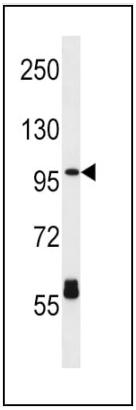
CPT1C Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	CPT1C, Polyclonal Antibody
Full Product Name	CPT1C Antibody (C-term)
Product Gene Name	anti-CPT1C antibody
Product Synonym Names	Carnitine O-palmitoyltransferase 1; brain isoform; CPT1-B; CPT IC; Carnitine O-palmitoyltransferase I; brain isoform; CPTI-B; Carnitine palmitoyltransferase 1C; CPT1C; CATL1
Clonality	Polyclonal
Isotype	Rabbit Ig
Host	Rabbit
Species Reactivity	Human
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Concentration	Vial Concentration: 0.4 (lot specific)
Specificity	This CPT1C antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 596-625 amino acids from the C-terminal region of human CPT1C.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	CPT1C peptide (MBS9221506) is used for blocking the activity of CPT1C antibody (MBS9203315)
Molecular Weight	90989
Immunogen Sequence Positions	596-625
OMIM	608846
3D Structure	ModBase 3D Structure for Q8TCG5
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Product Categories/Family for anti-CPT1C antibody	Cardiovascular; Metabolism; Neuroscience; Signal Transduction
Applications Tested/Suitable for anti-CPT1C antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-CPT1C antibody	WB~~1:1000
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	MBS9203315 is an antibody targeting CPT1C. Also known as CPT1C Antibody (C-term). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-CPT1C antibody
CPT1C Antibody (C-term) western blot analysis in HL-60 cell line lysates (35ug/lane).This demonstrates the CPT1C antibody detected the CPT1C protein (arrow).

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_001186681.1; NP_001186682.1; 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: Transferase; Membrane protein, multi-pass; Lipid Metabolism - fatty acid; Membrane protein, integral; 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.** High grade glioblastoma is associated with increased level of ZFP57, a protein involved in gene imprinting, and aberrant expression of CPT1A and CPT1C.
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