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Mini review

Electrochemical Biosensors for MicroRNA Detection using Duplex-Specific Nuclease based Signal Amplification Strategies

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MicroRNAs (miRNAs) play an important function in physiological and pathological processes. They have attracted extensive attention and become the important breakthrough in tumor diagnosis and clinical treatment. In recent years, many sensitive and accurate detection techniques in vitro have been proposed for the quantification of miRNAs. Duplex-specific nuclease (DSN) displays considerable cleavage preference for DNA in the DNA/RNA hybrid. This paper reviewed the progress in electrochemical detection of miRNAs based on the DSN-assisted signal amplification.

Keywords: microRNA; electrochemistry; duplex-specific nuclease; signal amplification

FULL TEXT