

For Research Use Only

# SOAT1/ACAT1 Polyclonal antibody, PBS Only

Catalog Number: 29369-1-PBS



## Basic Information

**Catalog Number:**

29369-1-PBS

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG30945

**GenBank Accession Number:**

BC028940

**GeneID (NCBI):**

6646

**UNIPROT ID:**

P35610

**Full Name:**

sterol O-acyltransferase 1

**Calculated MW:**

550 aa, 65 kDa

**Observed MW:**

65-70 kDa

**Purification Method:**

Antigen affinity purification

## Applications

**Tested Applications:**

WB, IHC, IF/ICC, Indirect ELISA

**Species Specificity:**

human, mouse, rat

## Background Information

SOAT1 (Sterol O-acyltransferase 1), also known as ACAT1 (Acyl-Coenzyme A: cholesterol acyltransferase 1), is a crucial endoplasmic reticulum-resident enzyme that plays a central role in cellular cholesterol homeostasis. Its primary function is to catalyze the esterification of free cholesterol with long-chain fatty acids, forming cholesteryl esters. This process serves two key purposes: it prevents the toxic buildup of free cholesterol in cellular membranes and creates neutral lipid droplets for cholesterol storage. SOAT1 is ubiquitously expressed, with high activity in the steroidogenic tissues, and macrophages. Due to its role in facilitating cholesterol ester accumulation in macrophages and its overexpression in various cancers, SOAT1 has emerged as a promising therapeutic target for the treatment of atherosclerosis, neurodegenerative diseases, and cancer.

## Storage

**Storage:**

Store at -80°C.

**The product is shipped with ice packs. Upon receipt, store it immediately at -80°C**

**Storage Buffer:**

PBS only, pH7.3

For technical support and original validation data for this product please contact:

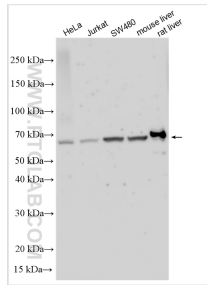
T: 4006900926

E: [Proteintech-CN@ptglab.com](mailto:Proteintech-CN@ptglab.com)

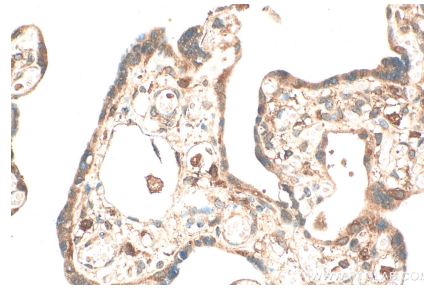
W: [ptgcn.com](http://ptgcn.com)

**This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.**

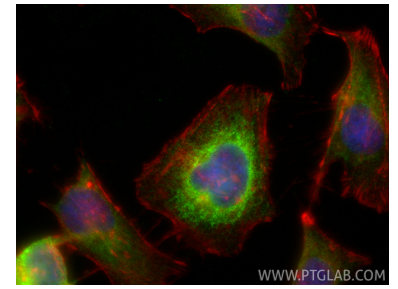
## Selected Validation Data



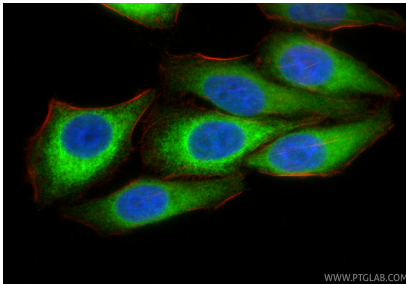
Various lysates were subjected to SDS PAGE followed by western blot with 29369-1-AP (SOAT1 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 29369-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 29369-1-AP (SOAT1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 29369-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (-20°C Ethanol) fixed HeLa cells using SOAT1 antibody (29369-1-AP) at dilution of 1:400 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-phalloidin (red). This data was developed using the same antibody clone with 29369-1-PBS in a different storage buffer formulation.



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using SOAT1/ACAT1 antibody (29369-1-AP) at dilution of 1:400 and CoraLite@488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red). This data was developed using the same antibody clone with 29369-1-PBS in a different storage buffer formulation.