

APD207Mu01 100µg
Active Complement Component 1, Q Subcomponent A (C1qA)
Organism Species: *Mus musculus (Mouse)*
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: Glu23~Ala245

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: Cell culture; Activity Assays.

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

Predicted isoelectric point: 9.6

Predicted Molecular Mass: 27.2kDa

Accurate Molecular Mass: 27kDa 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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EDVCRAPN GKDGAPGNPG RPGRPGLKGE
RGEPGAAGIR TGIRGFKGDP GESGPPGKPG NVGLPGPSGP LGDSGPQGLK
GVKGNPGNIR DQPRPAFSAI RQNPMTLGNV VIFDKVLTNQ ESPYQNHTGR
FICAVPGFYY FNFQVISKWD LCLFIKSSSG GQPRDSLSFS NTNKGLFQV
LAGGTVLQLR RGDEVWIEKD PAKGRIYQGT EADSIFSGFL IFPSA
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[ACTIVITY]

Complement Component 1, Q Subcomponent A (C1qA) is a protein that plays a crucial role in the innate immune system. It is part of the C1 complex, which is the first component of the classical complement pathway. The C1 complex is composed of one molecule each of C1q, C1r, and C1s. C1q is the recognition subcomponent of the complex and initiating the complement cascade. C1qA plays a key role in eliminating pathogens, regulating inflammatory response and maintaining immune tolerance. It is reported that C1qA can bind to the C-terminal of CALR through its gelatin-as-region, and this interaction may play an important role in regulating complement activation and cell signaling. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse C1qA and recombinant human CALR. Briefly, C1qA was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to CALR-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-C1qA 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 mouse

C1qA and recombinant human CALR was shown in Figure 1, the EC50 for this effect is 0.03 ug/mL.

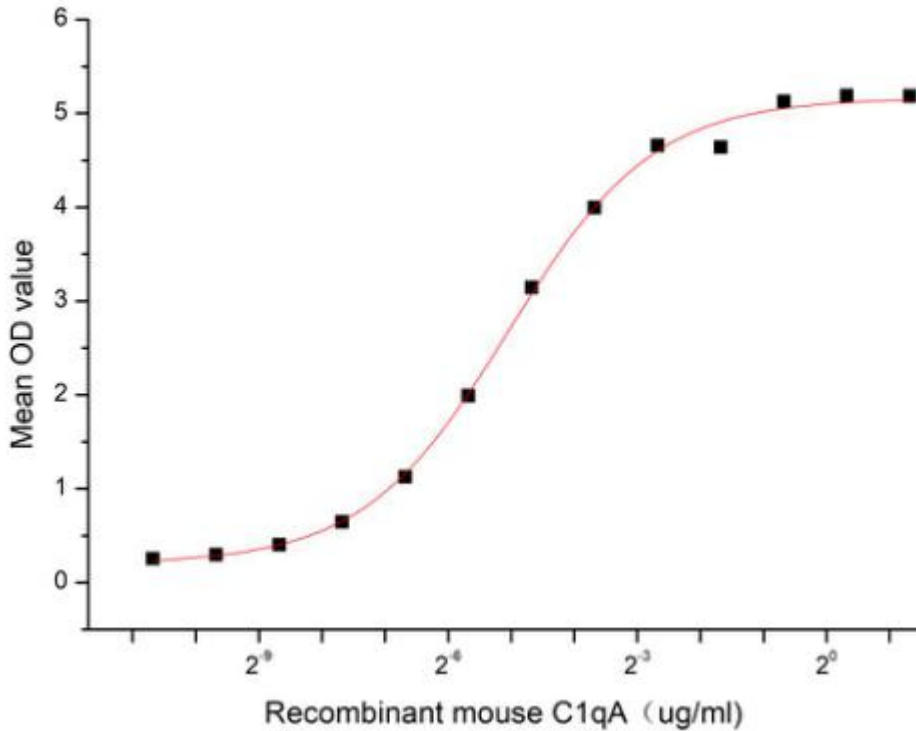


Figure 1. The binding activity of recombinant mouse C1qA and recombinant human CALR

[IDENTIFICATION]

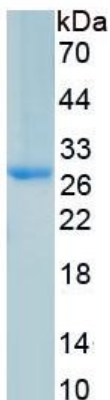


Figure 2. SDS-PAGE**Sample: Active recombinant C1qA, Mouse****[IMPORTANT NOTE]**

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.