

Supporting Information

Design and Validation of a Short Novel Estradiol Aptamer and Exploration of Its Application in Sensor Technology

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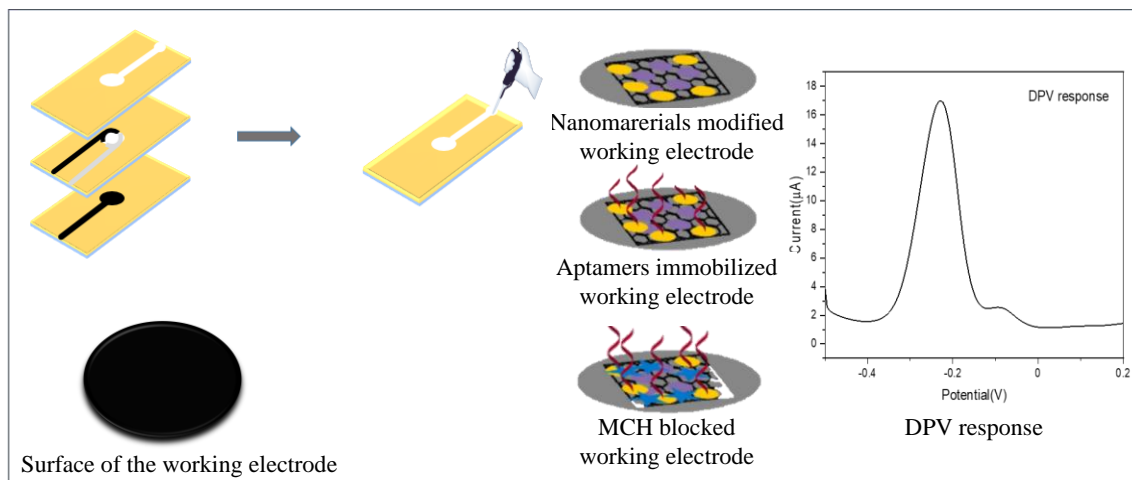


Figure S1. Schematic diagram of sensors and modifications, as well as typical signal responses.

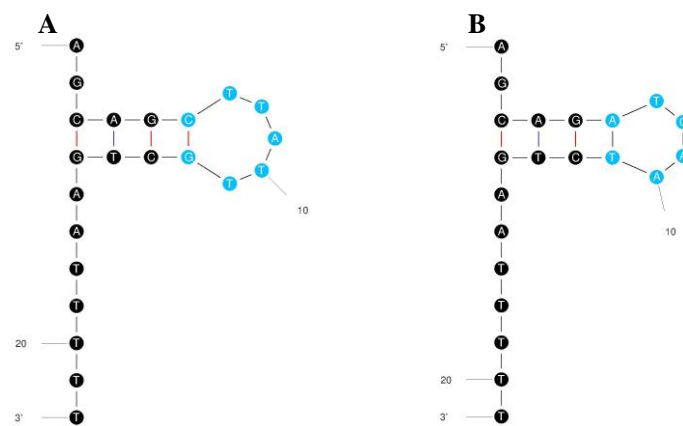


Figure S2. Two-dimensional structural simulation diagrams of (A) HEV1 and (B) HEV2.

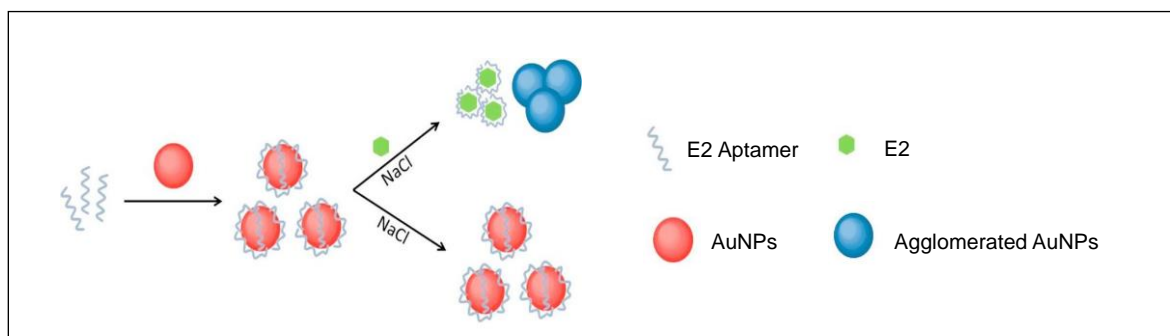


Figure S3. Schematic diagram of colorimetric method.

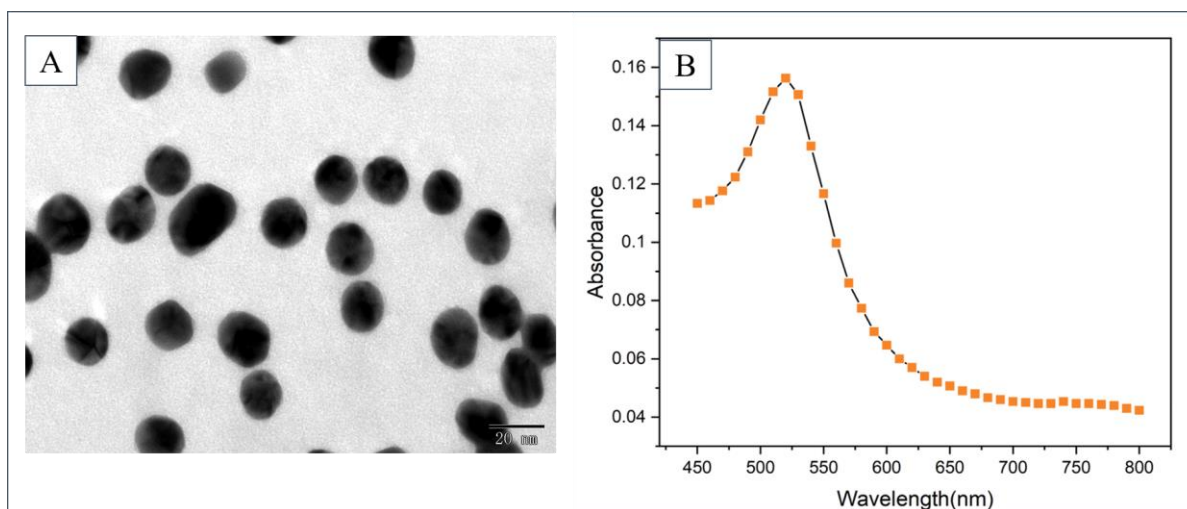


Figure S4. (A) Transmission electron microscopy characterization of AuNPs; (B) Ultraviolet-visible light absorption spectrum of AuNPs.

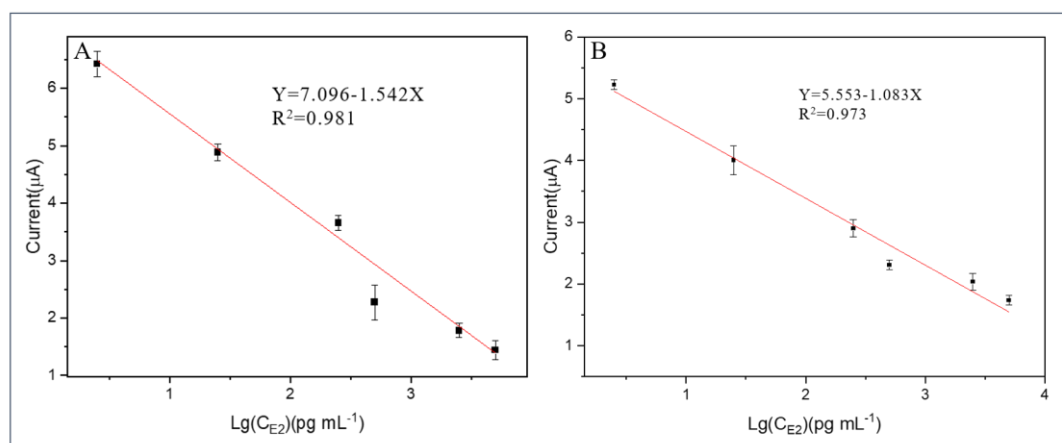


Figure S5. The calibration plots of peak current (I_{dpv}) and E2 concentration (C_{E2}) in clinical serum samples for the detection of E2 by (A) M70 aptasensor and (B) HEV1 aptasensor.

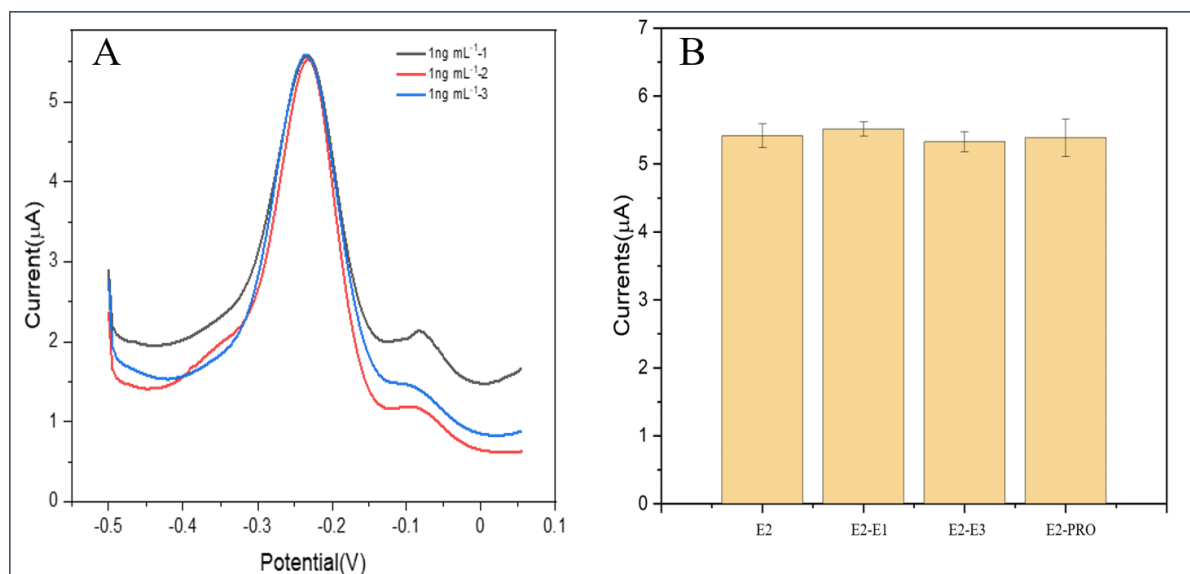


Figure S6. (A) DPV response of three independent chips detecting 1 ng mL^{-1} E2; (B) Signals of the device to 1 ng/mL E2 and the mixed liquor of 1 ng/mL E2 with E3, E1, PRO separately;

Table S1. Comparison of KD value between kinds of aptamers with E2.

Aptamer	KD Value(nM)	Reference
Kim(76mer)	98±56	1
Alsager(75mer)	18±5	2
Alsager(35mer)	23±10	3
Alsager(22mer)	70±38	3
Akki	227±113	4
HEV1	92±66	This work

References

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