

PSCA (S-15): sc-14205

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 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.
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. Comm.* 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.

SOURCE

PSCA (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PSCA of mouse 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-14205 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 (S-15) is recommended for detection of PSCA of mouse and rat 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 (m): sc-42959.

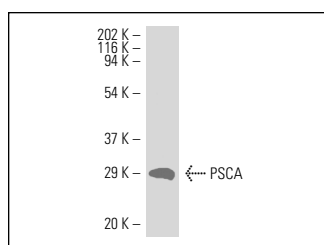
Molecular Weight of PSCA: 29 kDa.

Positive Controls: mouse prostate tissue extract or mouse intestine.

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.

DATA



PSCA (S-15): sc-14205. Western blot analysis of PSCA expression in mouse prostate tissue extract.

PROTOCOLS

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

RESEARCH USE

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