

Product datasheet for RC209148

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:	Myc-DDK
Symbol:	SCD1
Synonyms:	FADS5; hSCD1; MSTP008; SCD1; SCDOS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209148 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCGGCCACTTGCTGCAGGACGATATCTCTAGCTCCTATACCACCACCACCATTACAGCGCCTC
CCTCCAGGGTCTGCAGAATGGAGGAGATAAGTTGGAGACGATGCCCTCTACTTGAAGACGACATTTCG
CCCTGATATAAAGATGATATATGACCCACCTACAAGGATAAGGAAGGCCAAGCCCAAGGTTGAA
TATGCTGGAGAAACATCATCCTTATGTCTCTGCTACACTGGGAGCCCTGTATGGGATCACTTTGATTC
CTACCTGCAAGTTCTACACCTGGCTTTGGGGGTATTCTACTATTTGTCAGTGCCTGGGCATAACAGC
AGGAGCTCATCGTCTGTGGAGCCACCGCTTACAAAGCTCGGCTGCCCTACGGCTCTTCTGATCATT
GCCAACACAATGGCATTCCAGAATGATGTCTATGAATGGGCTCGTGACCACCGTCCCACCACAAGTTT
CAGAAACACATGCTGATCCTCATAATCCCACGCTGGCTTTTCTCTCTCACGTGGGTTGGCTGCTTGT
GCGCAACACCCAGCTGTCAAAGAGAAGGGGAGTACGCTAGACTTGTCTGACCTAGAAGCTGAGAACTG
GTGATGTTCCAGAGGAGTACTACAACTGGCTTGTGCTGATGTGCTTCACTGCCACGCTTGTGC
CCTGGTATTTCTGGGTGAACTTTCAAACAGTGTGTTGTTGCCACTTCTTCCGATATGCTGTGGT
GCTTAATGCCACCTGGCTGGTGAACAGTGTGCCACCTCTCGGATATCGTCTTATGACAAGAACATT
AGCCCCGGGAGAATATCCTGGTTTCACTTGGAGCTGTGGGTGAGGGCTCCACAACCTACCACCTCCT
TTCCCTATGACTACTCTGCCAGTGAGTACCGCTGGCACATCAACTTACCACATTCTTATTGATTGCAT
GGCCGCCCTCGGTCTGGCTATGACCGAAGAAAGTCTCCAAGGCCCATCTTGCCAGGATTAAGA
ACCGGAGATGAAACTACAAGAGTGGC

ACGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC209148 protein sequence
Red=Cloning site Green=Tags(s)

MPAHLQDDISSYTTTTTITAPPSRVLQNGGDKLETMPLYLEDDIRPDIKDDIYDPTYKDKEGSPKVE
 YVWRNIILMSLLHLGALYGITLIPTCKFYTWLWGVFYYFVSALGITAGAHRLWSHRYSYKARLPLRFLII
 ANTMAFQNDVYEWARHDRAHKKFSETHADPHNSRRGFFFSHVGWLLVRKHPAVKEKGSTLDLSDLEAEKL
 VMFQRRYYKPGLLLMCFILPTLVPWYFWGETFQNSVVFVATFLRYAVVLNATWLVNSAAHLFGYRPYDKNI
 SPRENILVSLGAVGEGFHNYHSPYDYSASEYRWHINF TTF IDCMAALGLAYDRKKVSKAAILARIKR
 TGDGNYKSG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6071_e10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_005063.3](#)

RefSeq Size: 5473 bp

RefSeq ORF: 1080 bp

Locus ID: 6319

UniProt ID: [O00767](#)

Cytogenetics: 10q24.31

Domains: FA_desaturase

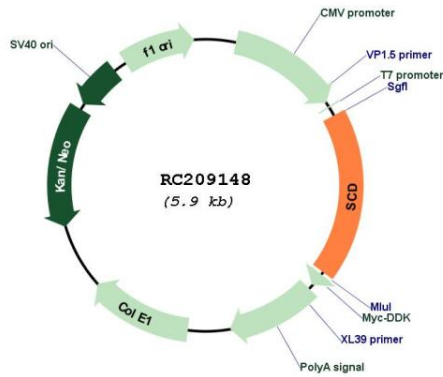
Protein Families: Transmembrane

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

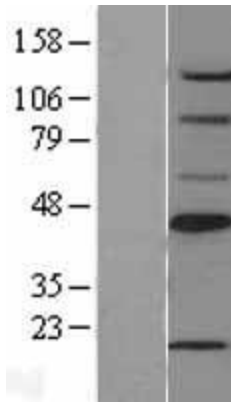
MW: 41.5 kDa

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 RC209148



Western blot validation of overexpression lysate (Cat# [LY401562]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209148 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).