

## Supplementary Material

### **Nanopore-based measurement of the interaction of P450cam monooxygenase and putidaredoxin at single-molecule resolution**

Hui Chen<sup>†a</sup>, Yao Lin<sup>†a,b</sup>, Yi-Tao Long<sup>b</sup>, Shelley D. Minteer<sup>a,\*</sup>, and Yi-Lun Ying<sup>b,c\*</sup>

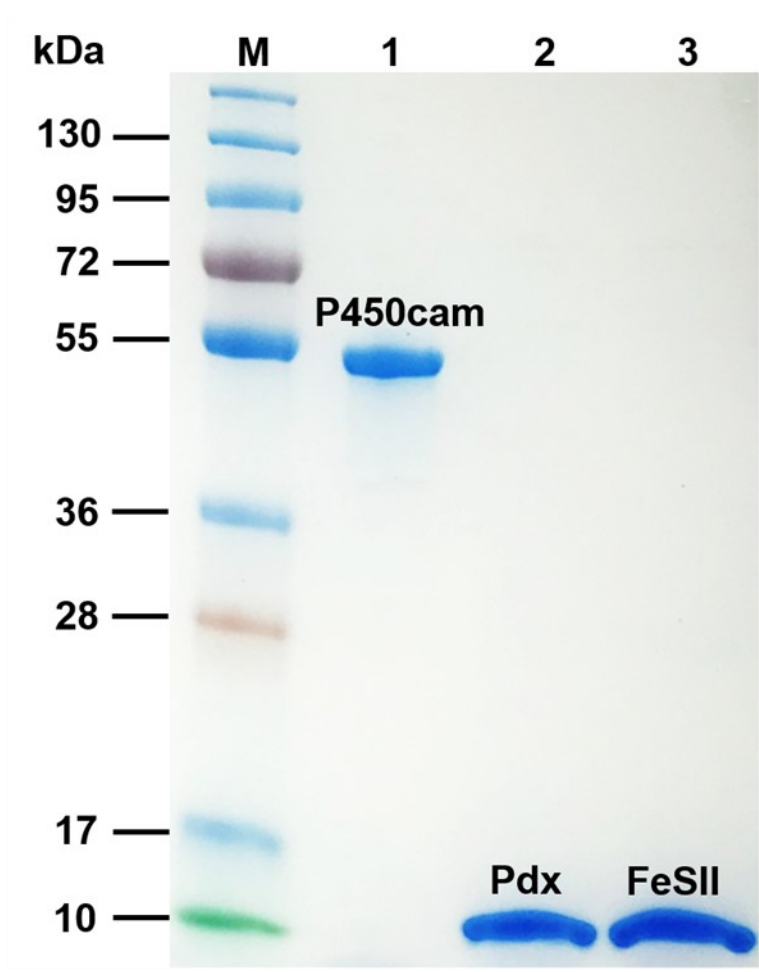
<sup>a</sup> Department of Chemistry, University of Utah

<sup>b</sup> State Key Laboratory of Analytical Chemistry for Life Science, School of Chemistry and Chemical Engineering, Nanjing University

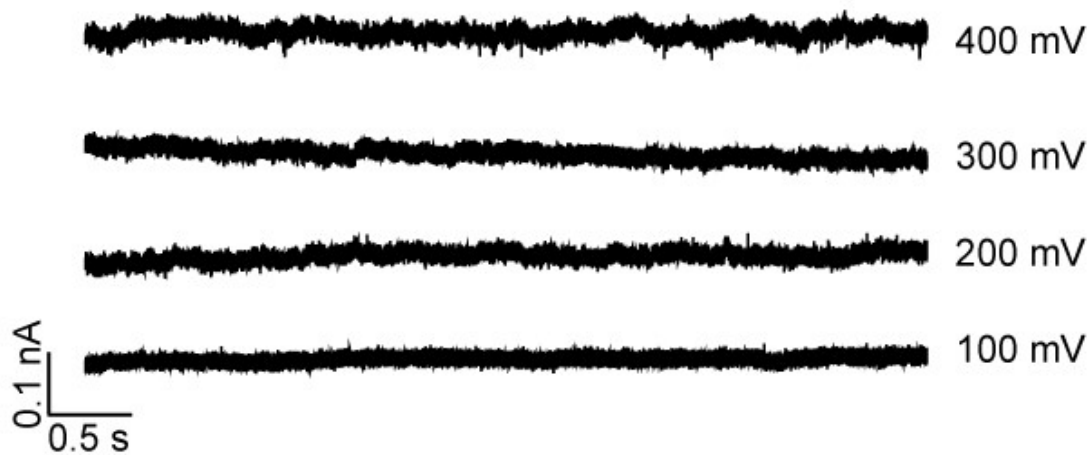
<sup>c</sup> Chemistry and Biomedicine Innovation Center, Nanjing University

Email: [minteer@chem.utah.edu](mailto:minteer@chem.utah.edu); [yilunying@nju.edu.cn](mailto:yilunying@nju.edu.cn)

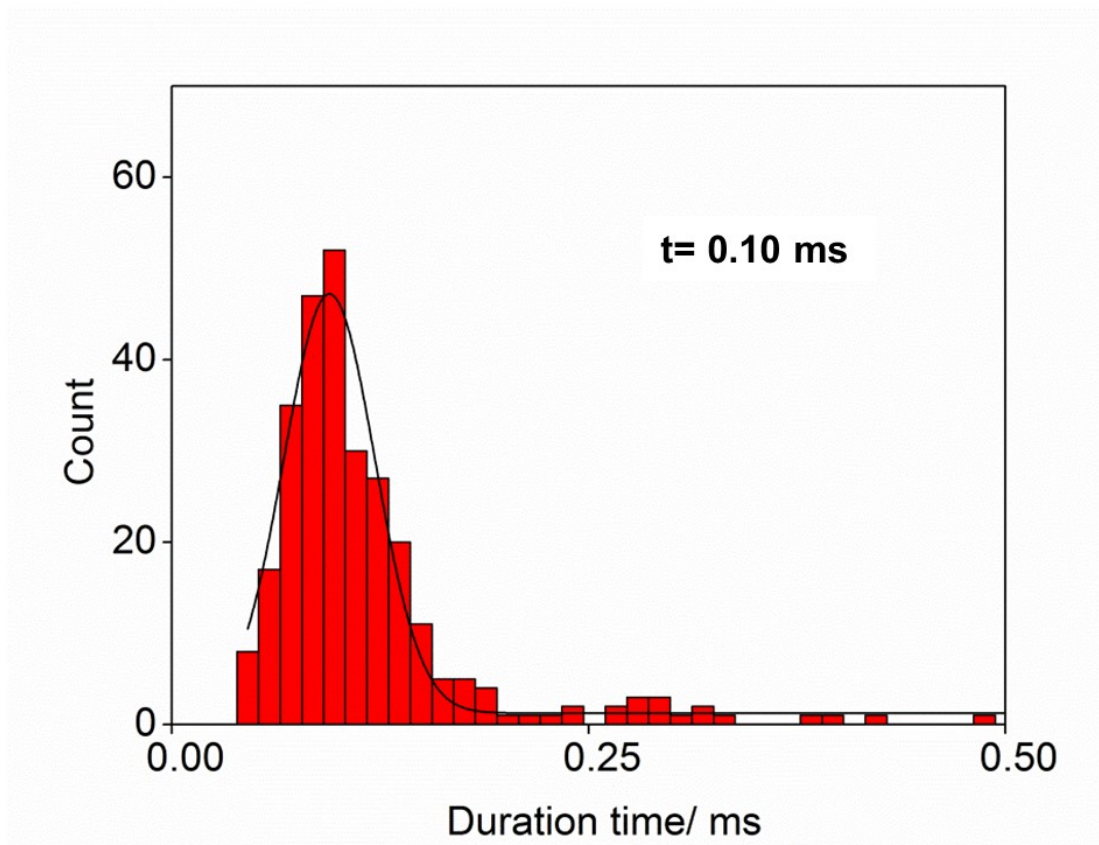
<sup>†</sup> These authors contributed equally to this work



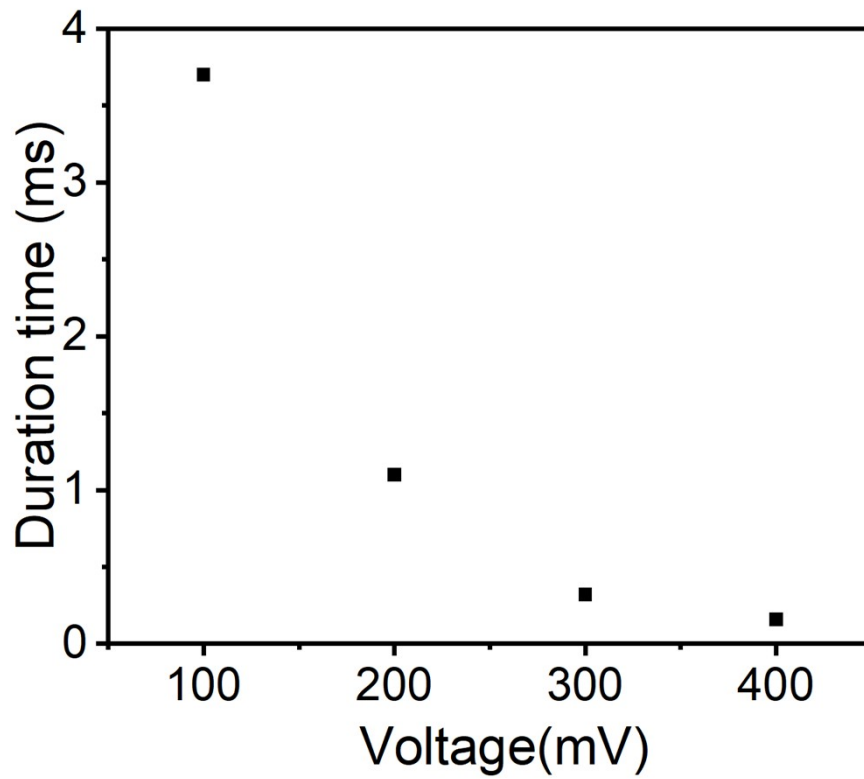
**Figure S1.** SDS-PAGE analysis of purified protein. Lane 1: P450cam; Lane 2: Pdx; Lane 3: FeSII; Lane M: marker.



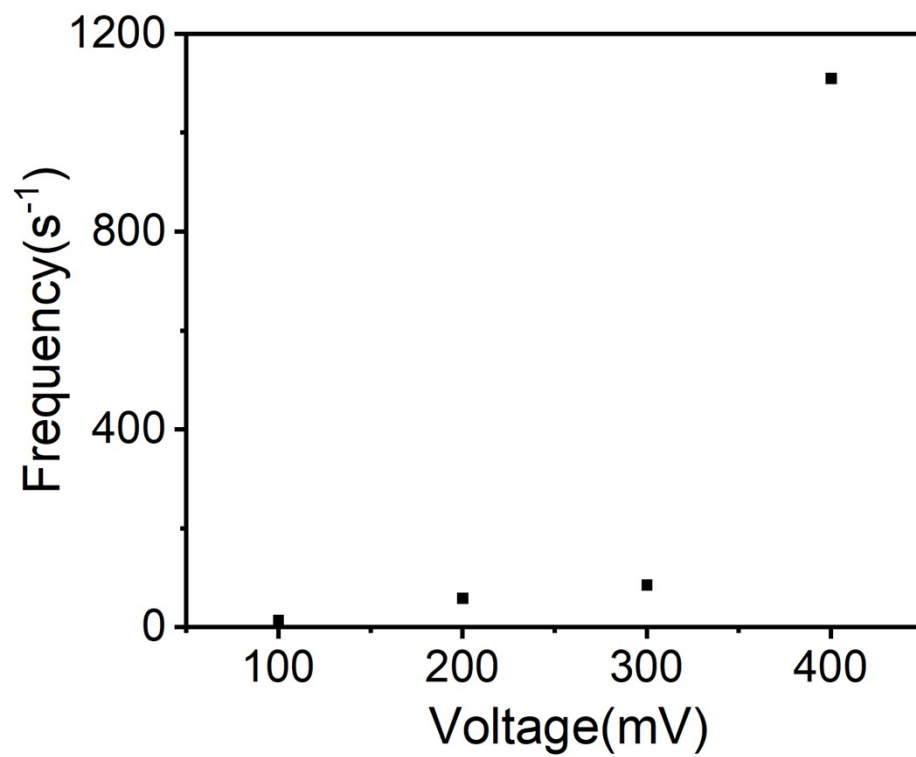
**Figure S2.** The baseline current trace from the Pdx-modified nanopore.



**Figure S3.** Histogram of duration time of P450cam with the FeSII modified nanopore. The histogram of duration time is fit to a Gaussian function. The data was collected under an applied voltage of +200 mV.



**Figure S4.** The statistical duration time of P450cam with the Pdx modified nanopore at applied voltages from 100 mV to 400 mV.



**Figure S5.** The statistical blockage frequency of P450cam with the Pdx modified nanopore at applied voltages from 100 mV to 400 mV.