



SARS-CoV-2 K417N Mutation Detection Kit

RUO

Qualitative PCR-based detection of the SARS-CoV-2 K417N Mutation

Product Description

DIAGNOVITAL® SARS-CoV-2 K417N Mutation Detection Kit is a real-time RT-PCR-based test for the identification of the SARS-CoV-2 K417N 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 K417N Mutation Detection Kit** detects the K417N mutation in **extracted SARS-CoV-2 RNA** from nasopharyngeal and oropharyngeal swab samples during infection.

Knowing matters

The K417N mutation is found in different variants including the beta and delta plus variants. The beta variant (South African 501Y.V2, lineage B.1.351) is characterized by three mutations in the SARS-CoV-2 spike protein: K417N (a lysine to asparagine substitution at amino acid position 417 in the S protein), E484K (a glutamic acid to lysine substitution at amino acid position 484 in the S protein) and N501Y (an asparagine to tyrosine substitution at amino acid position 501 in the S protein).

Citation:
Introduction of the South African SARS-CoV-2 variant 501Y.V2 into the UK (J Infect. 2021 Apr; 82(4): e8–e10)

Features

- Single mutation assay
- Identifies spike protein mutation-K417N
- 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 K417N allele
 - **Cy5** for RNase P (HEC)
- Ready to use PCR Master mix, positive and nuclease-free dH₂O 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

Recommended Samples	Isolated RNA from Oropharyngeal and Nasopharyngeal Swabs
Extraction Systems	QIAamp® MinElute Virus Spin Kit / RTA Viral NA Isolation Kit from Swabs / Tianlong Generotex 96
Real-Time Instrument	Applied Biosystems™ QuantStudio5 Dx Real-Time PCR System Biorad CFX96 Real-Time PCR System
Storage conditions	Store all components at -15°C /-25°C Avoid more than 3 freeze /Thaw cycles

Ordering Information

Product Name	DIAGNOVITAL SARS-CoV-2 K417N Mutation Detection Kit
Number Reactions/Kit	50
A1 Life Sciences Catalog Number	090R07050

A1 Life Sciences Head Office

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