


Singulator[®] and MARS[®]: Efficient Nuclei Isolation from a variety of tissue samples

in collaboration with:
 genomics

INTRODUCTION

MARS[®] acoustic technology utilizes active-microfluidics acoustics for the separation of single cells or nuclei without labeling, based only on the difference in their physical parameters. The cells are isolated with high recovery and ready for single-cell genomics.

The **Singulator[®]** System automates the processing of solid tissue samples into suspensions of single cells or nuclei with high yields and from small samples for a wide range of single-cell biology and genomic analyses.

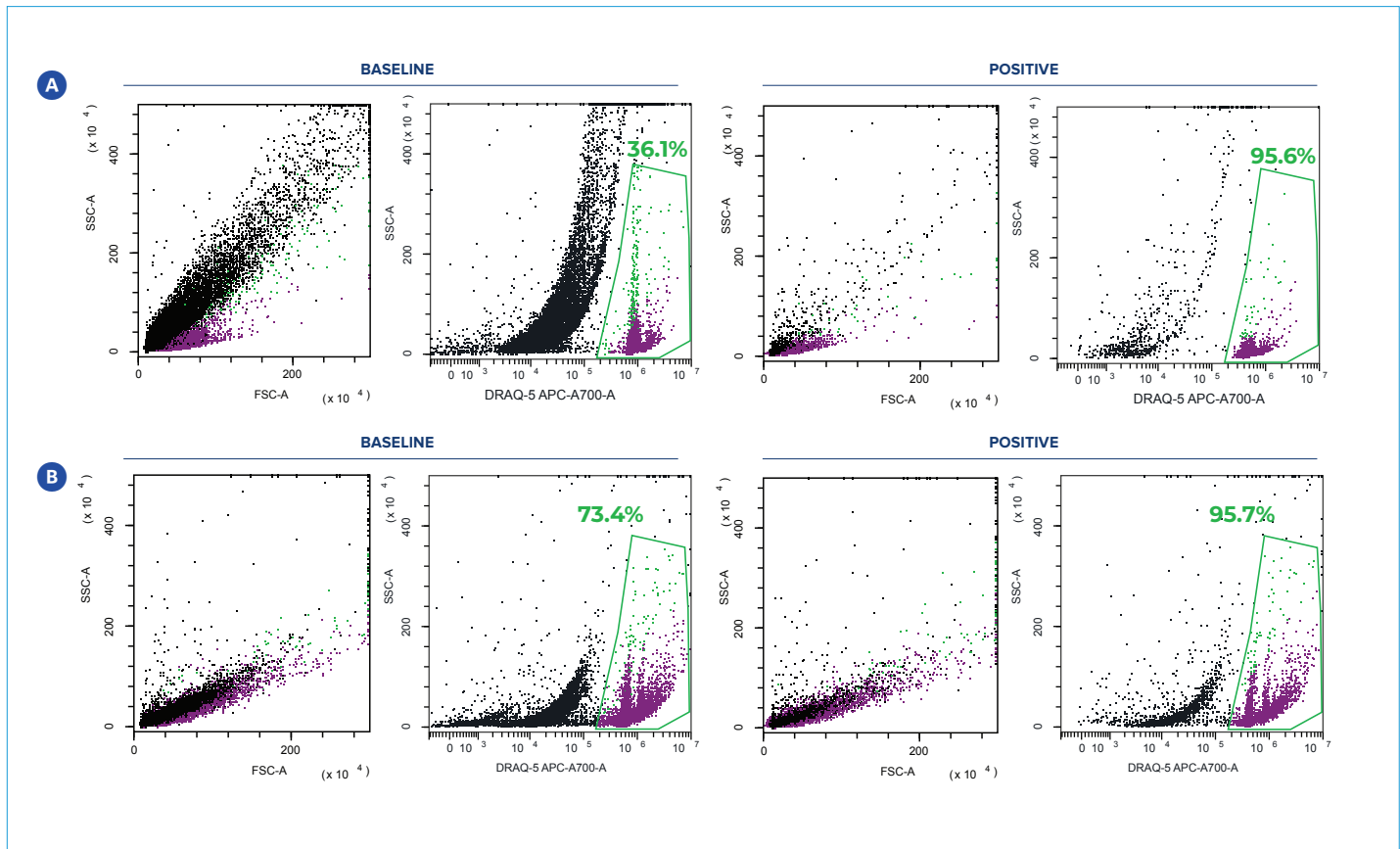


Figure 1. Singulator[®] and MARS[®] tissue nuclei isolation workflow provides significant sample purity and recovery. **(A)** mouse brain nuclei isolation from initial 36% reached 96% final purity, **(B)** mouse kidney nuclei isolation from initial 73% spike-in to 96% final purity.

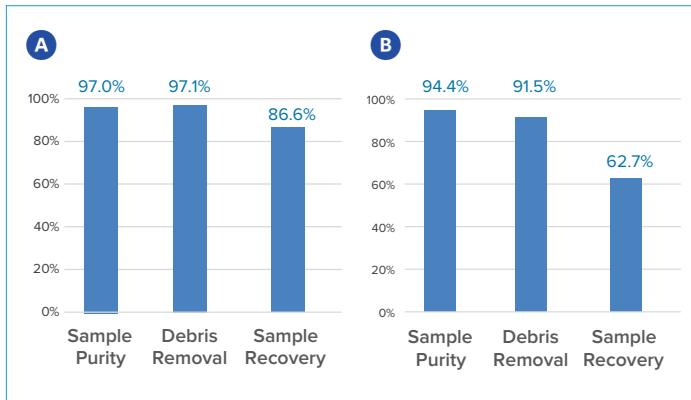


Figure 2. Singulator® and MARS® tissue nuclei isolation PURITIES AND RECOVERIES FOR (A) mouse brain nuclei isolation and (B) mouse kidney nuclei isolation.

RESULTS

Singulator® and MARS® technologies are a powerful solutions to provide a gentle and rapid tissue dissociation and nuclei with:

- ☑ **Gentle** tissue dissociation for a range of tissues
- ☑ Exceptionally high **nuclei purity and recovery**
- ☑ High cell **viability**
- ☑ **Minimal hands-on** sample manipulation
- ☑ **Label-free** acoustic separation
- ☑ Efficient **dead cell and debris removal**
- ☑ No **ficoll gradient** cell preparation
- ☑ **Sterile** and disposable fluidics
- ☑ **Fast** and **easy workflow** for assay optimization

Singulator® and MARS® together provide exceptional performance in single cells and nuclei isolation from a variety of tissue samples, with very high and fast debris and dead cell removal, purity and recovery reaching >90%.

Prepare tissue
for dissociation



STEP 1
Singulator tissue
sample processing



STEP 2
MARS® Acoustic
nuclei WASH

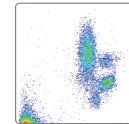


Downstream Applications

Library Preparation



Flow Cytometry



Next Generation
Sequencing



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