

# Active Lecithin Cholesterol Acyltransferase (LCAT) Instruction Manual

**SBPJ382Mu01**

**Mus musculus (Mouse)**

**Buffer Formulation**

PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.

**Traits**

Freeze-dried powder

**Purity**

> 90%

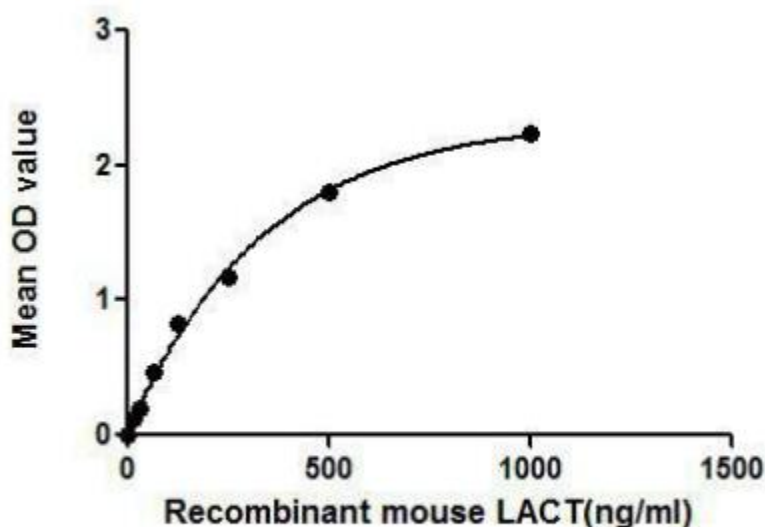
**Isoelectric Point**

6.3

**Applications**

Cell culture; Activity Assays.

**ACTIVITY TEST**



**Figure 1. The binding activity of LCAT with APOA1.**

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 APOA1 (Apolipoprotein A-I) acts as a cofactor for the LCAT. Thus, a binding ELISA assay was conducted to detect the association of LCAT with APOA1. Briefly, recombinant rat LCAT 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-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 APOA1 was shown in Figure 1 and this effect was in a dose dependent manner.

## **USAGE**

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## **STORAGE**

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

## **STABILITY**

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.

## **Image**

5' ATGAGTCAGTAAACACACAGGCGCTGTCATCTGCTGCTGCTGCTTTGGGAAATGGCTGAGAGCCAAAGCTGGATTAACAGATGTGGTGAACTGGATGTGCTAAGACAGAGGACTTCTCCACCATCTGGCTGGATTTCACCTGTCTCCCTGGGGTGGACTGCTGGATTG

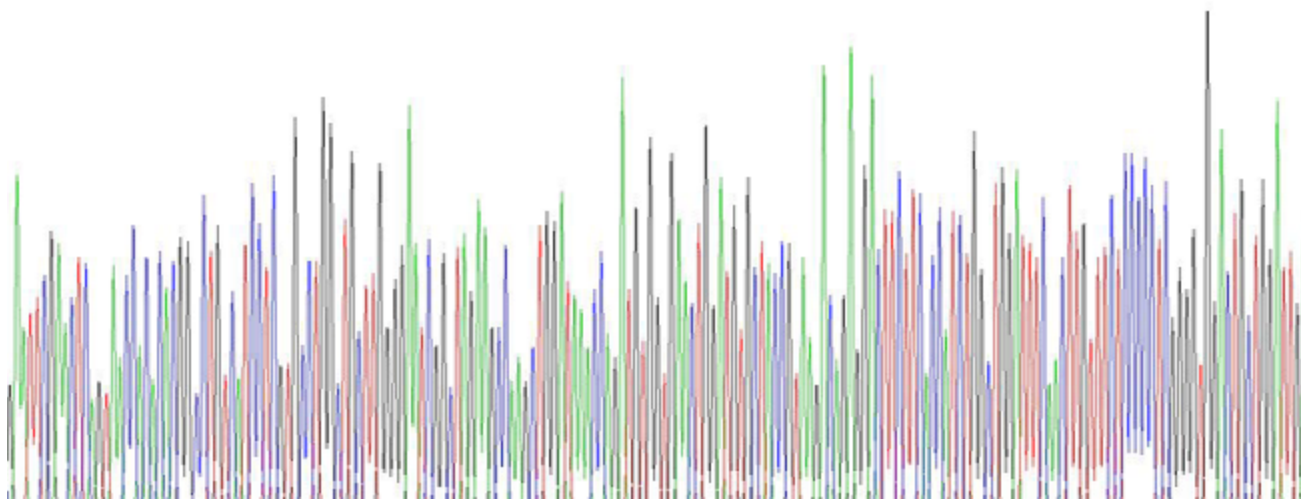


Figure. SDS-PAGE; Sample: Active recombinant LCAT, Mouse.

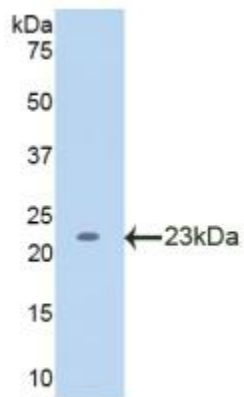


Figure. Western Blot; Sample: Recombinant LCAT, Mouse.

**[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.