

APA468Hu01 100µg
Active Cluster Of Differentiation 55 (CD55)
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: Prokaryotic expression.

Host: *E. coli*

Residues: Asp35~Gly285

Tags: N-terminal His-tag

Purity: >95%

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: Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 5.9

Predicted Molecular Mass: 31.4kDa

Accurate Molecular Mass: 34kDa 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]

DCGLPPDVPNAQPALEGRTSFPEDTVITYKCEESFVKIPGEKDSVICLKGSQ
WSDIEEFCNRSCEVPTRLNSASLKQPYITQNYFPVGTVVEYECRPGYRREP
SLSPKLTCLQNLKWSTAVEFCKKKSCPNPGEIRNGQIDVPGGILFGATISFSC
NTGYKLFGSTSSFCLISGSSVQWSDPLPECREIYCPAPPQIDNGIIQGERDHY
GYRQSVTYACNKGFTMIGEHSIYCTVNNDEGEWSGPPPECRG

[ACTIVITY]

Cluster Of Differentiation 55 (CD55), also known as Decay Accelerating Factor (DAF), is a glycosylphosphatidylinositol (GPI)-anchored membrane protein that belongs to the RCA (regulators of complement activation) family and is expressed on all cells that are bathed in plasma, such as blood cells and endothelial cells. CD55 functions as a complement regulator, accelerating the decay of C3 and C5 convertases, thereby inhibiting the formation of the membrane attack complex (MAC) and preventing complement-mediated cell lysis. It plays a crucial role in protecting host cells from complement damage and is involved in various physiological and pathological processes, including immune complex clearance and inflammation. When CD55 binds to C4a, CD55 can regulate the activity of the complement system and prevent cell damage caused by over-activation of the complement. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human CD55 and recombinant human C4a. Briefly, CD55 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to C4a-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-CD55 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 µL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human CD55 and recombinant human C4a was shown in Figure 1, the EC50 for this effect is 0.18ug/mL.

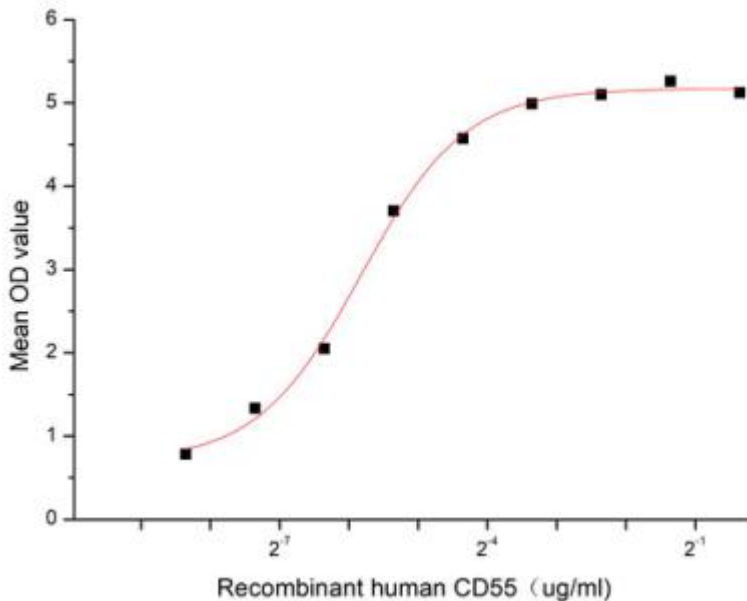


Figure 1. The binding activity of recombinant human CD55 and recombinant human C4a

[IDENTIFICATION]

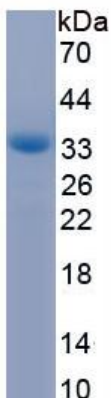


Figure 2. SDS-PAGE**Sample: Active recombinant CD55, Human****[IMPORTANT NOTE]**

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.