## SANTA CRUZ BIOTECHNOLOGY, INC.

# Prostein (Y-17): sc-49712



#### BACKGROUND

PSA, prostate specific antigen, is the classic indicator for transformed prostate tissue; however, in addition to being upregulated in prostate cancer, PSA is also upregulated in non-malignant conditions, such as benign prostatic hyperplasia. Prostein, also designated Prostate cancer-associated protein 6, is a prostate-specific, 553 amino acid transmembrane protein that is upregulated by androgens. It is considered a marker for prostate cells since it is expressed in all prostatic glandular cells as well as in normal and cancerous prostate tissues. Since it is able to elicit a tumor-directed cytotoxic T cell response, Prostein may be used as a target for the development of PSA- and T cell based therapeutic strategies for prostate cancer.

### REFERENCES

- Xu, J., Kalos, M., Stolk, J.A., Zasloff, E.J., Zhang, X., Houghton, R.L., Filho, A.M., Nolasco, M., Badaró, R. and Reed, SG. 2001. Identification and characterization of Prostein, a novel prostate-specific protein. Cancer Res. 61: 1563-1568.
- Friedman, R.S., Spies, A.G. and Kalos, M. 2004. Identification of naturally processed CD8 T cell epitopes from Prostein, a prostate tissue-specific vaccine candidate. Eur. J. Immunol. 34: 1091-1101.
- Hsia, N. and Cornwall, G.A. 2004. DNA microarray analysis of regionspecific gene expression in the mouse epididymis. Biol. Reprod. 70: 448-457.
- Kalos, M., Askaa, J., Hylander, B.L., Repasky, E.A., Cai, F., Vedvick, T., Reed, S.G., Wright, G.L. and Fanger, G.R., Jr. 2004. Prostein expression is highly restricted to normal and malignant prostate tissues. Prostate 60: 246-256.
- Kiessling, A., Stevanovic, S., Füssel, S., Weigle, B., Rieger, MA., Temme, A., Rieber, E.P. and Schmitz, M. 2004. Identification of an HLA-A\*0201restricted T cell epitope derived from the prostate cancer-associated protein Prostein. Br. J. Cancer 90: 1034-1040.

#### CHROMOSOMAL LOCATION

Genetic locus: SLC45A3 (human) mapping to 1q32.1; Slc45a3 (mouse) mapping to 1 E4.

#### SOURCE

Prostein (Y-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Prostein of human origin.

#### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49712 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### APPLICATIONS

Prostein (Y-17) is recommended for detection of Prostein of mouse, rat and human 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).

Prostein (Y-17) is also recommended for detection of Prostein in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Prostein siRNA (h): sc-61413, Prostein siRNA (m): sc-61414, Prostein shRNA Plasmid (h): sc-61413-SH, Prostein shRNA Plasmid (m): sc-61414-SH, Prostein shRNA (h) Lentiviral Particles: sc-61413-V and Prostein shRNA (m) Lentiviral Particles: sc-61414-V.

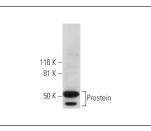
Molecular Weight of Prostein: 59 kDa.

Positive Controls: mouse testis extract: sc-2405.

#### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### DATA



Prostein (Y-17): sc-49712. Western blot analysis of Prostein expression in mouse testis tissue extract.

## **RESEARCH USE**

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

MONOS Satisfation Guaranteed

Try **Prostein (A-5): sc-393069** or **Prostein (E-5): sc-390873**, our highly recommended monoclonal alternatives to Prostein (Y-17).