

SPATA10 (S-20): sc-244200

BACKGROUND

SPATA10, also known as SPATS2 (spermatogenesis-associated serine-rich protein 2), SCR59 (serine-rich spermatocytes and round spermatid 59 kDa protein) or p59scr, is a 545 amino acid cytoplasmic protein that belongs to the SPATS2 family. The gene encoding SPATA10 maps to human chromosome 12q13.12 and mouse chromosome 15 F1. Chromosome 12 makes up about 4.5% of the human genome and is linked to a number of skeletal deformities, including hypochondrogenesis, achondrogenesis and Kniest dysplasia. Noonan syndrome, which includes heart and facial developmental defects among the primary symptoms, is caused by a mutant form of PTPN11 gene product, SH-PTP2. Chromosome 12 is also home to a homeobox gene cluster, which encodes crucial transcription factors for morphogenesis, and the natural killer complex gene cluster, encoding C-type lectin proteins which mediate the NK cell response to MHC I interaction. Trisomy 12p leads to facial development defects, seizure disorders and a host of other symptoms which vary in severity depending on the extent of mosaicism. It is most severe in cases of complete trisomy.

REFERENCES

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- Senoo, M., et al. 2002. Identification of a novel protein p59(scr), which is expressed at specific stages of mouse spermatogenesis. *Biochem. Biophys. Res. Commun.* 292: 992-998.
- Yokoyama, T., et al. 2003. A case of Kniest dysplasia with retinal detachment and the mutation analysis. *Am. J. Ophthalmol.* 136: 1186-1188.
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- Forzano, F., et al. 2007. A familial case of achondrogenesis type II caused by a dominant COL2A1 mutation and "patchy" expression in the mosaic father. *Am. J. Med. Genet. A* 143A: 2815-2820.
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CHROMOSOMAL LOCATION

Genetic locus: SPATS2 (human) mapping to 12q13.12; Spats2 (mouse) mapping to 15 F1.

SOURCE

SPATA10 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SPATA10 of human origin.

STORAGE

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

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-244200 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SPATA10 (S-20) is recommended for detection of SPATA10 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).

SPATA10 (S-20) is also recommended for detection of SPATA10 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SPATA10 siRNA (h): sc-95919, SPATA10 siRNA (m): sc-153711, SPATA10 shRNA Plasmid (h): sc-95919-SH, SPATA10 shRNA Plasmid (m): sc-153711-SH, SPATA10 shRNA (h) Lentiviral Particles: sc-95919-V and SPATA10 shRNA (m) Lentiviral Particles: sc-153711-V.

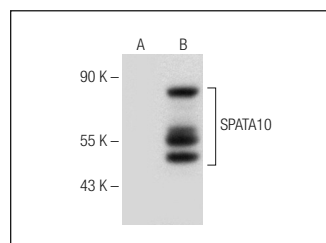
Molecular Weight of SPATA10: 60 kDa.

Positive Controls: SPATA10 (m): 293T Lysate: sc-123734.

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.

DATA



SPATA10 (S-20): sc-244200. Western blot analysis of SPATA10 expression in non-transfected: sc-117752 (A) and mouse SPATA10 transfected: sc-123734 (B) 293T whole cell lysates.

RESEARCH USE

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