

## Product datasheet for **SC322598**

### CROT (NM\_021151) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CROT (NM_021151) Human Untagged Clone
Tag:	Tag Free
Symbol:	CROT
Synonyms:	COT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

#### Fully Sequenced ORF:

>OriGene sequence for SC322598  
 GGGAGCGAGCCGGTGCTGCTGTCAGGCTGAGGCTGCGGCAGAGGCGCGGAGGCGCGGGCGG  
 TGAGGACGGACAGTCACCGACTTAGTCCAGTTCCTGTGATCTCAAACAATTGTTGCAG  
 CAGGCTCCTGGCAGTCTCAAGCAGTTCATCTTCTTGGTGTACTGGTTTCTATTGTGATT  
 TTATCATGGAAAAATCAATTGGCTAAATCAACTGAAGAACGAACATTTTCAGTACCAGGATT  
 CTCTTCCATCACTGCCTGTTCTTCACTTGAAGAATCATTAAAAAATACCTTGAATCAG  
 TGAAACCATTTGCAAAATCAAGAAGAATATAAGAAAAGTGAAGAAATAGTTCAAAAATTTT  
 AAAGTGGGATTGGAGAAAAATTGCACCAGAAATGCTTGAAGAGCAAAAGGAAAAAGAA  
 ATTGGCTGGAAGAGTGGTGGCTGAATGTTGCCTATCTGGATGTTTCGTATACCATCACAAT  
 TGAATGTCAACTTTGCGGGTCTGCAGCTCATTGTAACACTACTGGCCTCCAAAGGAAG  
 GGACTCAATTAGAAAGAGGAAGTATAACTCTTGGCATAAATTGAACTACTGGCAGCTAT  
 TAAGAAAAGAAAAAGTGCCTGTTTCAATAAAGTTGGAAATACTCCTCTAGATATGAATCAAT  
 TCCGAATGCTATTTTCTACCTGCAAGGTTCCAGGAATTAAGACTCCATTATGAATT  
 ATTTTAGGACTGAGAGTGAAGGGCGTTCCTCCAAACACATTGTAGTGCTGTGTCGAGGCC  
 GAGCTTTTGTCTTTGATGTAATACATGAAGGATGTTTGGTCAACCCGCCAGAGCTTCTCA  
 GACAACTGACATATCCACAAGAAGTGCATAGTGAACCTGATGGACCTGGGATTGCAG  
 CATTAACTAGTGAGGAGCGAACTCGATGGGCTAAGGCACGAGAATATCTGATTGGTCTTG  
 ATCCAGAGAAGTGGCTTTGTTAGAAAAAATTCAGAGTAGTTTACTGGTATATTTCCATGG  
 AGGATAGCAGTCCACATGTAACACCAGAGGATTATTCTGAGATTATTGCAGCCATCCTTA  
 TTGGAGATCCAACAGTAGCTGGGGTGACAAATCCTATAAATTGATTTTCTTTTCTAATG  
 GAGTATTTGGCTGTAATTGTGATCATGCTCCTTTTGTGCAATGATTATGGTGAACATCA  
 GTTATTATGTGGATGAGAAAATTTTTCAGAATGAAGGAAGATGGAAGGGTTCAGAGAAGG  
 TACGAGATATACCACTTCCAGAAGAGCTCATTTCATTGTGGATGAGAAAGTTTTAAATG  
 ACATCAACCAAGCTAAAGCCAGTATCTCAGGGAGGCATCTGATCTACAGATTGCGGCTT  
 ATGCCCTTACATCTTTTGGCAAAAAGCTAACCAAGAACAAGATGCTTCACCCGGATACGT  
 TTATTCAGCTTGCCTTACAGCTGGCCTATTACAGACTTCATGGACACCCTGGTTGTGCT  
 ATGAAACAGCTATGACAAGACATTTTTATCATGGCCGTACAGAGACTATGCGATCATGCA



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CAGTTGAAGCAGTGAGGTGGTGCCAGTCCATGCAGGATCCTTCTGTCAATCTTCGTGAGC  
 GGCAGCAAAAAGATGTTACAAGCTTTTGCAAAGCATAATAAAATGATGAAAGATTGTTGAG  
 CTGGAAAAGGATTTGATCGTCACCTTTTAGGTCTTACTCATAGCAAAAGAGGAAGGTC  
 TTCCTGTTCCAGAAGCTTTACGGACCCACTTTTTCCAAAAGCGGAGGAGGTGGAATTT  
 TTGTTCTCTCAACAAGTCTGGTTGGCTATTTACGAGTCCAGGGAGTGGTAGTCCCATGG  
 TACACAATGGTTATGGATTTTTCTACCATATCAGAGATGACAGGTTTGTGTGGCCTGTT  
 CAGCCTGGAAATCCTGTCCCAGACTGATGCGGAAAAGCTAGTTCAGCTGACTTTTTGTG  
 CTTTTCATGATATGATACAGCTGATGAACTCTACTCATCTTTAGAGATGAATCATCTATT  
 AAGCACTTACCAAAACATATCATTAAACTGAGTCTGGGAGTGGTGGTAAATATGAGAT  
 GGAAGGAATGTTGACTTGTAAACATTCCTTTAAACAAGTAAAGAAAAGTGTAAATGTA  
 GAAATTAGTAGAATCATGCTCTCTAAATTTATTCTGCCATAGAAGGTAGAAATATTTTTA  
 AGCTCCTCTGATGCAGCAGCAATGCAAATTATGACATAGTGAATATAGAAGTATGCAGTA  
 TTTAAGCCTCAACAATCCAAATCTACAACTTTAAACAATGCAAGTCTTACTCTAATTTTT  
 AAGTATTTTTGTTGGTACTTACATGGGTATAAATCCTCTCTCTGGACATCAATGTAGAG  
 TCCATCTTTCAAGCACTTAATTTTTTTAGCTGCCAAAGGGTATGAATTACATTATTGTA  
 TGCTAATTTCCCTGAAATCAATGCCTTCTATGTTACCACAGGGATACAAGCCTGTTATG  
 TTTGATGGGAAAGACCACTACAATCTAATGGTATCTAAAATAACTTTTTTTGGGCTGGGT  
 GCAGTGGCTCATGCCTATAATCTTAGCACTTTGGGAGGCCAAGGTAGGAGGATTGCTTGA  
 AGCTAGGAGTTTGGAGCCAGCCTGGGCAACAGGGTAAGGTCTGTCTCTACAAGTCAAA  
 AACTTAGCCGGGTATGGTGGTGCATGTGTGCCTGTAGTCCAAGCTACTTGAAGGCTGAGA  
 CAGGAGGATCGGTTGAGCCAGGAGGTTGTGGCTGCAGTGCAGTGTGATGTGCCCTTATG  
 CTATAGCCTGGCAAGAGCGTGAGACCCGTCTCAAAGAAGAAAAAAGAGAAAAATAAC  
 TCTTTTGAACAAACAGACAAATTAGCTAGTAGTATGGAGATGTATACCCTCTATTACACA  
 CATAAAACCGTAACAAAATTCATTGTGGTATTATAATTAGTTTTGTGAATAGAAAAAT  
 AAAGCACTTATGTTTAAATTTGTACAGTACTTTTAAAGGATTAATGTTGAATCACATT  
 GTCAGAATTTTTCTCCTCGTGTCAATTTTGTAGTTTTTACTCTCAAAAAATGAAAT  
 TCTCAAAATTATAGCTTTTTGTTTTGTTGAATAAATGATTCTCCTGTTAAAAAAA  
 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_021151

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:**

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_021151.2](#), [NP\\_066974.2](#)

RefSeq Size: 3211 bp

RefSeq ORF: 1839 bp

Locus ID: 54677

UniProt ID: [Q9UKG9](#)

Cytogenetics: 7q21.12

Domains: Carn\_acyltransf

Protein Families: Druggable Genome

**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]  
Transcript Variant: This variant (2) lacks an alternate in-frame exon in the 5' coding region compared to variant 1. The resulting isoform (2) is shorter but has the identical N- and C-termini compared to isoform 1.