

GenScript introduces 2019-nCoV qRT-PCR Assay to detect Coronavirus

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GenScript's R&D team developed a qRT PCR detection assay which has successfully detected 2019-nCoV in positive control samples RdRP gene, N gene and E gene



The 2019 Novel Coronavirus (2019-nCoV) was first detected in Wuhan, China in December 2019. Since the first cases were reported, the outbreak has rapidly spread through China and now several other countries worldwide. As of January 29, 2020, there are 6,161 confirmed cases, 132 deaths in 19 countries, including the United States, France, and Japan.

The 2019-nCoV has been reported as difficult to detect during the first two weeks after initial infection. Infected individuals may not be aware of their contagiousness, thus putting others at risk of contracting the virus. There are cases reported that people can be infectious without showing symptoms. A fast and reliable detection method can help researchers better understand the biology of the disease and potentially guide future diagnostics and treatment.

To help expedite 2019-nCoV research, GenScript's R&D team developed a qRT PCR detection assay based on GenBank Sequence NC_045512.2. This assay has successfully detected 2019-nCoV in positive control samples RdRP gene, N gene and E gene. Additional testing is ongoing and this assay should be considered for research use only (RUO).

Key Features:

- TaqMan™ qRT-PCR assay using primers and FAM probes for higher specificity
- Targets RdRP gene, N gene and E gene in Wuhan-Hu-1 genome (GenBank sequences 2)
- The assay shows positive reactivity to all three targeted genes

Disclaimers from GenScript:

- This assay is for **Research Use Only (RUO)** and has not been tested on clinical samples. We make no claims on the performance of this assay.
- This assay's design is impacted by the accuracy of the publically 2019-nCoV genome sequence.
- This assay's performance is impacted by a range of uncontrolled and un-tested factors such as sample quality, various sample extraction methods, and data analysis variation.

- This assay may have cross-reactivity with other coronavirus family members such as causative agents of the Middle East Respiratory Syndrome (MERS) or Severe Acute Respiratory Syndrome (SARS).
- Stability tests and data are not available at this moment due to the emergency and time limits. We can not guarantee the accuracy of the shelf life, storage conditions, efficiency, etc. We will update the information once we have more data.

GenScript also provides plasmids containing parts of 2019-nCoV RdRP gene, N gene, E gene that can be used as positive controls for 2019-nCoV detection.