Supporting Information

An ultrasensitive cathodic electrochemiluminescence immunoassay for thrombomodulin based on $Ru(bpy)_3^{2+}$ encapsulated MIL-NH_2-101(Al) nanocomposites

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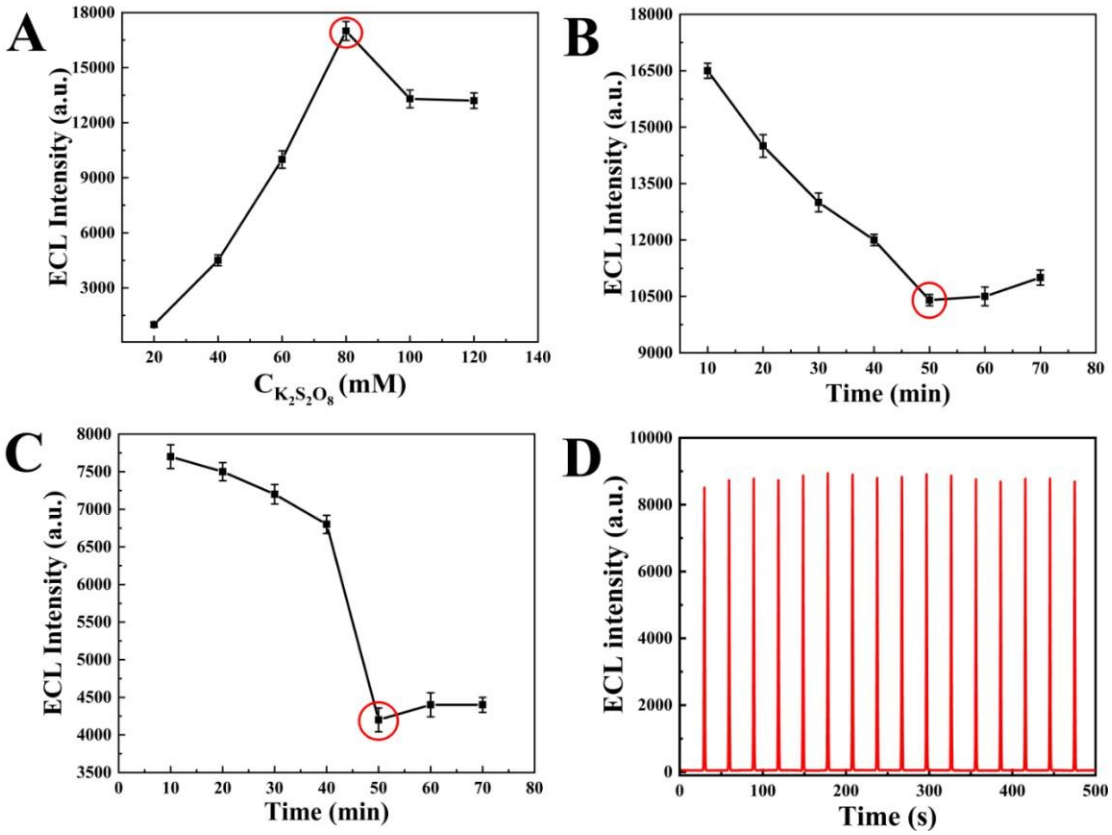

Figure S1. Optimization of Experimental conditions. (A) Concentration of $K_2S_2O_8$; (B) Incubation time of Ab-TM; (C) Incubation time of TM; (D) Stability of the proposed $Ru(bpy)_3^{2+}$@MIL-NH_2-101(Al) ECL immunosensor under optimal conditions.

Table S1 Comparison of the proposed ECL sensing with other reported methods for the detection of TM

Methods	Linear Range (μg/mL)	Detection Limit (μg/mL)	Reusability	Ref.
Quartz Crystal Microbalance (QCM)	1×10^{-2} - 5	2×10^{-3}	No	Luo et al
Fluorescence Resonance Energy Transfer (FRET)	1×10^{-7} - 5×10^{-3}	1.2×10^{-8}	No	Kong et al
Electrochemistry (EC)	1×10^{-3}-2×10^{-2}	3.15×10^{-5}	Yes	Yang et al
Electrochemiluminescence (ECL)	1×10^{-5} - 10	8.2×10^{-6}	Yes	This work

Table S2 Recoveries test of TM in human serum

Sample	Added (μg/mL)	Found (μg/mL)	R.S.D (%)	Recovery (%)
Serum	1	1.0002	1.26	100.02
	0.1	0.09939	1.34	99.39
	0.01	0.01019	0.99	101.9
	1×10^{-3}	9.92×10^{-4}	1.30	99.2
	1×10^{-4}	1.029×10^{-4}	1.88	102.9

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