

# **SIMPLIFY** YOUR SINGLE CELL WORKFLOW LIKE NEVER BEFORE.

Meet the Uno Single Cell Dispenser™



## SIMPLIFY YOUR SINGLE CELL WORKFLOW WITH TECAN'S UNO SINGLE CELL DISPENSER.

The Uno Single Cell Dispenser is an automated benchtop instrument designed for ease of use, efficiency, and precision in single-cell workflows. Uno empowers a wide range of single-cell applications across the “-omics” landscape, including single-cell proteomics, iPSC libraries, 3D cell research, cell-line development, and beyond. With Uno, you can achieve accurate, viable, and precise single-cell dispensing, managing reagent volumes from picoliters to microliters within minutes.



### Your needs at the core.



#### **Simple and accessible benchtop solution for labs of any size.**

Integrate intuitive software and compact hardware at a competitive price without compromising on performance.



#### **Fast and precise dispensing saves reagents with picoliter-level accuracy.**

Isolate single cells in ~5 minutes, dispense reagents in <3 minutes across a 384-well plate and dispense up to 25 cells per well in one run.



#### **Reliable dispensing process for reproducible results.**

Based on HP's proven microfluidic digital dispensing technology, a choice trusted by 1,000+ industry-leading customers.



#### **Gentle single-cell dispensing to preserve cell integrity.**

Maintain a robust 90% cell viability<sup>1</sup> for downstream analysis. Works with a wide range of cells and reagents.

<sup>1</sup> <1 hour post-dispense

## PRODUCT FEATURES.

### Uno Single Cell Dispenser Specification.

Cell size range	9 $\mu\text{m}$ to 25 $\mu\text{m}$
Cell types	Wide variety of cell types are tested (Refer to the next page for a list of cells dispensed by Uno)
Qualified fluid classes	DMSO, Acetonitrile, aqueous solutions, aqueous 10 % trifluoroacetic acid (TFA), master mixes
Formats to dispense on	<ul style="list-style-type: none"> <li>• 12, 24, 48, 96, 384-well plates</li> <li>• Customizable substrate, such as microscope slides</li> <li>• Plate height 4-47 mm</li> </ul>
Cell isolating technology	Microfluidic technology
Dispensing speed	<ul style="list-style-type: none"> <li>• Cells: 384-well plate in ~5 minutes</li> <li>• Reagents: 384-well plate in &lt;3 minutes</li> </ul>
Cell dispensing	<ul style="list-style-type: none"> <li>• Choose between single cell and multi-cell dispensing</li> <li>• Dispense from 1 to 25 cells per well</li> </ul>
Cell viability	90 % <sup>2</sup>
Software	<ul style="list-style-type: none"> <li>• Intuitive and easy to set-up protocols</li> <li>• Automatically generates summary report, indicating wells with single cells</li> </ul>
Overall instrument dimensions	47 cm x 38 cm x 23 cm
Instrument weight	4.8 kg (10.58 lb)

<sup>2)</sup> At day zero



## Cells.

Cells successfully dispensed using C1a Dispensehead Cassettes.<sup>3</sup>

Cell line	Origin	Culture type	Average diameter (µm)	Recommended cell size setting
HEK293T	Human Embryonic Kidney	Adherent	14	Small
HEK293T GFP+	Human Embryonic Kidney	Adherent	14	Small
Vero E6	Monkey Kidney	Adherent	17	Medium
Jurkat	Human T Cell Leukemia	Suspension	11	X-Small
MDA-MB-231 GFP+	Human Breast Cancer	Adherent	16	Medium
MCF-7 GFP+	Human Breast Cancer	Adherent	20	Sticky cells - Large
CHO GFP+	Chinese Hamster Ovary	Adherent	14	Small
H9 (HuT78 derivative)	Human T Cell Lymphoma	Suspension	10	X-Small
GM12878	Human B cell	Suspension	10	X-Small
SiHa	Human Cervical Cancer	Adherent	16	Medium
C2C12	Mouse Myoblast	Adherent	15	Medium
HCT116	Human Colorectal Carcinoma	Adherent	14	Small
Hela	Human Cervical Tumor	Adherent	16	Medium
hiPSC	Variable	Adherent	Variable	Medium-Large
PC12	Rat Pheochromocytoma	Adherent	12	Small
CaSki	Human Cervical Cancer	Adherent	22	X-Large
THP-1	Human Acute Monocytic Leukemia	Suspension	13	Small
U-937	Human Histiocytic Lymphoma	Adherent	12	Small
A549	Human Lung Adenocarcinoma	Adherent	Variable	Small-Large
A431	Human Epidermal Carcinoma	Adherent	Variable	Small- X-Large
PC3	Human Prostate Adenocarcinoma	Variable	16	Medium
hUVEC	Human Umbilical Vein Endothelial	Adherent	17	Medium
hMVEC	Human Microvascular Endothelial	Adherent	18	Large
HEC-1A	Human Endometrial Cancer	Adherent	9	X-Small
MOLM13	Acute Myeloid Leukemia	Suspension	12	Small
SKBR3	Human Breast Cancer	Adherent	14	Small

<sup>3</sup> Example list of cells dispensed by Uno and respective sizes (non-comprehensive). Individual clonal populations may vary in size and setting selection.

## Uno Single Cell and Reagent Dispense Cassettes Specification.



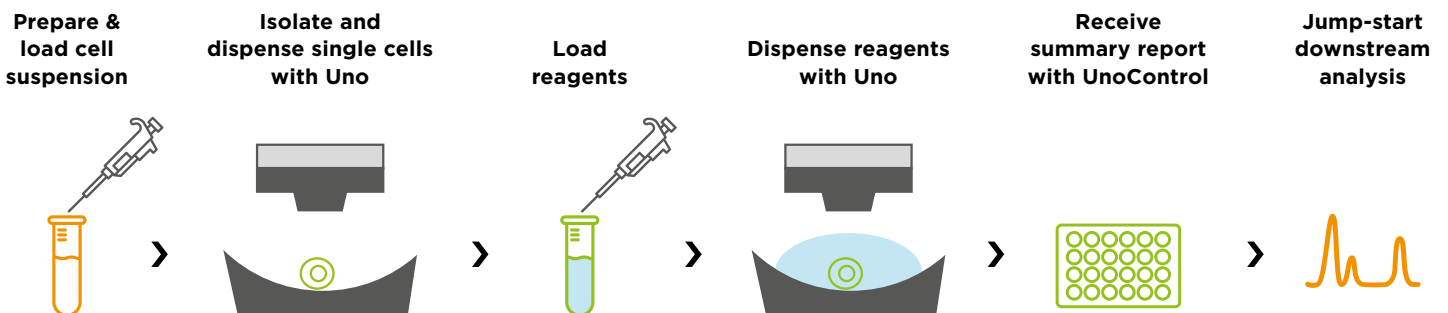
	<b>C1a - Single Cell Dispensehead Cassette</b>	<b>T1sf / T1 Dispensehead Cassette</b>	<b>D1sf / D1 Dispensehead Cassette</b>
<b>Dispensing capability</b>	<b>Cell Dispensing</b> Choose to dispense from 1 to 25 cells per well	<b>Reagent Dispensing</b> <ul style="list-style-type: none"> <li>• T1sf: For aqueous solutions; requires no surfactant</li> <li>• T1: For DMSO, Acetonitrile, aqueous solutions with surfactant</li> </ul>	<b>Reagent Dispensing</b> <ul style="list-style-type: none"> <li>• D1sf: For aqueous solutions; requires no surfactant</li> <li>• D1: For DMSO, Acetonitrile, aqueous solutions with surfactant</li> </ul>
<b>Minimum dispense volume</b>	480 pl per cell	11 pl	1 nl
<b>Fill cup size</b>	20 µl	20 µl	200 µl
<b>CV</b>	n/a	≤ 8 % <sup>4</sup>	≤ 8 % <sup>4</sup>

<sup>4</sup> T1/D1: Volumes > 100 pl and test fluid of 100 % DMSO without other additives and for volumes > 3.6 nl and an aqueous test fluid with 0.1 % Brij 35 without other additives. T1sf/D1sf: Volumes > 10 nl and test fluid of 100 mM TEAB.

## Featured Workflow.

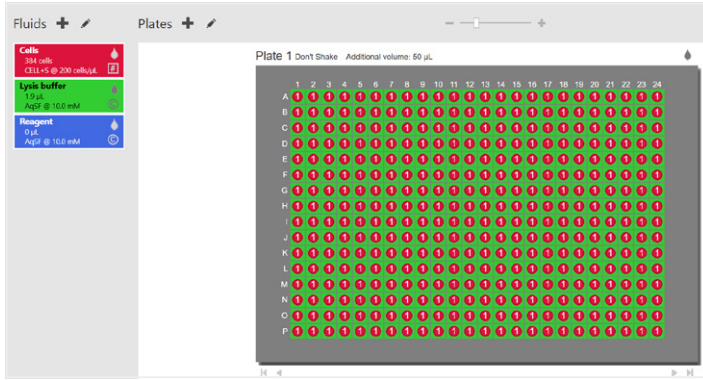
Uno's advanced microfluidic technology enables the gentle isolation, precise dispensing of individual cells into dedicated wells, and accurate dispensing of essential reagents for subsequent sample preparation.

Here's an example of how Uno fits into the single-cell proteomics workflow:

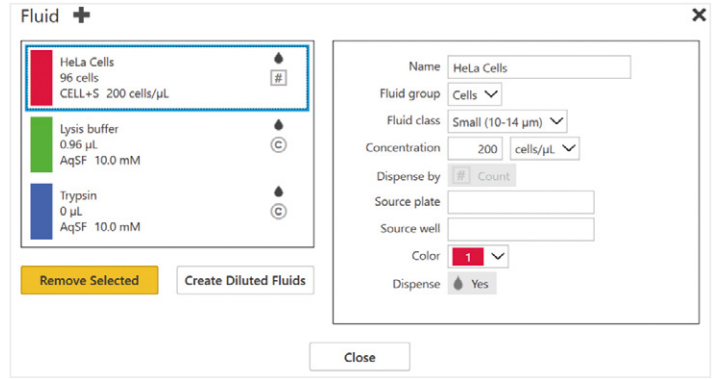


# UnoControl Software.

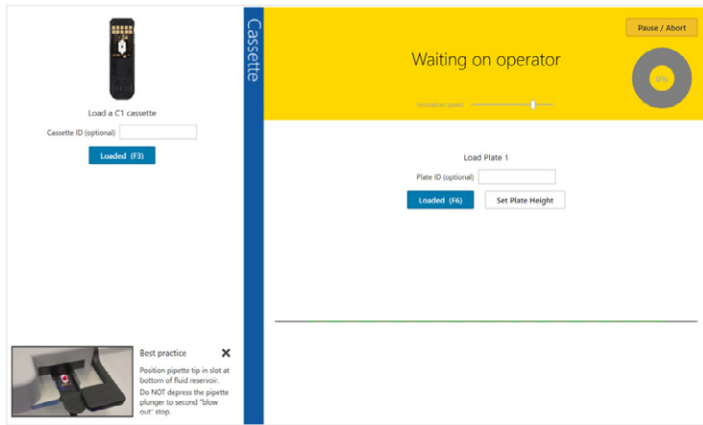
Designed with simplicity in mind.



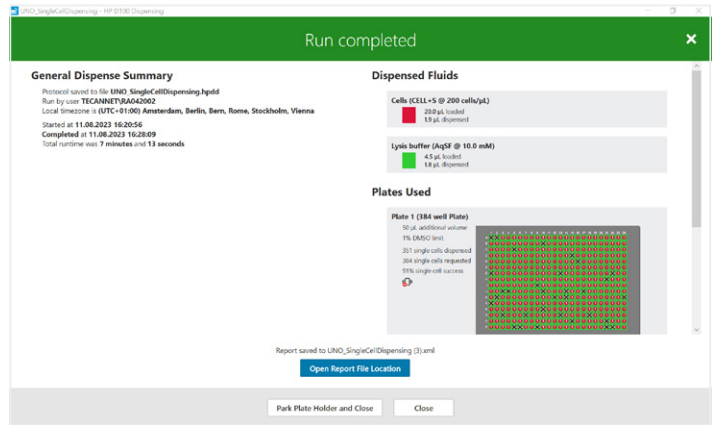
Intuitive fluid and plate definition enables protocol set-up in minutes.



The protocol set-up guide includes a wide range of qualified fluid classes, covers four distinct cell size ranges, and enables the dispensing of up to 25 cells per well.



Guided steps ensure precise execution of experiments, minimizing handling errors.



Gain instant insights with auto-generated summary reports that detail dispensed reagent volumes, plates and cassettes used, single-cell isolation success rate, and cell concentration.

Learn more [www.tecan.com/uno](http://www.tecan.com/uno)

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