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Korea's GCCL leverages ddPCR to enhance cell, gene therapy clinical trial services

May 22, 2024 | News

To differentiate global lab services for cell and gene therapy clinical trials with cutting-edge technology



Global Clinical Central Lab (GCCL), a Korean clinical trial sample analysis company, has introduced Droplet Digital PCR devices (ddPCR) for the first time in the domestic clinical trial sample analysis industry, enhancing its capabilities in analysing samples for cell and gene therapy clinical trials.

Currently, real-time PCR analysis is widespread in the field of clinical trial sample analysis for cell and gene therapy. However, the existing analysis methods have limitations such as relying on calibration reference standard samples for relative quantification, low analysis efficiency due to manual labor, and the necessity of separate analyses.

GCCL solves the existing problems by implementing automated ddPCR-based analysis. The newly introduced ddPCR device from Bio-Rad's QX ONE Droplet Digital PCR, utilises a different operating principle than conventional real-time PCR, enabling absolute quantitative analysis without the need for calibration standards. Moreover, stable PCR reactions allow detection in low-concentration samples and the automated devices have a very low rate of human error that could occur with manual labour.

Notably, GCCL is a leader in its field as it has the first clinical trial sample analysis experience for CAR-T therapy in Korea. Based on this, GCCL plans to provide ddPCR-based clinical trial sample analysis services through its newly established R&D unit.

GCCL's Director of Operations for the Lab Operations division, Hee Joo Lee, mentioned, "The first implementation of the automated ddPCR device in the clinical trial sample analysis field will enable faster and more accurate results to help advance the success of cell and gene therapy drug development."