

CD3- CD56+ NK Cell Selection with MARS® Platform

INTRODUCTION

NK cells are currently a major target of innovation in the field of cancer immunotherapy. Efforts aimed at developing and engineering NK cell-based cancer immunotherapy require clean and efficient methods of cell isolation at both small and large scales. The **new MARS® Bar system** enables a new generation of large scale, magnetic CD56+/CD3- cell isolation technology for separation of Apheresis, Leukopaks, Whole Blood or Bone Marrow cell products.

High CD56+/CD3- Cell Enrichment was Achieved in Peripheral Blood Samples (Fig.1) with:

- ☑ Over **90% purity and 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** Simple 2x ADD-ADD-RUN workflow to remove CD3+ cells and then enrich CD56+ cells

Using MARS® platform ensures:

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

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

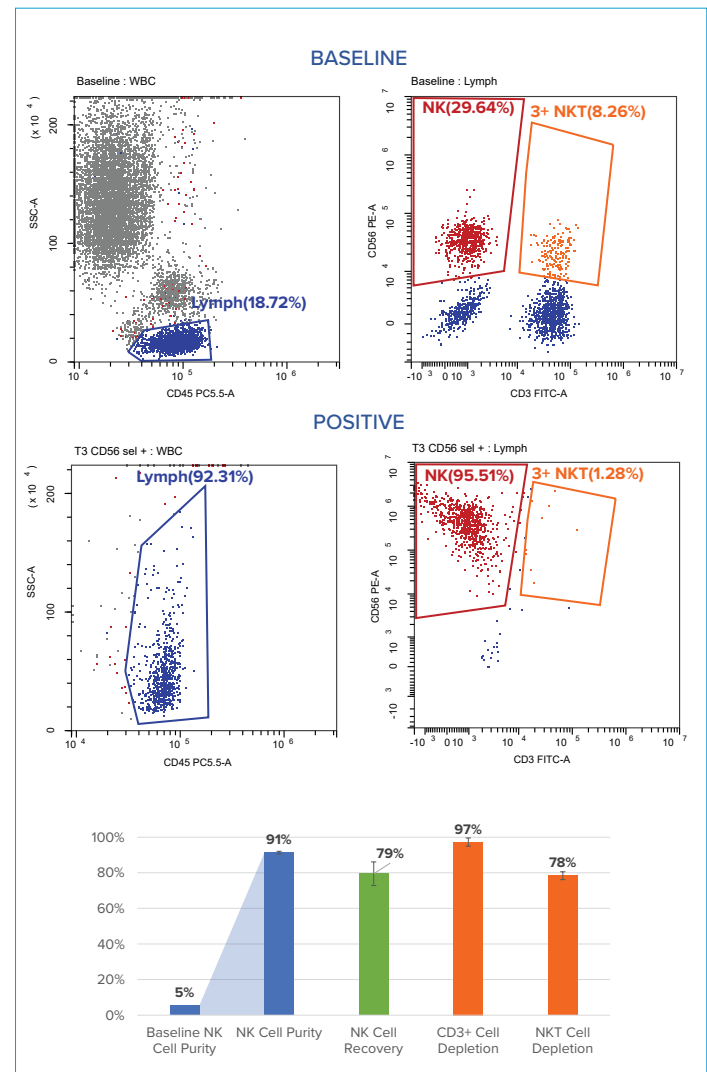


Figure 1. CD56+/CD3- cell isolation from Peripheral Blood: example data representing CD56+/CD3- population purity after MARS immunomagnetic separation.

END-TO-END SOLUTION FOR EASY WORKFLOW UPSCALING

- ① Pre-programmed and customizable workflows for easy optimization
- ② Parallel processing of up to 3 samples
- ③ Matrix-free magnetic column sample flow rate of 1 mL/min
- ④ Capacity to process billions of cells in a single closed system operation
- ⑤ Bags compatible holding arm
- ⑥ Control panel operated from a distance for use in bio-safety hood

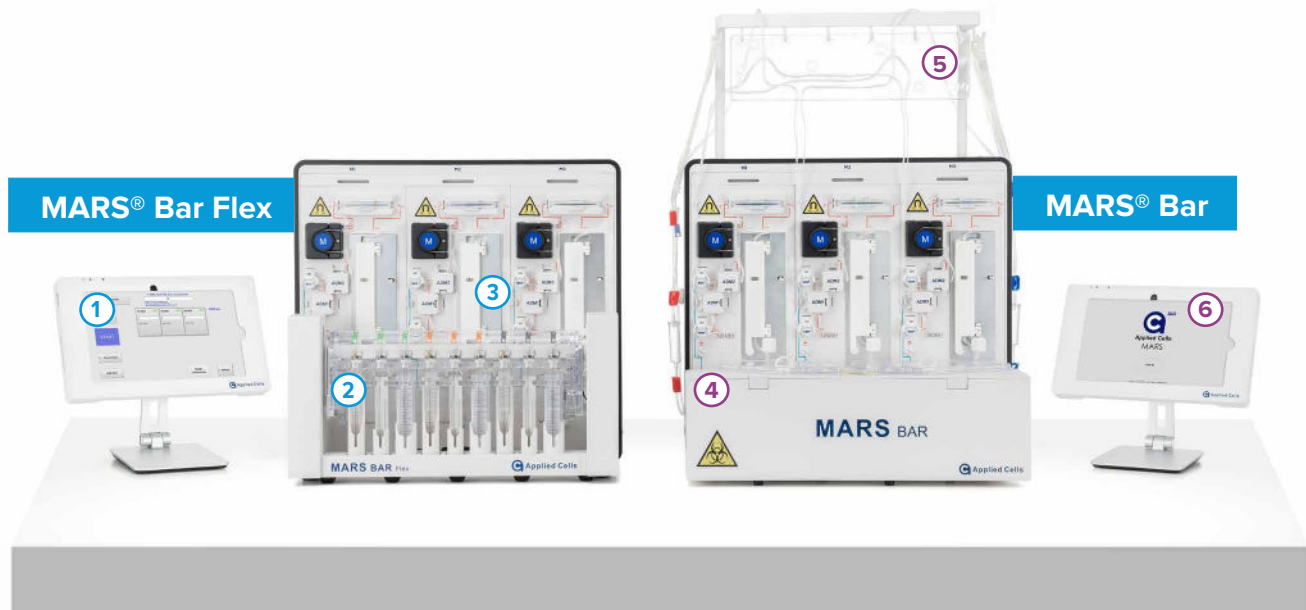


Figure 2. MARS® platform enables easy and cost-effective assay optimization and upscaling.

END-TO-END SOLUTION

MARS® platform is a powerful solution for rapid NK cell isolation optimisation and upscaling (Fig. 2) with:

- ☑ High cell **purity and recovery**
- ☑ 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

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