

transgelin-3 (P-14): sc-103293

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 up-regulated in human alcoholic brain. *J. Neurochem.* 76: 1275-1281.
- 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.
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- 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 Changes in neuronal protein 22 expression and cytoskeletal association in the alcohol-dependent and withdrawn rat brain.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.

SOURCE

transgelin-3 (P-14) 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-103293 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

transgelin-3 (P-14) is recommended for detection of transgelin-3 of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (P-14) is also recommended for detection of transgelin-3 in additional species, including equine, canine, bovine and porcine.

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

Molecular Weight of transgelin-3: 22 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

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.



Try **transgelin-3 (438.1): sc-100960**, our highly recommended monoclonal alternative to transgelin-3 (P-14).