

PSCA (H-83): sc-28820

BACKGROUND

Prostate stem cell antigen (PSCA) is a 123 amino acid glycosylated protein that shares homology with the Thy-1/Ly-6 family of glycosyl-phosphatidylinositol (GPI)-anchored cell surface antigens. The PSCA gene maps to chromosome 8q24.3 and transcripts are most prevalent in prostate and placenta. The gene encoding c-Myc is also located on chromosome 8q and like PSCA, is overexpressed in a large number of prostate cancers. Transcripts for PSCA are also abundant in urothelial tumors, and levels of PSCA transcripts increase in confluent RT112 bladder carcinomas, suggesting that PSCA is a marker for urothelial and gastric tissue carcinogenesis. Among prostate cancer cell surface antigens, PSCA is expressed in over 80% of prostate carcinomas and correlates well to certain prostate cancer phenotypes such as prostate cancer bone metastases.

REFERENCES

1. Reiter, R.E., et al. 1998. Prostate stem cell antigen: a cell surface marker overexpressed in prostate cancer. *Proc. Natl. Acad. Sci. USA* 95: 1735-1740.
2. Gu, Z., et al. 2000. Prostate stem cell antigen (PSCA) expression increases with high gleason score, advanced stage and bone metastasis in prostate cancer. *Oncogene* 19: 1288-1296.

CHROMOSOMAL LOCATION

Genetic locus: PSCA (human) mapping to 8q24.3.

SOURCE

PSCA (H-83) is a rabbit polyclonal antibody raised against amino acids 21-103 representing full length mature PSCA 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.

RESEARCH USE

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

APPLICATIONS

PSCA (H-83) is recommended for detection of precursor and mature forms of PSCA of 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).

Suitable for use as control antibody for PSCA siRNA (h): sc-42958, PSCA shRNA Plasmid (h): sc-42958-SH and PSCA shRNA (h) Lentiviral Particles: sc-42958-V.

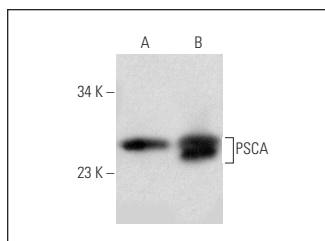
Molecular Weight of PSCA: 29 kDa.

Positive Controls: human prostate extract: sc-363774 or human placenta extract: sc-363772.

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



PSCA (H-83): sc-28820. Western blot analysis of PSCA expression in human prostate (A) and human placenta (B) tissue extracts.

SELECT PRODUCT CITATIONS

1. Zhang, X., et al. 2007. Vaccination with a DNA vaccine based on human PSCA and HSP70 adjuvant enhances the antigen-specific CD8⁺ T-cell response and inhibits the PSCA⁺ tumors growth in mice. *J. Gene Med.* 9: 715-726.
2. Vander Griend, D.J., et al. 2008. The role of CD133 in normal human prostate stem cells and malignant cancer-initiating cells. *Cancer Res.* 68: 9703-9711.
3. Cui, L., et al. 2012. Hemostatic gelatin sponge is a superior matrix to matrigel for establishment of LNCaP human prostate cancer in nude mice. *Prostate* 72: 1669-1677.

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 or our catalog for detailed protocols and support products.

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Try **PSCA (7F5): sc-80654**, our highly recommended monoclonal alternative to PSCA (H-83). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **PSCA (7F5): sc-80654**.