APB890Mu01 100μg
Active Apolipoprotein C3 (APOC3)
Organism Species: *Mus musculus* (Mouse)
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: Glu21~Ser99
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% 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: 5.1
Predicted Molecular Mass: 10.4kDa
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]

EEVEGSLLLG SVQGYMEQAS KTVQDALSSV
QESDIAVVAR GWMDNHFRFL KGYWSKFTDK FTGFWDSNPE DQPTPAIES

[ACTIVITY]

Apolipoprotein C3 (APOC3) also known as apo-CIII 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 apoC-III levels induces the development of hypertriglyceridemia. Some evidences suggest an intracellular role for Apo-CIII in promoting the assembly and secretion of triglyceride-rich VLDL particles from hepatic cells under lipid-rich conditions. Besides, Prenylcysteine Oxidase 1 (PCYOX1) has been identified as an interactor of APOC3, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse APOC3 and recombinant mouse PCYOX1. Briefly, APOC3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μL were then transferred to PCYOX1-coated microtiter wells and incubated for 2h at

37℃. 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℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of APOC3 and PCYOX1 was shown in Figure 1, and this effect was in a dose dependent manner.

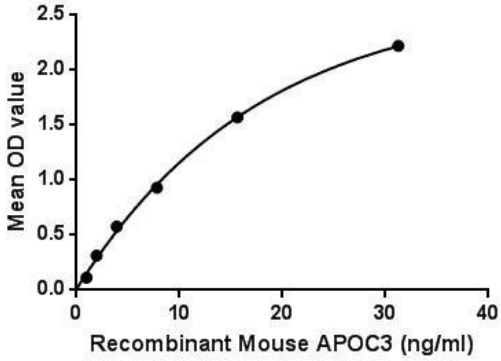

Figure 1. The binding activity of APOC3 with PCYOX1.

[IDENTIFICATION]

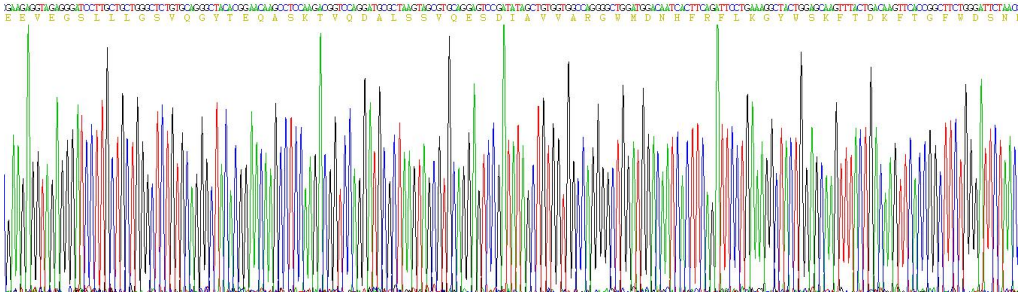

Figure 2. Gene Sequencing (extract)

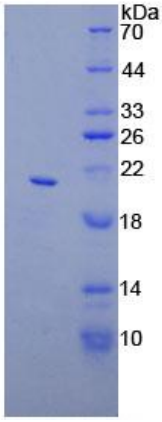

Figure 3. SDS-PAGE

Sample: Active recombinant APOC3, Mouse

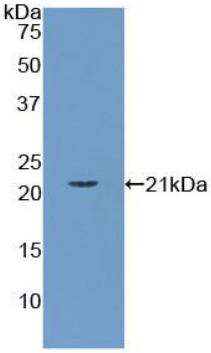

Figure 4. Western Blot

Sample: Recombinant APOC3, Mouse;

Antibody: Rabbit Anti-Mouse APOC3 Ab (PAB890Mu01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.