Electrochemical Immunoassay for Breast Cancer Markers
CA153 Determination Based on Carbon Nanotubes modified Electrode

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Received: 1 August 2017 / Accepted: 7 September 2017 / Published: 12 October 2017

This work describes the fabrication of carbon nanotubes (CNTs) incorporated in a carbon paste electrode (CPE) modified by poly-glutamic acid (PGA) for the assessment of CA 153, a breast cancer biomarker. The developed immunosensor was highly sensitive to the level of CA 153 because of the considerably increased charge transfer, and the limit of detection (LOD) was calculated as 0.025 U/mL. The protocol designed for our proposed immunosensor has potential use for clinical study and practical diagnostic applications.

Keywords: Electrochemical Immunoassay; Breast Cancer Marker; CA153; Carbon nanotube; Poly-glutamic acid

FULL TEXT

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