

Product datasheet for **RG238655**

SPTLC1 (NM_001281303) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SPTLC1 (NM_001281303) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SPTLC1
Synonyms:	HSAN1; HSN1; LBC1; LCB1; SPT1; SPTI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG238655 representing NM_001281303.
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGCGACCGCCACGGAGCAGTGGTCTGTGGAGATGGTACAGGCGCTTACGAGGCTCTGCTTAC
CATCTTATTTTGAAGGGATTCTGATCCTTGGATAATCAGACTTCTTTCTCTAAGACTTACAATAA
CAAGAACGATCTGATCTTACAGTCAAGGAAAAAGAAGAACTGATTGAAGAGTGGCAACCAGAACCTCTT
GTTCTCTGTGCCAAAAGACCATCCTGCTCTCAACTACAACATCGTTTCAGGCCCTCCAAGCCAAAA
ACTGTGGTGAATGAAAAAGAAATGTATAAATTCGCCTCATTTAATTTTCTGGATTGTTGGATAACCTT
AGGGTTAAGGCAGCAGCTTAGCATCTCTAAAGAAGTATGGCGTGGGACTTGTGGACCCAGAGGATTT
TATGGCACATTTGATGTTTATTTGGATTGGAAGACCGCTGGCAAAATTTATGAAGACAGAAGAAGCC
ATTATATACTCATATGGATTTGCCACCATAGCCAGTGCTATTCTGCTTACTCTAAAAGAGGGGACATT
GTTTTTGTAGATAGAGCTGCCTGCTTGTCTTTCAGAAAGGATTACAGGCATCCCGTAGTGACATTAAG
TTATTTAAGCATAATGACATGGCTGACCTCGAGCGACTACTAAAAGAACAAGAGATCGAAGATCAAAG
AATCCTCGCAAGGCTCGTGAACCTCGGCGTTTCATTGTAGTAGAAGGATTGTATATGAATACTGGAAC
ATTTGTCCTCTCCAGAATTGGTTAAGTTAAAATACAAATACAAAGCAAGAATCTTCTGGAGGAAAGC
CTTTCAATTTGGAGTCTAGGAGAGCATGGCCGAGGAGTCACTGAACACTATGGAATCAATATTGATGAT
ATTGATCTTATCAGTGCCAACATGGAGAATGCCTTGTCTTATTGGAGGTTTCTGCTGTGGCAGGTCT
TTTGAATTGACCATCAGCGACTTCCGGCCAGGGATACTGCTTTTTCAGCTTCTGTACCTCCCCTGTTA
GCTGCTGCAGCAATTGAGGCCCTCAACATCATGGAAGAGAATCCAGGTATTTTTCAGTGTGAAGGAA
AAGTGGGACAAAATTCATAAAGCTTTACAAGGCATTTCTGGATTTAAAAGTGGTGGGGAGTCCCTTTCT
CCAGCCTTTCACCTACAACCTGGAAGAGAGCAGTGGTCTCGCGAGCAAGATGTCAGACTGCTTCAGGAA
ATTGTAGATCAATGCATGAACAGAAGTATTGCATTAACCTCAGGCGGCTACTTGGAGAAAAGAAGAAAG
TGTCTCCCTCCTCCAGAGGAAGAACTGGAGAGAGCTGCGTCCACCATCAAGGAGGTAGCCAGGCCGT
CCTGCTCTAGGCAGAGTCCCGGACCATGGCCTCCTGCCACACAACAGCAGAGAGGACTCAAGACTCC
CGCTGGCCATGGAGTGGCTGAAAGAGAGCAAGAACATGTGGATCTTTGATAGGATTGTTACCAAATGG
TGTCAGTATGGACCAATTGTG
ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTAAAC
```

Protein Sequence:

>Peptide sequence encoded by RG238655
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MATATEQWVLEVMVQALYEAPAYHLILEGILILWIIRLLFSKTYKLQERSDLTVKEKEELIEEWQPEPL
VPPVPKDHPLNINIVSGPPSHKTVVNGKECINFASFNGLLDNPRVKAALASLKKYVGTGCGPRGF
YGTDFVHLDLEDRLAKFMKTEEAIISYGFATIASAIPAYSKRGDIVFDRAACFAIQGLQASRSDIK
LFKHNDMADLERLLKEQEIEDQKNPRKARVTRRFIVVEGLYMNTGTICPLPELVKLKYKARIFLEES
LSFGVLGEHGRGVTEHYGINIDDLISANMENALASIGGFCGRSFVIDHQRLSGQGYCFASLPLLL
AAAAIEALNIMEENPGIFAVLKEKCGQIHKALQGISGLKVVGESLSPAFHLQLEESTGSREQDVRLLQE
IVDQCMNRSIALTQARYLEKEEKCLPPRGRGTGESCVHHQGGSPGRPALGRVPGPWPPATQHAERTQDS
RWPWSGLKESKNMWFDRIVTKWCQYGPV
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

Restriction Sites:

Sgfl-Mlul

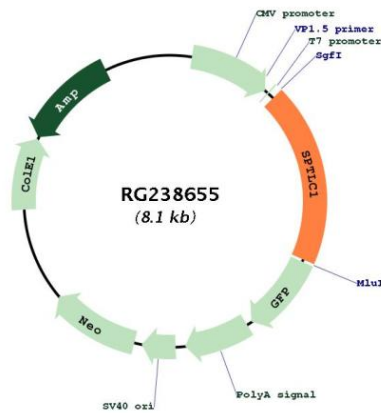
Cloning Scheme:


- 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).
- 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:

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 RG238655