

Product datasheet for **RG238154**

ACAT2 (NM_001303253) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ACAT2 (NM_001303253) 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:	>RG238154 representing NM_001303253. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGGTTCGCATCCAGTCCCTTCGGATTTGGGAAATAGAAGGGCTACAGCGGCGTCCCTAGGCCGTTCT
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AGGTGTTCCCTCAATGGTGCCTTAGCTGCTGTTCTGTCCAGGACCTGGGCTCCACTGTCATCAAAGAA
GTCTTGAAGAGGGCCACTGTGGCTCCGGAAGATGTGTCTGAGGTCATCTTTGGACATGTCTTGGCAGCA
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ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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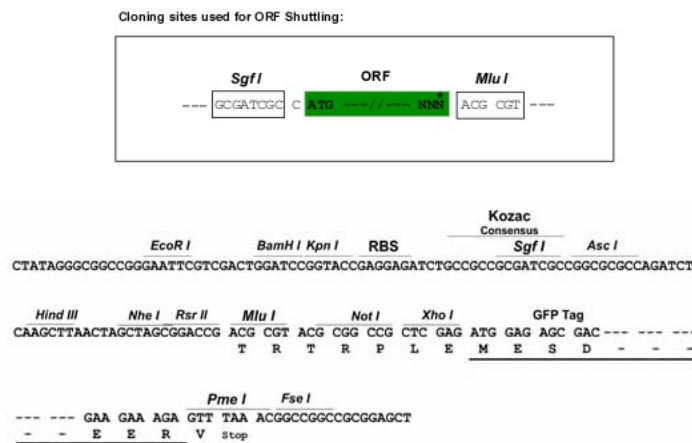
[View online »](#)

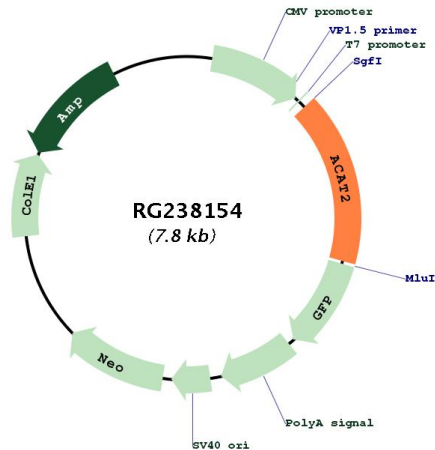
Protein Sequence: >Peptide sequence encoded by RG238154
 Blue=ORF Red=Cloning site Green=Tag(s)

MGSHPVLRIWGNRRATAASLGRSGGRLSSPRLLRVVAPTLTFAQTSRCSFNGALAAVPVQDLGSTVIKE
 VLKRATVAPEDVSEVIFGHVLAAGCGQNPVRQASVAGIPYSVPAWSQMICGSLKAVCLAVQSIGIG
 DSSIIVVAGGMENMSKAPHLAYLRGKIGEMPLTDSILCDGLTDAFHNMHGITAENVAKKWQVSREDQ
 DKVAVLSQNRTEAQAQAGHFDKEIVPVLVSTRKGLIEVKTDEFPRHGSNIEAMSKLKPYPFLTDGTGTVT
 PANASGINDGAAAVVLMKKSEADKRGLTPLARIVSWSQVGVPEPSIMGIGPIPAIKQAVTKAGWSLEDVD
 IFEINEAFAAVSAAIVKELGLNPEKVNIEGGAIALGHPLGASGCRILVTLHLTLMGRSRGVAALCIG
 GGMGIAMCVQRE
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_001303253

ORF Size: 1278 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).

RefSeq: [NM_001303253.1](#), [NP_001290182.1](#)

RefSeq Size: 1723 bp

RefSeq ORF: 1281 bp

Locus ID: 39

UniProt ID: [Q9BWD1](#)

Cytogenetics: 6q25.3

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

MW: 45.1 kDa

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]