

For Research Use Only

# CPT1A Polyclonal antibody

Catalog Number: 15184-1-AP

Featured Product

415 Publications



## Basic Information

### Catalog Number:

15184-1-AP

### Size:

150ul, Concentration: 900 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG7202

### GenBank Accession Number:

BC000185

### GeneID (NCBI):

1374

### UNIPROT ID:

P50416

### Full Name:

carnitine palmitoyltransferase 1A (liver)

### Calculated MW:

88 kDa

### Observed MW:

86 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:5000-1:50000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:500-1:2000

IF/ICC: 1:300-1:1200

FC (Intra): 0.40 ug per 10<sup>6</sup> cells in a 100 µl suspension

## Applications

### Tested Applications:

WB, IHC, IF/ICC, FC (Intra), IP, ELISA

### Cited Applications:

WB, IHC, IF, IP, CoIP, ChIP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig, chicken, zebrafish, bovine, goat, yellow croaker, duck

**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**: HepG2 cells, A549 cells, HeLa cells, MCF-7 cells, mouse liver tissue, rat liver tissue, mouse spleen tissue

**IP**: HepG2 cells,

**IHC**: human liver cancer tissue, mouse brain tissue

**IF/ICC**: HeLa cells, HepG2 cells

**FC (Intra)**: HeLa cells,

## Background Information

CPT1A, also named CPT1, CPT1-L and L-CPTI, belongs to the carnitine/choline acetyltransferase family. CPT1A gene is localized Chromosome 11q13.1-2. Carnitine palmitoyltransferase (CPT) deficiencies are common disorders of mitochondrial fatty acid oxidation. The CPT system is made up of two separate proteins located in the outer (CPT1) and inner (CPT2) mitochondrial membranes. CPT1A is an active form of related liver-type carnitine palmitoyltransferase I (PMID: 11001805). CPT1A deficiency presents as recurrent attacks of fasting hypoketotic hypoglycemia. (PMID: 15363638). This antibody can bind the close sequences genes.

## Notable Publications

Author	Pubmed ID	Journal	Application
Katherine Labbé	34586346	J Cell Biol	WB
Dan Xu	28970281	Diabetes	WB
Binbin Zhou	36169888	Mol Neurobiol	WB

## Storage

### Storage:

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

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

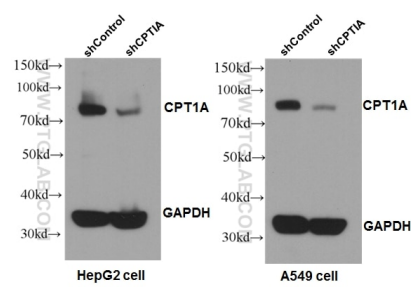
For technical support and original validation data for this product please contact:

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

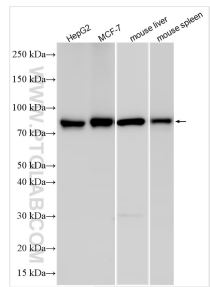
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

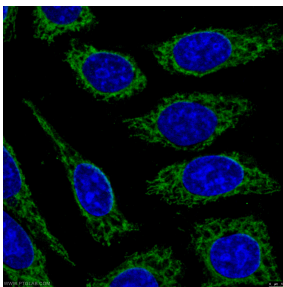
Selected Validation Data



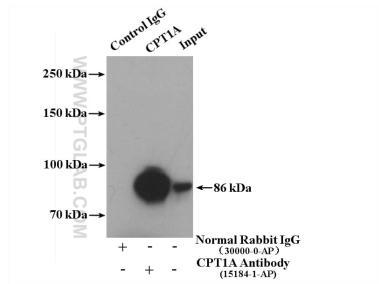
WB results of CPT1A antibody (1:1000) with shCPT1A-A549 and shCPT1A-HepG2 cells. shControl-A549 and shControl-HepG2 as positive control.



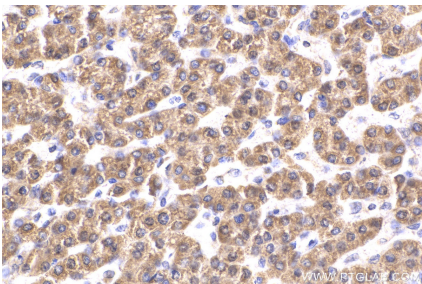
Various lysates were subjected to SDS PAGE followed by western blot with 15184-1-AP (CPT1A antibody) at dilution of 1:15000 incubated at room temperature for 1.5 hours.



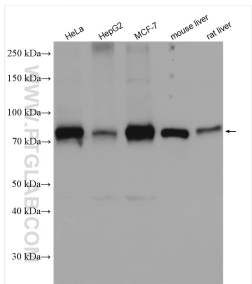
Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using 15184-1-AP (CPT1A antibody) at dilution of 1:50 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



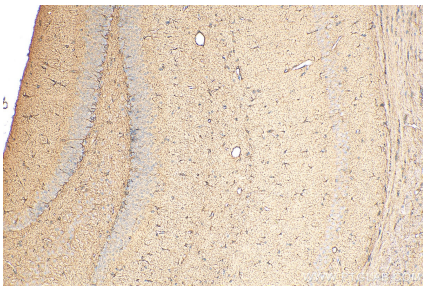
IP result of anti-CPT1A (IP:15184-1-AP, 4ug; Detection:15184-1-AP 1:1000) with HepG2 cells lysate 3000 ug.



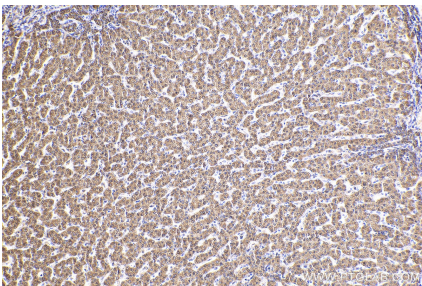
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 15184-1-AP (CPT1A antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



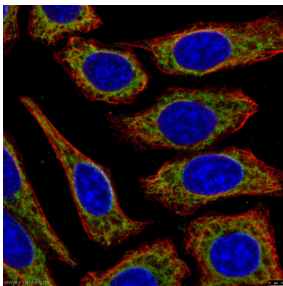
Various lysates were subjected to SDS PAGE followed by western blot with 15184-1-AP (CPT1A antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



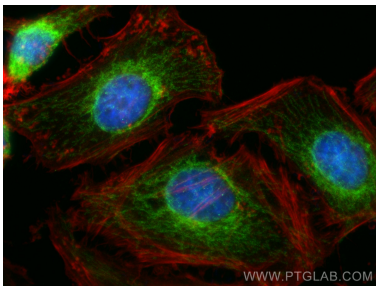
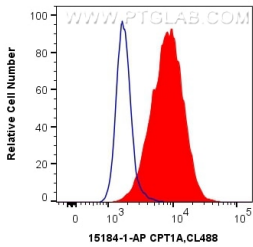
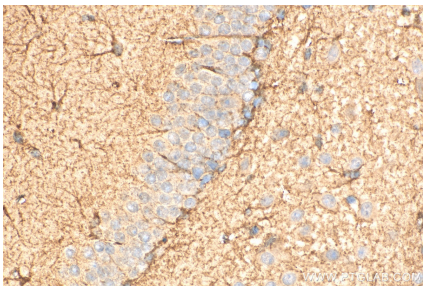
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 15184-1-AP (CPT1A antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



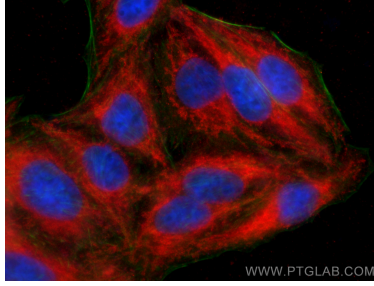
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 15184-1-AP (CPT1A antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of -20°C Ethanol fixed HepG2 cells stained for CPT1A rabbit pAb (15184-1-AP) and KRT18 mouse mAb (66187-1-Ig) at dilution of 1:50, further stained with Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) for 15184-1-AP, and Alexa Fluor 594-conjugated AffiniPure Goat Anti-Mouse IgG (H+L) for 66187-1-Ig.



Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 15184-1-AP (CPT1A antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using CPT1A antibody (15184-1-AP) at dilution of 1:400 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4), CL488-Phalloidin (green).

1X10<sup>6</sup> HeLa cells were intracellularly stained with 0.4 ug Anti-Human CPT1A (15184-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).

Immunofluorescent analysis of (4% PFA) fixed HeLa cells using CPT1A antibody (15184-1-AP) at dilution of 1:600 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red).