SANTA CRUZ BIOTECHNOLOGY, INC.

transgelin-3 (h): 293 Lysate: sc-112764

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The Power to Question

BACKGROUND

Transgelin (also designated SM22α) is expressed abundantly in smooth muscle cells. Transgelin-2 (also known as SM22α homolog) is a homolog of transgelin and is also expressed in smooth muscle cells and by peritoneal B-1 cells. Unlike the other two transgelin proteins, transgelin-3 (also designated TAGLN2, NP22 (neuronal protein 22) or NP25) is predominantly expressed in brain. Transgelin-3 contains a putative Actin-binding domain, two EF-hand motifs, two potential phosphorylation sites and a calponin-homology (CH) domain. Transgelin-3 shares homology with transgelin and Calponin, two cytoskeleton-interacting proteins. Belonging to the calponin family, transgelin-3 co-localizes with Actin and Tubulin, suggesting a possible role for transgelin-3 in neuronal plasticity or as a signaling protein. Due to a varied expression pattern, transgelin-3 may play different roles in the developing and adult brains. Expression of transgelin-3 is upregulated in regions of the human alcoholic brain.

REFERENCES

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2. Fan, L., Jaquet, V., Dodd, P.R., Chen, W. and Wilce, P.A. 2001. Molecular cloning and characterization of hNP22: a gene up-regulated in human alcoholic brain. J. Neurochem. 76: 1275-1281.
3. Depaz, I., Ito, M., Matsumoto, I., Niwa, S., Kroon, P. and Wilce, P.A. 2003. Expression of hNP22 is altered in the frontal cortex and hippocampus of the alcoholic human brain. Alcohol. Clin. Exp. Res. 27: 1481-1488.
4. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 607953. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
5. Depaz, I.M., de Las Heras, R., Kroon, P.A. and Wilce, P.A. 2005. Changes in neuronal protein 22 expression and cytoskeletal association in the alcohol-dependent and withdrawn rat brain. J. Neurosci. Res. 81: 253-260.
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CHROMOSOMAL LOCATION

Genetic locus: TAGLN3 (human) mapping to 3q13.2.

PRODUCT

transgelin-3 (h): 293 Lysate represents a lysate of human transgelin-3 transfected 293 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

transgelin-3 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive transgelin-3 antibodies. Recommended use: 10-20 µl per lane.

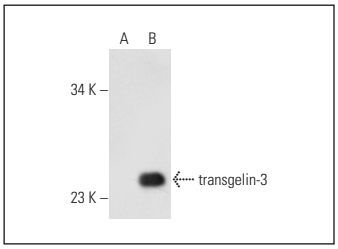
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-tranfected 293 cells.

transgelin-3 (438.1): sc-100960 is recommended as a positive control antibody for Western Blot analysis of enhanced human transgelin-3 expression in transgelin-3 transfected 293 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



transgelin-3 (438.1): sc-100960. Western blot analysis of transgelin-3 expression in non-transfected: sc-110760 (**A**) and human transgelin-3 transfected: sc-112764 (**B**) 293 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.