APA652Ra01 100μg
Active Cluster Of Differentiation 28 (CD28)
Organism Species: *Rattus norvegicus (Rat)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Asn20~Leu150
Tags: N-terminal His-tag
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 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: 6.5
Predicted Molecular Mass: 18.7kDa
Accurate Molecular Mass: 19kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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]

N KILVKQSPLL VVDNNEVSLS CRYSYNLLAK EFRASLYKGV NSDVEVCVGN GNFTYQPQFR PNVGFNCDGN FDNETVTFRL WNLDVNHTDI YFCKIEVMYP PPYLDNEKSN GTIIHIKEKH LCHAQTSPKL

[ACTIVITY]

The cluster of differentiation (CD) antigen CD28 is a member of the immunoglobulin subfamily. CD28 is a central co-stimulatory molecule for TCR-mediated activation such as cytokine production and T-cell proliferation upon ligand binding and TCR stimulation. CD80 and CD86 are expressed on antigen presenting cells and CD86 is primary ligand for CD28. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant rat CD28 and recombinant human CD86. Briefly, CD28 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to CD86-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-CD28 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 rat CD28 and recombinant human CD86 was shown in Figure 1, the EC50 for this effect is 0.07 ug/mL.

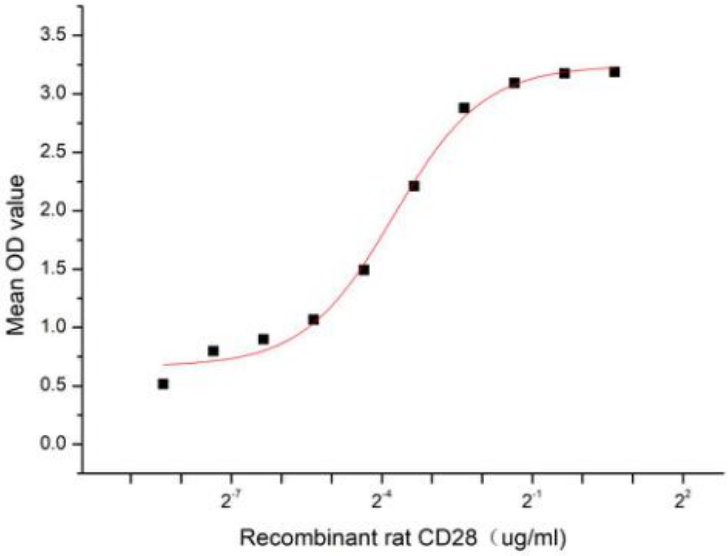

Figure 1. The binding activity of recombinant rat CD28 and recombinant human CD86

[IDENTIFICATION]

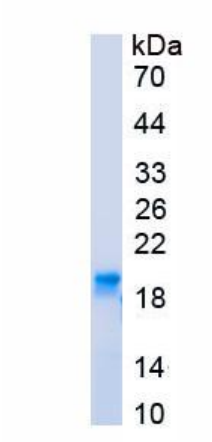

Figure 2. SDS-PAGE

Sample: Active recombinant CD28, Rat

[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.