

Recombinant Human CPT1A

Cat. No. CPT1A-26794TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment corresponding to amino acids 461-550 of Human CPT1A with an N terminal proprietary tag; Predicted MWt 35.53 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	90 amino acids
Description	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. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.
Molecular Weight	35.530kDa inclusive of tags
Tissue specificity	Strong expression in kidney and heart, and lower in liver and skeletal muscle.
Form	Liquid
Purity	Proprietary Purification

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Storage buffer	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	VFKNGKMGLNAEHSWADAPIVAHLWEYVMSIDSLQLGYAEDGHCKGDINPNIPYPT RLQWDIPGECQEVIETSLNTANLLANDVDFHSFP
Sequence Similarities	Belongs to the carnitine/choline acetyltransferase family.

GENE INFORMATION

Gene Name	CPT1A carnitine palmitoyltransferase 1A (liver) [Homo sapiens]
Official Symbol	CPT1A
Synonyms	CPT1A; carnitine palmitoyltransferase 1A (liver); CPT1; carnitine O-palmitoyltransferase 1, liver isoform; CPT1 L; L CPT1;
Gene ID	1374
mRNA Refseq	NM_001031847
Protein Refseq	NP_001027017
MIM	600528
Uniprot ID	P50416
Chromosome Location	11q13.2

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Pathway

AMPK signaling, organism-specific biosystem; Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; FOXA2 and FOXA3 transcription factor networks, organism-specific biosystem; Fatty Acid Beta Oxidation, organism-specific biosystem;

Function

carnitine O-palmitoyltransferase activity; identical protein binding; transferase activity, transferring acyl groups;

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