10320 Camino Santa Fe, Suite G
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SPTLC2 / LCB2 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS15849

Specification

SPTLC2 / LCB2 Antibody (C-Terminus) - Product Information

Application	**IHC, ICC, IF, WB**
Primary Accession	O15270
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**63kDa KDa**

SPTLC2 / LCB2 Antibody (C-Terminus) - Additional Information

Gene ID 9517

Other Names
Serine palmitoyltransferase 2, 2.3.1.50, Long chain base biosynthesis protein 2, LCB 2, Long chain base biosynthesis protein 2a, LCB2a, Serine-palmitoyl-CoA transferase 2, SPT 2, SPTLC2, KIAA0526, LCB2

Target/Specificity
Human SPTLC2. At least three isoforms of SPT2 are known to exist; this antibody will not detect isoform b. SPT2 antibody is predicted to not cross-react with SPT1.

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions
SPTLC2 / LCB2 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

SPTLC2 / LCB2 Antibody (C-Terminus) - Protein Information

Name SPTLC2 (HGNC:11278)

Synonyms KIAA0526, LCB2

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 (PubMed:19648650, PubMed:19416851, PubMed:20920666, PubMed:20504773). The SPT complex is composed of SPTLC1, SPTLC2 or SPTLC3 and SPTSSA or SPTSSB. Within this complex,

the heterodimer consisting of SPTLC1 and SPTLC2/SPTLC3 forms 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: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). Crucial for adipogenesis (By similarity).

Cellular Location
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:P97363}; Single-pass membrane protein {ECO:0000250|UniProtKB:P97363}

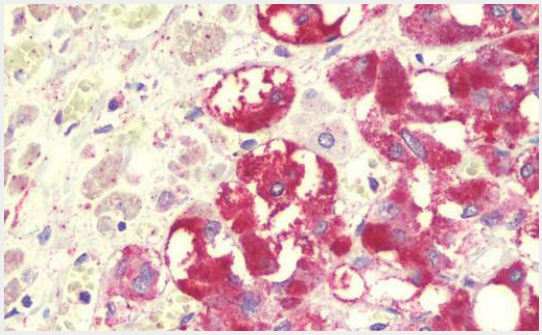
Tissue Location
Widely expressed..

SPTLC2 / LCB2 Antibody (C-Terminus) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SPTLC2 / LCB2 Antibody (C-Terminus) - Images

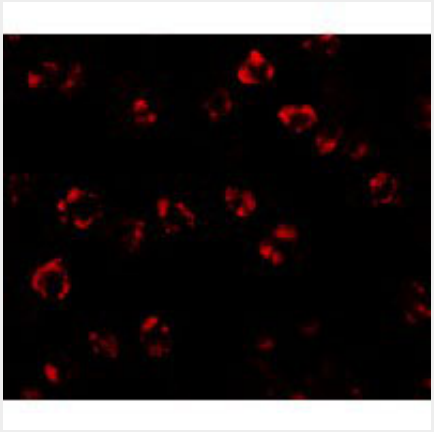


Anti-SPTLC2 / LCB2 antibody IHC staining of human adrenal.

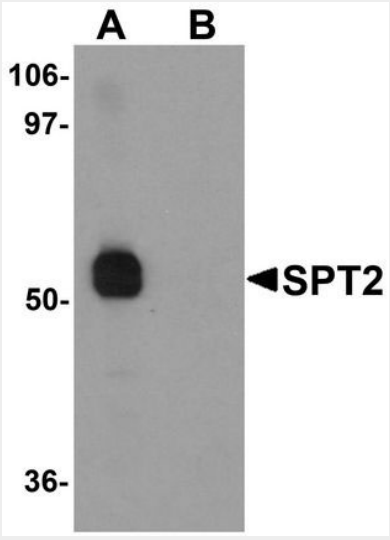
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Immunocytochemistry of SPT2 in 3T3 cells with SPT2 antibody at 10 µg/mL.



Immunofluorescence of SPT2 in 3T3 cells with SPT2 antibody at 20 µg/mL.



Western blot analysis of SPT2 in 3T3 cell lysate with SPT2 antibody at (A) 0.25 and (B) 0.5 ug/ml.

SPTLC2 / LCB2 Antibody (C-Terminus) - Background

Serine palmitoyltransferase (SPT). The heterodimer formed with LCB1/SPTLC1 constitutes the catalytic core. The composition of the serine palmitoyltransferase (SPT) complex determines the substrate preference. The SPTLC1-SPTLC2-SPTSSA complex shows a strong preference for C16-CoA substrate, while the SPTLC1-SPTLC2-SPTSSB complex displays a preference for C18-CoA substrate.

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SPTLC2 / LCB2 Antibody (C-Terminus) - References

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Nagase T.,et al.DNA Res. 5:31-39(1998).
Heilig R.,et al.Nature 421:601-607(2003).
Nagiec M.M.,et al.Gene 177:237-241(1996).
Takeda J.,et al.Hum. Mol. Genet. 2:1793-1798(1993).