

SPSY (m): 293T Lysate: sc-123759

BACKGROUND

Spermine synthase (SPSY) catalyzes the production of spermine from spermidine. Spermine, a polyamine ubiquitously present in most organisms, is essential for normal cell growth and differentiation. Because absence of spermine increases sensitivity of cells to anti-tumor agents, spermine synthase (and other polyamine biosynthesis) is an attractive target for anti-neoplastic therapy.

REFERENCES

1. Hamasaki-Katagiri, N., Katagiri, Y., Tabor, C.W. and Tabor, H. 1998. Spermine is not essential for growth of *Saccharomyces cerevisiae*: identification of the SPE4 gene (spermine synthase) and characterization of a spe4 deletion mutant. *Gene* 210: 195-201.
2. Nilsson, J., Gritli-Linde, A. and Heby, O. 2000. Skin fibroblasts from spermine synthase-deficient hemizygous gyro male (Gy/Y) mice overproduce spermidine and exhibit increased resistance to oxidative stress but decreased resistance to UV irradiation. *Biochem. J.* 352: 381-387.
3. Korhonen, V.P., Niiranen, K., Halmekyto, M., Pietila, M., Diegelman, P., Parkkinen, J.J., Eloranta, T., Porter, C.W., Alhonen, L. and Janne, J. 2001. Spermine deficiency resulting from targeted disruption of the spermine synthase gene in embryonic stem cells leads to enhanced sensitivity to antiproliferative drugs. *Mol. Pharmacol.* 59: 231-238.
4. Ikeguchi, Y., Mackintosh, C.A., McCloskey, D.E. and Pegg, A.E. 2003. Effect of spermine synthase on the sensitivity of cells to anti-tumour agents. *Biochem. J.* 373: 885-892.
5. Sieler, N. 2003. Thirty years of polyamine-related approaches to cancer therapy. Retrospect and prospect. Part 1. Selective enzyme inhibitors. *Curr. Drug Targets* 4: 537-564.

CHROMOSOMAL LOCATION

Genetic locus: Sms (mouse) mapping to X F4.

PRODUCT

SPSY (m): 293T Lysate represents a lysate of mouse SPSY 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.

APPLICATIONS

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

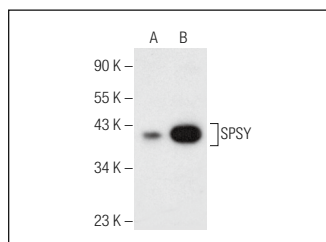
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SPSY (A-4): sc-376294 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse SPSY expression in SPSY transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

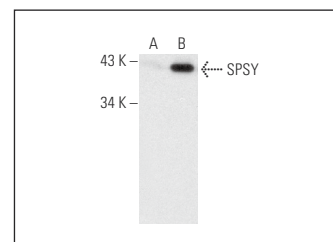
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-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.

DATA



SPSY (A-4): sc-376294. Western blot analysis of SPSY expression in non-transfected: sc-117752 (A) and mouse SPSY transfected: sc-123759 (B) 293T whole cell lysates.



SPSY (H-130): sc-99159. Western blot analysis of SPSY expression in non-transfected: sc-117752 (A) and mouse SPSY transfected: sc-123759 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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