

# SPATA19 (B-9): sc-514325

## BACKGROUND

SPATA19 (spermatogenesis associated 19), also known as spergen1 (spermatogenic cell-specific gene 1 protein), CT132 or SPAS1, is a 167 amino acid mitochondrial outer membrane protein suggested to function in spermiogenesis. Expressed specifically in testis, SPATA19 is encoded by a gene that maps to human chromosome 11, which comprises approximately 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded Atm gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. Atm mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and thalassemia are caused by HBB gene mutations, while Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11-encoded genes.

## REFERENCES

1. Fabiani, J.E., et al. 2000. Hereditary angioedema. Long-term follow-up of 88 patients. Experience of the Argentine Allergy and Immunology Institute. *Allergol. Immunopathol.* 28: 267-271.
2. Jira, P.E., et al. 2003. Smith-Lemli-Opitz syndrome and the DHCR7 gene. *Ann. Hum. Genet.* 67: 269-280.
3. Miyamoto, T., et al. 2003. Isolation and expression analysis of the human testis-specific gene, SPERGEN-1, a spermatogenic cell-specific gene-1. *J. Assist. Reprod. Genet.* 20: 101-104.
4. Matsuoka, Y., et al. 2004. Cloning and characterization of a mouse spergen-1 localized in sperm mitochondria. *Int. J. Androl.* 27: 152-160.

## CHROMOSOMAL LOCATION

Genetic locus: SPATA19 (human) mapping to 11q25; Spata19 (mouse) mapping to 9 A4.

## SOURCE

SPATA19 (B-9) is a mouse monoclonal antibody raised against amino acids 80-164 mapping near the C-terminus of SPATA19 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SPATA19 (B-9) is available conjugated to agarose (sc-514325 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514325 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514325 PE), fluorescein (sc-514325 FITC), Alexa Fluor® 488 (sc-514325 AF488), Alexa Fluor® 546 (sc-514325 AF546), Alexa Fluor® 594 (sc-514325 AF594) or Alexa Fluor® 647 (sc-514325 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514325 AF680) or Alexa Fluor® 790 (sc-514325 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

SPATA19 (B-9) is recommended for detection of SPATA19 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 SPATA19 siRNA (h): sc-96552, SPATA19 siRNA (m): sc-153716, SPATA19 shRNA Plasmid (h): sc-96552-SH, SPATA19 shRNA Plasmid (m): sc-153716-SH, SPATA19 shRNA (h) Lentiviral Particles: sc-96552-V and SPATA19 shRNA (m) Lentiviral Particles: sc-153716-V.

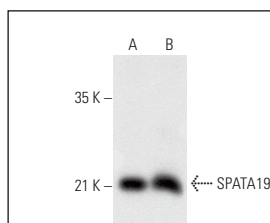
Molecular Weight of SPATA19: 19 kDa.

Positive Controls: mouse testis extract: sc-2405, rat testis extract: sc-2400 or human testis extract: sc-363781.

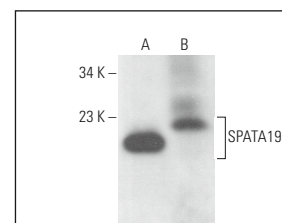
## RECOMMENDED SUPPORT REAGENTS

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



SPATA19 (B-9): sc-514325. Western blot analysis of SPATA19 expression in mouse testis (A) and rat testis (B) tissue extracts.



SPATA19 (B-9): sc-514325. Western blot analysis of SPATA19 expression in rat testis (A) and human testis (B) tissue extracts.

## 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](http://www.scbt.com) for detailed protocols and support products.