

Lecithin Cholesterol Acyltransferase (LCAT) Active Protein | LCAT active protein

Active Lecithin Cholesterol Acyltransferase (LCAT)

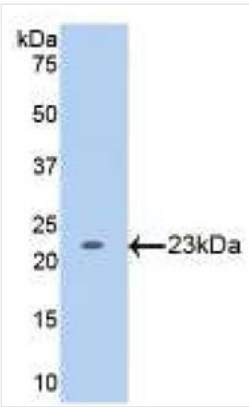
CATALOG # AAA21104	HOST E. coli	REACTIVITY Mus musculus (Mouse)	APPLICATIONS Cell Culture, Activity Assay, Invivo Assay
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PRODUCT SYNONYMS

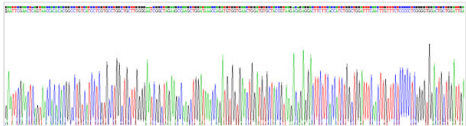
Lecithin Cholesterol Acyltransferase (LCAT); Active Lecithin Cholesterol Acyltransferase (LCAT); phosphatidylcholine-sterol O-acyltransferase; Phospholipid-cholesterol acyltransferase; LCAT active protein

PRODUCT SPECIFICATIONS

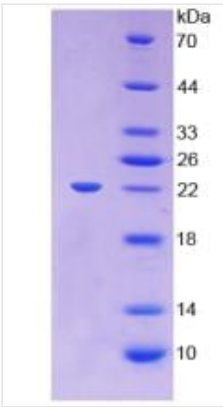
Host	E. coli
Reactivity	Mus musculus (Mouse)
Purity/Purification	>98%
Form/Format	20mM Tris, 150mM NaCl, pH8.0, containing 0.01% sarcosyl and 5% trehalose.
Applicable Applications for LCAT active protein	Cell Culture, Activity Assay, Invivo Assay
Application Notes	(May be suitable for use in other assays to be determined by the end user.)
Source	Prokaryotic expression
Residues	Glu41~His210
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	6.3
Usage	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree 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 degree 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.



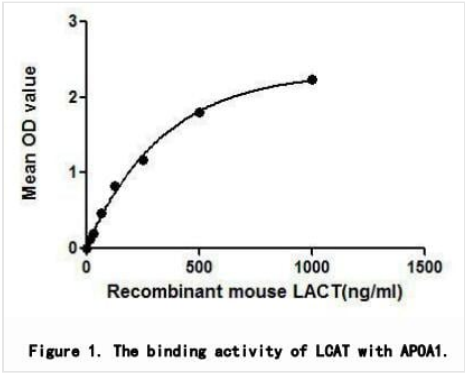
WB (Western Blot)
Western Blot Sample: Recombinant LCAT, Mouse;Antibody: Rabbit Anti-Mouse LCAT Ab



Gene Sequencing (extract)



SDS-PAGE
Sample: Active recombinant LCAT, Mouse



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 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 degree 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 degree C. Finally, add 50uL 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.

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ELSNHTRPVI
LVPGCLGNRL EAKLDKPDVV NVMCYRKTED FFTIWDFNL FLPLGVDCWI
DNTRIVYNHS SGRVSNAPGV QIRVPGFGKT ESVEYVDDNK LAGYLHTLVQ
NLVNNGYVRD ETVRAAPYDW RLAPHQQDEY YKKLAGLVEE MYAAYGKPVF
LIGHSLGCLH
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Sequence Information

ADDITIONAL INFORMATION

Product Categories/Family for LCAT active protein	Enzyme & Kinase
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NCBI AND UNIPROT INFORMATION

NCBI GI #	244791354
NCBI GeneID	16816
NCBI Accession #	NP_032516.2

NCBI GenBank Nucleotide #	NM_008490.2
UniProt Accession #	P16301 ; Q8K139
Molecular Weight	Predicted Molecular Mass: 20.7kDa Accurate Molecular Mass: 22kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	phosphatidylcholine-sterol acyltransferase
NCBI Official Synonym Full Names	lecithin cholesterol acyltransferase
NCBI Official Symbol	Lcat
NCBI Official Synonym Symbols	AI046659; D8Wsu61e
NCBI Protein Information	phosphatidylcholine-sterol acyltransferase
UniProt Protein Name	Phosphatidylcholine-sterol acyltransferase
UniProt Gene Name	Lcat

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-mouse-mus-musculus-active-protein/lecithin-cholesterol-acyltransferase-lcat/21104>