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Product information

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SARS-CoV-2 RT-PCR Detection Kit

Catalog #: COV-2-RTPCR
Size: 50 Rxns
Storage: -10°C to -30°C for all components

Product Description:

SARS-CoV-2 RT-PCR Detection Kit is a one-step RT-PCR Kit for the detection of SARS-CoV2-specific RNA in specimens including serum from suspected patients. The kit contains SARS-CoV-2-specific primer and probe sets designed by comparing all available sequences of other coronaviruses that allows both transcription and subsequent PCR amplification in a single reaction. An internal control for human RNA species will be provided with the kit to identify possible PCR inhibition and assess the reliability of the PCR reaction.

Specifications

- Target: SARS-CoV-2
- Detection:

Probe	Dye	Quencher
2019-nCoV Primer 1	FAM	BHQ-1
2019-nCoV Primer 2	VIC	BHQ-1
Internal Positive Control (IPC)	Cy5	BHQ-3

Kit Contents

Components	50 Rxns
EZ-RT-PCR Master Mix	55 µl
COVID-19 Primer + Buffer mix	1000 µl
COVID-19 Positive Control	60 µl
RT-PCR grade water	60 µl

This kit contains sufficient reagents for 50 reactions (25 µl each)

Limit of Detection

The limit of detection for this kit is $1x10^3$ copies (Ct±30)

Procedure

1. Isolate RNA immediately after collection of specimens.

2. Completely thaw all reagents on ice and mix gently.

3. Prepare a reaction mix according to the table below to the PCR tube or plate.

Components	Sample*	Positive control*	Negative control*
EZ-RT-PCR Master Mix	1 µl	1 µl	1 µl
COVID-19 Primer + Buffer Mix	19 µl	19 µl	19 µl
COVID-19 Positive Control	0 µl	5 µl	0 µl
Sample**	X µl	0 µl	0 µl
RT-PCR grade water	Upto 25 µl	0 µl	5 µl

*: Reaction volumes of 25 ul are recommended
**: Start with 5 pg to 1 ug RNA sample per 25 ul reaction

4. Close reaction tube or plate, vortex for 5-10 sec and spin down the tube or plate briefly.

Note: Due to the high viscosity of master mix, mix well to ensure accurate PCR results.

5. Real-time PCR reaction condition

Step	Temp.	Time	Cycle #
cDNA synthesis	55℃	15 min	1 cycle
RT inactivation pre-denaturation	95℃	30 sec	1 cycle
Amplification	95℃ 60℃	15 sec 1 min	40 cycles

6. Interpretation of Results

2019-nCoV N1 (FAM)	+	+	-	-	-
2019-nCoV N2 (VIC)	+	-	+	-	-
IPC (Cy5)	+	+	+	+	-
Result	Positive	Ambiguous	Ambiguous	Negative	Invalid repeat

(+) : Ct value <30, (-) : Ct value >30

RT-PCR Machine Notes:

- This Assay is validated on the Applied Biosystems® 7500 Fast and 7500 Real Time PCR system.

