



SPPase1 (m): 293T Lysate: sc-123749

BACKGROUND

Sphingosine-1-phosphate (S1P) is a lipid that functions in a variety of intra-cellular and extracellular biological events. The intracellular activity of S1P is regulated by its state of phosphorylation and is therefore controlled by SPP kinases (SphKs) and S1P phosphatases (SPPases). The mammalian SPPases belong to the type 2 lipid phosphate phosphatase family of N-ethylmaleimide insensitive, magnesium-independent, multi-pass membrane proteins. Characteristic of their family, SPPases contain three conserved motifs that comprise the active site of the enzyme: the SXH motif, the KXXXXXXRP motif and the SRXXXXHXXD motif. SPPase1, also known as SGPP1 or SPP1, localizes to the membrane of the endoplasmic reticulum (ER) and is ubiquitously expressed with highest levels found in kidney and placenta. SPPase1 specifically dephosphorylates S1P, dihydro-S1P and phyto-S1P. The overexpression of SPPases can lead to an elevation in the levels of ceramide and can induce apoptosis.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Sgpp1 (mouse) mapping to 12 C3.

RESEARCH USE

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

PRODUCT

SPPase1 (m): 293T Lysate represents a lysate of mouse SPPase1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

SPPase1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SPPase1 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.

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.