



Fluidigm

C₁TM Single-Cell Auto Prep System



EVERY CELL IS UNIQUE

The C₁[™] Single-Cell Auto Prep System— *DEFY THE LAW OF AVERAGES*

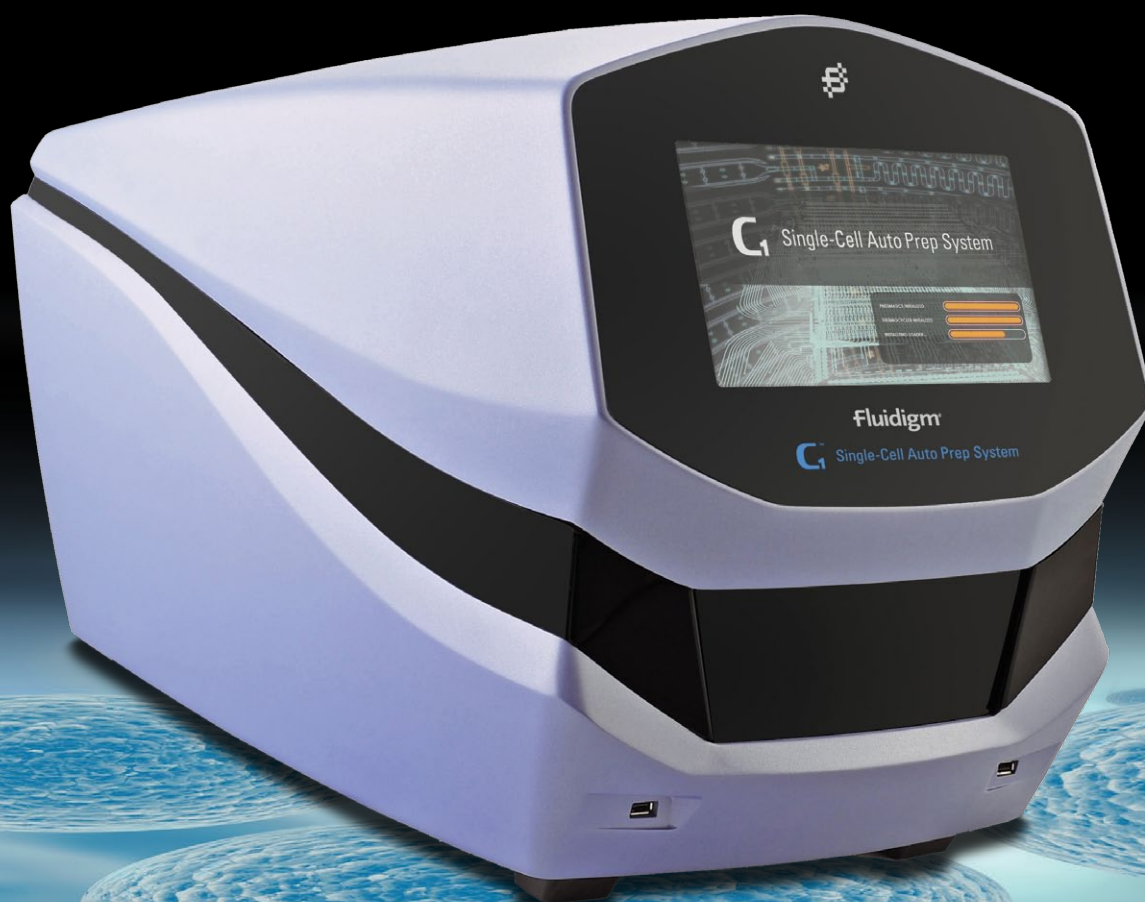
- **Single-cell precision**—greater accuracy to measure differences in gene expression profiles
- **Easy to use**—simplified cell isolation and preparation with a streamlined workflow and intuitive interface
- **Fast**—cell input-to-data in less than a day
- **All in one**—comprehensive, automated workflow generates reproducible and reliable results
- **Flexible**—expandable into whole transcriptome and variant discovery

Individual cells vary as much as the researchers who study them. Traditional methods of extraction, isolation

by pipette, and processing cells are laborious, time-consuming, and prone to introducing errors. In addition, averaging cell pools masks many important functions within a single cell. Geneticists and clinical researchers have been looking for a complete workflow that can examine and differentiate individual cells and group them according to unique genomes and transcriptomes while minimizing technical noise.

The C₁ Single-Cell Auto Prep System takes an entirely new approach, based on Fluidigm innovative microfluidic technology that enables you to rapidly and reliably isolate, process, and profile individual cells for genomic analysis. For the first time, you can extract, reverse transcribe, preamplify, and ultimately detect and analyze cell activity using just one technology, reducing the variability caused by multi-platform technical errors.

The C₁ Single-Cell Auto Prep System enables you to study cell differentiation, measuring individual cell responses to specific stimuli, verify critical disease biomarkers, validate RNAi knockdown, and conduct candidate drug screens.



COMPONENTS OF THE C₁ SINGLE-CELL AUTO PREP SYSTEM

The C₁ Single-Cell Auto Prep System is the world's first commercially available, automated single-cell isolation and preparation system for genomic analysis. The C₁ System provides an easy and highly reproducible gene expression workflow to process 96 single cells across 96 mRNA targets. In this format, our single-cell workflow enables you to measure the expression of hundreds of genes in just a few hours compared to experiments that would normally take days using traditional systems. With this new system you can rapidly explore unique attributes of individual cells without the technical variability of a standard gene expression workflow.

The C₁ Single-Cell Auto Prep System consists of the following:

- **C₁ Single-Cell Auto Prep System**—breakthrough, bench-top automation of isolation, lysis, and preamplification of single cells
- **C₁ Single-Cell Auto Prep Array IFC**—proprietary integrated fluidics circuit that facilitates capture and highly paralleled preparation of 96 individual cells
- **C₁ Single-Cell Auto Prep Reagent Kit**—a ready-to-use reagent kit to support cell suspension, lysis, and purification

UP TO 96 SINGLE CELLS IN JUST ONE HOUR

The new C₁ Single-Cell Auto Prep System provides a simple “plug and play” workflow to reproducibly prepare 96 individual cells in approximately 1 hour of hands-on time. The simple user interface and comprehensive C₁ System workflow helps you to:

- **Capture cells**—load batches of cells in a single pipetting step and rapidly separate into 96 individual chambers for preparation
- **Verify**—use an “in-process” quality control checkpoint to verify the number of captured cells and distinguish live and dead cells to preserve data integrity
- **Lyse**—use a rapid direct cell lysis method to save time and cost without RNA purification
- **Reverse transcribe and preamplify**—cDNA synthesis and specific target amplification occur on the same RT sample without reagent mixing and sample transfer
- **Harvest**—all preamplified products are pooled, harvested, and transferred to the BioMark™ HD System for quantitative PCR analysis

The C₁ Single-Cell Auto Prep System coupled with the BioMark HD System streamlines gene expression analysis through seamless effort and significant time savings with support for up to 96 individual cells across 96 transcripts. With automation and minimal costs the C₁ Single-Cell Auto Prep System dramatically increases productivity to further accelerate expression profiling studies. With an optimized protocol, pre-formulated reagent kit, and disposable arrays, you can achieve single-cell accuracy with “load and go” productivity.



Your cells and your research are anything but average. Learn how the C₁ Single-Cell Auto Prep System can put your gene expression work above the curve at fluidigm.com/c1system





fluidigm.com/c1system

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