

## Product datasheet for **SC127154**

### **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:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC127154 sequence for NM\_021151 edited (data generated by NextGen Sequencing)

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ATGAAAAATCAATTGGCTAAATCAACTGAAGAACGAACATTTTCAGTACCAGGATTCTCTT
CCATCACTGCCTGTTCCCTTCACTTGAAGAATCATTAAAAAATACCTTGAATCAGTGAAA
CCATTTGCAAATCAAGAAGAATAAAGAAAACCTGAAGAATAGTTCAAAAATTTCAAAGT
GGGATTGGAGAAAAATTGCACCAGAAATTGCTTGAAAGAGCAAAAAGGAAAAAGAAATTGG
CTGGAAGAGTGGTGGCTGAATGTTGCCTATCTGGATGTTTCGTATACCATCACAATTGAAT
GTCAACTTTGCGGGTCTGCAGCTCATTGTTGAACACTACTGGCCTCCAAAGGAAGGGACT
CAATTAGAAAAGAGGAAGTATAACTCTTTGGCATAAATTGAACTACTGGCAGCTATTAAGA
AAAGAAAAAGTGCCTGTTTCATAAAGTTGAAATACTCCTCTAGATATGAATCAATTCCGA
ATGCTATTTTCTACCTGCAAGGTTCCAGGAATTACTAGAGACTCCATTATGAATTATTTT
AGGACTGAGAGTGAAGGGCGTCCCAAACACATTGTAGTGTGTGCGAGGCCGAGCT
TTTGTCTTTGATGAATACATGAAGGATGTTTGGTCACCCCGCCAGAGCTTCTCAGACAA
CTGACATATATCCACAAGAAGTCCATAGTGAACCTGATGGACCTGGGATTGCAGCATT
ACTAGTGAGGAGCGAACTCGATGGGCTAAGGCACGAGAATATCTGATTGGTCTTGATCCA
GAGAACTTGGCTTTGTTAGAAAAAATTCAGAGTAGTTTACTGGTATATCCATGGAGGAT
AGCAGTCCACATGTAACACCAGAGGATTATTCTGAGATTATTGCAGCCATCCTTATTGGA
GATCCAACAGTACGCTGGGGTGACAAATCCTATAAATTGATTTTCTTTTCTAATGGAGTA
TTTGGCTGTAATTGTGATCATGCTCCTTTTGTGCAATGATTATGGTGAACATCAGTTAT
TATGTGGATGAGAAAAATTTTTCAGAATGAAGGAAGATGGAAGGGTTTCAGAGAAGGTACGA
GATATACCACTTCCAGAAGAGCTCATTTCATTGTGGATGAGAAAGTTTTAAATGACATC
AACCAAGCTAAAGCCAGTATCTCAGGGAGGCATCTGATCTACAGATTGCGGCTTATGCC
TTTACATCTTTTGGCAAAAAGCTAACCAAGAACAAGATGCTTCACCCGGATACGTTTATT
CAGCTTGCACTTCAGCTGGCCTATTACAGACTTCATGGACACCCTGGTTGTTGCTATGAA
ACAGCTATGACAAGACATTTTTATCATGGCCGTACAGAGACTATGCGATCATGCACAGTT
GAAGCAGTGAGGTGGTGCAGTCCATGCAGGATCCTTCTGTCAATCTTCGTGAGCGGCAG
CAAAAGATGTTACAAGCTTTTGCAAAGCATAATAAAATGATGAAAGATTGTTTCAGCTGGA
AAAGGATTTGATCGTCACCTTTTAGGTCTTACTCATAGCAAAAAGGAAAGGTTCTTCT
GTTCCAGAACTTTTACGGACCCACTTTTTTCCAAAAGCGGAGGAGGTGGAAATTTTGT
CTCTCAACAAGTCTGGTTGGCTATTTACGAGTCCAGGGAGTGGTAGTTCCCATGGTACAC
AATGGTTATGGATTTTTCTACCATATCAGAGATGACAGGTTTGTGTGGCCTGTTTCAGCC
TGGAAATCCTGTCCCAGACTGATGCGGAAAAGCTAGTTCAGCTGACTTTTTGTGCTTTT
CATGATATGATACAGCTGATGAACCTACTCATCTTTAG
    
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Clone variation with respect to NM\_021151.3

**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_021151 unedited
GGATTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCGCGGGCGGT
GAGGACGGACAGTCAACGACTTAGTCCAGTTCCTGTGATCTCAAAACAATTGTTGCAGC
AGGCTCCTGGCAGTCTCAAGCAGTTCATCTTCTTGGTGTACTGGTTTCTATTGTGATTT
TATCATGGAAAAATCAATTGGCTAAATCAACTGAAGAACGAACATTTTCAGTACCAGGATTC
TCTTCCATCACTGCCTGTTCCCTTCACTTGAAGAATCATTAAAAAATACCTTGAATCAGT
GAAACCATTTGCAAATCAAGAAGAATAAAGAAAACCTGAAGAATAGTTCAAAAATTTCA
AAGTGGGATTGGAGAAAAATTGCACCAGAAATTGCTTGAAAGAGCAAAAAGGAAAAAGAAA
TTGGCTGGAAGAGTGGTGGCTGAATGTTGCCTATCTGGATGTTTCGTATACCATCACAATT
GAATGTCAACTTTGCGGGTCTGCAGCTCATTGTTGAACACTACTGGCCTCCAAAGGAAGG
GACTCAATTAGAAAAGAGGAAGTATAACTCTTTGGCATAAATTGAACTACTGGCAGCTATT
AAGAAAAGAAAAAGTGCCTGTTTCATAAAGTTGAAATACTCCTCTAGATATGAATCAATT
CCGAATGCTATTTTCTACCTGCAAGGTTCCAGGAATTACTAGAGACTCCATTATGAATTA
TTTTAGGACTGAGAAGTGAAGGGCTTCCANACCACATTTGTAGTGTGTGTCAGCCCGA
GCTTTTGTGTTGATGAATACATGAAGGATGTTTGGTCACCCCGCCAGAGCTTCTCAGAC
CACTGACATATATCCACAAGAAATGCCATAATGAACC
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_021151 unedited CGCAATCTATAGTCGAGTTTTTTTTTTTTTTTTTTTCTTCTTTGAGACAGGGTCTCACGCT CTTGCCAGGCTATAGCATAAGGGCACATCACAGCTCACTGCAGCCACAACCTCCTGGGC TCAACCGATCCTCCTGTCTCAGCCTTCAAGTAGCTTGGACTACAGGCACACATGCACCAC CATACCCGGCTAAGTTTTTGATCTTGTAGAGACAGGACCTTACCCTGTTGCCAGGCTGG TCTCAAACCTCCTAGCTTCAAGCAATCCTCCTACCTTGGCCTCCCAAAGTGCTAAGATTAT AGGCATGAGCCACTGCACCCAGCCAAAAAAGTTATTTTAGATCACCATTAGATTGTAGT GGTCTTTCCCATCAAACATAACAGGCTTGTATCCCTGTGGTGAACATAGAAGGCATTGAT TTCAGGGAAATTAGCATACAATAATGTAATTCATACCCTTTGGCAGCTAAAAAATTAA GTGCTTGAAGATGGACTCTACATTGATGTCCAGAGAGAGGATTATAACCCATGTAAGT ACCAACAAAAATACTTAAAAATTAGAGTAAGACTTGCATTGCTAAAGTTTGTAATTTGG ATTGTTGAGGCCAATAACTGCATAGCTCTATATCCACTATGCCATAATTTGCATTGCTGC CGCATCAAAGAACTTAAAAATTTTCTACCTTCTTATGGCACAATAATTTAAAGAGCAT GCATCTACCAACTCCACATTAATAAAGCTCTTAAACTTGTTAAGGAAGTTAACAGTCA ACATTCCTTCCATCTCAATACCACTCCCTCCCAACCCTTAATTACATGATTTCTCTGC GCACCGCCATAAAAAACATCCTCCAAAAAAGTAAAGCCCTTCCCGTTACATCCTGAAT ACCACAAATGCCTAAACATCTTCCCAAATCCGCGCACGTACCCACTCAAAGGCCAACAA TCCTCTTTGGTGGTGCAAAATCT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_021151
<b>Insert Size:</b>	2740 bp
<b>OTI Disclaimer:</b>	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).
<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_021151.2</a> , <a href="#">NP_066974.2</a>
<b>RefSeq Size:</b>	3211 bp
<b>RefSeq ORF:</b>	1839 bp
<b>Locus ID:</b>	54677
<b>UniProt ID:</b>	<a href="#">Q9UKG9</a>
<b>Cytogenetics:</b>	7q21.12
<b>Domains:</b>	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.