

CPT1A Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2524a**Specification**

CPT1A Antibody (N-term) Blocking Peptide - Product Information

Primary Accession [P50416](#)
Other Accession [NP_001867](#)

CPT1A Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 1374

Other Names

Carnitine O-palmitoyltransferase 1, liver isoform, CPT1-L, Carnitine O-palmitoyltransferase I, liver isoform, CPT I, CPTI-L, Carnitine palmitoyltransferase 1A, CPT1A, CPT1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2524a](/product/products/AP2524a) was selected from the N-term region of human CPT1A . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CPT1A Antibody (N-term) Blocking Peptide - Protein Information

Name CPT1A ([HGNC:2328](#))

Synonyms CPT1

Function

Catalyzes the transfer of the acyl group of long-chain fatty acid-CoA conjugates onto carnitine, an essential step for the mitochondrial uptake of long-chain fatty acids and their subsequent beta-oxidation in the mitochondrion (PubMed: [9691089](http://www.uniprot.org/citations/9691089), PubMed: [11350182](http://www.uniprot.org/citations/11350182), PubMed: [14517221](http://www.uniprot.org/citations/14517221), PubMed: [16651524](http://www.uniprot.org/citations/16651524)). Plays an important role in hepatic triglyceride metabolism (By similarity).

Cellular Location

Mitochondrion outer membrane; Multi-pass membrane protein

Tissue Location

Strong expression in kidney and heart, and lower in liver and skeletal muscle

CPT1A Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

CPT1A Antibody (N-term) Blocking Peptide - Images**CPT1A Antibody (N-term) Blocking Peptide - Background**

The mitochondrial oxidation of long-chain fatty acids is initiated by the sequential action of carnitine palmitoyltransferase I (which is located in the outer membrane and is detergent-labile) and carnitine palmitoyltransferase II (which is located in the inner membrane and is detergent-stable), together with a carnitine-acylcarnitine translocase. CPT I is the key enzyme in the carnitine-dependent transport across the mitochondrial inner membrane and its deficiency results in a decreased rate of fatty acid beta-oxidation.

CPT1A Antibody (N-term) Blocking Peptide - References

Rasmussen, B.B., et al., J. Clin. Invest. 110(11):1687-1693 (2002). Ogawa, E., et al., J. Hum. Genet. 47(7):342-347 (2002). Cook, G.A., et al., Am. J. Med. Sci. 318(1):43-48 (1999). IJlst, L., et al., J. Clin. Invest. 102(3):527-531 (1998). Britton, C.H., et al., Genomics 40(1):209-211 (1997).