

A home-based nucleic acid test platform for rapid detection of COVID-19 virus and other pathogens

等溫核酸橫向流動分析法快速檢測 SARS-CoV-2 病毒

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Our aim is to develop a diagnostic assay for SARS-CoV-2 that can be used at home or any sites, and provide rapid test results in less than 30 minutes.

We have developed a rapid molecular diagnostic platform by integrating lateral flow assay (LFA) and isothermal amplification technology (LAMP) on a disposable device for colorimetric readout visually and using simple/minimal instrument. We have evaluated the performance of the device with that of the RT-PCR with extracted RNA samples from SARS-CoV-2 virus in collaboration with School of Public Health, HKU, which showed similar sensitivity and specificity.

A patent application on the design of the assay and device has been filed in PRC. We are continuing to improve the assay performance so that it can be used directly on saliva or deep-throat swap samples.