

Resource Summary Report

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OnsiteGene 1 Protocol Nasal Direct

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Type: Protocol

Proper Citation

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Protocol Information

URL: <https://dx.doi.org/10.17504/protocols.io.bkudkws6>

Authors: yliu

Group: OnsiteGene 1, XPRIZE Rapid Covid Testing

Summary: This OnsiteGene protocol is designed for testing the nasal swab samples without nucleic acid extraction. It uses the Star Array® Hi-Sense™ COVID-19 Molecular Testing Kit 1.0 in the one-step real-time RT-qPCR test assay to qualitatively detect RNA from SARS-CoV-2 virus in the human respiratory specimen. It combines the reverse transcription technology and real-time PCR method to provide accurate detection of the SARS-CoV-2 coronavirus. Along with the Star Array® SATM Direct Extract Buffer, the protocol supports direct amplification without the need of specific RNA extraction equipment and kit. It significantly reduces the loss of RNA from the sample extraction and purification process, saves time and workload from sample preparation, and minimized the burdens on supply chain. The triplex fluorescence design of the kit simultaneously detects the N1 and Orf1ab genes of the virus and the human RNase P gene as an internal control to ensure the sample quality. This protocol uses the Star Array® XDive™ Superfast Real-Time RT-qPCR instrument to perform 40-cycle PCR in 8 minutes, and can test up to 16 samples or controls in each run. The total protocol time from sample collection to data interpretation is less than 11 minutes.

Affiliations: OnsiteGene Inc.

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