

FUJIFILM Wako Pure Chemical launches

“E484Q mutation detection kit” reagent for detecting a SARS-CoV-2 mutation

- Highly sensitive detection of mutation found in the Indian variant
- Introducing a series of reagents for detecting new mutations to contribute to preventing the spread of COVID-19

TOKYO, May 27, 2021 – FUJIFILM Wako Pure Chemical Corporation (President: Kazuo Shiraki) has announced the launch of the “E484Q mutation detection kit” (the research reagent), capable of detecting mutation of SARS-CoV-2. This research reagent is based on the One-Step RT-qPCR method^{*1} to detect E484Q mutation, found in the Indian variant at a high sensitivity.

*1 DNA amplification response, using RNA as a template, to continuously run reverse transcription and DNA amplification in the same tube.

In the midst of the COVID-19 pandemic, multiple variants of SARS-CoV-2 are emerging one after another, causing concerns about their increased infectiousness and diminished effectiveness of vaccines. FUJIFILM Wako Pure Chemical launched the N501Y mutation detection kit for detecting N501Y mutation, found in the U.K. variant, and the E484K mutation detection kit for detecting E484K mutation, common to South African and Brazilian variants, on March 29 this year. On May 17, the company also released the L452R mutation detection kit for detecting L452R mutation common to the Indian and California variants, in a series of moves to introduce reagents for detecting new variants as they become known.

The new E484Q mutation detection kit is a detection reagent for SARS-CoV-2 mutation, developed using the company’s proprietary design method. This research reagent is capable of detecting E484Q mutation, found in the Indian variant, at a high sensitivity from SARS-CoV-2 positive sample. Furthermore, it can be combined with the existing L452R mutation detection kit, to identify the Indian variant that contains both L452R and E484Q mutations. Its combined use with not only the L452R kit but also the N501Y and E484K mutation detection kits makes it possible to identify ① U.K. variant (N501Y), ② South African/Brazilian variants (N501Y, E484K), ③ Indian/California variants (L452R) and ④ Indian variant (L452R, E484Q).

<Detection of mutated variants (+: Positive, -: Negative)>

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|----------------------------|---|---|---|---|---|---|---|
| SARS-CoV-2 positive sample | ➡ | N501Y mutation detection kit | E484K mutation detection kit | L452R mutation detection kit | E484Q mutation detection kit | ➡ | Result |
| | | + | - | - | - | | UK (N501Y) variant |
| | | + | + | - | - | | South African/Brazilian (N501Y, E484K) variants |
| | | - | - | + | - | | Indian/California (L452R) variants |
| | | - | - | + | + | | Indian (L452R, E484Q) variant |

FUJIFILM Wako Pure Chemical has developed gene detection kit for SARS-CoV-2, and this kit is used in the Japanese government's COVID-19 testing programs. The company will continue to promote research and development to expand and introduce the lineup of mutation detection kits for new variants, contributing to the programs for identifying the current status and ending the spread of COVID-19.

Under the mission of "with commitment to the future of science, our company is dedicated to create the source of happiness for all people," FUJIFILM Wako Pure Chemical will continue to contribute to the progress of wide range of industrial fields such as healthcare and academic research, by developing and supplying high quality products to meet the needs of customers and society.

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