Creatine Kinase Determination Based on an Electrochemical Impedance Immunosensor

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With biosynthesized gold nanoparticles (Au NPs) as the basis, a new electrochemical impedance immunosensor is proposed in this study to determine the concentration of creatine kinase (CK), a cardiac biomarker. This sensor has an extended detecting range of 10 ng/mL to 0.5 µg/mL. Moreover, it features a notable anti-interference trait making this bio-fabricated immunosensor potentially employable in CK detection.

Keywords: Creatine kinase; Electrochemical impedance immunosensor; Gold nanoparticle; Acute myocardial infarction; Clinical measurement

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