The stability of screen-printed electrode as electrochemical sensors was investigated by cyclic voltammetry (CV) from −0.8 to 0.8 V (scan rate; 0.10 V/s) of the test solution containing 10 mM K₃[Fe(CN)₆] in 100mM KNO₃ solution at 63 °C. The screen-printed electrode was inserted into 200 µL micro tube with 50µL of test solution. In addition, to prevent vaporization, 20 µL of mineral oil was placed on the test solution. The micro tube inserting the electrode was incubated at 63 °C and CV measurements were carried out at 5 min and 40 min by using USB powered potentiostat. Three measurements were performed for evaluating characteristic error of screen-printed electrode using three different screen-printed electrodes (Fig. S1).

**Fig. S1**  Cyclic voltammograms of 10 mM K₃[Fe(CN)₆] at a scan rate of 0.1V/s in 100 mM KNO₃ solution at 63 using the screen-printed electrodes.
Fig. S2  When the threshold ratio is taken as 0.8, the ratios for 63.6 pg/µL, 318 pg/µL, 636 pg/µL and 6.36 ng/µL of Positive Control H1P begin to cross with the threshold ratio at 16.9, 15.7, 15.3 and 14.1 min, respectively. Standard curve calculated. Threshold reaction times are plotted against the log10 of input influenza RNA. The linear regression line, and the equation and $R^2$ are all shown.