abcam

Product datasheet

Anti-LRAT antibody ab166784

★★★☆☆ **1 Abreviews**   **1 References**   **3 Images**

Overview

Product name	Anti-LRAT antibody
Description	Rabbit polyclonal to LRAT
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide derived from internal sequence of Human LRAT.
Positive control	Human tonsil tissue; COLO205 cell extract; HUVEC cells.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.
	If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20ºC.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), 0.88% Sodium chloride, 49% PBS PBS without Mg^{2+} and Ca^{2+}
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our **Abpromise guarantee** covers the use of ab166784 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/1000. Predicted molecular weight: 26 kDa.
IHC-P		Use a concentration of 5 µg/ml.
ICC/IF		1/100 - 1/500.

Target

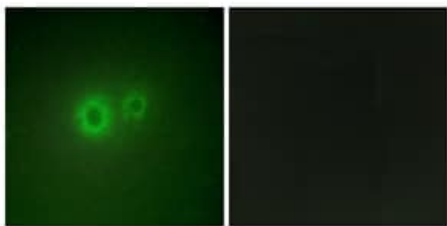|	
Function	Transfers the acyl group from the sn-1 position of phosphatidylcholine to all-trans retinol, producing all-trans retinyl esters. Retinyl esters are storage forms of vitamin A. LRAT plays a critical role in vision. It provides the all-trans retinyl ester substrates for the isomerohydrolase 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.
Tissue specificity	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.
Pathway	Cofactor metabolism; retinol metabolism.
Involvement in disease	Defects in LRAT are a cause of Leber congenital amaurosis type 14 (LCA14) [MIM:613341]. It is a severe dystrophy of the retina, typically becoming evident in the first years of life. Visual function is usually poor and often accompanied by nystagmus, sluggish or near-absent pupillary responses, photophobia, high hyperopia and keratoconus.
Sequence similarities	Belongs to the H-rev107 family.
Cellular localization	Endoplasmic reticulum membrane. Rough endoplasmic reticulum. Endosome > multivesicular body. Cytoplasm > perinuclear region. 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.

Images

Western blot - Anti-LRAT antibody (ab166784)
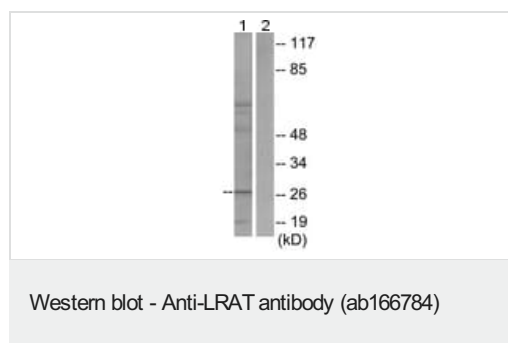
All lanes : Anti-LRAT antibody (ab166784) at 1/500 dilution

Lane 1 : COLO205 cell extract
Lane 2 : COLO205 cell extract with immunizing peptide

Predicted band size: 26 kDa

Immunofluorescent analysis of HUVEC cells labeling LRAT with ab166784 at 1/100 dilution in the presence (right panel) or absence (left panel) of immunizing peptide.

Immunocytochemistry/ Immunofluorescence - Anti-LRAT antibody (ab166784)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human tonsil tissue labeling LRAT with ab166784 at 5 µg/ml.
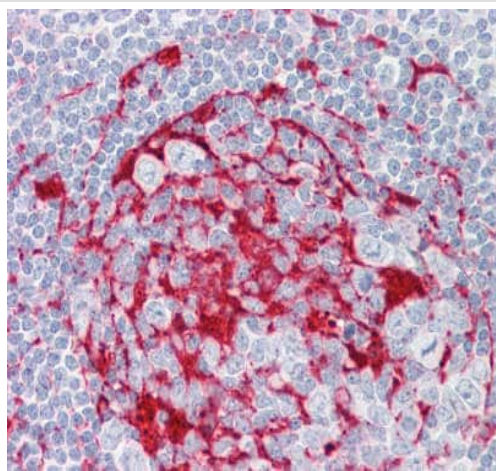
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LRAT antibody (ab166784)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- We investigate all quality concerns to ensure our products perform to the highest standards

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