Electronic Supplementary Material (ESI) for RSC Advances.

A novel electrochemical biosensor for DNA detection based on exonuclease III assisted target recycling and rolling circle amplification

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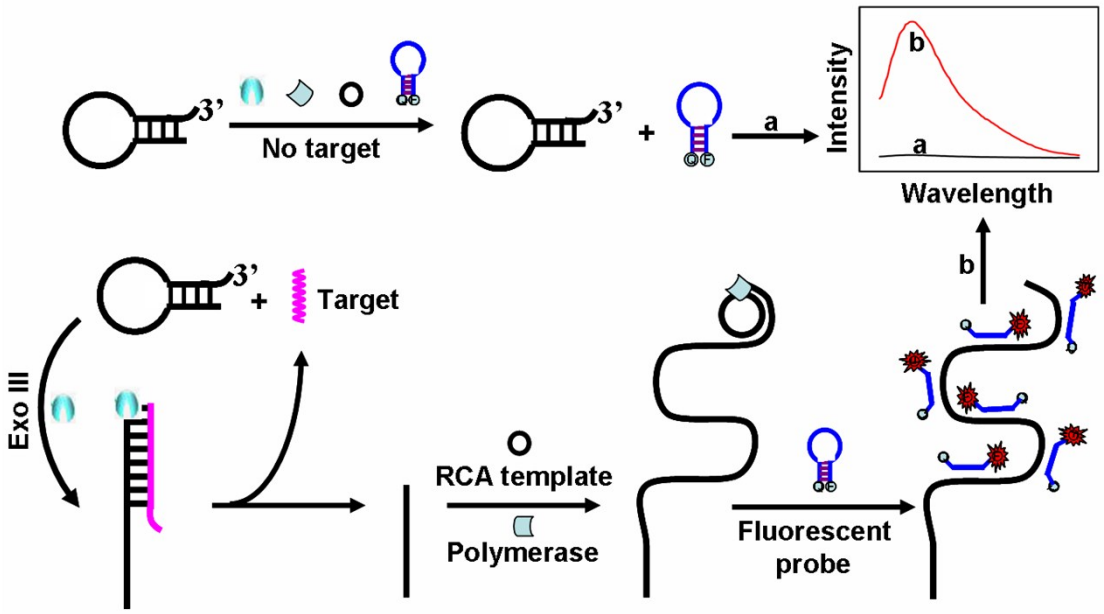

Scheme S1 Schematic representation of fluorescent detection of DNA based on Exo III assisted DNA recycling and RCA for dual signal amplification.

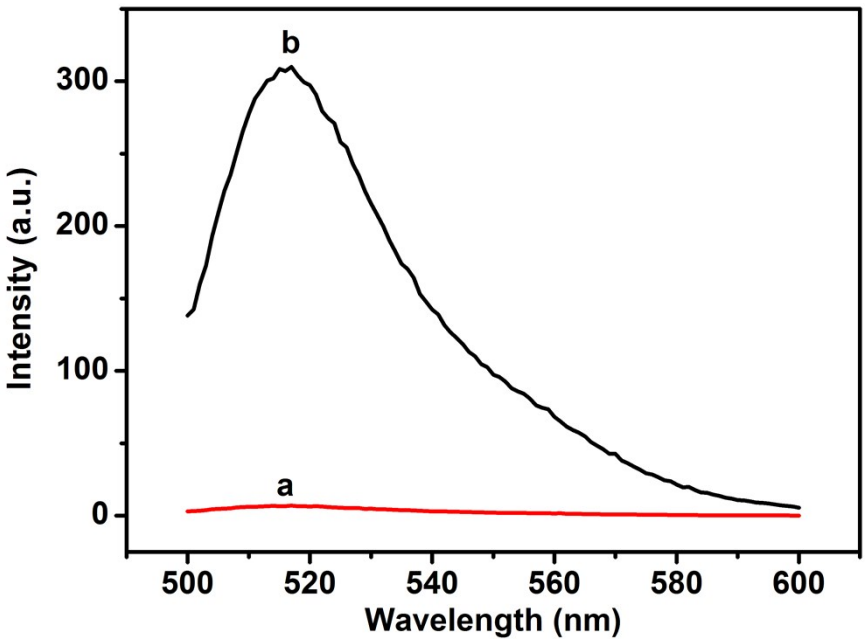

Fig. S1 Fluorescence spectra of (a) no target, MB, Exo III, RCA template, dNTPs and polymerase and fluorescence probe. (b) target, MB, Exo III, RCA template, dNTPs and polymerase and fluorescence probe.

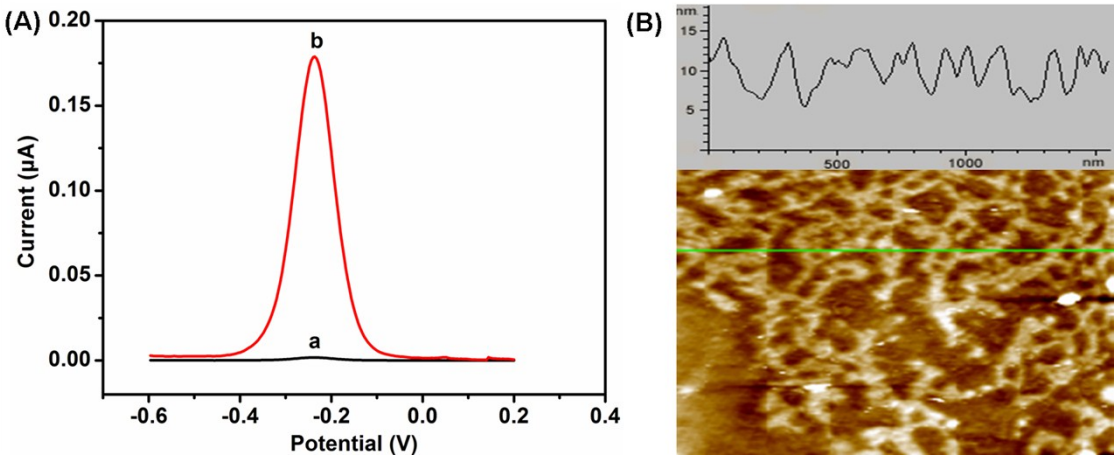

Fig. S2 (A) Differential pulse voltammetry (DPV) responses of the gold electrode (a) and GE modified with MB (b) after adsorption of RuHex. (B) AFM height image of MB modified glass slides.