

## Product datasheet for **RC205774**

### SOAT 1 (SOAT1) (NM\_003101) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SOAT 1 (SOAT1) (NM_003101) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SOAT1
Synonyms:	ACACT; ACAT; ACAT-1; ACAT1; SOAT; STAT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC205774 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTGGGTGAAGAGAAGATGTCTCTAAGAAACCGGCTGTCAAAGTCCAGGGAAAATCCTGAGGAAGATG  
 AAGACCAGAGAAAACCTGCAAAGGAGTCCCTAGAGACACCTAGTAATGGTGAATTGACATAAAACAGTT  
 GATAGCAAAGAAGATAAAGTTGACAGCAGAGGCAGAGGAATTGAAGCCATTTTTTATGAAGGAAGTTGGC  
 AGTCACCTTTGATGATTTTGTGACCAATCTCATTGAAAAGTCAAGTATAGATAATGGTGGGTGCGCTC  
 TCACAACCTTTTCTGTTCTTGAAGGAGAGAAAAACAACCATAGAGCGAAGGATTTGAGAGCACCTCCAGA  
 ACAAGGAAAGATTTTTATTGCAAGGCGCTCTCTTAGATGAAGTGTGAAAGTGGACCACATCAGAACA  
 ATATATACATGTTTATTGCCCTCCTCATTCTCTTATCCTCAGCACACTGTAGTAGATTACATTGATG  
 AAGGAAGGCTGGTCTTGAAGTTCAGCCTCCTGTCTTATGCTTTTGGCAAATTTCTACCGTTGTTGGAC  
 CTGGTGGATCATGTTCTGTCTACATTTTCAGTCCCTATTTTCTGTTTCAACATTGGGCCACTGGCTAT  
 AGCAAGAGTTCTCATCCGCTGATCCGTTCTCTTCCATGGCTTTCTTTTCATGATCTTCCAGATTGGAG  
 TTCTAGGTTTTGGACCAACATATGTTGTGTTAGCATATACACTGCCACCAGCTTCCCCTGTTCCATATTAT  
 ATTCGAGCAGATTCGTTTTGTAATGAAGGCCCACTCATTGTGAGAGAGAACGTGCCCTCGGGTACTAAAT  
 TCAGCTAAGGAGAAAATCAAGCACTGTTCCAATACCTACAGTCAACCAGTATTTGACTTCTTATTGCTC  
 CTACCTTATCTACCGTGACAGCTATCCAGGAATCCCACTGTAAGATGGGGTATGTCGCTATGAAGTT  
 TGCACAGGCTTTGGTTGCTTTTCTATGTGTACTACATCTTTGAAAGGCTTTGTGCCCTTGTTCGG  
 AATATCAAACAGGAGCCCTTCAGCGCTCGTGTCTGGTCTATGTGATTTAACTCCATCTTGCCAGGTG  
 TGCTGATCTCTCCTTACTTTTTTGCCTTTTGCAGTGTGGTCAATGCCTTTGCTGAGATTACG  
 CTTTGGTGACAGGATGTTCTATAAGGATTGGTGAACCTCACGTACTCACTCAACTATTATAGAACCTGG  
 AATGTGGTGGTCCATGACTGGCTATATTACTATGCTTACAAGGACTTTCTCTGGTTTTTCTCCAAGAGAT  
 TCAAATCTGCTGCCATGTAGCTGTCTTGTGTATCTGCTGTAGTACACGAATATGCCTTGGCTGTTTG  
 CTTGAGCTTTTTCTATCCCGTCTCTCGTCTTCTCATGTTCTTTGGAATGGCTTTCAACTTATTGTC  
 AATGATAGTCGAAAAAGCCGATTTGGAATGTTCTGATGTGGACTTCTTTTTCTGGGCAATGGAGTCT  
 TACTCTGCTTTTATTCTCAAGAATGGTATGCACGTGAGCACTGCTCTGAAAAATCCACATTTTTGGA  
 TTATGTCCGGCCAGTTCCTGGACTTGTGTTACGTGTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC205774 protein sequence  
 Red=Cloning site Green=Tags(s)

MVGEKMSLRNRLSKSRENPEEDEDQRNPAKESLETSPNGRIDIKQLIAKKIKLTAEAEELKPFMKEVG  
 SHFDDFVTLNIEKSASLDNGGCALTTFSVLEGEKNNHRAKDLRAPPEQKIFIARRSLDELLEVDHIRT  
 IYHMFIALLLILFVLDYIDEGRLVLEFSLLSYAFGKFPVVTWIMFLSTFSVPYFLFQHWATGY  
 SKSSHPLIRSLFHGFLMIFQIGVLGFGPTYVVLAYTLPPASRFIIIFEQIRFVMAKHSFVRENVPRVLN  
 SAKEKSSVPIPTVNQYLYFLFAPTLIYRDSYPRNPTVRWGYVAMKFAQVFGCFYVYIFERLCAPLFR  
 NIKQEPFSARVLLCVFNSILPGVLLIFLTFFAFLHCWLNFAEMLRFGDRMFYKDWNNSTYSNYRTW  
 NVVVHDWLYYYAYKDFLWFFSKRFKSAAMLAVFAVSAVVHEYALAVCLSFYFVPLVFLFMFFGMFNFIV  
 NDSRKKPIWNVLMWTSFLGNGVLLCFYSQEWYARQHCPLKNPTFLDYVRPRSWTCRYVF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6232\\_b10.zip](https://cdn.origene.com/chromatograms/mk6232_b10.zip)

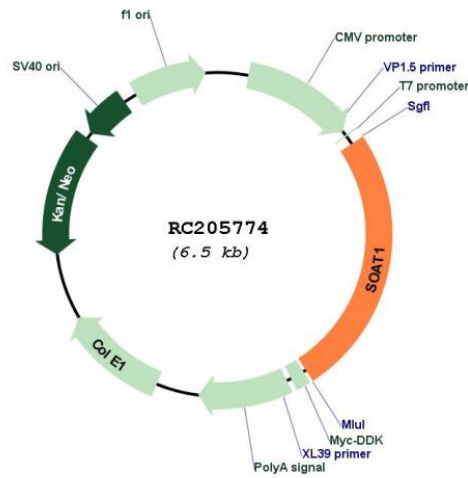
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_003101

ORF Size: 1650 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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\\_003101.6](#)

**RefSeq Size:** 6938 bp

**RefSeq ORF:** 1653 bp

**Locus ID:** 6646

**UniProt ID:** [P35610](#)

**Cytogenetics:** 1q25.2

**Domains:** MBOAT

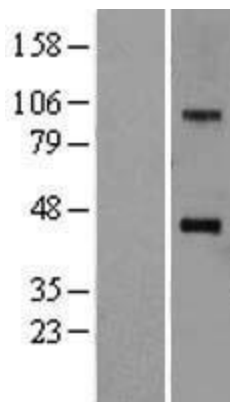
**Protein Families:** Transmembrane

**Protein Pathways:** Steroid biosynthesis

**MW:** 64.7 kDa

**Gene Summary:**

The protein encoded by this gene belongs to the acyltransferase family. It is located in the endoplasmic reticulum, and catalyzes the formation of fatty acid-cholesterol esters. This gene has been implicated in the formation of beta-amyloid and atherosclerotic plaques by controlling the equilibrium between free cholesterol and cytoplasmic cholesteryl esters. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Nov 2011]

**Product images:**

Western blot validation of overexpression lysate (Cat# [LY418898]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205774 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).