

## **Electronic Supplementary Materials**

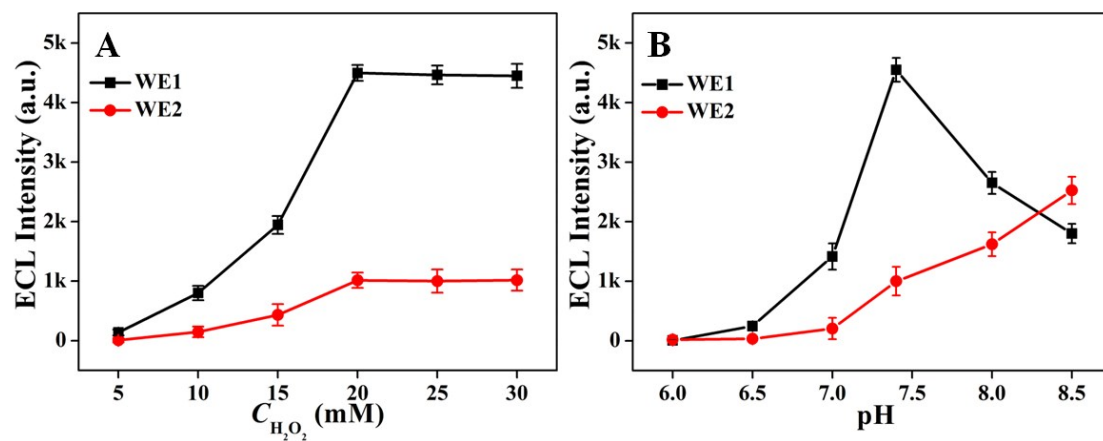
### **Reduced graphene oxide-gold nanoparticles-catalase-based dual signal amplification strategy in spatial-resolved ratiometric electrochemiluminescence immunoassay**

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**Fig. S1.** Effects of the concentration of H<sub>2</sub>O<sub>2</sub> (A) and the pH of PBS (B) on the ECL responses.

**Table S1.** Analytical results of cTnI in human serum samples using the proposed method and the reference method.

Sample No.	1	2	3	4	5	6
Proposed method (ng/mL)	0.009	0.011	0.49	0.12	0.73	1.69
Reference method (ng/mL)	0.01	0.01	0.52	0.13	0.71	1.62
Relative errors (%)	-10.0	10.0	-5.8	-7.7	2.8	4.3

**Table S2.** Recovery test for cTnI in spiked human serum samples.

Sample	Found	Added	Total found	Recoveries	RSDs (%)
1	0.01	0.01	0.02	100.0	3.6
		0.10	0.10	90.0	6.7
		1.00	1.04	103.0	5.4
2	0.52	0.10	0.63	110.0	6.6
		1.00	1.45	93.0	5.9
		10.0	11.35	108.3	5.6