

Resource Summary Report

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OnsiteGene 4 Protocol Saliva Extract

DOI:10.17504/protocols.io.bpjemkje

Type: Protocol

Proper Citation

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Protocol Information

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

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Group: OnsiteGene 1, XPRIZE Rapid Covid Testing

Summary: This OnsiteGene protocol is designed for testing the normal saliva samples with nucleic acid extraction. A normal saliva collection tube is used for the collection. The protocol 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. The Star Array® magnetic beads RNA extraction instrument and kit can automatically extract and purify the RNA for 32 samples in 6 minutes. It is ideal for the saliva samples that contain high amount of PCR inhibitors and can't be processed by the direct amplification. 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 PCR 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 15 minutes. The sample collection steps is adapted from the published protocol: <https://www.protocols.io/view/saliva-collection-and-rna-extraction-for-sars-cov-bh6mj9c6>

Affiliations: OnsiteGene Inc.

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