

Efficient CTC enrichment with column-free MARS® Bar Platform

Purifying circulating tumor cells (CTCs) is vital for cancer research advancement and new diagnostic and therapeutic strategies. High-purity CTC isolation provides critical insights into tumor biology, metastasis, and treatment response. CTCs are invaluable for personalized medicine development, biomarker discovery, and therapeutic testing. Here, we introduce a rapid and effective CTC isolation method using CD45 depletion with MARS® Bar technology.

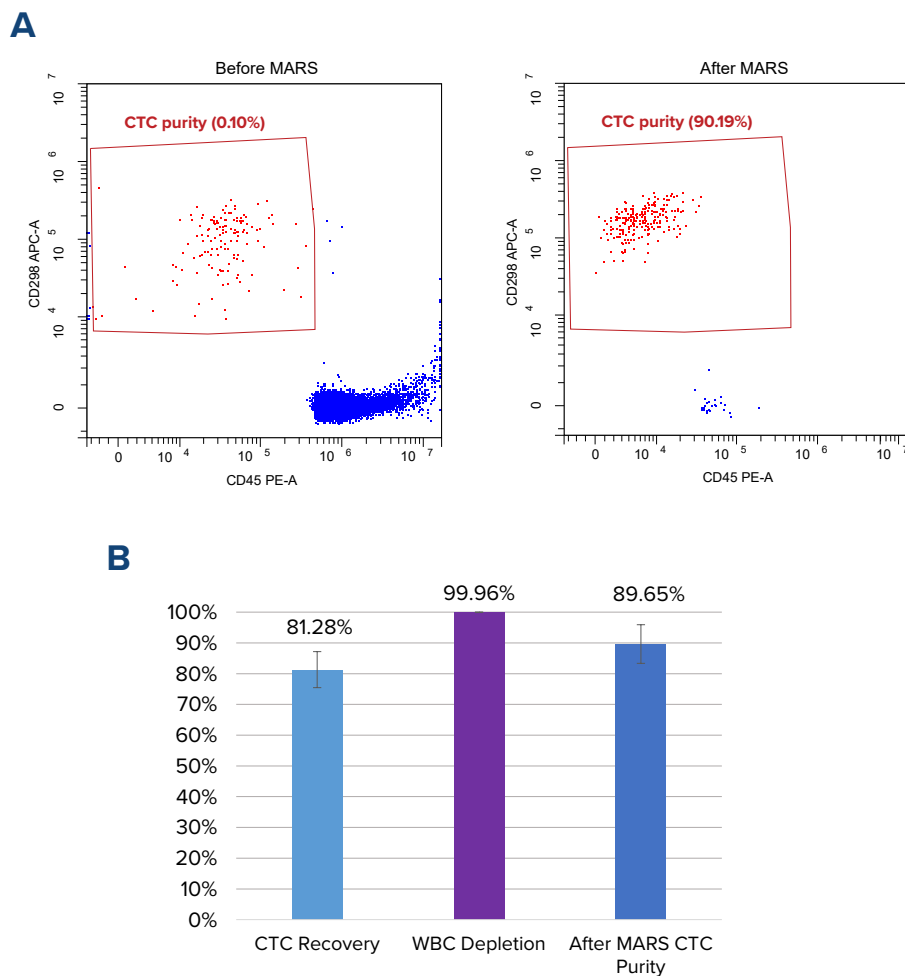


Figure 1. (A) Purity of CTC before and after MARS: Dot plots illustrating the purity assessment of CTCs before and after MARS enrichment. (Left) 0.1% A549 lung carcinoma cells, pre-stained with the pan-cell marker CD298 APC, were spiked into human PBMC prior to depletion, (right) enriched A549 cell purity after MARS serial CD45 depletion, demonstrating a medium performance, as detailed in (B). **(B) CTC enrichment using MARS serial CD45 depletion process:** following MARS serial CD45 depletion, the purity of A549 cells increased substantially, reaching an average of 90% from an initial 0.1%, with an average A549 cell recovery rate of 81%. The efficiency of white blood cell depletion averaged 99.95% across seven replicates (n=7 replicates).



AUTOMATED PRECISION

MARS® brings the next level of automation. **Automatic 2x or 3x depletion** promises unrivaled consistency and a seamless user experience, setting us apart from the laborious manual methods.



UNRIVALED RECOVERY AND PURITY

Break away from traditional limitations. Our technology guarantees **high cell purity** that far outstrip conventional methods. When it comes to **recovery**, we persistently outperform - even after intensive serial runs.



EFFICIENT, ECONOMICAL AND REUSABLE

With **reusable and cleanable fluidics**, MARS® dramatically reduces the per sample running cost. Preset cleaning protocols offer unprecedented efficiency, enabling multiple sample runs without the need for fluidics replacement.

Learn more:
appliedcells.com/target-cell-isolation



Figure 2. The MARS® platform offers an easy workflow for cell depletion. A schematic showing a workflow: labeling protocol followed by two (or optionally three) MARS® Immunomagnetic depletion runs.

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