

## Supporting information for:

# Ultra-sensitive electrochemical DNA biosensor based on a label-free assembling strategy using a triblock polyA DNA probe

Lele Wang<sup>†</sup>, Yanli Wen<sup>†</sup>, Xue Yang<sup>†</sup>, Li Xu<sup>†</sup>, Wen Liang<sup>†</sup>, Ying Zhu<sup>‡//</sup>, Lihua Wang<sup>‡//</sup>, Yan Li<sup>§</sup>, Yuan Li<sup>†</sup>, Min Ding<sup>†</sup>, Shuzhen Ren<sup>†</sup>, Zhenzhou Yang<sup>†</sup>, Min Lv<sup>‡//</sup>, Jichao Zhang<sup>‡//\*</sup>, Kang Ma<sup>§\*</sup>, Gang Liu<sup>†\*</sup>

<sup>†</sup>Laboratory of Biometrology, Division of chemistry, Shanghai Institute of Measurement and Testing Technology, 1500 Zhang Heng Road, Shanghai 201203, People's Republic of China

<sup>§</sup>Division of Chemical Metrology and Analytical Science, National Institute of Metrology of China, Beijing 102200, People's Republic of China

<sup>‡</sup> Division of Physical Biology & Bioimaging Center, Shanghai Synchrotron Radiation Facility, CAS Key Laboratory of Interfacial Physics and Technology, Shanghai Institute of Applied Physics, Chinese Academy of Sciences, Shanghai 201800, People's Republic of China

<sup>//</sup> Shanghai Advanced Research Institute, Chinese Academy of Sciences, Shanghai 201210, People's Republic of China.

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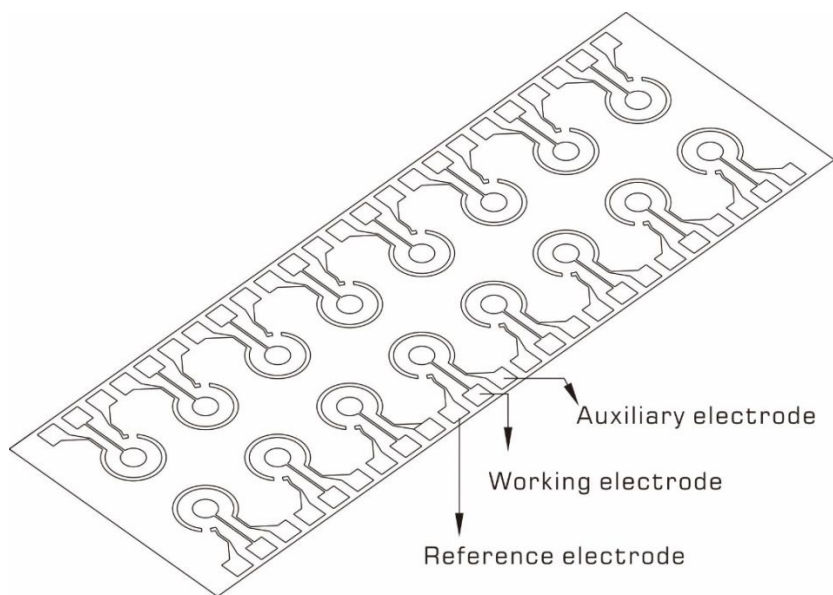


Figure S1, Schematic illustration of our 16-channel electrochemical array. Each group of golden electrodes consists of a reference electrode, a working electrode and an auxiliary electrode. The dimension of the array is 75\*25 mm.

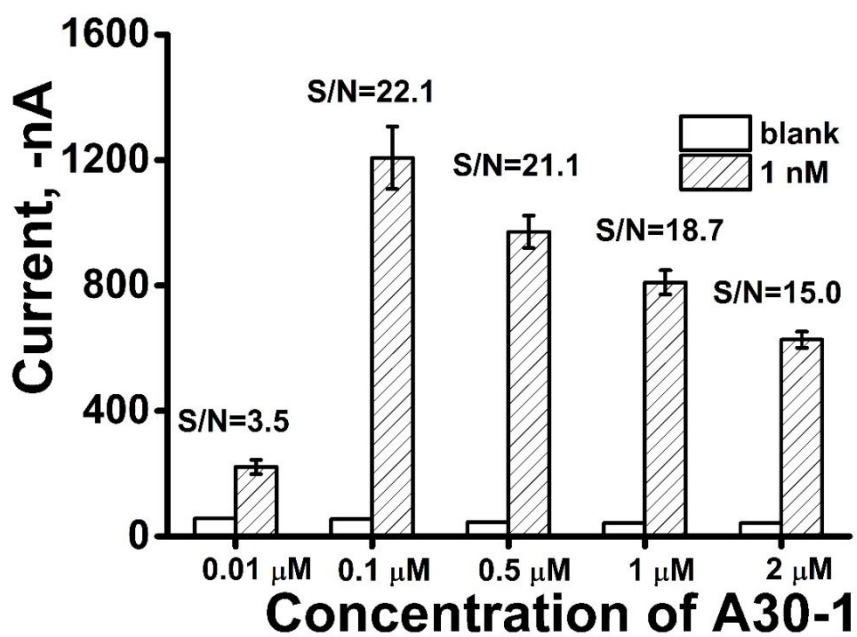


Figure S2. Analysis results of 1 nM target DNA and blank using varied concentrations of polyA30 capture probes. Error bars are SD of three repetitive experiments using three different electrodes.

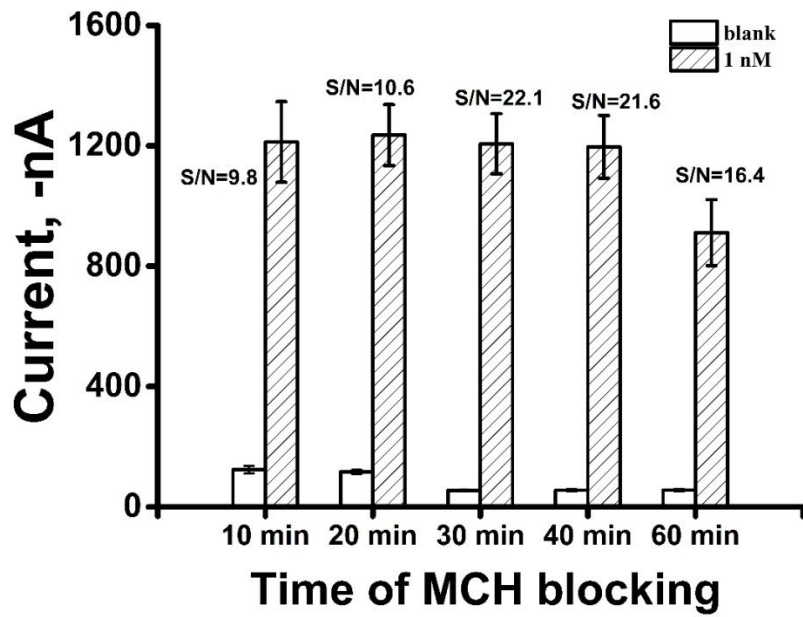


Figure S3. Analysis results of 1 nM target DNA and blank using different MCH deposition time.

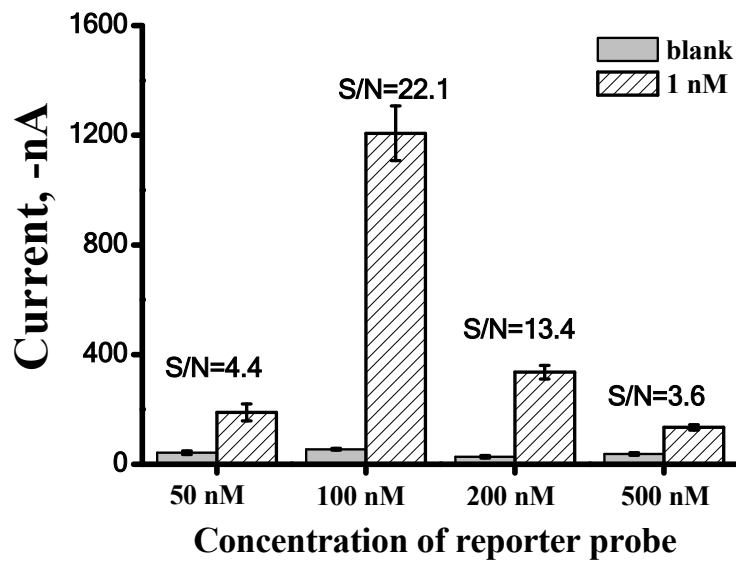


Figure S4. Investigation of the reporter probe concentration for the polyA-tP-based biosensor. The concentration of target was 1 nM. Error bars represent standard deviations for measurements taken from at least three independent experiments.

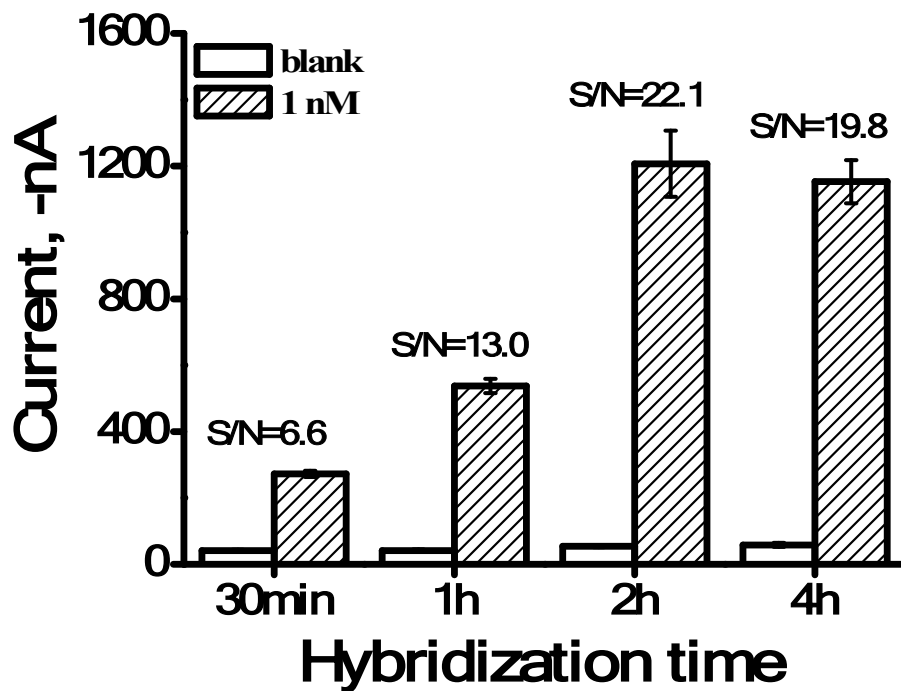


Figure S5. Relationship between current signal and the hybridization time for the polyA-tP-based biosensor. Target DNA was analyzed after different hybridization times (30 min, 1 h, 2 h and 4 h).

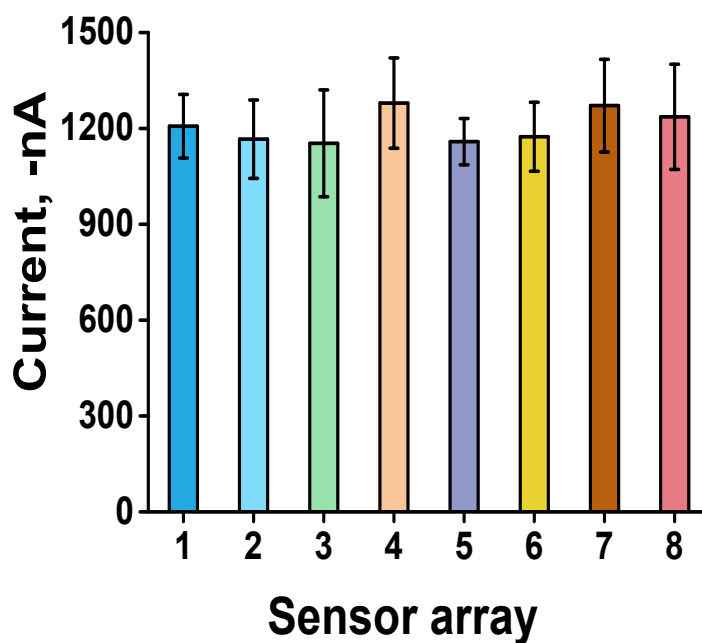


Figure S6. Reproducibility of the polyA-tP based biosensor. The concentration of target DNA was 1 nM.