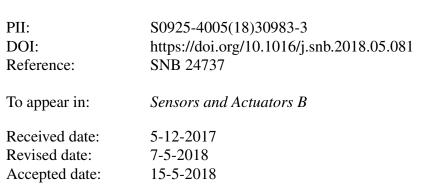
Accepted Manuscript

Title: An electrochemical biosensor for sensitive detection of microRNAs based on target-recycled non-enzymatic amplification

Authors: Fang Hu, Wancun Zhang, Jiaqi Zhang, Qi Zhang, Tao Sheng, Yueqing Gu



Please cite this article as: Fang Hu, Wancun Zhang, Jiaqi Zhang, Qi Zhang, Tao Sheng, Yueqing Gu, An electrochemical biosensor for sensitive detection of microRNAs based on target-recycled non-enzymatic amplification, Sensors and Actuators B: Chemical https://doi.org/10.1016/j.snb.2018.05.081

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



ACCEPTED MANUSCRIPT

An electrochemical biosensor for sensitive detection of microRNAs based on target-recycled non-enzymatic amplification

Fang Hu^{a,b,1}, Wancun Zhang^{a,1}, Jiaqi Zhang^a, Qi Zhang^a, Tao Sheng^a, Yueqing Gu^{a,*}

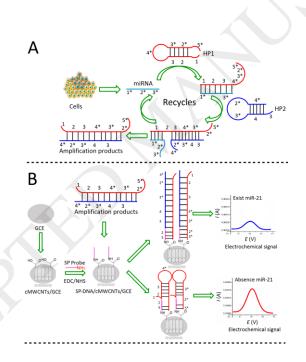
^a State Key Laboratory of Natural Medicines, Department of Biomedical Engineering, School of Engineering, China Pharmaceutical University, 210009 Nanjing, China

^b Key Laboratory of Biomedical Functional Materials, School of Science, China Pharmaceutical University, Nanjing 211198, China

*Corresponding author: Yueqing Gu

E-mail: guengineering@cpu.edu.cn Tel: + 86-25-83271080 Fax: +86-25-83271046 ¹These authors contributed equally to this work

Graphical abstract



In this study, a simple, economic, and label-free electrochemical biosensor was developed for highly sensitive and selective miR-21 detection based on $Fe(CN)_{6^{3-}}/Fe(CN)_{6^{4-}}$ electrochemical signal, which relies on DNA structures conjugating with carboxyl multi-wall carbon nanotubes (MWCNTs-COOH)-modified glassy carbon electrode (GCE).

Download English Version:

https://daneshyari.com/en/article/7138841

Download Persian Version:

https://daneshyari.com/article/7138841

Daneshyari.com