

# SEC14L2 (m): 293T Lysate: sc-110147

## BACKGROUND

The monomeric, SEC14L2 (SEC14-like protein 2), also known as supernatant protein factor (SPF),  $\alpha$ -tocopherol-associated protein or squalene transfer protein, functions as a carrier protein transferring tocopherols, as a transcriptional activator via its interaction with  $\alpha$ -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  $\alpha$ -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 (m): 293T Lysate represents a lysate of mouse SEC14L2 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

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

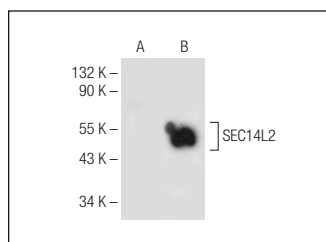
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SEC14L2/L3/L4 (E-10): sc-365420 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 $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



SEC14L2/L3/L4 (E-10): sc-365420. Western blot analysis of SEC14L2 expression in non-transfected: sc-117752 (A) and mouse SEC14L2 transfected: sc-110147 (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](http://www.scbt.com) for detailed protocols and support products.