

Prostasin (H-75): sc-98868

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

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- 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.
- 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.
- 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: R1031-1036.
- 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 (H-75) is a rabbit polyclonal antibody raised against amino acids 269-343 mapping at the C-terminus of Prostasin of human origin.

PRODUCT

Each vial contains 200 µg IgG 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.

APPLICATIONS

Prostasin (H-75) is recommended for detection of Prostasin of human and, to a lesser extent, mouse 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 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.

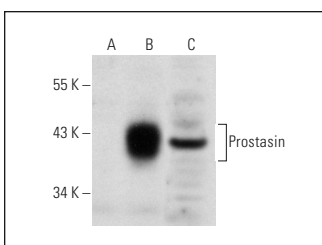
Molecular Weight of Prostasin: 40 kDa.

Positive Controls: Prostasin (h): 293T Lysate: sc-170169, Prostasin (m): 293T Lysate: sc-127388 or Hep G2 cell lysate: sc-2227.

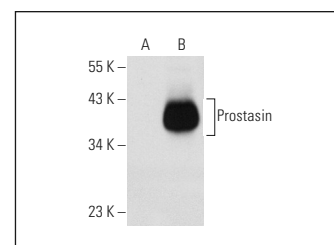
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Prostasin (H-75): sc-98868. Western blot analysis of Prostasin expression in non-transfected 293T: sc-117752 (A), mouse Prostasin transfected 293T: sc-127388 (B) and Hep G2 (C) whole cell lysates.



Prostasin (H-75): sc-98868. Western blot analysis of Prostasin expression in non-transfected: sc-117752 (A) and human Prostasin transfected: sc-170169 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

- Chen, P.X., Li, Q.Y. and Yang, Z. 2013. Axl and prostasin are biomarkers for prognosis of ovarian adenocarcinoma. *Ann. Diagn. Pathol.* 17: 425-429.

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