

**APA861Mu01 100µg**  
**Active Complement Component 3 (C3)**  
**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:** Ala965~Arg1303

**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:** 5.9

**Predicted Molecular Mass:** 41.6kDa

**Accurate Molecular Mass:** 42kDa 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 ]**

```
ADLSDQ VPDTDSETRI ILQGSPVVQM AEDAVDGERL
KHLIVTPAGC GEQNMIGMTP TVIAVHYLDQ TEQWEKFGIE KRQEALELIK
KGYTQQLAFK QPSSAYAAFN NRPPSTWLTA YVVKVFLAA NLIAIDSHVL
CGAVKWLILE KQKPDGVFQE DGPVIHQEMI GGFRNAKEAD VSLTAFVLIA
LQEARIDICEG QVNSLPGSIN KAGEYIEASY MNLQRPYTVA IAGYALALMN
KLEEPYLGKF LNTAKDRNRW EEPDQQLYNV EATSYALLAL LLLKDFDSVP
PVVRWLNEQR YYGGGYGSTQ ATFMVFQALA QYQTDVDPHK DLNMDVSFHL
PSR
```

## **[ ACTIVITY ]**

Complement Component 3 (C3) is a vital component of the complement system that plays a central role in immune response and inflammation. C3 is a  $\beta_2$  globulin synthesized by the liver, whose structure consists of two polypeptide chains,  $\alpha$  and  $\beta$ , and is the most abundant complement component in serum. It has reported that P-Selectin (SELP) can interact with C3, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse C3 and recombinant human SELP. Briefly, biotin-linked SELP were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100  $\mu$ l were then transferred to C3-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  $\mu$ l stop solution to the wells and read at 450 nm immediately. When Recombinant mouse C3 is Immobilized at 2  $\mu$ g/mL (100  $\mu$ L/well), the concentration of human SELP that produces 50% optimal binding response is found to be approximately 3.75  $\mu$ g/mL.

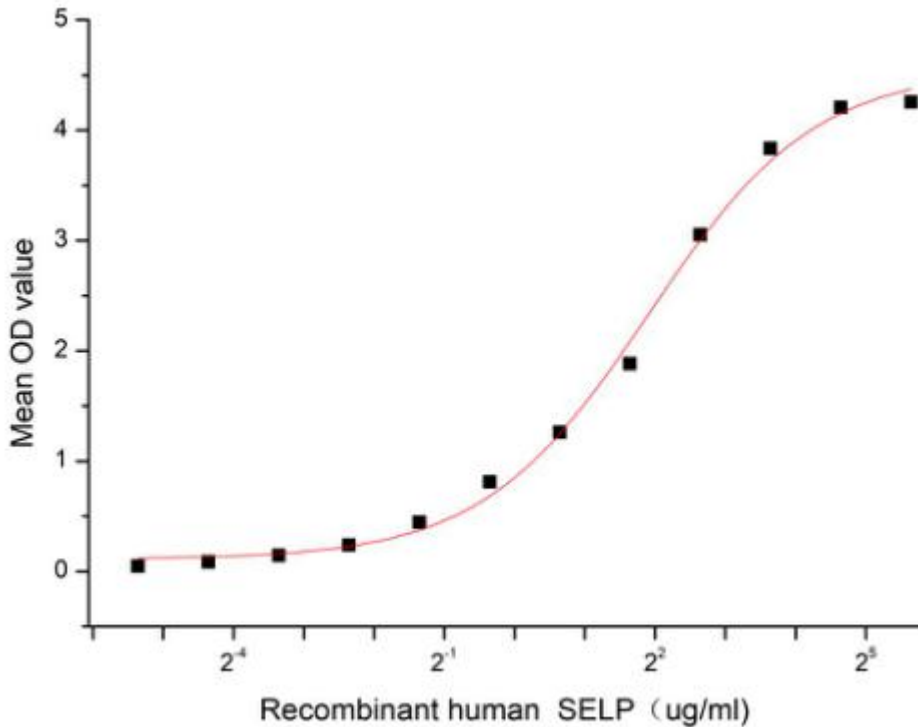


Figure 1. The binding activity of recombinant mouse C3 and recombinant human SELP

## [ IDENTIFICATION ]

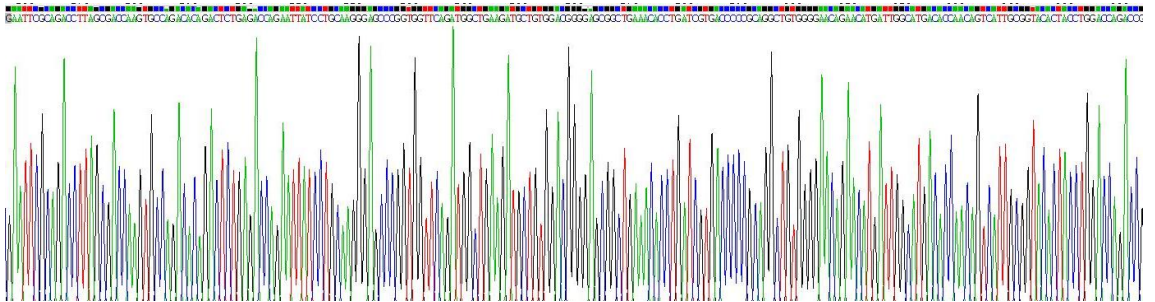
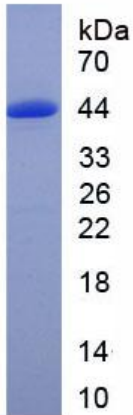


Figure 2. Gene Sequencing (extract)



**Figure 3. SDS-PAGE**

**Sample: Active recombinant C3, 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.