

APC011Mu03 50µg
Active Complement Factor B (CFB)
Organism Species: *Mus musculus (Mouse)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

12th Edition (Revised in Aug, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: *E. coli*

Residues: Thr25~Arg258

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: 5.1

Predicted Molecular Mass: 29.7kDa

Accurate Molecular Mass: 33kDa 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]

TPVLEA RPQVSCSLEG VEIKGGSFQL LQGQALEYL CPSGFYPYPV
QTRLTRSTGS WSDLQTRDQK IVQKAECRAI RCPRPQDFEN GEFWPRSPFY
NLSQDISFQC YDGYVLRGSA NRTCQENGRW DGQTAICDDG AGYCPNPGIP
IGTRKVGSIY RLEDIVTYHC SRGLVLRGSQ KRKCQEGGSW SGTEPSCQDS
FMYDSPQEVA EAFLLSLTET IEGADAEDGH SPGEQQKR

[ACTIVITY]

Complement factor B (CFB), a 95-kDa protein, is a crucial catalytic element of the alternative pathway (AP) of complement. After binding of CFB to C3b, activation of the AP depends on the proteolytic cleavage of CFB by factor D to generate the C3 convertase (C3bBb). The C3 convertase contains the catalytic subunit of CFB (Bb), the enzymatic site for the cleavage of a new molecule of C3 into C3b. Thus, a binding ELISA assay was conducted to detect the association of recombinant mouse CFB with recombinant mouse CFD. Briefly, biotin-linked recombinant mouse CFB were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to CFD-coated microtiter wells and incubated for 1h at 37 °C. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then 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 nm immediately. The binding activity of recombinant mouse CFB and recombinant mouse CFD was shown in Figure 1, the EC50 for this effect is 1.238 ug/mL.

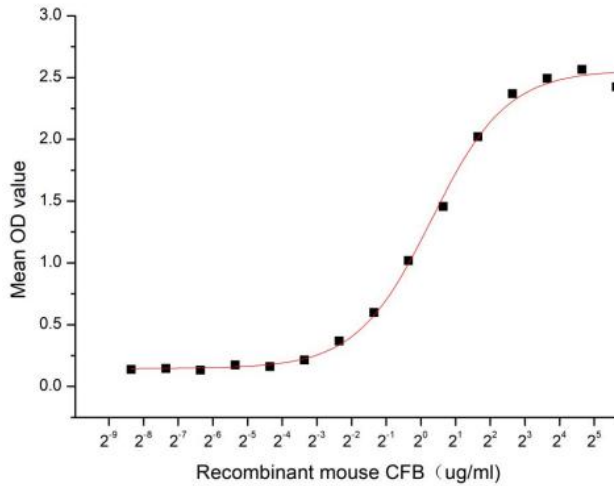


Figure 1. The binding activity of Recombinant mouse CFB and recombinant mouse CFD

[IDENTIFICATION]

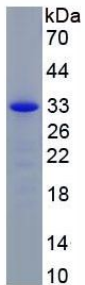


Figure 2. SDS-PAGE

Sample: Active recombinant CFB, 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.