For Research Use Only

ACSL1 Polyclonal antibody

Catalog Number:13989-1-AP Featured Product 42 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

UNIPROT ID:
P33121

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:
WB, IP, IF, IHC, ELISA

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

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
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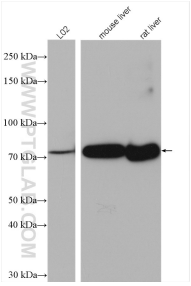
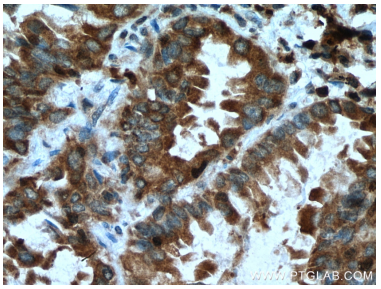
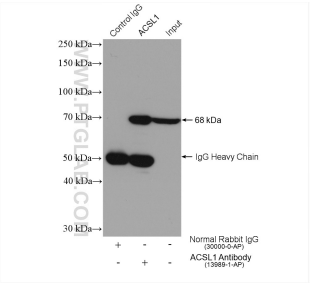
Selected Validation Data



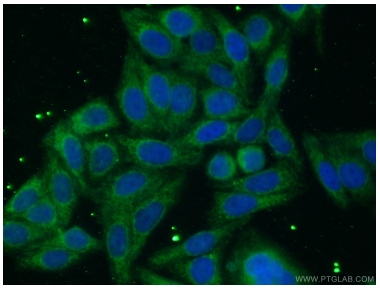
Various lysates were subjected to SDS PAGE followed by western blot with 13989-1-AP (ACSL1 antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



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).