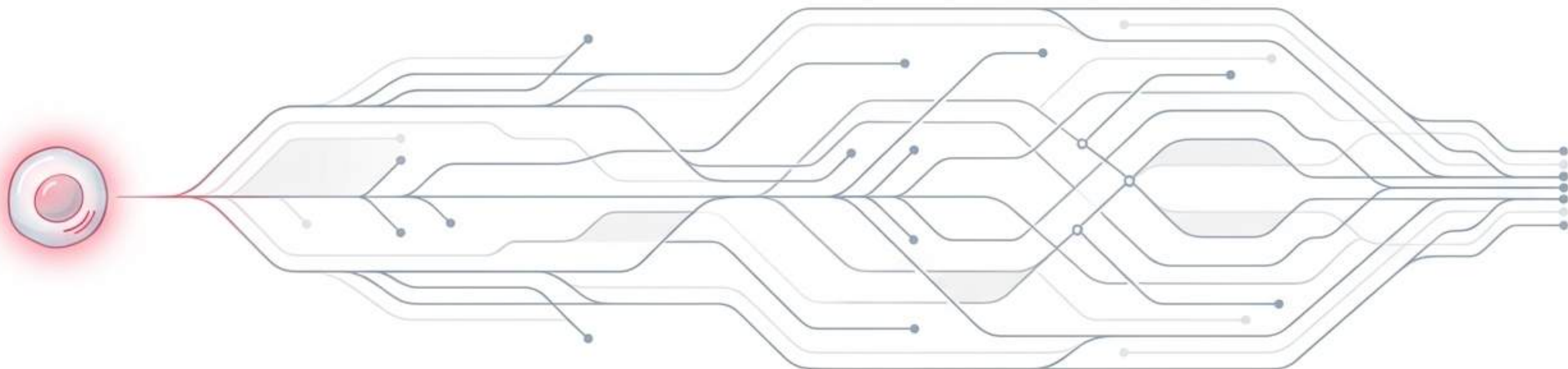


The Quest for the Perfect Clone: A Story of Certainty and Speed

Introducing the DispenCell S4 Single-Cell Dispenser

One click, one cell.

Your Entire Project Depends on Isolating a Single, Viable Cell



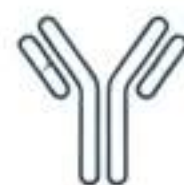
Cell Line Development:

Ensuring a consistent supply and quality of therapeutic proteins.



CRISPR Gene Editing:

Validating that edits originate from a single, correctly modified cell.



Monoclonal Antibody Screening: Guaranteeing that a promising antibody is derived from a single B-cell.



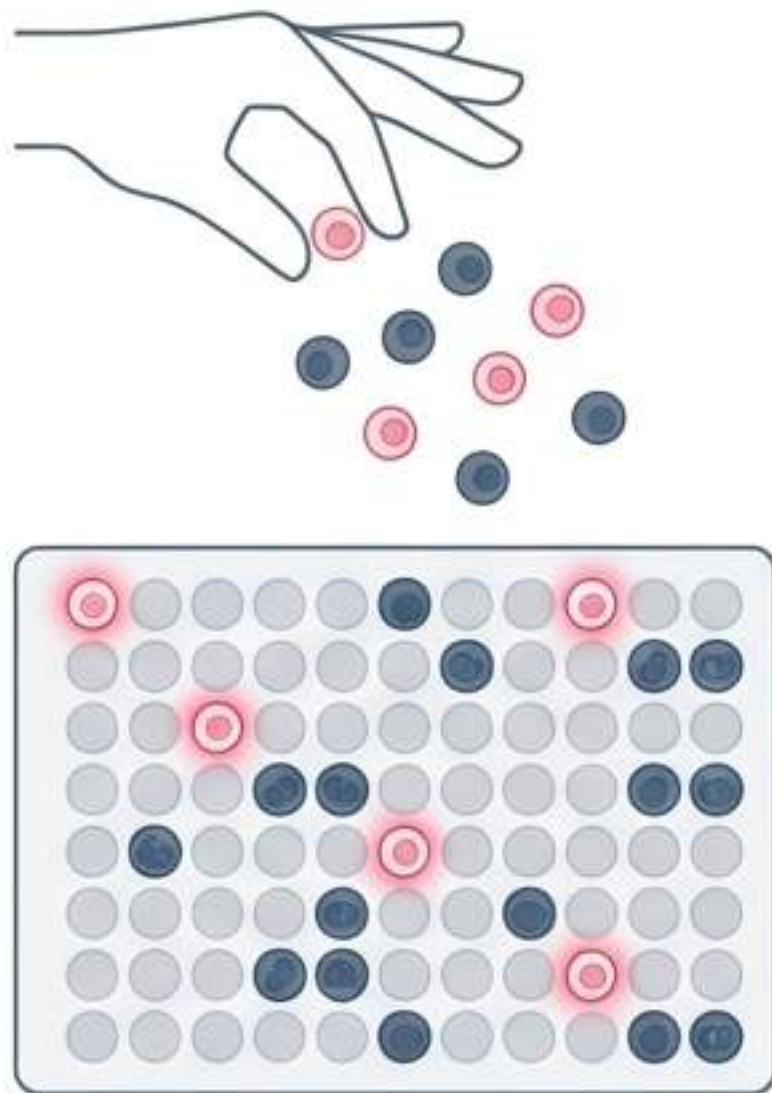
Rare Cell Isolation:

Preserving precious samples from biopsies or sorted populations.

Single-cell isolation is not a routine task; it's the pivotal starting point. The integrity of your clonal cell line underpins the success of your entire workflow, from discovery to IND filing.

The Old Way: Limiting Dilution Relies on Probability, Not Proof

A Game of Chance



Highly Inefficient:
Based on Poisson's Law, a 0.3 cells/well dilution results in **74% empty wells** and only 22% of wells containing a single cell.

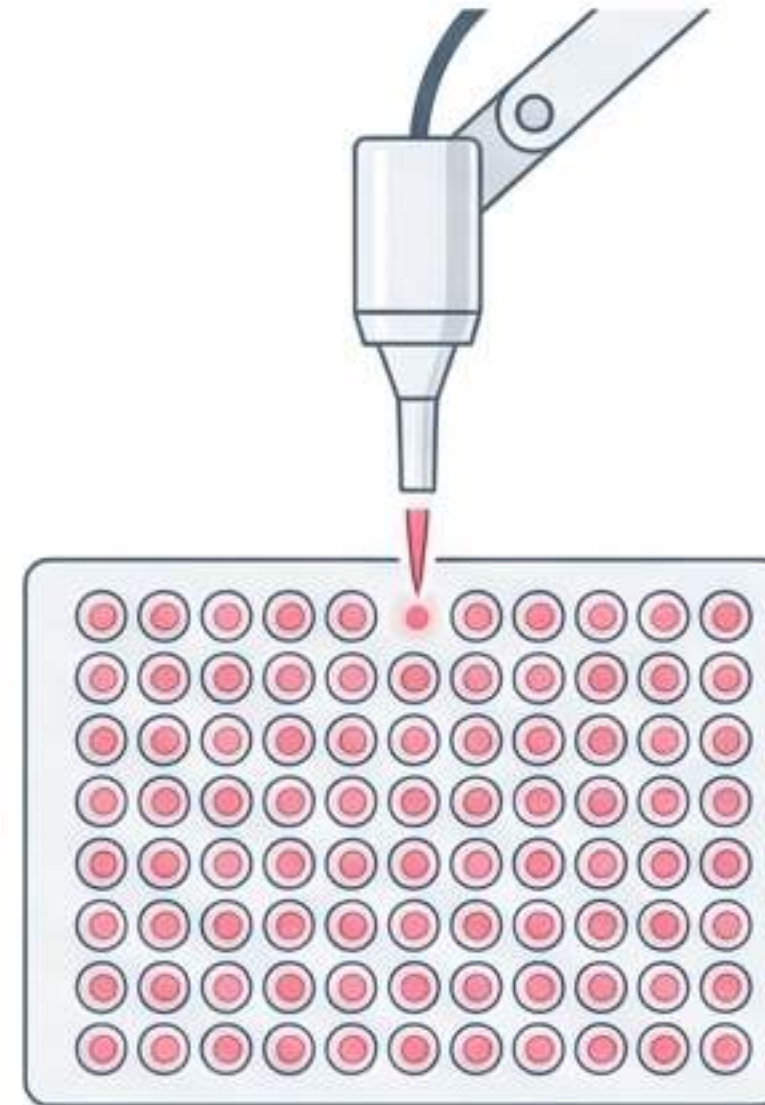


Extremely Time-Consuming:
Requires **weeks** of culture before clonality can be visually assessed, often followed by sub-cloning.



No Immediate Proof:
Lacks any traceable, instantaneous record of monoclonality at the moment of seeding.

A Process of Certainty



The goal is unambiguous proof and 100% efficiency, eliminating wasted time, resources, and doubt.

The reference method is fundamentally inefficient, wasting time, resources, and leaving clonality in doubt.

The Solution: DispenCell S4 Delivers Gentle, Fast, and Traceable Single-Cell Isolation



The DispenCell S4 is a bench-top single cell dispenser engineered to provide unambiguous proof of monoclonality in a single experimental round, accelerating your entire workflow.



Gentle: Ultra-low pressure (<0.2 PSI) preserves cell viability and integrity for maximum outgrowth.



Fast: Dispense a complete 96-well plate in under 4 minutes, transforming a weeks-long process into minutes.

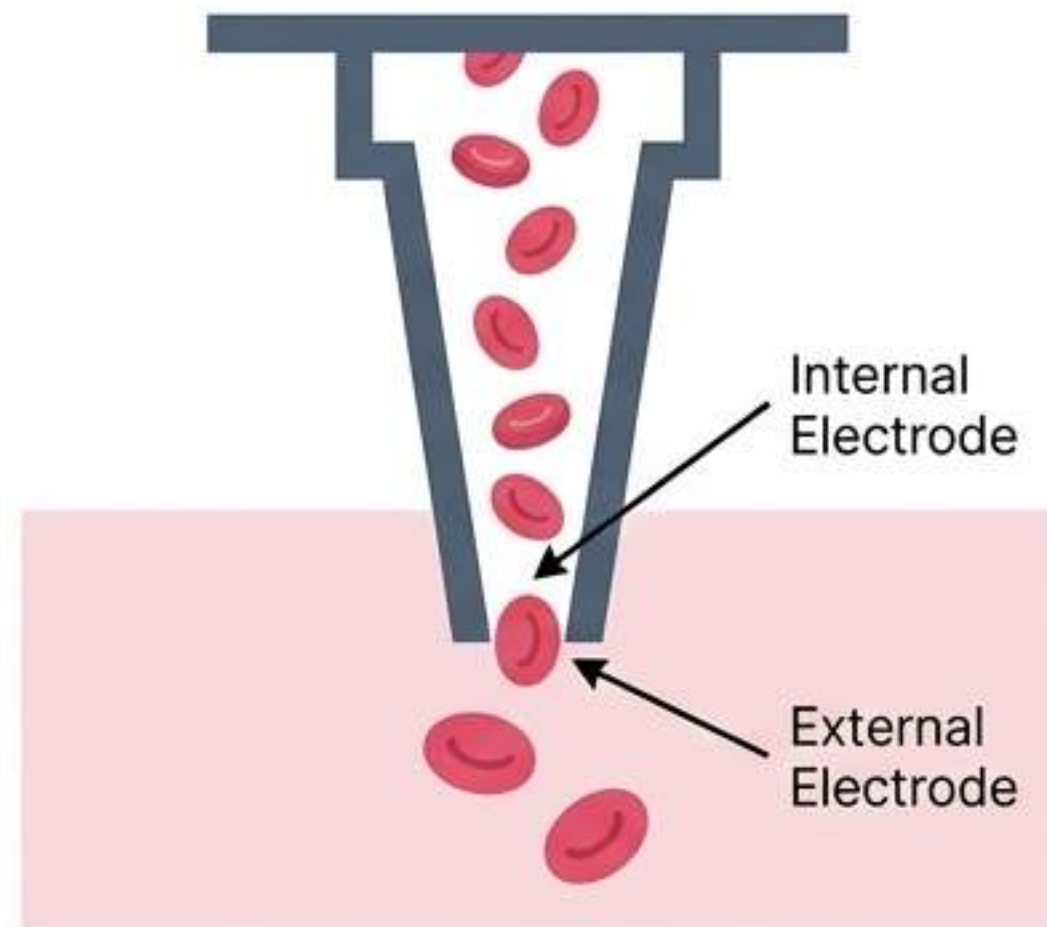


Traceable: Every cell dispense is recorded with an impedance signature, providing an instant, electronic proof of clonality.



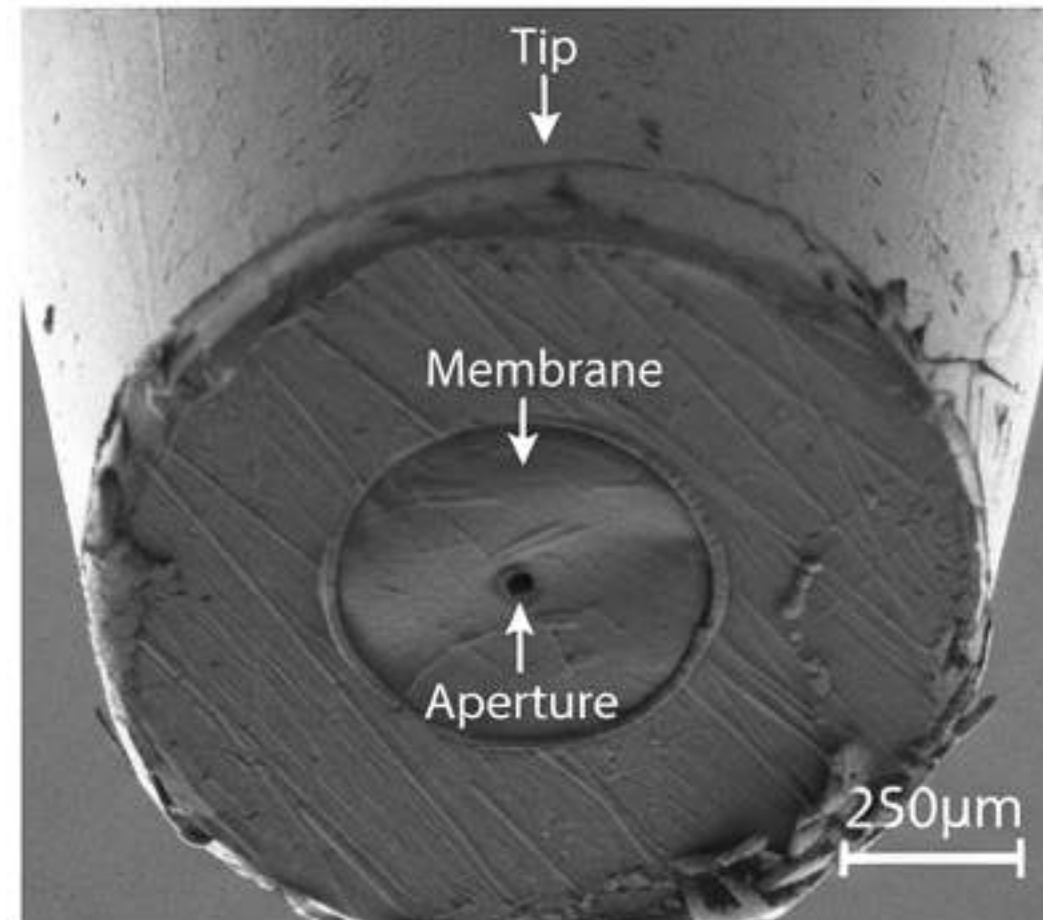
GMP-Ready: Designed with automation and robustness for seamless integration into highly regulated industrial workflows.

Our Technology Provides Gentle, Label-Free Proof of Monoclonality



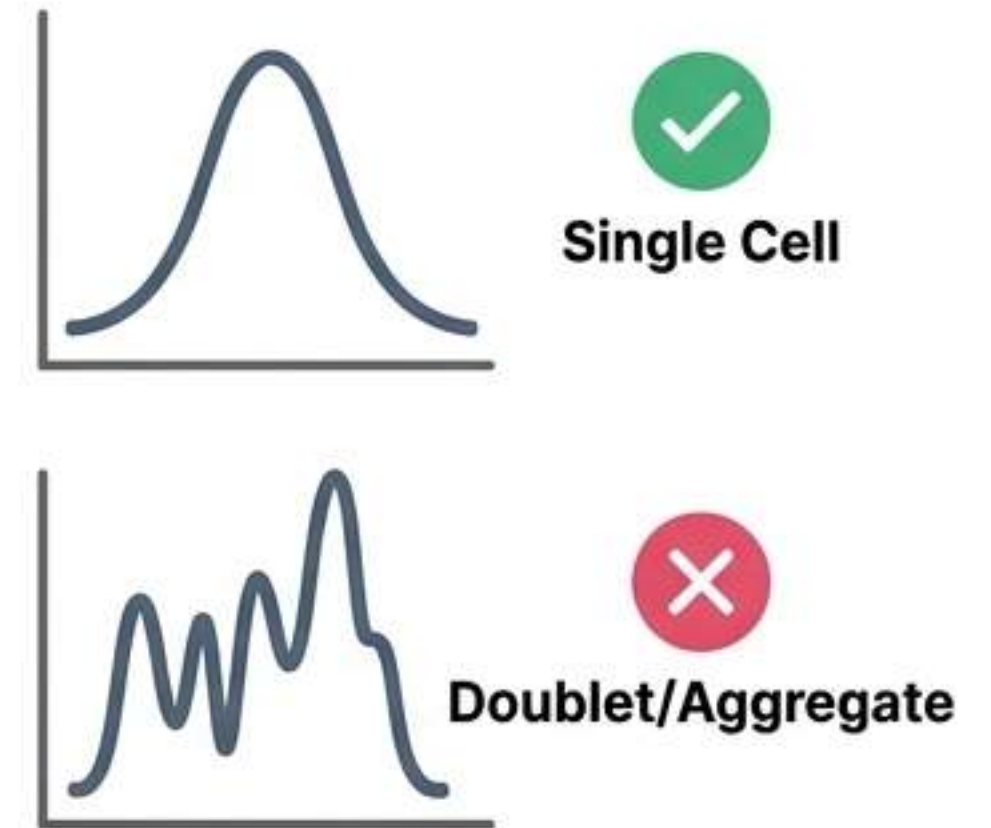
DispenTip Sensing Principle

The DispenCell S4 uses a sterile, disposable sensing tip that acts as a micro-scale Coulter counter.



Actual DispenTip Aperture (SEM)

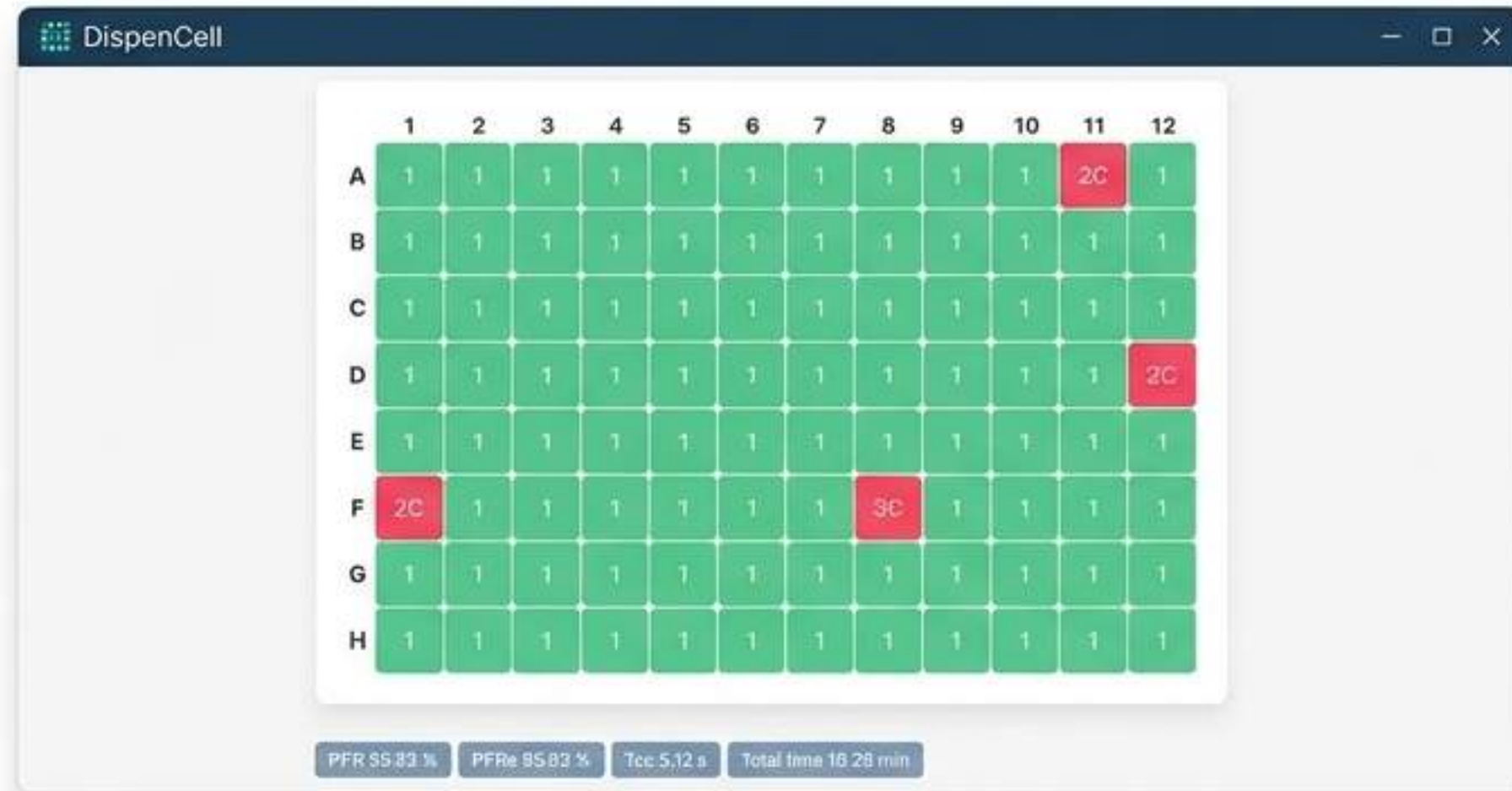
As a single cell passes through the aperture, it creates a unique, measurable change in electrical impedance—its electrical signature.



Electrical Signature Analysis

This process is label-free and uses ultra-low pressure (<15 mbar / 0.2 psi), ensuring maximum cell viability and outgrowth.

Monoclonality Is Validated Instantly with a GMP-Compliant Electronic Report



Immediate Results: Go from dispensing to a full monoclonality report in minutes.



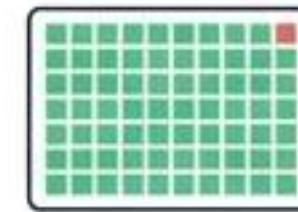
Eliminate Uncertainty: The software automatically flags wells containing doublets, aggregates, or no cells, so you only focus on viable clones.



Traceable & Compliant: Every dispense is recorded, creating a permanent, auditable electronic record for your batch files, perfect for IND submissions.

DispenCell S4

5-minute Automated Clonality Report



TIME SAVINGS

Limiting Dilution

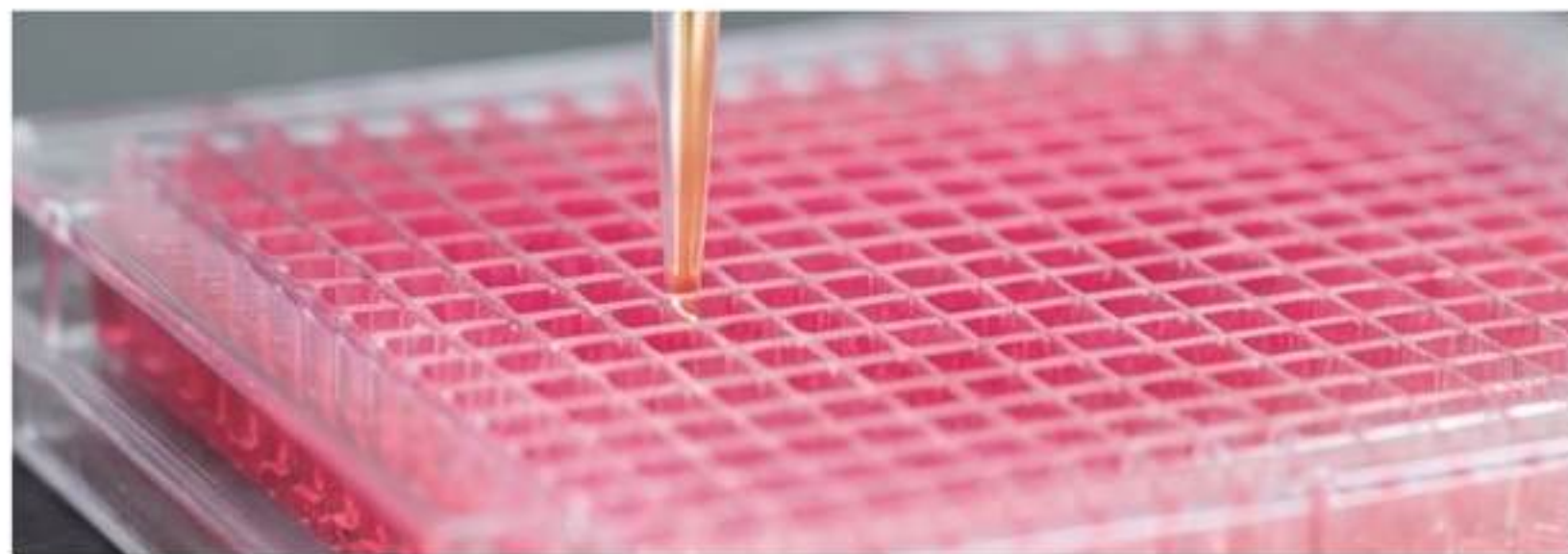
14-day Manual Clonality Check



The Decisive Advantage: DispenCell S4 Outperforms Limiting Dilution on Every Metric

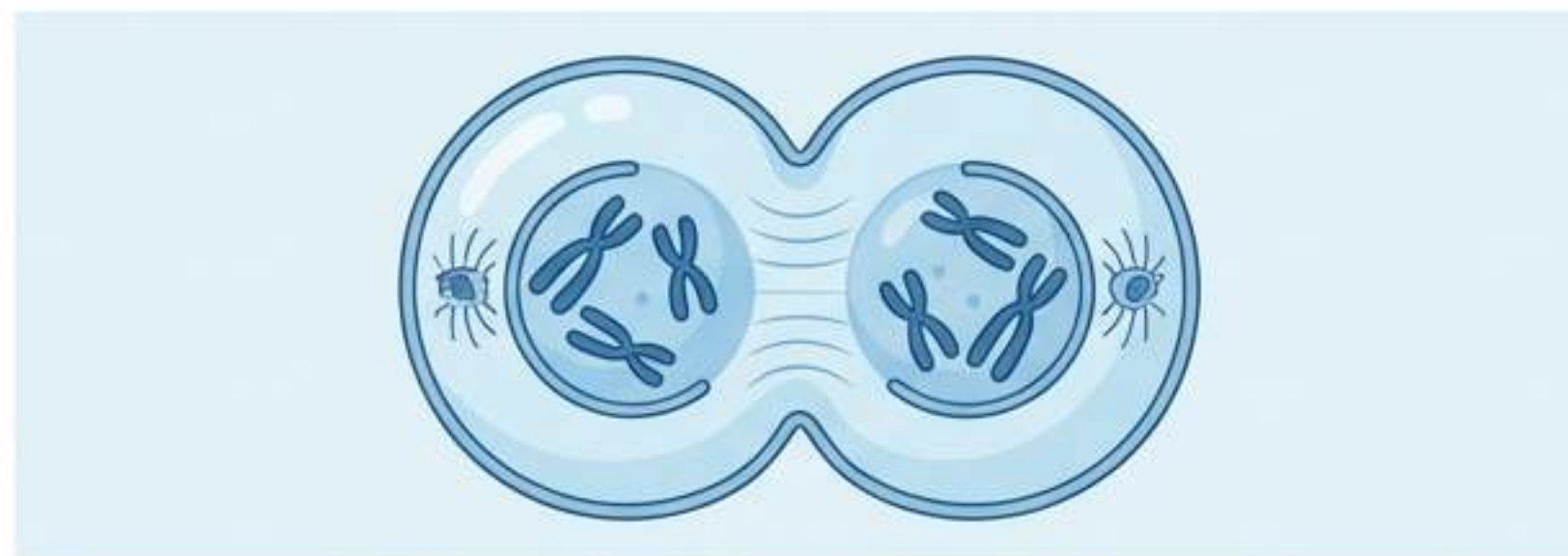
Metric	DispenCell S4	Limiting Dilution
Time to Results	20 Minutes (for 400 clones)	14 Days (for culture & validation)
Monoclonal Efficiency	>95% of wells are monoclonal	~22% of wells are monoclonal
Immediate Proof of Monoclonality	Yes (Instant electronic report)	No (Requires visual confirmation)
Yield	5x more growing colonies per plate	Low yield, multiple plates needed
Hands-on Time	Minimal (automated workflow)	High (serial dilutions, media changes)

One Asset, Multiple Uses: A Versatile Platform for Your Critical Workflows



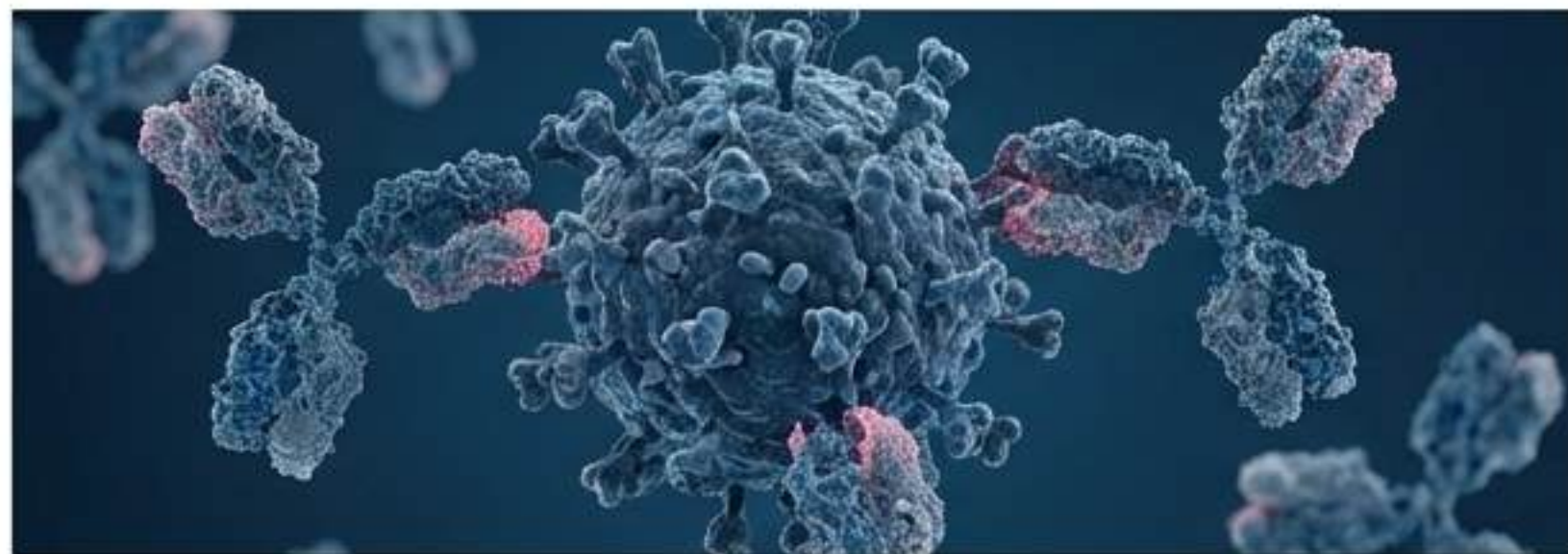
Cell Line Development

Isolate high-producing clones with confidence and speed.



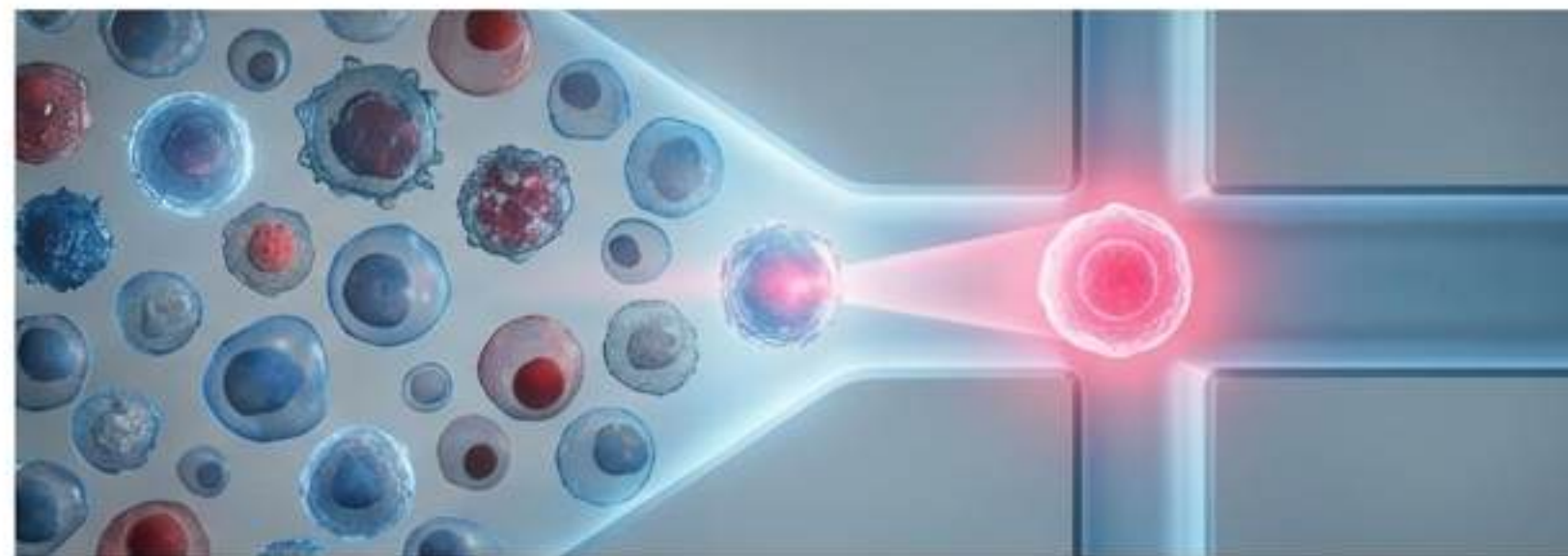
CRISPR-Mediated Gene Editing

Ensure your edited cell lines originate from a single progenitor.



Monoclonal Antibody Screening

Isolate and screen individual antibody-producing cells efficiently.



Rare & Sensitive Cell Isolation

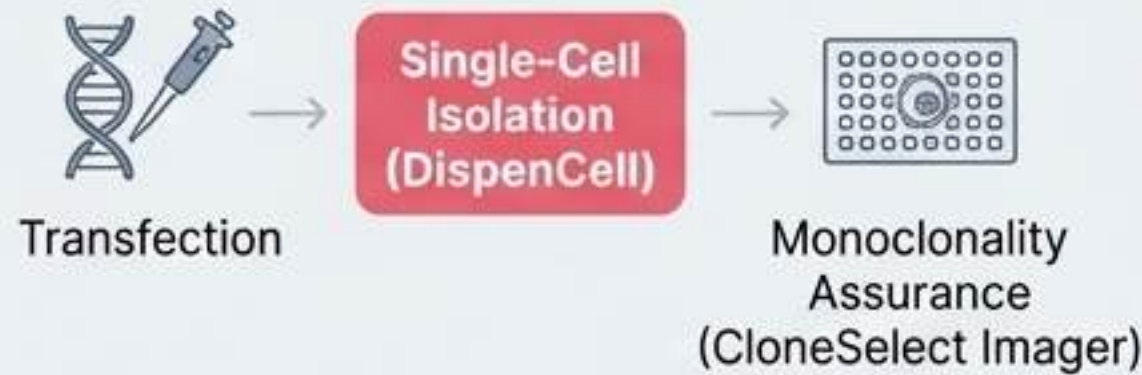
Gently dispense cells post-FACS or from precious samples with minimal loss. Ideal for Single Cell Sequencing and Nuclei Dispensing.

Designed for Seamless Integration into Your Validated Workflow

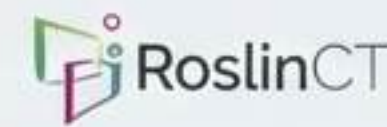
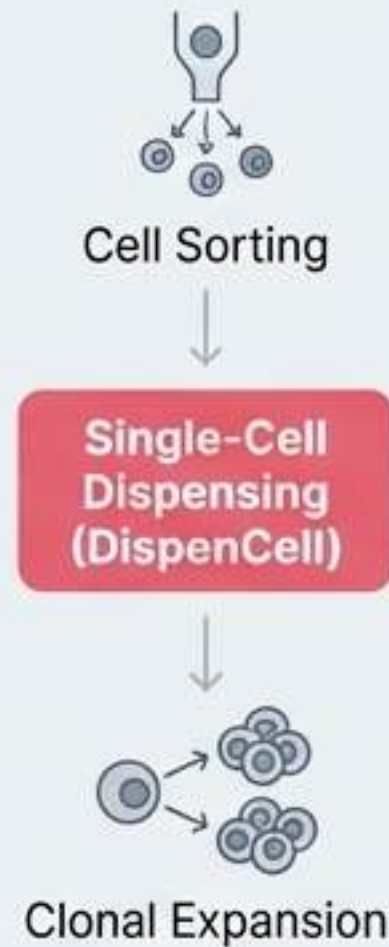
DispenCell S4 is not a standalone island; it's a key step in a complete, end-to-end solution for cell line development and beyond.



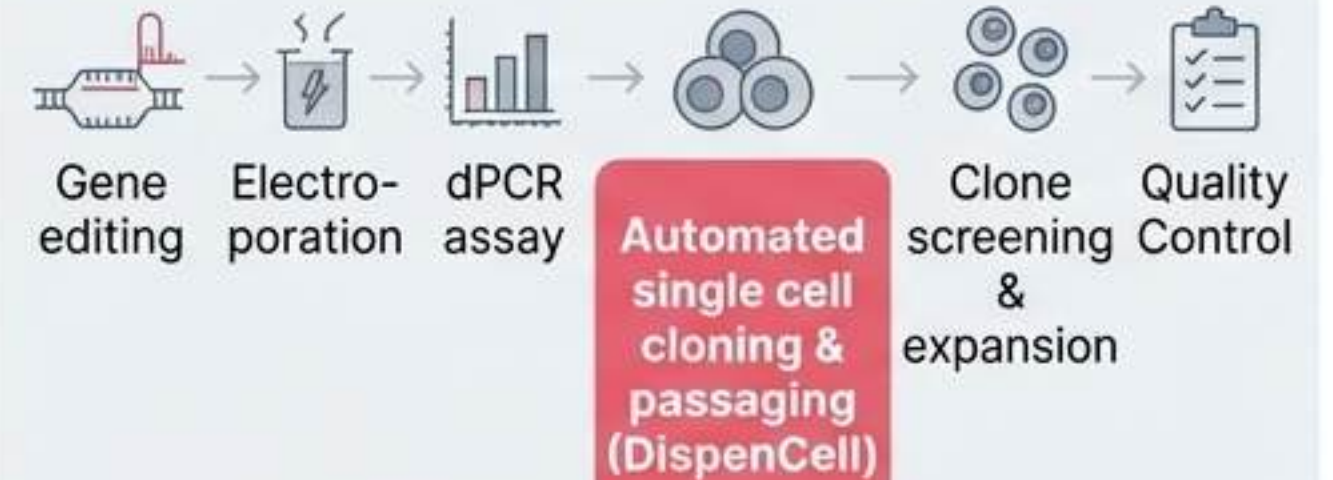
Example 1: Cell Line Development



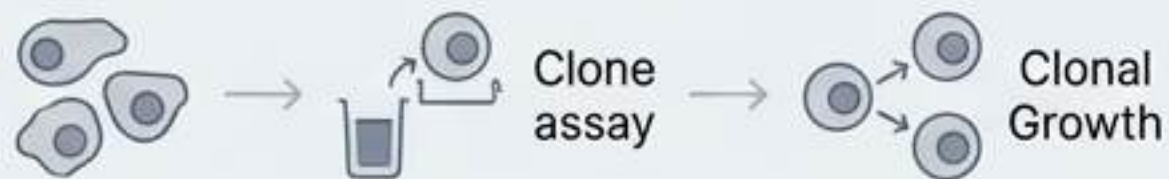
Example 2: Rare Cell Sorting



Example 3: Gene Editing Workflow



Example 3: Gene Editing Workflow



Ultra-Gentle Dispensing Preserves the Viability of Your Most Precious Cells

The ultra-low pressure system (<0.2 PSI) is comparable to manual pipetting, ensuring high cell integrity and optimal outgrowth.

Outperforms Flow Sorting in Survival and Proliferation

Mosa Meat (Cultured Meat)

For our purpose the DispenCell offers an attractive benchtop...solution...[it] outperformed the flow machine in regarding survival and proliferation, indicating that the dispensing is gentler to the cells.

Preserves T-Cell Functionality

Ben Khelil et al. (T-Cell Cloning)

DispenCell...cloning approach do not alter specific CD8+ T cell clones functionality...provides gentle efficient isolation of living single CD8+ T clones.

Minimal Cell Loss with Rare Samples

EPFL FCCF (Rare Cell Isolation)

Impedance-based dispensing DispenCell is able to plate single cells from different kind of samples with minimal cell loss.



Trusted by Leading Innovators in Cell Therapy, Biopharma, and Academia



The DispenCell S4 Advantage: Speed, Certainty, and Efficiency for Your Lab



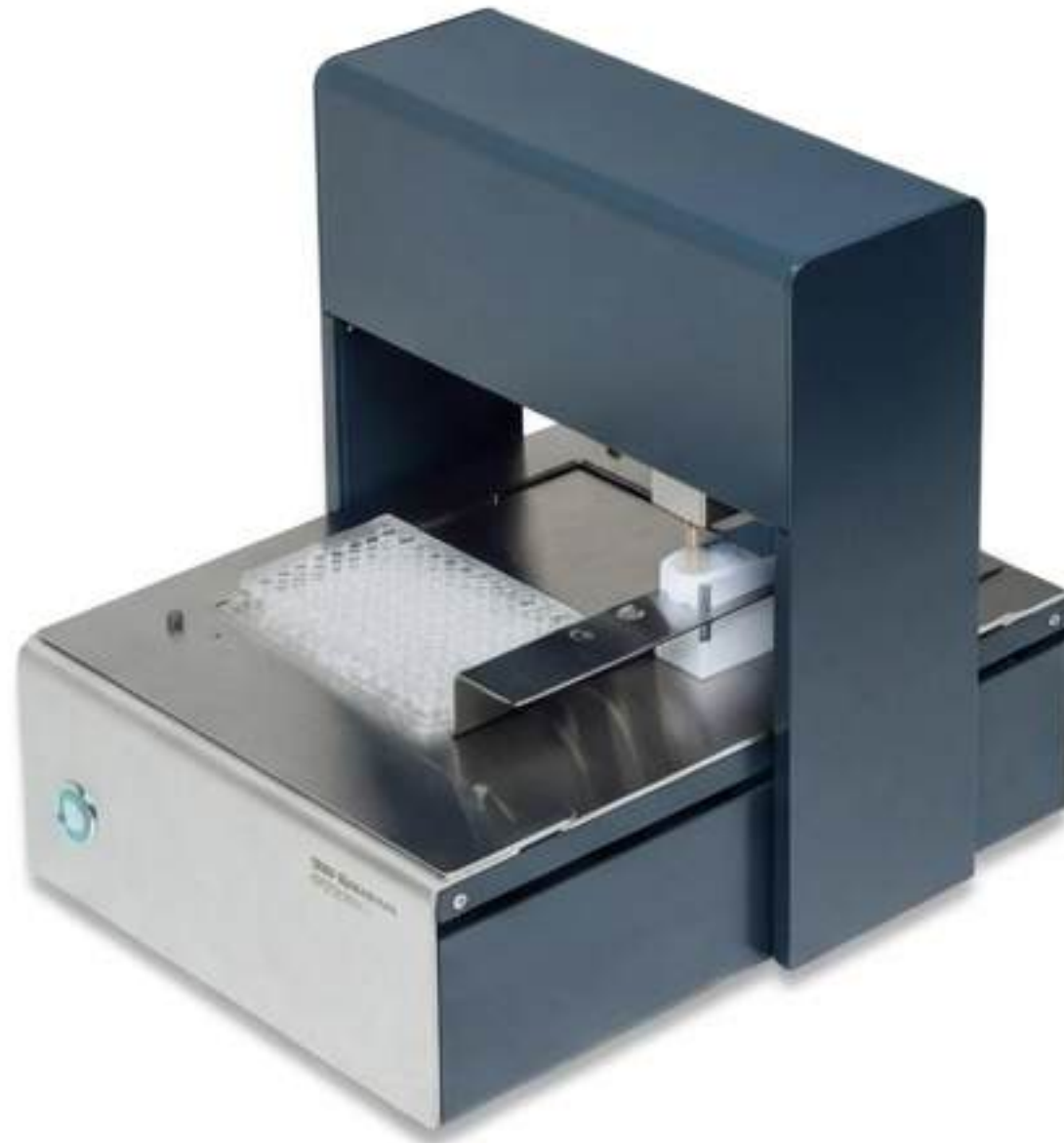
CERTAINTY IN A SINGLE STEP

Achieve 98.4% Probability of Clonality and get an instant, GMP-compliant electronic report, eliminating weeks of validation.



PRESERVE EVERY CELL

Maximize viability and outgrowth with an ultra-gentle (<math><0.2\text{ PSI}</math>), label-free dispensing technology, crucial for sensitive and rare cells.



ACCELERATE YOUR TIMELINE

Go from cell sample to confirmed monoclonal wells in under 30 minutes, not weeks. Save up to €150,000 over 5 years compared to Limiting Dilution.



SIMPLIFY YOUR WORKFLOW

Benefit from a compact, easy-to-use system with an automated, software-guided process that seamlessly integrates into your lab.

Achieve Certainty in Your Single-Cell Workflow.

SEED • Biosciences

SEED Biosciences is a Swiss award-winning company providing innovative solutions for your single-cell assays.



SWITZERLAND

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