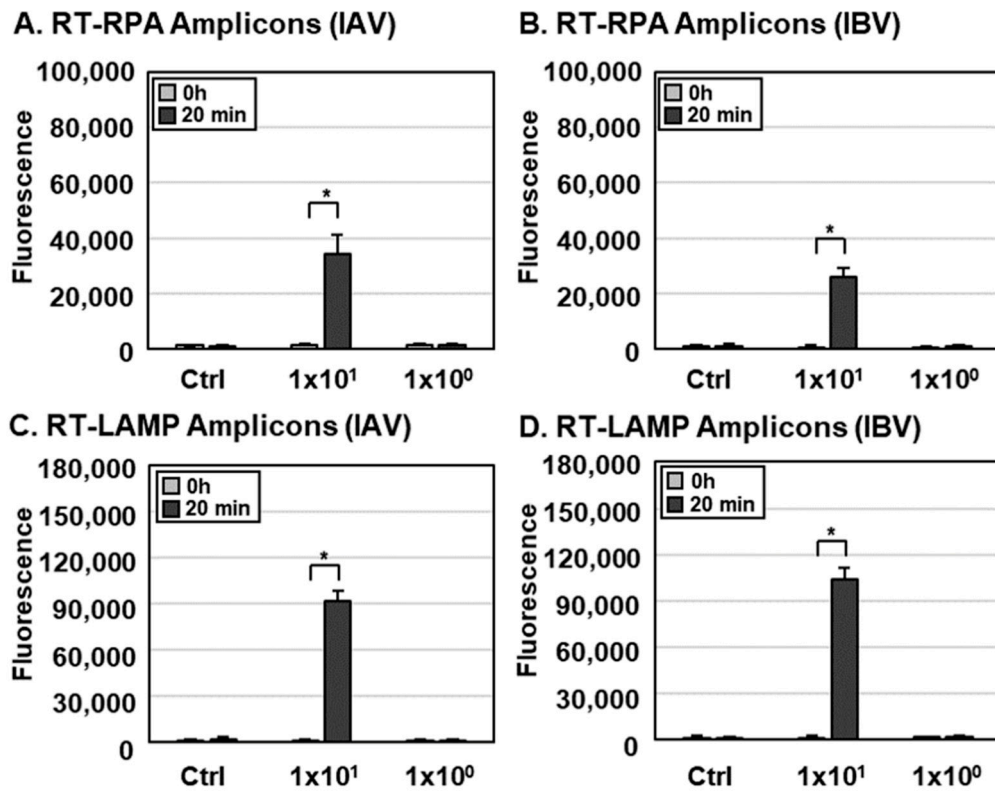


**Fig S1.** Specific detection of influenza virus types by the DETECTR assay. One hundred PFUs of IAV and IBV per reaction were used to amplify viral nucleic acids using either RT-RPA (A) or RT-LAMP (B) with primer sets specific for IAV M and IBV HA genes. DETECTR combined with fluorescence assays were performed with gRNAs targeting either IAV M or IBV HA genes to detect RT-RPA and RT-LAMP amplicons. Fluorescence signals of DETECTR on RT-RPA or RT-LAMP amplicons were saturated within 20 min. Values are presented as means  $\pm$  s.d (error bars) ( $n = 3$  replicates;  $*P < 0.05$  between samples, two-sample t-test).



**Fig S2.** Sensitivity of the DETECTR assay for IAV and IBV in Saliva. (A-D) Different concentrations of IAVs (A and C) and IBVs (B and D) in human saliva ( $1.0 \times 10^0$  to  $1.0 \times 10^1$  PFUs per reaction) were used to amplify viral nucleic acids using either RT-RPA (A and B) or RT-LAMP (C and D) with primer sets specific for the IAV M or IBV HA gene. RT-RPA and RT-LAMP amplicons were detected by DETECTR combined with fluorescence assay using gRNAs targeting the IBV HA gene. The fluorescence signals of DETECTR on RT-RPA or RT-LAMP amplicon were saturated within 20 min. Values are presented as means  $\pm$  s.d (error bars) (n = 3 replicates; \* $P < 0.05$  between samples, two-sample t-test). C-line, control line; T-line, test line; Ctrl, control.