

Product datasheet for **SC307791**

ACAT1 (ACACA) (NM_198838) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: ACAT1 (ACACA) (NM_198838) Human Untagged Clone
Tag: Tag Free
Symbol: ACACA
Synonyms: ACAC; ACACAD; ACC; ACC1; ACCA
Vector: pCMV6 series
Fully Sequenced ORF: >NCBI ORF sequence for NM_198838, the custom clone sequence may differ by one or more nucleotides

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ATGTCTGGCTTGACCTAGTAAAGCAGGGCCGAGACAGAAAGAAAATAGATTCTCAACGA
GATTTCACTGTGGCTTCTCCAGCAGAATTTGTTACTCGCTTTGGGGGAAAATAAAGTGATT
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CAAGTCCTTCCTGCTCATACACTTCTGAATACAGTAGATGTTGAACTTATCTATGAGGGA
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ATCATCCATATGACGCAGCACATATCACCCACTCAGCGAGCAGAAGTCATACGGATCCTC
TCCACAATGGATTCCCCTTCCACGTAG

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- Restriction Sites:** Please inquire
- ACCN:** NM_198838
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
- 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_198838.1](#), [NP_942135.1](#)

RefSeq Size: 9766 bp

RefSeq ORF: 6807 bp

Locus ID: 31

UniProt ID: [Q13085](#)

Cytogenetics: 17q12

Protein Families: Druggable Genome

Protein Pathways: Fatty acid biosynthesis, Insulin signaling pathway, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism

Gene Summary: Acetyl-CoA carboxylase (ACC) is a complex multifunctional enzyme system. ACC is a biotin-containing enzyme which catalyzes the carboxylation of acetyl-CoA to malonyl-CoA, the rate-limiting step in fatty acid synthesis. There are two ACC forms, alpha and beta, encoded by two different genes. ACC-alpha is highly enriched in lipogenic tissues. The enzyme is under long term control at the transcriptional and translational levels and under short term regulation by the phosphorylation/dephosphorylation of targeted serine residues and by allosteric transformation by citrate or palmitoyl-CoA. Multiple alternatively spliced transcript variants divergent in the 5' sequence and encoding distinct isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (5) has a shorter and alternate 5' sequence and uses a downstream start codon, as compared to variant 1. The resulting isoform (4) has a shorter N-terminus, as compared to isoform 1.