

GoTaq® Probe 1-Step RT-qPCR System for use with the CDC 2019-nCoV RT-qPCR Probe Assay

Amplify SARS-CoV-2 RNA using the CDC 2019-nCoV RT-qPCR N1 and N2 Probe Assays with GoTaq® Probe 1-Step RT-qPCR System.

Kit: GoTaq® Probe 1-Step RT-qPCR System (Cat.# A6120 and A6121)

Analyses: CDC 2019-Novel Coronavirus (2019-nCoV) Real-Time RT-PCR Diagnostic Panel¹

Sample Type(s): Purified RNA or total nucleic acid (TNA)

Materials Required:

- Refer to the CDC 2019-Novel Coronavirus (2019-nCoV) Real-Time RT-PCR Diagnostic Panel¹

Protocol:

Refer to the CDC 2019-Novel Coronavirus (2019-nCoV) Real-Time RT-PCR Diagnostic Panel for the complete protocol¹.

This protocol was developed by Promega Applications Scientists and is intended for research use only.

Users are responsible for determining suitability of the protocol for their application.

For further information, see Technical Manual TM379, available at:

www.promega.com/protocols

or contact Technical Services at:
techserv@promega.com

Results:

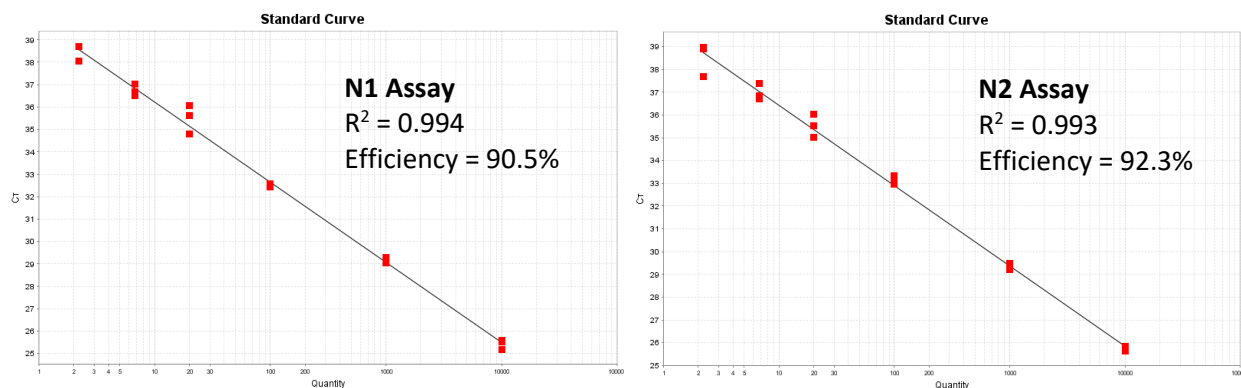


Figure 1. Amplification of SARS-CoV-2 RNA standard curve with GoTaq® Probe 1-Step RT-qPCR System and the 2019 nCoV RUO Kit N1 and N2 assays. 20µl 1-step RT-qPCR reactions were assembled on ice with 10µl of GoTaq® Probe qPCR Master Mix with dUTP (2X), 0.4µl of GoScript™ 1-Step RT Master Mix (50X), 1.5µl of the N1 or N2 assay from the 2019 nCoV RUO Kit (IDT Cat.# 10006713) and 5µl of template according to the CDC 2019-Novel Coronavirus (2019-nCoV) Real-Time RT-PCR Diagnostic Panel¹. Synthetic SARS-CoV-2 RNA Control 1 (Twist BioSciences, Cat.# 102019) was amplified in triplicate using 5µl per reaction of serially diluted RNA nominally at 10,000, 1000, 100, 20, 6.7, and 2.2 copies/µl or 0 copies/µl (NTC). Reactions were cycled on an ABI 7500 Real-Time Instrument as specified in the CDC protocol¹: 45°C for 15 minutes; 95°C for 2 minutes; 45 cycles of 95°C for 3 seconds, 55°C for 30 seconds with data collection (FAM). Note that passive reference normalization was not performed, as per the CDC protocol. However, CXR is provided with the GoTaq® Probe 1-Step RT-PCR System if passive reference normalization is desired.

Reference:

- Centers for Disease Control and Prevention. (2020). *CDC 2019-Novel Coronavirus (2019-nCoV) Real-Time RT-PCR Diagnostic Panel*. Publication #CDC-006-00019, Revision 03 (03/30/2020). Retrieved from <https://www.fda.gov/media/134922/download>.