVEEQDR
VLSFRCQARI ISGIHMOTSE STKSELVTVT ESFSTPKFHI SPTGMIMEGA
QLHIKCTIQV THLAQEFPEI IIQKDKAIVA HNRHGNKAVY SVMAMVEHSG
NYTCKVESSR ISKVSSIVVN ITELFSKPEL ESSFTHLDQG ERLNLSCSIP
GAPPANFTIQ KEDTIVSQTQ DFTKIASKSD SGTYICTAGI DKVVVKSNTV
QIVVCEMLSQ PRISYDAQFE VIKGQTIEVR CESISGTLPI SYQLLKTSKV
LENSTKNSND PAVFKDNPTE DVEYQCVADN CHSHAKMLSE VLRVKVIAPV
DEVQISILSS KVVESGEDIV LQCAVNEGSG PITYKFYREK EGKPFYQMTS
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K
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## [ ACTIVITY ]

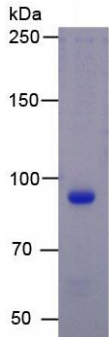
Platelet/Endothelial Cell Adhesion Molecule (PECAM1), also known as CD31, is a transmembrane glycoprotein which belongs to the immunoglobulin superfamily. PECAM1 is widely expressed in various tissues, including blood vessels, the heart, lungs, and the brain and plays an important role in intercellular adhesion, cell migration, platelet function regulation and immune response. Abnormal expression of PECAM-1 is also associated with a variety of diseases, such as atherosclerosis, inflammation and blood diseases. Besides, Protein Tyrosine Phosphatase, Non Receptor Type 6 (PTPN6) has been identified as an interactor of PECAM1, thus a functional binding ELISA assay was conducted to detect the

interaction of recombinant human PECAM1 and recombinant human PTPN6. Briefly, biotin-linked PECAM1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to PTPN6-coated microtiter wells and incubated for 1h at 37  $^{\circ}$ C. 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  $^{\circ}$ C. Finally, add 50  $\mu$ l stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human PECAM1 and recombinant human PTPN6 was shown in Figure 1, the EC<sub>50</sub> for this effect is 1.69  $\mu$ g/mL.



**Figure 1. The binding activity of recombinant human PECAM1 and recombinant human PTPN6**

**[ 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.