



Supporting Information

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Polymer Electrochromism Driven by Metabolic Activity
Facilitates Rapid and Facile Bacterial Detection and
Susceptibility Evaluation

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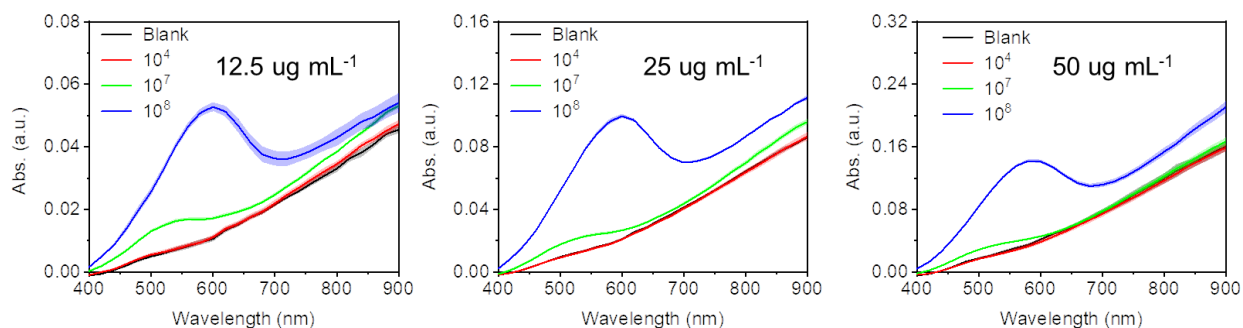


Figure S1. Concentration dependence of ox-PPE response to *E. coli*. Absorption spectra were recorded on a plate reader after 30-min reaction.

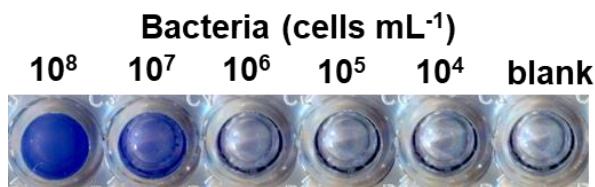


Figure S2. Photographic images of microplate wells showing the color change upon variation of the bacteria concentration.

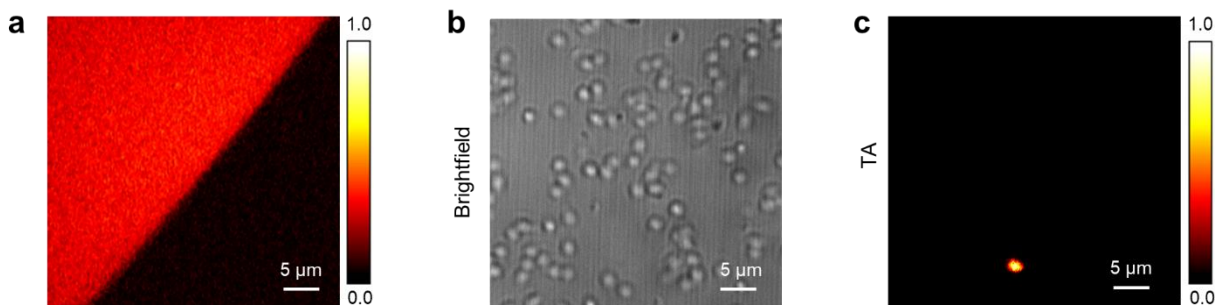


Figure S3. Transient absorption imaging of *E. coli* incubated with ox-PPE. (a) TA image of ox-PPE solution ($25 \mu\text{g mL}^{-1}$). Pump beam: 1045 nm, 5 mW; probe beam: 853 nm, 5mW. The (b) brightfield and (c) TA images of the *E. coli* suspension which was incubated with ox-PPE for 2 h and washed by saline for three times.

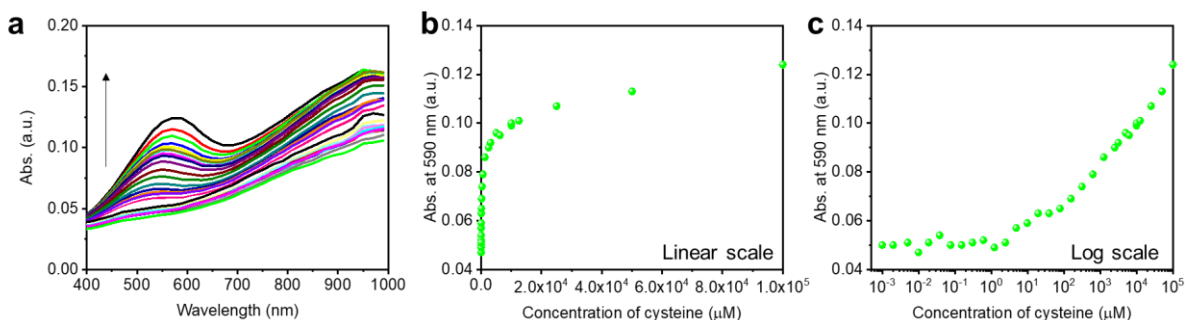


Figure S4. Response of ox-PPE toward various concentrations of cysteine. (a) Absorption spectra of ox-PPE with various concentrations of cysteine. (b, c) Absorption intensity of ox-PPE at 590 nm against concentration of cysteine in linear scale and log scale.

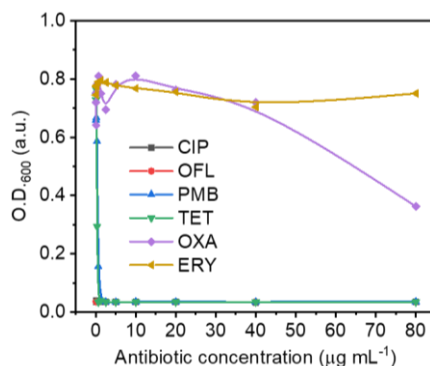


Figure S5. Susceptibility of *E. coli* toward different antibiotics. Optical density at 600 nm was measured after 18 h growth.