

APD117Hu62 100µg

Active T-Cell Surface Glycoprotein CD3 Epsilon (CD3e)

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: Asp23~Asp126

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

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: 4.0

Predicted Molecular Mass: 42.8kDa

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]

DGNEEMGG ITQTPYKVSI SGTTVILTCP
QYPGSEILWQ HNDKNIGGDE DDKNIGSDED HLSLKEFSEL EQSGYYVCYP
RGSKPEDANF YLYLRARVCE NCMEMD

[ACTIVITY]

CD3 epsilon (T-Cell Surface Glycoprotein CD3 Epsilon) is a 104-kD glycoprotein of the immunoglobulin (Ig) superfamily expressed in lymph node (RPKM 92.6), appendix (RPKM 45.9) and 9 other tissues. CD3 epsilon plays essential role in adaptive immune response. Mutations in CD3 epsilon lead to SCID (severe combined immunodeficiency). CD3E and CD247 can form two heterodimers flanking either side of the TCR. Thus a functional ELISA assay was conducted to detect the interaction of recombinant human CD3e and recombinant human CD247. Briefly, CD3e was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to CD247-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CD3e pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, 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 μ L stop solution to the wells and read at 450/630 nm immediately. The binding activity of recombinant human CD3e and recombinant human CD247 was shown in Figure 1, the EC50 for this effect is 0.68 μ g/mL.

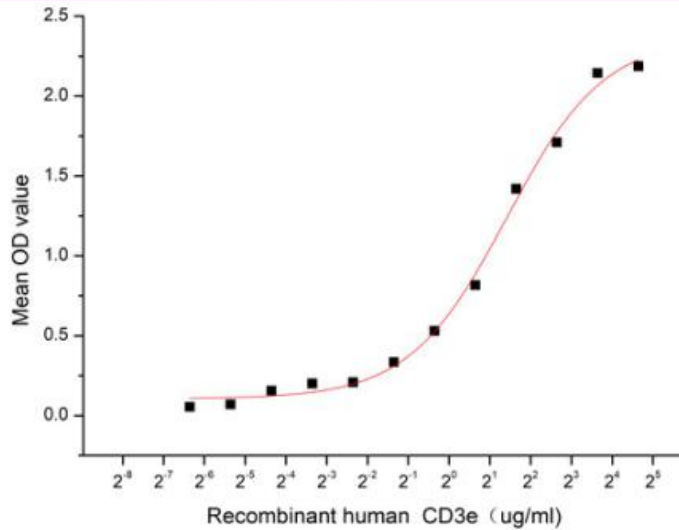


Figure 1. The binding activity of recombinant human CD3e and recombinant human CD247

[IDENTIFICATION]

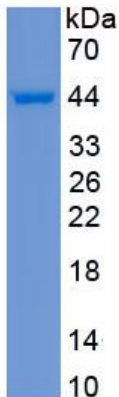


Figure 2. SDS-PAGE

Sample: Active recombinant CD3e, 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.