

For Research Use Only

# ACSL1 Polyclonal antibody

Catalog Number: 13989-1-AP

Featured Product

20 Publications



## Basic Information

### Catalog Number:

13989-1-AP

### Size:

150ul, Concentration: 650 µg/ml by Nanodrop and 367 µg/ml by Bradford method using BSA as the standard;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG5059

### GenBank Accession Number:

BC050073

### GeneID (NCBI):

2180

### Full Name:

acyl-CoA synthetase long-chain family member 1

### Calculated MW:

78 kDa

### Observed MW:

68 kDa, 78 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB 1:1000-1:6000

IP 0.5-4.0 ug for IP and 1:200-1:1000 for WB

IHC 1:50-1:500

IF 1:20-1:200

## Applications

### Tested Applications:

IF, IHC, IP, WB, ELISA

### Cited Applications:

IF, IHC, WB

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB : L02 cells, HepG2 cells, mouse cerebellum tissue, mouse liver tissue, rat liver tissue

IP : mouse liver tissue,

IHC : human lung cancer tissue, human liver cancer tissue, human heart tissue

IF : HepG2 cells,

## Background Information

ACSL1(Long-chain-fatty-acid-CoA ligase 1) is also named as FACL1, FACL2, LACS, LACS1, LACS2 and belongs to the ATP-dependent AMP-binding enzyme family. ACSL1 is a 75 kDa protein that is associated peripherally with the plasma membrane(Brian M Wiczor, etc., 2006). ACSL1 is abundantly expressed in tissues, such as liver and brown fat, that metabolize substantial amounts of triglycerides as fuel, and as such, a deficiency in ACSL1 function could have a more profound affect in those cells, resulting in hepatosteatosis and potentially increased very low density lipoprotein production by the liver or decreased thermogenic capacity in brown adipose tissue(PMID:19429676). An anti-rat ACSL1 antibody recognized a band of the predicted 68 kDa in high-speed supernatant from rat liver and in human and murine SMCs, monocyte-derived macrophages, and murine peritoneal macrophages (PMID:17259370). It has 2 isoforms produced by alternative splicing.

## Notable Publications

Author	Pubmed ID	Journal	Application
Yuxiang Sun	31590050	Colloids Surf B Biointerfaces	WB
De Huang	25242319	Cell Rep	WB
Qixue Wang	30279734	Theranostics	IF

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

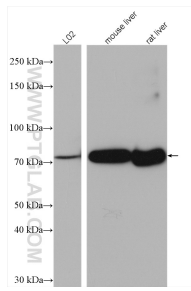
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

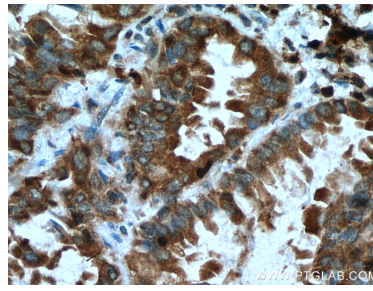
E: proteintech@ptglab.com  
W: ptglab.com

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

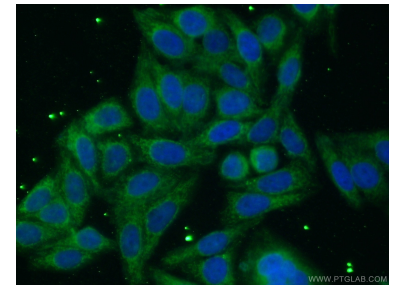
## Selected Validation Data



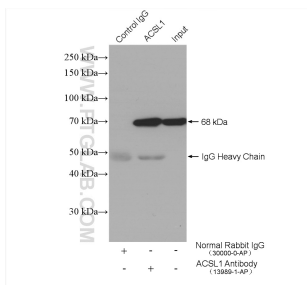
Various lysates were subjected to SDS PAGE followed by western blot with 13989-1-AP (ACSL1 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 13989-1-AP (ACSL1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (10% Formaldehyde) fixed HepG2 cells using 13989-1-AP (ACSL1 antibody) at dilution of 1:50 and Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



IP result of anti-ACSL1 (IP:13989-1-AP, 4 $\mu$ g; Detection:13989-1-AP 1:300) with mouse liver tissue lysate 4000  $\mu$ g.