

## Product datasheet for **RC213007**

### **CPT1C (NM\_152359) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CPT1C (NM_152359) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CPT1C
Synonyms:	CATL1; CPT1-B; CPT1P; CPTI-B; CPTIC; SPG73
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC213007 representing NM\_152359  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCTGAAGCGCACCAGGCCGTGGCTTCCGACCCTCGCTGACCTCGGACGGGGCTGAAGTGGAACTCA  
 GTGCCCTGTGCTGCAGGAGATCTACCTCTGGCCTGCGCTCCTGAAAAGGCATCTCTCACGTTTCTG  
 GAATGACTTTCTACCGGTGTGTTTCTGCCAGCCCCCTCAGTTGGCTTTTCTCTTTCAGTGCCATCCAG  
 CTTGCCTGGTTCCAGCTGGATCCTTCTTAGGACTGATGGAGAAGATCAAAGAGTTGCTGCCTGACT  
 GGGGTGGACAACACCACGGGCTCCGGGGGCTCTGGCAGCCGCGCTGTTTGCCTCGTGTGTTGGGGAGC  
 CCTGATCTTCACTGCACGTGGCCCTGAGGCTGCTTCTGTCTACCACGGCTGGCTTCTGAGCCCCAC  
 GGAGCCATGTCTCCCCACCAAGACCTGGCTGGCCCTGGTCCGCATCTTCTGCGCCGCCACCCGATGC  
 TGTTCACTTACCAGCGCTCCCTGCCACGCCAGCCCGTCCCTCTGTGCAGGACACCGTGCACAAGTACCT  
 GGAGTCGGTCCGGCCATCCTCTCCGACGAGGACTTCGACTGGACCGCGTCTGGCGCAGGAATCCTG  
 AGGCTGCAGGCGTCGCTGCTGCAGTGGTACCTGCGGCTCAAGTCTGGTGGGCGTCCAATATGTCAGTG  
 ACTGGTGGGAGGAATTTGTGTACCTGCGCTCCCGAAATCCGCTGATGGTGAACAGCAACTATTACATGAT  
 GGACTTCTGTATGTACACCCACGCCTCTGCAGGACGCTCGCGCTGGGAATGCCGTCCATGCCCTCCTC  
 CTGTACCGCCACCGCCTGAACCGCCAGGAGATACCCCGACTTTGCTGATGGGAATGCGCCCTTATGCT  
 CTGCCCAGTACGAGAAGATCTTCAACACCACGCGGATTCAGGGGTCCAAAAAGACTACATCCGCCACCT  
 CCATGACAGCCAACACGTGGCTGTCTTCCACCGGGGCCGATTCTCCGCATGGGGACCCACTCCCGAAAC  
 AGCCTGCTTCCCGAGAGCCCTGGAGCAGCAGTTTCAGAGAATCCTGGATGATCCCTCACCGCCCTGCC  
 CCCACGAGGAACATCTGGCAGCTGACAGCTGCTCCAGGGGCACGTGGGCCAGGTGGGACATCCCT  
 GAAGACCCAGGCAGCGGAGGCCCTGGAGGCGGTGGAAAGGGCCGCTTTCTTTGTGTCAGTGGATGCTGAG  
 CCCGCGGGGCTCACCAAGGAGGACCCGGCAGCGTCTGGATGCCTACGCCATGCTCTGCTGGCCGGCC  
 GGGGCCATGATCGCTGGTTTGACAAATCCTTACCCTAATCGTCTTCTTAACGGGAAGCTGGGCTCAG  
 CGTGGAGCACTCTGGCCGACTGCCCATCTCAGGACACATGTGGGAGTTCACTCTGGTACAGAATGC  
 TTTCACTGGGCTACTCAACAGACGGCCACTGCAAGGGGCACCCGGACCCACACTACCCAGCCCCAGC  
 GGCTGCAATGGGACCTTCCAGACCAGATCCACTCCTCCATCTCTAGCCCTGAGGGGAGCCAAGATCTT  
 GTCTGAAAATGTCGACTGCCATGTGTTCCATTCTCCCTATTTGGCAAGAGCTTCATCCGACGCTGCCAC  
 CTCTTTCAGACAGCTTCATCCAGATCGCCTTGAACCTGGCCACTTCCGGGACAGGGTCAATTCTGCC  
 TGACTTATGAGTCGGCCATGACTCGCTTATCCTGGAAGGCCGGACGGAGACGGTCCGCTTTCAGCAGG  
 GGAGGCCGTGCAACTTTGTGAGGGCCATGGAGGACAAAAGAGAAGACGGACCCACAGTGCCTCGCCCTGTT  
 CGCGTGGCAGTGGACAAGCACCAGGCTCTGCTGAAGGCAGCCATGAGCGGGCAGGGAGTTGACCGCCACC  
 TGTTTGGCTGTACATCGTGTCCGATTCTCCACCTGCAGTCCGCTTCTGACCCAGGTCCATTCCGGA  
 GCAGTGGCAGTGTCCACCAGCCAGATCCCTGTTAGCAAAATGCATCTGTTTGACGTCCACAATTACCCG  
 GACTATGTTTCTCAGGCGGTGGATTCCGGCCTGCTGATGACCATGGTTATGGTGTCTTATATCTTCA  
 TGGGGATGGCATGATCACCTTCCACATCTCAGCAAAAAATCAAGCACAAAAACGGATTCCACAGGCT  
 GGGGCAGCACATTGAGGACGCACTGCTGGATGTGGCCTCCCTGTTCCAGGCGGGACAGCATTTTAAGCGC  
 CGGTTTCAGAGGGTCAGGGAAGGAGAATCCAGGCACAGGTGTGGATTTCTCTCCGCCAGACTGGGCCT  
 CCAAGGCCTCAATGACATCCACCGACTTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC213007 representing NM\_152359  
Red=Cloning site Green=Tags(s)

MAEAHQAVGFRPSLTS DGA EVELSAPVLQEIYLSGLRSWKRHL SRFW NDFLTGVFPASPLSWLFLFS AIQ  
LAWFLQLDPSLGLMEKIKELL PDWGGQHHLRGVLA AALFASCLWGALIFTLHVALRLLLSYHGWLLEPH  
GAMSSPTKTWLALVRIFSGRHPMLFSYQRSLPRQPVPSVQDTRVKYLESVRPILSDEDFDWTAVLAQEFL  
RLQASLLQWYLR LKSWWASNYVSDWEEFVYLR SRNPLMVNSNYMMDFLYVTP TPLQAARAGNAVHALL  
LYRHRLNRQEIPPTLLMGRPLCSAQYEKIFNTTRIPGVQKDYIRHLHDSQHVAVFHRGRFFRMGTHSRN  
SLLSPRALEQQFQRILDDPSPACPHEEHLAALTAAPRGTWAQVRTSLKTQAAEAL EAVEGA AFFVSLDAE  
PAGLTREDPAASL DAYAHALLAGRGH DRWFDKSF TLIVFSNGKLG L SVEHSWADCPISGHMWEFTLATEC  
FQLGYSTDGHCKGHPDPTLPQPQLQWDL PDQIHSSISLALRGAKIL SENVDCHVVPFSLFGKSFIRRH  
LSSDSFIQIALQLAHFRDRGQFCLTYESAMTRLFLEGR TETVR SCTREACNFVRAMEDKEKTD PQCLALF  
RVAVDKHQALLKAAMSGQGVDRHLFALYIVSRFLHLQSPFLTQVHSEQWQLSTSQIPVQQMHLFDVHNYP  
DYVSSGGGFGPADDHGYVSYIFMGDGMITFHIS SKKSSTKTDSHRLGQHIEDALLDVASL FQAGQHFKR  
RFRGSGKENS RHRCGFLSRQTGASKASMTSTDF

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6253\\_e08.zip](https://cdn.origene.com/chromatograms/mk6253_e08.zip)

**Restriction Sites:** Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_152359

ORF Size: 2409 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:**

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:** [NM\\_152359.3](#)

**RefSeq Size:** 2772 bp

**RefSeq ORF:** 2412 bp

**Locus ID:** 126129

**UniProt ID:** [Q8TCG5](#)

**Cytogenetics:** 19q13.33

**Domains:** Carn\_acyltransf

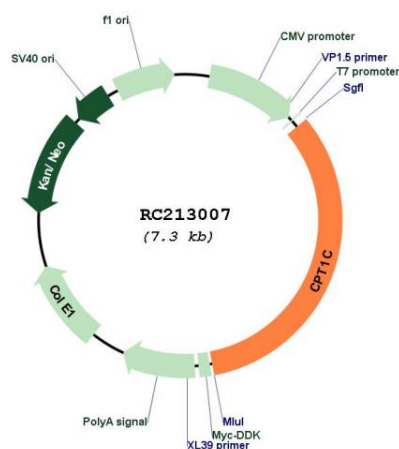
**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Adipocytokine signaling pathway, Fatty acid metabolism, PPAR signaling pathway

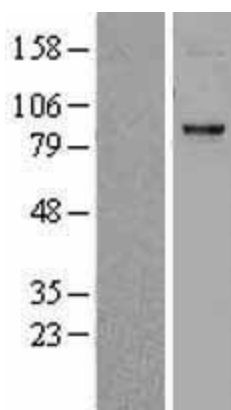
**MW:** 90.8 kDa

**Gene Summary:** This gene encodes a member of the carnitine/choline acetyltransferase family. The encoded protein regulates the beta-oxidation and transport of long-chain fatty acids into mitochondria, and may play a role in the regulation of feeding behavior and whole-body energy homeostasis. Alternatively spliced transcript variants encoding multiple protein isoforms have been observed for this gene. [provided by RefSeq, Dec 2010]

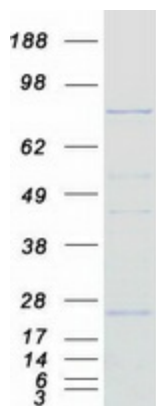
## Product images:



Circular map for RC213007



Western blot validation of overexpression lysate (Cat# [LY407609]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213007 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CPT1C protein (Cat# [TP313007]). The protein was produced from HEK293T cells transfected with CPT1C cDNA clone (Cat# RC213007) using MegaTran 2.0 (Cat# [TT210002]).