

# CPT1-C (h2): 293T Lysate: sc-171973

## BACKGROUND

The mitochondrial  $\beta$ -oxidation of long-chain fatty acids is initiated by the sequential action of CPT (carnitine palmitoyltransferase) I and II, together with carnitine carrier. CPTI catalyzes the first reaction in the transport of long-chain fatty acids from the cytoplasm to mitochondria, a rate-limiting step in  $\beta$ -oxidation. CPT1-C (carnitine palmitoyltransferase 1C), also known as CATL1, CPT1P, CPT1C or CPTI-B, is an 803 amino acid multi-pass membrane protein involved in lipid metabolism. Expressed primarily in testis and brain, CPT1-C belongs to the carnitine/choline acetyltransferase family and catalyzes the conversion of palmitoyl-CoA and L-Carnitine to CoA and L-palmitoylcarnitine. CPT1-C exists as three alternatively spliced isoforms that are encoded by a gene that maps to human chromosome 19q13.33.

## REFERENCES

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- Sierra, A.Y., et al. 2008. CPT1c is localized in endoplasmic reticulum of neurons and has carnitine palmitoyltransferase activity. *J. Biol. Chem.* 283: 6878-6885.
- Schreurs, M., et al. 2010. Regulatory enzymes of mitochondrial  $\beta$ -oxidation as targets for treatment of the metabolic syndrome. *Obes. Rev.* 11: 380-388.

## CHROMOSOMAL LOCATION

Genetic locus: CPT1C (human) mapping to 19q13.33.

## PRODUCT

CPT1-C (h2): 293T Lysate represents a lysate of human CPT1-C transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

CPT1-C (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive CPT1-C antibodies. Recommended use: 10-20  $\mu$ l per lane.

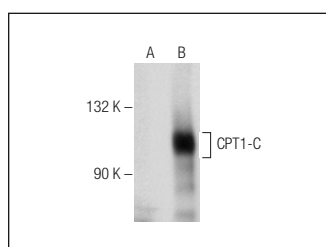
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CPT1-C (N-18): sc-139479 is recommended as a positive control antibody for Western Blot analysis of enhanced human CPT1-C expression in CPT1-C transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

## DATA



CPT1-C (N-18): sc-139479. Western blot analysis of CPT1-C expression in non-transfected: sc-117752 (A) and human CPT1-C transfected: sc-171973 (B) 293T whole cell lysates.

## STORAGE

Store at  $-20^{\circ}$  C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.