

Datasheet for ABIN3093504 LCAT Protein (AA 25-440) (His tag)



[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	LCAT
Protein Characteristics:	AA 25-440
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This LCAT protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

Product Details

Sequence: FWLLNVLFPP HTTPKAELSN HTRPVILVPG CLGNQLEAKL DKPDVNVNWMC YRKTEDEFFTI
WLDLNMFLPL GVDCWIDNTR VVYNRSSGLV SNAPGVQIRV PGFGKTYSTVE YLDSSKLAGY
LHTLVQNLVN NGYVRDETVR AAPYDWRLEP GQQEEYYRKL AGLVEEMHAA YGKPVFLIGH
SLGCLHLLYF LLRQPQAWKD RFIDGFISLG APWGGSIKPM LVLASGDNQG IPIMSSIKLK
EEQRITTTSP WMFPSRMAWP EDHVFISTPS FNYTGRDFQR FFADLHFEEG WYMWLQSRDL
LAGLPAPGVE VYCLYGVGLP TPRTYIDHG FPYTDVPGVL YEDGDDTVAT RSTELCGLWQ
GRQPQPVHLL PLHGIQHLNM VFSNLTLEHI NAILLGAYRQ GPPASPTASP EPPPE

Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Human LCAT Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

Product Details

- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	LCAT
Alternative Name:	LCAT (LCAT Products)

Target Details

Background:	Central enzyme in the extracellular metabolism of plasma lipoproteins. Synthesized mainly in the liver and secreted into plasma where it converts cholesterol and phosphatidylcholines (lecithins) to cholesteryl esters and lysophosphatidylcholines on the surface of high and low density lipoproteins (HDLs and LDLs) (PubMed:10329423, PubMed:19065001, PubMed:26195816). The cholesterol ester is then transported back to the liver. Has a preference for plasma 16:0-18:2 or 18:0-18:2 phosphatidylcholines (PubMed:8820107). Also produced in the brain by primary astrocytes, and esterifies free cholesterol on nascent APOE-containing lipoproteins secreted from glia and influences cerebral spinal fluid (CSF) APOE- and APOA1 levels. Together with APOE and the cholesterol transporter ABCA1, plays a key role in the maturation of glial-derived, nascent lipoproteins. Required for remodeling high-density lipoprotein particles into their spherical forms (PubMed:10722751). {ECO:0000269 PubMed:10329423, ECO:0000269 PubMed:10722751, ECO:0000269 PubMed:14636062, ECO:0000269 PubMed:19065001, ECO:0000269 PubMed:26195816, ECO:0000269 PubMed:8820107}.
Molecular Weight:	48.0 kDa Including tag.
UniProt:	P04180
Pathways:	Lipid Metabolism

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process