

## Product datasheet for **RG209148**

### SCD1 (SCD) (NM\_005063) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SCD1 (SCD) (NM_005063) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SCD1
Synonyms:	FADS5; hSCD1; MSTP008; SCD1; SCDOS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG209148 representing NM_005063 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCGGCCCACTTGCTGCAGGACGATATCTCTAGCTCCTATACCACCACCACCATTACAGCGCCTC  
CCTCCAGGGTCTGCAGAATGGAGGAGATAAGTTGGAGACGATGCCCTCTACTTGAAGACGACATTTCG  
CCCTGATATAAAAGATGATATATGACCCACCTACAAGGATAAGGAAGGCCAAGCCCAAGGTTGAA  
TATGTCTGGAGAAACATCATCCTTATGTCTCTGCTACACTGGGAGCCCTGTATGGGATCACTTTGATTC  
CTACCTGCAAGTTCTACACCTGGCTTTGGGGGTATTCTACTATTTTGTGAGTGCCTGGGCATAACAGC  
AGGAGCTCATCGTCTGTGGAGCCACCGCTTACAAAGCTCGGCTGCCCTACGGCTCTTCTGATCATT  
GCCAACACAATGGCATTCCAGAATGATGTCTATGAATGGGCTCGTGACCACCGTCCCACCACAAGTTTT  
CAGAAACACATGCTGATCCTCATAATCCCAGCTGGCTTTTTCTCTCTCACGTGGGTTGGCTGCTTGT  
GCGCAAACACCCAGCTGTCAAAGAGAAGGGGAGTACGCTAGACTTGTCTGACCTAGAAGCTGAGAAACTG  
GTGATGTTCCAGAGGAGTACTACAAACCTGGCTTGTGCTGATGTGCTTATCCTGCCACGCTTGTGC  
CCTGGTATTTCTGGGGTAAACTTTTCAAACAGTGTGTTGTTGCCACTTCTTCCGATATGCTGTGGT  
GCTTAATGCCACCTGGCTGGTGAACAGTGTGCCACCTCTTCGGATATCGTCTTATGACAAGAACATT  
AGCCCCGGGAGAATATCCTGGTTTCACTTGGAGCTGTGGGTGAGGGCTCCACAACCTACCACCTCCT  
TTCCCTATGACTACTCTGCCAGTGAGTACCGCTGGCACATCAACTTACCACATTCTTATTGATTGCAT  
GGCCGCCCTCGGTCTGGCTATGACCGAAGAAAGTCTCCAAGGCCCATCTTGCCAGGATTAAGA  
ACCGGAGATGAAACTACAAGAGTGGC

**ACGGT**ACGGCGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG209148 representing NM\_005063  
 Red=Cloning site Green=Tags(s)

MPAHLQDDISSYTTTTTITAPPSRVLQNGGDKLETMPLYLEDDIRPDIKDDIYDPTYKDKEGSPKVE  
 YVWRNIILMSLLHLGALYGITL IPTCKFYTWLWGVFYYFVSALGITAGAHRLWSHRSYKARLPLRLFLII  
 ANTMAFQNDVYEWARHRAHKKFSETHADPHNSRRGFFFSHVGWLLVRKHPAVKEKGSTLDLSDLEAEKL  
 VMFQRRYYKPGLLLMCFILPTLVPWYFWGETFQNSVVFVATFLRYAVVLNATWLVNSAAHLFGYRYPYDKNI  
 SPRENILVSLGAVGEGFHNYHHSFPYDYSASEYRWHINF TTF IDCMAALGLAYDRKKVSKAAILARIKR  
 TGDGNYKSG

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005063

**ORF Size:** 1077 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\\_005063.3](#)

**RefSeq Size:** 5473 bp

**RefSeq ORF:** 1080 bp

**Locus ID:** 6319

**UniProt ID:** [O00767](#)

**Cytogenetics:** 10q24.31

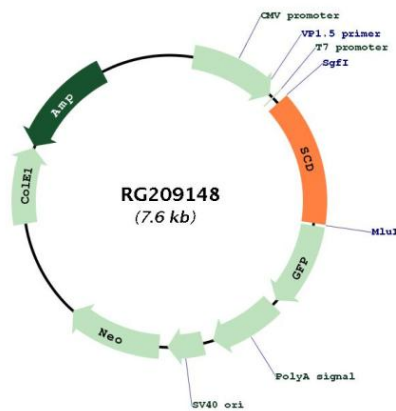
**Domains:** FA\_desaturase

**Protein Families:** Transmembrane

**Protein Pathways:** Biosynthesis of unsaturated fatty acids, PPAR signaling pathway

**Gene Summary:** This gene encodes an enzyme involved in fatty acid biosynthesis, primarily the synthesis of oleic acid. The protein belongs to the fatty acid desaturase family and is an integral membrane protein located in the endoplasmic reticulum. Transcripts of approximately 3.9 and 5.2 kb, differing only by alternative polyadenylation signals, have been detected. A gene encoding a similar enzyme is located on chromosome 4 and a pseudogene of this gene is located on chromosome 17. [provided by RefSeq, Sep 2015]

## Product images:



Circular map for RG209148