Supporting Information

An exonuclease III-assisted CHA dual-cycle amplification strategy for quencher-free fluorescent detection of miRNA

Shi-Qian Liao, Jia-Hao Liu, Xin-Yue Liu, Yi-Ting Liu, Chun-Guang Yang,* Zhang-Run Xu

Research Center for Analytical Sciences, Northeastern University, Shenyang 110819, P. R. China

E-mail: yangcg@mail.neu.edu.cn

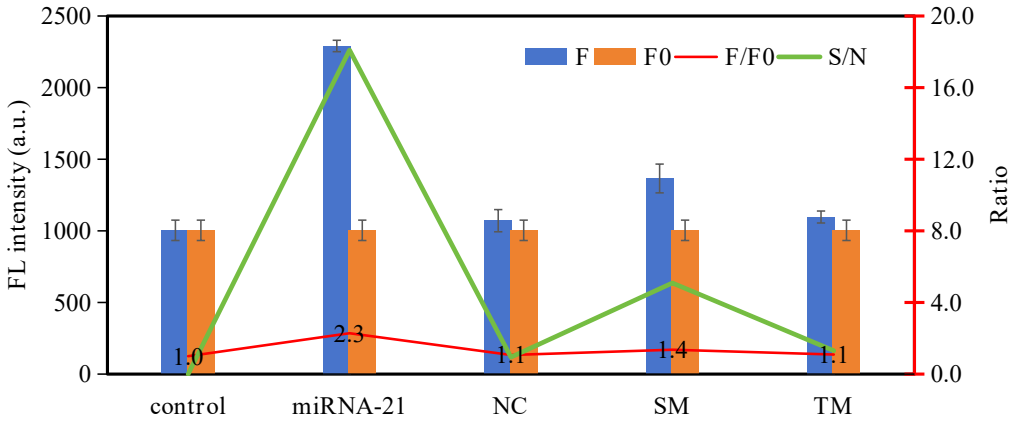

Figure S1 Specificity of miRNA-21 fluorescence assay detection. The concentrations of miRNA-21 and coexisting substances used were 1 nmol L^{-1}. F denotes the fluorescence intensity of target miRNA-21 and coexisting substances. F_0 denotes the fluorescence intensity of blank solution. S/N represents the signal-to-noise ratio ($S/N=F/\sigma_{blank}$). σ_{blank} represents the standard deviations of blank solution. The error bars are standard deviations of three repetitive measurements.)

Table S1 Comparison of this method with other CHA-based detections

Target	Amplification Strategy	Detection Method	Linear Range	LOD	Ref.
miRNA-21	CHA	Potentiometric detection	0.1 pmol·L^{-1} - 10 nmol·L^{-1}	43 fmol L^{-1}	1

sEV-miRNA-1246	turbo-like CHA	Electrochemical detection	10 amol·L^{-1} - 100 pmol·L^{-1}	5.24 amol L^{-1}	2
miRNA-122	CHA	Fluorescence	0.5 - 50 nmol·L^{-1}	72 pmol·L^{-1}	3
miRNA-21	CHA-DNAzyme	Fluorescence	10 pmol·L^{-1} - 50 nmol·L^{-1}	10 pmol·L^{-1}	4
miRNA-10b	$CaCO_3$-CHA	Fluorescence	0.01 nmol·L^{-1} - 20 nmol·L^{-1}	5.4 pmol L^{-1}	5
exosomal miRNA (miRNA-21, miRNA-122, miRNA-375)	Nanoflare&CHA	Fluorescence	0.0195 fmol·L^{-1} - 19.5 pmol·L^{-1}	5 amol L^{-1}	6
miRNA-122	SDA+CHA	Fluorescence	1 pmol·L^{-1} - 10 nmol·L^{-1}	0.24 pmol L^{-1}	7
miRNA-21, miRNA-25, miRNA-93	TNA-CHA	TR-FRET	10 amol·L^{-1} - 10 fmol·L^{-1}	1 amol L^{-1}	8
miRNA-21	CHA-ExoIII	Fluorescence	500 fmol L^{-1} - 10.0 nmol L^{-1}	13 fmol L^{-1}	This work

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