APB890Hu01 200μg
Active Apolipoprotein C3 (APOC3)
Organism Species: *Homo sapiens* (Human)
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: 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 GWVTDGFSSL KDYWSTVKDK FSEFWDLDPE VRPTSAVAA

[ACTIVITY]

Apolipoprotein C-III also known as apo-CIII, and apolipoprotein C3, is a glycoprotein (consisting of 79 amino acids) that is synthesized principally in the liver. APOC3 is a surface component of chylomicrons, very low density lipoproteins, and high densityl ipoprotein and it has been recently recognized as a polyhedric factor which may regulate several pathways beyond lipid metabolism by influencing cardiovascular, metabolic, and neurological disease risk. Besides, Apolipoprotein H (APOH) has been identified as an interactor of APOC3, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human APOC3 and recombinant human APOH. Briefly, biotin-linked APOC3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to APOH-coated microtiter wells and incubated for 1h at 37℃.

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℃. Finally, add 50 μl stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant human APOC3 and recombinant human APOH was shown in Figure 1, the EC50 for this effect is 8.5 ug/mL.

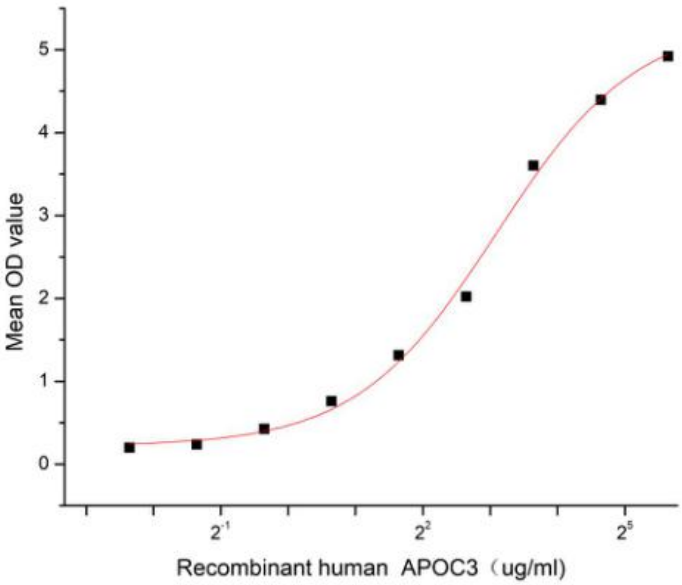

Figure 1. The binding activity of recombinant human APOC3 and recombinant human APOH

[IDENTIFICATION]

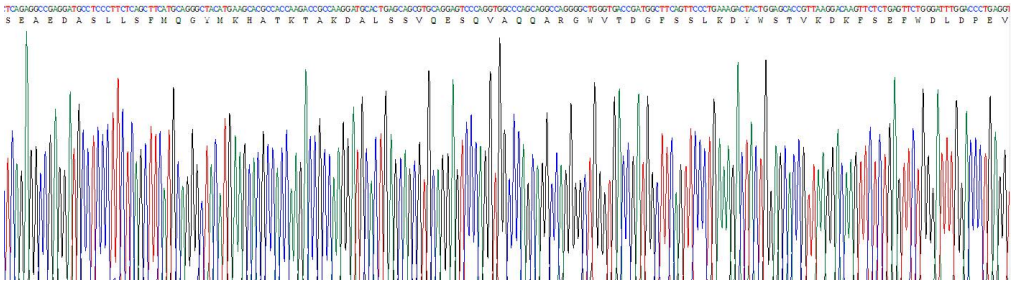

Figure 2. Gene Sequencing (extract)

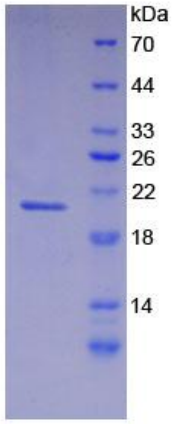

Figure 3. SDS-PAGE

Sample: Active recombinant APOC3, Human

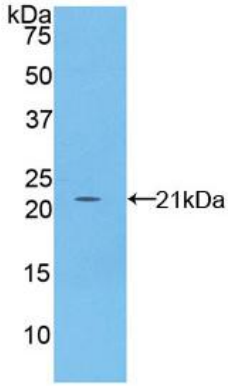

Figure 4. Western Blot

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.