

B cell isolation with MARS® Platform

INTRODUCTION

Immunotherapy requires purified cells for a variety of experimental needs. For patients with protein deficiencies for whom gene therapy is not an option, B cells provide an excellent factory for producing immunoglobulin in lymphocytes or plasma cells. Obtaining a large number of B cells requires a cell isolation solution for both pre-clinical testing on a small or large scale and clinical applications. The **new MARS® Bar system** enables positive or negative immuno-magnetic CD19+ cell isolation for separation from a variety of cell products.

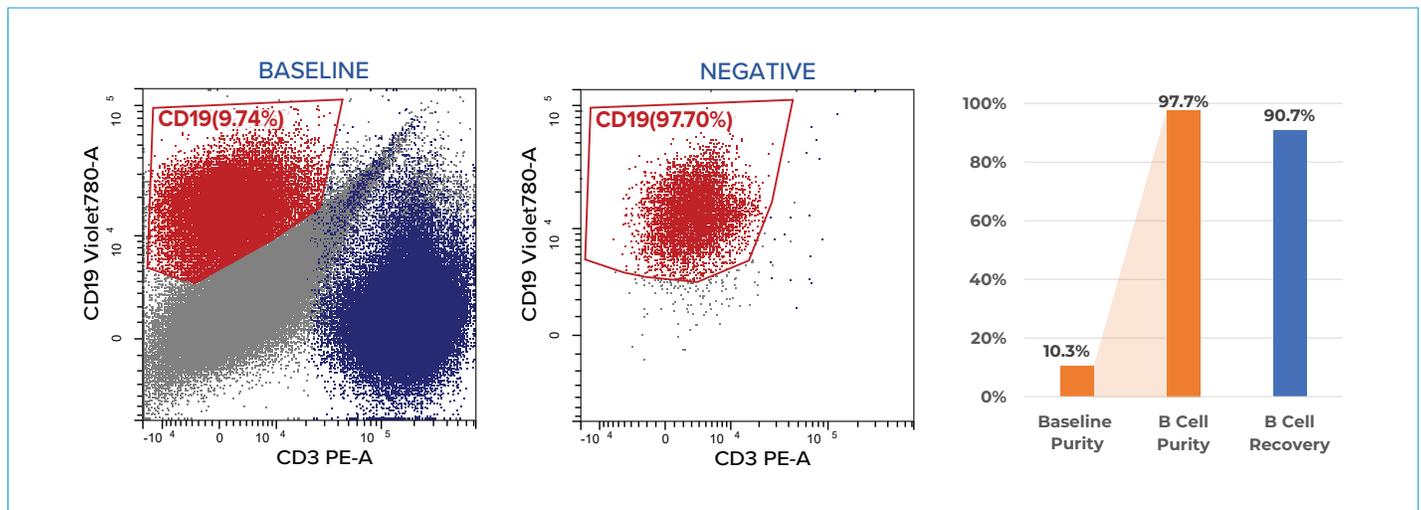


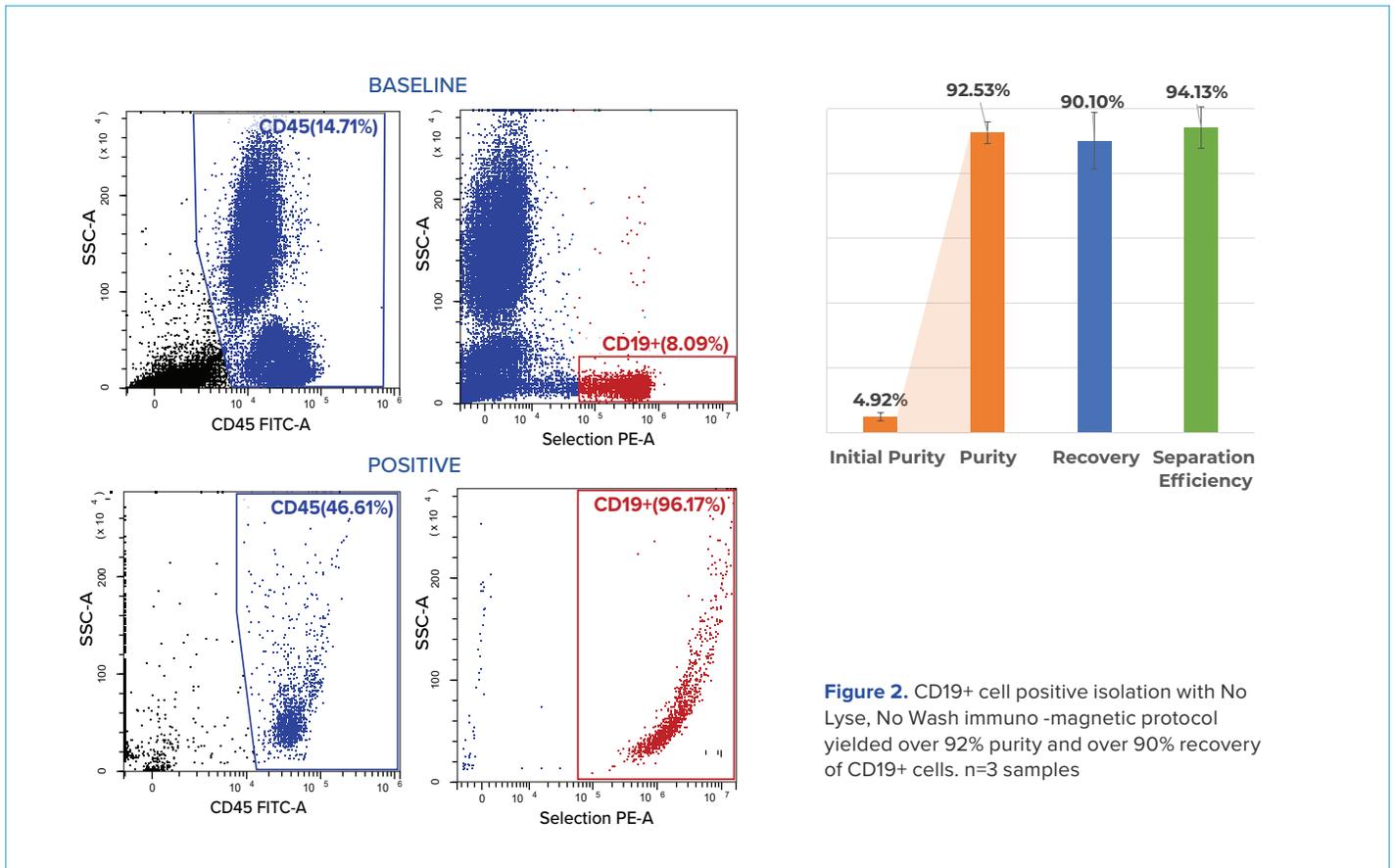
Figure 1. MARS® platform enables easy and cost-effective assay optimization and upscaling for B cell isolation from Leukopak. The Negative selection immuno-magnetic protocol yielded over 97% purity and over 90% recovery of CD19+ cells from frozen Leukopak.

Negative CD19+ Cell Isolation from a Leukopak

MARS® platform is a powerful solution for an automated negative B cell isolation (Fig. 1) with:

- ☑ Very high cell **purity and recovery**
- ☑ Very high cell **viability**
- ☑ **Minimal hands-on** sample manipulation
- ☑ **Fast** and **easy workflow** for assay optimization
- ☑ Immunomagnetic, **matrix-free** cell isolation
- ☑ **Economical** solution
- ☑ **Sterile** and disposable fluidics for large scale isolation

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.



High CD19+ Cell Enrichment from Peripheral Blood (Fig. 2):

- ☑ Over **96% purity** and very high **recovery**
- ☑ **Flexibility:** run up to 3 samples in parallel or one large sample through our sterile bag-in-bag-out process
- ☑ **Fast and Simple** workflow (up to 6ml / min)

Using MARS® Bar platform ensures:

- ☑ **No magnetic column** costs
- ☑ **Intuitive,** touchscreen interface
- ☑ **Preprogrammed assay** protocols
- ☑ Low consumables **cost,** low reagent **consumption**



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