

Product datasheet for **RG222515**

ACOX3 (NM_003501) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACOX3 (NM_003501) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACOX3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG222515 representing NM_003501
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCATCCACTGTGGAAGGAGGCGACACAGCTCTGCTCCAGAATCCCCAGGGGGCCCTCGATGCCT
 ACCGAGCAAGAGCGTCTTCAGCTGGAAGGACGTGGCGCTGTTACGGAAGGGGAGGCAATGTCCGCTT
 TAAGAAAACCATCTTCTCAGCTCTTGAGAAATGACCCTCTTTTCGCTCGTTCCTGGAGCCGACCTGTCC
 TTGGAGAAGTATCGCGAGCTGAACCTCCTTCGATGCAAGCGGATCTTCGAGTATGACTTCCTCAGTGTCC
 AAGCAATGTTCAAGAGCCCTCTGAAGTCCCGCCTTGATTTCAGTGCCTGGGCATGTATGACTCTTCTCT
 GGCTGCCAAGTACCTCCTCCATAGCTTGGTTTTGGATCAGCAGTTTACAGTTCTGGTCTGAAAGACAT
 CTCACATATATCAAAGATCTTCAGGATGGAGATTTTGGATGTTTTGCTCTGACCGAATTAAGCCACG
 GCAGTAATACCAAGGCCATTCGCACAACGCCACTACGATCCTGCCACTGAGGAATTCATACATACATTC
 CCCTGATTTCAAGCTGCCAAGTTTTGGTTGGCAACATGGGCAAGACAGCCACTCACGGGTGGTGT
 GCTAAGCTGTGTGTGCCAGGGGACCAGTGCCATGGGCTGCATCCCTTTATCGTGACAGATCCGGGACCCGA
 AGACCTTCTTCCATGCCTGGAGTGATGGTTGGCGACATAGGAAAAAACTCGGGCAGAACGGTCTAGA
 TAATGGTTTCGCCATGTTCCACAAGGTCAGAGTTCCTCGCCAGAGCCTTCTGAACCGGATGGGAGACGTC
 ACCCCCGAGGGCACCTATGTCAGCCCCTTAAGGACGTCAGGCAGCGCTTTGGAGCGTCCCTGGGGAGCC
 TGTCTCGGGCCGGGTCTCCATCGTGAGCCTGGCCATCCTAACCTAAAGCTGGCCGTGGCCATCGCTCT
 TCGTTTCAGCCACTCGGCGTCAGTTTGGACCCACAGAGGAGGAGGAAATACCAGTGTGAGTATCCA
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 TCCTGGACCTGGTGGAGCTCCAGCGAGGACTTGCATCGGGAGACCGCAGCGCCAGACAGGCAGAGCTTGG
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 CCCTGGCAGCATAACAAGTGGCTGGTTTGTACCTGCTCCGAGAGACTTATCAAAAATTAACCAAGAGAA
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 GCCTTCGTGGAGCTCACGGTGGTCCAGAGTTCACAGCAGCAGTGCACCAGCCTTCGTTGCCGCCCTCGC
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 CTACCGAGGAGGATACTTCTCCGGTGAGCAGGCGGGAGAAGTGTGGAGAGCGCCGCTCTGGCTTTGTGT
 TCCCAGCTGAAAGACGATGCAGTTGCCCTGGTAGACGTGATCGCTCCTCCTGACTTTGTTCTGGACTCAC
 CGATTGGCAGAGCCGACGGCGAGCTCTACAAAAACCTCTGGGGCGCTGCTCCTGCAGGAAAGCAAGGTGT
 GGAGCGGGCATCCTGGTGGCCAGAGTTTTCTGTGAACAAACCTGTCATAGGAAGTCTGAAATCGAAGCTC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

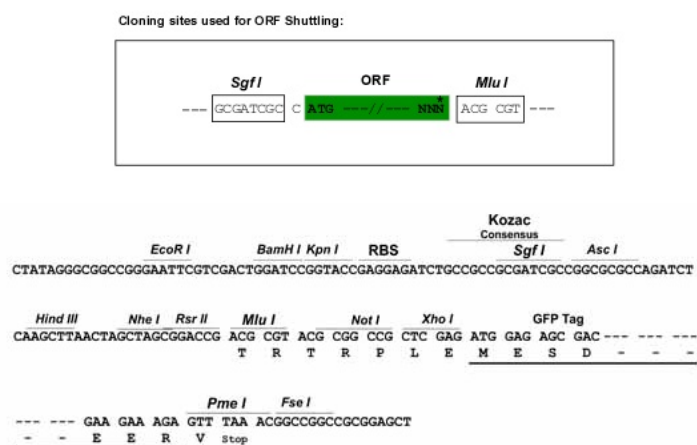
Protein Sequence: >RG222515 representing NM_003501
 Red=Cloning site Green=Tags(s)

MASTVEGGDTALLPEFPRGPLDAYRARASFSWKDVALFTEGEGNVRFKKIFSALENDPLFARSPGADLS
 LEKYRELNFLRCKRIFEYDFLSVEAMFKSPLKVPALIQCLGMYDSSLAAYKYLHLSLVFGSAVYSSGSRH
 LTYIQKIFRMEIFGCFALTELSHGSNTKAIRTTAHYDPATEEFIIHSPDFAAKFWVGNMGKTATHAVVF
 AKLCVPGDQCHGLHPFIVQIRDPKTLTPMPGVMVGDIGKKLGQNGLDNGFAMFHKVRVPRQSLNRMGDV
 TPEGTYVSPFKDVRQRFASLSSLSSGRVSIIVSLAILNLKLAVALRFSATRRQFGPTEEEEIPVLEY
 MQQWRLLPYLAAYVGLDHFSSKSLFLDLVELQRGLASGDRSARQAELEGREIHALASASKPLASWTTQOGIQ
 ECREACGGHGYLAMNRLGVLRDDNDPNCTYEGDNNILLQQTSNYLLGLLAHQVHDGACFRSPLKSVDFLD
 AYPGILDQKFEVSSVADCLDSAVALAAYKWLVCYLLRETYQKLNQEKRSQSSDFEARNKCQVSHGRPLAL
 AFVELTVVQRFHEHVHQPSVPPSLRAVLGRLSALYALWSLKRHAALLYRGGYFSGEQAGEVLESVLAALC
 SQLKDDAVALVDVIAPPDFVLDSPIGRADGELYKNLWGAVLQESKVLERASWWPEFSVNKPVIIGLSKSL

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_003501

ORF Size: 2100 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_003501.1](#), [NP_003492.1](#)

RefSeq Size: 2415 bp

RefSeq ORF: 2103 bp

Locus ID: 8310

UniProt ID: [O15254](#)

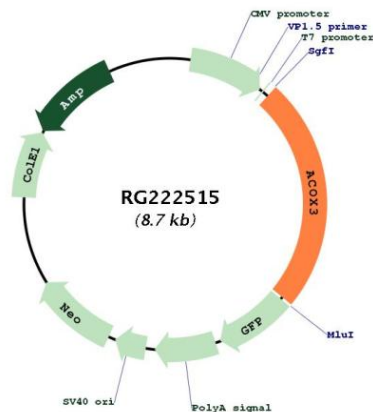
Cytogenetics: 4p16.1

Domains: ACOX, Acyl-CoA_dh

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

Gene Summary: Acyl-Coenzyme A oxidase 3 also know as pristanoyl -CoA oxidase (ACOX3)is involved in the desaturation of 2-methyl branched fatty acids in peroxisomes. Unlike the rat homolog, the human gene is expressed in very low amounts in liver such that its mRNA was undetectable by routine Northern-blot analysis or its product by immunoblotting or by enzyme activity measurements. However the human cDNA encoding a 700 amino acid protein with a peroxisomal targeting C-terminal tripeptide S-K-L was isolated and is thought to be expressed under special conditions such as specific developmental stages or in a tissue specific manner in tissues that have not yet been examined. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG222515