Electronic Supplementary Material (ESI) for Analyst.

Supporting Information

Current Control by Electrode Coatings Formed by Polymerization of Dopamine at Prussian blue-modified Electrodes

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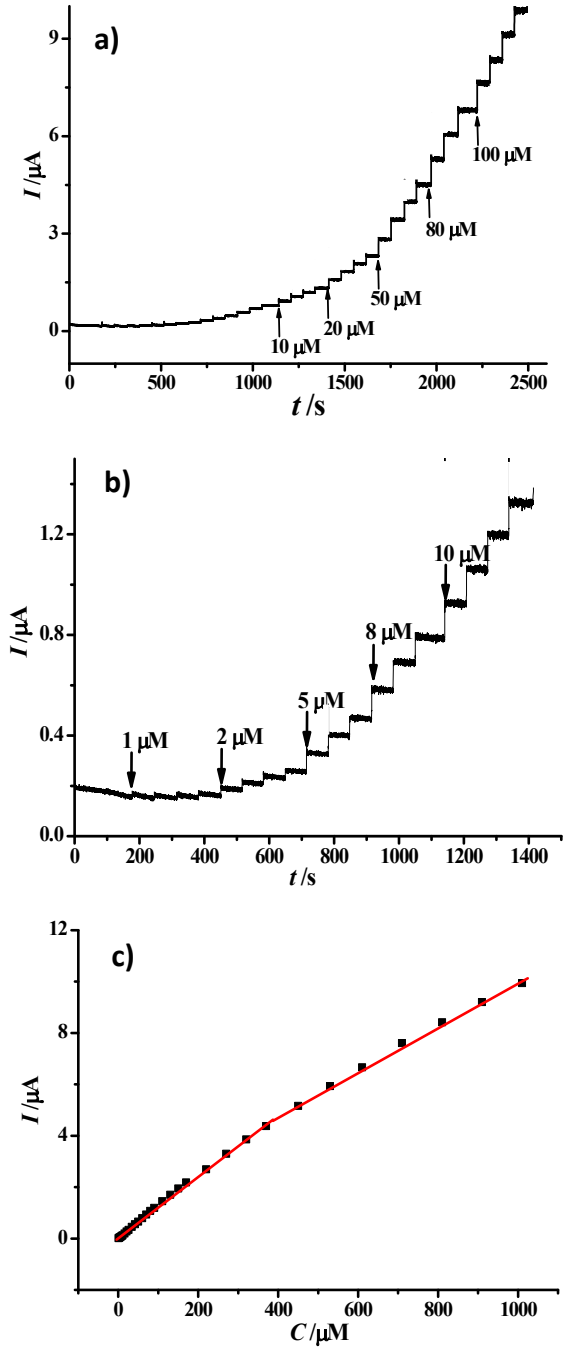

Fig. S1 a) Current-time responses of the PDA-coated PB electrode to the successive addition of H_2O_2 in 0.1 M phosphate buffer solution (pH 7.4). Applied potential: +0.7 V vs Ag/AgCl. b) A close look of the response current to H_2O_2 from 1 μM to 40 μM. c) Calibration curve of the amperometric responses to the H_2O_2 concentration from 1 μM to 1050 μM.

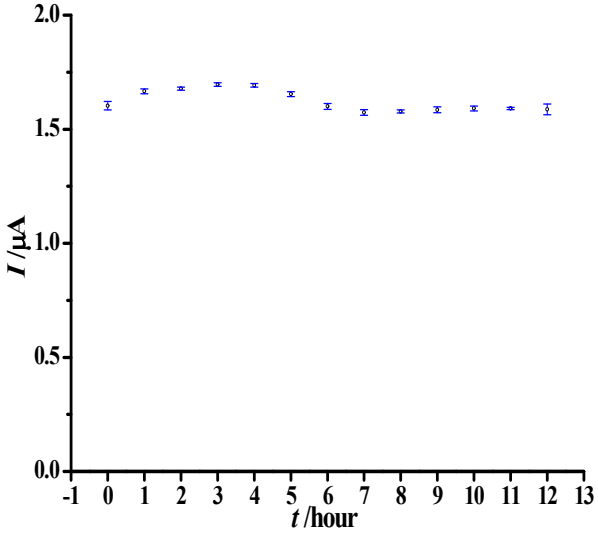

Fig. S2 Current-time responses of the FIA system equipped with the PDA-coated PB electrode to injection of 1 mM H_2O_2; 0.1 M phosphate buffer solution (pH 7.4); flow rate 100 μL min^{-1}, operating potential: +0.7 V vs Ag/AgCl.

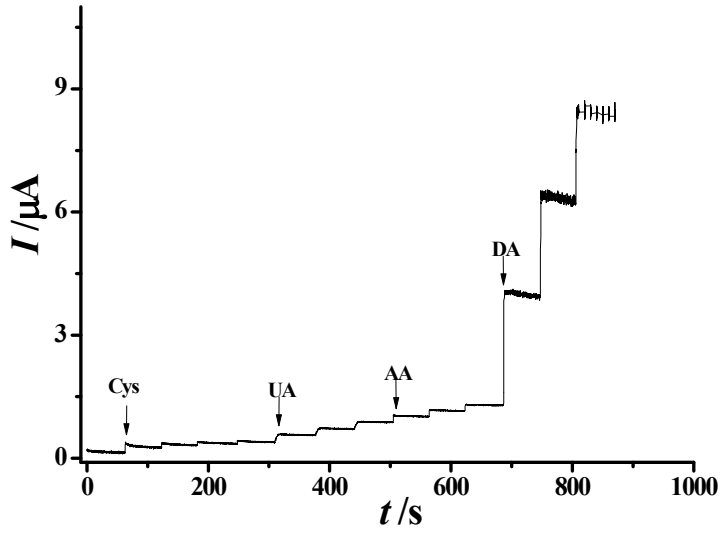

Fig. S3 Current-time responses of the PDA-coated PB electrode to successive addition of 25 μM Cys, UA, AA and DA. Applied potential: 0.7 V vs Ag/AgCl. The solution was stirred with a magnetic stirrer. The arrows indicated the addition of the solutions of each kind of the potential interferents.

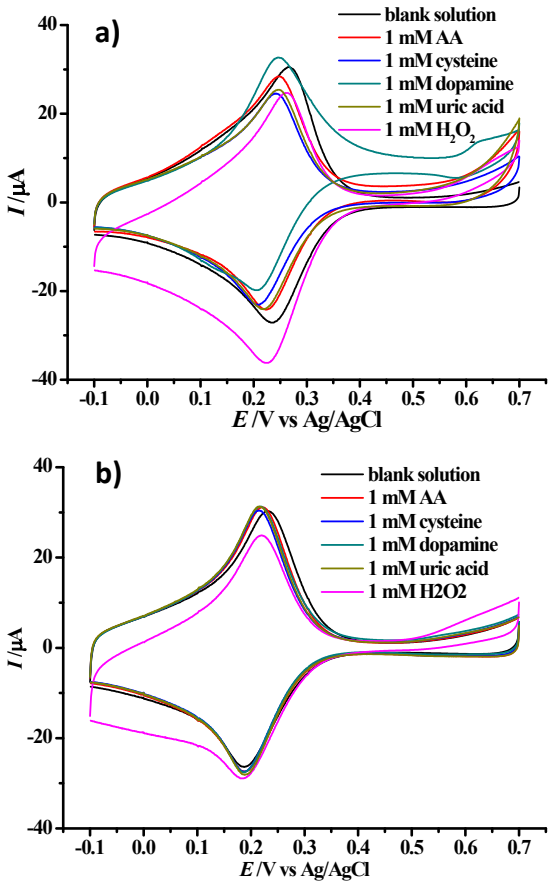

Fig. S4 Cyclic voltammetric responses of the PB electrode (a) and the PDA-coated PB electrode (b) to 1 mM H_2O_2 and the potential interferents (AA, UA, DA, Cys, 1 mM) at a scan rate of 50 mV s^{-1}.