Electronic Supplementary Information

Kanamycin sensor based on electrosynthesized molecularly imprinted poly-o-phenylenediamine film on single-walled carbon nanohorn modified glassy carbon electrode

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Fig. S1 CVs of 5.0 mM $K_3[Fe(CN)_6] / 0.1$ M KCl on GCE/SWCNHs-COOH after electropolymerization without kanamycin (a) and NMIP GCE/SWCNHs-COOH/PPD after removal of kanamycin (b).



Fig. S2 CVs of the MIP GCE/SWCNHs-COOH/PPD in 5.0 mM K_3 [Fe(CN)₆] / 0.1 M KCl at different scan rate, from inner to outer: 0.01, 0.02, 0.03, 0.04, 0.05, 0.075, 0.1, 0.2, 0.3, 0.4, 0.5, 0.6 V s⁻¹.



Fig. S3 Effect of pH value on the peak current of CV response in the presence of 5.0 mM $K_3[Fe(CN)_6]$ in 0.1 M KCl. $\Delta I = I_0-I$.



Fig. S4 Effect of elution time on the peak current of CV response in the presence of 5.0 mM $K_3[Fe(CN)_6]$ in 0.1 M KCl. I' is the current of the GCE/SWCNHs-COOH/PPD after electropolymerization.



Fig. S5 Effect of adsorption time on the peak current of CV response in the presence of 5.0 mM K_3 [Fe(CN)₆] in 0.1 M KCl.



Fig. S6 The red columns are the current change of MIP GCE/SWCNHs-COOH/PPD in the presence of 5.0 mM K₃[Fe(CN)₆] in 0.1 M KCl after incubation in (a) 10 μ M kanamycin, (b) a +25 μ M AA, (c) a + 50 μ M glucose, (d) a + 25 μ M CAP. $\Delta I_0 = I_0 - I_{kana}$. $\Delta I = I_0 - I_{kana+others}$.