

Drebrin (m): 293T Lysate: sc-119845

BACKGROUND

Drebrins (developmentally regulated brain proteins) are cytoplasmic proteins that bind F-Actin in the brain and are involved in cell migration, extension of neuronal processes and plasticity of dendrites. There are three isoforms: two embryonic types (E1 and E2); and an adult type (A), generated by alternative RNA splicing from a single Drebrin gene. Drebrins are expressed mainly in brain neurons but are also found in skeletal muscle, heart, placenta, pancreas and kidney. Drebrin has been designated as a marker of the dendritic spine. Decreases in Drebrin levels in the brain have been associated with Alzheimer's disease and Down syndrome. The gene encoding the human Drebrin protein is located on human chromosome 5.

REFERENCES

1. Shirao, T. 1995. The roles of microfilament-associated proteins, drebrins, in brain morphogenesis: a review. *J. Biochem.* 117: 231-236.
2. Hayashi, K., et al. 1996. Modulatory role of Drebrin on the cytoskeleton within dendritic spines in the rat cerebral cortex. *J. Neurosci.* 16: 7161-7170.
3. Hayashi, K., et al. 1999. Change in the shape of dendritic spines caused by overexpression of Drebrin in cultured cortical neurons. *J. Neurosci.* 19: 3918-3925.
4. Peitsch, W.K., et al. 1999. Drebrin is a widespread Actin-associating protein enriched at junctional plaques, defining a specific microfilament anchorage system in polar epithelial cells. *Eur. J. Cell Biol.* 78: 767-778.
5. Shim, K.S., et al. 2002. Drebrin, a dendritic spine protein, is manifold decreased in brains of patients with Alzheimer's disease and Down syndrome. *Neurosci. Lett.* 324: 209-212.
6. SWISS-PROT/TrEMBL (Q16643). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: Dbn1 (mouse) mapping to 13 B1.

PRODUCT

Drebrin (m): 293T Lysate represents a lysate of mouse Drebrin transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

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

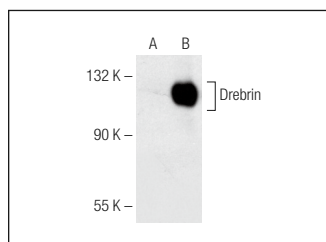
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Drebrin (C-8): sc-374269 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Drebrin expression in Drebrin 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



Drebrin (C-8): sc-374269. Western blot analysis of Drebrin expression in non-transfected: sc-117752 (A) and mouse Drebrin transfected: sc-119885 (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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.