

## Prostasin (2): sc-136272

### BACKGROUND

Prostasin, a serine protease first identified in prostate tissue, activates epithelial sodium channels in a variety of tissues. Though typically a membrane-anchored protein, free Prostasin is also found in physiologic fluids and tissue culture media, indicating a mechanism for secretion from the cells as well. Aprotinin and other protease inhibitors suppress the channel-activating capacity of Prostasin, while aldosterone increases Prostasin expression and stimulates sodium uptake. In addition, DNA methylation negatively correlates with Prostasin expression in cancer cells, while enforced reexpression decreases invasiveness as well as metastatic potential, implying that Prostasin activity reflects epithelial cell physiology.

### REFERENCES

1. Narikiyo, T., Kitamura, K., Adachi, M., Miyoshi, T., Iwashita, K., Shiraishi, N., Nonoguchi, H., Chen, L.M., Chai, K.X., Chao, J. and Tomita, K. 2002. Regulation of Prostasin by aldosterone in the kidney. *J. Clin. Invest.* 109: 401-408.
2. Liu, L., Hering-Smith, K.S., Schiro, F.R. and Hamm, L.L. 2002. Serine protease activity in M-1 cortical collecting duct cells. *Hypertension* 39: 860-864.
3. Chen, L.M. and Chai, K.X. 2002. Prostasin serine protease inhibits breast cancer invasiveness and is transcriptionally regulated by promoter DNA methylation. *Int. J. Cancer* 97: 323-329.
4. Wang, C., Chao, J. and Chao, L. 2003. Adenovirus-mediated human Prostasin gene delivery is linked to increased aldosterone production and hypertension in rats. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 284: 1031-1036.
5. Iwashita, K., Kitamura, K., Narikiyo, T., Adachi, M., Shiraishi, N., Miyoshi, T., Nagano, J., Tuyen, D.G., Nonoguchi, H. and Tomita, K. 2003. Inhibition of Prostasin secretion by serine protease inhibitors in the kidney. *J. Am. Soc. Nephrol.* 14: 11-16.

### CHROMOSOMAL LOCATION

Genetic locus: PRSS8 (human) mapping to 16p11.2; Prss8 (mouse) mapping to 7 F3.

### SOURCE

Prostasin (2) is a mouse monoclonal antibody raised against amino acids 108-228 of Prostasin of human origin.

### PRODUCT

Each vial contains 200 µg IgG<sub>2a</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### 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. Not for resale.

### APPLICATIONS

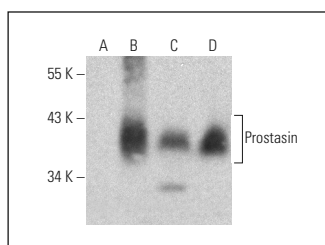
Prostasin (2) is recommended for detection of Prostasin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Prostasin siRNA (h): sc-63314, Prostasin siRNA (m): sc-63315, Prostasin shRNA Plasmid (h): sc-63314-SH, Prostasin shRNA Plasmid (m): sc-63315-SH, Prostasin shRNA (h) Lentiviral Particles: sc-63314-V and Prostasin shRNA (m) Lentiviral Particles: sc-63315-V.

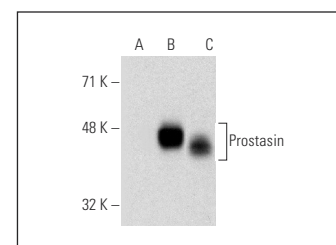
Molecular Weight of Prostasin: 40 kDa.

Positive Controls: Prostasin (h): 293T Lysate: sc-170169, Hep G2 cell lysate: sc-2227 or LNCaP cell lysate: sc-2231.

### DATA



Prostasin (2): sc-136272. Western blot analysis of Prostasin expression in non-transfected 293T: sc-117752 (A), mouse Prostasin transfected 293T: sc-127388 (B), Hep G2 (C) and LNCaP (D) whole cell lysates.



Prostasin (2): sc-136272. Western blot analysis of Prostasin expression in non-transfected 293T: sc-117752 (A), human Prostasin transfected 293T: sc-170169 (B) and LNCaP (C) whole cell lysates.

### SELECT PRODUCT CITATIONS

1. Tamir, A., Gangadharan, A., Balwani, S., Tanaka, T., Patel, U., Hassan, A., Benke, S., Agas, A., D'Agostino, J., Shin, D., Yoon, S., Goy, A., Pecora, A. and Suh, K.S. 2016. The serine protease Prostasin (PRSS8) is a potential biomarker for early detection of ovarian cancer. *J. Ovarian Res.* 9: 20.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.