

# CPT1A Monoclonal antibody

Catalog Number: 66039-3-Ig

## Basic Information

**Catalog Number:**

66039-3-Ig

**Concentration:**

1000 ug/ml

**Source:**

Mouse

**Isotype:**

IgG1

**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 G purification

**CloneNo.:**

5D2B8

**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

## Applications

**Tested Applications:**

WB, IHC, IP, ELISA

**Species Specificity:**

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:** TT cells, HeLa cells, rat liver tissue, mouse liver  
tissue, LNCaP cells, PANC-1 cells, HaCaT cells

**IP:** MCF-7 cells, HepG2 cells

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

## 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.

## Storage

**Storage:**

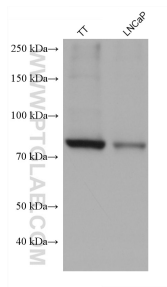
Store at -20°C. Stable for one year after shipment.

**Storage Buffer:**

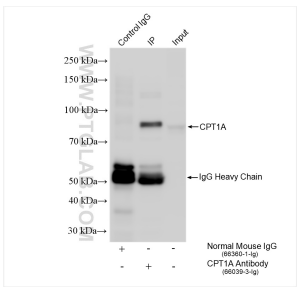
PBS with 0.02% sodium azide and 50% glycerol, pH7.3

**Aliquoting is unnecessary for -20°C storage**

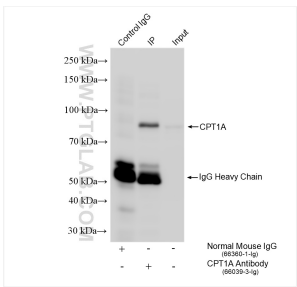
Selected Validation Data



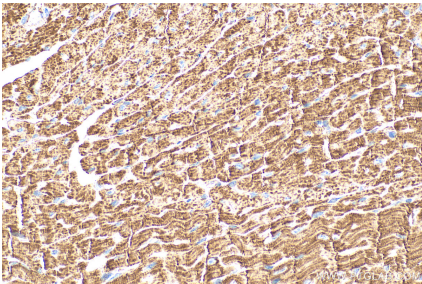
Various lysates were subjected to SDS PAGE followed by western blot with 66039-3-Ig (CPT1A antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



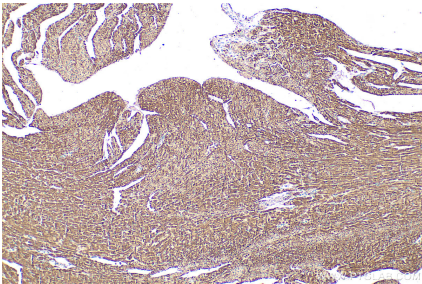
IP result of anti-CPT1A (IP:66039-3-Ig, 4ug; Detection:66039-3-Ig 1:3000) with MCF-7 cells lysate 1520 ug.



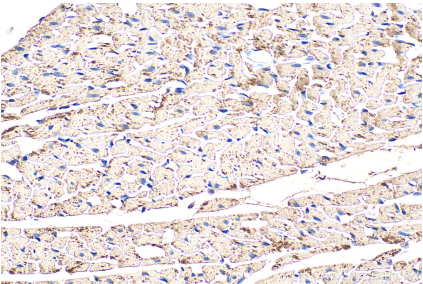
IP result of anti-CPT1A (IP:66039-3-Ig, 4ug; Detection:66039-3-Ig 1:3000) with HepG2 cells lysate 1800 ug.



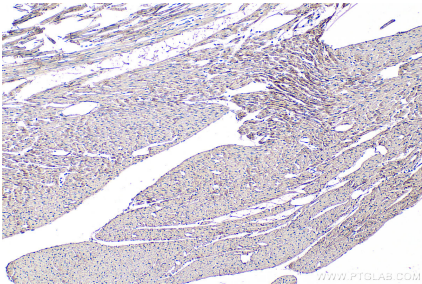
Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 66039-3-Ig (CPT1A antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



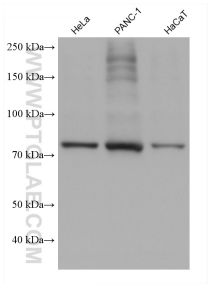
Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 66039-3-Ig (CPT1A antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



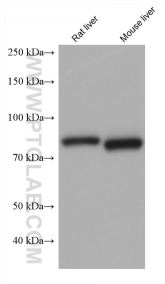
Immunohistochemical analysis of paraffin-embedded rat heart tissue slide using 66039-3-Ig (CPT1A antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



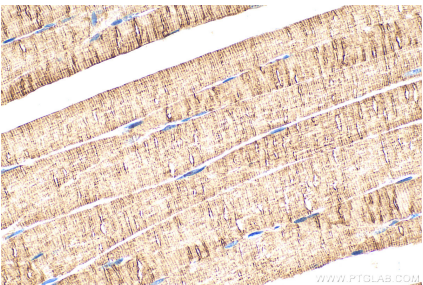
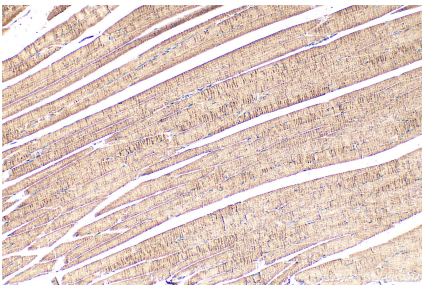
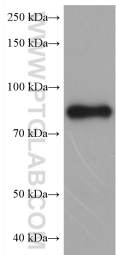
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mouse liver tissue were subjected to SDS PAGE followed by western blot with 66039-3-Ig (CPT1A antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.

Immunohistochemical analysis of paraffin-embedded mouse skeletal muscle tissue slide using 66039-3-Ig (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 mouse skeletal muscle tissue slide using 66039-3-Ig (CPT1A antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).