Recombinant human LCAT protein

Catalog Number: ATGP1899

PRODUCT INFORMATION

Expression system
E.coli

Domain
25-440aa

UniProt No.
P04180

NCBI Accession No.
NP_000220.1

Alternative Names
Phosphatidylcholine-sterol acyltransferase, lecithin-cholesterol acyltransferase, phosphatidylcholine-sterol O-acyltransferase

PRODUCT SPECIFICATION

Molecular Weight
49.8 kDa (441aa)

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.4M urea, 10% glycerol

Purity
> 85% by SDS-PAGE

Tag
His-Tag

Application
SDS-PAGE, Denatured

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description
LCAT (lecithin-cholesterol acyltransferase), also known as phosphatidylcholine-sterol O-acyltransferase, belongs to the AB hydrolase superfamily. LCAT is responsible for the esterification of the free cholesterol of plasma lipoproteins. This enzyme is converts free cholesterol into cholesteryl ester (a more hydrophobic form of cholesterol), which is then sequestered into the core of a lipoprotein particle, eventually making the newly synthesized HDL spherical and forcing the reaction to become unidirectional since the particles are removed

from the surface. It is central enzyme in the extracellular metabolism of plasma lipoproteins and required for remodeling high-density lipoprotein particles into their spherical forms. Recombinant human LCAT protein, fused to His-tag at N-terminus, was expressed in E. coli.

Amino acid Sequence

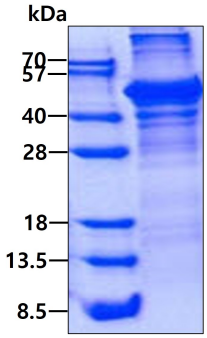
<MGSSHHHHHH SSGLVPRGSH MGSHM>FWLLN VLFPPHTTPK AELSNHTRPV ILVPGCLGNQ LEAKLDKPDV VNWMCYRKTE DFFTIWLDLN MFLPLGVDCW IDNTRVVYNR SSGLVSNAPG VQIRVPGFGK TYSVEYLDSS KLAGYLHTLV QNLVNNGYVR DETVRAAPYD WRLEPGQQEE YYRKLAGLVE EMHAAYGKPV FLIGHSLGCL HLLYFLLRQP QAWKDRFIDG FISLGAPWGG SIKPMLVLAS GDNQGIPIMS SIKLKEEQRI TTTSPWMFPS RMAWPEDHVF ISTPSFNYTG RDFQRFFADL HFEEGWYMWL QSRDLLAGLP APGVEVYCLY GVGLPTPRTY IYDHGFPYTD PVGVLYEDGD DTVATRSTEL CGLWQGRQPQ PVHLLPLHGI QHLNMVFSNL TLEHINAILL GAYRQGPPAS PTASPEPPPP E

General References

Clay M.A., et al. (2000) J. Biol. Chem. 275:9019-9025
Karavia EA, et al. (2012) J Nutr Biochem. 2012 Jul 19.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.