

Supplementary Data for

The real-time *in vivo* electrochemical measurement of nitric oxide and carbon monoxide release upon direct epidural electrical stimulation of the rat neocortex

Sarah S. Park,^a Minyoung Hong,^b Yejin Ha,^a Jeongeun Sim,^{b,c} Gil-Ja Jhon,^a Youngmi Lee,^{a,*}

Minah Suh^{b,c, d, e,*}

^a*Department of Chemistry and Nano Science, Ewha Womans University, Seoul, 120-750, Republic of Korea. Fax: +82-2-3277-2384, E-mail: youngmilee@ewha.ac.kr*

^b*Department of Biological Science, Sungkyunkwan University, Suwon, 440-746, Republic of Korea. E-mail: minahsuh@skku.edu*

^c*Center for Neuroscience Research Imaging (CNIR), Institute for Basic Science (IBS), Suwon 440-746, Republic of Korea*

^d*Department of Biomedical Engineering, Sungkyunkwan University, Suwon, 440-746, Republic of Korea*

^e*Samsung Advanced Institute of Health Science and Technology (SAIHST), Sungkyunkwan University, Suwon, 440-746, Republic of Korea*

*Co-corresponding authors: (Fax) +82-2-3277-2384, (E-mail) youngmilee@ewha.ac.kr (Y. Lee) and minahsuh@skku.edu (M. Suh).

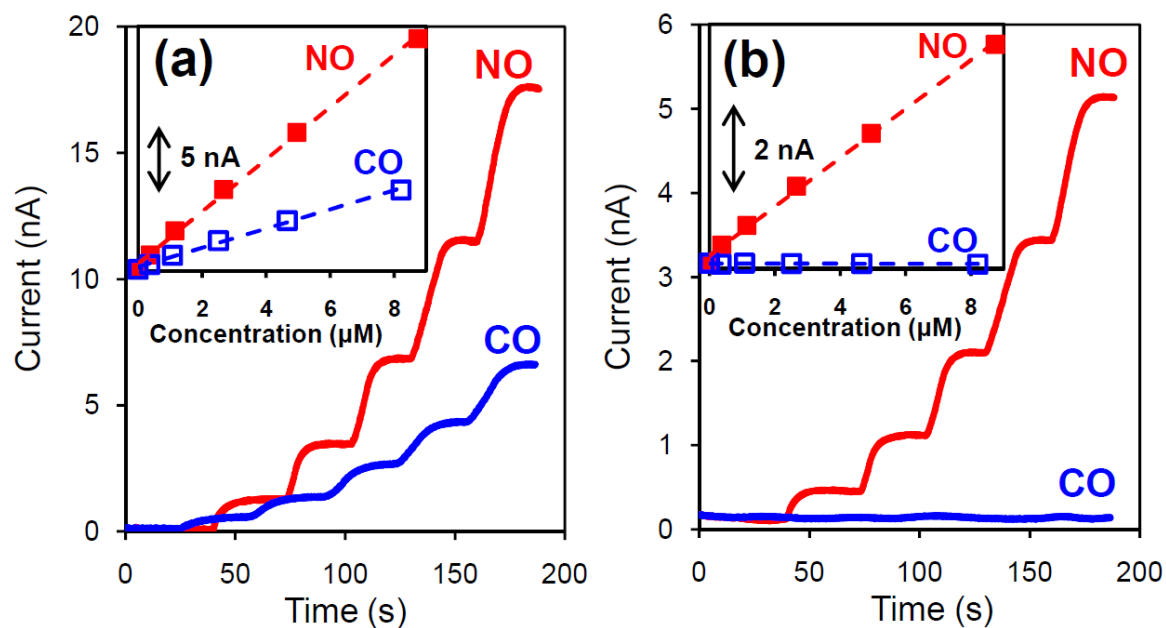


Fig. S1. Representative dynamic response curves of WE1 (a) and WE2 (b). 0.5, 1, 2, 3, 5 μL of NO saturated stock solution (1.91 mM) and 1, 2, 4, 6, 10 μL of CO saturated stock solution (0.90 mM) were added to deaerated PBS solution for NO, CO calibrations, respectively. Insets show corresponding calibration curves. Sensitivity: 2.13 nA μM^{-1} for NO and 0.79 nA μM^{-1} for CO at WE1, 0.60 nA μM^{-1} for NO at WE2.

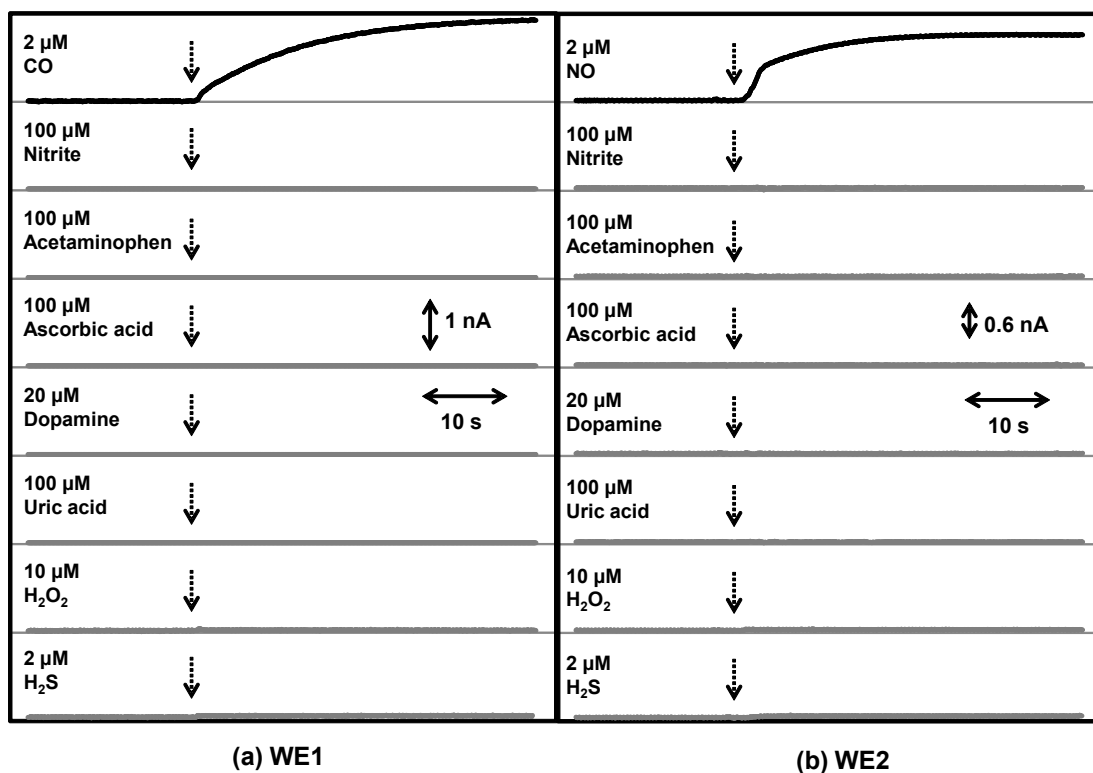


Fig. S2. Typical sensor current responses (left column, WE1; right column, WE2) to interfering species observed in deaerated PBS solution. Each arrow is marked with an injection of the interfering species.