

## Product datasheet for **RC207888**

### CROT (NM\_021151) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CROT (NM_021151) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CROT
Synonyms:	COT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC207888 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGAAAAATCAATTGGCTAAATCAACTGAAGAACGAACATTTTCAGTACCAGGATTCTCTCCATCACTGCTG  
 CTGTTCCCTTCACTTGAAGAATCATTAAAAAATACCTTGAATCAGTGAAACCATTGCAAAATCAAGAAGA  
 ATATAAGAAAACCTGAAGAATAGTTCAAAAAATTTCAAAGTGGGATTGGAGAAAAATTGCACCAGAAATTG  
 CTTGAAAGAGCAAAAAGAAAAAGAAATTGGCTGGAAGAGTGGTGGCTGAATGTTGCCTATCTGGATGTT  
 GTATACCATCACAAATGAATGTCAACTTTCGCGGTCTGCAGCTCATTGAACTACTGGCCTCCAAA  
 GGAAGGGACTCAATTAGAAAGAGGAAGTATAACTCTTGGCATACTTGAACACTACTGGCAGCTATTAAGA  
 AAAGAAAAAGTGCCTGTTATAAAGTTGAAATACTCCTAGATATGAATCAATCCGAATGCTATTTT  
 CTACCTGCAAGGTTCCAGGAATTACTAGAGACTCCATTATGAATTATTTTAGGACTGAGAGTGAAGGGCG  
 TTCCCAAACACATTGTAGTGTGTGCGAGGCCGAGCTTTTGTCTTGTATGAATACATGAAGGATGT  
 TTGGTCACCCCGCCAGAGCTTCTCAGACAACCTGACATATATCCACAAGAAGTGCCATAGTGAACCTGATG  
 GACCTGGGATTGCAGCATTAACTAGTGAGGAGCGAACTCGATGGGCTAAGGCACGAGAATATCTGATTGG  
 TCTTGATCCAGAGAACTTGGCTTGTAGAAAAATTCAGAGTAGTTTACTGGTATATCCATGGAGGAT  
 AGCAGTCCACATGTAACACCAGAGGATTATTCTGAGATTATTGCAGCCATCCTTATTGGAGATCCAACAG  
 TACGCTGGGGTGACAAATCCTATAACTTGTATTTCTTTCTAATGGAGTATTTGGCTGTAATTGTGATCA  
 TGCTCCTTTTGTGCAATGATTATGGTGAACATCAGTTATTATGTGGATGAGAAAAATTTTCAGAATGAA  
 GGAAGATGGAAGGTTCCAGAGAAGTACGAGATATACCACTTCCAGAAGAGCTCATTTCATTGTGGATG  
 AGAAAGTTTTAAATGACATCAACCAAGCTAAAGGCCAGTATCTCAGGGAGGCATCTGACAGATTGC  
 GGCTTATGCCTTTACATCTTTTGGCAAAAAGCTAACCAAGAACAAGATGCTTACCCTGGATACGTTTATT  
 CAGCTTGCACCTCAGCTGGCCTATTACAGACTTATGGACACCCTGGTTGTTGCTATGAAACAGCTATGA  
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 AATAAAATGATGAAAGATTGTTCCAGCTGGAAAAGGATTTGATCGTCACCTTTTAGGTCTTACTCATAG  
 CAAAAGAGGAAGTCTTCTGTTCCAGAACTCTTACGGACCCACTTTTTCCAAAAGCGGAGGAGGTGG  
 AAATTTTGTCTCTCAACAAGTCTGGTTGGCTATTTACGAGTCCAGGGAGTGGTAGTCCCATGGTACAC  
 AATGGTTATGGATTTTTCTACCATATCAGAGATGACAGGTTTGTGTGGCCTGTTACGCCTGAAATCCT  
 GTCCCGAGACTGATGCGGAAAAGCTAGTTCAGCTGACTTTTTGTGCTTTTTCATGATATGATACAGCTGAT  
 GAACTCTACTCATCTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC207888 protein sequence  
 Red=Cloning site Green=Tags(s)

MENQLAKSTEERTFQYQDSLPLPVPSPLEESLKKYLESVKPFANQEEYKKTEEIVQKFQSGIGELHQKL  
 LERAKGKRNLWLEEWLNVAYLDVRIPSQLNVNFAAGPAAHFEHYWPPKEGTQLERGSITLWHNLNYWQLLR  
 KEKVPVHKVGNTPLDMNQFRMLFSTCKVPGITRDSIMNYFRTESEGRSPNHIVLCRGRAVFDVIHEGC  
 LVTPPELLRQLTYIHKKCHSEPDGPGIAALTSEERTRWAKAREYLIGLDPENLALLEKIQSLLVYSMED  
 SSPHVTPEDYSEIIAAILIGDPTVRWGDKSYNLISFSNGVFGCNCDHAPFDAMIMVNI SYVVDEKIFQNE  
 GRWKGSEKVRDIPLPEELIFIVDEKVLNDINQAKAQYLREASDLQIAAYAFTSFGKKLTKNMLHPDFTFI  
 QLALQLAYYRLHGHPGCCYETAMTRHFYHGRTE TMRSC TVEAVRWCQSMQDPSVNL RERQKMLQAFKHK  
 NKMMKDCSAGKGFDRHLLGLLLIAKEEGLPVPELFTDPLFSKSGGGNFVLSLTVGYLRVQGVVPMVH  
 NGYGFFYHIRDDRFVACSAWKSCEPETADEKLVQLTFCAFHDMIQLMNSTHL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mk6022\\_c10.zip](https://cdn.origene.com/chromatograms/mk6022_c10.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_021151

ORF Size: 1836 bp

OTI Disclaimer: 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 [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_021151.4](#)

**RefSeq Size:** 3258 bp

**RefSeq ORF:** 1839 bp

**Locus ID:** 54677

**UniProt ID:** [Q9UKG9](#)

**Cytogenetics:** 7q21.12

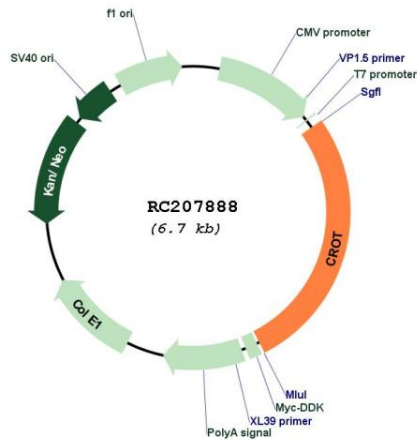
**Domains:** Carn\_acyltransf

**Protein Families:** Druggable Genome

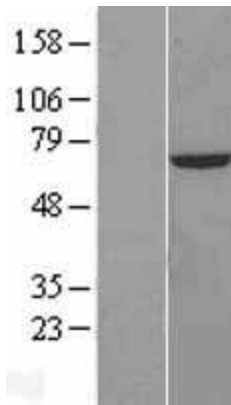
**MW:** 70.2 kDa

**Gene Summary:** This gene encodes a member of the carnitine/choline acetyltransferase family. The encoded protein converts 4,8-dimethylnonanoyl-CoA to its corresponding carnitine ester. This transesterification occurs in the peroxisome and is necessary for transport of medium- and long- chain acyl-CoA molecules out of the peroxisome to the cytosol and mitochondria. The protein thus plays a role in lipid metabolism and fatty acid beta-oxidation. Alternatively spliced transcript variants have been described.[provided by RefSeq, Jan 2009]

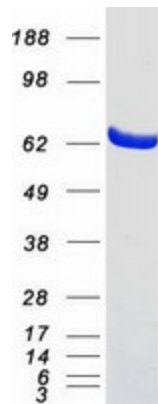
Product images:



Circular map for RC207888



Western blot validation of overexpression lysate (Cat# [LY412059]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207888 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CROT protein (Cat# [TP307888]). The protein was produced from HEK293T cells transfected with CROT cDNA clone (Cat# RC207888) using MegaTran 2.0 (Cat# [TT210002]).