

## Product datasheet for **RC211503**

### **ACOX1 (NM\_007292) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ACOX1 (NM_007292) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACOX1
Synonyms:	ACOX; MITCH; PALMCOX; SCOX
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC211503 representing NM\_007292  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAACCCGGACCTGCGCAGGGAGCGGGATTCCGCCAGCTTCAACCCGGAGCTGCTTACACACATCCTGG  
 ACGGCAGCCCGAGAAAACCCGGCGCCGCGAGAGATCGAGAACATGATCCTGAACGACCCAGACTTCCA  
 GCATGAGGACTTGAACCTCCTCACTCGCAGCCAGCGTTATGAGGTGGCTGTCAGGAAAAGTGCCATCATG  
 GTGAAGAAGATGAGGGAGTTTGGCATCGCTGACCCTGATGAAATTATGTGGTTTAAAAAATACTATTGG  
 TCAATTTTGTGGAACCTGTGGCCCTCAATTACTCCATGTTTATTCTACCTTGCTGAATCAGGGCACCAC  
 TGCTCAGAAAGAGAAATGGCTGCTTTCATCAAAGGACTCCAGATAAATGGCACCTACGCCAGACGGAA  
 ATGGGCCACGGAACTCACCTTCGAGGCTTGAAACCACAGCCACGTATGACCCTGAAACCCAGGAGTTCA  
 TTCTCAACAGTCCTACTGTGACCTCCATTAATGGTGGCCTGGTGGGCTTGAAAAGACTTCAAATCATGC  
 AATAGTTCCTGCCCAGCTCATCACTAAGGGGAAATGCTATGGATTACATGCCTTTATCGTACCTATTCGT  
 GAAATCGGGACCCATAAGCCTTTGCCAGGAATTACCGTTGGTGACATCGGCCCAAAATTTGGTTATGATG  
 AGATAGACAATGGCTACCTCAAAATGGACAACCATCGTATTCAGAGAAAACATGCTGATGAAGTATGC  
 CCAGGTGAAGCCTGATGGCACATACGTGAAACCGCTGAGTAACAAGCTGACTTACGGGACCATGGTGTTT  
 GTCAGGTCCTTCTTGTGGGAGAAGCTGCTCGGGCTCTGTCTAAGGCGTGACCATTGCCATCCGATACA  
 GCGCTGTGAGGCACCACTGAAATCAAGCCAGGTGAACCAGAACCACAGATTTTGGATTTTCAAACCCA  
 GCAGTATAAACTTTTCCACTCCTGGCCACTGCCTATGCCTTCCAGTTTGTGGGCGCATACATGAAGGAG  
 ACCTATCACCGGATTAACGAAGGCATTGGTCAAGGGGACCTGAGTGAATGCCTGAGCTTCATGCCCTCA  
 CCGCTGGACTGAAGGCTTTCACCTCCTGGACTGCAAACACTGGCATTGAAGCATGTCGGATGGCTTGTGG  
 TGGGCATGGCTATTCTCATTGCAGTGGTCTTCAAATATTTATGTCAATTCACCCCAAGCTGTACCTTT  
 GAGGGAGAAAACACTGTCATGATGCTCCAGACGGCTAGGTTCTGATGAAAAGTTATGATCAGGTGCACT  
 CAGGAAAAGTTGGTGTGTGGCATGGTGTCTATTTGAACGACCTGCCAGTCAGCGCATCCAGCCACAGCA  
 GGTAGCAGTCTGGCCAACCATGGTGGATATCAACAGCCCCGAAAGCCTAACCGAAGCATATAAACTCCGT  
 GCAGCCAGATTAGTAGAAATTGCTGAAAAACCTTCAAAGAAGTATTACAGAAAAAGCAAGGAGG  
 TAGCTTGGAACTAACTTCTGTTGACCTTGTTCGAGCAAGTGAGGCACATTGCCACTATGTGGTAGTTAA  
 GCTCTTTTCAAAAACTCCTCAAAATTAAGATAAAGCCATTCAAGCTGTCTTAAGGAGTTTATGTCTG  
 CTGATTTCTGTATGGAATCAGTCAGAACCGGGGGATTTCCTTCAGGGGAGCATCATGACAGAGCCTC  
 AGATTACACAAGTAAACCAGCGTAAAGGAGTTACTCACTCTGATTTCGCTCAGATGCTGTTGCTTTGGT  
 TGATGCATTTGATTTTTCAGGATGTGACACTTGGCTCTGTGCTTGGCCGCTATGATGGGAATGTGTATGAA  
 AACTTGTTTGAGTGGGCTAAGAACTCCCCACTGAACAAAGCAGAGGTCCACGAATCTTACAAGCACCTGA  
 AGTCACTGCAGTCCAAGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC211503 representing NM\_007292  
Red=Cloning site Green=Tags(s)

MNPDLRRERDSASFNPPELLTHILDGSPEKTRRRREIENMILNDPDFQHEDLNFLTRSQRVEVAVRKSAIM  
 VKKMFREFGIADPDEIMWFKLLHLVNFVEPVGLNYSMFIPTLLNQGTAAQKEKWLSSKGLQIIGTYAOTE  
 MGHGTHLRGLETTATYDPETQEFILNSPTVTSIKWPGGLGKTSNHAIVLAQLITKGKCYGLHAFIVPIR  
 EIGTHKPLPGITVGDIGPKFGYDEIDNGYLKMDNHRIPRENMLMKYAQVKPDGTYYKPLSNKLTYGTMVF  
 VRSFLVGEAARALSKACTIAIRYSAVRHQSEIKPGEPEPQILDFQTQQYKLFPLLATAYAFQFVGAYMKE  
 TYHRINEGIGQGDLSELPELHALTAGLKAFTSWTANTGIEACRMACGGHGYSHCGLPNIIYVNFPTPCTF  
 EGENTVMMLQATARFLMKSVDQVHSGKLVCGMVSYLNDLPSQRIQPQVAVWPTMVDINSPELSTEAYKLR  
 AARLVEIAAKNLQKEVIHRKSKEVAVNLTSDLVRASEAHCYVVVKLFSEKLLKIQDKAIQAVLRSLCL  
 LYSLYGISQAGDFLQGSIMTEPQITQVNQRVKELLTLIRSDAVALVDAFDFQDVTLGSVLGRYDGNVYE  
 NLFWEAKNSPLNKAEVHESYKHLKSLQSKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_007292

**ORF Size:** 1980 bp

**OTI Disclaimer:** 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.

**RefSeq:** [NM\\_007292.6](#)

**RefSeq Size:** 3445 bp

**RefSeq ORF:** 1983 bp

**Locus ID:** 51

**UniProt ID:** [Q15067](#)

**Cytogenetics:** 17q25.1

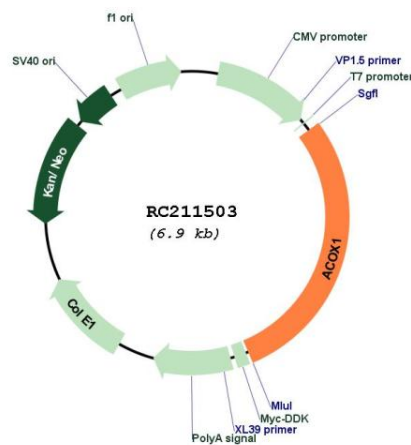
**Protein Families:** Druggable Genome

**Protein Pathways:** alpha-Linolenic acid metabolism, Biosynthesis of unsaturated fatty acids, Fatty acid metabolism, Metabolic pathways, PPAR signaling pathway

**MW:** 74.2 kDa

**Gene Summary:** The protein encoded by this gene is the first enzyme of the fatty acid beta-oxidation pathway, which catalyzes the desaturation of acyl-CoAs to 2-trans-enoyl-CoAs. It donates electrons directly to molecular oxygen, thereby producing hydrogen peroxide. Defects in this gene result in pseudoneonatal adrenoleukodystrophy, a disease that is characterized by accumulation of very long chain fatty acids. Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RC211503