

transgelin-3 (438.1): sc-100960

BACKGROUND

Transgelin (also designated SM22 α) is expressed abundantly in smooth muscle cells. Transgelin-2 (also known as SM22 α 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 colocalizes 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 brain. Expression of transgelin-3 is upregulated in regions of the human alcoholic brain.

REFERENCES

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- Fan, L., et al. 2001. Molecular cloning and characterization of hNP22: a gene upregulated in human alcoholic brain. *J. Neurochem.* 76: 1275-1281.
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- Depaz, I., et al. 2003. Expression of hNP22 is altered in the frontal cortex and hippocampus of the alcoholic human brain. *Alcohol. Clin. Exp. Res.* 27: 1481-1488.
- Depaz, I.M., et al. 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 Changes in neuronal protein 22 expression and cytoskeletal association in the alcohol-dependent and withdrawn rat brain.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; Tagln3 (mouse) mapping to 16 B5.

SOURCE

transgelin-3 (438.1) is a mouse monoclonal antibody raised against recombinant transgelin-3 of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

transgelin-3 (438.1) is recommended for detection of transgelin-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for transgelin-3 siRNA (h): sc-78220, transgelin-3 siRNA (m): sc-154581, transgelin-3 shRNA Plasmid (h): sc-78220-SH, transgelin-3 shRNA Plasmid (m): sc-154581-SH, transgelin-3 shRNA (h) Lentiviral Particles: sc-78220-V and transgelin-3 shRNA (m) Lentiviral Particles: sc-154581-V.

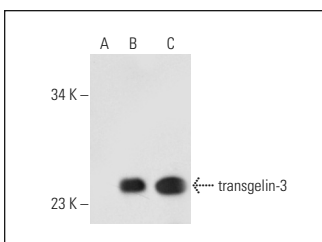
Molecular Weight of transgelin-3: 22 kDa.

Positive Controls: transgelin-3 (h): 293 Lysate: sc-112764 or IMR-32 cell lysate: sc-2409.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



transgelin-3 (438.1): sc-100960. Western blot analysis of transgelin-3 expression in non-transfected 293: sc-110760 (A), human transgelin-3 transfected 293: sc-112764 (B) and IMR-32 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Feuillette, S., et al. 2010. Filamin-A and Myosin VI colocalize with fibrillary Tau protein in Alzheimer's disease and FTDP-17 brains. *Brain Res.* 1345: 182-189.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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