



Covid-19 RT-PCR Detection Kit

MD-COVID19-01

Description

The HibriGen COVID-19 RT-PCR Kit is used for the qualitative detection of the SARS-CoV-2 (2019-nCoV) virus by RNA obtained from human nasopharyngeal aspirate / lavage, bronchoalveolar lavage, nasopharyngeal swab, oropharyngeal swab, and sputum samples,

The method of operation of the kit is the single-step RT-PCR (real-time fluorescent PCR) technology, which includes synthesis of cDNA from the RNA (Reverse Transcription) peculiar to SARS-CoV-2 (2019-nCoV) virus and the real-time amplification (RT-PCR) of the cDNA in one step.

Primers and probes included in the HibriGen COVID-19 RT-PCR Kit are specific to sequences of the protected RdRp gene (FAM), N gene (HEX) and Human RP11 gene for reaction internal control (Cy5) as target sites. It has been designed in accordance with RT-PCR technology from a single step.



Kit Contents

	50 Tests	100 Tests	200 Tests	500 Tests	1000 Tests	2000 Tests
2X One Step RT-PCR Mix	1x500 µl	1x1 ml	2x1 ml	5x1 ml	10x1 ml	20x1 ml
5X Primer Prob Mix	1x200 µl	1x400 µl	1x800 µl	2x1 µl	4x1 µl	8x1 µl
Positive Control	60 µl	60 µl	60 µl	120 µl	120 µl	120 µl
Negative Control	60 µl	60 µl	60 µl	120 µl	120 µl	120 µl

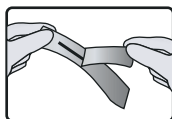


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**WHILE WORKING WITH THE HIBRIGEN COVID19 RT-PCR DETECTION KIT,
SAMPLES CAN BE PROCESSED WITH 2 DIFFERENT METHODS DEPENDING ON USER PREFERENCE.**

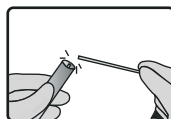
METHOD 1: Using NAE Buffer



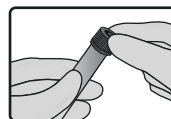
Swab pack is opened in the direction of the arrow.



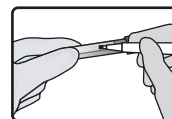
A nasopharyngeal or oropharyngeal specimen of a patient is collected by the swab to perform RT-PCR test.



The swab is placed into the NAE Buffer. Then, the swab bar must be broken at the marked location and removed.



The tube cap is tightly closed.



Specimen tubes should be labelled by using the provided tube sticker and transport to the laboratory to perform the test.

- The collected specimen of the patient which is in the Hibrigen NAE Buffer should be vortexed for 1 minute. It is ready to directly use for Covid19 RT-PCR application.

For 20 µl Total Reaction Volume;

Content	Amount	Final Concentration
2X One Step RT-PCR Mix	10 µl	1X
5X Primer Prob Mix	4 µl	1X
NAE Buffer	6 µl	

Note: For positive control and negative control tests, 6 µl should be taken from the control tubes provided in the kit content.

METHOD 2: Using Isolated RNA

Total RNA is obtained by using the Hibrigen General RNA Isolation Kit from human nasopharyngeal aspirate / lavage, bronchoalveolar lavage, nasopharyngeal swab, oropharyngeal swab and sputum samples.

For 20 µl Total Reaction Volume;

Content	Amount	Final Concentration
2X One Step RT-PCR Mix	10 µl	1X
5X Primer Prob Mix	4 µl	1X
RNA	6 µl	

Both Methods are continued as follows;

- 1 - According to the provided guideline, the prepared RT-PCR mix containing the patient specimen is gently mixed and preferably the plate is centrifuged briefly to force remaining fluid on the side of the wells to the bottom.
- 2 - For application of Covid 19 RT-PCR test, run the thermal cycler according to the following conditions.

Number of Cycle	Temperature	Duration
1	55°C	15 Min
1	95°C	1 Min
45	94°C	5 Sec
	60°C	20 Sec
	FAM/HEX/Cy5 reading	

Evaluation of Results

FAM	HEX	CY5	Interpretation
+	+	+	Positive
-	-	+	Negative
+	+	-	Unefficient RNA isolation / Positive
-	+	+	Positive
+	-	+	Positive
-	-	-	Repeat