

**APB890Hu01 200µg**  
**Active Apolipoprotein C3 (APOC3)**  
**Organism Species: *Homo sapiens* (Human)**  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

---

---

1st Edition (Apr, 2016)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Ser21~Ala99

**Tags:** Two N-terminal Tags, His-tag and SUMO-tag

**Purity:** >95%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**Buffer Formulation:** 20mM Tris, 150mM NaCl, pH8.0, containing 0.01% sarcosyl and 5% trehalose.

**Applications:** Cell culture; Activity Assays.

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

**Predicted isoelectric point:** 5.8

**Predicted Molecular Mass:** 22.5kDa

**Accurate Molecular Mass:** 21kDa as determined by SDS-PAGE reducing conditions.

**Phenomenon explanation:**

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

## [ USAGE ]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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 ]

```
SEAEDASLLS FMQGYMKHAT KTAKDALSSV  
QESQVAQQAR GNVTDGFSSL KDYWSTVKDK FSEFNDLDPE VRPTSAVAA
```

## [ ACTIVITY ]

Apolipoprotein C3 (APOC3) also known as Apolipoprotein C-III is a component of very low density lipoprotein (VLDL). APOC3 inhibits lipoprotein lipase and hepatic lipase; it is thought to inhibit hepatic uptake of triglyceride-rich particles. An increase in APOC3 levels induces the development of hypertriglyceridemia. Besides, Apolipoprotein A1 (APOA1) has been identified as an interactor of APOC3, thus a binding ELISA assay was conducted to detect the interaction of recombinant human APOC3 and recombinant human APOA1. Briefly, APOC3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to APOA1-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-APOC3 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary

antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of APOC3 and APOA1 was shown in Figure 1, and this effect was in a dose dependent manner.

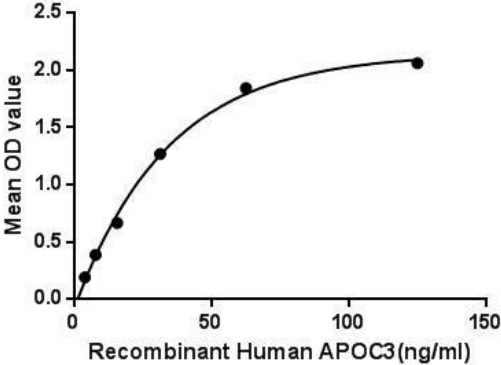


Figure 1. The binding activity of APOC3 with APOA1.

[ IDENTIFICATION ]

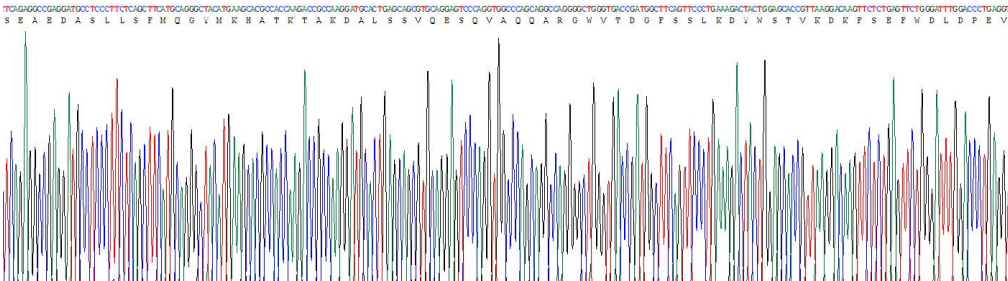
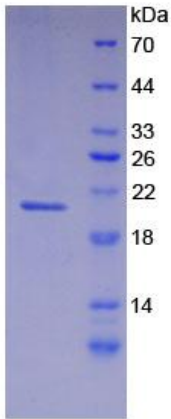
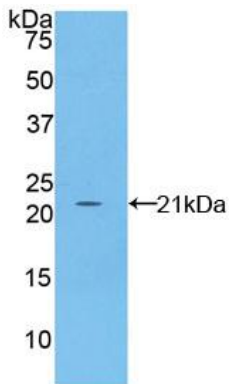


Figure 2. Gene Sequencing (extract)



**Figure 3. SDS-PAGE**

**Sample: Active recombinant APOC3, Human**



**Figure 4. Western Blot**

**Sample: Recombinant APOC3, Human;**

**Antibody: Rabbit Anti-Human APOC3 Ab (PAB890Hu01)**

### **[ 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.