

Twinfilin-1 (m): 293T Lysate: sc-124373

BACKGROUND

Twinfilin is a highly conserved Actin monomer-binding protein that regulates cytoskeletal dynamics in organisms from yeast to mammals. Twinfilin is composed of two ADF-homology domains; it coordinates filament severing and monomer sequestering at sites of rapid Actin turnover, thus preventing assembly of the monomer into filaments. Twinfilin-1 is the mammalian homolog and is expressed in embryos and in most adult non-muscle cell types. Twinfilin-1 binds ADP-G-Actin and efficiently halts Actin filament assembly by inhibiting the nucleotide exchange on Actin monomers and directly interacting with the capping protein. Phosphatidylinositol (4,5)-bisphosphate inhibits the activity of Twinfilin-1. Rac1 and Cdc42, two small GTPases, induce the redistribution of Twinfilin-1 to membrane ruffles and cell-cell contacts, respectively.

REFERENCES

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- Rush, J., et al. 2005. Immunoaffinity profiling of tyrosine phosphorylation in cancer cells. *Nat. Biotechnol.* 23: 94-101.
- Moseley, J.B., et al. 2006. Twinfilin is an Actin-filament-severing protein and promotes rapid turnover of Actin structures *in vivo*. *J. Cell Sci.* 119: 1547-1557.

CHROMOSOMAL LOCATION

Genetic locus: *Twf1* (mouse) mapping to 15 E3.

PRODUCT

Twinfilin-1 (m): 293T Lysate represents a lysate of mouse Twinfilin-1 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

Twinfilin-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Twinfilin-1 antibodies. Recommended use: 10-20 µl per lane.

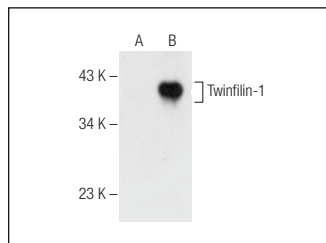
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Twinfilin-1 (B-7): sc-376468 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Twinfilin-1 expression in Twinfilin-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

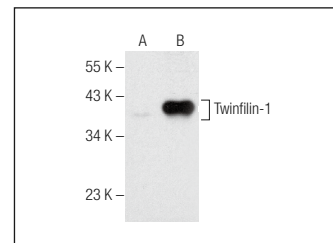
RECOMMENDED SUPPORT REAGENTS

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-1 (B-7): sc-376468. Western blot analysis of Twinfilin-1 expression in non-transfected: sc-117752 (A) and mouse Twinfilin-1 transfected: sc-124373 (B) 293T whole cell lysates.



Twinfilin-1 (E-4): sc-376539. Western blot analysis of Twinfilin-1 expression in non-transfected: sc-117752 (A) and mouse Twinfilin-1 transfected: sc-124373 (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.