

probasin (M-18): sc-17124

BACKGROUND

Functional differentiation of prostatic epithelium is manifested by the production of tissue specific secretory proteins. Production of these proteins is dependent on the presence of serum androgens, such as probasin. Probasin (PB) occurs both as a secreted and a nuclear protein that is abundantly expressed in the epithelial cells of the prostate. Probasin is a prostate-specific and androgen-regulated protein, and it is useful as a marker of prostate differentiation. Androgen-specific regulation of probasin gene transcription requires two androgen receptor-binding sites, which are contained within the 5'-flanking end of the probasin androgen-responsive region. The binding of the androgen receptor to both sites occurs in a cooperative, mutually dependent manner.

REFERENCES

- Rennie, P.S., et al. 1993. Characterization of two *cis*-acting DNA elements involved in the androgen regulation of the probasin gene. *Mol. Endocrinol.* 7: 23-36.
- Kasper, S., et al. 1994. Cooperative binding of androgen receptors to two DNA sequences is required for androgen induction of the probasin gene. *J. Biol. Chem.* 269: 31763-31769.
- Lopes, E.S., et al. 1996. Initiation of secretory activity of rat prostatic epithelium in organ culture. *Endocrinology* 137: 4225-4234.

CHROMOSOMAL LOCATION

Genetic locus: Pbsn (mouse) mapping to X A7.3.

SOURCE

probasin (M-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of probasin 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-17124 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

probasin (M-18) is recommended for detection of probasin of mouse and, to a lesser extent, 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 probasin siRNA (m): sc-39717, probasin shRNA Plasmid (m): sc-39717-SH and probasin shRNA (m) Lentiviral Particles: sc-39717-V.

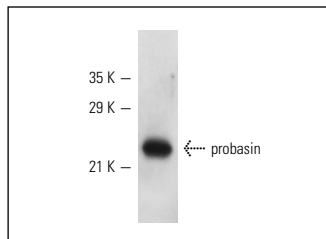
Molecular Weight of probasin: 22 kDa.

Positive Controls: rat prostate tissue extract or mouse prostate tissue extract.

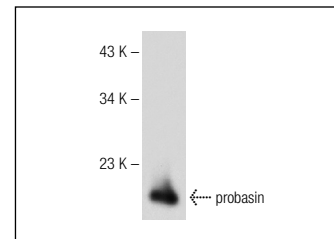
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



probasin (M-18): sc-17124. Western blot analysis of probasin expression in rat prostate tissue extract.



probasin (M-18): sc-17124. Western blot analysis of probasin expression in mouse prostate tissue extract.

SELECT PRODUCT CITATIONS

- Jin, R.J., et al. 2008. The nuclear factor-κB pathway controls the progression of prostate cancer to androgen-independent growth. *Cancer Res.* 68: 6762-6769.
- Yu, X., et al. 2009. Activation of β-catenin in mouse prostate causes HGPIN and continuous prostate growth after castration. *Prostate* 69: 249-262.
- Nguyen, A.H., et al. 2013. Gata3 antagonizes cancer progression in Pten-deficient prostates. *Hum. Mol. Genet.* 22: 2400-10.

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.



Try **probasin (F-6): sc-393830**, our highly recommended monoclonal alternative to probasin (M-18).