

SPTLC1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2534a**Specification**

SPTLC1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [O15269](#)**SPTLC1 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 10558**Other Names**

Serine palmitoyltransferase 1, Long chain base biosynthesis protein 1, LCB 1, Serine-palmitoyl-CoA transferase 1, SPT 1, SPT1, SPTLC1, LCB1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2534a](/product/products/AP2534a) was selected from the N-term region of human SPTLC1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SPTLC1 Antibody (N-term) Blocking Peptide - Protein Information**Name** SPTLC1**Synonyms** LCB1**Function**

Component of the serine palmitoyltransferase multisubunit enzyme (SPT) that catalyzes the initial and rate-limiting step in sphingolipid biosynthesis by condensing L-serine and activated acyl-CoA (most commonly palmitoyl-CoA) to form long-chain bases. The SPT complex is also composed of SPTLC2 or SPTLC3 and SPTSSA or SPTSSB. Within this complex, the heterodimer with SPTLC2 or SPTLC3 forms the catalytic core (PubMed: [19416851](http://www.uniprot.org/citations/19416851), PubMed: [33558762](http://www.uniprot.org/citations/33558762)). The composition of the serine palmitoyltransferase (SPT) complex determines the substrate preference (PubMed: [19416851](http://www.uniprot.org/citations/19416851), PubMed: [33558762](http://www.uniprot.org/citations/33558762)).

href="http://www.uniprot.org/citations/33558762" target="_blank">33558762). The SPTLC1-SPTLC2-SPTSSA complex shows a strong preference for C16-CoA substrate, while the SPTLC1-SPTLC3-SPTSSA isozyme uses both C14-CoA and C16-CoA as substrates, with a slight preference for C14-CoA (PubMed:19648650, PubMed:19416851). The SPTLC1-SPTLC2-SPTSSB complex shows a strong preference for C18-CoA substrate, while the SPTLC1-SPTLC3-SPTSSB isozyme displays an ability to use a broader range of acyl-CoAs, without apparent preference (PubMed:19648650, PubMed:19416851, PubMed:33558761, PubMed:33558762). Required for adipocyte cell viability and metabolic homeostasis (By similarity).

Cellular Location

Endoplasmic reticulum membrane; Single-pass membrane protein
{ECO:0000250|UniProtKB:O35704}

Tissue Location

Widely expressed. Not detected in small intestine.

SPTLC1 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

SPTLC1 Antibody (N-term) Blocking Peptide - Images

SPTLC1 Antibody (N-term) Blocking Peptide - Background

Serine palmitoyltransferase (SPT) is the key enzyme in sphingolipid biosynthesis. It catalyzes the pyridoxal-5-prime-phosphate-dependent condensation of L-serine and palmitoyl-CoA to 3-oxosphinganine.

SPTLC1 Antibody (N-term) Blocking Peptide - References

Stachowitz, S., et al., J. Invest. Dermatol. 119(5):1048-1052 (2002).Nicholson, G.A., et al., Am. J. Hum. Genet. 69(3):655-659 (2001).Dawkins, J.L., et al., Nat. Genet. 27(3):309-312 (2001).Bejaoui, K., et al., Nat. Genet. 27(3):261-262 (2001).Perry, D.K., et al., J. Biol. Chem. 275(12):9078-9084 (2000).