Development of Triglyceride Biosensor Based on the Polydopamine-Gold Nanocomposite

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One significant factor in statin-induced type 2 diabetes (T2DM) predication is the concentration of triglyceride (TG). This study presents a polydopamine-gold nanocomposite (PDA/AuNPs)-based TG biosensor that features significant sensitivity. Au nanoparticles were found to exert remarkable enhancement of electrochemical responses. A double linear detection range with a low detection limit (DL) was exhibited by the prepared TG biosensor, which performed desirably in anti-interference. Hence, the designed PDA/AuNPs have potential as remarkable alternatives to TG detectors.

Keywords: Triglyceride; Type 2 diabetes; Gold; Polydopamin; Electrochemical sensor; Enzyme

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