SANTA CRUZ BIOTECHNOLOGY, INC.

SPATA6 (D-14): sc-241676

BACKGROUND

SPATA6 (spermatogenesis associated 6), also known as SRF1, is a 488 amino acid secreted protein that may be involved in spermatid maturation or sperm function. SPATA6 is expressed during embryonic development and is localized in neural tube, somites and limb buds of mouse embryo. Existing as two isoforms produced by alternative splicing events, the gene encoding SPATA6 maps to mouse chromosome 4 and human chromosome 1. Human chromosome 1 spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

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2. Onisto, M., et al. 2001. Evidence for FSH-dependent upregulation of SPATA2 (spermatogenesis-associated protein 2). Biochem. Biophys. Res. Commun. 283: 86-92.
3. Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders—cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. Am. J. Hum. Genet. 69: 428-433.
4. Liliana Slongo, M., et al. 2003. Cloning and characterization of the promoter region of human SPATA2 (spermatogenesis-associated protein 2) gene. Biochim. Biophys. Acta 1625: 192-196.
5. Oh, C., et al. 2003. Characterization, expression pattern and chromosomal localization of the spermatogenesis associated 6 gene (SPATA6). Mol. Hum. Reprod. 9: 321-330.
6. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. Cytogenet. Genome Res. 108: 217-222.
7. Deng, Y., et al. 2006. Expression and identification of a novel apoptosis gene SPATA17 (MSRG-11) in mouse spermatogenic cells. Acta Biochim. Biophys. Sin. 38: 37-45.
8. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
9. Moro, E., et al. 2007. Zebrafish spata2 is expressed at early developmental stages. Int. J. Dev. Biol. 51: 241-246.

CHROMOSOMAL LOCATION

Genetic locus: SPATA6 (human) mapping to 1p33; Spata6 (mouse) mapping to 4 D1.

STORAGE

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

SOURCE

SPATA6 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPATA6 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-241676 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPATA6 (D-14) is recommended for detection of SPATA6 of mouse, rat and 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 SPATA family members.

SPATA6 (D-14) is also recommended for detection of SPATA6 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SPATA6 siRNA (h): sc-78827, SPATA6 siRNA (m): sc-153724, SPATA6 shRNA Plasmid (h): sc-78827-SH, SPATA6 shRNA Plasmid (m): sc-153724-SH, SPATA6 shRNA (h) Lentiviral Particles: sc-78827-V and SPATA6 shRNA (m) Lentiviral Particles: sc-153724-V.

Molecular Weight of SPATA6: 50 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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.

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.