

Prostasin (C-10): sc-514983

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. Liu, L, et al. 2002. Serine protease activity in μ -1 cortical collecting duct cells. *Hypertension* 39: 860-864.
2. Nariyo T, et al. 2002. Regulation of prostasin by aldosterone in the kidney. *J. Clin. Invest.* 109: 401-408.
3. Chen, L.M., et al. 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., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Prostasin (C-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 200-228 within an internal region of Prostasin of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Prostasin (C-10) is available conjugated to agarose (sc-514983 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514983 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514983 PE), fluorescein (sc-514983 FITC), Alexa Fluor[®] 488 (sc-514983 AF488), Alexa Fluor[®] 546 (sc-514983 AF546), Alexa Fluor[®] 594 (sc-514983 AF594) or Alexa Fluor[®] 647 (sc-514983 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-514983 AF680) or Alexa Fluor[®] 790 (sc-514983 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514983 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

Prostasin (C-10) is recommended for detection of precursor and mature heavy chain Prostasin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 (m): sc-63315, Prostasin siRNA (m): sc-63315, Prostasin shRNA Plasmid (m): sc-63315-SH, Prostasin shRNA Plasmid (m): sc-63315-SH, Prostasin shRNA (m) Lentiviral Particles: sc-63315-V and Prostasin shRNA (m) Lentiviral Particles: sc-63315-V.

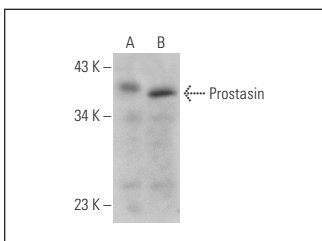
Molecular Weight of Prostasin: 40 kDa.

Positive Controls: AT3B-1 whole cell lysate: sc-364372 or LNCaP cell lysate: sc-2231.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



Prostasin (C-10): sc-514983. Western blot analysis of Prostasin expression in LNCaP (A) and AT3B-1 (B) whole cell lysates.

RESEARCH USE

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

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.