CPT1C Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CPT1C, Polyclonal Antibody
Full Product Name	CPT1C, CT (CPT1C, CATL1, Carnitine O-palmitoyltransferase 1, brain isoform, CPT IC, Carnitine O-palmitoyltransferase I, brain isoform, Carnitine palmitoyltransferase 1C) (MaxLight 405)
Product Gene Name	anti-CPT1C antibody
Product Synonym Names	CPT1C; CATL1; Carnitine O-palmitoyltransferase 1; brain isoform; CPT IC; Carnitine O-palmitoyltransferase I; brain isoform; Carnitine palmitoyltransferase 1C
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	81,000 Da
OMIM	608846
3D Structure	ModBase 3D Structure for Q8TCG5
Immunogen	CPT1C antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 759-790 amino acids from the C-terminal region of human CPT1C.
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-CPT1C antibody	Antibodies; Enzymes
Applications Tested/Suitable for anti-CPT1C antibody	Flow Cytometry (FC/FACS), FLISA, Western Blot (WB)
Application Notes for anti-CPT1C antibody	FC/FACS: 1:10-50 FLISA: 1:1,000 WB: 1:100-500 Applications are based on unconjugated antibody.
Related Product Information for anti-CPT1C antibody	The Cpt1 family of proteins are outer mitochondrial membrane proteins that regulate the entry into, and oxidation of fatty acids by, mitochondria. Malonyl-CoA, an intermediate in fatty acid synthesis, has been implicated as a regulatory component of the energy sensing system that feeds into hypothalmic neurons to impart energy homeostasis. Malonyl-CoA levels in the hypothalamus are dynamically regulated by fasting and feeding, altering subsequent feeding behaviour. Cpt1c, the brain-specific carnitine O-palmitoyltransferase 1, is thought to relay information about malonyl-CoA levels in hypothalamic neurons that express orexigenic and anorexigenic neuropeptides that regulate food intake and peripheral energy expenditure. Unlike other Cpt1 proteins, Cpt1c binds Malonyl-CoA but does not catalyse the transfer of the malonyl group from CoA to carnitine.

Product References and Citations for anti-CPT1C antibody	Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010). Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009). Roomets, E., et al. Invest. Ophthalmol. Vis. Sci. 49(4):1660-1664(2008). Sierra, A.Y., et al. J. Biol. Chem. 283(11):6878-6885(2008). Price, N., et al. Genomics 80(4):433-442(2002).
Other Notes	Small volumes of anti-CPT1C antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for CPT1C purchase	MBS6288499 is an antibody targeting CPT1C. Also known as CPT1C, CT (CPT1C, CATL1, Carnitine O-palmitoyltransferase 1, brain isoform, CPT IC, Carnitine O-palmitoyltransferase I, brain isoform, Carnitine palmitoyltransferase 1C) (MaxLight 405). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for CPT1C. It may not necessarily be applicable to this product.

NCBI GI #	209862905
NCBI GeneID	126129
NCBI Accession #	NP_001129524.1
NCBI Related Accession #	NP_689572.1
UniProt Primary Accession #	Q8TCG5
UniProt Secondary Accession #	Q5K6N5; Q8N6Q9; Q8NDS6; Q8TE84; A8K0Z8
UniProt Related Accession #	Q8TCG5
GenBank Nucleotide #	NM_001136052.2
NCBI Official Full Name	carnitine O-palmitoyltransferase 1, brain isoform isoform 1
NCBI Official Synonym Full Names	carnitine palmitoyltransferase 1C
NCBI Official Symbol	CPT1C
NCBI Official Synonym Symbols	CATL1; CPT1P; CPTIC; SPG73; CPT1-B; CPTI-B
UniProt Protein Name	Carnitine O-palmitoyltransferase 1, brain isoform
UniProt Synonym Protein Names	CPT IC; Carnitine O-palmitoyltransferase I, brain isoform; CPTI-B; Carnitine palmitoyltransferase 1C
Protein Family	Carnitine O-palmitoyltransferase
UniProt Gene Name	CPT1C
UniProt Synonym Gene Names	CATL1; CPT1-B; CPTI-B
UniProt Entry Name	CPT1C_HUMAN
NCBI Protein Information	carnitine O-palmitoyltransferase 1, brain isoform
NCBI Summary for CPT1C	This gene encodes a member of the carnitine/choline acetyltransferase family. The encoded protein regulates the beta-oxidation and transport of long-chain fatty acids into mitochondria, and may play a role in the regulation of feeding behavior and whole-body energy homeostasis. Alternatively spliced transcript variants encoding multiple protein isoforms have been observed for this gene. [provided by RefSeq, Dec 2010]

UniProt Comments for CPT1C	CPT1C: a member of the carnitine/choline acetyltransferase family. The encoded protein regulates the beta-oxidation and transport of long-chain fatty acids into mitochondria, and may play a role in the regulation of feeding behavior and whole-body energy homeostasis. Alternatively spliced transcript variants encoding multiple protein isoforms have been observed for this gene. [provided by RefSeq, Dec 2010] Protein type: Lipid Metabolism - fatty acid; Membrane protein, multi-pass; Membrane protein, integral; Transferase; EC 2.3.1.21 Chromosomal Location of Human Ortholog: 19q13.33 Cellular Component: endoplasmic reticulum membrane; mitochondrial outer membrane; synapse; cell junction Molecular Function: carnitine O-palmitoyltransferase activity Biological Process: fatty acid beta-oxidation; carnitine metabolic process Disease: Spastic Paraplegia 73, Autosomal Dominant
Research Articles on CPT1C	**1.** Depletion of PPARalpha resulted in low CPT1C expression.
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