SANTA CRUZ BIOTECHNOLOGY, INC.

SPATA18 (K-13): sc-165545

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The Power to Question

BACKGROUND

SPATA18 (spermatogenesis associated 18), also known as Mieap or SPETEX1, is a 538 amino acid protein that is thought to play a role in cell differentiation during spermatogenesis, particularly during development from late elongate spematids to mature spermatozoa. Localizing to cytoplasm, SPATA18 is encoded by a gene that maps to human chromosome 4q12. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which is found to encode an expanded glutamine tract in cases of Huntington's disease, is on chromosome 4. FGFR-3 is also encoded on chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also tied to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

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2. Kalchman, M.A., et al. 1996. Huntingtin is ubiquitinated and interacts with a specific ubiquitin-conjugating enzyme. J. Biol. Chem. 271: 19385-19394.
3. Howard, T.D., et al. 1997. Autosomal dominant postaxial polydactyly, nail dystrophy, and dental abnormalities map to chromosome 4p16, in the region containing the Ellis-van Creveld syndrome locus. Am. J. Hum. Genet. 61: 1405-1412.
4. Dobson, C.M., et al. 2002. Identification of the gene responsible for the cblA complementation group of vitamin B_{12}-responsive methylmalonic acidemia based on analysis of prokaryotic gene arrangements. Proc. Natl. Acad. Sci. USA 99: 15554-15559.
5. Iida, H., et al. 2004. Complementary DNA cloning of rat spetex-1, a spermatid-expressing gene-1, encoding a 63 kDa cytoplasmic protein of elongate spermatids. Mol. Reprod. Dev. 68: 385-393.
6. Kaindl, A.M., et al. 2005. Homozygous microdeletion of chromosome 4q11-q12 causes severe limb-girdle muscular dystrophy type 2E with joint hyperlaxity and contractures. Hum. Mutat. 26: 279-280.
7. Online Mendelian Inheritance in Man, OMIM™. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 612814: World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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CHROMOSOMAL LOCATION

Genetic locus: SPATA18 (human) mapping to 4q12; Spata18 (mouse) mapping to 5 C3.3.

SOURCE

SPATA18 (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPATA18 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-165545 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPATA18 (K-13) is recommended for detection of SPATA18 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.

SPATA18 (K-13) is also recommended for detection of SPATA18 in additional species, including bovine.

Suitable for use as control antibody for SPATA18 siRNA (h): sc-89204, SPATA18 siRNA (m): sc-153715, SPATA18 shRNA Plasmid (h): sc-89204-SH, SPATA18 shRNA Plasmid (m): sc-153715-SH, SPATA18 shRNA (h) Lentiviral Particles: sc-89204-V and SPATA18 shRNA (m) Lentiviral Particles: sc-153715-V.

Molecular Weight of SPATA18: 61 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.