APB305Mu01 100μg
Active Complement C4-B (C4B)
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: Gln126~Ser366
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: 8.7
Predicted Molecular Mass: 31.1kDa
Accurate Molecular Mass: 31kDa 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]

QGVNL LFSSRRGHIF VQTDQPIYNP
GQRVRYRVFA LDQKMRPSTD FLTITVENSH GLRVLKKEIF TSTSIFQDAF
TIPDISEPGT WKISARFSDG LESNRSTHFE VKKYVLPNFE VKITPWKPYI
LMVPSNSDEI QLDIQARYIY GKPVQGVAYT RFALMDEQGK RTFLRGLETQ
AKLVEGRTHI SISKDQFQAA LDKINIGVRD LEGLRLYAAT AVIESPGGEM
EEAELTSWRF VSSAFS

[ACTIVITY]

Complement Component 4b (C4b) is a component of the complement system, which is activated by the recognition of foreign pathogens, such as bacteria and viruses, or altered self-cells. In the classical activation pathway of complement, C4b is produced by the proteolytic cleavage of the precursor protein C4 by the activated enzyme C1s, and it can bind to C2a to form C3 invertase (C4b2a) which is responsible for the cleavage of C3. Besides, the binding of MASP2 to C4b is an important step in the lectin pathway of the complement system, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse C4b and recombinant human MASP2. Briefly, C4b was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to MASP2-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-C4b 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 mouse C4b and recombinant human MASP2 was shown in Figure 1,

the EC50 for this effect is 1.39 ug/mL.

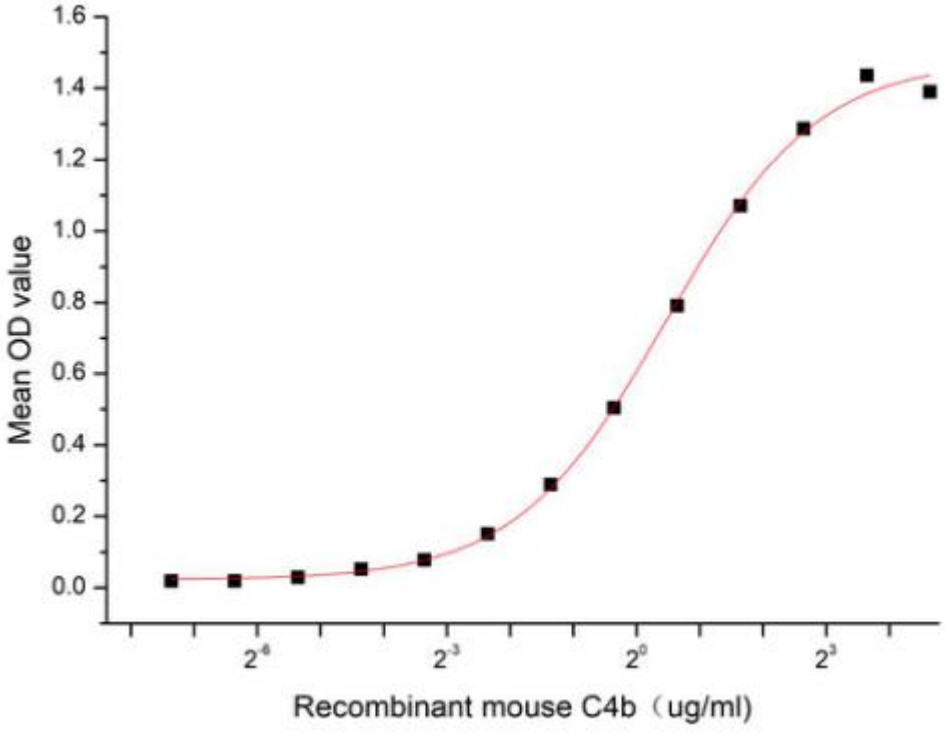

Figure 1. The binding activity of recombinant mouse C4b and recombinant human MASP2

[IDENTIFICATION]

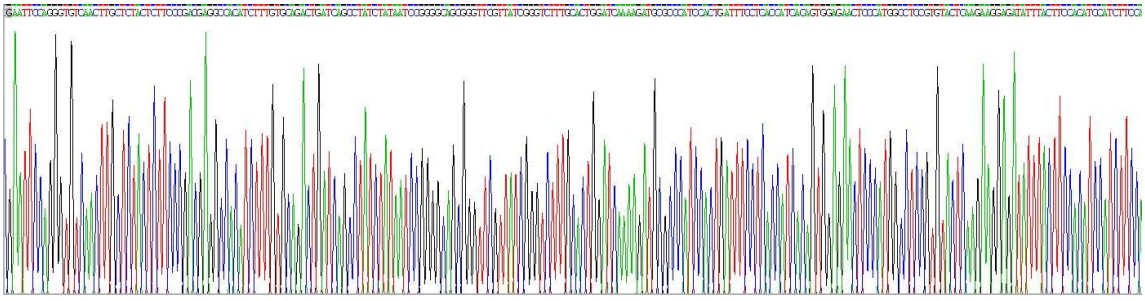

Figure 2. Gene Sequencing (extract)

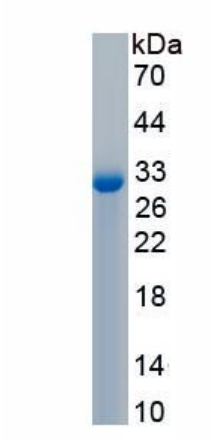

Figure 3. SDS-PAGE

Sample: Active recombinant C4B,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.