

Product datasheet for **RC214823**

CPT1B (NM_152245) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CPT1B (NM_152245) 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:**

>RC214823 representing NM_152245
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGGAAGCTCACCAGGCCGTGGCCTTCCAGTTACCGGTGACCCAGACGGGGTCGACTTCCGGCTCA
 GTCGGGAGGCCCTGAAACACGTCTACCTGTCTGGGATCAACTCCTGGAAGAAACGCCTGATCCGCATCAA
 GAATGGCATCCTCAGGGCGTGTACCCTGGCAGCCCCACCAGCTGGCTGGTCGTCATCATGGCAACAGTG
 GGTTCCTCCTTCTGCAACGTGGACATCTCCTTGGGGCTGGTCAGTTGCATCCAGAGATGCCTCCCTCAGG
 GGTGTGGCCCTACCAGACCCCGCAGACCCGGGCACTTCTCAGCATGGCCATCTTCTCCACGGGCGTCTG
 GGTGACGGGCATCTTCTTCCGCCAAACCTGAAGTGTCTCTGCTACCATGGGTGGATGTTTGAG
 ATGCATGGCAAGACCAGCAACTGACCAGGATCTGGGCTATGTGTATCCGCCTTCTATCCAGCCGGCACC
 CTATGCTCTACAGCTTCCAGACATCTCTGCCAAGCTTCTGTGCCAGGGTGTGAGCCACAATTCAGCG
 GTACCTAGAGTCTGTGCGCCCTTGTGGATGATGAGGAATATTACCGCATGGAGTTGCTGGCCAAAGAA
 TTCCAGGACAAGACTGCCCCAGGCTGCAGAAATACCTGGTGCTCAAGTCATGGTGGGCAAGTAACATATG
 TGAGTGACTGGTGGGAAGAGTACATCTACCTTCGAGGCAGGAGCCCTCTCATGGTGAACAGCAACTATTA
 TGTGATGGACCTTGTGCTCATCAAGAATACAGACGTGCAGGCAGCCCGCCTGGGAAAACATCATCCAGCC
 ATGATCATGTATCGCCGTAACCTGGACCGTGAAGAAATCAAGCCTGTGATGGCACTGGGCATAGTGCCTA
 TGTGCTCTACCAGATGGAGAGGATGTTCAACACCACTCGGATCCCGGGCAAGGACACAGATGTGCTACA
 GCACCTCTCAGACAGCCGGCAGTGGCTGTCTACCACAAGGGACGCTTCTCAAGCTGTGGCTCTATGAG
 GGCGCCCGTCTGCTCAAGCCTCAGGATCTGGAGATGCAGTTCCAGAGGATCCTGGACGACCCCTCCAC
 CTCAGCCTGGGGAGGAGAAGCTGGCAGCCCTCACTGCAGGAGGAAGGGTGGAGTGGGCGCAGGCACGCCA
 GGCCCTTTTAGCTCTGGAAGAATAAGGCTGCCTTGGAGGCCATCGAGCGTGCCGCTTTCTTCGTGGCC
 CTGGATGAGGAATCCTACTCTATGACCCGAAGATGAGGCCAGCCTCAGCCTCTATGGCAAGGCCCTGC
 TACATGGCAACTGCTACAACAGGTGTTTGACAAATCCTTCACTCTCATTTCTTCAAGAATGGCCAGTT
 GGGTCTCAATGCAGAGCATGCGTGGCAGATGCTCCCATATTGGGCACCTCTGGGAGTTTGTCTGGGC
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 CTCCTACACGGCTGCAGTGGGACATCCAAAACAGTGCCAGGCGGTATCAAGAGTTCTACCAGGTGGC
 CAAGGCGTTGGCAGACGACGTGGAGTTGTACTGCTTCCAGTTCTGCCCTTTGGCAAAGGCCTCATCAAG
 AAGTGGCGGACCAGCCCTGATGCCTTTGTGAGATCGCGCTGCAGCTGGCTCACTCCGGGACAGGGGTA
 AGTTCTGCTGACCTATGAGGCCTCAATGACCAGAATGTTCCGGGAGGGACGACTGAGACTGTGCGTTC
 CTGTACCAGCGAGTCCACAGCCTTTGTGAGGCCATGATGGAGGGTCCCACACAAAAGCAGACCTGCGA
 GATCTCTTCCAGAAGGCTGCTAAGAAGCACCAGAATATGTACCGCCTGGCCATGACCGGGGACGGGATCG
 ACAGGCACCTCTTCTGCCTTTACTTGGTCTCCAAGTACCTAGGAGTCACTCTCCTTTCTTGTGAGGT
 GCTCTCGGAACCTGGCGTCTCTCCACCAGCCAGATCCCCAATCCAGATCCGCATGTTTCGACCCAGAG
 CAGACCCCAATCACCTGGGCGCTGGAGGTGGCTTTGGCCCTGTAGCAGATGATGGCTATGGAGTTTCT
 ACATGATTGCAGGCGAGAACACGATCTTCTTCCACATCTCCAGCAAGTTCTCAAGCTCAGAGACGAACGC
 CCAGCGCTTTGGAACCACATCCGCAAAGCCCTGCTGGACATTGCTGATCTTTTCAAGTTCCCAAGGCC
 TACAGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214823 representing NM_152245
Red=Cloning site Green=Tags(s)

MAEAHQAVAFQFTVTPDGVDFRLSREALKHVYLSGINSWKKRLIRIKNGILRGVYPGSPTSWLVVIMATV
GSSF CNVDISLGLVSCIQRCLPQCGPYQTPQTRALLSMAIFSTGVWVTGIFFFRQTLKLLLCYHGWMFE
MHGKTSNL TRIWAMCIRLLSSRHPMLYSFQTSLPKLPVPRVSATIQRYLESVRPLLDDEEYYRMELLAKE
FQDKTAPRLQKYLVLKSWWASNYVSDWEEYIYLRGRSPLMVNSNYVMDLVLIKNTDQVQARLGNIIHA
MIMYRRKLDREEIKPVMALGIVPMCSYQMERMFNTTRIPGKDTDVLQHLSDSRHVAVYHKGRFFKLWLYE
GARLLKPQDLEMQFQRILDDPSPQPGEKLAALTAGGRVEWAQARQAFFSSGKNKAALAIERAAFFVA
LDEESYSYDPEDEASLSLYGKALLHGNCYNRWFDSFTLISFKNGQLGLNAEHAWADAPIIGHLWEFVLG
TDSFHLGYTETGHCLGKPNPALAPPTRLQWDIPKQCQAVIKSSYQVAKALADDVELYCFQFLPFQGLIK
KCRTSPDAFVQIALQLAHFRDRGKFCLEYEASMRMFREGRTETVRSCTSESTAFVQAMMEGSHTKADLR
DLFQKAAKKHQMYRLAMTGAGIDRHLFCLYLVS KYLVGSSPFLAEVLSEPWRLSTSQIPQSQIRMFDPE
QHFNHLGAGGGFVPVADDGYGVSYMIAGENTIFFHISSESSSETNAQRFGNHIRKALLDIADLFQVPKA
YS

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6253_h09.zip

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM_152245

ORF Size: 2316 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_152245.3](#)

RefSeq Size: 2951 bp

RefSeq ORF: 2319 bp

Locus ID: 1375

UniProt ID: [Q92523](#)

Cytogenetics: 22q13.33

Domains: Carn_acyltransf

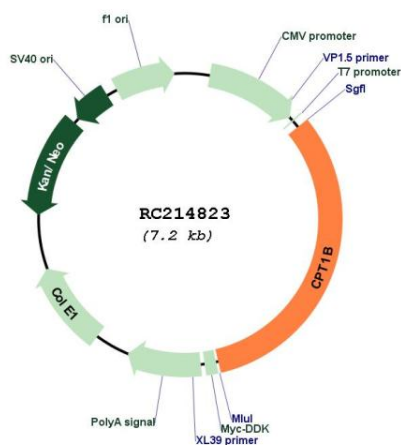
Protein Families: Druggable Genome, Transmembrane

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

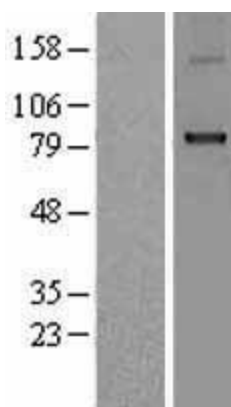
MW: 87.8 kDa

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 RC214823



Western blot validation of overexpression lysate (Cat# [LY418031]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC217297] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).