

Product datasheet for **RC222985**

SPTLC1 (NM_006415) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | SPTLC1 (NM_006415) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | SPTLC1 |
| Synonyms: | HSAN1; HSN1; LBC1; LCB1; SPT1; SPTI |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



[View online »](#)

ORF Nucleotide Sequence:

>RC222985 representing NM_006415
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGCGACCGCCACGGAGCAGTGGTCTGGTGGAGATGGTACAGCGCTTACGAGGCTCTGCTTACC
 ATCTTATTTTGAAGGGATTCTGATCCTCTGGATAATCAGACTTCTTTCTAAGACTTACAAATTACA
 AGAACGATCTGATCTTACAGTCAAGGAAAAAGAAGAACTGATTGAAGAGTGGCAACCAGAACCTCTGT
 CCTCTGTCCAAAAGACCATCTGCTCTCAACTACAACATCGTTTCAGGCCCTCAAGCCACAAAACCTG
 TGGTGAATGGAAAAGAATGTATAAACTTCGCCTCATTTAATTTCTTGGATTGTTGGATAACCTAGGGT
 TAAGGCAGCAGCTTAGCATCTAAAGAAGTATGGCGTGGGACTTGTGGACCCAGAGGATTTTATGGC
 ACATTTGATGTTCAATTTGGATTTGAAGACCGCTGGCAAATTTATGAAGACAGAAGAAGCCATTATAT
 ACTCATATGGATTTGCCACCATAGCCAGTGTATTCTGCTTACTCTAAAAGAGGGGACATTGTTTTTGT
 AGATAGAGCTGCCTGCTTTGCTATTCAGAAAGGATTACAGGCATCCCGTAGTGACATTAAGTTATTTAAG
 CATAATGACATGGCTGACCTCGAGCGACTACTAAAAGAACAAGAGATCGAAGATCAAAGAATCCTCGCA
 AGGCTCGTGAACCTCGCGTTTCATTGTAGTAGAAGGATTGTATATGAATACTGGAACTATTTGCTCT
 TCCAGAATTGGTTAAGTTAAAATACAAATACAAAGCAAGAATCTTCTGGAGGAAAGCCTTTTCAATTTGGA
 GTCCTAGGAGAGCATGGCCGAGGAGTCACTGAACACTATGGAATCAATATTGATGATATTGATCTTATCA
 GTGCCAACATGGAGAATGCACCTTCTTCTATTGGAGGTTTCTGCTGTGGCAGGCTTTTTGTAATTGACCA
 TCAGCGACTTCCGGCCAGGGA TACTGCTTTTCAGCTTCGTTACCTCCCCTGTTAGCTGCTGCAGCAATT
 GAGGCCCTCAACATCATGGAAGAGAATCCAGGTATTTTGCAGTGTGAAGGAAAAGTGGGACAAAATTC
 ATAAAGCTTTACAAGGCATTTCTGGATTTAAAAGTGGTGGGGAGTCCCTTTCTCCAGCCTTTCACCTACA
 ACTGGAAGAGAGCACTGGGTCTCGCGAGCAAGATGTCAGACTGCTTCAGGAAATTTAGATCAATGCATG
 AACAGAAGTATTGCATTAACCTCAGGCGCCTACTTGGAGAAAAGAAGAGAAGTGTCTCCCTCCTCCAGCA
 TTCGGGTTGTGGTCACGGTGAACAACAGAGGAAGAACTGGAGAGAGCTGCGTCCACCATCAAGGAGGT
 AGCCAGGCCGCTCTGCTC

ACCGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222985 representing NM_006415
 Red=Cloning site Green=Tags(s)

MATATEQWVLVEMVQALYEAPAYHLILEGILILWIIRLLFSKTYKLQERSDLTVKEKEELIEEWQPEPLV
 PPVPKDHPALNYNIVSGPPSHKTVVNGKECINFASFNLGLLDNPRVKAALASLKKYGVGTCGPRGFY
 TFDVHLDLEDRLAKFMKTEEAIIYSYGFATIASAIPAYSKRGDIVFVDRAACFAIQKGLQASRSDIKLFK
 HNDMADLERLLKEQIEIQKNPRKARVTRRFIVVEGLYMNTGTICPLPELVKLYKYKARIFLEESLSFG
 VLGEHGRGVTEHYGINIDDLISANMENALASIGGFCCGRSFVIDHQRLSGQGYCFASLPLLLAAAAI
 EALNIMEENPGIFAVLKEKCGQIHKALQGISGLKVVGESLSPAFHLQLEESTGSREQDVRLQEIIVDQCM
 NRSIALTQARYLEKEEKCLPPPSIRVVVTVEQTEEELERAASTIKEVAQAVLL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6107_f11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_006415

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).

- 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_006415.4](#)

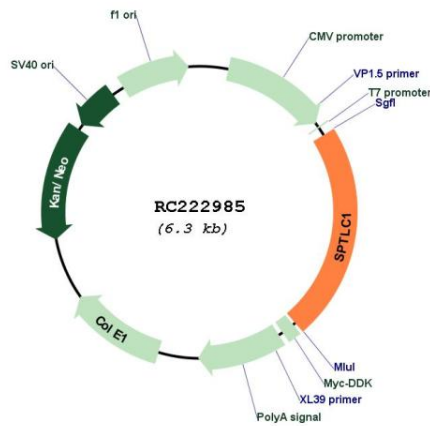
RefSeq Size: 2780 bp

RefSeq ORF: 1422 bp

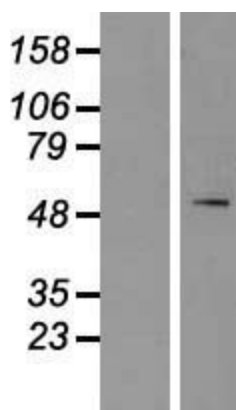
Locus ID: 10558

| | |
|--------------------------|--|
| UniProt ID: | <u>O15269</u> |
| Cytogenetics: | 9q22.31 |
| Domains: | aminotran_1_2 |
| Protein Families: | Druggable Genome, Transmembrane |
| Protein Pathways: | Metabolic pathways, Sphingolipid metabolism |
| MW: | 52.6 kDa |
| 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] |

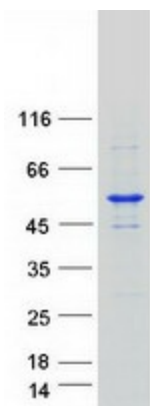
Product images:



Circular map for RC222985



Western blot validation of overexpression lysate (Cat# [LY416663]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222985 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SPTLC1 protein (Cat# [TP322985]). The protein was produced from HEK293T cells transfected with SPTLC1 cDNA clone (Cat# RC222985) using MegaTran 2.0 (Cat# [TT210002]).