

## Product datasheet for **MG216278**

### **Cpt2 (NM\_009949) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Cpt2 (NM_009949) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cpt2
Synonyms:	A1323697; CPTII
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG216278 representing NM\_009949  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGATGCCCGCCTGCTGTTGCGTGACTGGCCCCGGTGCCCTCGCTTGTCTGGGAGCCCCTAGTCGGC  
 CCTTAAGTGTCTCGGGGCCCGAGTATCTGCAGCACAGCATCGTACCCACCATGCACTACCAGGA  
 CAGCCTGCCAGGCTGCCTATCCCTAAACTTGAAGACACCATGAAGAGATACCTCAGTGCACAGAAGCCT  
 CTCTTGAATGACAGCCAGTTTCAGGAAGACAGAAGTGTGTGAAGGATTTTGAACGGCATTGGGAAGG  
 AGCTGCATGCGCACCTGCTCGCTCAGGATAAACAGAATAAGCACACCAGCTACATCTCAGGCCCTGGTT  
 TGATATGTATTTAACTGCTCGAGACTCTGTCGTTTTAACTTTAATCCATTCATGGCATTCAATCCGGAC  
 CCGAAGTCTGAGTATAATGACCAGCTCACCAGGGCCACCAACTTGACTGTTTCTGCAGTGGGTTTCTGA  
 AGACACTTCGGGCTGGCCTTCTAGAGCCAGAAGTGTCCACTTGAACCCTGCCAGAAGTGACACAGATGC  
 CTTCAAAGACTCATCCGCTTTGTTCTTCTCTCTCTCTGGTATGGAGCCTACCTGGTCAATGCATAT  
 CCCTGGATATGTCCCAATATTTTCGGCTTTTCAATCAACTCGTATACCCAAACCCAGTCGTGATGAAC  
 TCTTTACTGATACCAAGGCTAGACACCTCCTGGTCCCTAAGAAAAGGACATTTCTATGTCTTTGATGTCT  
 CGATCAAGATGGGAACATTGTGAATCCCTCAGAAATCCAGGCACATCTAAAGTACATTCTCTCAGACAGC  
 AGCCCTGTGCCGAGTTTCCCCTGGCTTATTTGACCAGTGAGAACCAGAGATGTCTGGGCAGAGCTCAGAC  
 AGAAGTTGATTTCATGGTGGCAATGAGGAAACCCCTGAGGAAAGTGGACTCTGCTGTCTTCTGCCTCTGCTT  
 AGATGACTTCCCGATGAAGGATCTTGTTCACCTGTGCACACCATGCTGCACGGTGACGGCACGAACCCG  
 TGGTTTGATAAGTCCTTTAACCTCATTGTAGCCAAAGATGGCACTGCTGCAGTCCACTTCGAGCATGCGT  
 GGGGGGATGGTGTAGCAGTCCTTAGGTTTTCAATGAAGTGTTCAGAGACAGCACTCAGACCCCTGCCAT  
 TGCTCCCCAGAGCCAGCCGGCCGCCACCGACTCCTCCGTGTCTGTGCAGAAGCTCAGTTTTAAGTCAGC  
 AGTGCTCTAAAGGCTGGCGTCACCGCTGCTAAGGAGAAGTTTGATGCCACCATGAAAACCCCTCACCATTG  
 ACGCCATTGATTTTCAGAGAGGTGGCAAGGAATCTTGAAGAAGAAGAAGCTGAGCCCTGATGCAGTGGC  
 CCAGCTGGCCTTCCAGATGGCTTCTGCGACAGTATGGCCAGACAGTGGCTACCTATGAATCCTGCAGC  
 ACTGCAGCCTTCAAACACGGCCGCACAGAGACTATTCGCCAGCTTCCATCTTTACTAAGAGATGCTCCG  
 AGGCATTTGTGAGGGAGCCCTCCAAGCACAGTGTGGGCGAGCTTCAGCATATGATGGCTGAGTGTCCAA  
 ATACCATGGCCAGCTGACCAAAGAAGCAGCGATGGCCAGGGCTTTGACCGACACTTGTGCTCTACGG  
 TATCTGGCAGCAGCCAGAGGGTCCACCCTGCTGAGCTCTATCAGGACCCTGCATACCAGCGGATAAACC  
 ACAACATCCTGTCCACCAGCACTCTGAGCAGCCAGCAGTGGCTCGGTGGCTTTGCCCTGTGGTCCC  
 TGATGGCTTTGGCATTGCGTATGCTGTTACGATGACTGGATAGGCTGCAATGTCTCTCTACTCAGGA  
 CGCAATGCCCGAGAGTTTCTCCACTGTGTCCAGAAGTGTGGAAAGACATGTTTCGATGCCCTCGAAGGCA  
 AAGCCATCAAACT

**ACGCGT**ACGCGGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG216278 representing NM\_009949  
 Red=Cloning site Green=Tags(s)

MMPRLLLRDWPRCPSLVLGAPSRPLSAVSGPAEYLQHSIVPTMHYQDSLPRLPPIKLEDTMKRYLSAQKP  
 LLNDSQFRKTEVLCKDFENGIGKELHAHLLAQDKQNKHTSYISGPWFDMYLTARDSVVLNFPFMAFNPD  
 PKSEYNDQLTRATNLTVSAVRFLKTLRAGLLEPEVFHLNPARSDTDAFKRLIRFVPSLWYGYLVNAY  
 PLDMSQYFRLFNSTRIPKPSRDELFTDTKARHLLVLRKGFYVFDVLDQDGNIVNPSEIQAHLKYLSDS  
 SPVPEFPLAYLTSNRDVAELRQKLIHGGNEETLRKVDSAVFCCLDDFPMKDLVHLSHTMLHGDGTRN  
 WFDKSFNLIIVAKDGTAAVHFEHAWGDGVAVLRFNEVFRDSTQTPAIAPQSQPAATDSSVSVQKLSFKLS  
 SALKAGVTAAKEKFDATMKTLTIDAIQFQRGGKEFLKKKKLSPDAVAQLAFQMAFLRQYQQTVAYESCS  
 TAAFKHGRTEIRPASIFTKRCSEAFVREPSKHSVGGELQHMAECSKYHGQLTKEAMGGQGFDRHLFALR  
 YLAAARGVTLPELYQDPAYQRINHNILSTSTLSSPAVSLGGFAPVVPDGFGIAYAVHDDWIGCNVSSYSG  
 RNAREFLHCVQKCLEDMFDALEGKAIKT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

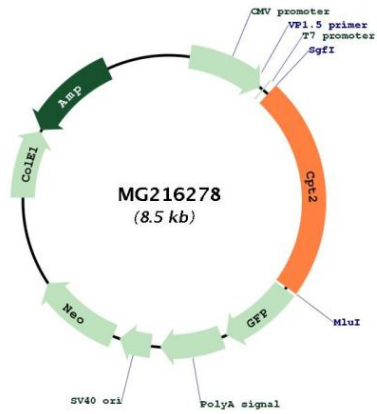


ACCN: NM\_009949

ORF Size: 1974 bp

<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_009949.2</a> , <a href="#">NP_034079.2</a>
<b>RefSeq Size:</b>	2366 bp
<b>RefSeq ORF:</b>	1977 bp
<b>Locus ID:</b>	12896
<b>UniProt ID:</b>	<a href="#">P52825</a>
<b>Cytogenetics:</b>	4 50.18 cM
<b>Gene Summary:</b>	Involved in the intramitochondrial synthesis of acylcarnitines from accumulated acyl-CoA metabolites. Reconverts acylcarnitines back into the respective acyl-CoA esters that can then undergo beta-oxidation, an essential step for the mitochondrial uptake of long-chain fatty acids and their subsequent beta-oxidation in the mitochondrion. Active with medium (C8-C12) and long-chain (C14-C18) acyl-CoA esters.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG216278