## **Supporting Information**

## For

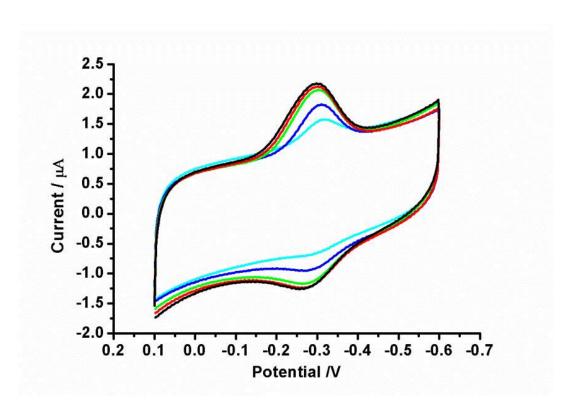
## Stable and Reusable Electrochemical Biosensor for Poly(ADP-ribose) Polymerase and Its Inhibitor Based on Enzyme-Initiated Auto-PARylation

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**Figure S1** Cyclic voltammograms corresponding to the analysis of different concentrations of RuHex (concentration: 1, 3, 5, 7, and 10  $\mu$ M).

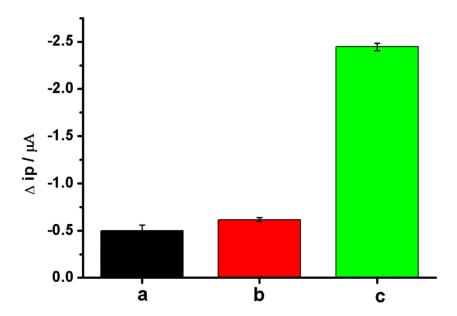
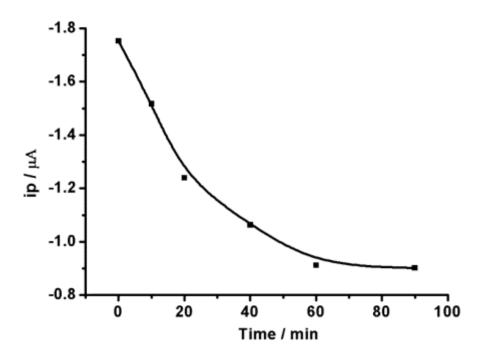


Figure S2 Histograms of peak values obtained by SWV corresponding to (a) 2  $\mu$ M, (b) 1  $\mu$ M, (c) 0.2  $\mu$ M c-kit-1.



**Figure S3** Calibration curve of SWV peak values corresponding to different incubation time of 1 U PARP.

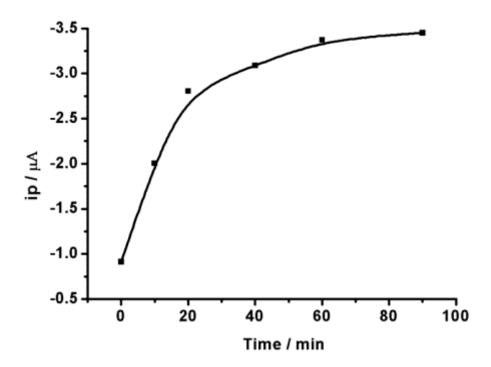
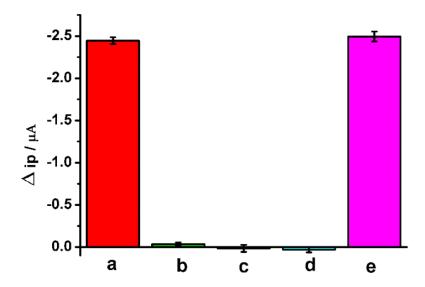


Figure S4 Calibration curve of SWV peak values corresponding to different incubation time of 500  $\mu M$  NAD.



**Figure S5** Experiments for the selectivity of the biosensor. Histograms of peak values corresponding to (a) 2 U PARP, (b) BSA, (c) 2 U heat deactivated-PARP, (d) R-buffer, (e) 2 U PARP in diluted serum samples.