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Product datasheet for SC124528

CRAT (NM_144782) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CRAT (NM_144782) Human Untagged Clone
Tag:	Tag Free
Symbol:	CRAT
Synonyms:	carnitine acetyltransferase; CAT1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

Fully Sequenced ORF:

>NCBI ORF sequence for NM_144782, the custom clone sequence may differ by one or more nucleotides

ATGTTAGCCTTCGCTGCCAGGACCGTGGTGAAGCCTCTGGGCTTCCTGAAGCCCTTCTCCTTGATGAAGG
CTTCCAGCCGCTTCAAGGCACACCAGGATGCACTGCCACGGCTGCCCGTGCCCCCTCTCCAGCAGTCCCT
GGACCACTACCTGAAGGCGCTGCAGCCCATCGTGAGTGAGGAGGAGTGGGCCCACACCAAGCAGCTGGTG
GATGAGTTTCAGGCCTCAGGAGGTGTAGGGGAGCGCCTGCAGAAGGGGCTGGAGCGTCGGGCCAGGAAGA
CGGAGAACTGGCTGTCTGAGTGGTGGCTCAAGACCGCCTACCTCCAGTACCGCCAGCCTGTGGTCATCTA
CTCGAGCCCAGGCGTGATGCTACCCAAGCAGGACTTCGTGGACCTGCAGGGTCAGCTCCGATTTGCTGCC
AAACTCATTGAGGGTGTGTTGGATTTCAAGGTCATGATTGACAACGAGACCCTGCCCGTGGAGTACCTGG
GGGGGAAGCCACTGTGCATGAACCAGTACTATCAGATCTTGTCCTCCTGCCGAGTGCCGGGCCCCAAGCA
GGACACAGTCAGCAACTTCAGCAAGACCAAGAAGCCTCCCACGCACATCACCGTGGTACACAACTACCAG
TTTTTTGAGCTGGATGTGTACCACAGTGACGGGACACCCCTCACTGCGGATCAGATCTTTGTGCAGCTGG
AGAAGATCTGGAACTCATCCCTACAGACCAACAAGGAGCCTGTGGGCATCCTCACCTCCAACCACCGCAA
CTCCTGGGCCAAGGCATACAACACCCTCATCAAAGACAAGGTGAACCGGGATTCCGTGCGCTCCATCCAG
AAGAAACCCGAGCTTGTGCGGTCTCCCATGGTGCCCCTGCCCATGCCCAAGAAGCTGCGGTTCAACATCA
CCCCCGAGATCAAGAGCGACATCGAGAAGGCCAAGCAGAACCTCAGCATCATGATCCAGGACCTGGATAT
CACCGTGATGGTGTTCCACCATTTTGGAAAAGACTTCCCCAAGTCGGAGAAGCTAAGCCCAGATGCCTTC
ATCCAGATGGCTTTGCAGCTGGCCTACTACAGGATCTACGGACAGGCATGTGCCACCTATGAAAGTGCCT
CCCTGCGCATGTTTCACCTGGGCCGCACCGACACCATCCGCTCGGCTTCCATGGACTCACTCACCTTTGT
CAAGGCCATGGATGACTCCAGCGTCACGGAGCACCAGAAGGTGGAGCTGCTGCGGAAGGCCGTGCAGGCC
CACCGAGGCTACACCGACCGGGCCATCCGCGGGGAGGCCTTTGATCGACACCTGCTGGGCCTGAAGCTGC
AGGCCATCGAGGACCTGGTGAGCATGCCCGACATCTTCATGGACACCTCCTACGCCATCGCCATGCACTT
CCACCTCTCCACCAGCCAGGTCCCTGCCAAGACAGACTGTGTCATGTTCTTCGGGCCCGTGGTCCCCGAC
GGCTACGGTGTCTGCTATAACCCCATGGAGGCCCACATCAACTTCTCCCTGTCGGCCTACAACAGCTGCG
CGGAGACCAACGCCGCCCGCCTGGCGCATTACCTGGAGAAGGCGCTCCTGGACATGCGTGCCCTGCTGCA
GAGCCACCCCCGGGCCAAGCTCTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_144782 unedited
CAAATTTTGTATACGACTACTATAGGGCGGCCGCGAATTCGCACGAGGGCTGCCTCTACC
GGCTGGCGGCTGTAACTCAGCGACCTTGGCCCGAAGGCTCTAGCAAGGACCCACCGACCC
CAGCCGCGGCGGCGGCGGCGCGGACTTTGCCCGGTGTGTGGGGCGGAGCGGACTGCGTGT
CCGCGGACGGGCAGCGAAGATGTTAGCCTTCGCTGCCAGGACCGTGGTGAAGCCTCTGGG
CTTCCTGAAGCCCTTCTCCTTGATGAAGGCTTCCAGCCGCTTCAAGGCACACCAGGATGC
ACTGCCACGGCTGCCCGTGCCCCCTCTCCAGCAGTCCCTGGACCACTACCTGAAGGCGCT
GCAGCCCATCGTGAGTGAGGAGGAGTGGGCCCACACCAAGCAGCTGGTGGATGAGTTTCA
GGCCTCAGGAGGTGTAGGGGAGCGCCTGCAGAAGGGGCTGGAGCGTCGGGCCAGGAAGAC
GGAGAACTGGCTGTCTGAGTGGTGGCTCAAGACCGCCTACCTCCAGTACCGCCAGCCTGT
GGTCATCTACTCGAGCCCAGGCGTGATGCTACCCAAGCAGGACTTCGTGGACCTGCAGGG
TCAGCTCCGATTTGCTGCCAAACTATTGAGGGTGTGTTGGATTTCAAGGTCATGATTGAC
AACGAGACCCTGCCCGTGGAGTACCTGNGGGGGGAAGCCACTGTGCATGAACCAGTACTA
TCAGATCTTGTCCTNCTGCCGAGTGCCGGGCCCCAAGCAGGACACAGTCAGCAACTTCAG
CAAGACCAAGAAGCCTNCCACGCACATCACCGTGTACACACTACCAGTTTTTGAGCTGGA
TGTGTACACAGTGACGGGCACCCTCACTGCGNATCANATCTTTGTGCACTGGAGAAGATC
TGGACTCANCCCTACAGACACAGGNNAGCTGTGGCATNNCTACTNCAACACNGNACTNCT
GGGCCAGGGCATACACACCTCTAA

3' Read Nucleotide Sequence:

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>OriGene 3' read for NM_144782 unedited
GGAATCTATGNACCGCGCCGCATTCTANATCGAGTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTACCAACACAATTCCCCTTTTTG
ATGACCTTCCACATTAATATCATACAGCAGGGGGGGGGCAGGAACCAAACTGAGTGGAAC
CAAAGGCGGCTCCCTAGCAATGTTTTCCACAGGAACCCACCCCCAACGGAGGTGAAACCT
CACACCCTGGCCCCTCGGCCCCAAAAAATCCTGTCTCCAGGTCCTGGGAGTTTGGGAAAC
AGGGTACAAATGGGGGCCTGGTCATGGAATTGGCAAGGAATGGCCCGGGCTTAACTGGTG
AAAAAAAAAACTTTTGCCAATCTCCTGCTTTGGAGGGCTGGTTCCCTTCCCCAAAAGAAG
CCCCGGTGGAGGACCTGCCAGGGGCCCGGGCCTAAAGTCCTGGTTAACCTTTGGACTCAA
CCCCAGGTTGGGCCCTGGCAGGGGCTGGGATGACCCACGGAAGGGACTTGTGCTGGGGCC
CGCAAGCCCCCTGGAGGAAGCCGTCCCGGGCTCAATAAATTTGGGGGGACCAGGGAAAAG
GGAACCCAGGAAGAGGGAACCCAGGGGCTGAGCCCTGGGGGGGGGCCCATCCCAAGGGGG
GCTTGGCTGTGGCATTGGCAGGCCTGAATCCTAAGGGCTCAAAACTGGCCCCGGGGTGGC
TCTTCCACAGGGACCCCTGTTCCAGAACGCCCTTTCCAAGTAAAGCCCCCGCCGGCGGCG
TTTGTCTTCCCCACCTTTTTTAGCCCAAGGGAAAAATTTTTGTGGCCCCCTGGGGTTAAA
AAAAACCGTTGCCCCTGGGAACCCGGCCCAAAAAATAAAACATTTGTTTGGAAGGAACTG
GTGGGGGAAA
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Restriction Sites: NotI-NotI

ACCN: NM_144782

Insert Size: 2800 bp

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).

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_144782.1, NP_659006.1

RefSeq Size: 2558 bp

RefSeq ORF: 1635 bp

Locus ID: 1384

Cytogenetics: 9q34.11

Domains: Carn_acyltransf

Protein Families: Druggable Genome

Gene Summary: This gene encodes carnitine O-acetyltransferase, a member of the carnitine acyltransferase family and a key metabolic pathway enzyme which plays an important role in energy homeostasis and fat metabolism. This enzyme catalyzes the reversible transfer of acyl groups from an acyl-CoA thioester to carnitine and regulates the ratio of acyl-CoA/CoA. It is found in both the mitochondria and the peroxisome. Alternative splicing results in transcript variants encoding different isoforms that may localize to different subcellular compartments. [provided by RefSeq, Oct 2016]
Transcript Variant: This variant (3) lacks a segment in the coding region compared to variant 1. The translation remains in-frame, and results in an isoform (3) that lacks an internal region compared to isoform 1.