SANTA CRUZ BIOTECHNOLOGY, INC.

SPTLC3 (Y-14): sc-86226

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The Power to Question

BACKGROUND

The SPT (serine palmitoyltransferase) complex is responsible for catalyzing the rate-limiting step of sphingolipid biosynthesis and exists as a heterodimer consisting of SPTLC1, SPTLC2 and SPTLC3 (serine palmitoyltransferase 1,2 and 3, respectively). SPTLC3, which is also known as Serine-palmitoyl-CoA transferase 3, long chain base biosynthesis protein 3, long chain base biosynthesis protein 2b, FLJ11112, LCB3, SPT3, SPTLC2L, C20orf38, FLJ90790, dJ718P11 or dJ718P11.1, is a 552 amino acid single-pass membrane protein. SPTLC3 is expressed in most tissues (excluding bone marrow and peripheral blood cells), with highest levels in kidney, skin, liver, heart and uterus. SPTLC3 is a member of the class-II pyridoxal-phosphate-dependent aminotransferase family and contains two isoforms as a result of alternative splicing. The gene encoding SPTLC3 maps to human chromosome 20p12.1.

REFERENCES

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4. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611120. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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6. Hornemann, T., Penno, A., Rutti, M.F., Ernst, D., Kivrak-Pfiffner, F., Rohrer, L. and von Eckardstein, A. 2009. The SPTLC3 subunit of serine-palmitoyltransferase generates short chain sphingoid bases. J. Biol. Chem. 284: 26322-26330.

CHROMOSOMAL LOCATION

Genetic locus: SPTLC3 (human) mapping to 20p12.1.

SOURCE

SPTLC3 (Y-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPTLC3 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86226 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPTLC3 (Y-14) is recommended for detection of SPTLC3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with isoform 2.

SPTLC3 (Y-14) is also recommended for detection of SPTLC3 in additional species, including equine and canine.

Suitable for use as control antibody for SPTLC3 siRNA (h): sc-76574, SPTLC3 shRNA Plasmid (h): sc-76574-SH and SPTLC3 shRNA (h) Lentiviral Particles: sc-76574-V.

Molecular Weight of SPTLC3: 63 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.