APD208Hu01 100μg
Active Complement Component 1, Q Subcomponent B (C1qB)
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: Gln28~Ala253
Tags: Two N-terminal Tags, His-tag and SUMO-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: 300μg/mL
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.9
Predicted Molecular Mass: 37.5kDa
Accurate Molecular Mass: 38kDa 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]

QLS CTGPPAIPGI PGIPGTPGPD GQPGTPGIKG EKGLPGLAGD HGEFGEKGDP
GIPGNPGKVG PKGPMGPKGG PGAPGAPGPK GESGDYKATQ KIAFSATRTI NVPLRRDQTI
RFDHVITNMN NNYEPRSGKF TCKVPGLYYF TYHASSRGNL CVNLMRGRER AQKVVTFCDY
AYNTFQVTTG GMVLKLEQGE NVFLQATDKN SLLGMEGANS IFSGFLLFPD MEA

[ACTIVITY]

C1qB protein is a component of the C1 complex in the classical pathway of the complement system. It is a subunit of the C1q molecule, which is the first component of the complement system to initiate the classical pathway. C1q is a hexameric protein composed of six identical subunits, each containing a C1qB, a C1qB, and a C1qC subunit. C1qB plays a key role in eliminating pathogens, regulating inflammatory response and maintaining immune tolerance. The binding of C4b and C1qB is a key step in the activation of the classical pathway in the complement system, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human C1qB and recombinant mouse C4b. Briefly, C1qB was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to C4b-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-C1qB 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 human C1qB and recombinant mouse C4b was shown in Figure 1, the EC50 for this effect is 0.12 ug/mL.

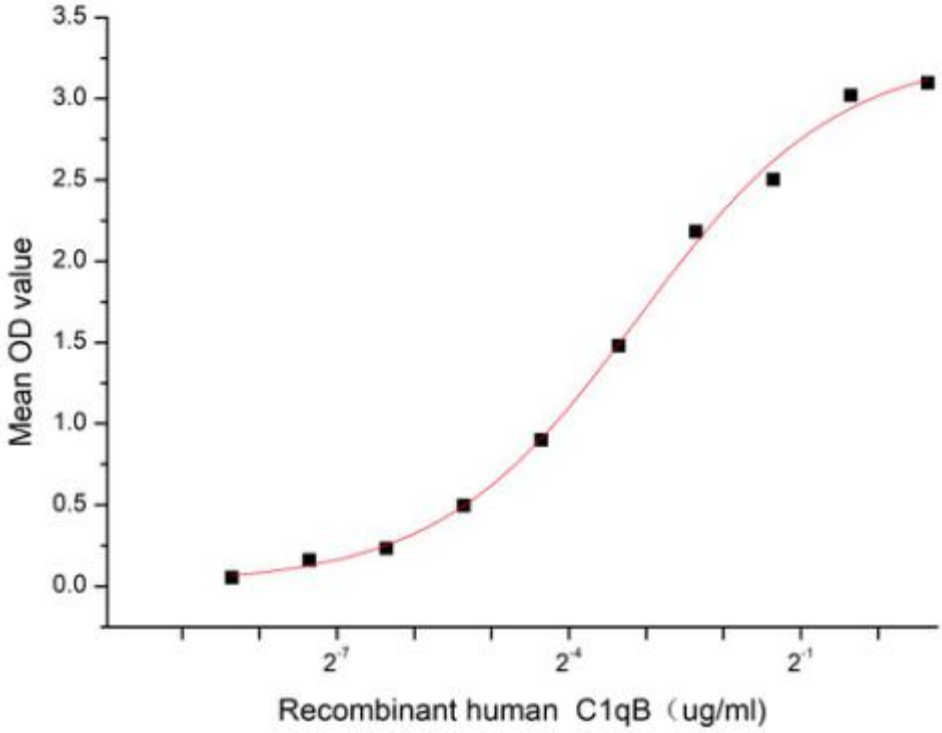

Figure 1. The binding activity of recombinant human C1qB and recombinant mouse C4b

[IDENTIFICATION]

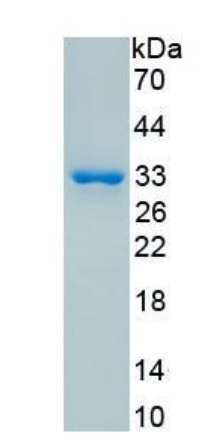

Figure 2. SDS-PAGE

Sample: Active recombinant C1qB, 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.