Singulator™ 100 Cell Protocol Submission

Please fill out form as thoroughly as possible. For additional questions and support, email community@s2genomics.com. For more information on the Singulator™ 100 and single-cell processing, head over to www.s2genomics.com.

General Information | Study Identification

Protocol Name: Mouse Heart Cell Isolation

Investigator Name: S2 Genomics Field Applications Team

Investigator Email: community@s2genomics.com

Secondary Investigator(s):

Secondary Email(s):

Tissue Species: Male Mouse

Tissue Type: Heart

Tissue State: Fresh

Mass (mg): 98 mg

Pre-Singulator™ 100 Processing| Run Summary:

- Singulator was heated 15 minutes prior to run
- Mouse Heart Enzyme (pending approval) was reconstituted in 20mL of HBSS and vial was inverted 10x and incubated for 15 minutes to thoroughly mix
- 98 mg of mouse heart was extracted, rinsed with Ca/Mg free HBSS, blotted with a Kimwipe, and minced into roughly 1mm pieces and added to a custom cell isolation cartridge with a 145um filter

Singulator™ 100 Cell Protocol Parameters

Enzyme Mix: Cutsom

Custom Formulation:

- please contact S2 Genomics, Inc. for more information on the Mouse Heart Enzyme
- storage buffer was HBSS and 10% FBS

Protocol Type: Mouse Lung Cells

Auto Mince: ◯ Yes ◉ No

Incubation Time: 25 minutes

Incubation Temperature: 37 °C

Mixing Type: Top

Mixing Speed: Fastest

Disruption Type: Default

Disruption Speed: Slowest

Post-Singulator™ 100 Processing

Centrifuge Time & Speed: 300g for 5 minutes at 4°C

Additional Cleanups/Notes:

- final volume was upped to 8mL and spun down at 300g for 5 minutes to help remove any debris
- supernatant was discarded and the pellet was resuspended 1mL RBC lysis buffer for 15 seconds
- added 9mL of HBSS to neutralize RBC lysis and spun sample at 300g for 5 minutes at 4°C
- once spun, discarded supernatant and resuspended pellet in 1mL HBSS for downstream processing

Results:

- cell viabilty of 79% was observed using the Nexcelom K2 AOPI based cell counter with rougly 33,750 cells/mg