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# LCAT Protein (AA 25-440) (His tag)



**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 DKPDVVNWMC YRKTEDFFTI WLDLNMFLPL GVDCWIDNTR VVYNRSSGLV SNAPGVQIRV PGFGKTYSVE YLDSSKLAGY LHTLVQNLVN NGYVRDETVR AAPYDWRLEP GQQEEYYRKL AGLVEEMHAA YGKPVFLIGH SLGCLHLLYF LLRQPQAWKD RFIDGFISLG APWGGSIKPM LVLASGDNQG IPIMSSIKLK EEQRITTTSP WMFPSRMAWP EDHVFISTPS FNYTGRDFQR FFADLHFEEG WYMWLQSRDL LAGLPAPGVE VYCLYGVGLP TPRTYIYDHG FPYTDPVGVL YEDGDDTVAT RSTELCGLWO GRQPQPVHLL PLHGIQHLNM VFSNLTLEHI NAILLGAYRQ GPPASPTASP EPPPPE Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a

#### 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.

special request, please contact us.

• 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 receival 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:

- 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.
- 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)

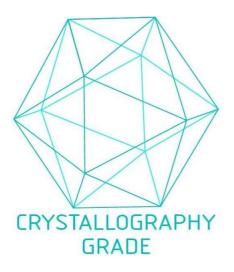
# Target Details

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 gurantee
	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	
Handling Format:	Liquid
	Liquid  100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

# 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