

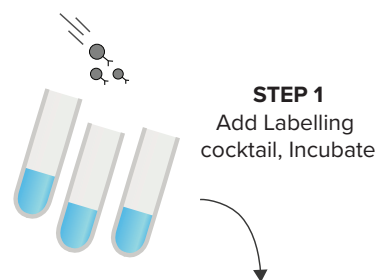
Optimized rare cell isolation for mouse and human samples: introducing the MARS® *in situ* rinse program

INTRODUCTION

The isolation of rare cells is critical in many research and clinical applications, where high purity is essential for accurate analysis and downstream processes. Currently used column-based methods often require multiple rinsing steps and involve a time-consuming process, which may also affect the viability of the isolated cells. This application note introduces the new *in situ* rinse program. This workflow delivers the same high purity of rare cells as the traditional “serial program” and additionally significantly enhances throughput, allowing for the simultaneous processing of three samples. With faster processing times and increased automation, the MARS® platform streamlines the isolation of rare cells, ensuring rapid and reliable results.

New *in situ* program

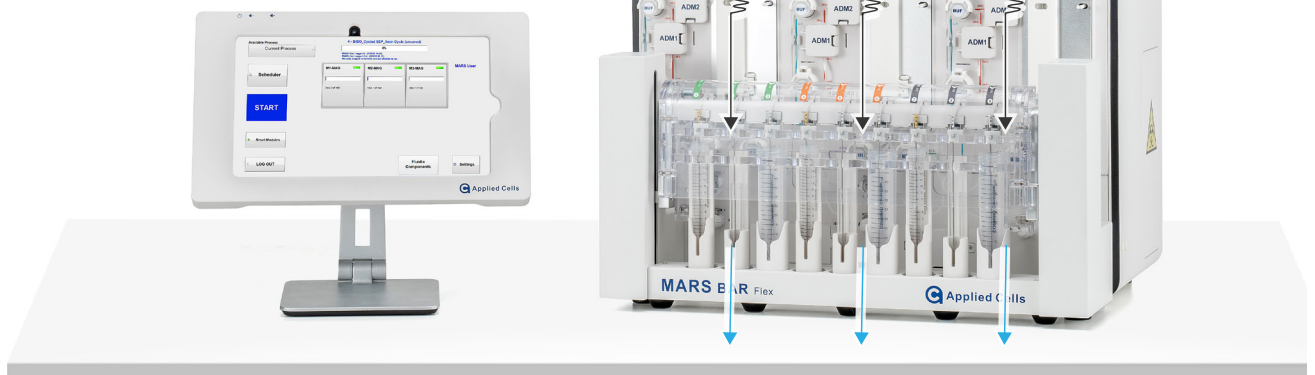
- ✓ **High purity** of rare cells ensuring reliable and accurate results
- ✓ **High throughput** - simultaneous processing of three samples
- ✓ **Time-saving**, fast processing times compared to traditional column-based methods
- ✓ **Full automation** minimizes manual handling
- ✓ High cell **viability** - streamlined isolation process helps to maintain the viability of isolated cells
- ✓ **No columns**, reusable tubing saving cost



STEP 2 Magnetic Separation



**PURIFIED CELLS READY FOR
DOWNSTREAM APPLICATIONS**



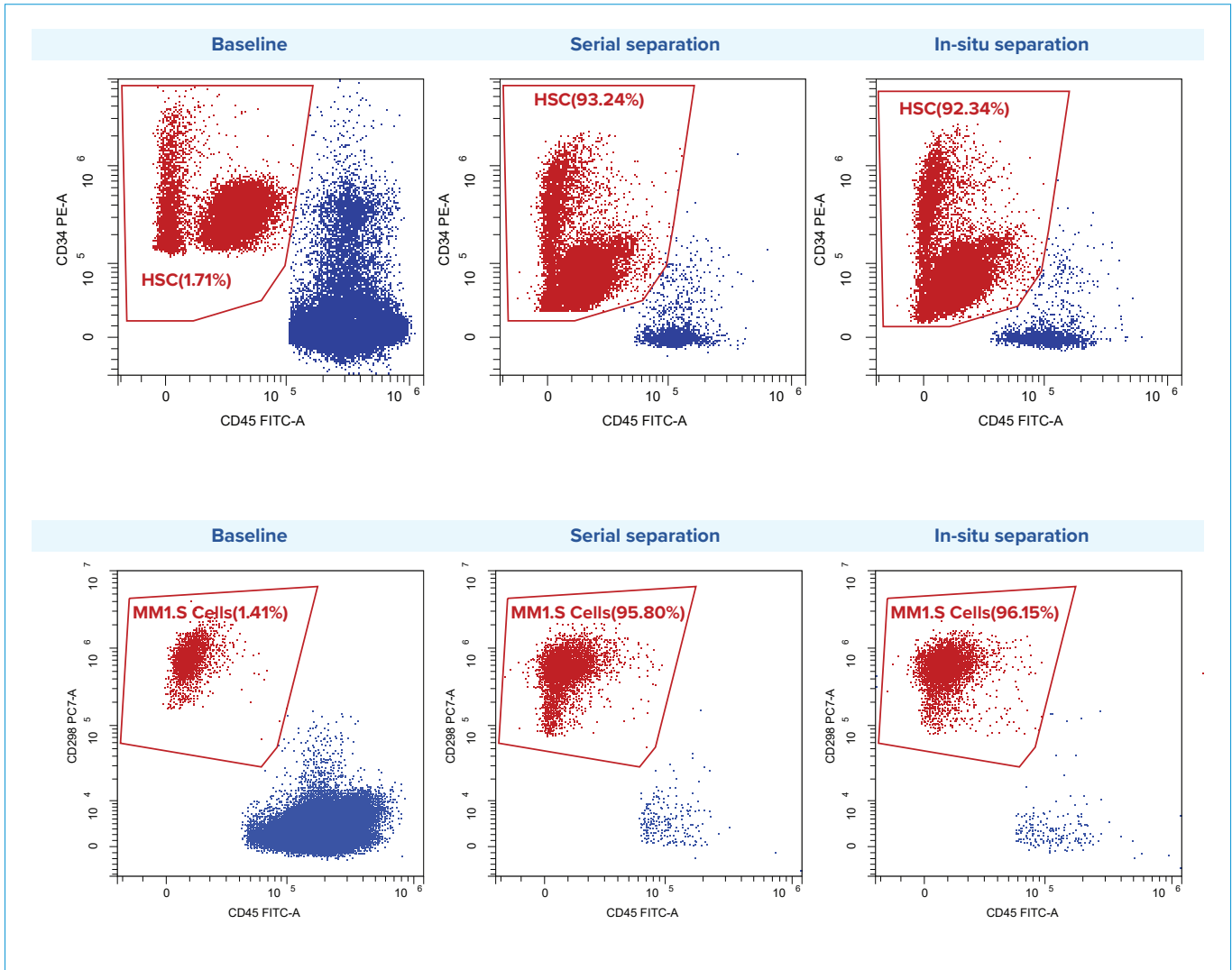


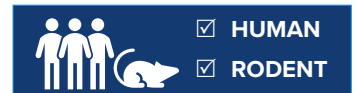
Figure 1. The MARS® platform's new *in situ* rinse program offers a cost-effective and user-friendly solution for isolating rare cells. This workflow achieves high purity and cell recovery, comparable to the traditional Serial separation program, even from initial purities less than 2%. Additionally, it increases throughput, reduces processing time, and supports a wide range of cell isolation workflows from both human and mouse samples.

Using MARS® Bar platform ensures:

- ☑ Very high **purity and recovery**
- ☑ Improve purity even from **low starting cell %**
- ☑ **Fast and Simple** workflow (up to 3 mL/ min)
- ☑ **No magnetic column** costs
- ☑ **Intuitive**, touchscreen interface
- ☑ Low consumables **cost**, low reagent **consumption**

MARS® Bar family offers

- **Optimised isolation protocols**
- **High cell viability**
- **Minimal technical complexity**
- **Reproducibility**



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