



## Anti-CPTIA Antibody

**Alternative Names:** CPTI, CPTI-L, L-CPTI, Carnitine palmitoyltransferase IA

**Catalogue Number:** AB18-10063-100ug

**Size:** 100 µg

### Background Information

Carnitine palmitoyltransferase I (CPTI) is a liver enzyme involved in fatty acid oxidation. Three isoforms of CPTI are currently known: CPTIA, CPTIB, and CPTIC. This antibody recognises CPTIA. The carnitine palmitoyltransferase (CPT) enzyme system, with acyl-CoA synthetase and carnitine/acylcarnitine translocas, provide the mechanism for long-chain fatty acids to be transferred from the cytosol to the mitochondrial matrix to undergo beta-oxidation for energy production. 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. Carnitine palmitoyltransferase I is responsible for the formation of acyl carnitines, catalysing the transfer of the acyl group of a long-chain fatty acyl-CoA from coenzyme A to L-carnitine, allowing movement of the acyl carnitine from the cytosol into the intermembrane space of mitochondria. CPT I is key for carnitine-dependent transport across the mitochondrial inner membrane and its deficiency results in a decreased rate of fatty acid beta-oxidation.

### Product Information

<b>Antibody Type:</b>	Polyclonal	<b>Host:</b>	Rabbit
<b>Isotype:</b>	IgG	<b>Species Reactivity:</b>	Human, Mouse
<b>Immunogen:</b>	Partial length recombinant human CPTIA from the C-terminal region		
<b>Format:</b>	100 µg in 100 µl PBS containing 0.02% sodium azide.		
<b>Storage Conditions:</b>	6 months: 4°C. Long-term storage: -20°C. Avoid multiple freeze and thaw cycles.		
<b>Applications:</b>	WB IF IP      WB 1:500-2000. IF 1:50-200. IP 1:50-100.		

### Additional Information

<b>Subcellular location:</b>	Mitochondrion outer membrane, Multi-pass membrane protein	<b>MW:</b>	88kDa (Intended as a general guide and does not allow for all isoforms and species variations)
<b>Gene ID</b>	1374	<b>Uniprot ID:</b>	P50416