SANTA CRUZ BIOTECHNOLOGY, INC.

transgelin (P-15): sc-18513

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Transgelin, also designated SM22α, is expressed abundantly in smooth muscle cells. The human transgelin gene (designated TAGLN), which is located on chromosome 11q23.3, encodes a 201 amino acid protein that contains nuclear factor-binding motifs known to regulate transcription in smooth muscle. During embryogenesis, transgelin is expressed in smooth, cardiac and skeletal muscle, but is restricted during late fetal development and adulthood to all vascular and visceral smooth muscle cells and low levels of expression in heart. Transgelin is downregulated in several transformed cell lines, indicating that a reduction of transgelin expression may be an early indicator of the onset of transformation. Transgelin also binds Actin, causing Actin fibers to gel within minutes of binding. Binding of transgelin to Actin occurs at a ratio of 1:6 Actin monomers.

CHROMOSOMAL LOCATION

Genetic locus: TAGLN (human) mapping to 11q23.3; Tagln (mouse) mapping to 9 A5.2.

SOURCE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-18513 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

transgelin (P-15) is recommended for detection of transgelin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

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

Suitable for use as control antibody for transgelin siRNA (h): sc-44163, transgelin siRNA (m): sc-60022, transgelin shRNA Plasmid (h): sc-44163-SH, transgelin shRNA Plasmid (m): sc-60022-SH, transgelin shRNA (h) Lentiviral Particles: sc-44163-V and transgelin shRNA (m) Lentiviral Particles: sc-60022-V.

Moleclar Weight of transgelin: 22 kDa.

Positive Controls: Hs68 cell lysate: sc-2230, WI-38 whole cell lysate: sc-364260 or transgelin (m): 293T Lysate: sc-124254.

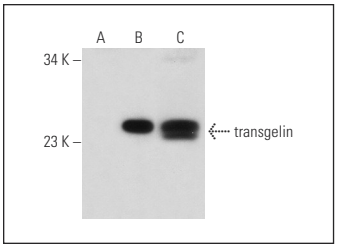
STORAGE

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

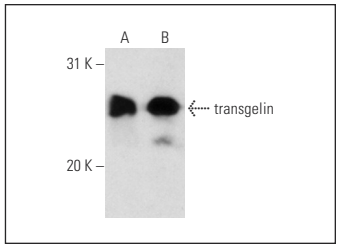
RESEARCH USE

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

DATA



transgelin (P-15): sc-18513. Western blot analysis of transgelin expression in non-transfected 293T: sc-117752 (**A**), mouse transgelin transfected 293T: sc-124254 (**B**) and Hs68 (**C**) whole cell lysates.



transgelin (P-15): sc-18513. Western blot analysis of transgelin expression in Hs68 (**A**) and WI 38 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. David, D.C., et al. 2006. β-Amyloid treatment of two complementary P301L Tau-expressing Alzheimer's disease models reveals similar deregulated cellular processes. Proteomics 6: 6566-6577.
2. Beattie, J.H., et al. 2008. Aorta protein networks in marginal and acute zinc deficiency. Proteomics 8: 2126-2135.
3. Lukowski, R., et al. 2008. Role of smooth muscle cGMP/cGKI signaling in murine vascular restenosis. Arterioscler. Thromb. Vasc. Biol. 28: 1244-1250.
4. Csöregh, L., et al. 2009. Transcriptional analysis of estrogen effects in human embryonic neurons and glial cells. Neuroendocrinology 89: 171-186.
5. Breen, D.M., et al. 2009. Insulin increases reendothelialization and inhibits cell migration and neointimal growth after arterial injury. Arterioscler. Thromb. Vasc. Biol. 29: 1060-1066.
6. Yang, M., et al. 2010. SM22α transcription occurs at the early onset of the cardiovascular system and the intron 1 is dispensable for its transcription in smooth muscle cells during mouse development. Int. J. Physiol. Pathophysiol. Pharmacol. 2: 12-19.
7. Sharma, A.K., et al. 2010. A non-human primate model for urinary bladder regeneration utilizing autologous sources of bone marrow derived mesenchymal stem cells. Stem Cells. E-published.

PROTOCOLS

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