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CPT2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2531b

Product Information

Application	WB, IF, E
Primary Accession	P23786
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	73777
Antigen Region	431-462

Additional Information

Gene ID	1376
Other Names	Carnitine O-palmitoyltransferase 2, mitochondrial, Carnitine palmitoyltransferase II, CPT II, CPT2, CPT1
Target/Specificity	This CPT2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 431-462 amino acids from the C-terminal region of human CPT2.
Dilution	WB~~1:1000 IF~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CPT2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CPT2 (HGNC:2330)
Synonyms	CPT1
Function	Involved in the intramitochondrial synthesis of acylcarnitines from accumulated acyl-CoA metabolites (PubMed:20538056, PubMed:24780397). Reconverts acylcarnitines back into the respective acyl-CoA esters that can

	then undergo beta-oxidation, an essential step for the mitochondrial uptake of long-chain fatty acids and their subsequent beta-oxidation in the mitochondrion. Active with medium (C8- C12) and long-chain (C14-C18) acyl-CoA esters (PubMed:20538056).
Cellular Location	Mitochondrion inner membrane; Peripheral membrane protein; Matrix side

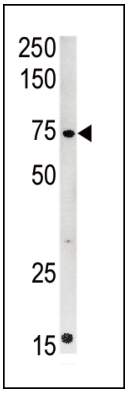
Background

Carnitine palmitoyltransferase II precursor (CPT2) is a nuclear protein which is transported to the mitochondrial inner membrane. CPT2 together with carnitine palmitoyltransferase I oxidizes long-chain fatty acids in the mitochondria. Defects in this gene are associated with mitochondrial long-chain fatty-acid (LCFA) oxidation disorders.

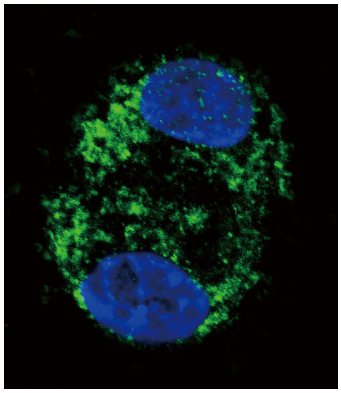
References

Deschauer, M., et al., Mol. Genet. Metab. 75(2):181-185 (2002).
Haap, M., et al., J. Clin. Endocrinol. Metab. 87(5):2139-2143 (2002).
Britton, C.H., et al., Proc. Natl. Acad. Sci. U.S.A. 92(6):1984-1988 (1995).
Verderio, E., et al., Hum. Mol. Genet. 4(1):19-29 (1995).
Montermini, L., et al., Biochim. Biophys. Acta 1219(1):237-240 (1994).

Images



Western blot analysis of anti-CPT2 Pab (Cat. #AP2531b) in mouse kidney tissue lysate (35ug/lane). CPT2(arrow) was detected using the purified Pab.



Confocal immunofluorescent analysis of CPT2 Antibody (C-term)(Cat#AP2531b) with HepG2 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).DAPI was used to stain the cell nuclear (blue).