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Development of Electrochemical Aptasensor for Label-Free Glioma Cell Detection

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This work explored the fabrication of a functionalized graphene-and-aptamer AS1411-based electrochemical sensor to achieve tag-free cancer cell determination. The proposed electrochemical aptasensor could distinguish between normal cells and glioma cells with a low detection limit due to the excellent binding affinity and specificity of AS1411 to the overexpressed nucleolin on the surface of the glioma cells.

Keywords: Glioma cells; Aptasensor; Graphene; Electrochemical sensor; AS1411

FULL TEXT