

Resource Summary Report

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Aegea Biotechnologies rapid PCR SARS-CoV-2 test (high sensitivity & specificity; able to detect different strain types)

DOI:10.17504/protocols.io.bk2dkya6

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Proper Citation

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Protocol Information

URL: <https://dx.doi.org/10.17504/protocols.io.bk2dkya6>

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Group: Coronavirus Method Development Community, XPRIZE Rapid Covid Testing

Summary: This protocol is for the Aegea Biotechnologies rapid PCR-based SARS-CoV-2 test. This assay uses patented "Switch-Blocker" technology as well as taqman probes to test for presence of SARS-CoV-2 and simultaneously orthogonally validate. A single amplification reaction is performed, and "Switch Blocker" is used on the forward strand and taqman is used on the reverse strand. The assay design has high sensitivity & specificity--single nucleotide level. Moreover, it is able to detect the SARS-CoV-2 L strain vs the SARS-CoV-2 S strain. The test can be adapted to point of care (Roche LIAT) as well as for different SARS-CoV-2 strains as the virus mutates. A next generation version of the assay could identify the presence of the SARS-CoV-2 L/S strains vs. influenza A/B. Finally, because of the sensitivity and specificity, the Aegea PCR-based SARS-CoV-2 test should be able to use saliva samples, and it is suitable for pooled testing. This protocol is designed for high throughput PCR (96 or 384 well plate formats).
Keywords: PCR, COVID-19, coronavirus, SARS-CoV-2, high throughput, multiplex, Switch-Blocker, taqman, high sensitivity, high specificity, accurate, pooling, saliva, strain types, L-strain, S-strain, combination SARS-CoV-2 and influenza

Affiliations: Aegea Biotechnologies, Inc.

External URL: <http://www.aegeabiotech.com>

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