

## Product datasheet for **RC227244**

### **CPT1B (NM\_001145134) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CPT1B (NM_001145134) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CPT1B
Synonyms:	CPT1-M; CPT1M; CPTI; CPTI-M; M-CPT1; MCCPT1; MCPT1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC227244 representing NM\_001145134  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCGGAAGCTCACCAGGCCGTGGCCTTCCAGTTACCGTGACCCAGACGGGGTCGACTTCCGGCTCA  
 GTCGGGAGGCCCTGAAACACGTCTACCTGTCTGGGATCAACTCCTGGAAGAAACGCCTGATCCGCATCAA  
 GAATGGCATCCTCAGGGCGTGTACCCTGGCAGCCCCACCAGCTGGCTGGTCGTCATCATGGCAACAGTG  
 GTTTCTCTTCTGCAACGTGGACATCTCCTTGGGGCTGGTCAGTTGCATCCAGAGATGCCTCCCTCAGG  
 GGTGTGGCCCTACCAGACCCCGCAGACCCGGGCACTTCTCAGCATGGCCATCTTCTCCACGGGCGTCTG  
 GGTGACGGGCATCTTCTTCCGCCAAACCTGAAGTGTCTTCTGCTACCATGGGTGGATGTTTGAG  
 ATGCATGGCAAGACCAGCAACTTGACCAGGATCTGGCTTACCTAGAGTCTGTGCGCCCTTGTGGATG  
 ATGAGGAATATTACGCATGGAGTTGCTGGCCAAAGAATTCAGGACAAGACTGCCCCAGGCTGCAGAA  
 ATACCTGGTGCTCAAGTCATGGTGGCAAGTAACTATGTGAGTGACTGGTGGGAAGAGTACATCTACCTT  
 CGAGGCAGGAGCCCTCTCATGGTGAACAGCAACTATTATGTCATGGACCTTGTGCTCATCAAGAATACAG  
 ACGTGCAGGCAGCCCGCCTGGGAAACATCATCCACGCCATGATCATGTATCGCCGTAACACTGGACCGTGA  
 AGAAATCAAGCCTGTGATGGCACTGGGCATAGTGCCTATGTGCTCCTACCAGATGGAGAGGATGTTCAAC  
 ACCACTCGGATCCCGGGCAAGGACACAGATGTGCTACAGCACCTCTCAGACAGCCGGCAGTGGCTGTCT  
 ACCACAAGGGACGCTTCTCAAGCTGTGGCTCTATGAGGGCGCCCGTCTGCTCAAGCCTCAGGATCTGGA  
 GATGCAGTTCCAGAGGATCCTGGACGACCCCTCCACCTCAGCCTGGGGAGGAGAAGCTGGCAGCCCTC  
 ACTGCAGGAGGAAGGGTGGAGTGGGCGCAGGCACGCCAGGCCCTTTTAGCTCTGGAAAGAATAAGGCTG  
 CCTTGGAGGCCATCGAGCGTGCCGCTTTCTTCTGTTGGCCCTGGATGAGGAATCTACTCTATGACCCCGA  
 AGATGAGGCCAGCCTCAGCCTCTATGGCAAGGCCCTGCTACATGGCAACTGCTACAACAGGTGTTTGAC  
 AAATCCTTCACTCTCATTCTTCAAGAATGGCCAGTTGGGTCTCAATGCAGAGCATGCGTGGGCAGATG  
 CTCCCATTGTTGGCACCTCTGGGAGTTTGTCTGGGCACAGACAGCTTCCACCTGGGCTACACGGAGAC  
 CGGGCACTGCCTGGGCAAACCGAACCTGCGCTCGCACCTCTACACGGCTGCAGTGGGACATTCAAAA  
 CAGTGCCAGGCGGTATCGAGAGTTCTACCAGGTGGCCAAGGCGTTGGCAGACGACGTGGAGTTGTA  
 GCTTCCAGTTCTGCCCTTTGGCAAAGGCCTCATCAAGAAGTCCCGGACCAGCCCTGATGCCTTTGTGCA  
 GATCGCGCTGCAGCTGGCTCACTCCGGGACAGGGGTAAGTTCTGCTGACCTATGAGGCCTCAATGACC  
 AGAATGTTCCGGGAGGGACGGACTGAGACTGTGCGTTCCTGTACCAGCGAGTCCACAGCCTTTGTGCA  
 CCATGATGGAGGGTCCACACAAAAGCAGACCTGCGAGATCTTCCAGAAGGCTGCTAAGAAGCACC  
 GAATATGTACCGCTGGCCATGACCGGGCAGGGATCGACAGGCACCTTCTGCTTTACTTGGTCTCC  
 AAGTACCTAGGAGTCAGCTCTCCTTTCTTGTGAGGTGCTCTCGGAACCCTGGGCTCTCTCCACGACC  
 AGATCCCCAATCCCAGATCCGCATGTTCCAGCCAGAGCAGCCCCAATCACCTGGGCGCTGGAGGTGG  
 CTTTGGCCCTGTAGCAGATGATGGCTATGGAGTTTCTACATGATTGCAGGCGAGAACACGATCTTCTC  
 CACATCTCCAGCAAGTTCTCAAGCTCAGAGACGAACGCCAGCGCTTTGGAAACCACATCCGCAAAGCCC  
 TGCTGGACATTGCTGATCTTTTCCAAGTTCCCAAGGCCTACAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC227244 representing NM\_001145134  
Red=Cloning site Green=Tags(s)

MAEAHQAVAFQFTVTPDGVDFRLSREALKHVYLSGINSWKKRLIRIKNGILRGVYPGSPTSWLVVIMATV  
 GSSFCNVDISLGLVSCIQRCLPQCGPYQTPQTRALLSMAIFSTGVWVTGIFFFRQTLKLLLCYHGWMFE  
 MHGKTSNLTRIWAYLESVRPLLDDEEYRMELLAKEFQDKTAPRLQKYLVLKSWASNYVSDWWEYIYL  
 RGRSPLMVNSNYVMDLVLIKNTDVQAARLGNIIHAMIMYRRKLDREEIKPVMALGIVPMCSYQMERMFN  
 TTRIPGKDTDVLQHLSDSRHVAVYHKGRFFKLWLYEGARLLKPQDLEMQFORILDDPSPQPGEELKAL  
 TAGGRVEWAQARQAFFSSGKNKAALAEIERAAFFVALDEESYSYDPEDEASLSLYGKALLHGNCYNRWF  
 KSFTLISFKNGQLGLNAEHAWADAPIIGHLWEFVLGTDSEFHLGYTETGHCLGKPNPALAPTRLQWDIPK  
 QCQAVIESSYQVAKALADDVELYCFQLPFGKGLIKKCRTPDAFVQIALQLAHFRDRGKFCITYEASMT  
 RMFREGRTETVRSCTSESTAFVQAMMEGSHTKADLRDLFQKAAKKHQNMRYLAMTGAGIDRHLFCLYLVS  
 KYLGVSSPFLAEVLSEPWRLSTSQIPQSQIRMFDPHQPNHLGAGGGFVADDGYVSYMIAGENTIFF  
 HISSKFSSETNAQRFGNHIRKALLDIADLFQVPKAYS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001145134

**ORF Size:** 2214 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\\_001145134.2](#)

**RefSeq ORF:** 2217 bp

**Locus ID:** 1375

**UniProt ID:** [Q92523](#)

**Cytogenetics:** 22q13.33

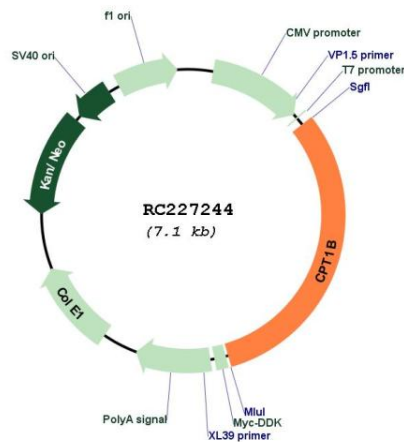
**Protein Families:** Druggable Genome, Transmembrane

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

**MW:** 83.7 kDa

**Gene Summary:** The protein encoded by this gene, a member of the carnitine/choline acetyltransferase family, is the rate-controlling enzyme of the long-chain fatty acid beta-oxidation pathway in muscle mitochondria. This enzyme is required for the net transport of long-chain fatty acyl-CoAs from the cytoplasm into the mitochondria. Multiple transcript variants encoding different isoforms have been found for this gene, and read-through transcripts are expressed from the upstream locus that include exons from this gene. [provided by RefSeq, Jun 2009]

### Product images:



Circular map for RC227244