

For Research Use Only

# CPT1A Monoclonal antibody

Catalog Number: 66039-1-Ig

Featured Product

30 Publications



## Basic Information

### Catalog Number:

66039-1-Ig

### Size:

150ul, Concentration: 2100 ug/ml by 1374  
Nanodrop and 1000 ug/ml by Bradford  
method using BSA as the standard;

### Source:

Mouse

### Isotype:

IgG2a

### Immunogen Catalog Number:

AG7745

### 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:

Protein A purification

### CloneNo.:

5D8G9

### Recommended Dilutions:

WB 1:2000-1:12000

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

IHC 1:200-1:800

IF/ICC 1:900-1:3600

## Applications

### Tested Applications:

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

### Cited Applications:

WB, IHC, IF, IP, CoIP

### 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 : A549 cells,

IP : MCF-7 cells,

IHC : human breast cancer tissue, human liver tissue

IF/ICC : HeLa cells,

## Background Information

CPT1A, also named as CPT1, CPT1-L and L-CPTI, belongs to the carnitine/choline acetyltransferase family. 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 forms 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
Xinhui Liu	36313325	Front Pharmacol	WB
Patrick Vancura	27727308	PLoS One	WB, IHC
Mohamed A Zayed	33214136	Diabetes	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

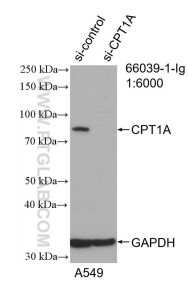
For technical support and original validation data for this product please contact:

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

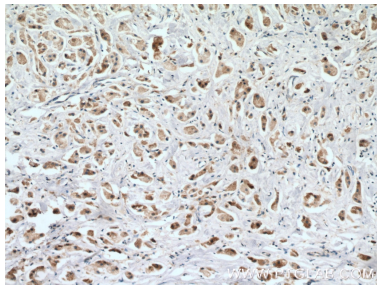
E: proteintech@ptglab.com  
W: ptglab.com

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

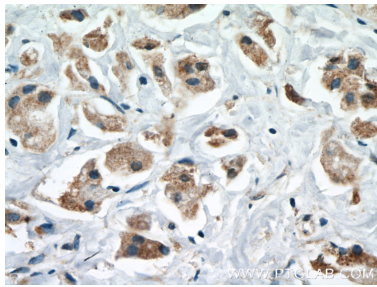
Selected Validation Data



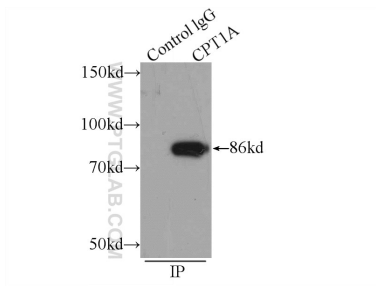
WB result of CPT1A antibody (66039-1-Ig; 1:6000; incubated at room temperature for 1.5 hours) with sh-Control and sh-CPT1A transfected A549 cells.



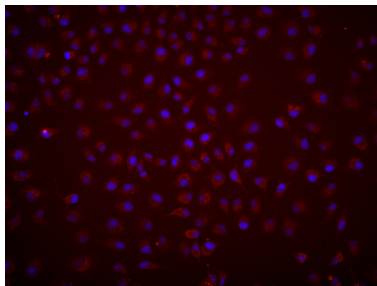
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 66039-1-Ig (CPT1A antibody) at dilution of 1:400 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



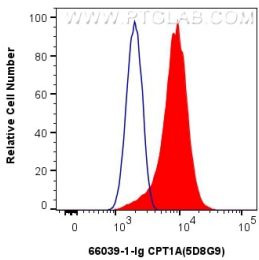
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 66039-1-Ig (CPT1A antibody) at dilution of 1:400 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-CPT1A (IP:66039-1-Ig, 4ug; Detection:66039-1-Ig 1:500) with MCF-7 cells lysate 1200ug.



Immunofluorescent analysis of (4% PFA) fixed HeLa cells using CPT1A antibody (66039-1-Ig, Clone: 5D8G9) at dilution of 1:1800 and Multi-rAb CoraLite® Plus 594-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (Cat.NO. RGAM004).



1x10<sup>6</sup> HeLa cells were intracellularly stained with 0.25 ug CPT1A Monoclonal antibody (66039-1-Ig, Clone:5D8G9) and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L) (SA00013-1)(red), or 0.25 ug Mouse IgG2a isotype control Mouse McAb (66360-2-Ig, Clone: 11A1B2) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).