

sentan (D-12): sc-102542

BACKGROUND

Sentan, also known as SNTN, is a 147 amino acid protein that belongs to the S-100 family. Sentan, which means 'tip' in Japanese, is expressed exclusively at the cilium tip where it localizes between the cell membrane and peripheral A-subfibers. The sentan protein may be a component of the linker structure that bridges the ciliary membrane and peripheral singlet microtubules. It has been suggested that sentan is the first molecular component of the ciliary tip to bridge the cell membrane and peripheral singlet microtubules, making the distal portion of the cilia narrow and stiff to allow for better airway clearance or ovum transport. Motile cilia are observed on the respiratory epithelium, along the female reproductive tract and on the ependymal cells lining the ventricles of the brain. The sentan gene is conserved in chimpanzee, cow, mouse, rat and chicken, and maps to human chromosome 3p14.2.

REFERENCES

1. Müller, S., et al. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. *Proc. Natl. Acad. Sci. USA* 97: 206-211.
2. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.
3. Liu, X.Q., et al. 2004. Transcriptional gene expression profile of human nasopharynx. *Int. J. Mol. Med.* 14: 409-420.
4. Yue, Y., et al. 2005. Genomic structure and paralogous regions of the inversion breakpoint occurring between human chromosome 3p12.3 and orangutan chromosome 2. *Cytogenet. Genome Res.* 108: 98-105.
5. Nareyeck, G., et al. 2006. Establishment and characterization of two uveal melanoma cell lines derived from tumors with loss of one chromosome 3. *Exp. Eye Res.* 83: 858-864.
6. Muzny, D.M., et al. 2006. The DNA sequence, annotation and analysis of human chromosome 3. *Nature* 440: 1194-1198.
7. Kubo, A., et al. 2008. Sentan: a novel specific component of the apical structure of vertebrate motile cilia. *Mol. Biol. Cell* 19: 5338-5346.

CHROMOSOMAL LOCATION

Genetic locus: SNTN (human) mapping to 3p14.2.

SOURCE

sentan (D-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of sentan of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-102542 P, (100 µg 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

sentan (D-12) is recommended for detection of sentan of human 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 other FLJ family members.

Suitable for use as control antibody for sentan siRNA (h): sc-78143, sentan shRNA Plasmid (h): sc-78143-SH and sentan shRNA (h) Lentiviral Particles: sc-78143-V.

Molecular Weight of sentan: 16 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.