

## CPT1c

**Cat.No. 415 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)**

### Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 1000 (AP staining) <b>IP:</b> yes <b>ICC:</b> not tested yet <b>IHC:</b> not tested yet <b>IHC-P/FFPE:</b> not tested yet
Immunogen	Synthetic peptide corresponding to AA 784 to 798 from mouse Cpt1c (UniProt Id: Q8BGD5)
Reactivity	Reacts with: mouse (Q8BGD5), rat (F1LN46). Other species not tested yet.
Specificity	Specific for CPT1c.
matching control	415-0P

### Selected General References

Mechanisms of CPT1C-Dependent AMPAR Trafficking Enhancement.  
 Gratacós-Batlle E, Olivella M, Sánchez-Fernández N, Yefimenko N, Miguez-Cabello F, Fadó R, Casals N, Gasull X, Ambrosio S, Soto D  
*Frontiers in molecular neuroscience* (2018) 11: 275.

Cpt1c regulated by AMPK promotes papillary thyroid carcinomas cells survival under metabolic stress conditions.  
 Wang R, Cheng Y, Su D, Gong B, He X, Zhou X, Pang Z, Cheng L, Chen Y, Yao Z  
*Journal of Cancer* (2017) 8(18): 3675-3681.

Novel Regulation of the Synthesis of α-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid (AMPA) Receptor Subunit GluA1 by Carnitine Palmitoyltransferase 1C (CPT1C) in the Hippocampus.  
 Fadó R, Soto D, Miñáno-Molina AJ, Pozo M, Carrasco P, Yefimenko N, Rodríguez-Álvarez J, Casals N  
*The Journal of biological chemistry* (2015) 290(42): 25548-60.

AMPAR interacting protein CPT1C enhances surface expression of GluA1-containing receptors.  
 Gratacós-Batlle E, Yefimenko N, Cascos-García H, Soto D  
*Frontiers in cellular neuroscience* (2014) 8: 469.

CPT1c is localized in endoplasmic reticulum of neurons and has carnitine palmitoyltransferase activity.  
 Sierra AY, Gratacós E, Carrasco P, Clotet J, Ureña J, Serra D, Asins G, Hegardt FG, Casals N  
*The Journal of biological chemistry* (2008) 283(11): 6878-85.

Localization and effect of ectopic expression of CPT1c in CNS feeding centers.  
 Dai Y, Wolfgang MJ, Cha SH, Lane MD  
*Biochemical and biophysical research communications* (2007) 359(3): 469-74.

### TO BE USED IN VITRO / FOR RESEARCH ONLY

**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

**CPT1c** is a carnitine palmitoyltransferase 1 (CPT 1) isoform that is expressed only in the brain. It has been shown to be an integral part of native AMPA receptor complexes in neurons and modulates the surface expression of these ionotropic glutamate receptors.