

Product datasheet for **RG208278**

ACOX2 (NM_003500) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACOX2 (NM_003500) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACOX2
Synonyms:	BCOX; BRCACOX; BRCOX; CBAS6; THCCox
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG208278 representing NM_003500
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGCAGCCAGTGCACCGAGTGTATTGGGGATACCTGGAGCAGGCAATGCACCCGACATAGAGA
 GCGAGAGGTATATGCAGTCCTTTGACGTGGAACGGCTCACCAACATCCTTGATGGAGGTGCCAGAACAC
 TGCACTCCGCAGGAAAGTTGAGAGCATCATCCACAGTTACCCGGAGTTTAGCTGTAAGGACAATTATTTT
 ATGACCCAGAATGAGCGTTATAAGGCTGCCATGCGGAGGGCATTCCACATCCGGTTGATAGCTCGGCGCC
 TGGGTTGGTTAGAAGATGGTCGTGAATTAGGCTACGCTTACAGAGCCCTTTCTGGAGACGTGGCCTTAAA
 TATACACAGAGTCTTCGTGAGAGCCCTCAGGAGCCTGGGCTCAGAGGAGCAGATTGCCAAATGGGACCCA
 CTCTGCAAAAACATCCAGATCATCGAACGTATGCACAGACAGAGTTGGGACATGGGACATATCTTCAGG
 GCCTGGAGACTGAAGCCACCTATGACGCAGCCACCCAGGAGTTTGTGATACACAGCCCCACGCTGACTGC
 CACCAAAATGGTGGCCTGGAGACTTGGGACGGTCAGCCACCCATGCCCTGGTCCAGGCCACGCTGATCTGC
 TCAGGAGCCAGGCGGGCATGCACGCTTTTATTGTGCCAATCCGGAGTCTTCAGGACCACACCCCACTGC
 CAGGAATCATCATTGGGGACATCGGACCAAGATGGACTTTGATCAAACAGACAATGGCTTCCTGCAGCT
 GAACCATGTGCGGGTCCCAGGGAGAACATGCTGAGTCGCTTTGCACAGGTCTTGCCAGATGGCACCTAC
 GTCAAACCTCGGTACAGCAGAGCAACTACCTCCCATGGTGGTGGTGGCGGGTGGAGCTGCTGTCAGGGG
 AGATCCTCCCTATACTGCAGAAGGCCTGTGTATCGCCATGCGCTACTCGGTATCCGCCGCAATCCCG
 GCTCCGGCCAGTGACCCAGAGGCAAAGGTCCTGGACTACCAGACACAACAGCAGAACTCTTTCCTCAG
 CTGGCCATCAGTTATGCCTTCCATTTCTGGCAGTCAGCCTCTTGGAGTTCTTCCAGCACTCCTACACTG
 CCATTCTGAACCAAGACTTCAGCTTCTGCCTGAGCTCCACGCACTGAGCAGGGCATGAAGGCCATGAT
 GTCAGAATTCTGCACCCAGGGAGCTGAGATGTGCCGAGGGCCTGTGGCGGACATGGCTACTCAAAGCTG
 AGTGGCCTGCCATCACTGGTCACCAAAATTGTGCGCCTCCTGTACCTACGAGGGTGAGAACACAGTGTCT
 ACCTGCAGGTGGCCAGGTTCTGGTGAAGAGCTACCTGCAGACTCAGATGTCCCCTGGCTCCACGCCACA
 GAGATCTCTCTCCATCTGTGCATATCTCACCGCACCTGACCTGGCCAGGTGTCCAGCCAGAGGGCA
 GCCGACTTCTCTGCCCGGAGCTCTACACCACGGCCTGGGCACATGTGGCAGTAAGGCTCATAAAGGACT
 CAGTGCAGCATTTACAGACCCTGACGCAATCCGGAGCTGACCAGCAGGAGGCTTGAACCCAGACCACTGT
 CATAACCTCCAGGCTGTAAGGTGCACTGCTACTATGCACTGTGAAGGGTTTTACAGAAGCTCTGGAG
 AAAGTAAAGGATGAACCCAGGATTCAGCAGGTGCTCAAGCGCCTCTGTGACCTCCATGCCATACATGGAA
 TCTTGACTAACTCGGGTACTTTCTCCATGACGCCTTCTGTCTGGTGCCCAAGTGGACATGGCAAGAAC
 AGCCTACCTGGACCTGCTCCGCCTGATCCGGAAGGATGCCATCCTGTTAACTGATGCTTTTGACTTCACC
 GATCAGTGTAAATTCAGCACTTGGCTGTTATGATGAAACGTCTACGAACGCCTGTTCCAGTGGGCTC
 AGAAGTACCAACCAATACTCAGGAGAACCCTGCCTATGAGGAATATATAAGACCACTTTTACAAAGTTG
 GAGATCCAAGCTA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG208278 representing NM_003500
 Red=Cloning site Green=Tags(s)

MGSPVHRVSLGDTWSRQMHPDIESERYMQSFDVERLTNILDGGAQNTALRRKVESIIHSPYEFSCKDNYF
 MTQNERYKAAMRRAFHIRLIARRLGLWLEDGRELGYAYRALSGDVALNIHRVVRALRSLGSEEQIAKWDP
 LCKNIQIIATYAQTELGHGTYLQGLETEATYDAATQEFVIHSPTLTATKWWPGDLGRSATHALVQAQLIC
 SGARRGMHAFIVPIRSLQDHTPLPGIIGDIPKMDFDQTDNGFLQLNHVRVPRENMLSRFAQVLPDGTG
 VKLGTAQSNYLPVVVRVELLSGEILPILQKACVIAMRYSVIRRQSRRLRPSDPEAKVLDYQTQQQLFPQ
 LAISYAFHFLAVSLLEFFQHSYTAILNQDFSLPELHALSTGMKAMMSEFCTQGAEMCRRACGGHGYSKL
 SGLPSLVTKLSASCTYEGENTVLYLQVARFLVKSYLQTMSPGSTPQRSLSPSVAYLTAPDLARCPAORA
 ADFLCPELYTTAWAHVAVRLIKDSVQHLQTLTQSGADQHEAWNQTTVIHLQAAKVHCYVVTKGFTEALE
 KLENEPATIQQVLKRLCDLHAIHGILTNSGDFLHDAFLSGAQVDMARTAYLDLLRLIRKDAILLTDAFDFT
 DQCLNSALGCYDGNVYERLFQWAQKSPNTQENPAYEEYIRPLLQSWRSKL

TRTRPLE - GFP Tag - V

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.

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_003500.4](#)

RefSeq Size: 2343 bp

RefSeq ORF: 2046 bp

Locus ID: 8309

UniProt ID: [Q99424](#)

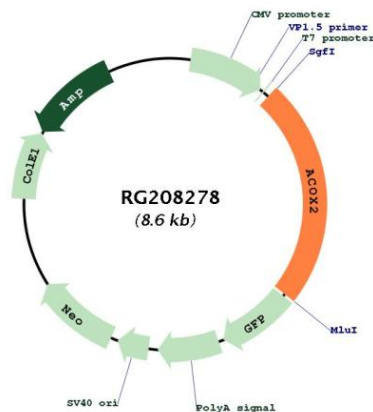
Cytogenetics: 3p14.3

Domains: ACOX, Acyl-CoA_dh

Protein Pathways: Metabolic pathways, PPAR signaling pathway, Primary bile acid biosynthesis

Gene Summary: 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 RG208278