

Denka Starts Selling Research Reagent That Detects Mutation Sites in COVID-19 Virus on June 16, 2021

- The reagent simultaneously detects 10 types of mutation sites in the COVID-19 variants and contributes to epidemiological research –

Denka Company Limited (headquarters: Chuo-ku, Tokyo; president: Toshio Imai; hereinafter, “Denka”) started to market the IntelliPlex™ SARS-CoV-2 Variant Analysis Kit, a detection research reagent used for a system that simultaneously detects different mutations in the COVID-19 virus, on June 16, 2021 with a focus on sales to institutions conducting assays. Denka has been implementing a verification trial of the system jointly with the Faculty of Medicine of Toho University. Denka is carefully assessing the impact of the matter on consolidated results for the fiscal year ending March 31, 2022 and will make announcements promptly in the occurrence of any matters that should be disclosed.

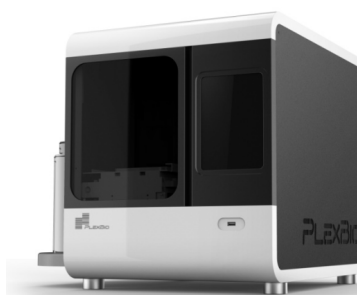
The reagent has been developed by Denka jointly with PlexBio Co., Ltd. (headquarters: Taipei, Taiwan; CEO: Dr. Dean Tsao; hereinafter “PlexBio”), a business partner of which Denka owns a 33.4% equity stake. It is used in combination with a dedicated reaction device and detection device, both are RUO (Research Use Only) devices that have already been released by PlexBio. By using PlexBio’s π code method¹, which features high sensitivity and an unparalleled multiple-assay capability, it enables the detection of the alpha, beta and gamma variant of the SARS-CoV-2 which are of critical importance in the fight against COVID-19, via the identification of 10 mutation sites of the COVID-19 virus simultaneously in a streamlined assay process. As the π code method¹ can theoretically detect more than 100 mutation sites in 1 single reaction, Denka will continue to upgrade the IntelliPlex™ SARS-CoV-2 Variant Analysis reagents with PlexBio to expand its coverage to detect new variant of concerns once being found or spread.

Denka considers measures against COVID-19 to be part of its social responsibility. With this in mind, Denka is pursuing initiatives to contribute to measures against COVID-19 in a wide range of fields from cooperation and support to government agencies, public institutions, to cooperation with domestic and overseas research institutions. While fully utilizing high sensitivity and multiple-plex capability feature of the π code method, Denka is committed to improve quality of life through efforts to advance epidemiological research and will seek to create a company that is genuinely needed and indispensable to society.

<System that simultaneously detects different types of mutant genes (sites) in the COVID-19 virus>



<Research reagent for detection>



<Reaction device><Detection device>

(*¹) π code method

The π code method, which was developed by PlexBio, uses a magnetic micro disc, the surface of which is engraved with image patterns for its identification. With a probe fixed to the disc to catch DNA target (or antigen fixed on the surface of the disc to catch antibodies, or vice versa), the technology enables the identification of the target in a specimen or substance to be inspected. With different π code for different targets, plus the fluorescence method-based measurement technology, IntelliPlex™ system make simultaneous identification of multiple targets with a high degree of sensitivity streamline and easy. With the conventional fluorescence method, a substance to be inspected can be recognized to a high degree of sensitivity by measuring the level of fluorescence of marks attached to the substance being inspected. This widely used technology, however, is incapable of measuring multiple items simultaneously, in principle.

(*²) 10 types of characteristic mutation sites in the COVID-19 virus. L452R, Y453F, E484K, E484Q, N501Y, D614G, P681H, K417N, K417T, del69/70

- IntelliPlex is a registered trademark of PlexBio Co., Ltd.
- For more details of PlexBio, the IntelliPlex™ system and π code technology, please visit PlexBio's corporate website (<http://www.plexbio.com>).

About Denka

Denka is a chemical manufacturer headquartered in Chuo-ku, Tokyo. The company specializes in developing business activities on a global scale across a wide range of fields, from inorganic and organic chemicals, to electronic materials and pharmaceuticals. Founded in 1915, Denka has steadily continued to develop and manufacture products that contribute to the development of society by fully utilizing its unique concepts and technological capabilities. Upholding its corporate slogan, "Possibility of chemistry" the company and its president, Toshio Imai, are committed to contributing to the sound development of the society while sincerely tackling the challenges that the society is now confronting. For more information, please visit: <https://www.denka.co.jp/eng/>

*Reference

- "Denka Develops COVID-19 Variants Detection System ~The system detects multiple variants with one type of reagent, streamlining assay processes and expediting detection~" April 19, 2021
https://www.denka.co.jp/eng/storage/news/pdf/346/20210419_denka_covid19_pb_en.pdf
- "Denka to Step up Business Alliance with Taiwan-Based PlexBio through the Acquisition of Shares Offered via Third-Party Allotment" July 30, 2019
https://www.denka.co.jp/eng/storage/news/pdf/240/20190730_pb_e.pdf

[For Inquiries about This Press Release]
Corporate Communications Dept. Tel: +81-3-5290-5511