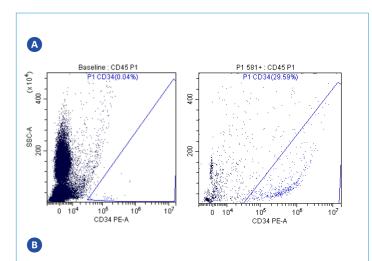
High purity and recovery Positive Selection of CD34+ cells from Whole Blood

CD34+ cell isolation from whole blood is usually performed with RBC lysis or a density gradient separation method, typically using Ficoll - based protocols. This methodology is very time and labor-intensive and leads to high cell loss. Our No-Lyse-No-Wash (NLNW) protocol is fast and cost-effective. The MARS® Bar system together with MARS MAG LINE of reagents can isolate stem cells from a low volume of whole blood with high recovery.



	BASELINE	PURITY
donor 1	0.04%	29.59%
donor 2	0.01%	27.12%
donor 3	0.04%	19.77%
donor 4	0.02%	31.00%
donor 5	0.02%	12.84%

C

Time	Hands-On Time
55 minutes	10 minutes
10 minutes	2 minutes
65 minutes	12 minutes
	55 minutes 10 minutes

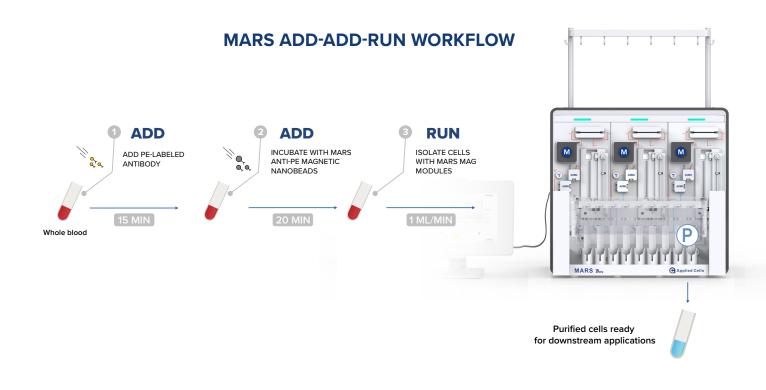
High CD34+ Cell Enrichment was Achieved in All Peripheral Blood Samples (Fig.1) with:

- As high as **1500-fold enrichment**
- Flexibility: run up to 3 samples in parallel
- ✓ Fast and Simple ADD-ADD-RUN workflow
- Good purity from very low starting CD34+ level

Using MARS[®] Bar together with MARS MAG LINE ensures:

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

Figure 1. CD34+ cells enrichment from peripheral blood **(A)** example gating strategy for Donor 1, **(B)** purities achieved across 5 different donors, **(C)** Processing Time



FAST ISOLATION

A Typical ADD-ADD-RUN workflow includes 35 min of labeling and column-free cell isolation at the speed of 1ml/min. Compare this to multi-step protocols for other column-based assays. Using the MARS Bar instrument with 3 separate Magnetic modules you can process 3 independent samples in parallel.

FLEXIBLE PROTOCOL

Capture and purify any subpopulation of PE-labelled white blood cells with the highest recovery, with no need for subset-specific antibodies conjugated to magnetic beads.

ECONOMICAL SOLUTION

Our solution means no need for RBC lysis, and the flexibility to use the same MARS anti-PE Nanobeads for capturing different PE-labeled cell populations.

EASY WORKFLOW

Isolating cells with the MARS integrated solution uniquely allows for a no-lyse, no-wash protocol, greatly accelerating the isolation speed and providing gentle sample treatment. The simple ADD-ADD-RUN protocol is exquisitely easy.

LEARN MORE

BOOK A VIRTUAL DEMO

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

© Copyright 2021. All rights reserved. Applied Cells and MARS are registered trademarks of Applied Cells, Inc. All other trademarks are the property of their respective owners.



3350 Scott Blvd Bldg 6 Santa Clara, CA 95054 +1 650-539-4318

www.appliedcells.com info@appliecells.com