# SPATA2 (h): 293T Lysate: sc-172505



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**

- Nagase, T., Ishikawa, K., Suyama, M., Kikuno, R., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 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., 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.
- 4. Onisto, M., Slongo, L.M., Graziotto, R., Zotti, L., Negro, A., Merico, M., Moro, E. and Foresta, C. 2001. Evidence for FSH-dependent upregulation of SPATA2 (spermatogenesis-associated protein 2). Biochem. Biophys. Res. Commun. 283: 86-92.
- 5. Liliana Slongo, M., Zotti, L. and Onisto, M. 2003. Cloning and characterization of the promoter region of human SPATA2 (spermatogenesis-associated protein 2) gene. Biochim. Biophys. Acta 1625: 192-196.
- 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 20g13.13.

# **PRODUCT**

SPATA2 (h): 293T Lysate represents a lysate of human SPATA2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

# **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

#### **APPLICATIONS**

SPATA2 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive SPATA2 antibodies.

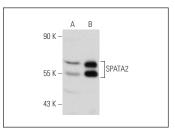
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

SPATA2 (EE-31): sc-100946 is recommended as a positive control antibody for Western Blot analysis of enhanced human SPATA2 expression in SPATA2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

# **RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG $\kappa$  BP-HRP: sc-516102 or m-lgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

### **DATA**



SPATA2 (EE-31): sc-100946. Western blot analysis of SPATA2 expression in non-transfected: sc-117752 (A) and human SPATA2 transfected: sc-172505 (B) 293T whole cell Ivsates

# **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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com