

## Product datasheet for **RG216884**

### SCD5 (NM\_001037582) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	SCD5 (NM_001037582) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SCD5
Synonyms:	ACOD4; FADS4; HSCD5; SCD2; SCD4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG216884 representing NM_001037582 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCCAGGCCCGCCACCGACGCGGGGAAGATCCCTTTCTGCGACGCCAAGGAAGAAATCCGTGCCGGGC  
TCGAAAGCTCTGAGGGCGGCGGCCCGGAGAGGCCAGGCGCGCGGGCAGCGGCAGAACATCGTCTG  
GAGGAATGTCGTCCTGATGAGCTTGCTCCACTTGGGGCCGTGTACTCCCTGGTGTCTATCCCAAAGCC  
AAGCCACTCACTCTGCTCTGGGCTACTTCTGCTTCTCCTGGCCGCTCTGGGTGTGACAGCTGGTGCC  
ATCGCTTGTGGAGCCACAGGTCCTACCGGCCAAGCTGCCTCTGAGGATATTTCTGGCTGTCCCAACTC  
CATGGCTTTCCAGAATGACATCTTCGAGYGGTCCAGGGACCACCGAGCCACCACAAGTACTCAGAGACG  
GATGCTGACCCCAACAATGCCCGCCGGGCTTCTTCTTCTCCCATATTGGGTGGCTGTTTGTTCGCAAGC  
ATCGAGATGTTATTGAGAAGGGGAGAAAGCTTGACGTCACCTGACCTGCTGATCCTGTGGTCCGGAT  
CCAGAGAAAGTACTATAAGATCTCCGTGGTGTCTATGTGCTTGTGGTCCCCACGCTGGTGCCTGGTAC  
ATCTGGGGAGAGAGTCTGTGGAATTCCTACTTCTTGGCTCTATTCTCCGCTATACCATCTCACTCAACA  
TCAGCTGGCTGGTCAACAGCGCCGCCACATGTATGAAACCGGCCATGACAAGCACATCAGCCCTCG  
GCAGAACCCTCGTCTGCTCTGGGTGCCATTGGTGAAGGCTTCCATAATTACCATCACACCTTCCCTTT  
GACTACTCTGCGAGTGAATTTGGCTTAAATTTAAACCAACCCTGGTTCATTGATTTTCATGTGCTGCG  
TGGGGTGGCCACTGACCGCAAACGGCAACCAAGCCGATGATCGAGGCCCGGAAGGCCAGGACTGGAGA  
CAGCAGTGCT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG216884 representing NM\_001037582  
 Red=Cloning site Green=Tags(s)

MPGPATDAGKIPFCDAKEEIRAGLESSEGGGGPERPGARGQRQNIWVRNVVLMSSLHLGAVYSLVLPKA  
 KPLTLLWAYFCFLAALGVTAGAHRLWSHRYSYRAKLPLRIFLAVANSMAFQNDIFEXSRDHRAHKKYSET  
 DADPHNARRGFFFSHIGWLFVRKHRDVIEKGRKLDVTDLLADPVVRIQRKYYKISVVL MCFVVPTLVPWY  
 IWGESLWNSYFLASILRYTISLNI SWLVNSAAHMYGNRPYDKHISPRQNPLVALGAIGEGFHNYHHTFFP  
 DYSASEFGLNFNPTTWFIDFMCWLGATDRKRATKPMIEARKARTGDSSA

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001037582

**ORF Size:** 990 bp

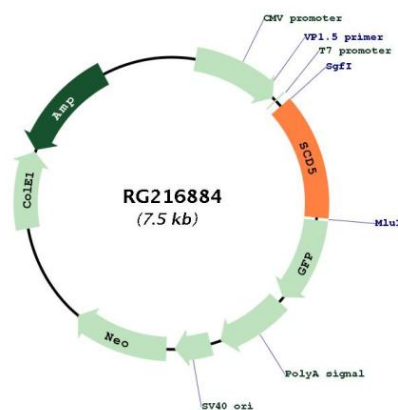
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001037582.1</a> , <a href="#">NP_001032671.1</a>
<b>RefSeq Size:</b>	3030 bp
<b>RefSeq ORF:</b>	993 bp
<b>Locus ID:</b>	79966
<b>UniProt ID:</b>	<a href="#">Q86SK9</a>
<b>Cytogenetics:</b>	4q21.22
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Biosynthesis of unsaturated fatty acids, PPAR signaling pathway
<b>Gene Summary:</b>	Stearoyl-CoA desaturase (SCD; EC 1.14.99.5) is an integral membrane protein of the endoplasmic reticulum that catalyzes the formation of monounsaturated fatty acids from saturated fatty acids. SCD may be a key regulator of energy metabolism with a role in obesity and dislipidemia. Four SCD isoforms, Scd1 through Scd4, have been identified in mouse. In contrast, only 2 SCD isoforms, SCD1 (MIM 604031) and SCD5, have been identified in human. SCD1 shares about 85% amino acid identity with all 4 mouse SCD isoforms, as well as with rat Scd1 and Scd2. In contrast, SCD5 shares limited homology with the rodent SCDs and appears to be unique to primates (Wang et al., 2005 [PubMed 15907797]).[supplied by OMIM, Mar 2008]

## Product images:



Circular map for RG216884