



Identification Kit for B.1.617 Lineage (L452R and E484Q) of SARS-CoV-2 (Fluorescence RT-PCR)

For Research Use Only. Not for use in diagnostic procedures.

Product Description

The kit is a qualitative in vitro nucleic acid amplification assay to identify B.1.617 lineage (L452R and E484Q) of SARS-CoV-2 from throat swab, nasopharyngeal swab, sputum and Bronchoalveolar Lavage Fluid (BALF) specimen confirmed positive SARS-CoV-2 by RT-PCR for research purposes. Multiple SARS-CoV-2 variants are circulating globally. Among them, the B.1.617 mutant strain that appeared in India in February 2021 has a higher transmission rate than other strains after research, of which L452R and E484Q are the main mutation sites.

Features

- Bundle with BGI EUA RT-PCR kit for detecting SARS-CoV-2 and B.1.617 lineage mutations
- Allele refractory mutation system (ARMS)-based quantitative PCR
- Identify spike protein mutations: L452R, E484Q
- Human β -actin as an internal control
- One reaction for each specimen in a single run to identify two spike protein mutations
- Stringent QC with positive and blank controls

Benefits

- Highly compatible - Bundled kits require very similar lab settings and procedure
- Highly sensitive – Superior limit of detection for swabs, BALF, or sputum
- Fast TAT – Sample to result in 2.8 hours with automated sample preparation system (1 hour for detecting mutations by RT-PCR)
- High-throughput – Ramp up labs for large-scale, community-based testing
- Ease of use – All-inclusive with pre-mixed reaction reagents
- Easy interpretation – Analysis of each allele with well-defined controls

Specifications

No. of tests per kit	50
Acceptable samples	Oropharyngeal swab, nasopharyngeal swab, sputum and Bronchoalveolar Lavage Fluid (BALF)
Acceptable real-time PCR machines	- Applied Biosystems™ QuantStudio 5 Real-Time PCR System - Roche Lightcycler® 480 Real time PCR System
Acceptable viral RNA extraction kits	- MGIEasy Nucleic Acid Extraction Kit, 96 or 1728 preps - QIAamp Viral RNA Mini Kit, 50 or 250 preps
Automation (optional)	- MGISP-960RS Automated Sample Preparation System - MGISP-100 Automated Preparation System
Reagent stability	Under dark for 9 months at -18°C or below



Key Components

Contents (50 tests/kit)	Volume	Quantity	Description
Reaction Mix	1 mL/vial	1 vial	Reagent with primers and probe for amplification of ORF1ab, internal reference, L452R and E484Q
Enzyme Mix	120 µL/vial	1 vial	Taq DNA polymerase, reverse transcriptase, and UDG
Positive Control	750 µL/vial	1 vial	Mixed solution of recombinant pseudo-viruses with target genes of L452R, E484Q, ORF1ab, and internal reference
Blank Control	750 µL/vial	1 vial	DNase/RNase free water

Global Offices

BGI Americas

One Broadway, 14th Floor
Cambridge, MA 02142,
USA
Tel:+1 617 500-2741

BGI Europe

Ole Maaløes Vej 3,
DK-2200 Copenhagen N,
Denmark
Tel:+45 7026 0806

BGI Asia

16 Dai Fu Street,
Tai Po Industrial Estate,
New Territories, Hong Kong
Tel:+852 36103510

BGI Australia

L6, CBCRC, 300 Herston
Road, Herston, Brisbane,
Queensland 4006, Australia
Tel: +61 (07) 3362 0475

Contact us for more information

Contact your BGI account representative for more information including product pricing.

bgi-discover@bgi.com

<https://www.bgi.com/us/sars-cov-2-variant-detection/>

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