

## Product datasheet for **SC111752**

### **SPTLC1 (NM\_006415) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	SPTLC1 (NM_006415) Human Untagged Clone
Tag:	Tag Free
Symbol:	SPTLC1
Synonyms:	HSAN1; HSN1; LBC1; LCB1; SPT1; SPTI
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC111752 sequence for NM\_006415 edited (data generated by NextGen Sequencing)

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ATGGCGACCGCCACGGAGCAGTGGGTTCTGGTGGAGATGGTACAGGCGCTTTACGAGGCT
CCTGCTTACCATCTTATTTTGAAGGGATTCTGATCCTCTGGATAATCAGACTTCTTTTC
TCTAAGACTTACAAATTACAAGAACGATCTGATCTTACAGTCAAGGAAAAAGAAGAACTG
ATTGAAGAGTGGCAACCAGAACCTCTTGTCTCTGTCCAAAAGACCATCCTGCTCTC
AACTACAACATCGTTTTCCAGGCCCTCCAAGCCACAAAAGTGGTGAATGGAAAAGAAATGT
ATAAACTTCGCCTCATTTAATTTTCTTGGATTGTTGGATAACCCTAGGGTTAAGGCAGCA
GCTTTAGCATCTCTAAAGAAGTATGGCGTGGGGACTTGTGGACCCAGAGGATTTTATGGC
ACATTTGATGTTCAATTTGGATTTGGAAGACCGCCTGGCAAAATTTATGAAGACAGAAGAA
GCCATTATATACTCATATGGATTTGCCACCATAGCCAGTGTCTATTCTGCTTACTCTAAA
AGAGGGGACATTGTTTTGTAGATAGAGCTGCCTGCTTTGCTATTAGAAAAGGATTACAG
GCATCCCGTAGTGACATTAAGTTATTTAAGCATAATGACATGGCTGACCTCGAGCGACTA
CTAAAAGAACAAGAGATCGAAGATCAAAGAATCCTCGCAAGGCTCGTGAACCTCGGCGT
TTCATTGTAGTAGAAGGATTGTATATGAATACTGGAATATTTGCTCTTCCAGAAATTG
GTTAAGTTAAAATACAAATACAAAGCAAGAATCTTCTGGAGGAAAGCCTTTCAATTTGGA
GTCCTAGGAGAGCATGGCCGAGGAGTCACTGAACACTATGGAATCAATATTGATGATATT
GATCTTATCAGTGCCAACATGGAGAATGCACTTGTCTTCTATTGGAGGTTTCTGCTGTGGC
AGGTCTTTTGAATTTGACCATCAGCGACTTTCCGGCCAGGGATACTGCTTTTCCAGCTTCG
TTACCTCCCCTGTAGCTGCTGCAGCAATTGAGGCCCTCAACATCATGGAAGAGAATCCA
GGTATTTTTCAGTGTGAAGGAAAAGTGGGACAAAATTCATAAAGCTTTACAAGGCATT
TCTGGATTAAGTGGTGGGGGAGTCCCTTTTCCAGCCTTTACCTACAACCTGGAAGAG
AGCATGGGTCTCGCGAGCAAGATGTCAGACTGCTTTCAGGAAAATGTAGATCAATGCATG
AACAGAAGTATTGCATTAACCTCAGGCGCCTACTTGGAGAAAAGAAGAGAAGTGTCTCCCT
CCTCCCAGCATTGCGGTTGTGGTACGGTGAACAAAACAGAGGAAGAAGTGGAGAGAGCT
GCGTCCACCATCAAGGAGGTAGCCAGGCCGCTCCTGCTCTAG
    
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Clone variation with respect to NM\_006415.2

**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_006415 unedited
GGGTTCANAATTGTATACGACTCATATAGCGGCCGCGAAATTCGCACGAGGCTAACTAT
GGCGACCGCCACGGAGCAGTGGGTTCTGGTGGAGATGGTACAGGCGCTTTACGAGGCTCC
TGCTTACCATCTTATTTTGAAGGGATTCTGATCCTCTGGATAATCAGACTTCTTTTCTC
TAAGACTTACAAATTACAAGAACGATCTGATCTTACAGTCAAGGAAAAAGAAGAACTGAT
TGAAGAGTGGCAACCAGAACCTCTTGTCTCTGTCCAAAAGACCATCCTGCTCTCAA
CTACAACATCGTTTTCCAGGCCCTCCAAGCCACAAAAGTGGTGAATGGAAAAGAAATGTAT
AAACTTCGCCTCATTTAATTTTCTTGGATTGTTGGATAACCCTAGGGTTAAGGCAGCAGC
TTTAGCATCTCTAAAGAAGTATGGCGTGGGGACTTGTGGACCCAGAGGATTTTATGGCAC
ATTTGATGTTCAATTTGGATTTGGAAGACCGCCTGGCAAAATTTATGAAGACAGAAGAAGC
CATTATATACTCATATGGATTTGCCACCATAGCCAGTGTCTATTCTGCTTACTCTAAAAG
AGGGGACATTGTTTTGTAGATAGAGCTGCCTGCTNTGCTATTAGAAAAGGATTACAGGC
ATCCCGTAGTGACATTAAGTTATTTAAGCATAATGACATGGCTGACCTCGAGCGACTACT
AAAAGAACCAAGAGATCGAGATCAAAGAATCCTCGCAGGGCTCGTGAACCTCGGCGTTT
CATTGTAGTAGAAGGATTGTATATGAATACTGGAATATTTGCTCTTCCAGAAATTGG
TAAGTTAAAATACANATTCAAAGCAAGAATCTTTCTGGNAGGAAAGNCCTTTCAATTTGNN
AGTCCCTAGAGAGCATGGNCCGAGNAGTCACTGNACN
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_006415 unedited ACCGCGGGCCGCTTCTAGAGTCGAGTTTTTTTTTTTTTTTTTTTTCAGGAATTAGGTTTAT TTCATTAATAAAATAAAACAAAACAAACCAGACTCATCCCCAAAGAGTACTTTATCCTTT AAAGCAGCAGCAATCACAAAGGCACATATGTACAAAATACCTCAAGCAAAATAGAACTGA ACATTCAAAAGTATGTGTTGTTAAAAAGATGTTGAAGACCATTGAGTAATAAGCACA GGTTATAAAAATCACAATTTTATTCTTCTACCTTAAACAAGAGAAGGAATGATGGCATAA TATTTATATGCTATATTGTGGCAGTATAACAAAACCTTTACACCACATAACCTGGTTTGC TAAAGAAAAAACAGGTAAAGTACTGCTTAAAAATGGTATTTTTAGTGCTTTCACATCTTT TGTAGATATCTGGAATTTGTAAGATGAAAAGAAAAATTCTCTTTTCTTGGCTTAGTAA AAGCCTGTAGTTACACGTCCTAGGCAAACCCACCATACAAAAAGGAATACATTTGAGA TATTCTAAAATATAAAGGATATGATTTATATTATGGGATCAACATAATAACCAACTCTCT TCCTAAAACAGATTAGAGGTGAACACATAAGAAATGTAAGAAAGGTTAATTACATTA ATAAAATAGCTTCTGATTTAAATATTGCTCACTAGGAAGTATAATGAATATTCTCTGG CTAAGGATGCTCAGATTAGAAATGGTGTGACATCAATATTTAGTGTGTACAAAAAGTCTA AGATTAATACATTGCANAGTTATAAATAATCACACAAAAGTGCCTTTTAGCCACCATT TAGCTCACACAACGAAGACTGGAAAATACGTGGTTATTTAGATCTTCATATAAAATGTGA CACATATGTTGAAGTGTCTCTAGCTTTATGTTGCAGTCATTTTCTAATGAAAT
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_006415
<b>Insert Size:</b>	3010 bp
<b>OTI Disclaimer:</b>	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).
<b>Components:</b>	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_006415.2</a> , <a href="#">NP_006406.1</a>
<b>RefSeq Size:</b>	2780 bp
<b>RefSeq ORF:</b>	1422 bp
<b>Locus ID:</b>	10558
<b>UniProt ID:</b>	<a href="#">O15269</a>
<b>Cytogenetics:</b>	9q22.31
<b>Domains:</b>	aminotran_1_2
<b>Protein Families:</b>	Druggable Genome, Transmembrane

**Protein Pathways:** Metabolic pathways, Sphingolipid metabolism

**Gene Summary:** 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]  
Transcript Variant: This variant (1) represents the longest transcript, and encodes isoform a.