

# PSCA (L-14): sc-14201

## 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 8q24.2 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 more than 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.
3. Reiter, R.E., et al. 2000. Co-amplification of prostate stem cell antigen (PSCA) and Myc in locally advanced prostate cancer. *Genes Chromosomes Cancer* 27: 95-103.
4. Bahrenberg, G., et al. 2000. Reduced expression of PSCA, a member of the Ly 6 family of cell surface antigens, in bladder, esophagus, and stomach tumors. *Biochem. Biophys. Res. Commun.* 275: 783-788.
5. Dannull, J., et al. 2000. Prostate stem cell antigen is a promising candidate for immunotherapy of advanced prostate cancer. *Cancer Res.* 60: 5522-5528.

## CHROMOSOMAL LOCATION

Genetic locus: PSCA (human) mapping to 8q24.2; Psca (mouse) mapping to 15 D3.

## SOURCE

PSCA (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PSCA (prostate stem cell antigen) 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.

Blocking peptide available for competition studies, sc-14201 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

PSCA (L-14) is recommended for detection of PSCA of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

## 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) 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **PSCA (7F5): sc-80654**, our highly recommended monoclonal alternative to PSCA (L-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **PSCA (7F5): sc-80654**.