

## Product datasheet for **RC208278**

### **ACOX2 (NM\_003500) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ACOX2 (NM_003500) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ACOX2
Synonyms:	BCOX; BRCACOX; BRCOX; CBAS6; THCCox
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC208278 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGGGCAGCCAGTGCACCGAGTGTATTGGGGATACCTGGAGCAGGCAATGCACCCGACATAGAGA  
GCGAGAGGTATATGCAGTCCTTTGACGTGGAACGGCTCACCAACATCCTTGATGGAGGTGCCAGAACAC  
TGCACTCCGCAGGAAAGTTGAGAGCATCATCCACAGTTACCCGGAGTTTAGCTGTAAGGACAATTATTTT  
ATGACCCAGAATGAGCGTTATAAGGCTGCCATGCGGAGGGCATTCCACATCCGGTTGATAGCTCGGCGCC  
TGGGTTGGTTAGAAGATGGTCGTGAATTAGGCTACGCTTACAGAGCCCTTTCTGGAGACGTGGCCTTAAA  
TATACACAGAGTCTTCGTGAGAGCCCTCAGGAGCCTGGGCTCAGAGGAGCAGATTGCCAAATGGGACCCA  
CTCTGCAAAAACATCCAGATCATCGAACGTATGCACAGACAGAGTTGGGACATGGGACATATCTTCAGG  
GCCTGGAGACTGAAGCCACCTATGACGCAGCCACCCAGGAGTTTGTGATACACAGCCCCACGCTGACTGC  
CACCAAAATGGTGGCCTGGAGACTTGGGACGGTCAGCCACCCATGCCCTGGTCCAGGCCACGCTGATCTGC  
TCAGGAGCCAGGCGGGCATGCACGCTTTTATTGTGCCAATCCGGAGTCTTCAGGACCACACCCCACTGC  
CAGGAATCATCATTGGGGACATCGGACCAAGATGGACTTTGATCAAACAGACAATGGCTTCTCTGCAGT  
GAACCATGTGCGGGTCCCAGGGAGAACATGCTGAGTCGCTTTGCACAGGTCTTGCCAGATGGCACCTAC  
GTCAAACCTCGGTACAGCAGAGCAACTACCTCCCATGGTGGTGGTGGCGGGTGGAGCTGCTGTCAGGGG  
AGATCCTCCCTATACTGCAGAAGGCCTGTGTATCGCCATGCGCTACTCGGTATCCGCCCAATCCCCG  
GCTCCGGCCAGTGACCCAGAGGCAAAGGTCCTGGACTACCAGACACAACAGCAGAACTCTTTCCTCAG  
CTGGCCATCAGTTATGCCTTCCATTTCTGGCAGTCAGCCTCTTGGAGTCTTCCAGCACTCCTACACTG  
CCATTCTGAACCAAGACTTCAGTTCTCTGCCTGAGCTCCACGACTGAGCAGGGCATGAAGGCCATGAT  
GTCAGAATTCTGCACCCAGGGAGCTGAGATGTGCCGAGGGCCTGTGGCGGACATGGCTACTCAAAGCTG  
AGTGGCCTGCCATCACTGGTCACCAAAATTGTGCGCCTCCTGTACCTACGAGGGTGAGAACACAGTGTCT  
ACCTGCAGGTGGCCAGGTTCTGGTGAAGAGCTACCTGCAGACTCAGATGTCCCCTGGCTCCACGCCACA  
GAGATCTCTCTCCATCTGTGCATATCTCACCGCACCTGACCTGGCCAGGTGTCCAGCCAGAGGGCA  
GCCGACTTCTCTGCCCGGAGCTCTACACCACGGCCTGGGCACATGTGGCAGTAAGGCTCATAAAGGACT  
CAGTGCAGCATTTACAGACCCTGACGCAATCCGGAGCTGACCAGCAGGAGGCTTGAACCCAGACCACTGT  
CATACACCTCCAGGCTGCTAAGGTGCAGTGTACTATGCTACTGTGAAGGGTTTTACAGAAGCTCTGGAG  
AAACTAGAAAATGAACCAGCGATTTCAGCAGGTGCTCAAGCGCCTCTGTGACCTCCATGCCATACATGGAA  
TCTTGACTAACTCGGGTACTTTCTCCATGACGCCTTCTGTCTGGTGCCCAAGTGGACATGGCAAGAAC  
AGCCTACCTGGACCTGCTCCGCCTGATCCGGAAGGATGCCATCCTGTTAACTGATGCTTTTGACTTCACC  
GATCAGTGTTAAATTCAGCACTTGGCTGTTATGATGAAACGCTACGAACGCCTGTTCCAGTGGGCTC  
AGAAGTACCAACCAATACTCAGGAGAACCCTGCCTATGAGGAATATATAAGACCACTTTTACAAAGTTG  
GAGATCCAAGCTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC208278 protein sequence  
Red=Cloning site Green=Tags(s)

MGSPVHRVSLGDTWSRQMHPDIESERYMQSFDVERLTNILDGGAQNTALRRKVESIIHSYPEFSCKDNYF  
 MTQNERIYKAAMRRAFHIRLIARRLGLWLEDGRELGYAYRALSGDVALNIHRVVRALRSLGSEEQIAKWDP  
 LCKNIQIIATYAQTELGHGTYLQGLETEATYDAATQEFVIHSPTLTATKWWPGDLGRSATHALVQAQLIC  
 SGARRGMHAFIVPIRSLQDHTPLPGIIGDIIGPKMDFDQTDNGFLQLNHVRVPRENMLSRFAQVLPDGT  
 VKLGTAQSNYLPVVVRVELLSGEILPILQKACVIAMRYSVIRRQSRRLRPSDPEAKVLDYQTQQQLFPQ  
 LAISYAFHFLAVSLLEFFQHSYTAILNQDFSFLPELHALSTGMKAMMSEFCTQGAEMCRRACGGHGYSKL  
 SGLPSLVTKLSASCTYEGENTVLYLQVARFLVKSYLQTMSPGSTPQRSLSVAVYLTAPDLARCPAQR  
 ADFLCPELYTTAWAHVAVRLIKDSVQHLQTLTQSGADQHEAWNQTTVIHLQAAKVHCYYVTVKGFTEALE  
 KLENEPATIQVLKRLCDLHAIHGILTNSGDFLHDAFLSGAQVDMARTAYLDLLRLIRKDAILLTDAFDFT  
 DQCLNSALGCYDGNVYERLFQWAQKSPNTQENPAYEEYIRPLLQSWRSKL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6155\\_e07.zip](https://cdn.origene.com/chromatograms/mk6155_e07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_003500

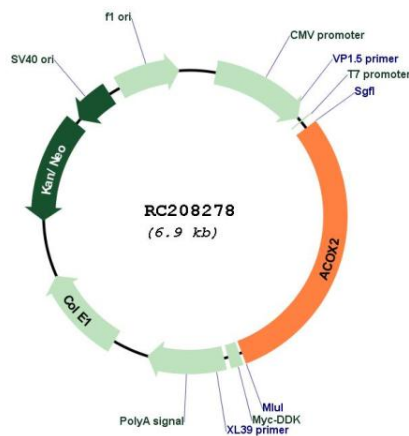
**ORF Size:** 2043 bp

**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](#)

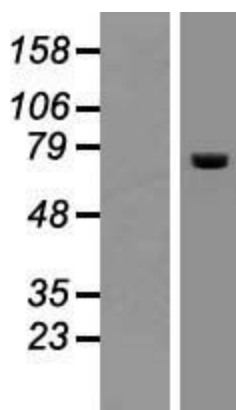
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_003500.4</a></u>
<b>RefSeq Size:</b>	2356 bp
<b>RefSeq ORF:</b>	2046 bp
<b>Locus ID:</b>	8309
<b>UniProt ID:</b>	<u><a href="#">Q99424</a></u>
<b>Cytogenetics:</b>	3p14.3
<b>Domains:</b>	ACOX, Acyl-CoA_dh
<b>Protein Pathways:</b>	Metabolic pathways, PPAR signaling pathway, Primary bile acid biosynthesis
<b>MW:</b>	76.8 kDa
<b>Gene Summary:</b>	The product of this gene belongs to the acyl-CoA oxidase family. It encodes the branched-chain acyl-CoA oxidase which is involved in the degradation of long branched fatty acids and bile acid intermediates in peroxisomes. Deficiency of this enzyme results in the accumulation of branched fatty acids and bile acid intermediates, and may lead to Zellweger syndrome, severe cognitive disability, and death in children. [provided by RefSeq, Mar 2009]

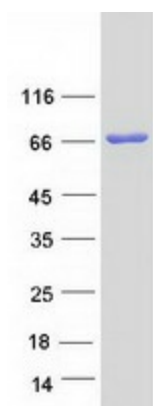
### Product images:



Circular map for RC208278



Western blot validation of overexpression lysate (Cat# [LY418651]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208278 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ACOX2 protein (Cat# [TP308278]). The protein was produced from HEK293T cells transfected with ACOX2 cDNA clone (Cat# RC208278) using MegaTran 2.0 (Cat# [TT210002]).