

# SPATA2 (B-7): sc-515283

## 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

- Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XI. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 5: 277-286.
- Graziotto, R., et al. 1999. cDNA cloning and characterization of PD1: a novel human testicular protein with different expressions in various testiculopathies. Exp. Cell Res. 248: 620-626.
- Onisto, M., et al. 2000. A novel gene (PD1) with a potential role on rat spermatogenesis. J. Endocrinol. Invest. 23: 605-608.
- Onisto, M., et al. 2001. Evidence for FSH-dependent upregulation of SPATA2 (spermatogenesis-associated protein 2). Biochem. Biophys. Res. Commun. 283: 86-92.

## CHROMOSOMAL LOCATION

Genetic locus: SPATA2 (human) mapping to 20q13.13.

## SOURCE

SPATA2 (B-7) is a mouse monoclonal antibody raised against amino acids 417-520 mapping at the C-terminus of SPATA2 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.

SPATA2 (B-7) is available conjugated to agarose (sc-515283 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515283 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515283 PE), fluorescein (sc-515283 FITC), Alexa Fluor® 488 (sc-515283 AF488), Alexa Fluor® 546 (sc-515283 AF546), Alexa Fluor® 594 (sc-515283 AF594) or Alexa Fluor® 647 (sc-515283 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515283 AF680) or Alexa Fluor® 790 (sc-515283 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

SPATA2 (B-7) is recommended for detection of SPATA2 of 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 SPATA2 siRNA (h): sc-76550, SPATA2 shRNA Plasmid (h): sc-76550-SH and SPATA2 shRNA (h) Lentiviral Particles: sc-76550-V.

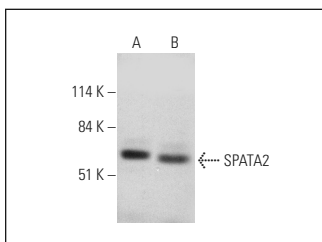
Molecular Weight of SPATA2: 60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or COLO 205 whole cell lysate: sc-364177.

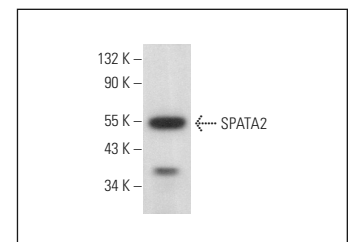
## RECOMMENDED SUPPORT REAGENTS

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 (B-7): sc-515283. Western blot analysis of SPATA2 expression in HeLa (A) and K-562 (B) whole cell lysates.



SPATA2 (B-7): sc-515283. Western blot analysis of SPATA2 expression in COLO 205 whole cell lysate.

## SELECT PRODUCT CITATIONS

- Douanne, T., et al. 2019. CYLD regulates centriolar satellites proteostasis by counteracting the E3 ligase MIB1. Cell Rep. 27: 1657-1665.
- Yang, X.D., et al. 2019. PLK4 deubiquitination by SPATA2-CYLD suppresses NEK7-mediated NLRP3 inflammasome activation at the centrosome. EMBO J. 25: e102201
- Ji, H., et al. 2023. SPATA2 suppresses epithelial-mesenchymal transition to inhibit metastasis and radiotherapy sensitivity in non-small cell lung cancer via impairing DVL1/β-catenin signaling. Thorac. Cancer. E-published.

## RESEARCH USE

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