

Cell Isolation Bundle

For the automated isolation of high-viability cells for single-cell genomic applications.

Description

This bundle includes the consumables needed to use the Singulator Platform to isolate intact cells from solid tissue. It contains **Cell Isolation Cartridges** and tissue-specific **Cell Reagents**, simplifying the cell isolation process. Customers select a tissue specific enzyme reagent tailored to their specific tissue type for optimal results. Capable of processing tissue samples as little as 20 mg, it ensures high-yield, high-viability cell isolations, making it an ideal choice for downstream genomic applications.

Key Features

- 1. Reproducible and Precise:** When used with the Singulator Platform, the Cell Isolation Bundle delivers consistent results across different users and days. The bundle isolates cells with minimal bias, which is critical for the accuracy and integrity of single-cell genomics applications.
- 2. Automated:** Streamlines the workflow, reducing manual steps, saving time and minimizing opportunities for mistakes.
- 3. Compatible:** Seamlessly integrates with downstream single-cell genomics applications.
- 4. Versatile:** The Cell Isolation Bundle is compatible with most tissue types, enabling broad single-cell genomics applications.



Cell Isolation Cartridge
P/N 100-063-178

Usage

- 1. Prepare Reagent:** Reconstitute lyophilized tissue-specific Cell Reagent with 20 mL of appropriate media.
- 2. Prepare Single Shot Mechanism:** Aliquot 3 mL of reconstituted Cell Reagent in a 15 mL conical tube and place into the “Enzyme” slot of the Single Shot Mechanism. Aliquot 6 mL of appropriate media in a 15 mL conical tube and place it into the “Buffer” slot of the Single Shot Mechanism.
- 3. Select Protocol:** Select desired protocol on the Singulator Platform and pre-heat the Singulator.
- 4. Prepare Sample and Load Cartridge:** Place the whole or pre-minced tissue sample into the cartridge. Place the cartridge into the Singulator.
- 5. Isolate Cells:** Initiate the selected protocol on the Singulator.
- 6. Obtain Cells:** When the run completes (between 20-90 minutes depending on tissue type), immediately retrieve the isolated cells from the cartridge and proceed with downstream processing.

Performance

Cells from human and mouse tissues were isolated using the Cell Isolation Bundle, following the 'Demonstrated Protocol – Cell Isolation from Fresh Tissue for Single Cell Sequencing Applications' (100-318-646). From just 20 mg of starting material, the isolated cells provided sufficient yield and viability for single-cell genomics applications (FIGURE 1). The number of cells isolated per milligram depends on the tissue's density. The isolated cells showed minimal cellular aggregates and dead cells, highlighting the effectiveness of the Cell Isolation Bundle in producing high-quality cell preparations essential for generating reliable data (FIGURE 2).

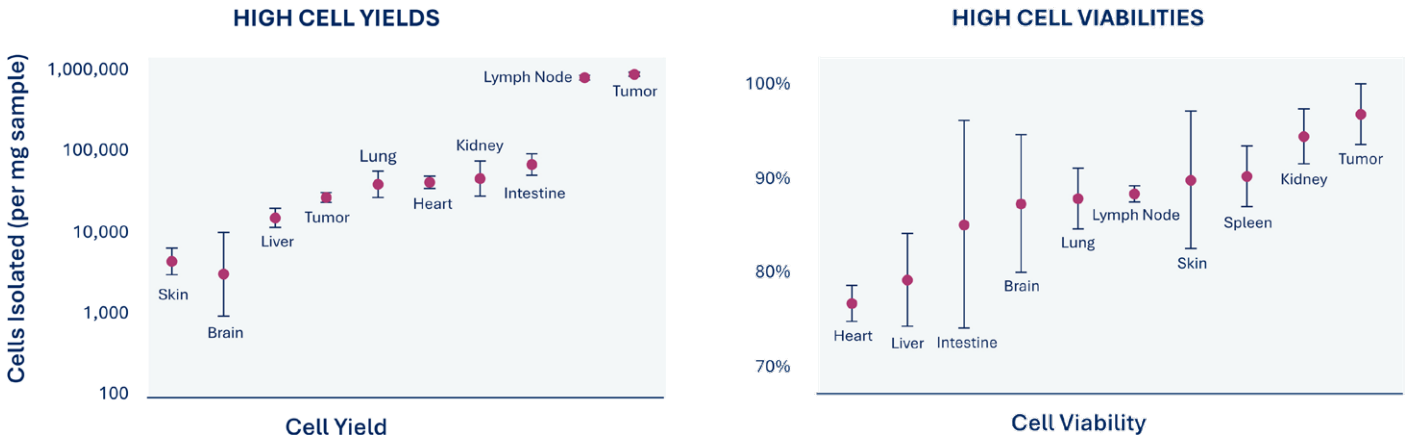


FIGURE 1: Yields and viabilities of single-cell suspensions isolated using the Cell Isolation Bundles is sufficient for single-cell genomics applications. Cells were isolated using the Cell Isolation Bundle and the Singulator Platform's cell isolation protocols from a variety of tissues.

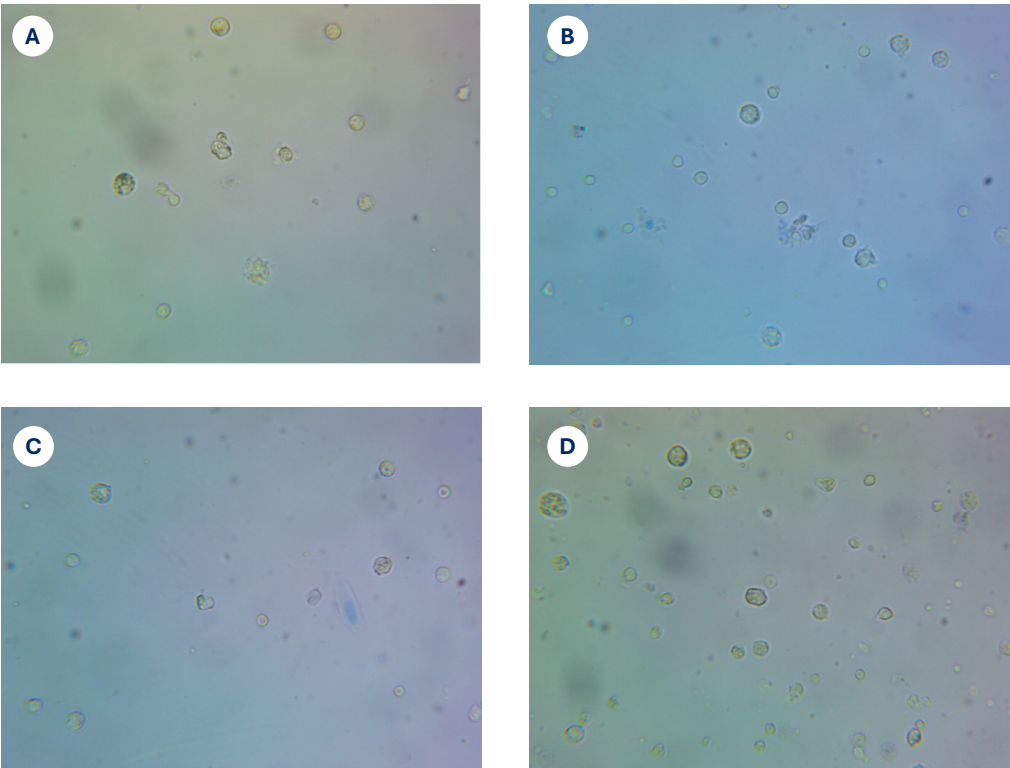


FIGURE 2: Single-cell suspension generated from human or mouse tissue types following the Demonstrated Protocol – Cell Isolation from Fresh Tissue for Single Cell Sequencing Applications. Single-cell suspension generated from human or mouse tissue types following the Demonstrated Protocol – Cell Isolation from Fresh Tissue for Single Cell Sequencing Applications. 40x magnified images of (A) human lung tumor cells, (B) mouse lung cells, (C) mouse skin cells, and (D) mouse kidney cells with the Cell Isolation Bundles.

Bundle: 100-289-261 Cell Isolation Bundle (24 samples)



Cell Isolation Cartridge
100-063-178
(Quantity 24)



Brain Reagent, 20mL
100-064-304



Lung Reagent, 20mL
100-064-413



Liver Reagent, 20mL
100-064-522



Kidney Reagent, 20mL
100-064-631



Spleen Reagent, 20mL
100-064-740



Intestine Reagent, 20mL
100-064-849



Skin Reagent, 20mL
100-254-082



Tumor Reagent, 20mL
100-253-955

Choose four of the Above (Quantity 4)

Specifications

Tissue Input: 20-300 mg
Compatible Preservation Methods: Fresh tissue

Storage
Cell Isolation Cartridge: Room Temperature
Tissue-Specific Cell Reagent: Provided in lyophilized form and stored at 4°C. Once reconstituted, it remains stable for up to one week at 4°C or for six months when stored at -20°C.

ORDERING INFORMATION:		
Part Number	Description	Quantity
100-289-261	Cell Isolation Bundle (24 samples)	
	100-063-178 Cell Isolation Cartridge	24
	100-064-304 Brain Reagent, 20 mL	4 total
	100-064-413 Lung Reagent, 20 mL	
	100-064-522 Liver Reagent, 20 mL	
	100-064-631 Kidney Reagent, 20 mL	
	100-064-740 Spleen Reagent, 20 mL	
	100-064-849 Intestine Reagent, 20 mL	
	100-254-082 Skin Reagent, 20 mL	
	100-253-082 Tumor Reagent, 20 mL	

Contact Us

→ For general information and technical resources:



<https://s2genomics.com>

→ For sales information or to purchase products:



inquires@s2genomics.com

Phone

1-925-292-8243

Address

S2 Genomics, Inc
7683 Southfront Rd. Suite 200
Livermore, CA 94551
USA

LinkedIn

[Linkedin.com/company/s2genomics](https://www.linkedin.com/company/s2genomics)

Twitter

[Twitter.com/s2genomics](https://twitter.com/s2genomics)

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