

LRAT Protein, Human (Cell-Free)

Cat. No.:	HY-P702359
Synonyms:	Lecithin retinol acyltransferase; Phosphatidylcholine--retinol O-acyltransferase
Species:	Human
Source:	E. coli Cell-free
Accession:	O95237 (M1-G230)
Gene ID:	9227
Molecular Weight:	25.8 kDa

PROPERTIES

AA Sequence	<pre> MKNPMLEVVS L L L E K L L L I S N F T L F S S G A A G E D K G R N S F Y E T S S F H R G D V L E V P R T H L T H Y G I Y L G D N R V A H M M P D I L L A L T D D M G R T Q K V V S N K R L I L G V I V K V A S I R V D T V E D F A Y G A N I L V N H L D E S L Q K K A L L N E E V A R R A E K L L G F T P Y S L L W N N C E H F V T Y C R Y G T P I S P Q S D K F C E T V K I I I R D Q R S V L A S A V L G L A S I V C T G L V S Y T T L P A I F I P F F L W M A G </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	LRAT, a key enzyme in vitamin A metabolism, facilitates the transfer of the acyl group from the sn-1 position of phosphatidylcholine to all-trans retinol, yielding all-trans retinyl esters. These retinyl esters serve as storage forms of vitamin A, playing a crucial role in vision. LRAT is integral to the visual cycle, providing substrates for isomerohydrolase, which further processes the esters into 11-cis-retinol in the retinal pigment epithelium. This process is essential for the generation of the chromophore for rhodopsin and cone photopigments. LRAT's involvement is vital for the survival of cone
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photoreceptors and the proper morphology of rod photoreceptor cells.

Caution: Product has not been fully validated for medical applications. For research use only.

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