

APB967Hu02 100µg
Active Apolipoprotein A4 (APOA4)
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: Glu21~Asn235

Tags: N-terminal His and GST Tag

Purity: >80%

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: 5.2

Predicted Molecular Mass: 55.0kDa

Accurate Molecular Mass: 55kDa 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]

EVSADQVATV MWDYFSQLSN NAKEAVEHLQ
KSELTQQLNA LFDQKLGEVN TYAGDLQKKL VPFATELHER LAKDSEKLKE
EIGKELEELR ARLLPHANEV SQKIGDNLRE LQQRLEPYAD QLRTQVNTQA
EQLRRQLTPY AQRMERVLRE NADSLQASLR PHADELKAKI DQNVEELKGR
LTPYADEFKV KIDQTVEELR RSLAPYAQDT QEKLN

[ACTIVITY]

Apolipoprotein A4 (APOA4) is a lipid-binding protein, which is primarily synthesized in the small intestine, packaged into chylomicrons, and secreted into intestinal lymph during fat absorption. In the circulation, apoA-IV is present on chylomicron remnants, high-density lipoproteins, and also in lipid-free form. ApoA-IV is involved in a myriad of physiological processes such as lipid absorption and metabolism, anti-atherosclerosis, platelet aggregation and thrombosis, glucose homeostasis and food intake. Besides, Apolipoprotein H (APOH) has been identified as an interactor of APOA4, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human APOA4 and recombinant bovine APOH. Briefly, APOA4 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to APOH-coated microtiter wells and incubated for 1h at 37 °C. Wells were washed with PBST and incubated for 1h with anti-APOA4 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37 °C, 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 μ L stop solution to the

wells and read at 450/630 nm immediately. The binding activity of recombinant human APOA4 and recombinant bovine APOH was shown in Figure 1, the EC50 for this effect is 0.16 ug/mL.

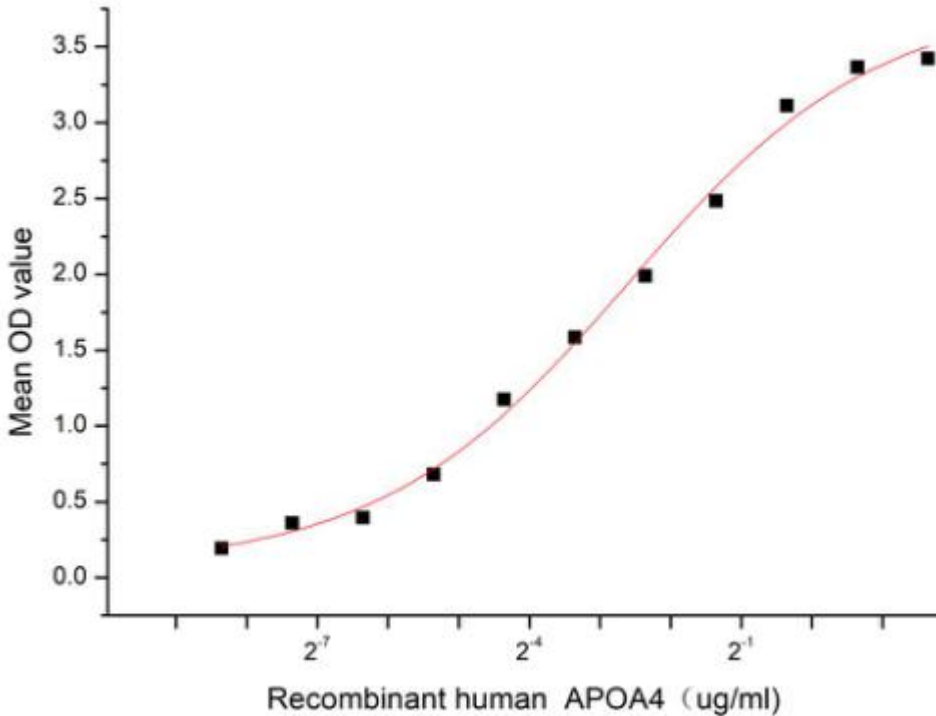


Figure 1. The binding activity of recombinant human APOA4 and recombinant bovine APOH

[IDENTIFICATION]

GATTGATGGAGGTTGGAGGACCTGGGCTCCCCGTCCTGCTCGGCTGGGAGCTGGGCTGGCTGGCCGCCTCCGCGCCGCCGCCTCATTGTTGTTGCTTGGCTTAWGAGGCTGGCTCCCTCCTCCCGGGTAACTGCATACCGCCCTCGAAACCCCTCAGACCCCTCAGAGCCCTTTTC

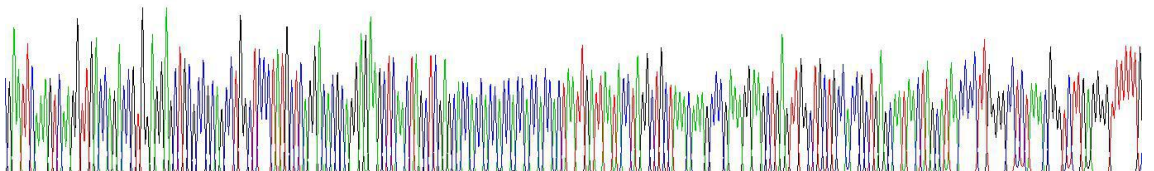


Figure 2. Gene Sequencing (extract)

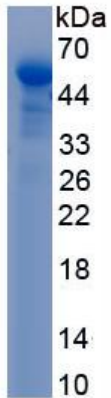


Figure 3. SDS-PAGE

Sample: Active recombinant APOA4, Human

[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.