

A white and blue Singulator 100 machine with a screen on top. The screen displays the 'genomics' logo. The machine has a sample slot with a red cap and a blue curved panel on the left side. The 'singulator 100' logo is on the front.

genomics

singulator 100™

SET. PRESS. WALK AWAY.



singulator 100

# The Singulator™ 100 System



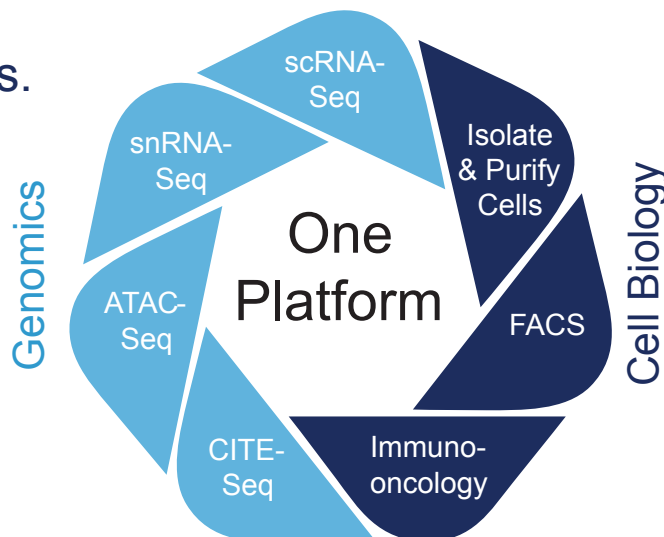
## Solid Tissue Dissociation. Automated.

The bench-top Singulator System and its single-use cartridges enable reproducible, rapid and hands-off tissue dissociations into single-cell or nuclei suspensions. Researchers can now easily obtain suspensions of nuclei or high-viability cells for a wide range of single-cell analyses.



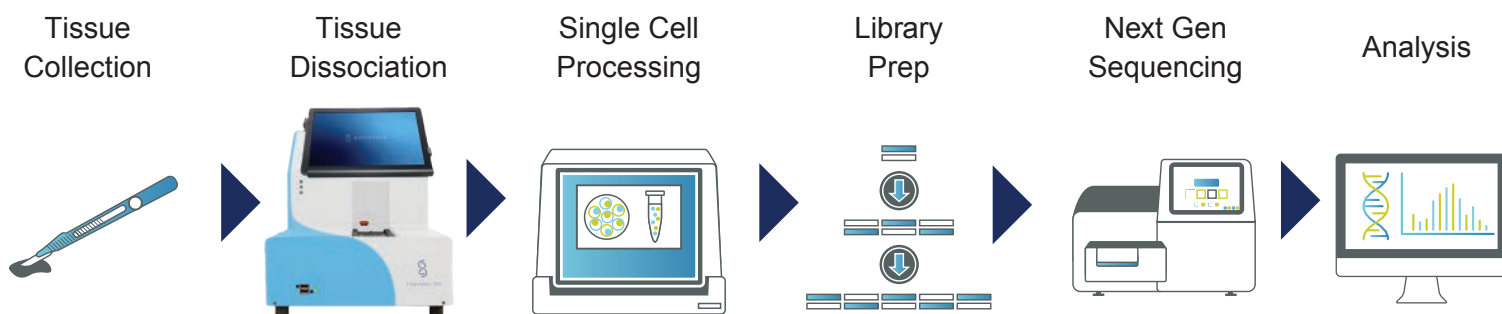
## Minimal Variability. Multiple Applications.

Ideal for genomics, cell biology and other 'omics applications, including scRNA-Seq, snRNA-Seq, ATAC-Seq, CITE-Seq, FACS, and immuno-oncology. S2 Genomics provides a selection of pre-set protocols and pre-formulated reagents for cell isolations from an expanding set of mouse, rat, and human tissues, including tumors. See the wide range of tissues and organisms demonstrated on the Singulator 100 System for nuclei isolation at the end of this brochure.



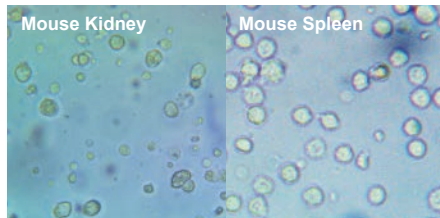
## Say Goodbye To Manual Tissue Dissociation.

Tissue to single cells or nuclei in minutes.



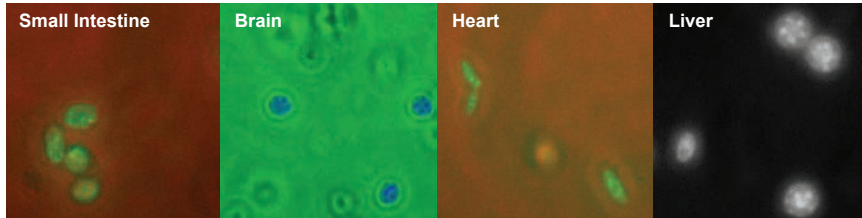
# Fast. High Yield. High Viability.

## Cells in 20-60 minutes



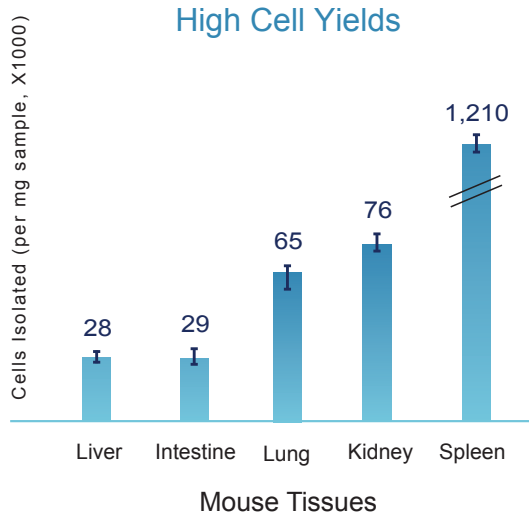
Bright-field images of mouse kidney and spleen tissue cells.

## Nuclei in 6-10 minutes

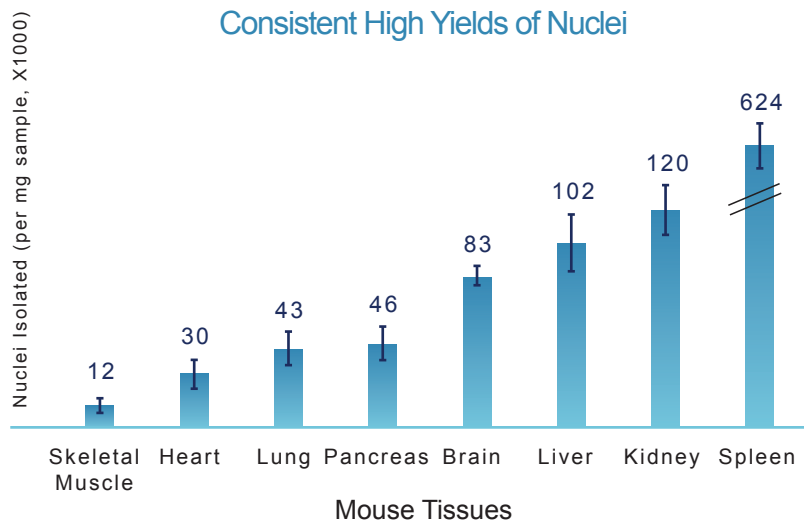


Merged DAPI-stained and bright-field images of small intestine, brain and heart tissue nuclei; DAPI stained liver nuclei. Courtesy of Dr. Minoda, Laboratory for Cellular Epigenomics, RIKEN Yokohama, Japan.

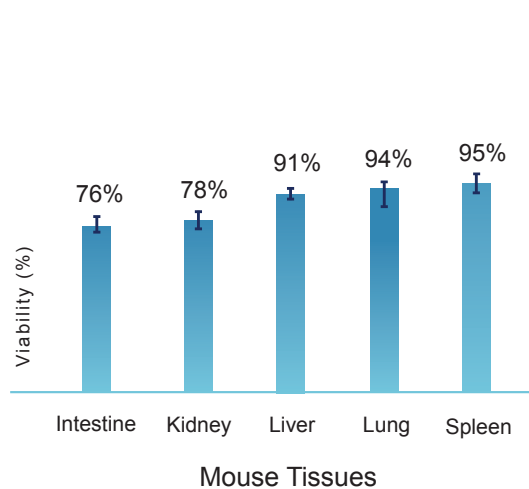
## High Cell Yields



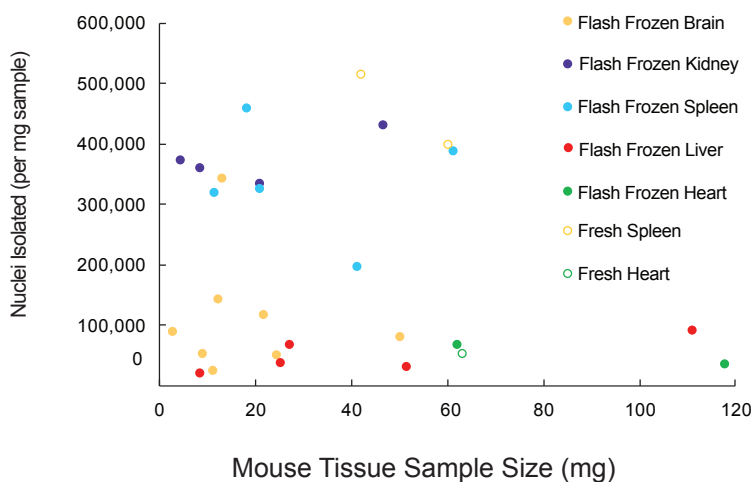
## Consistent High Yields of Nuclei



## High Cell Viabilities



## High Yields From Small Samples



| Tissue Type |                    | Process Time  | Yield*                | Viability |
|-------------|--------------------|---------------|-----------------------|-----------|
| Cells       | Fresh              | 20-60 minutes | 10,000 to >500,000/mg | 70-95%    |
| Nuclei      | Fresh, Frozen, OCT | 6-10 minutes  | 10,000 to >600,000/mg | N/A       |

\*Varies depending on tissue types

# Intuitive Software. Customizable Protocols.

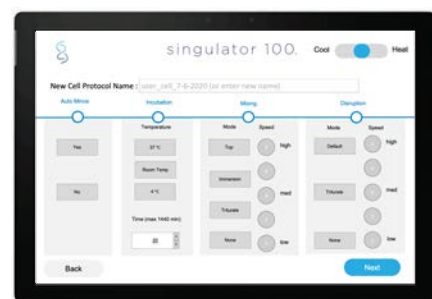
Choose from a selection of pre-set protocols and pre-formulated reagents. Create your own protocols with customizable parameters, including mincing, enzyme incubation time, temperature, mixing and mechanical disruption profile. Optionally, use your own reagents.

Incubation at 37 °C, room temperature, or 6 °C.

Cold dissociation minimizes the expression of stress-related genes in cells and helps preserve RNA quality in nuclei.

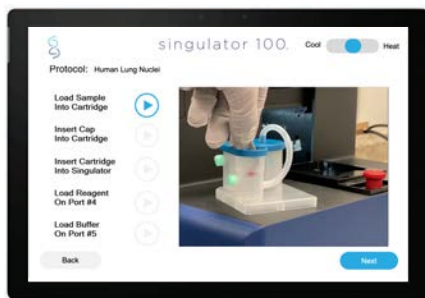
1

Select from lists of Standard, Favorites, Recently Run protocols, or create your own protocol with customizable parameters.



2

Step-by-step instructions and videos guide you through the system operation.



3

Enter optional user notes and press RUN.

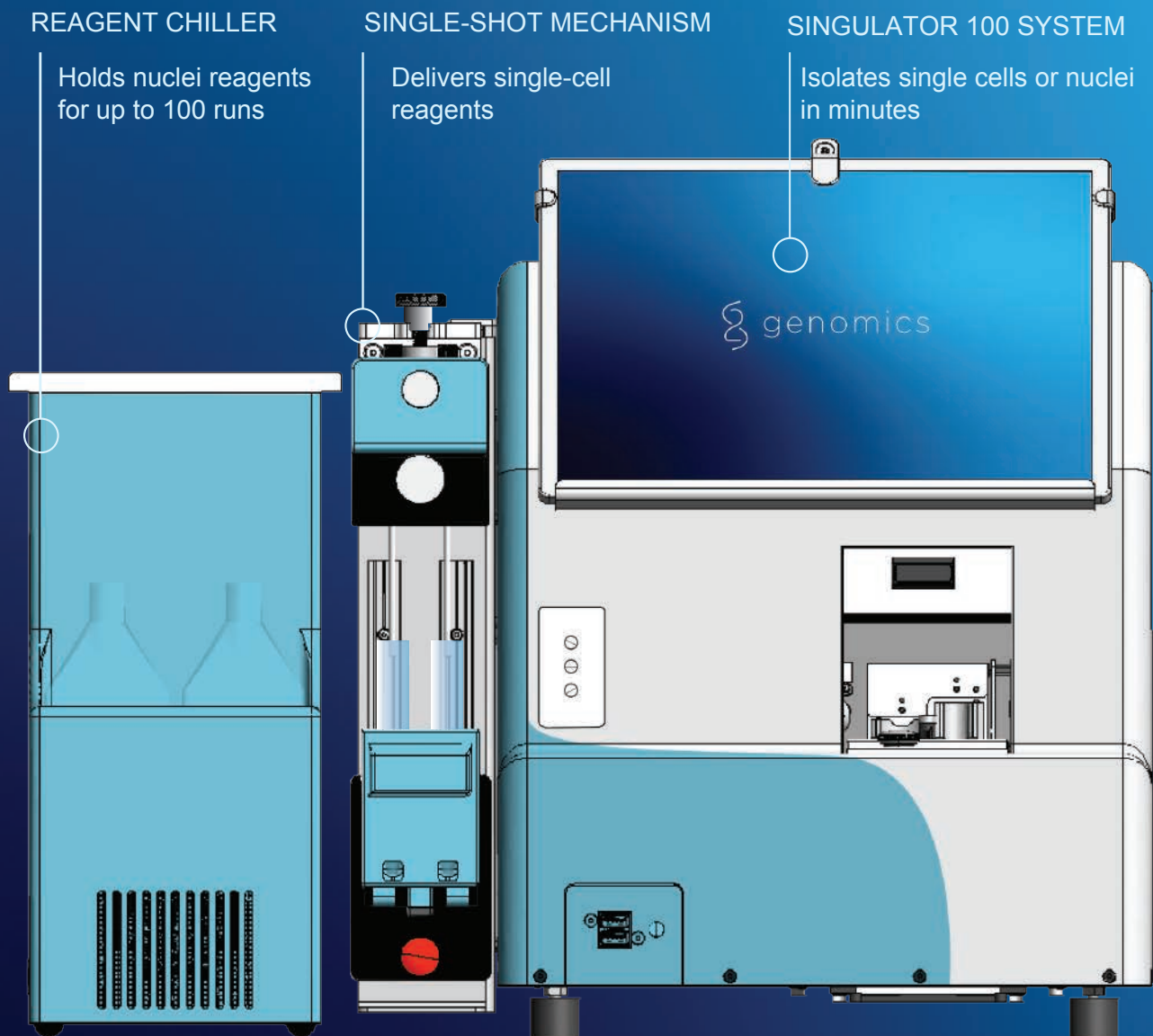


4

The internal camera and progress bar allow you to monitor tissue dissociation in real time.



# singulator 100™



## High Yield & Viability



Typical Yield:

- 10,000 to >500,000 cells/mg\*
- 70 - 95% viability
- 20,000 to >600,000 nuclei/mg\*

*\*tissue dependent*

## Reproducible Results



- Consistent results, from researcher to researcher and lab to lab
- Improve success rates for precious samples
- Minimize transcriptome changes
- Use your reagents for your specific tissues

## Fast Processing



- Nuclei in 6-10 minutes
- Single cells in 20-60 minutes

## Simple Setup & Walk-Away Operation



- Load tissue and press RUN in < 1 minute
- Intuitive touch-screen interface
- Minimal operator training

# Tissues Demonstrated on the Singulator™ 100 for Nuclei Isolation

## Human

- \*Aorta
- \*Brain (Adult, Infant, Fetal)
- \*Breast Tumor
- \*Cerebral Organoids
- \*Colon (Normal, Polyp & Tumor)
- \*Heart (Adult & Fetal)
- \*Hemangioma
- \*Intestine (Fetal)
- \*Lung (Fetal)
- \*Muscle (TA & SA)
- \*Prostate (Normal & Tumor)
- \*Retinal organoids (WT & Gene Knockout)
- \*Spleen (Fetal)
- \*Thymus (Fetal)
- \*Vascular Abnormality (Arterial)
- \*Vascular Abnormality (Lymphatic)

## Mouse

- Brain
- Colon (Normal & PDX Tumor)
- Heart
- Intestine
- \*Kidney (Normal & Pre-cystic)
- Liver
- Lung
- Lymph
- Muscle
- Pancreatic PDX Tumor
- \*Spinal Cord
- Spleen

## Rat

- Brain
- Kidney
- Liver
- Lung
- Spleen

## Spiny Mouse (*A. cahirinus*)

- \*Kidney

## Honeybee (*A. mellifera*)

- \*Thorax

## Arabidopsis

- \*Whole Seedling
- \*Root Tip

\*Customer-Lab Demonstrated

For the latest list of tissues demonstrated on the Singulator 100, visit:  
[www.S2Genomics.com/Tissues](http://www.S2Genomics.com/Tissues)

### SINGULATOR SYSTEM PRODUCTS

### CATALOG NUMBER

Singulator™ 100 System

100-067-764

Singulator™ Nuclei Isolation Kit (25-sample pack)

100-060-817

Singulator™ Cell Isolation Kit (25-sample pack)

100-063-841

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