

# DIAGNOVITAL



## SARS-CoV-2 P681R Mutation Detection Kit RUO

Qualitative PCR-based detection of the  
SARS-CoV-2 P681R Mutation

### Product Description

**DIAGNOVITAL® SARS-CoV-2 P681R Mutation Detection Kit** is a real-time RT-PCR-based test for the identification of the SARS-CoV-2 P681R mutation in respiratory specimens. **This kit is designed to run only samples that have previously proven to be SARS-CoV-2 positive.**

The **DIAGNOVITAL® SARS-CoV-2 P681R Mutation Detection Kit** detects P681R mutation in **extracted SARS-CoV-2 RNA** from nasopharyngeal and oropharyngeal swab samples during infection.

## Knowing matters

Bio-informatic analyses reveal that the P681R mutation in the spike protein is highly conserved in this lineage. Although the P681R mutation decreases viral infectivity, this mutation confers neutralizing antibody resistance.

Notably, it has been demonstrated that the P681R mutation facilitates the furin-mediated spike cleavage and enhances and accelerates cell-cell fusion. Published data suggest that the P681R mutation is a hallmark characterizing the virological phenotype of the Delta variant.

### Citation:

<https://www.biorxiv.org/content/10.1101/2021.06.17.448820v1>

## Features

- Single mutation assay
- Identifies spike protein mutation- P681R
- Qualitative RT-PCR method using TaqMan probe technology
- Human endogenous control (HEC): RNase P (Ribonuclease P)
- Three different fluorophores are detected in 3 different channels
  - **FAM™** for the wild type allele
  - **HEX/VIC** for the P681R allele
  - **Cy5** for RNase P (HEC)
- Ready to use PCR Master mix, positive and nuclease-free dH<sub>2</sub>O controls.
- RNA isolation required
- Cycling run time of 75 minutes
- Cycling temperature of 57°C

## Benefits

- All Diagnovital Mutation Detection kits follow a similar procedure making implementation easy in the lab
- Excellent correlation with gold standard sequencing method
- Easy to use with pre-mixed reaction reagents and easy interpretation
- Reflex testing performed using isolated nucleic acid obtained from routine SARS-CoV-2 diagnostic test
- No disruption of routine lab operations for SARS-CoV-2 testing

<b>Recommended Samples</b>	Isolated RNA from Oropharyngeal and Nasopharyngeal Swabs
<b>Extraction Systems</b>	QIAamp® MinElute Virus Spin Kit / RTA Viral NA Isolation Kit from Swabs / Tianlong Generotex 96
<b>Real-Time Instrument</b>	Applied Biosystems™ QuantStudio5 Dx Real-Time PCR System Biorad CFX96 Real-Time PCR System
<b>Storage conditions</b>	Store all components at -15°C / -25°C avoid more than three freeze /Thaw cycles

## Ordering Information

Product Name	DIAGNOVITAL SARS-CoV-2 P681R Mutation Detection Kit
Number Reactions/Kit	50
A1 Life Sciences Catalog Number	090R20050

### A1 Life Sciences Head Office

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