SANTA CRUZ BIOTECHNOLOGY, INC.

PSP94 siRNA (h): sc-76280

BACKGROUND

Prostate secretory protein, also designated PSP94, is a 94 amino acid protein that is expressed abundantly in semen. PSP94 has local functions within the reproductive tract as well as many systemic functions. Low levels of PSP94 are associated with the advance of prostate cancer, a common malignancy that is often associated with skeletal metastases resulting in significant morbidity and mortality. PSP94 may be a useful tool for the management of a sub-population of low-stage and low-grade prostatic carcinoma and its associated complications.

REFERENCES

1. Wright, G.L., et al. 1990. Generation and characterization of monoclonal antibodies to prostate secretory protein. Int. J. Cancer 46: 39-49.
2. Huang, C.L., et al. 1992. Two-site monoclonal antibody-based immunoradiometric assay for measuring prostate secretory protein in serum. Clin. Chem. 38: 817-823.
3. Huang, C.L., et al. 1993. Comparison of prostate secretory protein with prostate specific antigen and prostatic acid phosphatase as a serum biomarker for diagnosis and monitoring patients with prostate carcinoma. Prostate 23: 201-212.
4. Shukeir, N., et al. 2003. Prostate secretory protein PSP94 decreases tumor growth and hypercalcemia of malignancy in a syngenic *in vivo* model of prostate cancer. Cancer Res. 63: 2072-2078.
5. Reeves, J.R., et al. 2004. Identification, purification and characterization of a novel human blood protein with binding affinity for prostate secretory protein of 94 amino acids. Biochem. J. 385: 105-114.
6. Shukeir, N., et al. 2004. A synthetic 15-mer peptide (PCK3145) derived from prostate secretory protein can reduce tumor growth, experimental skeletal metastases, and malignancy-associated hypercalcemia. Cancer Res. 64: 5370-5377.
7. Girvan, A.R., et al. 2005. Increased intratumoral expression of prostate secretory protein of 94 amino acids predicts for worse disease recurrence and progression after radical prostatectomy in patients with prostate cancer. Urology 65: 719-723.
8. Shukeir, N., et al. 2005. Prostate secretory protein of 94 amino acids (PSP94) and its peptide (PCK3145) as potential therapeutic modalities for prostate cancer. Anticancer Drugs 16: 1045-1051.

CHROMOSOMAL LOCATION

Genetic locus: MSMB (human) mapping to 10q11.23.

PRODUCT

PSP94 siRNA (h) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see PSP94 shRNA Plasmid (h): sc-76280-SH and PSP94 shRNA (h) Lentiviral Particles: sc-76280-V as alternate gene silencing products.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

PSP94 siRNA (h) is recommended for the inhibition of PSP94 expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 µM in 66 µl. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

GENE EXPRESSION MONITORING

PSP94 (F-1): sc-390855 is recommended as a control antibody for monitoring of PSP94 gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-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) Immunofluorescence: use m-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor PSP94 gene expression knockdown using RT-PCR Primer: PSP94 (h)-PR: sc-76280-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

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.