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Recent Applications by Fluidigm's Microfluidics

Stem cell gene expression profiling, copy number variation (CNV) analysis, and sample quantification for next generation sequencing using a novel, ultrasensitive and highly versatile microfluidic platform

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(President and CEO, Fluidigm Corporation)

Fluidigm has introduced a new single-cell gene expression technique that, when used with the BioMark™ Real-Time PCR System, produces inexpensive, reproducible, gene expression results from single-cell samples.

The single-cell gene expression technique can be used with either the BioMark™ 48.48 Dynamic Array or the 96.96 Dynamic Array to examine up to 96 genes per individual cell and 96 cells at a time.

The method is ideally suited for high-throughput cell-line studies to determine individual cell behavior in what has been believed to be homogeneous populations.

The method is also well suited to determine single gene cell expression levels in circulating tumor cells (CTCs) and to differentiate stem cells.

The BioMark™ 12.765 Digital Array enables a new level of sensitivity and precision in detecting copy number variations.

One of the challenges of utilizing next generation sequencers is properly quantifying the sample concentration to get the optimal single strand to bead ratio or cluster concentration prior to emulsion PCR or bridge PCR. The BioMark™ 12.765 Digital Array enables the ability to accurately quantify samples to insure maximum data quality utilizing as little as 1pg of starting material.

Discover how the BioMark™ system can help you to efficiently sort through the multitude of possibilities and find the right answers.

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