

Molecular Biotechnology Programme

Uppsala University School of Engineering

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Title (English)

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Separation and determination of prostate-specific antigen isoforms in urine

Title (Swedish)

Abstract

Prostate-specific antigen (PSA) in urine from healthy participants (ages between 24 and 64 years old) and from patients with malign prostate cancer was separated in different isoforms by using two chromatography technologies and an ultra sensitive immunochromato-graphic test (IKR). The results are showing different isoforms with different amount of sialic acid in the antennary complex, which can have mono-, di- and multi-antennary structure. Other results are that the normal range of PSA in urine is somewhere between 100 and 1000 μ g PSA/L in urine and that there is a leakage of PSA to the urethra between the urine rounds but also that the prostate has a continuous secretion of PSA during an urine round.

Keywords

Prostate-specific antigen (PSA), isoform, urine, human, Lectin affinity chromatography, Concavalin A, Ion exchange chromatography (IEC), Immunochromatographic test (IKR).

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