

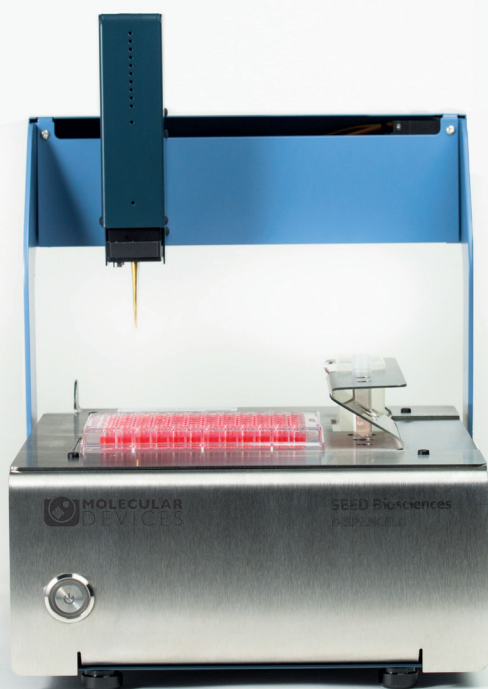


# DispenCell™ Single-Cell Dispenser

Immediate and traceable proof of clonality

Empowers scientists to isolate single cells  
more efficiently and reliably.

Fast, easy, and gentle  
single-cell isolation



## DispenCell

### A simple single-cell dispenser

DispenCell™ is an automated laboratory instrument developed for fast, easy and gentle single-cell isolation. Designed by scientists for scientists, DispenCell has been designed to integrate seamlessly into your lab routine, with a plug-and-play approach.

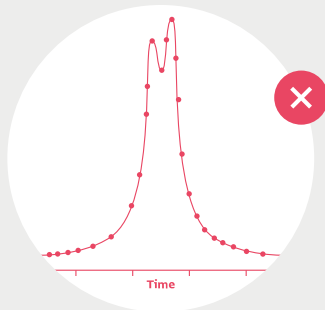
# Traceability

## Single-cell mapping

Single-cell analysis software provides a map for immediate and traceable proof of clonality.

DispenCell's single-cell dispensing unit is fitted with a sensing tip that detects the passage of the cells.

As each cell advances, a unique electrical signal is triggered. This unique electrical trace is immediately recorded, allowing the user to check for proof of clonality immediately after the cells are dispensed. The full set of data is stored in a proof of clonality report. DispenCell's technology is patented.



SEED • Biosciences

Plate N° 02  
96 wells

Results Data

	1	2	3	4	5	6	7	8	9	10
A	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓
B	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓
C	✓	✗	✗	✗	✗	✓	✓	✓	✓	✓
D	✓	✓	✓	✓	✓	✗	✓	✗	✓	✓
E	✓	✗	✓	✓	✓	✗	✓	✗	✓	✗
F	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
G	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗
H	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗

✓ Single cell   ✗ Discarded well



## DispensCell is fitted with a sensing tip that acts as a Coulter counter

As a single cell passes through the Coulter aperture to flow into the well, it leaves an electrical signature that appears as a unique peak, whereas multiple peaks result from doublets or multiple cells.

### Benefits

An enhanced user experience for faster and better results



#### Easy to use

Intuitive with a simple interface and easy to set up. No cleaning or calibration required.



#### Contamination-free

A patented disposable tip ensures clean isolation of single cells and no cross-contamination. Certified free from animal products and cytotoxic material.



#### Proof of clonality

A single-cell analysis software tool provides a traceable proof of clonality report instantly.



#### High cloning efficiency

Its unique design ensures gentle dispensing for better viability and cloning efficiency.



#### Compact

Benchtop-sized, DispensCell fits perfectly under a hood to work under sterile conditions, on a bench top for routine seeding or in a pre-existing automated workflow.



#### Gentle

Extremely gentle handling of cell samples, comparable to manual pipetting (less than 0.1 psi), preserving cell viability and outgrowth.

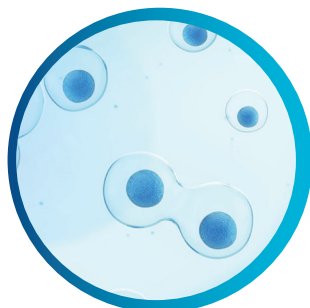
# Suitable applications

## The right instrument to optimise your workflow

Single-cell isolation and proof of clonality are essential to multiple applications, including cell line development, CRISPR-mediated gene editing, rare cell isolation, monoclonal antibodies screening and single-cell genomics. Application notes are available to guarantee an optimal user experience.



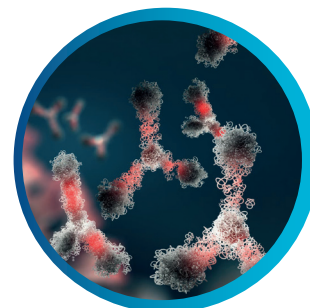
Cell line development



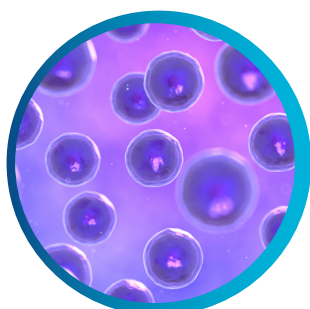
CRISPR-mediated gene editing



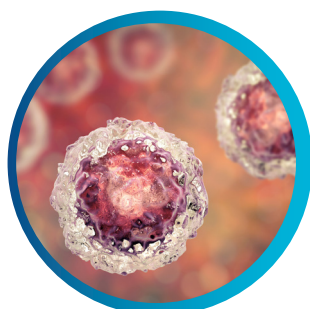
Monoclonal antibody screening



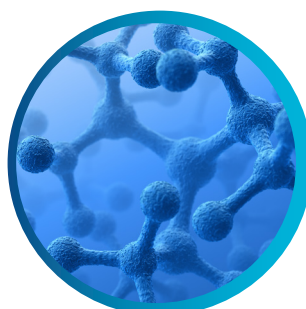
Rare cell isolation



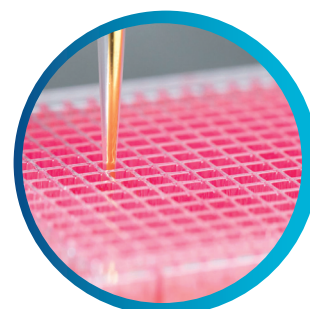
Single cell sequencing



Single cell-omics



Cell and gene therapies



96- and 384-well dispensing

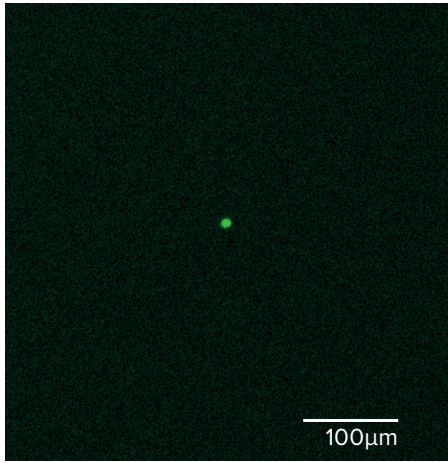
*"The DispenCell is not rocket science and that's exactly why we like it. User adoption is easy, it is gentle with cells and it provides monoclonality assurance. Those are key features that we need in a robust iPSC line development factory."*

—HANS WEBER Automation Lead, Century Therapeutics

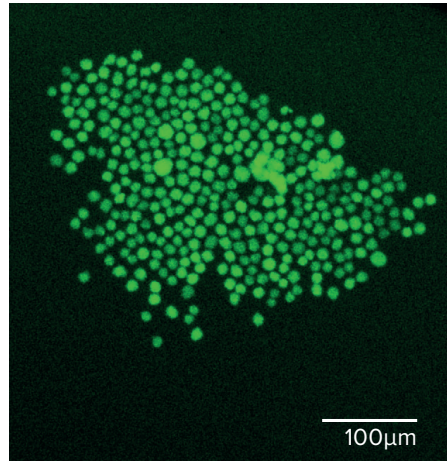
# Cell-friendliness

## As gentle as manual pipetting

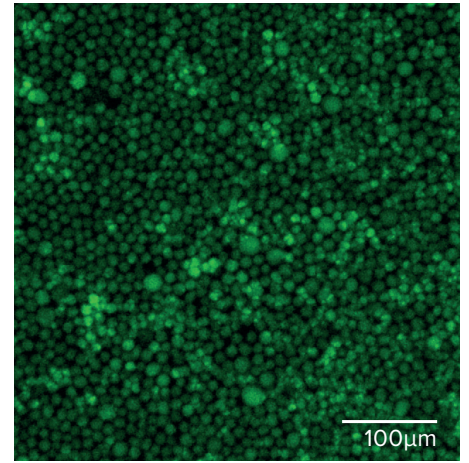
DispenCell's unique technology allows extremely gentle handling of the cell sample, comparable to manual pipetting (less than 0.1 psi), yet more efficient. Consequently, cell viability and outgrowth are preserved.



Day 0

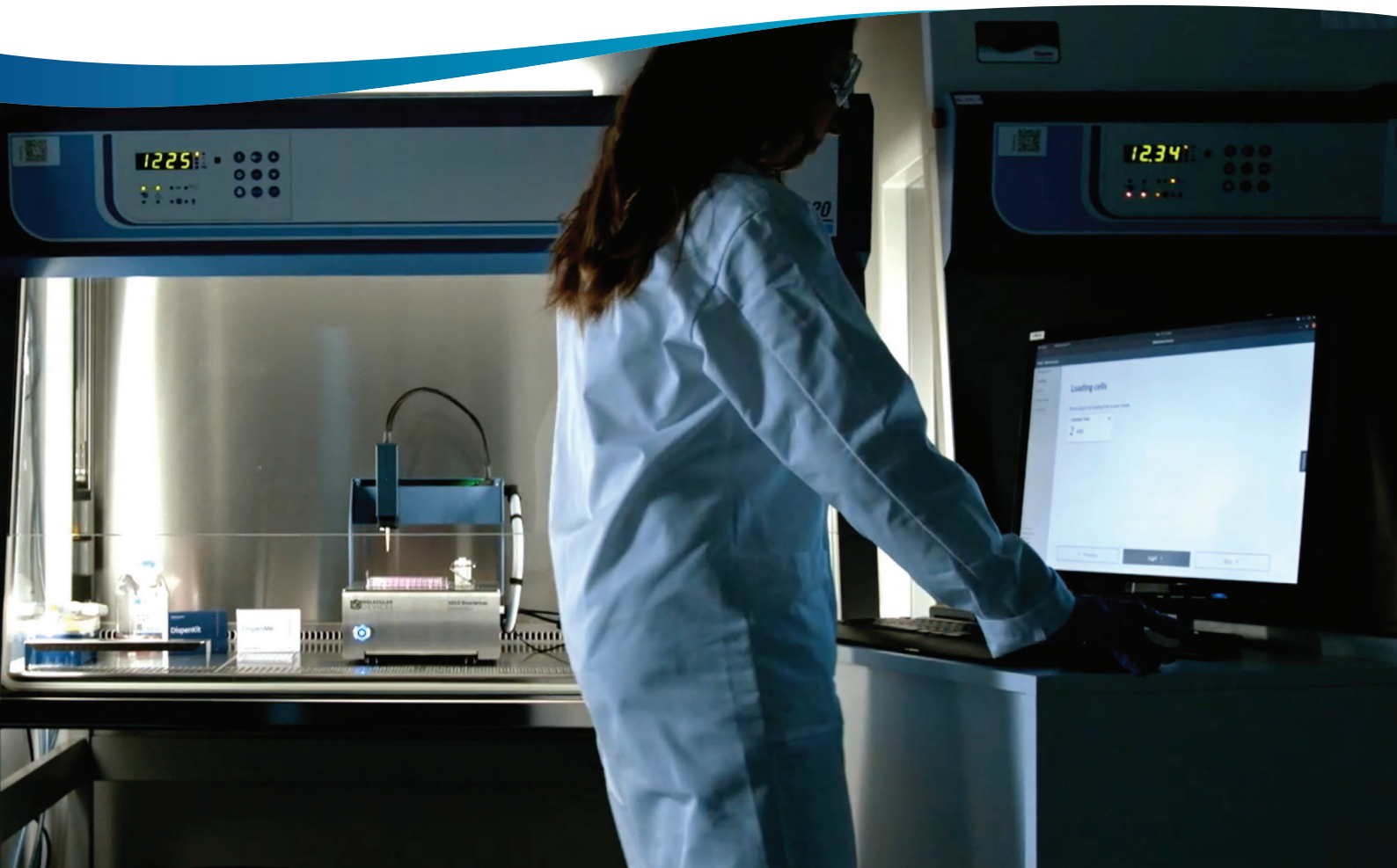


Day 7



Day 14

Clonal outgrowth of a single CHO cell dispensed with DispenCell.





## Technical specifications

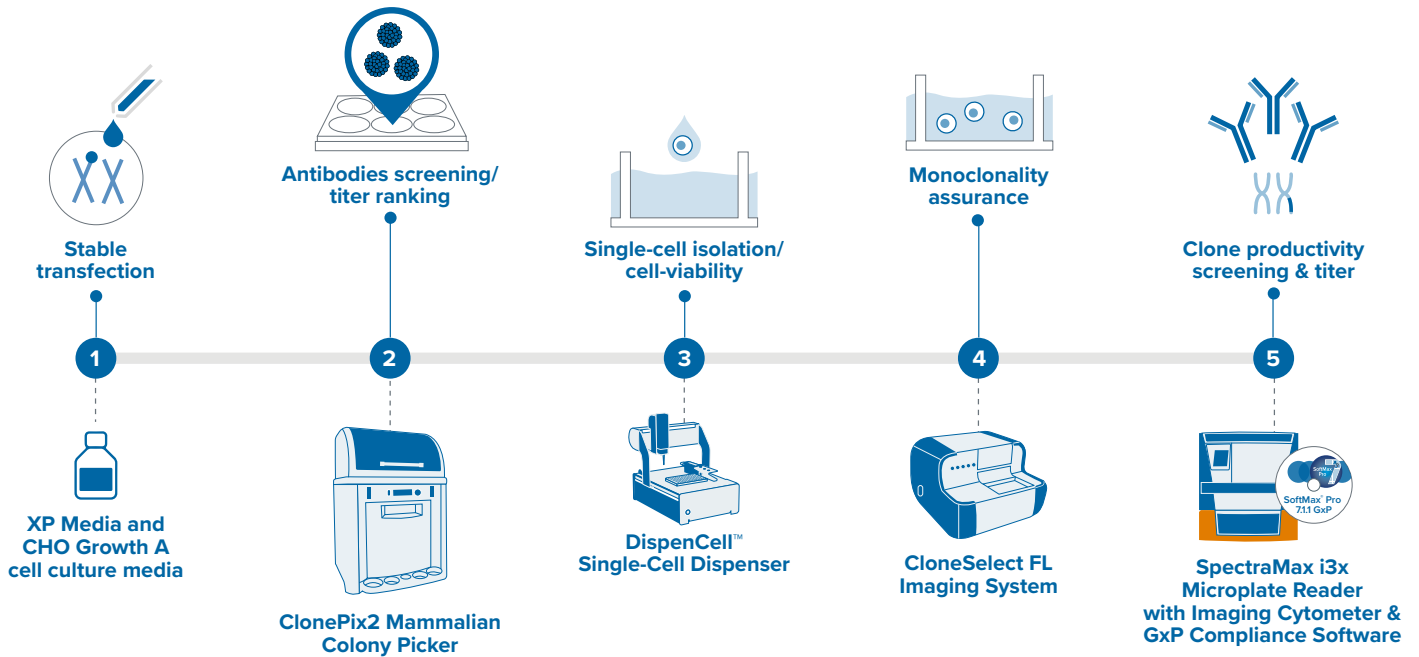
### DispenCell

Pressure	Less than 0.1 psi
Plate holder	2 plates (96 or 384 wells)
Minimal cell number	100 cells
Calibration	No need
Cleaning	No need
Sample prep.	10 min
Dispensing	96 well plate in 5 min
Cell parameters	Size, doublets

## References

- Bonzon, D. et al. (2020) 'Impedance-Based Single-Cell Pipetting', *SLAS TECHNOLOGY: Translating Life Sciences Innovation*, 25(3), pp. 222–233. doi: 10.1177/2472630320911636.
- Muller, G. et al. (2020) 'Traceable Impedance-Based Dispensing and Cloning of Living Single Cells', *SLAS TECHNOLOGY: Translating Life Sciences Innovation*, 25(3), pp. 215–221. doi: 10.1177/2472630320905574.
- Hannart, H. et al. (2021) 'Traceable Impedance-based single cell pipetting: from a research set-up to a robust and fast automated robot', *SLAS TECHNOLOGY: Translating Life Sciences Innovation*. doi: <https://doi.org/10.1016/j.slast.2021.12.003>
- Ben Khelil, M et al. (2021) 'A new workflow combining magnetic cell separation and impedance-based cell dispensing for gentle, simple and reliable cloning of specific CD8+ T cells', *SLAS TECHNOLOGY: Translating Life Sciences Innovation*. doi: <https://doi.org/10.1016/j.slast.2021.11.001>

# Verify monoclonality confidently at day zero with CloneSelect Imager FL and DispenCell bundle



## Streamline your workflow when you pair the DispenCell with the CloneSelect Imager FL

The all-new CloneSelect Imager FL adds high contrast multichannel fluorescent technology in addition to the standard white light imaging that allows for accurate single-cell detection and proof of monoclonality at day 0. Identify and verify gene edits with comparative confluence assays.

- Document evidence of single cells and confluency digitally for auditing and submission to regulatory authorities
- Image cells non invasively at multiple time points to monitor colony formation
- Screen using high resolution white light imaging
- Deliver real-time results with on-the-fly analysis
- Automation and integration ready

**Get started. Explore single-cell dispensing with us.**

### Contact Us

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