

PSA versus RSID Semen

Zeitschrift	Titel	Abstract
<p>Med Sci Law. 2011 Jan;51(1):11-7</p>	<p>Evaluation of semen presumptive tests for use at crime scenes.</p>	<p>The SERATEC PSA Semiquant and RSID-Semen tests are immunoassay kits that identify semen by detecting prostate-specific antigen (PSA) and semenogelin (Sg), respectively. Both kits were tested with semen, urine, blood, saliva, vaginal secretions and breast milk in order to determine their sensitivity and specificity. These results demonstrate that the SERATEC PSA kit is more sensitive than the RSID-Semen kit with a limit of detection of 200 ng/mL as opposed to 8.0 x 10(3) ng/mL. The RSID-Semen kit gave no false-positives or -negatives compared with 2.9% false-negatives with the SERATEC PSA kit. Results from postcoital samples show the RSID-Semen kit to be more effective, indicating that this kit is more suitable for semen identification in the Haven Suites.</p>
<p>Contraception. 2013 Sep;88(3):382-6. doi:10.1016/j.contraception.2012.10.034. Epub 2012 Dec 4.</p>	<p>Effect of topical vaginal products on the detection of prostate-specific antigen, a biomarker of semen exposure, using ABACards.</p>	<p>Prostate-specific antigen (PSA) is a biomarker of recent semen exposure. There is currently only limited information on whether topical vaginal products affect PSA assays. We investigated this question using various dilutions of several vaginal products (lubricants and spermicides) and the Abacus ABACard for PSA detection.N9 (2% with saline) and CMC did not appear to affect the results of testing with the ABACard, but not all semen dilutions were tested. The other products (including Replens and Gynol, which is 2% N9 with propylene glycol, K-Y, Astroglide and Surgilube) at some of the dilutions tested either affected or gave invalid results with PSA testing using the ABACard. Both Gynol 2 and K-Y at 1:10 dilution gave false-positive results.Some vaginal products affect PSA results obtained by using the semiquantitative ABACard. In vivo confirmation is necessary to further optimize PSA detection when topical vaginal products are present.</p>

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<p>J Forensic Sci. 2012 Nov;57(6):1545-8. doi: 10.1111/j.1556-4029.2012.02141.x. Epub 2012 Apr 11</p>	<p>False positives observed on the Seratec® PSA SemiQuant Cassette Test with condom lubricants.</p>	<p>In the course of the validation of a new component of the prostate-specific antigen (PSA) SemiQuant Cassette Test marketed by Seratec® , a false-positive reaction was observed when testing samples collected from the surface of unused, lubricated condoms. A variety of personal lubricants and condoms were tested to determine the frequency of the false positive, as well as its potential source. Samples were extracted in both water and the manufacturer-provided buffer, and the test was performed according to the manufacturer's suggested protocol. The false positive was observed intermittently, but occurred consistently with samples containing nonoxynol-9, a strong detergent utilized as a spermicide. The reaction may be attributable to the combination of latex and nonoxynol-9. Because of the unreliability of the test to confirm the presence of PSA in samples collected from condoms, the PSA cassette is an unsuitable method for confirming the presence of seminal fluid in condoms.</p>
<p>J Forensic Leg Med. 2009 Oct;16(7):397-9. doi: 10.1016/j.jflm.2009.04.002. Epub 2009 May 19</p>	<p>Positive prostate-specific antigen (PSA) reaction in post-mortem rectal swabs: a cautionary note.</p>	<p>Prostate-specific antigen (PSA) tests are considered a valuable screening method for the forensic examination of semen in vaginal and rectal swabs of alleged victims of sexual abuse. Although these membrane tests have been also applied to autopsy specimens no study has assessed their reliability when performed on post-mortem (PM) rectal swabs from decomposed cadavers. The present study describes the results obtained with the Seratec PSA SemiQuant Kit test on 39 male and 10 female adult cadavers with no history of sexual assault and with a PM interval up to 136 days. Overall 64% of the 39 male cadavers tested positive for the PSA, the positive PSA reaction being more frequent in the 20 males with advanced decomposition than in the 19 males with no putrefaction signs (70% vs. 58%). The Phosphatesmo KM Paper Test for detection of acid phosphatase (AP) gave a positive color reaction with 60% of the rectal swabs obtained from decomposed male cadavers. Both the PSA-test and the Phosphatesmo KM paper-test gave a negative result in each of the rectal samples from female cadavers. Y STR multiplex revealed no DNA other than that of the subject tested in the rectal swab positive for PSA. The results of the present study show that PSA membrane tests are unreliable and can be misleading when derived from male rectal samples obtained at autopsy.</p>