

## Product datasheet for **RC230362**

### ACOX1 (NM\_001185039) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ACOX1 (NM_001185039) 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)



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**ORF Nucleotide Sequence:**

>RC230362 representing NM\_001185039  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGATCCTGAACGACCCAGACTTCCAGCATGAGGACTTGAACCTCCTCACTCGCAGCCAGCGTTATGAGG  
 TGCTGTGAGGAAAAGTGCATCATGGTGAAGAAGATGAGGGAGTTTGGCATCGCTGACCCTGATGAAAT  
 TATGTGGTTTAAAAATTTGTGCACCGAGGCGCCCTGAGCCTCTGGATCTTCACTTGGGCATGTTCTG  
 CCCACCTTGCTTACCAGGCAACTGCGGAGCAGCAGGAGCGCTTCTTCATGCCCGCTGAACTTGGAGA  
 TCATTGGCACTTATGCCAGACAGAGATGGGTCATGGAACCTCACCTTCGAGGCTTGGAAACCACAGCCAC  
 GTATGACCCTGAAACCCAGGAGTTCATTCTCAACAGTCTACTGTGACCTCCATTAATGGTGGCCTGGT  
 GGGCTTGGAAAGACTTCAAATCATGCAATAGTTCTTGCCAGCTCATCACTAAGGGGAAATGCTATGGAT  
 TACATGCCTTTATCGTACCTATTCGTGAAATCGGGACCCATAAGCCTTTGCCAGGAATTACCGTTGGTGA  
 CATCGGCCCAAATTTGGTTATGATGAGATAGACAATGGCTACCTCAAAATGGACAACCATCGTATTCCC  
 AGAGAAAACATGCTGATGAAGTATGCCAGGTGAAGCCTGATGGCACATACGTGAAACCGCTGAGTAACA  
 AGCTGACTTACGGGACCATGGTGTGGTGTGAGGTCCTTCTTGTGGGAGAAGCTGCTCGGGCTCTGTCTAA  
 GGCGTGCACCATTTGCCATCCGATACAGCGCTGTGAGGCACCAGTCTGAAATCAAGCCAGGTGAACCGAA  
 CCACAGATTTTGGATTTCAAACCCAGCAGTATAAACTCTTCCACTCCTGGCCACTGCCTATGCCTTCC  
 AGTTTGTGGGCGCATACATGAAGGAGACCTATCACCGGATTAACGAAGGCATTGGTCAAGGGGACCTGAG  
 TGAAGTGCCTGAGCTTATGCCCTCACCGCTGGACTGAAGGCTTTCACCTCCTGGACTGCAAACTGGC  
 ATTGAAGCATGTCGGATGGCTTGTGGTGGGCATGGCTATTCTCATTGCAGTGGTCTTCAAATATTTATG  
 TCAATTTACCCCAAGCTGTACCTTTGAGGGAGAAAACACTGTCATGATGCTCCAGACGGTAGGTTCTCT  
 GATGAAAAGTTATGATCAGGTGCACTCAGGAAAAGTTGGTGTGGCATGGTGTCCATTTGAACGACCTG  
 CCCAGTACGCGCATCCAGCCACAGCAGGTAGCAGTCTGGCCAACCATGGTGGATATCAACAGCCCGGAAA  
 GCCTAACCGAAGCATATAAACTCCGTGCAGCCAGATTAGTAGAAAATGCTGCAAAAAACCTTCAAAAAGA  
 AGTGATTCACAGAAAAGCAAGGAGGTAGCTTGGAACTAACTTCTGTTGACCTTGTTCGAGCAAGTGAG  
 GCACATTGCCACTATGGTGTAGTTAAGCTCTTTTCAAAAACTCCTCAAAATCAAGATAAAGCCATTC  
 AAGCTGTCTTAAGGAGTTTATGTCTGCTGTATTCTCTGTATGGAATCAGTCAGAACGCGGGGATTTCT  
 TCAGGGGAGCATCATGACAGAGCCTCAGATTACACAAGTAAACCAGCGTGTAAAGGAGTTACTACTCTG  
 ATTCGCTCAGATGCTGTTGCTTTGGTTGATGCATTTGATTTTCAGGATGTGACACTTGGCTCTGTGCTTG  
 GCCGCTATGATGGGAATGTGATGAAAACCTGTTTGTAGTGGGCTAAGAACTCCCCACTGAACAAAGCAGA  
 GGTCACGAATCTTACAAGCACCTGAAGTCACTGCAGTCCAAGCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC230362 representing NM\_001185039  
 Red=Cloning site Green=Tags(s)

MILNDPDFQHEDLNFLTRSQRVEVAVRKSAIMVKKMREFGIADPDEIMWFKNFVHRGRPEPLDLHLMFL  
 PTLHQATAEQERFMPAWNLEIIGTYAQTEMGHGTHLRLETTATYDPETQEFILNSPTVTSIKWWPG  
 GLGKTSNHAIVLAQLITGKCYGLHAFIVPIREIGTHKPLPGITVGDIGPKFGYDEIDNGYLKMDNHRIP  
 RENMLMKYAQVKPDGTYVKPLSNKLYGTMVFRSFLVGEAARALSKACTIAIRYSAVRHQSEIKPGEPE  
 PQILDFQTQQYKLFPLLATAYAFQFVGAYMKETYHRINEGIGQGDLSLPELHALTAGLKAFTSWTANTG  
 IEACRMACGGHGYSHCSGLPNIYVNFPSCTFEGENTVMMLQTARFLMKSYDQVHSGKLVCGMVSYLNDL  
 PSQRIQPQQVAVWPTMVDINSPELSTEAYKLRAARLVEIAAKNLQKEVIHRKSKEVAVNLTSDLVRASE  
 AHCHYVVVKLFSEKLLIQDKAIQAVLRSLCLLYSLYGISQNAAGDFLQGSIMTEPQITQVNQRVKELLTL  
 IRSDAVALVDAFDFQDVTLSVSLGRYDGNVYENLFEWAKNSPLNKAEVHESYKHLKSLQSKL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8036\\_c12.zip](https://cdn.origene.com/chromatograms/mk8036_c12.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001185039

**ORF Size:** 1866 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.

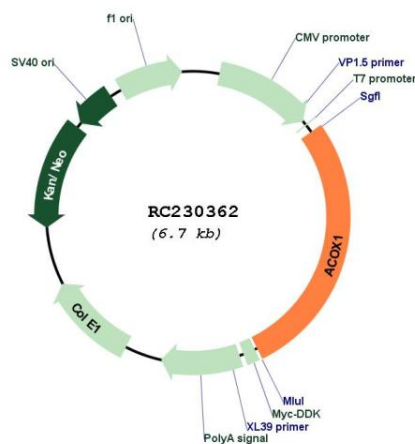
**RefSeq:** [NM\\_001185039.2](#)

**RefSeq ORF:** 1869 bp

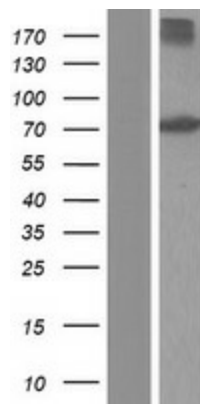
**Locus ID:** 51

**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:** 70.6 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 RC230362



Western blot validation of overexpression lysate (Cat# [LY433362]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230362 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).