

Electronic Supplementary Information

Simple and fast determination of catecholamines in pharmaceutical samples using Ag^+ -3,3',5,5'-tetramethylbenzidine as a colorimetric probe

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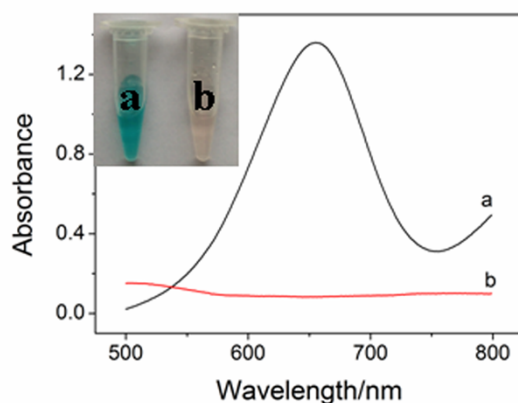


Fig. S1 Typical UV-vis absorption spectra of Ag^+ -TMB solution in the absence (a) and the presence of 50 μM EP (b). Inset shows the corresponding digital images.

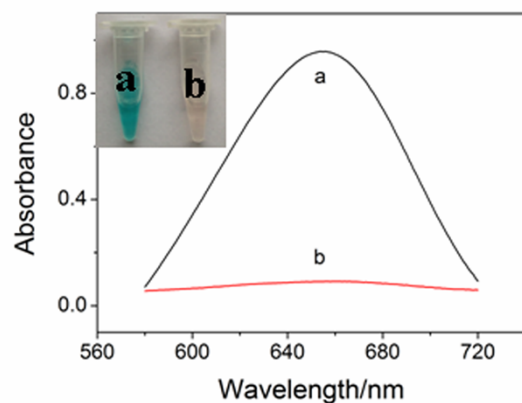


Fig. S2 Typical UV-vis absorption spectra of Ag^+ -TMB solution in the absence (a) and the presence of $100 \mu\text{M}$ NE (b). Inset shows the corresponding digital images.

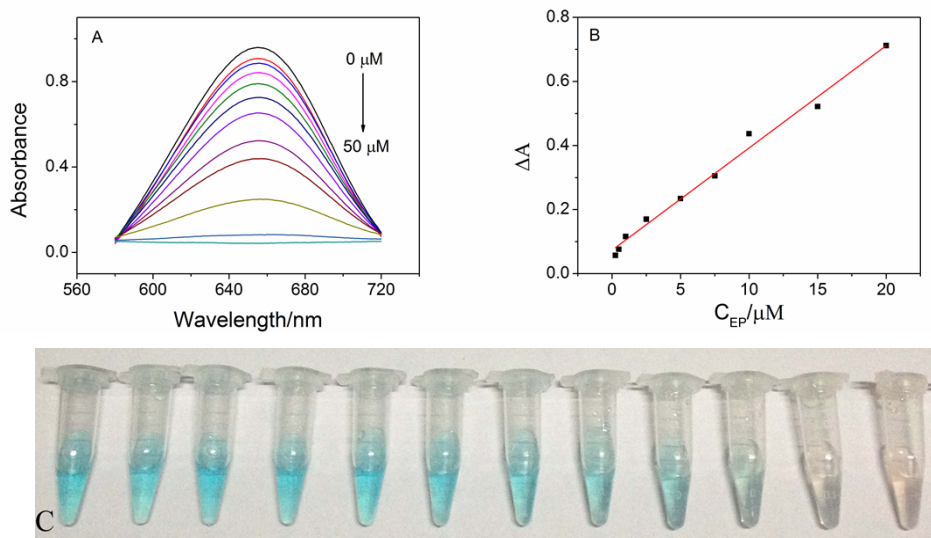


Fig. S3 (A) Typical UV-vis spectra of the proposed method in the absence and presence of different amounts of EP, from top to down: the concentration of EP is 0, 0.25, 0.5, 1.0, 2.5, 5.0, 7.5, 10, 15, 20, 30, and $50 \mu\text{M}$. (B) Relationship between the ΔA and the EP concentration. (C) Photographs of Ag^+ -TMB solution in the absence and presence of different amounts of EP.

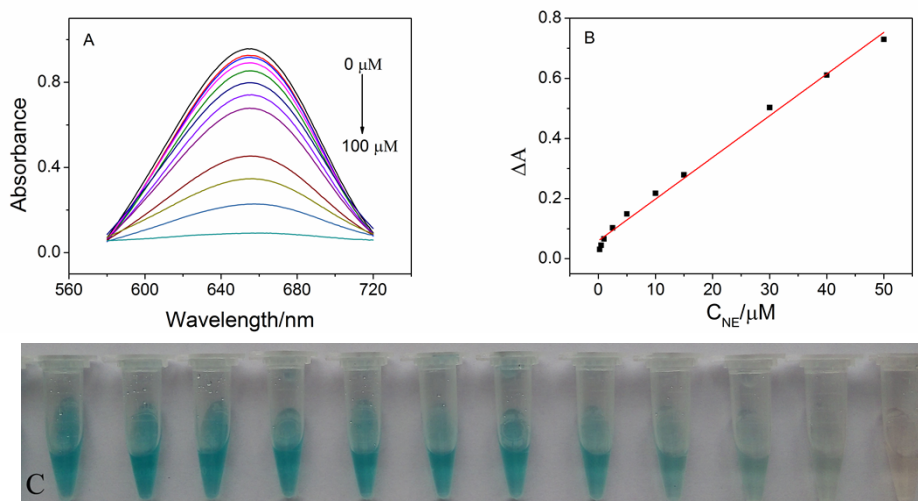


Fig. S4 (A) Typical UV-vis spectra of the proposed method in the absence and presence of different amounts of NE, from top to down: the concentration of NE is 0, 0.25, 0.5, 1.0, 2.5, 5.0, 7.5, 10, 15, 30, 40, 50, and 100 μM. (B) Relationship between the ΔA and the NE concentration. (C) Photographs of Ag^+ -TMB solution in the absence and presence of different amounts of NE.

Table S1 The determination of DA, EP, and NE in their injections.

Analyte	Amount added (μM)	Amount found (μM)	Recovery (%)	RSD (n=6; %)
DA	0.00	0.46	-	3.33
	0.50	1.01	110	3.45
	5.00	5.32	97.2	2.56
EP	0.00	1.04	-	3.67
	1.00	2.10	106	3.49
	5.00	5.83	95.8	3.12
NE	0.00	1.07	-	4.12
	1.00	2.12	105	3.89
	5.00	5.76	93.8	2.87