

**SPTLC1 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP2534b****Specification**

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**SPTLC1 Antibody (C-term) - Product Information**

Application	<b>WB,E</b>
Primary Accession	<a href="#">O15269</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Antigen Region	<b>405-437</b>

**SPTLC1 Antibody (C-term) - 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**

This SPTLC1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 405-437 amino acids from the C-terminal region of human SPTLC1.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SPTLC1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**SPTLC1 Antibody (C-term) - 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](#), PubMed:[33558762](#), PubMed:[36170811](#)). The composition of the serine palmitoyltransferase (SPT) complex determines the substrate preference (PubMed:[19416851](#), PubMed:[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:[19416851](#), PubMed:[19648650](#)). 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:[19416851](#), PubMed:[19648650](#), 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

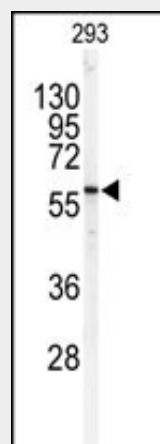
Widely expressed. Not detected in small intestine.

### SPTLC1 Antibody (C-term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### SPTLC1 Antibody (C-term) - Images



Western blot analysis of anti-SPTLC1 Antibody (C-term)(Cat.#AP2534b) in 293 cell line lysates (35ug/lane).SPTLC1(arrow) was detected using the purified Pab.

### SPTLC1 Antibody (C-term) - 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 (C-term) - 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).

#### **SPTLC1 Antibody (C-term) - Citations**

- [Serine palmitoyltransferase subunit 1 is present in the endoplasmic reticulum, nucleus and focal adhesions, and functions in cell morphology.](#)
- [Apoptotic sphingolipid signaling by ceramides in lung endothelial cells.](#)