

Product datasheet for **SC321568**

CPT1A (NM_001031847) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CPT1A (NM_001031847) Human Untagged Clone
Tag:	Tag Free
Symbol:	CPT1A
Synonyms:	CPT1; CPT1-L; L-CPT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_001031847.1
 GCTGCCGCTGCCGCACCTCCGTAGCTGACTCGGTACTCTCTGAAGATGGCAGAAGCTCAC
 CAAGCTGTGGCCTTTTCAGTTCACGGTCACTCCGGACGGGATTGACCTGCGGCTGAGCCAT
 GAAGCTCTTAGACAAATCTATCTCTCTGGACTTCATTCTGAAAAAGAAGTTCATCAGA
 TTCAAGAACGGCATCATCACTGGCGTGTACCCGGCAAGCCCTCCAGTTGGCTTATCGTG
 GTGGTGGCGTGATGACAACGATGTACGCCAAGATCGACCCTCGTTAGGAATAATTGCA
 AAAATCAATCGGACTCTGAAACGGCCAACTGCATGTCCAGCCAGACGAAGAACGTGGTC
 AGCGGCGTGCTGTTTGGACCCGGCTGTGGGTGGCCCTCATCGTACCATGCGCTACTCC
 CTGAAAGTGCTGCTCTCCTACCACGGGTGGATGTTCACTGAGCACGGCAAGATGAGTCGT
 GCCACCAAGATCTGGATGGGTATGGTCAAGATCTTTTCAGGCCGAAAACCCATGTTGTAC
 AGCTTCCAGACATCGCTGCCTCGCTGCCGGTCCCGGCTGTCAAAGACACTGTGAACAGG
 TATCTACAGTCGGTGAGGCTCTTATGAAGGAAGAAGACTTCAAACGGATGACAGCACTT
 GCTCAAGATTTTGTGTCGGTCTTGGACCAAGATTACAGTGGTATTTGAAGTTAAATCC
 TGGTGGGCTACAAATTACGTGAGCGACTGGTGGGAGGAGTACATCTACCTCCGAGGACGA
 GGCCCGCTCATGGTGAACAGCAACTATTATGCCATGGATCTGCTGTATATCCTTCCAAC
 CACATTACAGCAGCAAGAGCCGGCAACGCCATCCATGCCATCCTGCTTACAGGCCGCAAA
 CTGGACCCGGGAGGAAATCAAACCAATTCGTCTTTTGGGATCCACGATTCCACTCTGCTCC
 GCTCAGTGGGAGCGGATGTTAATACTTCCCGGATCCCAGGAGAGGAGACAGACACCATC
 CAGCACATGAGAGACAGCAAGCACATCGTCGTGTACCATCGAGGACGCTACTTCAAGGTC
 TGGCTCTACCATGATGGGCGGCTGCTGAAGCCCCGGGAGATGGAGCAGCAGATGCAGAGG
 ATCCTGGACAATACCTCGGAGCCTCAGCCCCGGGAGGCCAGGCTGGCAGCCCTCACCGCA
 GGAGACAGAGTCCCTGGGCCAGGTGTCGTGAGCCTATTTTGGACGTGGGAAAAATAAG
 CAGTCTTTGATGCTGTGGAGAAAGCAGCGTTCTTCGTGACGTTAGATGAAACTGAAGAA
 GGATACAGAAGTGAAGACCCGGATACGTCAATGGACAGCTACGCCAAATCTCTACTACAC
 GGCCGATGTTACGACAGGTGGTTTGACAAGTCGTTACGTTTTGTTGCTTCAAAAACGGG
 AAGATGGGCCTCAACGCTGAACACTCCTGGGCAGATGCGCCGATCGTGGCCACCTTTGG
 GAGTACGTGATGCCATTGACAGCCTCCAGCTGGGCTATGCGGAGGATGGGCACTGCAAA
 GGCGACATCAATCCGAACATTCCGTACCCACCAGGCTGCAGTGGGACATCCCGGGGAA
 TGTCAAGAGGTTATAGAGACCTCCCTGAACACCGCAAATCTTCTGGCAAACGACGTGGAT
 TTCCATTCCTTCCATTCGTAGCCTTTGGTAAAGGAATCATCAAGAAATGTCGCACGAGC
 CCAGACGCCTTTGTGACGCTGGCCCTCCAGCTGGCGCACTACAAGGACATGGGCAAGTTT
 TGCCCTACATACGAGGCCTCCATGACCCGGCTCTTCCGAGAGGGGAGGACGGAGACCGTG
 CGCTCCTGCACCACTGAGTCATGCGACTTCGTGCGGGCCATGGTGGACCCGGCCAGACG
 GTGGAACAGAGGCTGAAGTTGTTCAAGTTGGCGTCTGAGAAGCATCAGCATATGTATCGC
 CTCGCCATGACCGGCTCTGGGATCGATCGTCACCTCTTCTGCCTTACGTGGTGTCTAAA
 TATCTCGCTGTGGAGTCCCCTTTCTTAAGGAAGTTTTATCTGAGCCTTGGAGATTATCA
 ACAAGCCAGACCCCTCAGCAGCAAGTGGAGCTGTTTGACTTGGAGAATAACCCAGAGTAC
 GTGTCCAGCGGAGGGGCTTTGGACCGTTGCTGATGACGGCTATGGTGTGTCGTACATC
 CTTGTGGGAGAGAACCTCATCAATTTCCACATTTCTTCCAAGTTCTTGGCCCTGAGACG
 GGGATTATAAGTCAAGGACCAAGTTCAGATACTTGAGACAAAGTGGAAAGTCTCAGCATA
 TGGAAACAAGGCCTTGGAGGAGACCATGGACATACCAAGTTCATGTGCTGGGCTGGAAA
 GAAAAGCCTGTTGATTTTCACTTGTGTCATTTATTCATCCATTCCATTGCCTCAATGC
 TGAGAACAGTGCCTGACACATAAAAGATGCTCAATAAATATGTTAAAAAGTAAAAA
 AAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire
ACCN: NM_001031847

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_001031847.1</u> , <u>NP_001027017.1</u>
RefSeq Size:	2546 bp
RefSeq ORF:	2271 bp
Locus ID:	1374
UniProt ID:	<u>P50416</u>
Cytogenetics:	11q13.3
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Adipocytokine signaling pathway, Fatty acid metabolism, PPAR signaling pathway
Gene Summary:	<p>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. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (2) contains an alternative 3' terminal exon compared to transcript variant 1. This results in a shorter isoform (2) with a different C-terminus compared to isoform 1.</p>