APJ516Hu01 100μg
Active Lecithin Cholesterol Acyltransferase (LCAT)
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: Ile290~Ser433
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: 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: 17.4kDa
Accurate Molecular Mass: 18kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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]

I STPSFNYTGR
DFQRFFADLH FEEGWYMWLQ SRDLLAGLPA PGVEVYCLYG VGLPTPRTYI
YDHGFPYTDP VGVLYEDGDD TVATRSTELC GLWQGRQPQP VHLLPLHGIQ
HLNMVFSNLT LEHINAILLG AYRQGPPASP TAS

[ACTIVITY]

LCAT(Phosphatidylcholine-sterol acyltransferase) is an enzyme in the extracellular metabolism of plasma lipoproteins, which converts cholesterol and phosphatidylcholines(lecithins) to cholesteryl esters and lysophosphatidylcholines. It is reported that Apolipoprotein E (apoE) is the main LCAT activator in glia-conditioned media (GCM). Thus, a binding ELISA assay was conducted to detect the association of recombinant human LCAT with recombinant human apoE. Briefly, recombinant human LCAT were diluted serially in PBS with 0.01% BSA(pH 7.4). Duplicate samples of 100ul were then transferred to apoE-coated microtiter wells and incubated for 2h at 37° C. Wells were washed with PBST and incubated for 1 h with anti-LCAT 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 LCAT with apoE was shown in Figure 1 ,the EC50 for this effect is 0.036ug/mL.

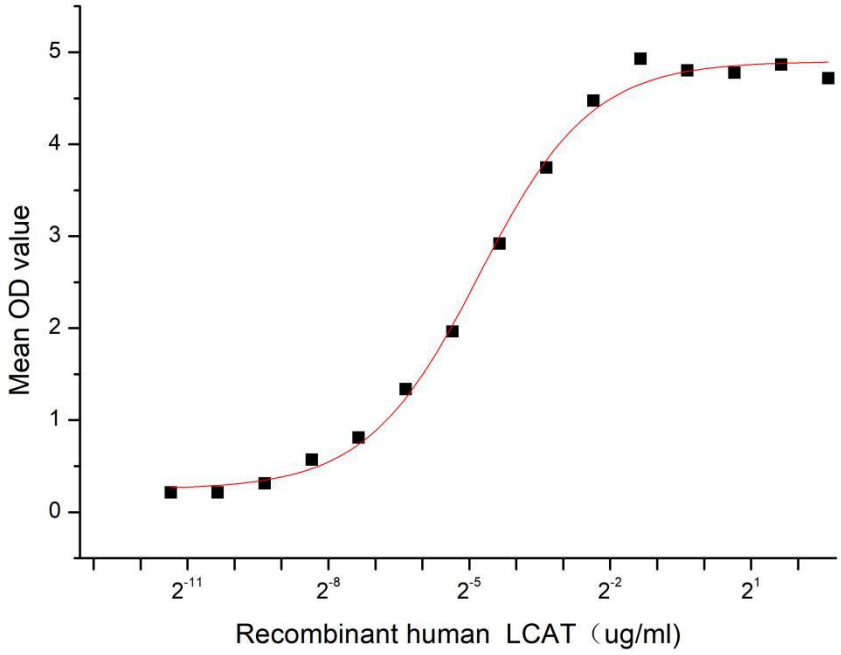

Figure 1. The binding activity of LCAT with apoE

[IDENTIFICATION]

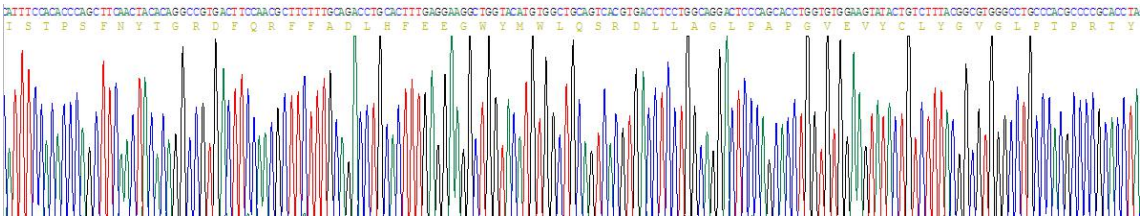

Figure 2. Gene Sequencing (extract)

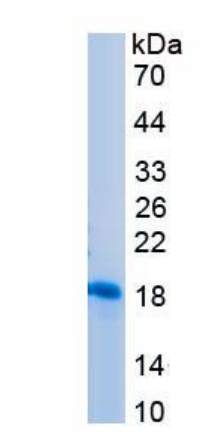

Figure 3. SDS-PAGE

Sample: Active recombinant LCAT, 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.