APB108Hu61 100μg
Active Cluster Of Differentiation 42b (CD42b)
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: Eukaryotic expression.
Host: 293F cell
Residues: Ile19~Leu291
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 .
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: 4.9
Predicted Molecular Mass: 31.8kDa
Accurate Molecular Mass: 38-44kDa 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]

IC EVSKVASHLE VNCDKRNLTA LPPDLPKDTT
ILHLSENLLY TFSLATLMPY TRLTQLNLDR CELTKLQVDG TLPVLGTLDL
SHNQLQSLPL LGQTLPALTV LDVSFNRLTS LPLGALRGLG ELQELYLKGN
ELKTLPPGLL TPTPKLEKLS LANNNLTELP AGLLNGLENL DTLLLQENSL
YTIPKGFFGS HLLPFAFLHG NPWLCNCEIL YFRRWLQDNA ENVYVWKQGV
DVKAMTSNVA SVQCDNSDKF PVYKYPGKGC PTLGDEGDTD L

[ACTIVITY]

Cluster Of Differentiation 42b (CD42b) also known as CD42b GP Ib is a platelet activation marker involved in the process of coagulation as an aggregating factor. It is composed of a heterodimer, an alpha chain and a beta chain, that is linked by disulfide bonds. The binding of the CD42b-IX-V complex to VWF facilitates initial platelet adhesion to vascular subendothelium after vascular injury and also initiates signaling events within the platelet that lead to enhanced platelet activation, thrombosis and hemostasis. Besides, ITGaM has been identified as an interactor of CD42b, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human CD42b and recombinant human ITGaM. Briefly, CD42b was diluted serially in PBS with 0.01% BSA (pH 7.4).

Duplicate samples of 100 μl were then transferred to ITGaM-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-CD42b 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 450/630 nm immediately. The binding activity of recombinant human CD42b and recombinant human ITGaM was shown in Figure 1, the EC50 for this effect is1.16 ug/mL.

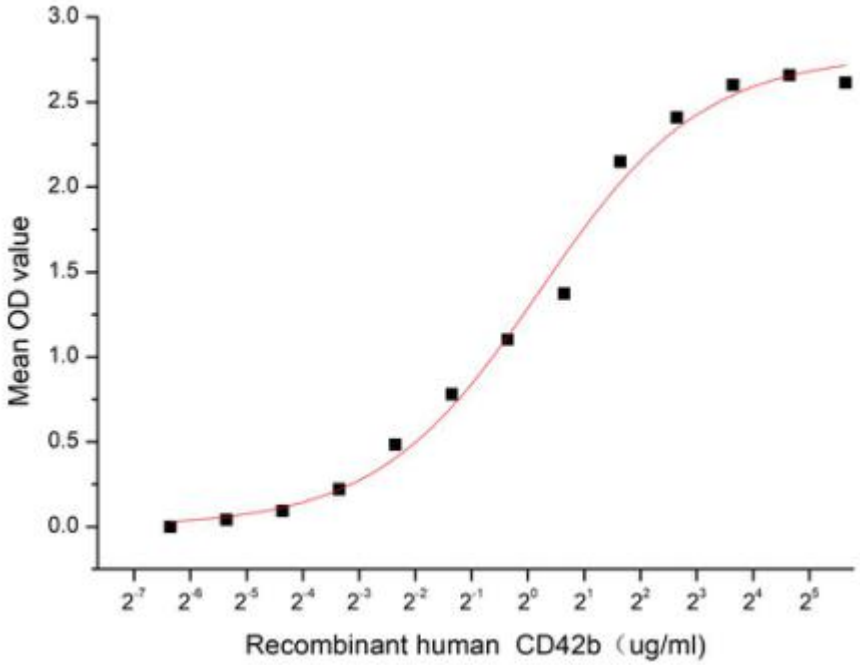

Figure 1. The binding activity of recombinant huamn CD42b and recombinant human ITGaM

[IDENTIFICATION]

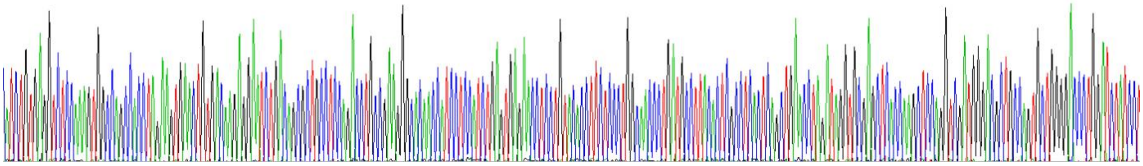

Figure 2. Gene Sequencing (extract)

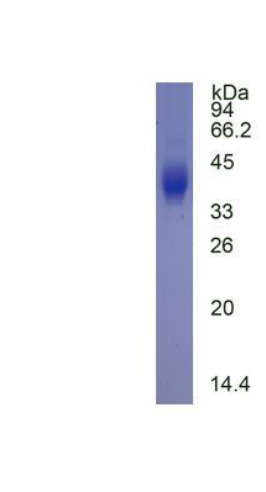

Figure 3. SDS-PAGE

Sample: Active recombinant CD42b, 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.