Supplementary Materials

Luminol Electrochemiluminescence for the Analysis of Active Cholesterol at Plasma

Membrane in Single Mammalian Cells

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Figure S1: (A) Luminance of 100 μM luminol in the presence and absence of 2.5 μM H_2O_2 with difference scan rates; (B) the ratio of luminance of 100 μM luminol in the presence and absence of 2.5 μM H_2O_2 with different scan rates.

Figure S2: (A) Electrochemiluminescence of luminol with different concentrations in the presence of 2.5 μM hydrogen peroxide; (B) analysis of hydrogen peroxide in the presence of 100 μM luminol. The line was the linear fitting curve and R-square was 0.996. The error bar presented the standard derivation from three independent experiments. The PMT voltage was set at 600 V.

Figure S3. The average fluorescent intensities of intracellular calcium in five cells (A) before and after the addition of PBS and 100 μ M luminol; (B) before and after the application of voltage from -0.5 to 0.5 V and -1.0 to 1.0 V on the electrode. The error bar presented the standard derivation.

Figure 3:

Figure S4: The effect of adjacent cell distance on the luminance ratio of five single target cells pretreated in low ion strength medium.