

# Supporting Information

## **Mesothelin microsensor based on embedded thionine electronic media within imprinted polymer on acupuncture needle electrode**

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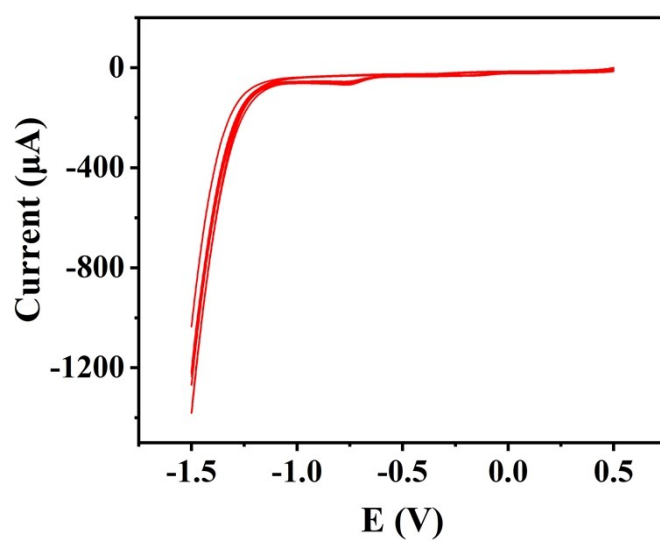


Fig. S1 The electropolymerization curve for AuNPs.

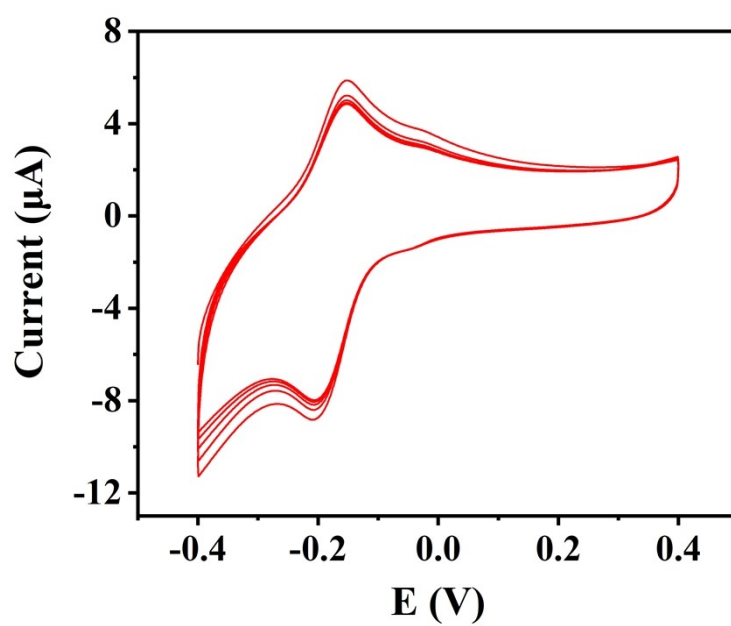


Fig. S2 The electropolymerization curve of TH.

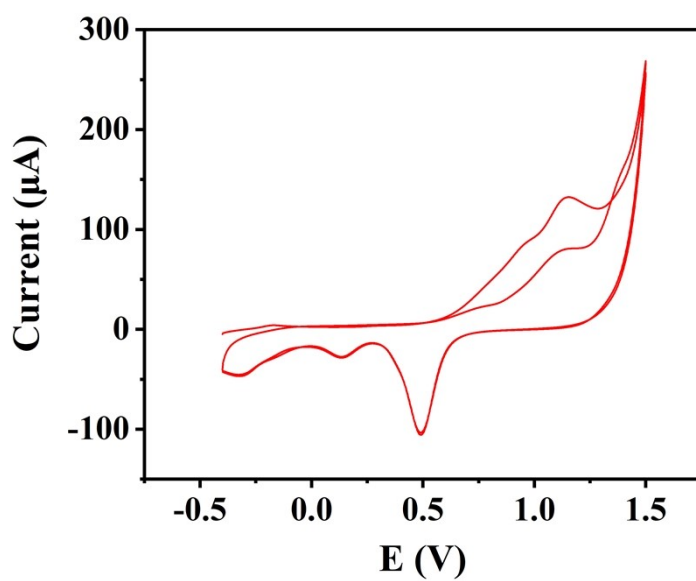


Fig. S3 The electropolymerization curve of EBT.

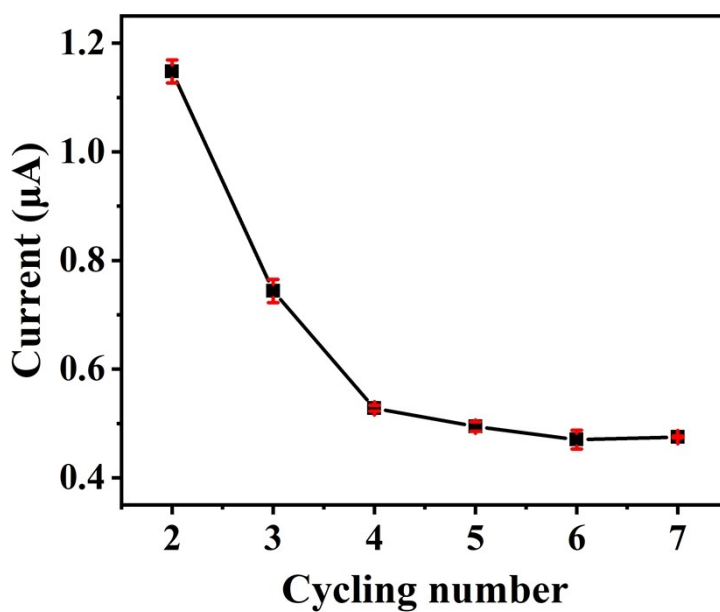


Fig. S4 The cycling number for optimization of electropolymerization EBT.

**Table S1.** Comparison of the prepared microsensor with other reported MSLN biosensors.

| Sensor and method | Linear range                      | LOD          | Reference |
|-------------------|-----------------------------------|--------------|-----------|
| MIAS              | 20 - 110 pg/mL                    | 20 pg/mL     | 1         |
| PCTE              | 10 - $10 \times 10^{10}$<br>ag/mL | /            | 2         |
| ELISA             | 0.08 - 5.2 ng/mL                  | /            | 3         |
| SPRi              | 9 - 120 nmol/L                    | 13.62 nmol/L | 4         |
| AN microelectrode | 0.1 - 1000 ng/mL                  | 10 pg/mL     | This work |

MIAS: microfluidic immunoassay system. PCTE: gold-coated nanoporous PCTE membrane. Sandwich ELISA: enzyme linked immunosorbent assay, two antibodies (rabbit polyclonal anti-ERC/mesothelin antibody-282, mouse monoclonal antibody 7E7). SPRi: biosensor based on surface plasmon resonance imaging technique

## References

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