

**SPTLC1 Polyclonal Antibody**  
Catalog # AP73415**Specification****SPTLC1 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">O15269</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

**SPTLC1 Polyclonal Antibody - Additional Information****Gene ID** 10558**Other Names**

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

**Dilution**

WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications.

**Format**

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions**

-20°C

**SPTLC1 Polyclonal Antibody - 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: <a href="http://www.uniprot.org/citations/19416851" target="\_blank">19416851</a>, PubMed: <a href="http://www.uniprot.org/citations/36170811" target="\_blank">36170811</a>, PubMed: <a href="http://www.uniprot.org/citations/33558762" target="\_blank">33558762</a>). The composition of the serine palmitoyltransferase (SPT) complex determines the substrate preference (PubMed: <a href="http://www.uniprot.org/citations/19416851" target="\_blank">19416851</a>, PubMed: <a href="http://www.uniprot.org/citations/33558762" target="\_blank">33558762</a>). 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:<a href="http://www.uniprot.org/citations/19648650" target="\_blank">19648650</a>, PubMed:<a href="http://www.uniprot.org/citations/19416851" target="\_blank">19416851</a>). 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:<a href="http://www.uniprot.org/citations/19648650" target="\_blank">19648650</a>, PubMed:<a href="http://www.uniprot.org/citations/19416851" target="\_blank">19416851</a>, PubMed:<a href="http://www.uniprot.org/citations/33558761" target="\_blank">33558761</a>, PubMed:<a href="http://www.uniprot.org/citations/33558762" target="\_blank">33558762</a>). 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

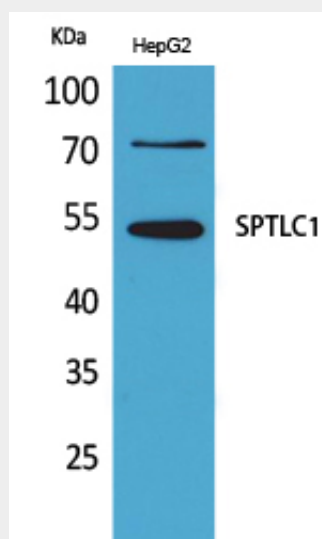
Widely expressed. Not detected in small intestine.

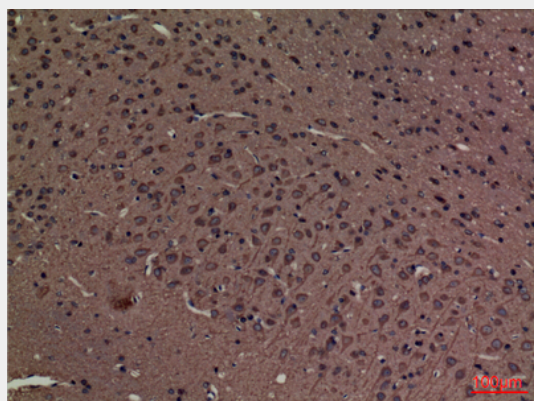
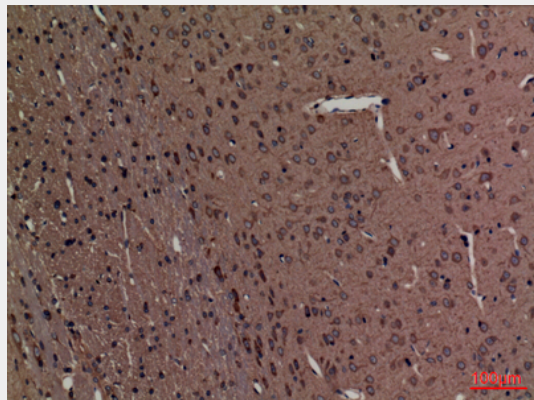
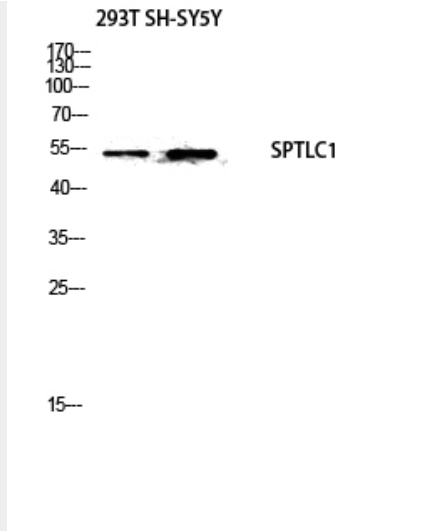
### SPTLC1 Polyclonal Antibody - Protocols

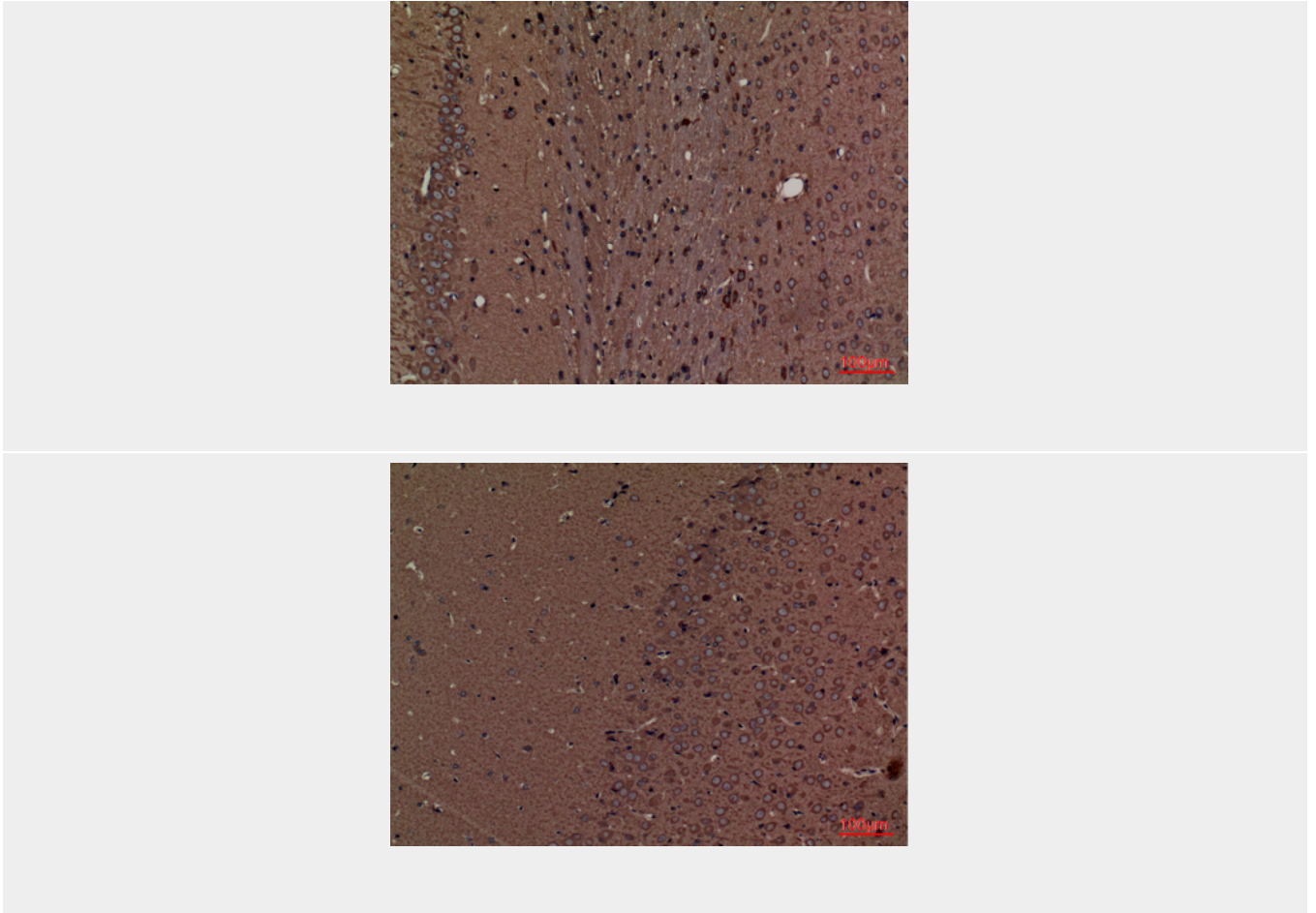
Provided below are standard protocols that you may find useful for product applications.

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

### SPTLC1 Polyclonal Antibody - Images







### **SPTLC1 Polyclonal Antibody - Background**

Serine palmitoyltransferase (SPT) (PubMed:19416851). The heterodimer formed with SPTLC2 or SPTLC3 constitutes the catalytic core (PubMed:19416851). The composition of the serine palmitoyltransferase (SPT) complex determines the substrate preference (PubMed:19416851). 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). 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). Required for adipocyte cell viability and metabolic homeostasis (By similarity).