SANTA CRUZ BIOTECHNOLOGY, INC.

SPATA2 (EE-31): sc-100946

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SPATA2 (spermatogenesis associated protein 2), also known as PD1 or tamo, is a 520 amino acid nuclear protein expressed at high levels in testis and at lower levels in various other tissues. SPATA2 is predominantly expressed in Sertoli cells and, although not found in spermatogenic cells, is believed to participate in the regulation of spermatogenesis. SPATA2 shares high sequence identity with the rat homolog (approximately 85%), suggesting that SPATA2 has been conserved through mammalian evolution. In response to FSH (follicle stimulating hormone) stimulation, the primary hormone regulating Sertoli cell function, SPATA2 mRNA levels exhibit a significant increase. This suggests that SPATA2 is an FSH-responsive protein and may play a role in the FSH-dependent function of Sertoli cells.

REFERENCES

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2. Graziotto, R., Foresta, C., Scannapieco, P., Zeilante, P., Russo, A., Negro, A., Salmaso, R. and Onisto, M. 1999. cDNA cloning and characterization of PD1: a novel human testicular protein with different expressions in various testiculopathies. Exp. Cell Res. 248: 620-626.
3. Onisto, M., Graziotto, R., Scannapieco, P., Marin, P., Merico, M., Slongo, M.L. and Foresta, C. 2000. A novel gene (PD1) with a potential role on rat spermatogenesis. J. Endocrinol. Invest. 23: 605-608.
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6. Moro, E., Maran, C., Slongo, M.L., Argenton, F., Toppo, S. and Onisto, M. 2007. Zebrafish SPATA2 is expressed at early developmental stages. Int. J. Dev. Biol. 51: 241-246.

CHROMOSOMAL LOCATION

Genetic locus: SPATA2 (human) mapping to 20q13.13; Spata2 (mouse) mapping to 2 H3.

SOURCE

SPATA2 (EE-31) is a mouse monoclonal antibody raised against recombinant SPATA2 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SPATA2 (EE-31) is recommended for detection of SPATA2 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).

Suitable for use as control antibody for SPATA2 siRNA (h): sc-76550, SPATA2 siRNA (m): sc-153717, SPATA2 shRNA Plasmid (h): sc-76550-SH, SPATA2 shRNA Plasmid (m): sc-153717-SH, SPATA2 shRNA (h) Lentiviral Particles: sc-76550-V and SPATA2 shRNA (m) Lentiviral Particles: sc-153717-V.

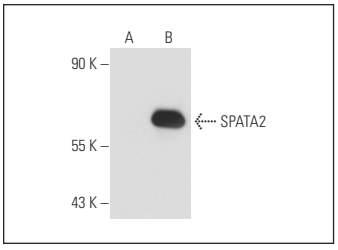
Molecular Weight of SPATA2: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or SPATA2 (h2): 293T Lysate: sc-172738.

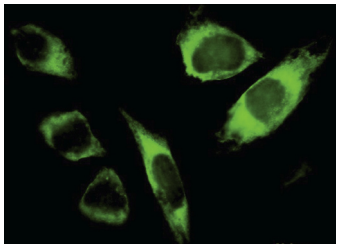
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



SPATA2 (EE-31): sc-100946. Western blot analysis of SPATA2 expression in non-transfected: sc-117752 (**A**) and human SPATA2 transfected: sc-172738 (**B**) 293T whole cell lysates.



SPATA2 (EE-31): sc-100946. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing cytoplasmic localization.

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 for detailed protocols and support products.