Short Communication

Electrochemical Investigation of Testosterone Using a AuNPs Modified Electrode

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Polycystic ovarian syndrome (PCOS) is a disease that occurs extensively among females during their reproductive period and that can be diagnosed using the testosterone level in the body. In the present report, a biosynthesized gold nanoparticle (AuNP)-based electrochemical impedance immunosensor was fabricated for the first time and used for the detection of testosterone with a wide detection range of 10 ng/mL - 0.5 µg/mL. In addition, our proposed immunosensor showed excellent performance in the detection of testosterone in saliva specimens.

Keywords: Polycystic ovarian syndrome; Electrochemical impedance immunosensor; Testosterone; Saliva; Biosynthesis

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