

**CPT1A Antibody (Internal)**  
**Goat Polyclonal Antibody**  
**Catalog # ALS12614****Specification**

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**CPT1A Antibody (Internal) - Product Information**

Application	IHC
Primary Accession	<a href="#">P50416</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Calculated MW	88kDa KDa

**CPT1A Antibody (Internal) - Additional Information****Gene ID** 1374**Other Names**

Carnitine O-palmitoyltransferase 1, liver isoform, CPT1-L, 2.3.1.21, Carnitine O-palmitoyltransferase I, liver isoform, CPT I, CPTI-L, Carnitine palmitoyltransferase 1A, CPT1A, CPT1

**Target/Specificity**

Human CPT1A. This antibody is expected to recognize both reported isoforms (NP\_001867.2; NP\_001027017.1) but is not expected to recognise CPT1B.

**Reconstitution & Storage**

Store at -20°C. Minimize freezing and thawing.

**Precautions**

CPT1A Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

**CPT1A Antibody (Internal) - 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:[11350182](http://www.uniprot.org/citations/11350182), PubMed:[14517221](http://www.uniprot.org/citations/14517221), PubMed:[16651524](http://www.uniprot.org/citations/16651524), PubMed:[9691089](http://www.uniprot.org/citations/9691089)). Possesses also a lysine succinyltransferase activity that can regulate enzymatic activity of substrate proteins such

as ENO1 and metabolism independent of its classical carnitine O-palmitoyltransferase activity (PubMed:<a href="http://www.uniprot.org/citations/29425493" target="\_blank">29425493</a>). Plays an important role in hepatic triglyceride metabolism (By similarity). Plays also a role in inducible regulatory T-cell (iTreg) differentiation once activated by butyryl-CoA that antagonizes malonyl- CoA-mediated CPT1A repression (By similarity). Sustains the IFN-I response by recruiting ZDHCC4 to palmitoylate MAVS at the mitochondria leading to MAVS stabilization and activation (PubMed:<a href="http://www.uniprot.org/citations/38016475" target="\_blank">38016475</a>). Promotes ROS-induced oxidative stress in liver injury via modulation of NFE2L2 and NLRP3-mediated signaling pathways (By similarity).

#### Cellular Location

Mitochondrion outer membrane; Multi-pass membrane protein

#### Tissue Location

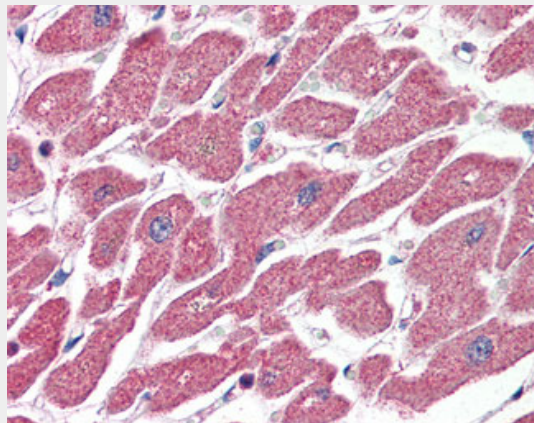
Strong expression in kidney and heart, and lower in liver and skeletal muscle

### CPT1A Antibody (Internal) - Protocols

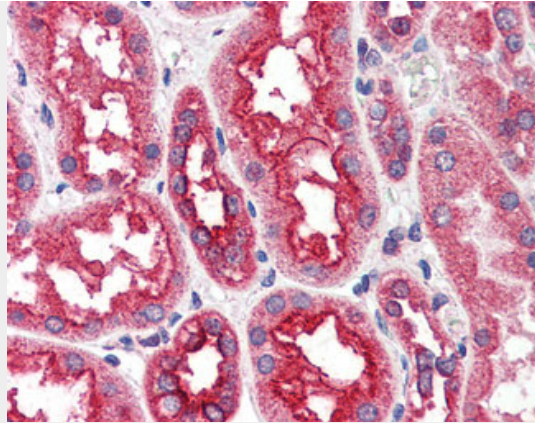
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### CPT1A Antibody (Internal) - Images



Anti-CPT1A antibody IHC of human heart.



Anti-CPT1A antibody IHC of human kidney.

### **CPT1A Antibody (Internal) - Background**

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. Plays an important role in triglyceride metabolism.

### **CPT1A Antibody (Internal) - References**

- Britton C.H.,et al.Proc. Natl. Acad. Sci. U.S.A. 92:1984-1988(1995).
- Gobin S.,et al.Hum. Genet. 111:179-189(2002).
- Kalnine N.,et al.Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.
- Napal L.,et al.J. Mol. Biol. 354:751-759(2005).
- Burkard T.R.,et al.BMC Syst. Biol. 5:17-17(2011).