

SPAG8 (S-13): sc-165534

BACKGROUND

SPAG8 (sperm-associated antigen 8) is a 426 amino acid protein that exists as 2 alternatively spliced isoforms and localizes to the acrosome. As a result of its interaction with Ran BPM, SPAG8 may play a role in fertility and microtubule formation. While highly expressed in testis, SPAG8 has no expression in liver, kidney, prostate or small intestine. The gene that encodes SPAG8 consists of approximately 4,488 bases and maps to human chromosome 9p13.3. Housing over 900 genes, chromosome 9 comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects and Familial dysautonomia, are both associated with chromosome 9. Mutations in DFNB31, located on human chromosome 9, are associated with Usher syndrome type 2, which is characterized by severe rod-cone dystrophy and varying degrees of hearing impairment. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

1. Wang, H., et al. 1999. Assignment of chromosomal locus and evidence for alternatively spliced mRNAs of a human sperm membrane protein (hSMP-1). *Biochim. Biophys. Acta* 1447: 119-124.
2. Online Mendelian Inheritance in Man, OMIM[™]. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605731. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Burmeister, T., et al. 2007. Atypical BCR-ABL mRNA transcripts in adult acute lymphoblastic leukemia. *Haematologica* 92: 1699-1702.
4. Ebermann, I., et al. 2007. A novel gene for Usher syndrome type 2: mutations in the long isoform of whirlin are associated with retinitis pigmentosa and sensorineural hearing loss. *Hum. Genet.* 121: 203-211.
5. Cottin, V., et al. 2007. Pulmonary vascular manifestations of hereditary hemorrhagic telangiectasia (rendu-osler disease). *Respiration* 74: 361-378.
6. Zeitz, M.J., et al. 2009. Organization of the amplified type I interferon gene cluster and associated chromosome regions in the interphase nucleus of human osteosarcoma cells. *Chromosome Res.* 17: 305-319.
7. Gold-von Simson, G., et al. 2009. Kinetin in familial dysautonomia carriers: implications for a new therapeutic strategy targeting mRNA splicing. *Pediatr. Res.* 65: 341-346.
8. Axelrod, F.B., et al. 2010. Neuroimaging supports central pathology in familial dysautonomia. *J. Neurol.* 257: 198-206.
9. Audo, I., et al. 2011. A novel DFNB31 mutation associated with Usher type 2 syndrome showing variable degrees of auditory loss in a consanguineous Portuguese family. *Mol. Vis.* 17: 1598-1606.

CHROMOSOMAL LOCATION

Genetic locus: Spag8 (mouse) mapping to 4 B1.

SOURCE

SPAG8 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SPAG8 of mouse 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-165534 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPAG8 (S-13) is recommended for detection of SPAG8 of mouse 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 other SPAG family members.

Suitable for use as control antibody for SPAG8 siRNA (m): sc-153708, SPAG8 shRNA Plasmid (m): sc-153708-SH and SPAG8 shRNA (m) Lentiviral Particles: sc-153708-V.

Molecular Weight of SPAG8 isoforms: 45/54 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.