Short Communication

Development of an Electrochemical Quartz Crystal Microbalance-Based Immunosensor for C-reactive protein determination

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In terms of outcome prediction in patients with inflammation, albumin and C-reactive protein (CRP) at serum levels have been considered to constitute a practical and reliable scoring system. In the present work, highly sensitive detection of C-reactive protein (hs-CRP) was achieved via a new strategy using a quartz crystal microbalance (QCM) immunosensor. A linear relationship was found between the QCM response and CRP concentration (0.04 - 30 µg/mL), with a low limit of detection (LOD) maintained via an amplification process.

Keywords: Electrochemical quartz crystal microbalance; Immunosensor; Inflammation Marker; C-reactive protein; Limit of detection

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