

Product Name: LRAT Rabbit Polyclonal Antibody
Catalog #: APRab13400



Summary

Production Name	LRAT Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,IHC,WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	LRAT
Alternative Names	LRAT; Lecithin retinol acyltransferase; Phosphatidylcholine--retinol O-acyltransferase
Gene ID	9227.0
SwissProt ID	O95237.The antiserum was produced against synthesized peptide derived from human LRAT. AA range:111-160

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
Molecular Weight	27kD

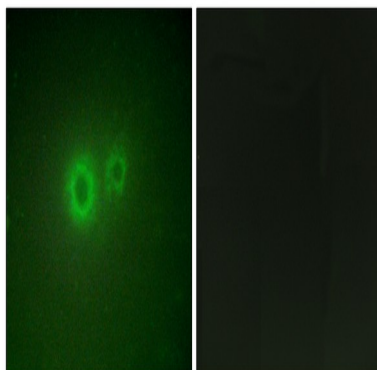
Background

lecithin retinol acyltransferase (phosphatidylcholine--retinol O-acyltransferase)(LRAT) Homo sapiens The protein encoded by this gene localizes to the endoplasmic reticulum, where it catalyzes the esterification of all-trans-retinol into all-trans-retinyl ester. This reaction is an important step in vitamin A metabolism in the visual system. Mutations in this gene have been associated with early-onset severe retinal dystrophy and Leber congenital amaurosis 14. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2014],catalytic activity:Phosphatidylcholine + retinol--[cellular-retinol-binding-protein] = 2-acylglycerophosphocholine + retinyl-ester--[cellular-retinol-binding-protein],disease:Defects in LRAT are a cause of severe early-onset retinal dystrophy (RD) [MIM:604863],enzyme regulation:Inhibited by all-trans-retinyl alpha-bromoacetate and N-boc-L-biocytinyl-11-aminoundecane chloro-methyl ketone (BACMK),function: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.,induction:LRAT activity is up-regulated by dietary vitamin A. Under conditions of vitamin A depletion, LRAT expression in the liver is induced by retinoic acid.,pathway:Cofactor metabolism; retinol metabolism.,similarity:Belongs to the H-rev107 family.,tissue specificity: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.,

Research Area

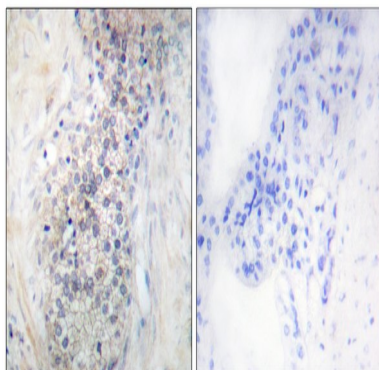
Retinol metabolism;

Image Data

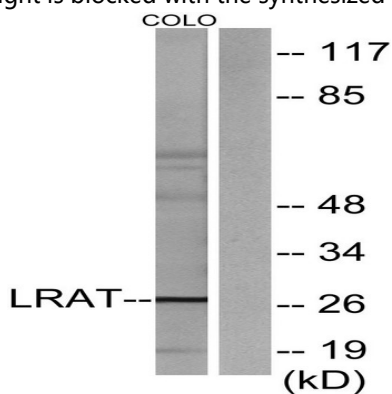


Immunofluorescence analysis of HUVEC cells, using LRAT Antibody. The picture on the right is blocked with the synthesized peptide.

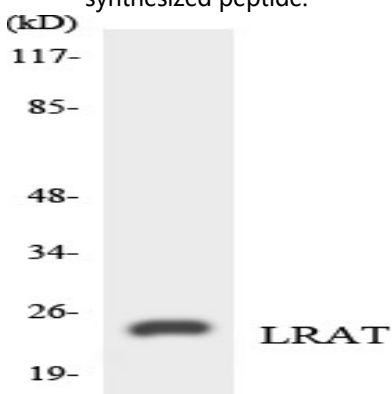
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Immunohistochemistry analysis of paraffin-embedded human prostate carcinoma tissue, using LRAT Antibody. The picture on the right is blocked with the synthesized peptide.

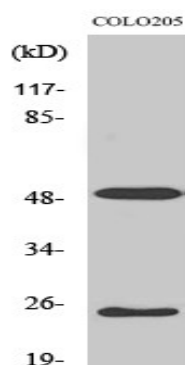


Western blot analysis of lysates from COLO205 cells, using LRAT Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from COLO205 cells using LRAT antibody.

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Western Blot analysis of various cells using LRAT Polyclonal Antibody diluted at 1 : 500

Note

For research use only.