

Business partnership to provide stable measurements of circulating tumor DNA (ctDNA)

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Quantdetect, Inc. was launched on April 1, 2021 with the intention of “implementing the research product” developed through the technologies and clinical experience of Iwate Medical University Institute for Biomedical Sciences. The introduction of its ready-to use OTS (Off-The-Shelf)-Probes represents our desire to offer a timely test for prompt performance of PCR tests without prior need to optimize conditions.

The OTS-Probes developed by Quantdetect, Inc. are digital PCR (dPCR) primer/probe sets that enable the use of blood samples for routine detection of mutations in individual cancer tissues and determination of the tumor burden in cancer patients. With this technology, Quantdetect, Inc. offers a new assay in genomic testing for post-treatment cancer patient surveillance, OTS-Assay. In principle, the OTS-Assay provides tumor burden evaluations with a sensitivity never achieved before.

Quantdetect, Inc. has now opted to form a business alliance with Nihon Gene Research Laboratories, Inc. in order to construct a collection of primer probes, the OTS-Probes, based on Hypercool Primer & Probe™ technology developed by Nihon Gene Research Laboratories, Inc. This dPCR protocol generates a short-fragment product approximately 70 bp in length by the Hypercool Primer & Probe™ technology. One of the key goals of the OTS-Probes is to improve the ability to detect circulating tumor DNA (ctDNA) in blood samples.

The detection of ctDNA requires the use of dPCR due to the low blood concentration of ctDNA. However, the measurement of ctDNA has been challenging because of the limited numbers of commercially available dPCR primers and probes relative to the numbers of mutations found in cancer. As target mutations for OTS-Probes, Quantdetect, Inc. has selected more than 1,000 types of genetic mutations that are statistically expected to be frequently detected in human cancers. Hence, the use of OTS-Probes can significantly reduce the time required for selection, design, and synthesis of primers and probes. Quantdetect, Inc. will also offer primer probes for new mutations that are not in our current list, with rigorous validation before delivery of the reagents to the customer.

With this new alliance, Quantdetect will continue to provide vital information for cancer treatment by combining our clinical experience and OTS-Probes with the Hypercool Primer & Probe™ technology of Nihon Gene Research Laboratories, Inc.



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