

Product datasheet for **RR208089**

Sptlc2 (NM_001037097) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Sptlc2 (NM_001037097) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Sptlc2
Synonyms:	Pomt2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RR208089 representing NM_001037097
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGCGGCCGGAGCCAGGAGGCTGCTGCTGCCGCCGCCGATGCGGGCGAACGGCTGCGTGAAAAACGGGG
 AAGTGAGGAACGGGTACTTGAGGAGCAGCACCGCCACCATCGCGGCTGCGGGCCAGATTCATCATATTAC
 AGAAAAATGGAGGACTGTACAAAAGACCGTTTAATGAAGCTTTTGAAGAAACACCCATGCTAGTTGCTGTG
 CTCACATACGTGGGCTATGGTGTACTCACCTCTTTGGATATCTTCGAGATTTCTTGAGGCATTGGAGAA
 TTGAAAAGTGCCACCATGCAACAGAAAGAGAAGAAACAAAAGGACTTTGTGCTTGTATCAGGATTTTGA
 AAATTCTATAACAAGGAACCTCTACATGAGGATCAGAGACAACCTGGAATCGACCCATCTGTAGTGTGCC
 GGAGCCAAAGTGGATATCATGGAGAGACAGTCTCATGACTACAACCTGGTCAAGTACACAGGGAATA
 TAATTAAGGTGTAATAAACATGGGTTCTACAACATCTTGGATTTGCGAGGAACACTGGATCATGTCA
 GGAAGCAGCTGCTGAAGTTCTCAAGACATATGGAGCAGGGGTGTGCAGCACTCGCCAGGAAATTGGGAAC
 CTGGACAAGCACGAGGAACTAGAGAAACTGGTAGCAAGTTCTTGGGTGTGGAAGCTGCTTTGACCTATG
 GCATGGGATTTGCGACAAATTAATGAACATTCCTGCTCTTGTGGCAAAGGTTGCCGATTCTGAGTGA
 TGAGCTGAACCATGCATCCTTGGTTCTAGGAGCCAGACTGTCGGGAGCAACCATTGCAATCTTCAAACAC
 AACAATATGCAAAGCTTGGAGAAGCTTTTAAAAGATGCCATTGTTATGGTCAGCCTCGGACAAGAAGGC
 CCTGGAAGAAAATCCTAATCCTCGTGGAAGGCATATATAGCATGGAAGGGTCTATTGTTCCGCTTCTCTGA
 AGTGATTGCTCTCAAGAAGAAAATACAAGGCATACTTGTATCTGGATGAGGCTCACAGCATTGGGGCTCTT
 GGCCCTTCAGGGCGTGGTGTAGTAGACTACTTTGGCCTGGATCCTGAGGATGTAGATGTTATGATGGGAA
 CATTACAAAAGAGCTTCGGTGTTCAGGAGGATACATTGGCGGCAAGAAGGAGCTGATAGACTACCTACG
 CACACATTCTCACAGTGTGTGTACGCCACGTCAATGTACCACCTGTGATGGAGCAGATCATCACCTCC
 ATGAAGTGCATCATGGGGCAGGATGGCACCAGTCTTGGCAAAGAATGTATCCAGCAGTTGCTGAGAAACA
 CCAGGTATTTTCAAGGACGCCTGAAGGAAATGGGGTTCATCATCTATGGCAATGAAGACTCCCCGGTGGT
 GCCTTTGATGCTCTACATGCCGGCCAAAATGGCGCCTTTGGGAGAGAGATGCTGAAGCGGAACATTGGT
 GTAGTTGTGGTGGGATTTCTGCTACCCCAATCATTGAGTCCAGAGCCAGATTTTGCCTGTCAGCGGCTC
 ATACCAAAGAAAATCTTGACACGGCTTTGAAGGAAATAGATGAAGTTGGGGATCTGCTGCAACTGAAGTA
 CTCGCCACCAGCGCGCTGCCTCTGCTGGACAGGCCCTTTGACGAGACTACCTATGAGGAGACAGAAGAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR208089 representing NM_001037097
 Red=Cloning site Green=Tags(s)

MRPEPGGCCRRPMPRANGCVKNGEVRNGYLRSSATIAAAGQIHHITENGLYKRPFNFAFEETPMLVAV
 LTYVGYGVLTFLGYLRDFLRHWRIEKCHHATEREEQKDFVSLYQDFENFYTRNL YMRIRDNWNRPICSV
 P GAKVDIMERQSHDYNWSFKYTGNIKGVINMGSYNLGFARNTGSCQEAEEVLKTYGAGVCSTRQEIGN
 LDKHEELEKLVARFLGVEAALTYGMGFATNSMNPALVGKGLILSDELNHASLVLGARLSGATIRIFKH
 NNMQSLEKLLKDAIVYQPRTRRPWKKILILVEGIYSMEGSIVRLPEVIALKKYKAYLYLDEAHSIGAL
 GPSGRGVVDYFGLDPEDVDVMMGTFTKSFASGGYIGGKELIDYLRTHSHSAVYATSMSPVMEQIITS
 MKCIMGQDGTSLGKECIQQLAENTRYFRRLKEMGFIIYGNEDSPVPLMLYMPAKIGAFGREMLKRNIG
 VVVVGFAPTIIESRARFCLSAHTKEILDALKEIDEVDLLQLKYSRHRPLPLDRPFDETTYEETD

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001037097

ORF Size: 1680 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_001037097.1](#), [NP_001032174.1](#)

RefSeq Size: 3742 bp

RefSeq ORF: 1683 bp

Locus ID: 366697

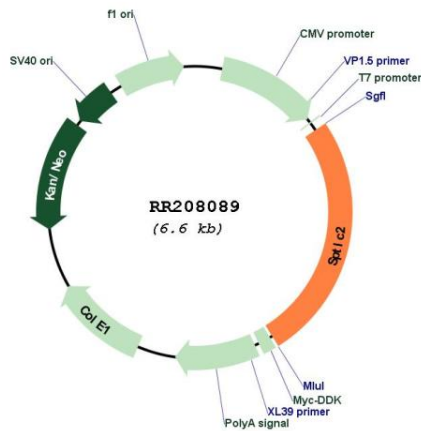
UniProt ID: [Q3B7D2](#)

Cytogenetics: 6q31

MW: 63 kDa

Gene Summary: Serine palmitoyltransferase (SPT). The heterodimer formed with LCB1/SPTLC1 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-SPTLC2-SPTSSB complex displays a preference for C18-CoA substrate (By similarity). Plays an important role in de novo sphingolipid biosynthesis which is crucial for adipogenesis (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR208089