

For Research Use Only

# CPT1B-specific Polyclonal antibody

Catalog Number: 22170-1-AP

Featured Product

79 Publications



## Basic Information

### Catalog Number:

22170-1-AP

### Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

### Source:

Rabbit

### Isotype:

IgG

### Immunogen Catalog Number:

AG17840

### GenBank Accession Number:

BC131570

### GeneID (NCBI):

1375

### UNIPROT ID:

Q92523

### Full Name:

carnitine palmitoyltransferase 1B (muscle)

### Calculated MW:

567 aa, 64 kDa

### Observed MW:

75-85 kDa

### Purification Method:

Antigen affinity purification

### Recommended Dilutions:

WB: 1:2000-1:10000

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

IHC: 1:500-1:2000

IF-P: 1:50-1:500

## Applications

### Tested Applications:

WB, IHC, IF-P, IP, ELISA

### Cited Applications:

WB, IHC, IF, IP

### Species Specificity:

human, mouse, rat

### Cited Species:

human, mouse, rat, pig, zebrafish, sheep, ewes

**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: mouse heart tissue, rat skeletal muscle tissue, mouse skeletal muscle tissue, rat heart tissue

IP: mouse heart tissue, mouse skeletal muscle tissue

IHC: mouse heart tissue,

IF-P: mouse heart tissue,

## Background Information

Carnitine palmitoyltransferases (CPTs) mediate the transport of long chain fatty acyl groups into the mitochondrial matrix to undergo  $\beta$ -oxidation. Type I CPT resides in the outer mitochondrial membrane. Mammalian tissues express three isoforms: CPT1A (liver), CPT1B (muscle and heart), and CPT1C (brain). Several isoforms of CPT1B exist due to the alternative splicing, with predicted MW of 88/84/79/66 kDa.

## Notable Publications

Author	Pubmed ID	Journal	Application
Kevin Gibbs	32997738	J Gerontol A Biol Sci Med Sci	WB
Myeong-Hwa Song	34571434	Biomaterials	WB
Weiwei Gui	33115498	Cell Commun Signal	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

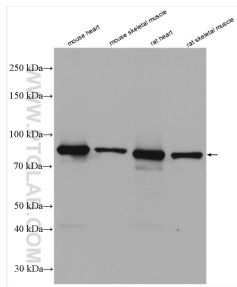
For technical support and original validation data for this product please contact:

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

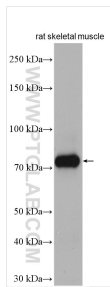
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
W: [ptglab.com](http://ptglab.com)

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

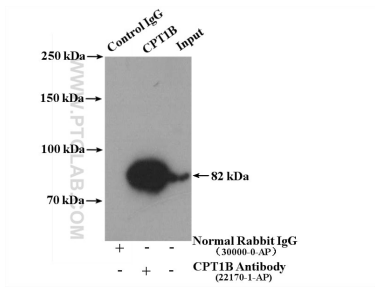
## Selected Validation Data



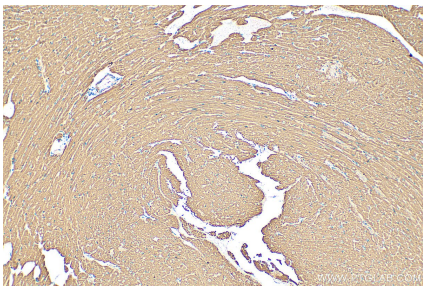
Various lysates were subjected to SDS PAGE followed by western blot with 22170-1-AP (CPT1B-specific antibody) at dilution of 1:5000 incubated at room temperature for 1.5 hours.



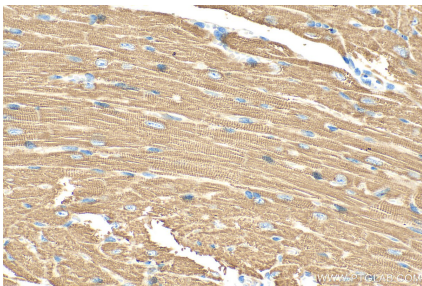
Rat skeletal muscle tissue were subjected to SDS PAGE followed by western blot with 22170-1-AP (CPT1B-specific antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



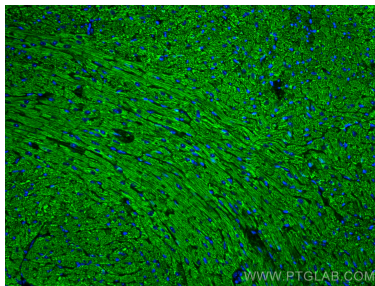
IP result of anti-CPT1B-specific (IP:22170-1-AP, 4ug; Detection:22170-1-AP 1:600) with mouse heart tissue lysate 3600 ug.



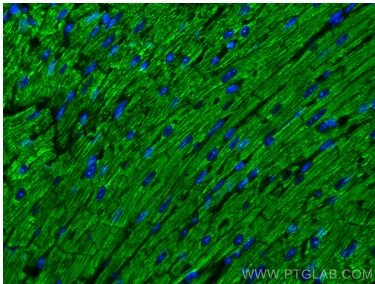
Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 22170-1-AP (CPT1B-specific antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 22170-1-AP (CPT1B-specific antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse heart tissue using CPT1B-specific antibody (22170-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse heart tissue using CPT1B-specific antibody (22170-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).