singulator 100™

SET. PRESS. WALK AWAY.

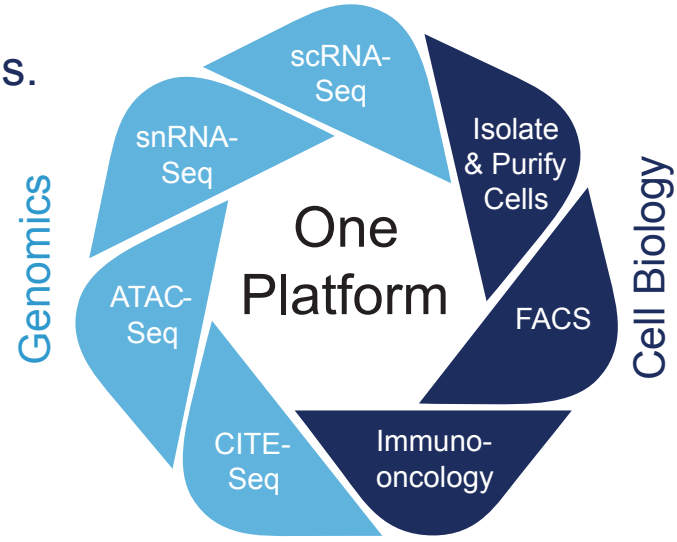
The Singulator™ 100 System

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.

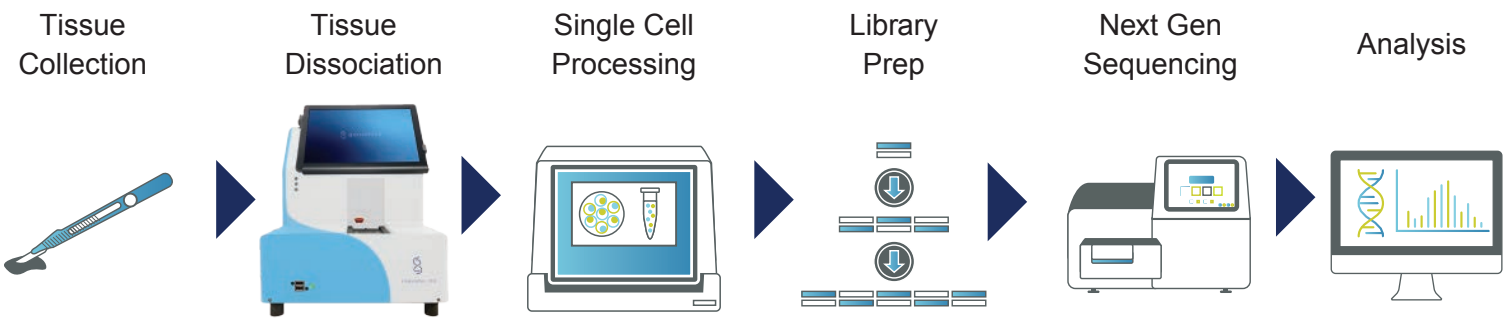
Minimal Variability. Multiple Applications.

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.



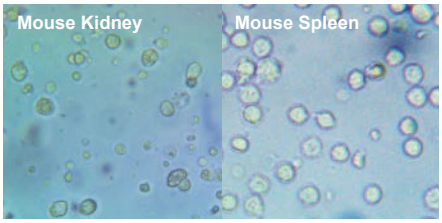
Say Goodbye To Manual Tissue Dissociation.

Tissue to single cells or nuclei in minutes.



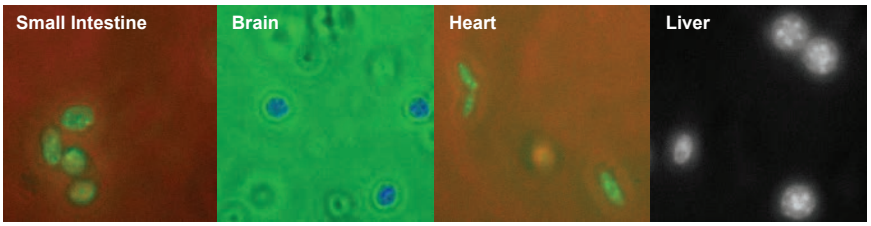
Fast. High Yield. High Viability.

Cells in 20-60 minutes



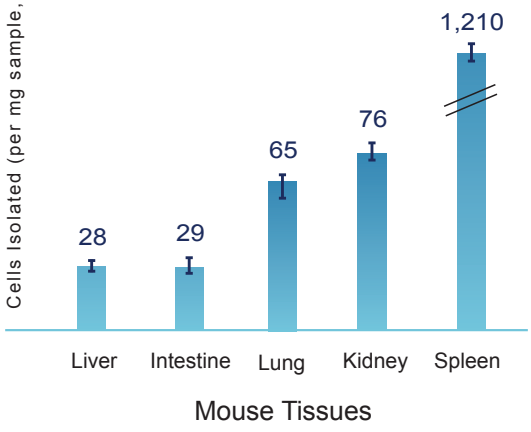
Bright-field images of mouse kidney and spleen tissue cells.

Nuclei in 7-12 minutes

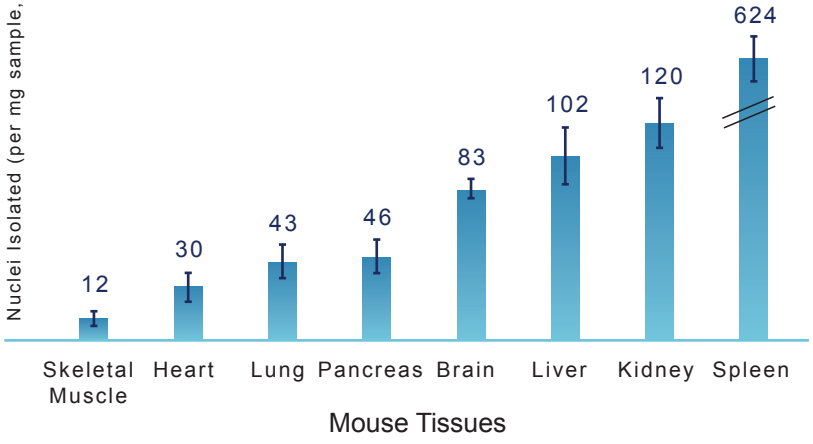


Merged DAPI-stained and bright-field images of small intestine, brain and heart tissue nuclei; DAPI stained liver nuclei. Courtesy of Dr. Minoda, Laboratory for Cellular Epigenomics, RIKEN Yokohama, Japan.

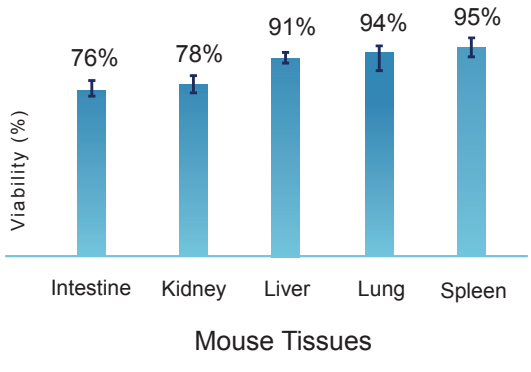
High Cell Yields



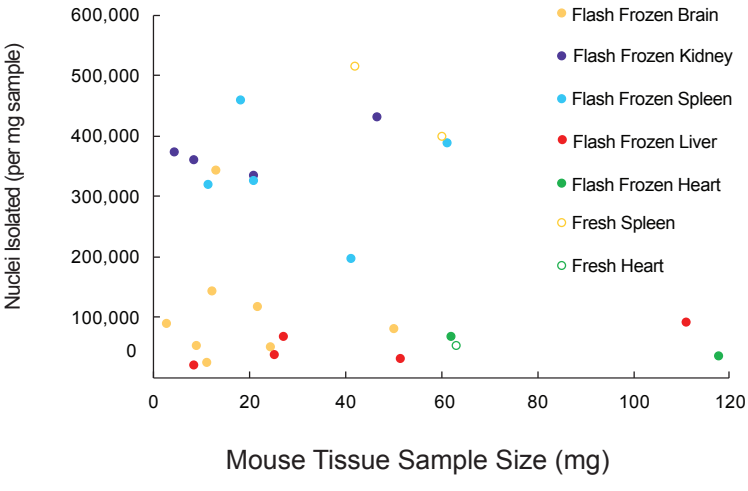
Consistent High Yields of Nuclei



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	7-12 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 ºC, room temperature, or 6 ºC.

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™

REAGENT CHILLER

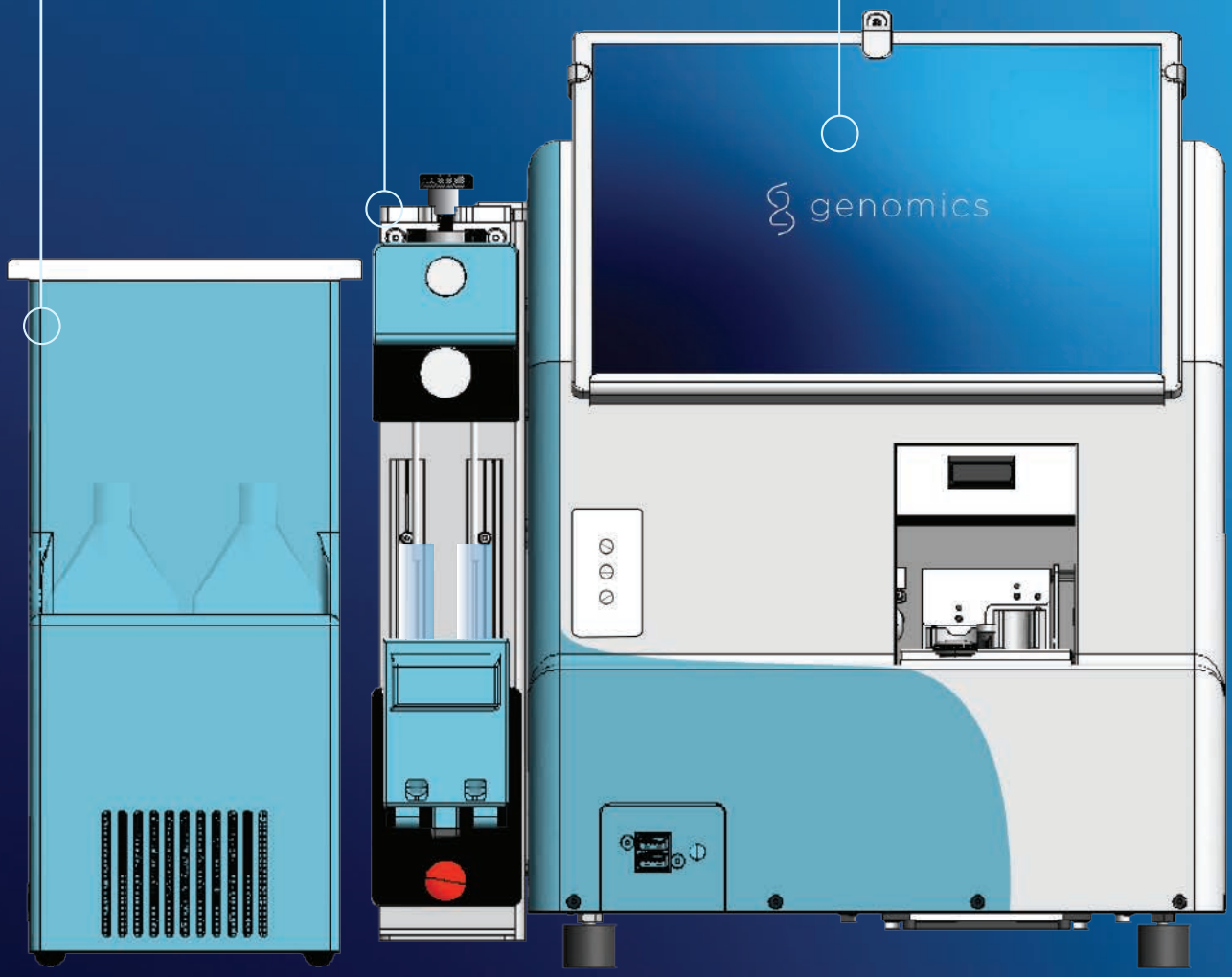
Holds nuclei reagents for up to 100 runs

SINGLE-SHOT MECHANISM

Delivers single-cell reagents

SINGULATOR 100 SYSTEM

Isolates single cells or nuclei in minutes



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 7-12 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

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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Part No. 100-067-001 RevB