

## Product datasheet for **RG216721**

### ACAT1 (ACACA) (NM\_198838) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ACAT1 (ACACA) (NM_198838) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ACACA
Synonyms:	ACAC; ACACAD; ACC; ACC1; ACCA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG216721 representing NM_198838 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

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ATTCCCCTTCCACG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG216721 representing NM\_198838  
 Red=Cloning site Green=Tags(s)

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MSGLHLVKQGRDRKKIDSQRDFTVASPAEFVTRFGGNKVIKVL IANNGIAAVKCMRSIRRWSYEMFRNE
RAIRFVVMVTPEDLKANA EYIKMADHYVPVPGGPNNNNYANVEL ILDI AKRIPVQAVWAGWGHASENPKL
PELLLLKNGIAFMGPPSQAMWALGDKIASSIVAQTAGIPTLPWSGSGLRVDWQENDF SKRILNVPQELYEK
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EVQILADQYGN AISLFGRDCSVQRRHQK IIEEAPATIATPAVFEHMEQCAVKLAKMVGYSAGTVEYLVS
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PCPRGHVIAARITSENPD EGFKPSSGTVQELNFRSNKNVWGYFSVAAAGGLHEFADSQFGHCF SWGENRE
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RRWFVEVEGTVKAYVWDNNDLAEWLEKQLTEEDGVHSVIEENIKCISRDYVVKQIRSLVQANPEVAMDS
IIHMTQHISPTQRAEVIRILSTMDSPST
  
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TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI



<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_198838.1</a></u> , <u><a href="#">NP_942135.1</a></u>
<b>RefSeq Size:</b>	9766 bp
<b>RefSeq ORF:</b>	6807 bp
<b>Locus ID:</b>	31
<b>UniProt ID:</b>	<u><a href="#">Q13085</a></u>
<b>Cytogenetics:</b>	17q12
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Fatty acid biosynthesis, Insulin signaling pathway, Metabolic pathways, Propanoate metabolism, Pyruvate metabolism
<b>Gene Summary:</b>	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]