

#### **Goat Anti-CPT1C Antibody**

Peptide-affinity purified goat antibody Catalog # AF2177a

### **Specification**

## **Goat Anti-CPT1C Antibody - Product Information**

Application WB
Primary Accession O8TCG5

Other Accession <u>NP\_689572</u>, <u>126129</u>

Reactivity Human

Predicted Mouse, Rat, Pig, Dog, Cow

Host Goat
Clonality Polyclonal
Concentration 100ug/200ul

Isotype IgG Calculated MW 90989

# **Goat Anti-CPT1C Antibody - Additional Information**

#### **Gene ID 126129**

## **Other Names**

Carnitine O-palmitoyltransferase 1, brain isoform, CPT1-B, 2.3.1.21, CPT IC, Carnitine O-palmitoyltransferase I, brain isoform, CPTI-B, Carnitine palmitoyltransferase 1C, CPT1C, CATL1

#### **Format**

0.5~mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

# **Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

Goat Anti-CPT1C Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **Goat Anti-CPT1C Antibody - Protein Information**

### Name CPT1C (HGNC:18540)

# **Synonyms CATL1**

# **Function**

Palmitoyl thioesterase specifically expressed in the endoplasmic reticulum of neurons. Modulates the trafficking of the glutamate receptor, AMPAR, to plasma membrane through depalmitoylation of GRIA1 (PubMed:<a href="http://www.uniprot.org/citations/30135643"





target=" blank">30135643</a>). Also regulates AMPR trafficking through the regulation of SACM1L phosphatidylinositol-3-phosphatase activity by interaction in a malonyl-CoA dependent manner (By similarity). Binds malonyl-CoA and couples malonyl-CoA to ceramide levels, necessary for proper spine maturation and contributing to systemic energy homeostasis and appetite control (PubMed:<a href="http://www.uniprot.org/citations/16651524" target="\_blank">16651524</a>). Binds to palmitoyl-CoA, but does not have carnitine palmitoyltransferase 1 catalytic activity or at very low levels (PubMed: <a href="http://www.uniprot.org/citations/25751282" target=" blank">25751282</a>, PubMed:<a href="http://www.uniprot.org/citations/30135643" target=" blank">30135643</a>).

#### **Cellular Location**

Cell projection, dendrite. Cell projection, axon. Endoplasmic reticulum membrane; Multi-pass membrane protein. Note=Localized in the soma and dendritic and axonal projections.

#### Tissue Location

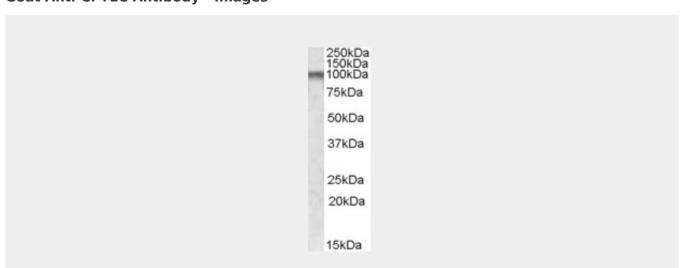
Expressed predominantly in brain and testis. Expressed in motor neurons.

### Goat Anti-CPT1C Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# Goat Anti-CPT1C Antibody - Images



AF2177a (1 μg/ml) staining of Human Frontal Cortex lysate (35 μg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

# Goat Anti-CPT1C Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

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BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.

Carnitine palmitoyltransferase I and Acyl-CoA dehydrogenase 9 in retina: insights of retinopathy in mitochondrial trifunctional protein defects. Roomets E, et al. Invest Ophthalmol Vis Sci, 2008 Apr. PMID 18385088.

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