

Product datasheet for **RG201821**

ACAT2 (NM_005891) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACAT2 (NM_005891) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201821 representing NM_005891 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATGCAGGCTCAGATCCTGTGGTCATCGTCTCGGGCGCGCGGACCATCATAGGTTCTTCAATGGTG
CCTTAGCTGCTGTTCTGTCCAGGACCTGGGCTCCACTGTCATCAAAGAAGTCTTGAAGAGGGCCACTGT
GGCTCCGGAAGATGTGTCTGAGGTCATCTTTGGACATGTCTTGGCAGCAGGCTGTGGCAGAATCCTGTT
AGACAAGCCAGTGTGGGTGCAGGAATCCCTACTCTGTTCCAGCATGGAGCTGCCAGATGATCTGTGGGT
CAGGCCTAAAAGCTGTGTGCCTTGCAGTCCAGTCAATAGGGATAGGAGACTCCAGCATTGTGTTGCAGG
AGGCATGGAAAATATGAGCAAGGCTCCTCACTTGGCTTACTTGAGAACAGGAGTAAAGATAGGTGAGATG
CCACTGACTGACAGTATACTCTGTGATGGTCTTACAGATGCATTTCACTGTCATATGGGTATTACAG
CTGAAAATGTAGCCAAAAATGGCAAGTGAAGTAGAGAAGATCAGGACAAGGTTGCAGTTCTGTCCCAGAA
CAGGACAGAGAATGCACAGAAAGCTGGCCATTTTGACAAAGAGATTGTACCAGTTTTGGTGTCAACTAGA
AGAGGTCTTATTGAAGTTAAAACAGATGAGTTTCTCGCCATGGGAGCAACATAGAAGCCATGTCCAAGC
TAAAGCCTTACTTTCTTACTGATGGAACGGGAACAGTCACCCAGCCAATGCTTCAGGAATAAATGATGG
TGCTGCAGCTGTCGTTCTTATGAAGAAGTCAGAAGCTGATAAACGTGGACTTACACCTTTAGCACGGATA
GTTTCCTGGTCCAAGTGGGTGTGGAGCCTTCCATTATGGGAATAGGACCAATTCAGCCATAAAGCAAG
CTGTTACAAAAGCAGGTTGGTCACTGGAAGATGTTGACATATTTGAAATCAATGAAGCCTTTGCAGCTGT
CTCTGCTGCAATAGTTAAGAAGTGGATTAAACCCAGAGAAGGTCAATATTGAAGGAGGGGCTATAGCC
TTGGGCCACCCTCTGGAGCATCTGGCTGTGCAATTCTTGTGACCCTGTTACACACTGGAGAGAATGG
GCAGAAGTCGTGGTGTTCAGCCCTGTGCATTGGGGTGGGATGGGAATAGCAATGTGTGTTTCAGAGAGA
A

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



[View online »](#)

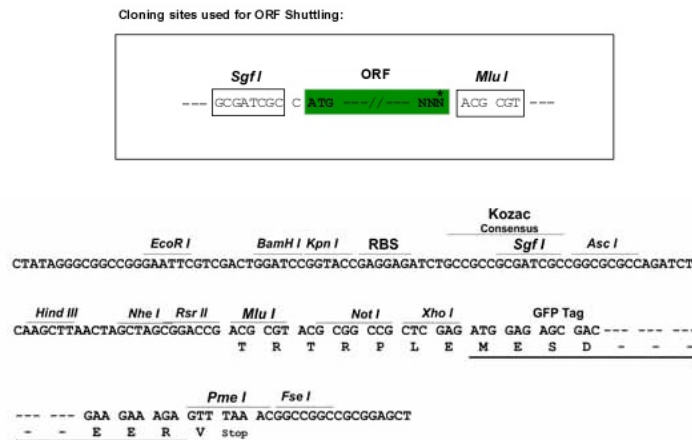
Protein Sequence: >RG201821 representing NM_005891
Red=Cloning site Green=Tags(s)

MNAGSDPVVIVSAARTIIGSFNGALAAVPVQDLGSTVIKEVLKRATVAPEDVSEVIFGHVLAAGCGQNPV
 RQASVAGIPYSPAWSCQMICGSLKAVCLAVQSIGIGDSSIVVAGGMENMSKAPHLAYLRTGVKIGEM
 PLTDSILCDGLTDAFHNCMGITAENVAKKWQVSREDQDKVAVLSQNRTEAQAQKAGHFDEIVPVLVSTR
 RGLIEVKTDEFPRHGSNIEAMSKLKPYFLTDGTGTVTPANASGINDGAAAVVLMKKSEADKRGLTPLARI
 VWSQVGVPESSIMGIGPIPAIKQAVTKAGWSLEDVDIFEINEAFAAVSAAIVKELGLNPEKYNIEGGAIA
 LGHPLGASGRILVTLHLTLERMGRSRGVAALCIGGGMGIAMCVQRE

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_005891

ORF Size: 1191 bp

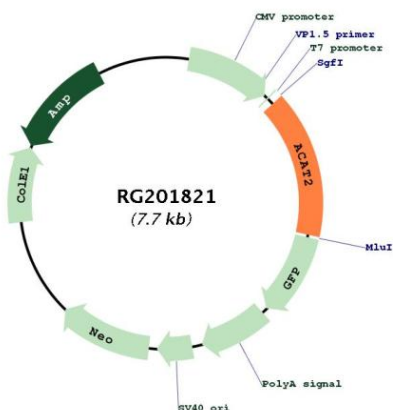
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_005891.1, NP_005882.1</u>
RefSeq Size:	1490 bp
RefSeq ORF:	1194 bp
Locus ID:	39
UniProt ID:	<u>Q9BWD1</u>
Cytogenetics:	6q25.3
Domains:	thiolase
Protein Families:	Druggable Genome
Protein Pathways:	Butanoate metabolism, Fatty acid metabolism, Lysine degradation, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism, Synthesis and degradation of ketone bodies, Terpenoid backbone biosynthesis, Tryptophan metabolism, Valine, leucine and isoleucine degradation
Gene Summary:	The product of this gene is an enzyme involved in lipid metabolism, and it encodes cytosolic acetoacetyl-CoA thiolase. This gene shows complementary overlapping with the 3-prime region of the TCP1 gene in both mouse and human. These genes are encoded on opposite strands of DNA, as well as in opposite transcriptional orientation. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Dec 2014]

Product images:



Circular map for RG201821