**SPTLC1 (H-1): sc-374143**

**BACKGROUND**

SPTLC1 (serine palmitoyltransferase 1), also known as LCB1, and SPTLC2 (serine palmitoyltransferase 2), also known as LCB2, together catalyze sphingolipid biosynthesis by converting L-serine and palmitoyl-CoA to 3-oxosphinganine, utilizing pyridoxal 5'-phosphate as a cofactor. Increases in transepidermal water loss triggers upregulation of serine palmitoyltransferase mRNA expression in humans. Deficiencies in wild type SPTLC1 and SPTLC2 can lead to hereditary sensory neuropathy, atopic eczema, and psoriasis.

**CHROMOSOMAL LOCATION**

Genetic locus: SPTLC1 (human) mapping to 9q22.31; Sptlc1 (mouse) mapping to 13 B1.

**SOURCE**

SPTLC1 (H-1) is a mouse monoclonal antibody raised against amino acids 174-473 mapping at the C-terminus of SPTLC1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SPTLC1 (H-1) is available conjugated to agarose (sc-374143 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374143 HRP), 200 µg/ml, for WB, IHCP and ELISA; to either phycoerythrin (sc-374143 PE), fluorescein (sc-374143 FITC), Alexa Fluor® 488 (sc-374143 AF488), Alexa Fluor® 546 (sc-374143 AF546), Alexa Fluor® 594 (sc-374143 AF594) or Alexa Fluor® 647 (sc-374143 AF647), 200 µg/ml, for WB (RGB), IF, IHCP and FCM; and to either Alexa Fluor® 680 (sc-374143 AF680) or Alexa Fluor® 790 (sc-374143 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

SPTLC1 (H-1) is recommended for detection of SPTLC1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:5000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SPTLC1 siRNA (h): sc-106561, SPTLC1 siRNA (m): sc-153804, SPTLC1 shRNA Plasmid (h): sc-106561-SH, SPTLC1 shRNA Plasmid (m): sc-153804-SH, SPTLC1 shRNA (h) Lentiviral Particles: sc-106561-V and SPTLC1 shRNA (m) Lentiviral Particles: sc-153804-V.

Molecular Weight of SPTLC1: 55 kDa.


**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ HRP, sc-316102 or m-IgGκ HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker® Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-374140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

![SPTLC1 Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.](image)

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our website at www.scbt.com for detailed protocols and support products.