

Product datasheet for **RG230362**

ACOX1 (NM_001185039) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | ACOX1 (NM_001185039) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | ACOX1 |
| Synonyms: | ACOX; MITCH; PALMCOX; SCOX |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |



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ORF Nucleotide Sequence:

>RG230362 representing NM_001185039
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGATCCTGAACGACCCAGACTTCCAGCATGAGGACTTGAACCTCCTCACTCGCAGCCAGCGTTATGAGG
 TGGCTGTCAGGAAAAGTGCATCATGGTGAAGAAGATGAGGGAGTTTGGCATCGCTGACCCTGATGAAAT
 TATGTGGTTTAAAAATTTGTGCACCGAGGCGCGCTGAGCCTCTGGATCTTCACTTGGGCATGTTCTG
 CCCACCTTGCTTACCAGGCAACTGCGGAGCAGCAGGAGCGCTTCTTCATGCCCGCTGAAACTTGGAGA
 TCATTGGCACTTATGCCAGACAGAGATGGGTCATGGAACCTCACCTTCGAGGCTTGGAAACCACAGCCAC
 GTATGACCCTGAAACCCAGGAGTTCATTCTCAACAGTCTACTGTGACCTCCATTAATGGTGGCCTGGT
 GGGCTTGGAAAGACTTCAAATCATGCAATAGTTCTTGCCAGCTCATCACTAAGGGGAAATGCTATGGAT
 TACATGCCTTTATCGTACCTATTCGTGAAATCGGGACCCATAAGCCTTTGCCAGGAATTACCGTTGGTGA
 CATCGGCCCAAATTTGGTTATGATGAGATAGACAATGGCTACCTCAAAATGGACAACCATCGTATTCCC
 AGAGAAAACATGCTGATGAAGTATGCCAGGTGAAGCCTGATGGCACATACGTGAAACCGCTGAGTAACA
 AGCTGACTTACGGGACCATGGTGTGGTGTGAGGTCCTTCTTGTGGGAGAAGCTGCTCGGGCTCTGTCTAA
 GGCGTGCACCATTTGCCATCCGATACAGCGCTGTGAGGCACCAGTCTGAAATCAAGCCAGGTGAACCGAA
 CCACAGATTTTGGATTTCAAACCCAGCAGTATAAACTCTTCCACTCCTGGCCACTGCCTATGCCTTCC
 AGTTTGTGGGCGCATACATGAAGGAGACCTATCACCGGATTAACGAAGGCATTGGTCAAGGGGACCTGAG
 TGAAGTGCCTGAGCTTATGCCCTCACCGCTGGACTGAAGGCTTTCACCTCCTGGACTGCAAACTGGC
 ATTGAAGCATGTCGGATGGCTTGTGGTGGGCATGGCTATTCTCATTGCAGTGGTCTTCAAATATTTATG
 TCAATTTACCCCAAGCTGTACCTTTGAGGGAGAAAACACTGTCATGATGCTCCAGACGGCTAGGTTCTT
 GATGAAAAGTTATGATCAGGTGCACTCAGGAAAAGTTGGTGTGGCATGGTGTCCATTTTGAACGACCTG
 CCCAGTACAGCGCATCCAGCCACAGCAGGTAGCAGTCTGGCCAACCATGGTGGATATCAACAGCCCGAAA
 GCCTAACCGAAGCATATAAACTCCGTGCAGCCAGATTAGTAGAAAATGCTGCAAAAAACCTTCAAAAAGA
 AGTGATTCACAGAAAAGCAAGGAGGTAGCTTGGAACTAACTTCTGTTGACCTTGTTCGAGCAAGTGAG
 GCACATTGCCACTATGTGGTAGTTAAGCTCTTTTCAAAAACTCCTCAAAATCAAGATAAAGCCATTC
 AAGCTGTCTTAAGGAGTTTATGTCTGCTGATTCTCTGTATGGAATCAGTCAGAACCGGGGGATTTCT
 TCAGGGGAGCATCATGACAGAGCCTCAGATTACACAAGTAAACCAGCGTGTAAAGGAGTTACTACTCTG
 ATTCGCTCAGATGCTGTTGCTTTGGTTGATGCATTTGATTTTCAGGATGTGACACTTGGCTCTGTGCTTG
 GCCGCTATGATGGGAATGTGATGAAAACCTGTTTGTAGTGGGCTAAGAACTCCCCACTGAACAAAGCAGA
 GGTCCACGAATCTTACAAGCACCTGAAGTCACTGCAGTCCAAGCTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG230362 representing NM_001185039
 Red=Cloning site Green=Tags(s)

MILNDPDFQHEDLNFLTRSQRVEAVRKSAIMVKKMREFGIADPDEIMWFKNFVHRGRPEPLDLHLGMFL
 PTLHQATAEQQERFFMPAWNLEIIGTYAQTEMGHGLRLETTATYDPETQEFILNSPTVTSIKWWPG
 GLGKTSNHAIVLAQLITKGKCYGLHAFIVPIREIGTHKPLPGITVGDIGPKFGYDEIDNGYLKMDNHRIP
 RENMLMKYAQVKPDGTYVKPLSNKLYGTMVFVRSFLVGEAARALSKACTIAIRYS AVRHQSEIKPGEPE
 PQILDFQTQQYKLFPLLATAYAFQFVGAYMKETYHRINEGIGQGDLSLPELHALTAGLKAFTSWTANTG
 IEACRMACGGHGYSHCSGLPNIYVNFPTSCFEGENTVMMLQTARFLMKSVDQVHSGKLVCGMVSYLNDL
 PSQRIQPQQVAVWPTMVDINSPELSTEAYKLRAARLVEIAAKNLQKEVIHRKSKEVAVWNLTSVDLVRASE
 AHCHYVVVKLFSEKLLKIQDKAIQAVLRSLCLLYSLYGISQNAAGDFLQGSIMTEPQITQVNQRVKELLTL
 IRSDAVALVDAFDQDVTLGSVLGRYDGNVYENLFEWAKNSPLNKAEVHESYKHLKSLQSKL

TRTRPLE - GFP Tag - V

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 Size: 7759 bp

RefSeq ORF: 1869 bp

Locus ID: 51

UniProt ID: [Q15067](#)

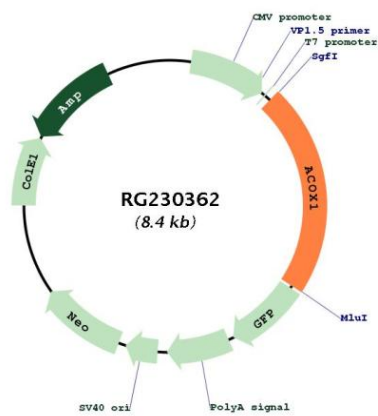
Cytogenetics: 17q25.1

Protein Families: Druggable Genome

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

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 RG230362