

Goat Anti-CPT1C Antibody
Peptide-affinity purified goat antibody
Catalog # AF2177a**Specification**

Goat Anti-CPT1C Antibody - Product Information

Application	WB, E
Primary Accession	Q8TCG5
Other Accession	NP_689572 , 126129
Reactivity	Human
Predicted	Mouse, Rat, Pig, Dog
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

Dilution

WB~~1:1000

E~~N/A

Format

0.5 mg IgG/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: [30135643](http://www.uniprot.org/citations/30135643)). Also regulates AMPAR 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: [16651524](http://www.uniprot.org/citations/16651524)). Binds to palmitoyl-CoA, but does not have carnitine palmitoyltransferase 1 catalytic activity or at very low levels (PubMed: [25751282](http://www.uniprot.org/citations/25751282), PubMed: [30135643](http://www.uniprot.org/citations/30135643)).

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](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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 Thiazolinedione-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.

Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD 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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The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Gerhard DS, et al. Genome Res, 2004 Oct. PMID 15489334.