

Product datasheet for **RC238655**

SPTLC1 (NM_001281303) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPTLC1 (NM_001281303) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SPTLC1
Synonyms:	HSAN1; HSN1; LBC1; LCB1; SPT1; SPTI
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RC238655 representing NM_001281303
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCGACCGCCACGGAGCAGTGGTCTGGTGGAGATGGTACAGCGCTTACGAGGCTCTGCTTACC
 ATCTTATTTTGAAGGGATTCTGATCCTCTGGATAATCAGACTTCTTTCTAAGACTTACAAATTACA
 AGAACGATCTGATCTTACAGTCAAGGAAAAAGAAGAACTGATTGAAGAGTGGCAACCAGAACCTCTGT
 CCTCTGTCCAAAAGACCATCTGCTCTCAACTACAACATCGTTTCAGGCCCTCAAGCCACAAAACCTG
 TGGTGAATGGAAGAATGTATAAACTCGCCTCATTTAATTTCTTGGATTGTTGGATAACCTAGGGT
 TAAGGCAGCAGCTTAGCATCTAAAGAAGTATGGCGTGGGACTTGTGGACCCAGAGGATTTTATGGC
 ACATTTGATGTTCAATTTGGATTTGGAAGACCGCTGGCAAATTTATGAAGACAGAAGAAGCCATTATAT
 ACTCATATGGATTTGCCACCATAGCCAGTGTATTCTGCTTACTCTAAAAGAGGGGACATTGTTTTTGT
 AGATAGAGCTGCCTGCTTTGCTATTCAGAAAGGATTACAGGCATCCCGTAGTGACATTAAGTTATTTAAG
 CATAATGACATGGCTGACCTCGAGCGACTACTAAAAGAACAAGAGATCGAAGATCAAAGAATCCTCGCA
 AGGCTCGTGAACCTCGCGTTTCATTGTAGTAGAAGGATTGTATATGAATACTGGAACTATTTGCTCT
 TCCAGAATTGGTTAAGTTAAAATACAAATACAAAGCAAGAATCTTCTGGAGGAAAGCCTTTCAATTTGGA
 GTCCTAGGAGAGCATGGCCGAGGAGTCACTGAACACTATGGAATCAATATTGATGATATTGATCTTATCA
 GTGCCAACATGGAGAATGCATTGCTTCTATTGGAGGTTTCTGCTGTGGCAGGTCTTTTGTAAATTGACCA
 TCAGCGACTTCCGGCCAGGGA TACTGCTTTTCAGCTTCGTTACCTCCCCTGTTAGCTGCTGCAGCAATT
 GAGGCCCTCAACATCATGGAAGAGAATCCAGGTATTTTGCAGTGTGAAGGAAAAGTGGGACAAAATTC
 ATAAAGCTTTACAAGCATTCTGGATTTAAAAGTGGTGGGGAGTCCCTTTCTCCAGCCTTCCACTACA
 ACTGGAAGAGAGCACTGGGTCTCGCGAGCAAGATGTCAGACTGCTTCAGGAAATTTAGATCAATGCATG
 AACAGAAGTATTGCATTAACCTCAGGCGCCTACTTGGAGAAGAAGAGAAGTGTCTCCCTCCTCCAGAG
 GAAGAAGTGGAGAGAGCTGCGTCCACCATCAAGGAGGTAGCCAGGCCGTCTGCTCTAGGCAGAGTCCC
 GGGACCATGGCTCCTGCCACACAACACGCAGAGAGGACTCAAGACTCCCCTGGCCATGGAGTGGCCTG
 AAAGAGAGCAAGAACATGTGGATCTTTGATAGGATTGTTACCAAATGGTGTCAAGTATGGACCAATTGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC238655 representing NM_001281303
 Red=Cloning site Green=Tags(s)

MATATEQWVLVEMVQALYEAPAYHLILEGILILWIIRLLFSKTYKLQERSDLTVKEKEELIEEWQPEPLV
 PPVPKDHPALNYNIVSGPPSHKTVVNGKECINFASFNGLLDNPRVKAALASLKKYGVGTCGPRGFY
 TFDVHLDLEDRLAKFMKTEEAIIYSYGFATIASAIPAYSKRGDIVFVDRAACFAIQKGLQASRSDIKL
 HNDMADLERLLKEQEIEDQKNPRKARVTRRFIVVEGLYMNTGTICPLPELVKLYKARIFLEESL
 VLGEGHGRGVTEHYGINIDDLISANMENALASIGGFCCGRSFVIDHQRLSGQGYCFASLPLAAAAI
 EALNIMEENPGIFAVLKEKCGQIHKALQGISGLKVVGESLSPAFHLQLEESTGSREQDVRLQEI
 VDQCMNRSIALTQARYLEKEEKCLPPPRGRTGESC VHHQGGSPGRPALGRVPGWPPATQHAERTQDS
 RWPWSGLKESKNMWIFDRIVTKWCQYGPV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

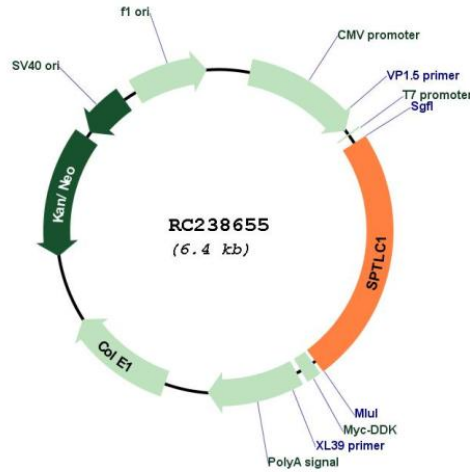
Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN: NM_001281303

ORF Size: 1539 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:	<ol style="list-style-type: none">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_001281303.2
RefSeq Size:	2833 bp
RefSeq ORF:	1542 bp
Locus ID:	10558
UniProt ID:	O15269
Cytogenetics:	9q22.31
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Metabolic pathways, Sphingolipid metabolism
MW:	57.8 kDa
Gene Summary:	<p>This gene encodes a member of the class-II pyridoxal-phosphate-dependent aminotransferase family. The encoded protein is the long chain base subunit 1 of serine palmitoyltransferase. Serine palmitoyltransferase converts L-serine and palmitoyl-CoA to 3-oxosphinganine with pyridoxal 5'-phosphate and is the key enzyme in sphingolipid biosynthesis. Mutations in this gene were identified in patients with hereditary sensory neuropathy type 1. Alternatively spliced variants encoding different isoforms have been identified. Pseudogenes of this gene have been defined on chromosomes 1, 6, 10, and 13. [provided by RefSeq, Jul 2013]</p>