

Electronic Supporting Materials (ESM):

Chemiluminescence “Turn-on” Detection of Tyrosinase Activity via in Situ Generation of Dopamine Based on Lucigenin and Riboflavin System

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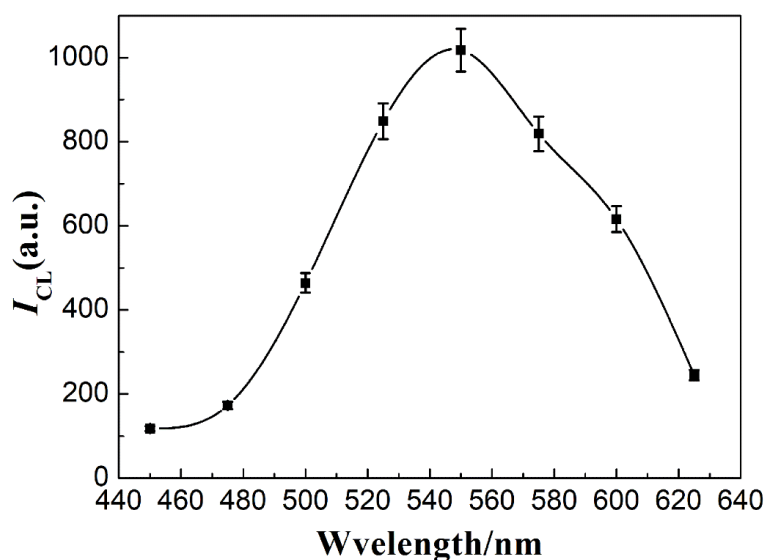


Figure S1. CL spectrum of lucigenin, riboflavin, tyramine and tyrosinase mixture. $c(\text{lucigenin})$: 2 mM; $c(\text{riboflavine})$: 0.5 mM; $c(\text{tyramine})$: 0.5 mM; $c(\text{tyrosinase})$: 15 U·mL⁻¹; PMT voltage: 1000 V. All the error bars represent the standard deviation of three measurements.

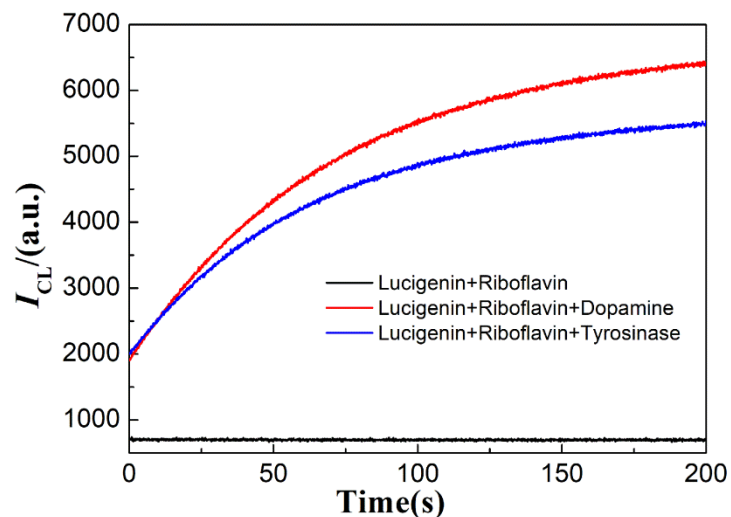


Figure S2. CL spectra of lucigenin and riboflavin (black line), lucigenin, riboflavin and tyrosinase (red line), lucigenin, riboflavin, and dopamine (blue line). $c(\text{lucigenin})$: 0.5 mM; $c(\text{riboflavine})$: 0.5 mM; $c(\text{tyramine})$: 0.5 mM; $c(\text{tyrosinase})$: 5 U·mL⁻¹; $c(\text{dopamine})$: 0.2mM; PMT voltage: 800 V. All the error bars represent the standard deviation of three measurements.

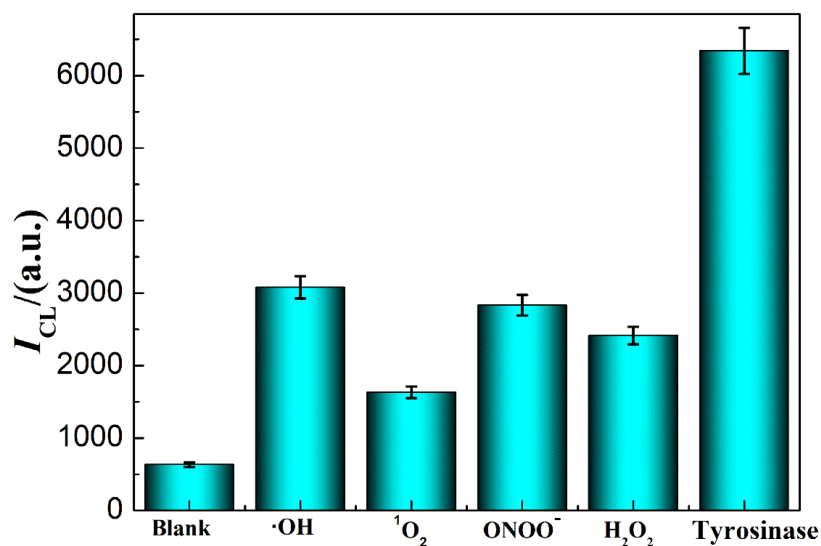


Figure S3. The Selectivity of CL “turn-on” detection of tyrosinase (Tyr) towards ROS (reactive oxygen species) and RNS (reactive nitrogen species). $c(\text{lucigenin})$: 0.5 mM; $c(\text{riboflavine})$: 0.5 mM; $c(\text{tyramine})$: 0.5 mM; $c(\text{tyrosinase})$: 5 U·mL⁻¹; PMT voltage: 800 V. All the error bars represent the standard deviation of three measurements.