Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting Information:

An Electrochemiluminescence Microsensor Based on DNA-Silver Nanoclusters Amplification for Detecting Cellular adenosine triphosphate

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Agarose gel electrophoresis (AGE)

AGE was used to demonstrate the amplification degree of RCA by measuring the retention time of DNA in the electrophoresis. First, agarose gel was unfolded and transferred into electrophoresis chamber after becoming solidification. Then the samples were loaded into different notches in a certain order by pipettor. Next electrophoresis was implemented at 120 V for 90 min. Finally, the agarose gel was fetched out and observed under ultraviolet lamp. White fluorescent stripe existed in these places where DNA being presence and gel imaging system was used to take photos for saving and further use.

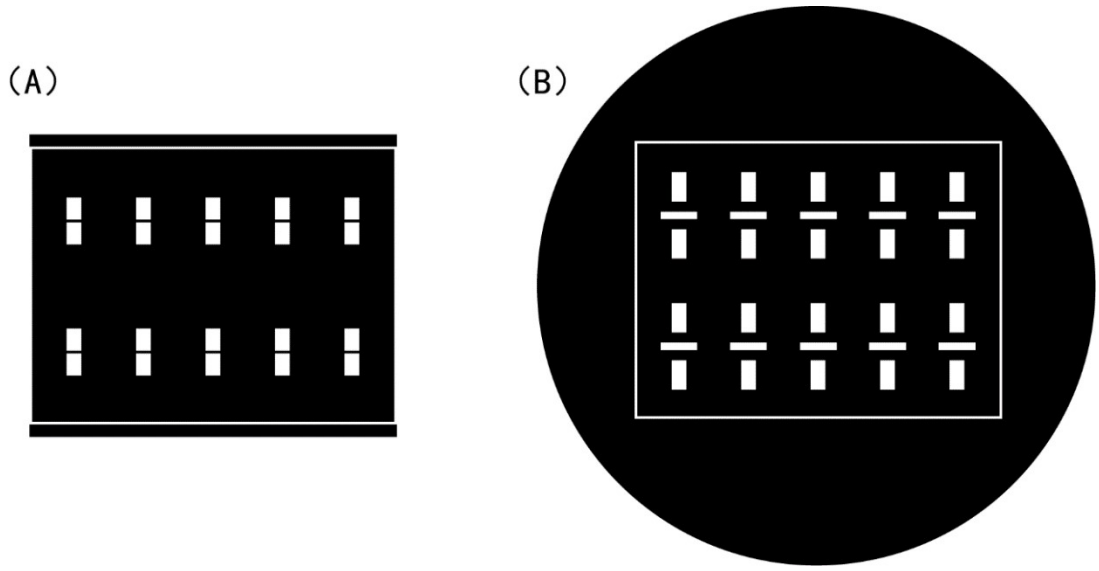

Fig.S1 Photomasks for preparation of the upper PDMS slide and the bottom glass.

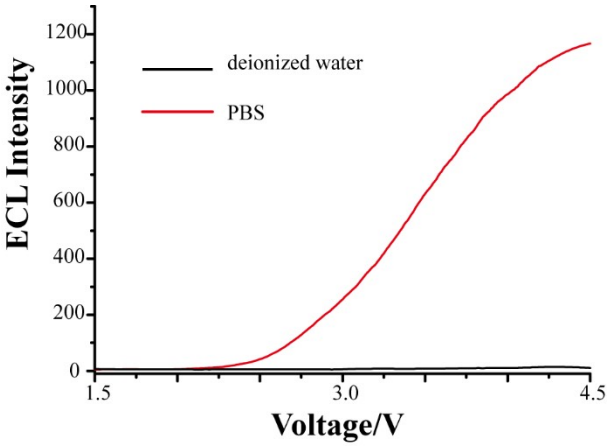

Fig. S2. ECL−potential curves of $[Ru(bpy)_2dppz]^{2+}$/TPA under the condition of deionized water and PBS in the sensor well channel. The concentration of $[Ru(bpy)_2dppz]^{2+}$/TPA were 2.5/25 mM and content of H_2O_2 was 0.1M in PBS. The voltage of the PMT was 1300 V in the detection process.