

APB873Hu61 100µg

Active Cluster Of Differentiation 19 (CD19)

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: Pro20~Val113

Tags: N-terminal His Tag and C-terminal Fc Region of Human IgG1

Purity: >90%

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: 5.8

Predicted Molecular Mass: 41.4kDa

Accurate Molecular Mass: 44kDa 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 2-8°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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PEEPLVVKVEEGDNAVLQCLKGTSDGPTQQLTWSRESPLKPFLLKLSLGLPGLGIHMRPLAIWLFIFNVS  
QQMGGFYLCQPGPPSEKAWQPGWTV
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[ACTIVITY]

Cluster Of Differentiation 19 (CD19) is a type I transmembrane glycoprotein belonging to the immunoglobulin superfamily. It is expressed in normal and neoplastic B cells, and it modulates the threshold of B cell activation for amplifying B cell receptor signaling. This protein has recently emerged as a very attractive biomarker and therapeutic target for B-cell malignancies. The development of safe and effective ligands for CD19 has become an important need for the development of targeted conventional and immunotherapies. As far as we know, signaling through CD19 activates Vav/mitogen-activated protein kinase pathway and induces formation of a CD19/Vav/phosphatidylinositol 3-kinase complex in human B cell precursors. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human CD19 and recombinant human VAV1. Briefly, biotin-linked CD19 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to VAV1-coated microtiter wells and incubated for 1h at 37 °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 °C . Finally, add 50 µl stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human CD19 and recombinant human VAV1 was shown in Figure 1, the EC50 for this effect is 0.67 ug/mL.

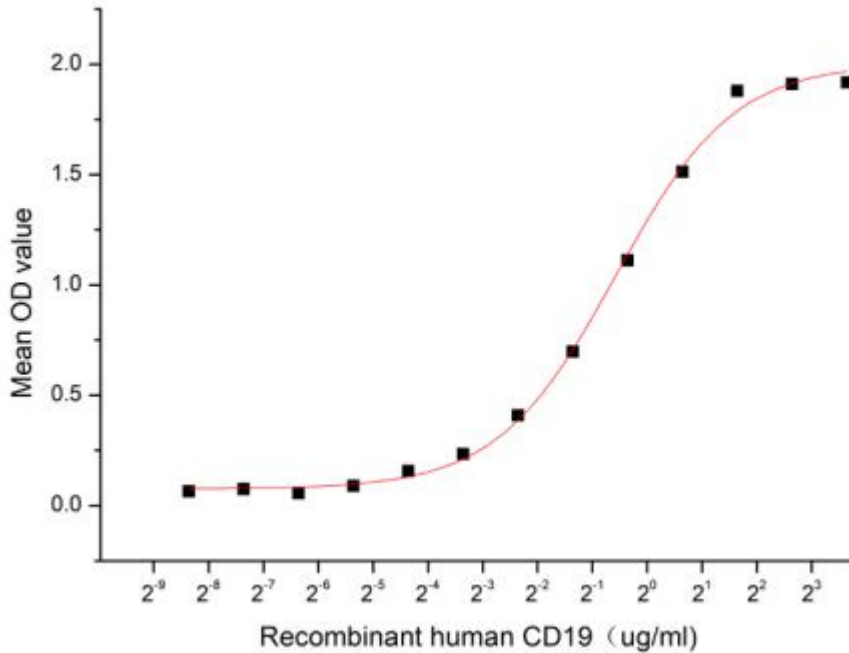


Figure 1. The binding activity of recombinant human CD19 and recombinant human VAV1

[IDENTIFICATION]

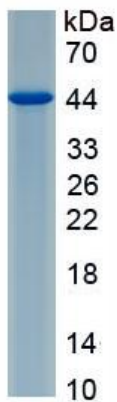


Figure 2. SDS-PAGE

Sample: Active recombinant CD19, 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.