For Research Use Only

ACSL1 Polyclonal antibody

Catalog Number:13989-1-AP Featured Product 40 Publications

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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 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF 1:20-1:200

Applications

Tested Applications:
IF, IHC, IP, WB, ELISA

Cited Applications:
Cell treatment, IF, IHC, IP, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, mouse

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, 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 Wiczer, 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

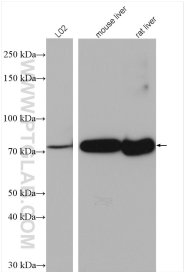
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

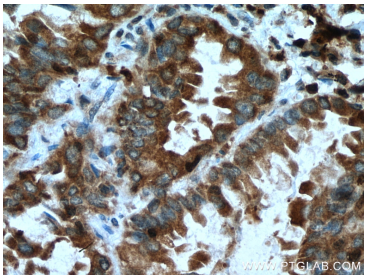
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

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

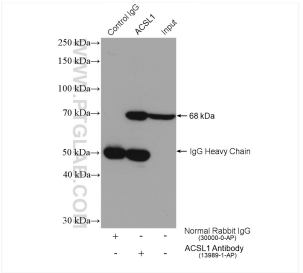
Selected Validation Data



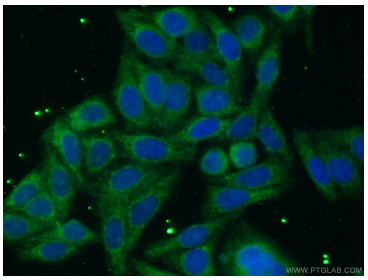
Various lysates were subjected to SDS PAGE followed by western blot with 13989-1-AP (ACSL1 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



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).



IP result of anti-ACSL1(IP:13989-1-AP, 4ug; Detection:13989-1-AP 1:1000) with mouse liver tissue lysate 3040 ug.



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).