

SPTLC1 Antibody (N-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2534a

Specification

SPTLC1 Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	O15269
Other Accession	Q60HD1
Reactivity	Human, Mouse
Predicted	Monkey
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	52744
Antigen Region	26-57

SPTLC1 Antibody (N-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 26-57 amino acids from the N-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 (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SPTLC1 Antibody (N-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:[36170811](#), PubMed:[33558762](#)). 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:[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

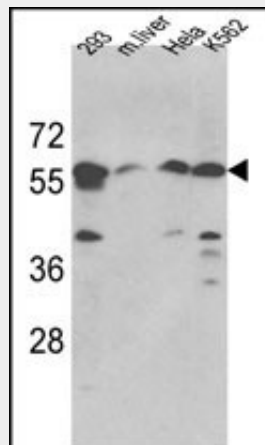
Widely expressed. Not detected in small intestine.

SPTLC1 Antibody (N-term) - 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 (N-term) - Images



Western blot analysis of hSPTLC1-S41 (Cat. #AP2534a) in 293, HeLa, K562 cell line and mouse

liver tissue lysates (35ug/lane). SPTLC1 (arrow) was detected using the purified Pab.

SPTLC1 Antibody (N-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 (N-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).