

Novel Coronavirus (SARS-CoV-2) Detection Kit

Real-time PCR based but as fast as rapid test

- 45 minutes of turn-around-time using **GENECHEK** UF-300 real-time PCR platform
- Simple workflow for minimized user handling
- Assay is designed to detect RdRP gene and N gene of SARS-CoV-2.
- Compact and affordable solution that suits any application.

Why SARS-CoV-2 is being an issue throughout the world?

First reported from Wuhan, China, on 31 December 2019, SARS-CoV-2 is the cause of coronavirus disease 2019 (COVID-19) and generally spreads through human-to-human contact or respiratory droplet infection from coughs and sneezes and it is thought to have a zoonotic origin. The symptoms of COVID-19 include respiratory symptoms, fever, cough, shortness of breath and breathing difficulties. In severe cases, it can lead to pneumonia, severe respiratory acute syndrome, kidney failure and even death. Due to its high contagiousness and severeness, rapid detection of the virus should be performed as quickly as possible for setting up timely quarantine measure as well as proper medication and treatment.



Better detection assay to enhance your testing efficiency

Real-time PCR is one of the most well-known methods with good sensitivity and high accuracy for disease diagnostics. However, this technology used to have some disadvantages such as long turn-around-time or complicated workflow. Genesystem is proud to introduce **SMARTCHEK** novel coronavirus (SARS-CoV-2) detection kit which is based on biochip sample format and provides relatively short turn-around-time with simple workflow while it offers key benefits of real-time PCR tests. The standard turn-around-time is 45 minutes using UF-300 real-time PCR platform of Genesystem.

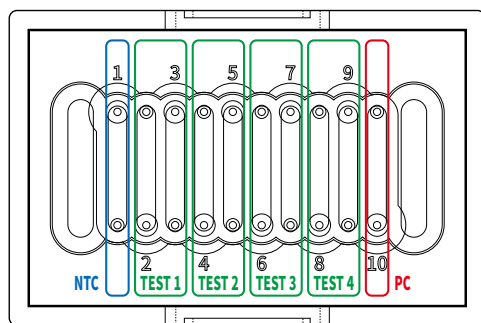
The kit is designed to detect two different target genes of SARS-CoV-2.

SMARTCHEK novel coronavirus (SARS-CoV-2) detection kit has been developed to detect both RdRP gene and N gene of SARS-CoV-2. The primer pairs and probes for the detection of these two target genes are pre-labeled (dehydrated) in the wells of the test chip so that user doesn't need to pipette primers and probes for running the test.

Kit Contents

| Contents | Volume / Quantity | | Description |
|-----------------------|---------------------|---------------------|-----------------------------------|
| | Cat. # : 9799151400 | Cat. # : 9799151401 | |
| Test Chip | 5 EA | 25 EA | Individually vacuum packed |
| Sealing Tapes | 5 EA | 25 EA | Packed in plastic bag |
| Premix | 50 µL x 5 tubes | 250 µL x 5 tubes | Tubes with blue label on the cap |
| Nuclease Free Water | 10 µL x 5 tubes | 50 µL x 5 tubes | Tubes with white label on the cap |
| Microcentrifuge Tubes | 25 EA | 125 EA | For mixing premix and template |

Storage Information All the contents should be stored at -20 °C.



Configuration of Test Chip

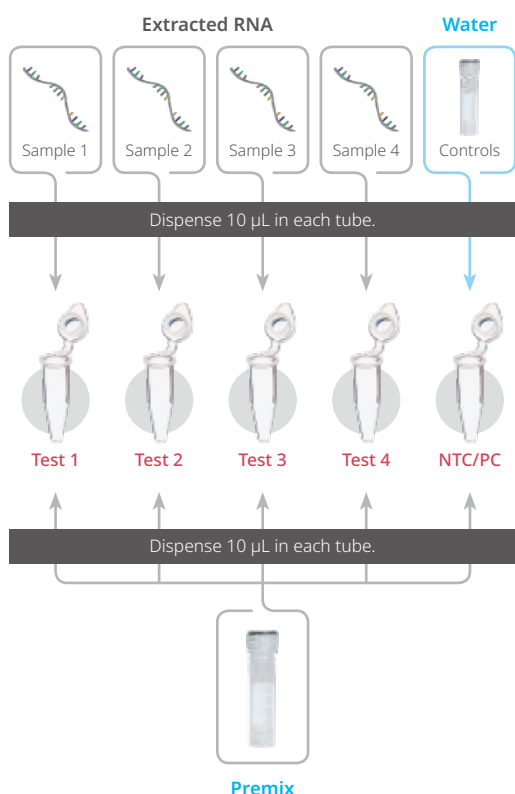
Primers and probes for detection of N gene of SARS-CoV-2 are labeled in well number 2, 4, 6 and 8 while primers and probes for detection of RdRP gene of SARS-CoV-2 are labeled in well number 3, 5, 7 and 9. Well number 1 is for running no template control and well number 10 is for running positive control. With this configuration, 4 samples can be tested per a run.

※ EACH WELL INCLUDES INTERNAL POSITIVE CONTROL.

Workflow

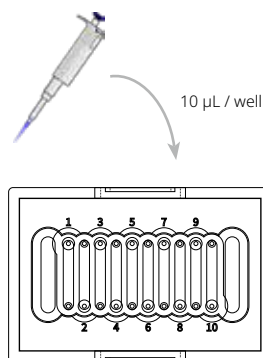
Step 1.

Preparing Reaction Mixture



Step 2.

Sample Loading Into Test Chip

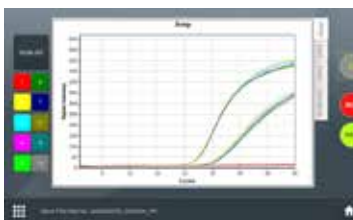


Prepared mixtures are loaded in each well of the chip where primer pairs and probes are pre-labeled. The mixture in a tube is dispensed in two wells of test chip corresponding to N gene and RdRP gene of SARS-CoV-2 respectively. Well number 1 is for no template control and well number 10 is for positive control where the mixture of Nuclease free water and premix is loaded.

Step 3.

PCR and analysis

GENECHEK[®]
UF-300 Real-time PCR System



5 min.

40 min.

Ordering Information

| Catalog Number | Description | Pack Size |
|----------------|---|-------------------------------------|
| 9799151400 | SMARTCHEK[®] Novel Coronavirus (SARS-CoV-2) Detection Kit | 20 tests / PK (5 test chips / PK) |
| 9799151401 | SMARTCHEK[®] Novel Coronavirus (SARS-CoV-2) Detection Kit | 100 tests / PK (25 test chips / PK) |
| 1399100200 | GENECHEK[®] UF-300 Real-time PCR System | 1 set |



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