

SEC14L2 (m2): 293T Lysate: sc-126041

BACKGROUND

The monomeric, SEC14L2 (SEC14-like protein 2), also known as supernatant protein factor (SPF), α -tocopherol-associated protein or squalene transfer protein, functions as a carrier protein transferring tocopherols, as a transcriptional activator via its interaction with α -tocopherol and as a stimulator of conversion of microsomal squalene-2,3-oxide into lanosterol in cholesterol biosynthesis. High levels of SEC14L2 are expressed in liver, brain, intestine and prostate. Subcellular localization of SEC14L2 is cytoplasmic, but in the presence of α -tocopherol, SEC14L2 localizes in the nucleus. Activity of SEC14L2 depends on posttranslational modifications, specifically phosphorylation by PKA and PKC.

REFERENCES

1. Caras, I.W. and Bloch, K. 1979. Effects of a supernatant protein activator on microsomal squalene-2,3-oxide-lanosterol cyclase. *J. Biol. Chem.* 254: 11816-11821.
2. Friedlander, E.J., Caras, I.W., Lin, L.F. and Bloch, K. 1980. Supernatant protein factor facilitates intermembrane transfer of squalene. *J. Biol. Chem.* 255: 8042-8045.
3. Chin, J. and Bloch, K. 1984. Role of supernatant protein factor and anionic phospholipid in squalene uptake and conversion by microsomes. *J. Biol. Chem.* 259: 11735-11738.
4. Shibata, N., Arita, M., Misaki, Y., Dohmae, N., Takio, K., Ono, T., Inoue, K. and Arai, H. 2001. Supernatant protein factor, which stimulates the conversion of squalene to lanosterol, is a cytosolic squalene transfer protein and enhances cholesterol biosynthesis. *Proc. Natl. Acad. Sci. USA* 98: 2244-2249.
5. Singh, D.K., Mokashi, V., Elmore, C.L. and Porter, T.D. 2003. Phosphorylation of supernatant protein factor enhances its ability to stimulate microsomal squalene monooxygenase. *J. Biol. Chem.* 278: 5646-5651.

CHROMOSOMAL LOCATION

Genetic locus: Sec14l2 (mouse) mapping to 11 A1.

PRODUCT

SEC14L2 (m2): 293T Lysate represents a lysate of mouse SEC14L2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

SEC14L2 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SEC14L2 antibodies. Recommended use: 10-20 μ l per lane.

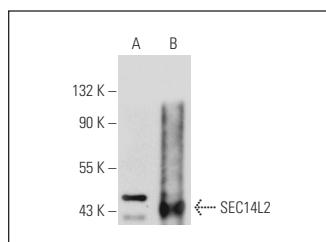
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SEC14L2 (H-5): sc-271902 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse SEC14L2 expression in SEC14L2 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



SEC14L2 (H-5): sc-271902. Western blot analysis of SEC14L2 expression in non-transfected: sc-117752 (A) and mouse SEC14L2 transfected: sc-126041 (B) 293T whole cell lysates.

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.

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.