

## Product datasheet for **RR201484**

### **Sptlc1 (NM\_001108406) Rat Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Sptlc1 (NM_001108406) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sptlc1
Synonyms:	Lcb1; RGD1306617; Spt1
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



[View online »](#)

**ORF Nucleotide Sequence:**

>RR201484 representing NM\_001108406  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCGACGGTGGCGGAGCAGTGGGTGCTGGTGGAGATGGTGCAGCGCTGTACGAGGCTCCAGCATAACC  
 ATCTAATTCTGGAAGGAATCCTCATACTTTGGATAATCAGACTCGTTTTCTCTAAAACCTACAAGTTGCA  
 GGAGCGTTCTGACCTTACAGCCAAGGAAAAGGAAGAACTGATTGAAGAATGGCAGCCAGAGCCCCCTCGTC  
 CCCCCGGTCTCCAGGAACCATCTGCTCTCAACTACAACATCGTCTCCGGCCCTCCAACCATAACATCG  
 TGGTGAACGGAAGAGTGTGTCAACTTTGCCTCCTTTAATTTCTCGGGTTGCTGGCAACCCTCGGGT  
 TAAGGCTCGGCTTTTGCATCATTAAAGAAGTACGGCGTGGGTACCTGTGGTCCCAGAGGGTTTTATGGC  
 ACATTTGATGTCCATCTGGATTTGGAAGAGCGCTGGCAAAGTTTATGAAGACCGAAGAAGCTATCATT  
 ACTCCTATGGCTTCTCCACCATAGCCAGTGCATTCTGCGTACTCTAAGAGAGGGGACATTGTTTTTGT  
 GGACAGTGCAGCCTGCTTTGCTATCCAGAAAGGACTACAGGCATCACGCAGTGACATTAAGTTATCAAG  
 CACAATGACGTAGCTGACCTGGAGCGACTGCTAAAAGAACAAGAGATTGAAGATCAAAGAATCCTCGAA  
 AGGCCCGTGTGACTCGGCGATTATCGTCGCGGAAGGATTGTATATGAACACTGGAACCATCTGCCCTCT  
 TCCAGAACTGGTGAAGTTAAAGTATAAATACAAAGCAAGGATCTTCTGGAGGAGAGCCTGTCTGTTGGA  
 GTCCTTGGGGAGCATGGGCGAGGAGTACCCGAGCACTATGGGATCAGTATTGACGACATCGACCTTATCA  
 GTGCTAACATGGAGAATGCGCTCGCTTCTGTTGGGGCTTCTGCTGTGGCCGCTCTTTCTGTTGACCA  
 TCAGCGGCTCTCTGGCAAGGATACTGCTTTTCAGTTCACTGCCCCCTGCTAGCCGCTGCCGCCATT  
 GAGGCCCTCAACATCATGGAGGAGAACCAGGGATTTTTCAGTTTTAAGAAAAAGTCCAGACCATCC  
 ACAAGTCCCTACAAGGGTTTCCGGTTTAAAAGTGGTGGGGAGTCCCTTTGCCAGCGCTTCACTCCCA  
 GCTGGAAGAGAGCACGGGCTCTCGGAGAGAGATATGAAGCTGCTTCAGGAGATTGTAGAGCAATGCATG  
 AATAAGGCATCGCATTGACTCAGGCACGCTACTTGGACAAGGAAGAGAAGTGCCTTCTCCTCCAAGCA  
 TCAGGGTTGTGGTACCCTGGAGCAGACAGACGAAGAGCTGCAGAGGGCTGCAGCCACCATCAGGGAGGC  
 GGCCAGGCTGTGCTTTTG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RR201484 representing NM\_001108406  
 Red=Cloning site Green=Tags(s)

MATVAEQWLVEMVQALYEAPAYHLILEGILILWIIRLVFSKTYKLQERSDLTAKEKEELIEEWQPEPLV  
 PPVSRNHPALNYNIVSGPPTHNIIVNGKECVNFASFNLLANPRVKAFAFASLKKYGVGTCGPRGFY  
 TFDVHLDLEERLAKFMKTEEAIISYGFSTIASAIPAYSKRGDIVFVDSAAAFIAIQKGLQASRSDIKL  
 HNDVADLERLLKEQIEDQKNPRKARVTRRFIVAEGLYMNTGTICPLPELVRLKYKARIFLEESL  
 SFGVLGEHGRGVTEHYGISIDDIDLISANMENALASVGGFCGGRSFVVDHQRLSGQGYCFASLPL  
 LAAAAIEALNIMEENPGIFAVLKKKQTIHKSLLQVSGLVVGSLESLCPALHLQLEESTGSRERDM  
 KLLQEIIVEQCMKNGIALTQARYLDKEEKCLPPSIRVVVTVEQTDEELQRAAATIREAAQAVLL

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

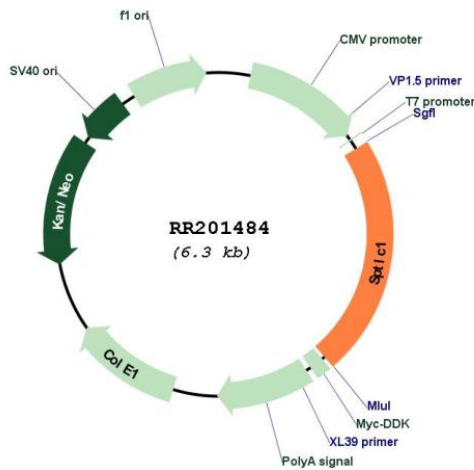
**Restriction Sites:**

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_001108406

ORF Size: 1419 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>	<u>NM_001108406.1, NP_001101876.1</u>
<b>RefSeq Size:</b>	3034 bp
<b>RefSeq ORF:</b>	1422 bp
<b>Locus ID:</b>	361213
<b>UniProt ID:</b>	<u>D4A2H2</u>
<b>Cytogenetics:</b>	17p14
<b>MW:</b>	52.5 kDa
<b>Gene Summary:</b>	Serine palmitoyltransferase (SPT). The heterodimer formed with SPTLC2 or SPTLC3 constitutes the catalytic core. The composition of the serine palmitoyltransferase (SPT) complex determines the substrate preference. The SPTLC1-SPTLC2-SPTSSA complex shows a strong preference for C16-CoA substrate, while the SPTLC1-SPTLC3-SPTSSA isozyme uses both C14-CoA and C16-CoA as substrates, with a slight preference for C14-CoA. The SPTLC1-SPTLC2-SPTSSB complex shows a strong preference for C18-CoA substrate, while the SPTLC1-SPTLC3-SPTSSB isozyme displays an ability to use a broader range of acyl-CoAs, without apparent preference (By similarity). Required for adipocyte cell viability and metabolic homeostasis (By similarity).[UniProtKB/Swiss-Prot Function]