SANTA CRUZ BIOTECHNOLOGY, INC.

Flightless I (m): 293T Lysate: sc-125338

BACKGROUND

The *Drosophila melanogaster* Flightless I gene is required for normal cellularization of the syncytial blastoderm in early embryogenesis and in the structural organization of indirect flight muscle. The Flightless I protein contains an Actin-binding domain with homology to the gelsolin family and is likely to be involved in actin cytoskeletal rearrangements. Flightless I also contains an N-terminal leucine-rich repeat protein-protein interaction domain. The Flightless I protein localizes predominantly to the nucleus and translocates to the cytoplasm following serum stimulation. In cells stimulated to migrate, the Flightless I protein co-localizes with β-tubulin- and Actin-based structures. The human FLI gene is mapped within the Smith-Magenis microdeletion region of chromosome 17 at 17p11.2. Smith-Magenis syndrome is characterized by short stature, brachydactyly, developmental delay, dysmorphic features, sleep disturbances and behavioral problems.

REFERENCES

1. Fong, K.S. and de Couet, H.G. 1999. Novel proteins interacting with the leucine-rich repeat domain of human Flightless I identified by the yeast two-hybrid system. Genomics 58: 146-157.
2. Campbell, H.D., Fountain, S., Young, I.G., Weitz, S., Lichter, P. and Hoheisel, J.D. 2000. Fliih, the murine homologue of the *Drosophila melanogaster* Flightless I gene: nucleotide sequence, chromosomal mapping and overlap with Llglh. DNA Seq. 11: 29-40.
3. Davy, D.A., Campbell, H.D., Fountain, S., de Jong, D. and Crouch, M.F. 2001. The Flightless I protein co-localizes with Actin- and microtubule-based structures in motile Swiss 3T3 fibroblasts: evidence for the involvement of PI 3-kinase and Ras-related small GTPases. J. Cell Sci. 114: 549-562.
4. Campbell, H.D., Fountain, S., McLennan, I.S., Berven, L.A., Crouch, M.F., Davy, D.A., Hooper, J.A., Waterford, K., Chen, K.S. and Lupski, J.R. 2002. Fliih, a gelsolin-related cytoskeletal regulator essential for early mammalian embryonic development. Mol. Cell. Biol. 22: 3518-3526.
5. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 600362. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/

CHROMOSOMAL LOCATION

Genetic locus: Flii (mouse) mapping to 11 B2.

PRODUCT

Flightless I (m): 293T Lysate represents a lysate of mouse Flightless I 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

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

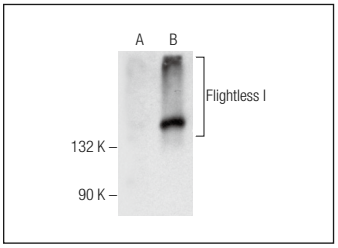
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Flightless I (B-6): sc-377029 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Flightless I expression in Flightless I transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

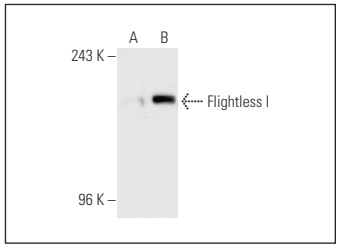
RECOMMENDED SUPPORT REAGENTS

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



Flightless I (B-6): sc-377029. Western blot analysis of Flightless I expression in non-transfected: sc-117752 (**A**) and mouse Flightless I transfected: sc-125338 (**B**) 293T whole cell lysates.



Flightless I (E-1): sc-55583. Western blot analysis of Flightless I expression in non-transfected: sc-117752 (**A**) and mouse Flightless I transfected: sc-125338 (**B**) 293T whole cell lysates.

RESEARCH USE

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