

REAL SARS-COV-1/2 (COVID-19)

*Test for easy and sensitive detection of
coronavirus SARS-CoV-1 and SARS-CoV-2
(COVID-19) by RT-PCR real time*



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Target gene E + control gene

REAL SARS-COV-1/2 (COVID-19)

Test for the detection of E gene from coronavirus SARS-CoV-1/2 by RT-PCR real time (COVID-19)

A new severe respiratory syndrome caused by a coronavirus was first observed in Wuhan (China) in December 2019. The infection has spread all over the world, and consequently, on March 2020, the disease was declared a pandemic by the WHO. The new virus was called SARS-CoV-2, causing COVID-19 disease.

Most infected people with SARS-CoV-2 will develop mild to moderate symptoms, as fever, tiredness or dry cough, but it can also cause severe illness, and even death, especially in people with previous conditions and in elderly people. These symptoms may appear 2-14 days after exposure to the virus.

Detection of the RNA of the virus by techniques as RT-PCR real time is important in early infection because it can help us to isolate infected people and contain the outbreak. According to the guidelines of the WHO¹, in those areas where the SARS-CoV-2 virus is widely spread the detection of only one target of the virus by RT-PCR provides a simpler and easier diagnosis, with no need of an algorithm for the interpretation of results. In areas with low incidence of COVID-19, one target detection can also be used, although the result has to be confirmed by sequencing. The E gene provides the higher sensitivity for the detection of SARS viruses using only one target, as needed in the current situation in most countries with high COVID-19 prevalence. As at present no other SARS-like coronaviruses are circulating in the human population, the possibility of false positive result could be excluded.

The Real SARS-CoV-1/2 kit is a kit for easy and sensitive detection of E gene of SARS-CoV-2 by RT-PCR real time using RNA extracted from human clinical samples.

¹Laboratory testing for coronavirus disease 2019 (COVID-19) in suspected human cases. Interim guidance 2 March 2020; WHO

Procedure

RNA sample extraction

RT-PCR real time*

Data analysis

* The kit includes all the necessary reagents for reverse transcription and real time PCR amplification

TARGET	SIGNAL	DETECTION
SARS-CoV-1/2 (E gene)	TEXAS/ROX CHANNEL	✓
Internal control	HEX/JOE/VIC CHANNEL	✓

Highlights

- All the reagents are included, also positive and negative controls.
- Only 5 µl of extracted RNA required.
- Detection of E gene: higher sensitivity.
- Internal control included for confirmation of RNA retrotranscription, extraction and amplification.
- Execution time of about 60 minutes.
- Many different types of validated samples: nasopharyngeal swab, lavage or aspirates and sputum.
- 12 months shelf life.
- Compatible with several Real Time PCR instruments: CFX96 Real-Time PCR Detection System (BioRad); QuantStudio 5 Real-Time PCR System (Applied Biosystems); Gentier 96 Real-Time PCR (Tianlong) and Gentier 48 E Real-Time PCR (Tianlong).

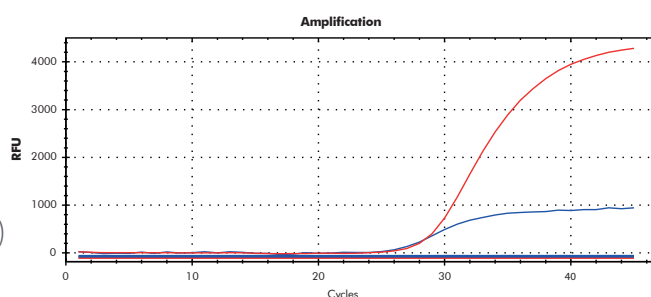
Results

100% sensitivity

97,5% specificity

N=100 samples

Analytical sensitivity: 2.5 copies/µl (12,5 copies/PCR)



Example of positive sample: — E gene; — Internal control