



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PSA (h): 293T Lysate: sc-116410

## BACKGROUND

Prostate specific antigen (PSA), also designated  $\gamma$ -seminoprotein, seminin, p30 antigen, semenogelase and kallikrein 3 (KLK3), was first identified as a glycoprotein in human seminal plasma. PSA was determined by sequence similarity to be a member of the kallikrein subfamily of trypsin proteases. PSA is a serine protease that hydrolyzes the major human seminal protein, the seminal plasma mobility inhibitor precursor or semenogelin I (SPMIP or Sgl), which leads to semen liquification. PSA production and expression are highest in normal, benign hyperplastic and cancerous tissues of the prostate, although PSA has also been detected in accessory male sex glands and in breast cancer. PSA has been identified as an aid in the early detection of prostate cancer and is a commonly used tumor marker.

## REFERENCES

1. Watt, K.W., et al. 1986. Human prostate-specific antigen: structural and functional similarity with serine proteases. *Proc. Natl. Acad. Sci. USA* 83: 3166-3170.
2. Schaller, J., et al. 1987. Isolation, characterization and amino-acid sequence of  $\gamma$ -seminoprotein, a glycoprotein from human seminal plasma. *Eur. J. Biochem.* 170: 111-120.
3. Lundwall, A., et al. 1987. Molecular cloning of human prostate-specific antigen cDNA. *FEBS Lett.* 214: 317-322.
4. Catalona, W.J., et al. 1993. Detection of organ-confined prostate cancer is increased through prostate-specific antigen-based screening. *JAMA* 270: 948-954.
5. Robert, M., et al. 1996. Purification and characterization of the active precursor of a human sperm motility inhibitor secreted by the seminal vesicles: identity with semenogelin. *Biol. Reprod.* 55: 813-821.
6. Seregni, E., et al. 1996. Biochemical characteristics and recent biological knowledge on prostate-specific antigen. *Tumori* 82: 72-77.
7. Robert, M., et al. 1997. Characterization of prostate-specific antigen proteolytic activity on its major physiological substrate, the sperm motility inhibitor precursor/semenogelin I. *Biochemistry* 36: 3811-3819.
8. Chu, T.M. 1997. Prostate-specific antigen and early detection of prostate cancer. *Tumour Biol.* 18: 123-134.

## CHROMOSOMAL LOCATION

Genetic locus: KLK3 (human) mapping to 19q13.41.

## PRODUCT

PSA (h): 293T Lysate represents a lysate of human PSA transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

PSA (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PSA antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## STORAGE

Store at  $-20^{\circ}$  C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## 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) for detailed protocols and support products.