

Twinfilin-2 (m): 293T Lysate: sc-124375

BACKGROUND

Twinfilin-2, also known as TWF2, A6r, A6RP or PTK9L, is a 349 amino acid protein that localizes to the perinuclear region of the cytoplasm, as well as to the cytoskeleton, and contains two ADF-H domains. Expressed ubiquitously, Twinfilin-2 functions as an Actin-binding protein that is able to both bind and sequester G-Actin and cap the barbed ends of Actin filaments, thereby inhibiting Actin polymerization and playing a role in Actin-related motile and morphological processes. Twinfilin-2 is subject to post-translational phosphorylation by PKC ζ . The gene encoding Twinfilin-2 maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

REFERENCES

1. Rohwer, A., Kittstein, W., Marks, F. and Gschwendt, M. 1999. Cloning, expression and characterization of an A6-related protein. *Eur. J. Biochem.* 263: 518-525.
2. Palmgren, S., Vartiainen, M. and Lappalainen, P. 2002. Twinfilin, a molecular mailman for Actin monomers. *J. Cell Sci.* 115: 881-886.
3. Vartiainen, M.K., Sarkkinen, E.M., Matilainen, T., Salminen, M. and Lappalainen, P. 2003. Mammals have two twinfilin isoforms whose sub-cellular localizations and tissue distributions are differentially regulated. *J. Biol. Chem.* 278: 34347-34355.
4. Yamada, S., Uchimura, E., Ueda, T., Nomura, T., Fujita, S., Matsumoto, K., Funeriu, D.P., Miyake, M. and Miyake, J. 2007. Identification of Twinfilin-2 as a factor involved in neurite outgrowth by RNAi-based screen. *Biochem. Biophys. Res. Commun.* 363: 926-930.
5. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 607433. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Nevalainen, E.M., Skwarek-Maruszewska, A., Braun, A., Moser, M. and Lappalainen, P. 2009. Two biochemically distinct and tissue-specific Twinfilin isoforms are generated from the mouse Twf2 gene by alternative promoter usage. *Biochem. J.* 417: 593-600.

CHROMOSOMAL LOCATION

Genetic locus: Twf2 (mouse) mapping to 9 F1.

PRODUCT

Twinfilin-2 (m): 293T Lysate represents a lysate of mouse Twinfilin-2 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

Twinfilin-2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Twinfilin-2 antibodies. Recommended use: 10-20 µl per lane.

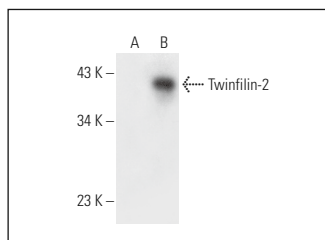
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Twinfilin-2 (B-6): sc-398673 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Twinfilin-2 expression in Twinfilin-2 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



Twinfilin-2 (B-6): sc-398673. Western blot analysis of Twinfilin-2 expression in non-transfected: sc-117752 (A) and mouse Twinfilin-2 transfected: sc-124375 (B) 293T whole cell lysates.

RESEARCH USE

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