

transgelin-3 (F-15): sc-103291

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 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 brain. Expression of transgelin-3 is upregulated in regions of the human alcoholic brain.

REFERENCES

- Ren, W.Z., Ng, G.Y., Wang, R.X., Wu, P.H., O'Dowd, B.F., Osmond, D.H., George, S.R. and Liew, C.C. 1994. The identification of NP25: a novel protein that is differentially expressed by neuronal subpopulations. *Brain Res. Mol. Brain Res.* 22: 173-185.
- Fan, L., Jaquet, V., Dodd, P.R., Chen, W. and Wilce, P.A. 2001. Molecular cloning and characterization of hNP22: a gene upregulated in human alcoholic brain. *J. Neurochem.* 76: 1275-1281.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607953. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- 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.

CHROMOSOMAL LOCATION

Genetic locus: TAGLN3 (human) mapping to 3q13.2; Tagln3 (mouse) mapping to 16 B5.

SOURCE

transgelin-3 (F-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of transgelin-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103291 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

transgelin-3 (F-15) 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with family members transgelin or transgelin-2.

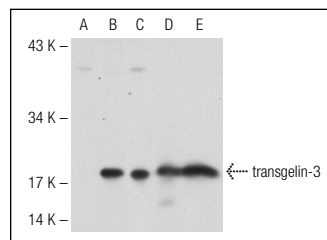
transgelin-3 (F-15) is also recommended for detection of transgelin-3 in additional species, including equine, canine, bovine, porcine and avian.

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.

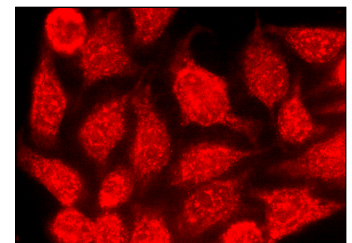
Molecular Weight of transgelin-3: 22 kDa.

Positive Controls: transgelin-3 (h): 293 Lysate: sc-112764, IMR-32 cell lysate: sc-2409 or mouse brain extract: sc-2253.

DATA



transgelin-3 (F-15): sc-103291. 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 and rat brain (D) and mouse brain (E) tissue extracts.



transgelin-3 (F-15): sc-103291. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

RESEARCH USE

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

PROTOCOLS

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



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Try **transgelin-3 (438.1): sc-100960**, our highly recommended monoclonal alternative to transgelin-3 (F-15).