

Product datasheet for **RG221499**

SOAT 2 (SOAT2) (NM_003578) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SOAT 2 (SOAT2) (NM_003578) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SOAT 2
Synonyms:	ACACT2; ACAT2; ARGP2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG221499 representing NM_003578
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCCAGGCGGGGCCCTCTGCGTCTGCAGAGGACAGGAGGGCTGGGAGGGGAGCGGGAGCGCCAAC
 CCTGTGGAGATGAAACACTGAGACGCACAGACCCCGGACTTGGTACAATGGACCCGACACATGGAGGC
 TGTGAAGGCACAATTGCTGGAGCAAGCGCAGGGACAACCTGAGGGAGCTGCTGGATCGGGCCATGCGGGAG
 GCTATAACAATCCTACCCATCACAAGACAAACCTCTGCCCCACCTCCCCAGGTTCTTGAGCAGGACCC
 AGGAGCCATCCCTGGGAAACAGAAAGTTTTCATCATCCGCAAGTCCCTGCTTGATGAGCTGATGGAGGT
 GCAGCATTCCGCACCATCTACCACATGTTTCATCGCTGGCCTGTGTGCTTCATCATCAGCACCTGGCC
 ATCGACTTCATTGATGAGGGCAGGCTGCTGCTGGAGTTTGACCTACTGATCTTCAGCTTCGGACAGCTGC
 CATTGGCGCTGGTGACCTGGGTGCCATGTTTCTGTCCACCCTGTTGGCGCGTACCAGGCCCTACGGCT
 GTGGGCCAGGGCACCTGGACGCAGGCGACGGCCTGGGCTGTGCGCTTTAGCCGCCACGCCGTGGTG
 CTCTGCGCGCTGCCGGTCCACGTGGCCGTGGAGCATCAGCTCCCGCCGGCCTCCCGTTGTGCTCTGGTCT
 TCGAGCAGGTTAGGTTCCCTGATGAAAAGCTACTCCTCCTGAGAGAGGCTGTGCCTGGGATCCTTCGTGC
 CAGACGAGGTGAGGGGATCCAGGCCCCAGTTTCTCCAGTACCTCTACTTCTTCTGCCAACACTC
 ATCTACAGGGAGACTTACCCTAGGACGCCATATGTCAGGTGGAATTATGTGGCCAAGAATTTGCCCAGG
 CCCTGGGATGTGTGCTCTATGCCTGTTTCATCCTGGGCCGCTCTGTGTTCTGTCTTTGCCAACATGAG
 CCGAGAGCCCTCAGCACCCGTGCCCTGGTGTCTCTATCCTGCATGCCACGTTGCCAGGCATCTTCATG
 CTGCTGCTCATCTCTTTGCCTTCCTCCATTGCTGGCTCAACGCCCTTTGCCGAGATGCTACGATTTGGAG
 ACAGGATGTTCTACCGGACTGGTGAACCTCAACGCTCTCTCCACTACTACCGCACTTGAACGTTGGT
 GGTCCATGACTGGCTGTACAGCTACGTGTATCAGGATGGGCTGCGGCTCCTTGGTGCCCGGCCGAGGG
 GTAGCCATGCTGGGTGTGTTCTGGTCTCCGACGTGGCCATGAGTATATCTTCTGCTTCGTCTGGGT
 TCTTCTATCCCGTCATGCTGATACTCTTCTTGTGATTGGAGGAATGTTGAACTCATGATGCATGACCA
 GCGCACCGGCCCGCATGGAACGTGCTGATGTGGACCATGCTGTTTCTAGGCCAGGGAATCCAGGTCAGC
 CTGTACTGCCAGGAGTGGTACGCACGGCGGCACTGCCCTTACCCAGGCAACTTCTGGGGCTGGTGA
 CACCTCGATCTTGGTCTGCCATACC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG221499 representing NM_003578
 Red=Cloning site Green=Tags(s)

MEPGGARLRLQRTGGLGGERERQPCGDGNTETHRAPDLVQWTRHMEAVKAQLLEQAQQLRELLDRAMRE
 AIQSYSPQDKPLPPPPGSLSRTEPSLQKQVFIIRKSLLELMEVQHFRTIYHMFIAGLCVFIIISTLA
 IDFIDEGRLLLEFDLLIFSFGQLPLALVTWVPMFLSTLLAPYQALRLWARGTWTQATGLGCALLAAHAVV
 LCALPVHVAVEHQLPPASRCVLVFEQVRFMKSYFLREAVPGILRARRGEGIQAPSFSSYLFLFCPTL
 IYRETYPRTPYVRWNYVAKNFAQALGCVLYACFILGRLCVPVFANMSREPFSTRALVLSILHATLPGIFM
 LLLIFFAFLHCWLNFAEMLRFGRDMFYRDWVNSTSFNSYYRTWNVVVDWLYSYVYQDGLRLLGARARG
 VAMLGVFLVSAVAHEYIFCFVLGFFYPVMLILFLVIGGMLNFMMDQRTGPAWNVLMWTMLFLGQGIQVS
 LYCQEWYARRHCPLPQATFWGLVTPRSWSCHT

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_003578

ORF Size: 1566 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:

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_003578.2](#), [NP_003569.1](#)

RefSeq Size: 2040 bp

RefSeq ORF: 1569 bp

Locus ID: 8435

UniProt ID: [O75908](#)

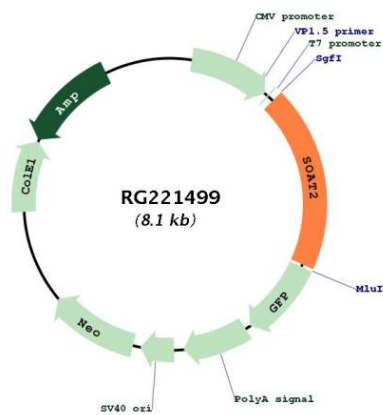
Cytogenetics: 12q13.13

Protein Families: Transmembrane

Protein Pathways: Steroid biosynthesis

Gene Summary: Summary: This gene is a member of a small family of acyl coenzyme A:cholesterol acyltransferases. The gene encodes a membrane-bound enzyme localized in the endoplasmic reticulum that produces intracellular cholesterol esters from long-chain fatty acyl CoA and cholesterol. The cholesterol esters are then stored as cytoplasmic lipid droplets inside the cell. The enzyme is implicated in cholesterol absorption in the intestine and in the assembly and secretion of apolipoprotein B-containing lipoproteins such as very low density lipoprotein (VLDL). Several alternatively spliced transcript variants of this gene have been described, but their full-length nature is not known. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG221499