

Recombinant Human LCAT, Flag-tagged

Cat. No. LCAT-1013H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Total 429 AA. MW: 48.5 kDa (calculated). UniProtKB/Swiss-Prot P04180 Phe25-Glu440 with N-Terminal Flag-tag, 13 extra AA (highlighted).
Species	Human
Source	HEK293
Description	LCAT is an enzyme that 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. The enzyme is bound to high-density lipoproteins (HDLs) and low-density lipoproteins in the blood plasma.
Form	Filtered (0.4 µm) and lyophilized from 0.5 mg/ml in 20 mM Tris buffer, 50 mM NaCl, Ph 7.5
Research topic	Energy metabolism and body weight regulation
Reconstitution	Add deionized water to prepare a working stock solution of approximately 0.5 mg/mL and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by an appropriate sterile filter before using it in the cell culture.
Applications	Western blotting

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Quality Control Test	BCA to determine quantity of the protein; SDS PAGE to determine purity of the protein
Sequences of amino acids	HVDYKDDDDK PAGFWLLNVL FPPHTTPKAE LSNHTRPVIL VPGCLGNQLE AKLDKPDVVN WMCYRKTEDE FTIWLDLNMF LPLGVDCWID NTRVVYNRSS GLVSNAPGVQ IRVPGFGKTY SVEYLDSSKL AGYLHTLVQN LVNNGYVRDE TVRAAPYDWR LEPGQQEEYY RKLGLVEEM HAAYGKPVFL IGHSGLGCLHL LYFLLRQPQA WKDRFIDGFI SLGAPWGGSI KPMLVLASGD NQGIPIMSSI KLKEEQRITT TSPWMFPSRM AWPEDHVFIS TPSFNVTGRD FQRFFADLHF EEGWYMWLQS RDLLAGLPAP GVEVYCLYGV GLPTPRTYIY DHGFPYTDPV GVLYEDGDDT VATRSTELCG LWQGRQPQPV HLLPLHGIQH LNMVFSNLTL EHINAILLGA YRQGPPASPT ASPEPPPE
Storage	Store lyophilized protein at -20°C. Lyophilized protein remains stable until the expiry date when stored at -20°C. Aliquot reconstituted protein to avoid repeated freezing/thawing cycles and store at -80°C for long term storage. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after one week at 4°C.
GENE INFORMATION	
Gene Name	LCAT lecithin-cholesterol acyltransferase [Homo sapiens]
Official Symbol	LCAT
Synonyms	LCAT; lecithin-cholesterol acyltransferase; phosphatidylcholine-sterol acyltransferase; OTTHUMP00000174856; phospholipid-cholesterol acyltransferase
Gene ID	3931
mRNA Refseq	NM_000229

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Protein Refseq	NP_000220
MIM	606967
UniProt ID	P04180
Chromosome Location	16q22
Pathway	Glycerophospholipid metabolism; HDL-mediated lipid transport; Lipid digestion; Lipoprotein metabolism; Metabolism of lipids and lipoproteins; Statin Pathway
Function	apolipoprotein A-I binding; phosphatidylcholine-sterol O-acyltransferase activity; phospholipase A2 activity; protein binding; transferase activity

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