### **Supplementary Information**

# Construction of self-signal DNA electrochemical biosensor employing WS<sub>2</sub> nanosheets combined with PIn6COOH

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#### 3. Results and discussion

#### 3.1. Structural characterizations

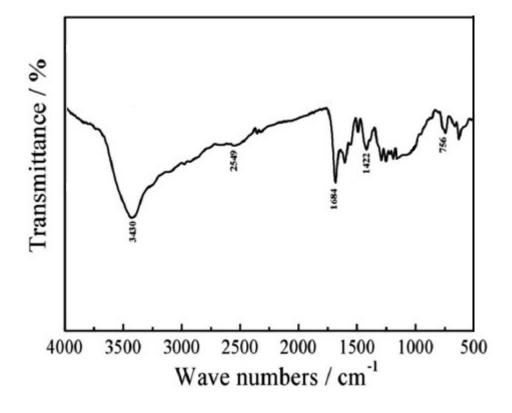


Fig. S1 The FT-IR spectrum of the PIn6COOH/WS<sub>2</sub> composite.

## 3.8. Detection of target DNA in serum samples by the biosensor

Table S1. Detection of target DNA in serum samples by the biosensor.

Serum samples	target DNA added (fM)	target DNA detected (fM)	Recovery (%)	RSD (%)
1	2	1.95	97.5	3.86
2	10	9.96	99.6	4.37
3	20	20.2	101	5.19