



SPTLC1 (m): 293T Lysate: sc-123763

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 wildtype SPTLC1 and SPTLC2 can lead to hereditary sensory neuropathy, atopic eczema and psoriasis.

REFERENCES

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3. Stachowitz, S., Alessandrini, F., Abeck, D., Ring, J. and Behrendt, H. 2002. Permeability barrier disruption increases the level of serine palmitoyltransferase in human epidermis. *J. Invest. Dermatol.* 119: 1048-1052.
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5. Carton, J.M., Uhlinger, D.J., Batheja, A.D., Derian, C., Ho, G., Argentieri, D. and D'Andrea, M.R. 2003. Enhanced serine palmitoyltransferase expression in proliferating fibroblasts, transformed cell lines, and human tumors. *J. Histochem. Cytochem.* 51: 715-726.
6. Dedov, V.N., Dedova, I.V., Merrill, A.H. Jr. and Nicholson, G.A. 2004. Activity of partially inhibited serine palmitoyltransferase is sufficient for normal sphingolipid metabolism and viability of HSN1 patient cells. *Biochim. Biophys. Acta* 1688: 168-175.
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CHROMOSOMAL LOCATION

Genetic locus: Sptlc1 (mouse) mapping to 13 B1.

PRODUCT

SPTLC1 (m): 293T Lysate represents a lysate of mouse SPTLC1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

SPTLC1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SPTLC1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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