

High Efficiency Separation of CD34+ HSC from Mobilized Blood

INTRODUCTION

In recent years, multipotent haematopoietic stem cell (HSC) therapy has become a popular technique with a range of promising health benefits. A broad variety of possibilities makes this cutting-edge therapy a turning point in modern medicine. One of the recognized challenges is the ability to quickly obtain a sufficient number of desired cell types for transplantation, with high purity. Today, the time-consuming sample preparation steps and the considerable loss of cells during the process are still a significant challenge. The **MARS® platform** addresses it through an easy method to isolate CD34+ cells from mobilized blood without RBC lysis and density gradient centrifugation.

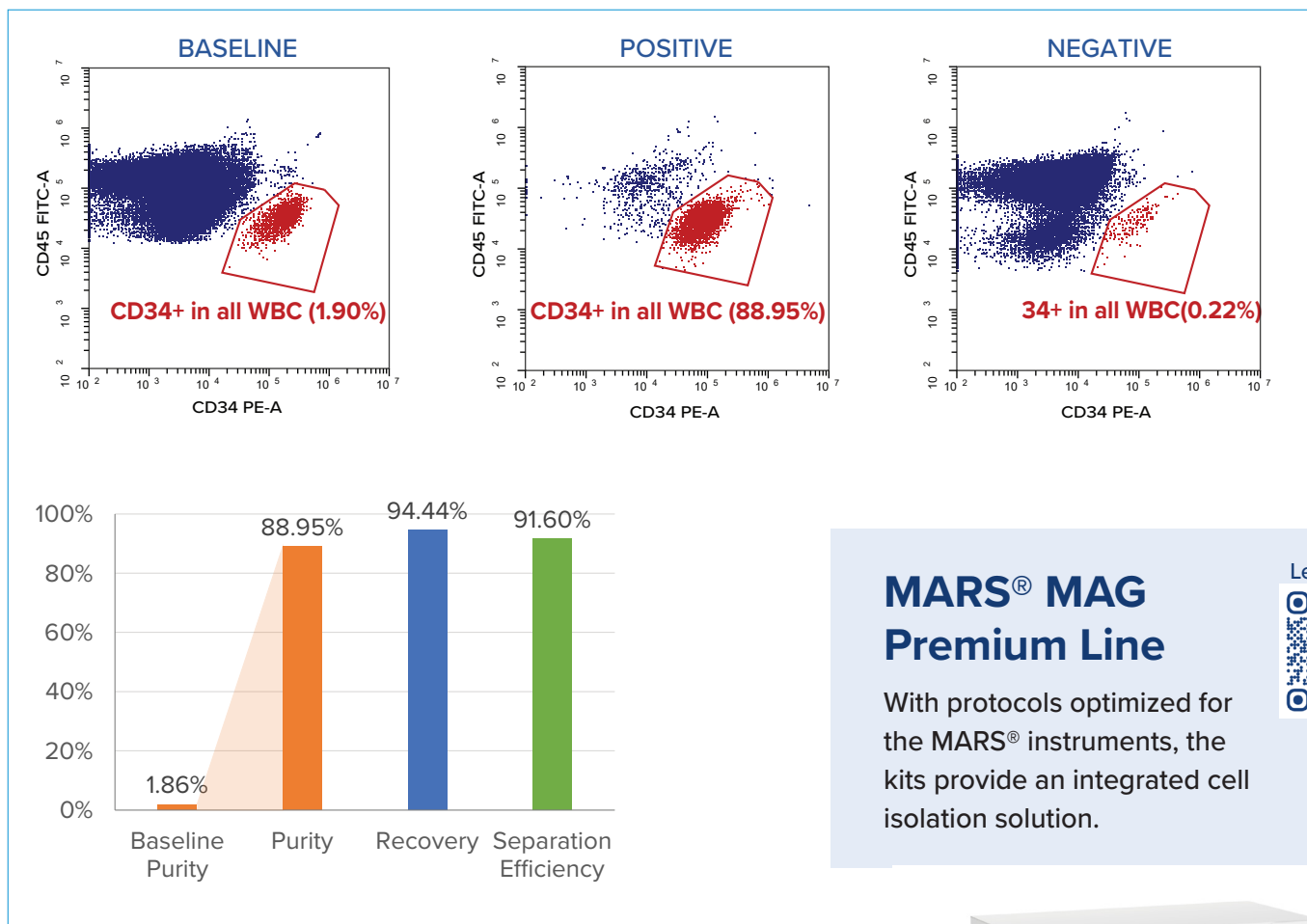


Figure 1. MARS® platform provides an easy and cost-effective protocol for CD34+ cell isolation. Single pass CD34+ HSC enrichment from Baseline 1.9% purity to 88.95% purity. CD34+ cell recovery was above 94.4%.

MARS® MAG Premium Line

With protocols optimized for the MARS® instruments, the kits provide an integrated cell isolation solution.

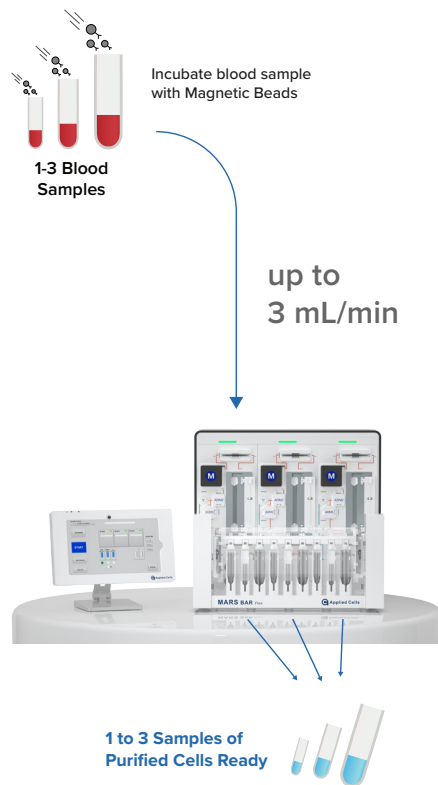
Learn more



EASY ASSAY UPSCALING

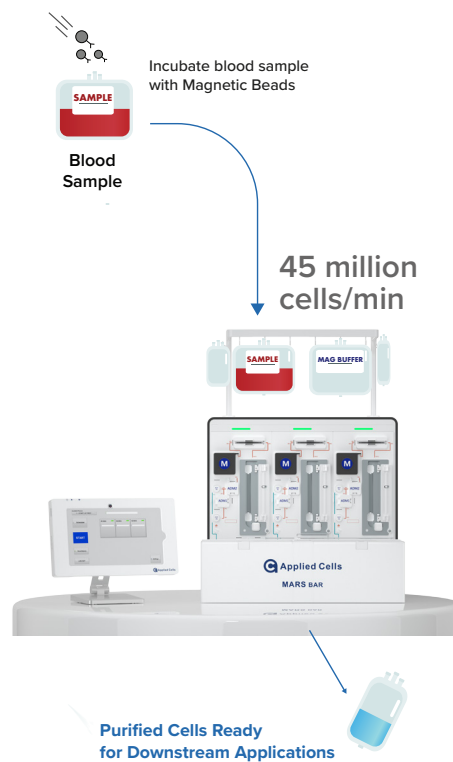
STEP 1

Optimize the assay in a small scale, starting at 300 uL / sample



STEP 2

Upscale the assay to achieve highest purity in a cost-effective manner



Using MARS® Bar platform ensures:

- ☑ Over **88% purity** and very high **recovery**
- ☑ Easily **rerun the sample** to improve purity
- ☑ **Fast and Simple** workflow (up to 6 mL/ min)
- ☑ **No magnetic column** costs
- ☑ **Intuitive**, touchscreen interface
- ☑ Low consumables **cost**, low reagent **consumption**

MARS® Bar family offers both, a small-scale system (TITO) for easy assay optimization of up to 3 samples in parallel, and a fully enclosed bag-in-bag-out (BIBO) configuration for high-performance, sterile cell processing and culturing.

For research use only. Not for use in therapeutic or diagnostic procedures.

© Copyright 2023. All rights reserved. Applied Cells and MARS® are registered trademarks of Applied Cells, Inc. All other trademarks are the property of their respective owners.

AC_A022B