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LRAT Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51668

Product Information

Application	WB
Primary Accession	O95237
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	25703

Additional Information

Gene ID	9227
Other Names	Lecithin retinol acyltransferase, Phosphatidylcholine--retinol O-acyltransferase, LRAT
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human LRAT. The exact sequence is proprietary.
Dilution	WB~~1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	LRAT (HGNC:6685)
Function	Transfers the acyl group from the sn-1 position of phosphatidylcholine to all-trans retinol, producing all-trans retinyl esters (PubMed:9920938). Retinyl esters are storage forms of vitamin A (Probable). LRAT plays a critical role in vision (Probable). It provides the all-trans retinyl ester substrates for the isomerohydrolase which processes the esters into 11-cis-retinol in the retinal pigment epithelium; due to a membrane-associated alcohol dehydrogenase, 11 cis-retinol is oxidized and converted into 11-cis- retinaldehyde which is the chromophore for rhodopsin and the cone photopigments (Probable). Required for the survival of cone photoreceptors and correct rod photoreceptor cell morphology (By similarity).
Cellular Location	Endoplasmic reticulum membrane; Single-pass membrane protein. Rough endoplasmic reticulum. Endosome, multivesicular body. Cytoplasm, perinuclear region. Note=Present in the rough endoplasmic reticulum and multivesicular body in hepatic stellate cells. Present in the rough endoplasmic

	reticulum and perinuclear region in endothelial cells (By similarity).
Tissue Location	Hepatic stellate cells and endothelial cells (at protein level). Found at high levels in testis and liver, followed by retinal pigment epithelium, small intestine, prostate, pancreas and colon. Low expression observed in brain. In fetal tissues, expressed in retinal pigment epithelium and liver, and barely in the brain

Background

Transfers the acyl group from the sn-1 position of phosphatidylcholine to all-trans retinol, producing all-trans retinyl esters. Retinyl esters are storage forms of vitamin A. LRAT plays a critical role in vision. It provides the all-trans retinyl ester substrates for the isomerohydrolase which processes the esters into 11-cis-retinol in the retinal pigment epithelium; due to a membrane-associated alcohol dehydrogenase, 11 cis-retinol is oxidized and converted into 11-cis-retinaldehyde which is the chromophore for rhodopsin and the cone photopigments.

References

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