

## Product datasheet for **MC203256**

### **Sptlc1 (NM\_009269) Mouse Untagged Clone**

#### **Product data:**

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                     |
| Product Name:             | Sptlc1 (NM_009269) Mouse Untagged Clone |
| Tag:                      | Tag Free                                |
| Symbol:                   | Sptlc1                                  |
| Synonyms:                 | AW552086; C77762; E030036H05; Lcb1      |
| Mammalian Cell Selection: | Neomycin                                |
| Vector:                   | PCMV6-Kan/Neo (PCMV6KN)                 |
| E. coli Selection:        | Kanamycin (25 ug/mL)                    |



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**Fully Sequenced ORF:** >BC046323  
 GGCTGCCTGACCATGGCGACAGTGGCGGAGCAGTGGGTGCTGGTGGAGATGGTGCAGGCGCTGTACGAGG  
 CTCCAGCATACCATCTTATTTTGAAGGAATCCTAATACTTTGGATAATCAGACTCGTTTTCTCTAAAAC  
 TTACAAGTTGCAGGAGCGTTCTGATCTTACAGCCAAGGAAAAGGAAGAACTGATTGAAGAGTGGCAGCCA  
 GAGCCCCTCGTCCCTCCAGTCTCCAAGAACCACCTGCTCTCAACTACAACATCGTGTCCGGCCCTCCAA  
 CCCACAACATCGTGGTGAATGGAAAAGAGTGTGTCAACTTTGCCTCCTTTAACTTCCTGGGCTGCTGGC  
 CAACCCCTCGAGTTAAGGCCACAGCTTTTTTCATCTTTAAAGAAGTACGGAGTGGGTACCTGTGGTCTCGA  
 GGGTTCTATGGCACATTTGATGTCCATCTGGATTTAGAAGAGCGCCTGGCAAAGTTTATGAAGACCGAAG  
 AAGCCATCATTTACTCGTATGGCTTCTCCACCATAGCCAGTGCCATTCTGCGTACTCTAAGAGAGGGGA  
 CATCATCTTTGTGGACAGTGGCGCTGCTTTGCTATCCAGAAAAGGATTACAGGCATCAAGAAGTGACATT  
 AAGTTATTTAAGCATAATGATGTGGCTGACCTGGAGCGACTGCTAAAAGAACAAGAGATTGAAGTCAAA  
 AGAATCCTCGAAGGCCCGTGTGACTCGGCGGTTATCGTGGTGGAGGGCTTGTACATGAACACTGGAAC  
 CATCTGTCCCCTCCAGAACTGGTTAAATTAATAATAAATAAAGCAAGAATATTCTGGAGGAGAGC  
 CTGTCTTTGGAGTCTTGGGGAGCACGGGCGAGGAGTACCCGAGCACTATGGGATCAGTATTGATGATA  
 TTGACCTTATCAGTGCTAACATGGAGAATGCACCTCGTCTGTGCGGGGCTTCTGCTGTGGCCGCTCCTT  
 CGTGGTTGACCATCAGCGGCTCTCCGGTCAAGGATACTGCTTTTCTGCTTCGTTACTCCCTGCTAGCT  
 GCTGCTGCCATTGAGGCCCTCAACATCATGGAAGAGAATCCAGATATTTTTGCAGTTTTAAAGAAAAAAT  
 GCCAGAACATCCATAAGTCTCTACAAGGTGTTTCGGGTTTAAAGTGGTGGGAGAGTCCCTTTCTCCGGC  
 GCTTACTCTCCAGCTGGAAGAGAGCACGGGCTCTCGGGAGAAAGATGTGAAGCTGCTTCAAGCAATCGTA  
 GATCAGTGCATGGATAAGGGCATCGATTGACTCAGGCACGGTACTTGGACAAGGAAGAGAAGTGCCTTC  
 CTCCTCAAGCATCAGGGTTGTGGTCACTGTGGAGCAGACGGAGGAAGAGCTACAGAGGGCTGCATCCAC  
 CATCAGGGAGGCGGCCAGGCTGTGCTGTTGTAGGCTCCTGCCAGTGCCTCAGCCATGTCACCTGCGGA  
 CGGAACACTCAGAGACCTCCAGCTGCCAGGGTGTGGCTGTGCTTGAATACACAGCCAGAGTGGATGGT  
 TGTATCCAGCAGGAGCTGACTTGTAGAGGATGACAGATGACAGCATATCCCTGGTGTCTTGCAGTGCCG  
 TGTGCTCTGTGAGATGCTTCACTGTCTATTGTATTTCGCTTTTGTAAAACTGGAGCTTCCATTTTCCC  
 TCTGCTGCTGTGGGAATGATCAATAAGCACTTCTCCGTATCCATAGAAAAGGACTTTGCAGCTAAGAG  
 GGACTCTCCATGTATCCAGTTACTGTGGGAGACTGAGAGACTGTGCTCCCTGCTCCTCAGGCAGAGCT  
 CAGTGGTGGCTGCTATGCAGATACTCTGTGTGTTATAAACGTCATAACAACATGGTATCCTAGGACTC  
 TATGTGCTCCAGTTACTGATACTGCTGTCTAATCTGAGCTTCACTAACAGATCTTCATACCGCTTCT  
 AAGCAATAATCTGAATCAAACGTTATTTTATTTTGTGTAATTGACTTTATTTTTTATATATTCTCTA  
 GTCAGTTTTGGGAAGAGGTTATTATTCTGATCCCAAATACAAATCATGCCCTTGGTATTTTCTAATAT  
 GTCCAATGCTCTTTTTCATGGTGGTTTTGTCCAGGAGCATAGACCTGTGGGCTTTTTCTAAGCTGAGAAA  
 AATGAGACCTTTCCTCTTCACTCTATAAATCCAGATGCCTCCGAAAAATAGGGATGCTCTAAACGTGA  
 TTTCCGAGCTCTACACTGGCTGCCGTTGTCTTAGCGAGCGTGTGAGTGATATAAAGGCTTGTGACATG  
 TGCCACGGATCGTGTGCATGGAAGGCCTTCTTTGTTGCACGGGCAGAGGAGTCAAGTCAATTTAAATGTC  
 ATTTTCTGATGTGCGTTCATGTGAACCATGGTTCGGCATCTTCTTAAGTGATCTGTGACATTTTAAATGT  
 TTCTATTTACATACGTGCCTTGTGATTGTGCTGCTGTGAGGGTACACTCCTGTGCGGGAAAAAGTCTGTTT  
 TGGTTTGGTTTTAATGAAATAAACCTCCAAGAGCTTACATTCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA AAAAAAAAAA

- Restriction Sites:** RsrII-NotI
- ACCN:** NM\_009269
- Insert Size:** 1422 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- 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:** [BC046323](#), [AAH46323](#)

**RefSeq Size:** 2601 bp

**RefSeq ORF:** 1422 bp

**Locus ID:** 268656

**UniProt ID:** [O35704](#)

**Cytogenetics:** 13 B1

**Gene Summary:** Serine palmitoyltransferase (SPT) (PubMed:28100772). 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. The SPTLC1-SPTLC2-SPTSSB complex displays a strong preference for C18-CoA substrate, while the SPTLC1-SPTLC3-SPTSSB isozyme has the ability to use a broader range of acyl-CoAs (By similarity). Required for adipocyte cell viability and metabolic homeostasis (PubMed:28100772).[UniProtKB/Swiss-Prot Function]