A non-PCR SPR Platform using RNase H to Detect MicroRNA 29a-3p from Throat Swabs of Human Subjects with Influenza A Virus H1N1 Infection

Supplementary Information

Jacky Loo [a,#], S.S. Wang [b,#], F. Peng [b,#], J.A. He [b], L. He [b], Y.C. Guo [b], D.Y. Gu [b,*], H.C. Kwok [c], S.Y. Wu [c], H.P. Ho [c] W.D. Xie [d] Y.H. Shao [e] S.K. Kong [a,*]

[a] Biochemistry Programme, School of Life Sciences, The Chinese University of Hong Kong, Room 609, Mong Man Wai Building, Shatin, NT, Hong Kong, China

[b] Shenzhen Entry-exit Inspection and Quarantine Bureau, Shenzhen 518033, China

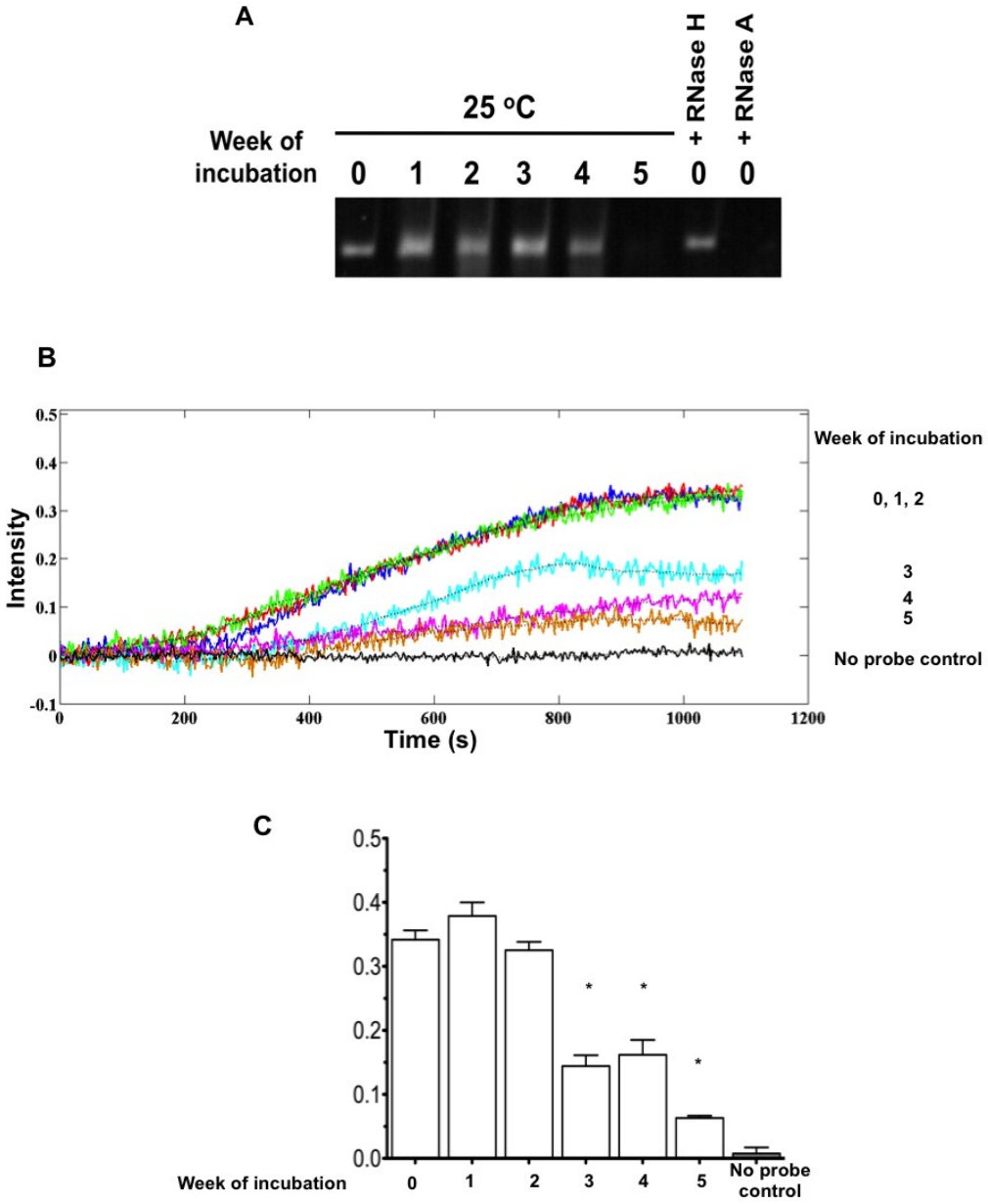
[c] Center for Advanced Research in Photonics, Department of Electronic Engineering, The Chinese University of Hong Kong, Shatin, NT, Hong Kong, China

[d] Shenzhen Key Lab of Health Science and Technology, Division of Life Sciences & Health, Graduate School at Shenzhen, Tsinghua University, Shenzhen, China

[e] College of Optoelectronics Engineering, Key Laboratory of Optoelectronic Devices and Systems, Ministry of Education and Guangdong Province, Shenzhen Key Laboratory of Sensor Technology, Shenzhen University, Shenzhen 518060, China

[#] Co-First authors

[*] Corresponding author



Supplementary Figure 1. Stability of the probe upon storage. The miR probes were stored at 25 °C up to 5 weeks. Denature gel electrophoresis with SYBR Green RNA staining was performed to investigate the probe stability. The relative intensity of the band compared to the fresh-made (0 week), negative control (+RNase H) and positive control (+RNase A to degrade single stranded RNAs) reveals the degree of probe degradation (**A**). The miR probes stored for the time as indicated on SPR gold sensing surface chip at 4 °C were subjected to SPR detection on target cDNA hybridization (**B**). Hybridization signals resulted from (B) were then collected. Results are mean ± SD from three independent experiments, where * $p<0.05$ compared to data of 0 week of incubation (**C**).