Detection of prostate specific antigen and salivary amylase in vaginal swabs using SERATEC® immunochromatographic assays

Janine M. Kishbaugh, Samantha Cielski, Amber Fotusky, Sarah Lighthart, Kathleen Maguire, Lawrence Quarino, Jillian Conte

Abstract

Immunochromatographic assays are used by crime laboratories to conduct simple and quick analyses of bodily fluids. These streamlined tests are ideal for decreasing the sexual assault kit backlog in the United States. A large-scale analysis of the frequency of positive results of amylase and prostate specific antigen (PSA) endogenously found in the vaginal cavity was conducted using the SERATEC PSA Semiquant and Amylase tests. Vaginal swabs were self-collected by participants after 7–10 days of no oral contact or male ejaculation. In this study of 50 participants, 98% were negative for PSA and 92% were negative for amylase. Positive results were confirmed to contain no exogenous DNA by male-specific quantitation, short tandem repeat (STR) typing, and Y-STR typing. These results can be used by crime laboratories to help guide interpretation of immunochromatographic test results from vaginal swabs and aid in decision-making in downstream DNA testing.

Source

Forensic Science International
Volume 304, November 2019, 109899

Link

https://www.sciencedirect.com/science/article/abs/pii/S0379073819303123?via%3Dihub