SANTA CRUZ BIOTECHNOLOGY, INC.

Prostein (G-9): sc-398870

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

1. Xu, J., et al. 2001. Identification and characterization of Prostein, a novel prostate-specific protein. Cancer Res. 61: 1563-1568.
2. Friedman, R.S., et al. 2004. Identification of naturally processed CD8 T cell epitopes from Prostein, a prostate tissue-specific vaccine candidate. Eur. J. Immunol. 34: 1091-1101.
3. Hsia, N. and Cornwall, G.A. 2004. DNA microarray analysis of region-specific gene expression in the mouse epididymis. Biol. Reprod. 70: 448-457.
4. Kalos, M., et al. 2004. Prostein expression is highly restricted to normal and malignant prostate tissues. Prostate 60: 246-256.
5. Kiessling, A., et al. 2004. Identification of an HLA-A*0201-restricted T cell epitope derived from the prostate cancer-associated protein Prostein. Br. J. Cancer 90: 1034-1040.
6. Edwards, S., et al. 2005. Expression analysis onto microarrays of randomly selected cDNA clones highlights HOXB13 as a marker of human prostate cancer. Br. J. Cancer 92: 376-381.
7. Cunha, A.C., et al. 2006. Tissue-specificity of prostate specific antigens: comparative analysis of transcript levels in prostate and non-prostatic tissues. Cancer Lett. 236: 229-238.
8. Fuessel, S., et al. 2006. Vaccination of hormone-refractory prostate cancer patients with peptide cocktail-loaded dendritic cells: results of a phase I clinical trial. Prostate 66: 811-821.
9. Schmidt, U., et al. 2006. Quantitative multi-gene expression profiling of primary prostate cancer. Prostate 66: 1521-1534.

CHROMOSOMAL LOCATION

Genetic locus: SLC45A3 (human) mapping to 1q32.1.

SOURCE

Prostein (G-9) is a mouse monoclonal antibody raised against amino acids 296-553 mapping at the C-terminus of Prostein of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Prostein (G-9) is recommended for detection of Prostein of human origin by Western Blotting (starting dilution 1:100, 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 Prostein siRNA (h): sc-61413, Prostein shRNA Plasmid (h): sc-61413-SH and Prostein shRNA (h) Lentiviral Particles: sc-61413-V.

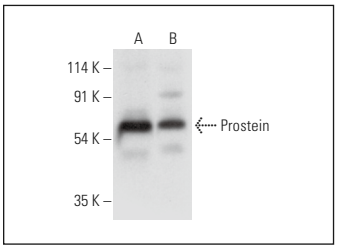
Molecular Weight of Prostein: 59 kDa.

Positive Controls: PC-3 cell lysate: sc-2220 or LNCaP cell lysate: sc-2231.

RECOMMENDED SUPPORT REAGENTS

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



Prostein (G-9): sc-398870. Western blot analysis of Prostein expression in LNCaP (**A**) and PC-3 (**B**) whole cell lysates.

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.

PROTOCOLS

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