Automating Evercode™ with Integra

Scale up Single Cell Sequencing with Automation

Streamlined Workflow

Consistent, High-quality Data

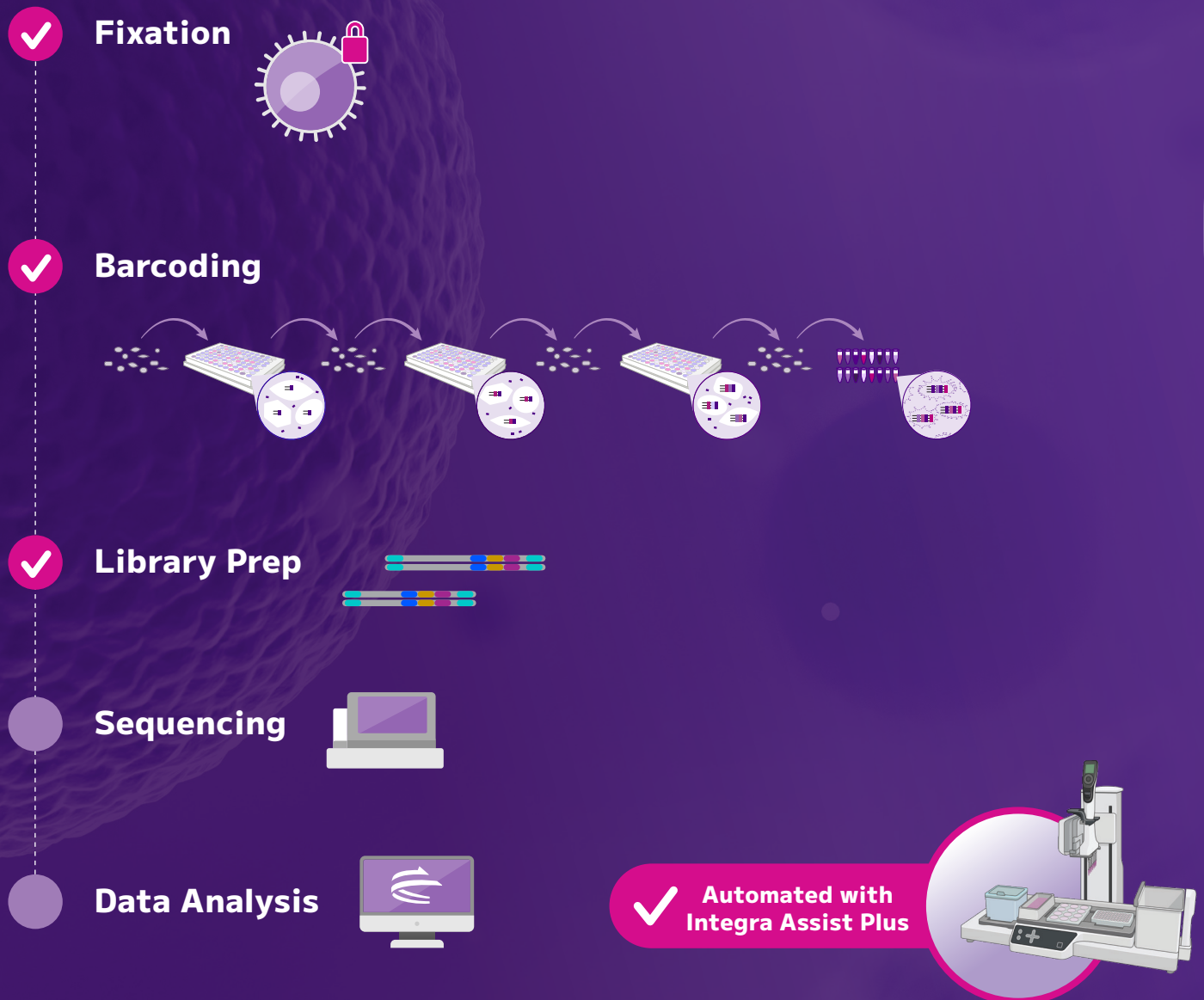Easy to Get Started

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Evercode
The Complete Single Cell Solution

Combinatorial Barcoding with Evercode

With combinatorial barcoding, the cells are initially fixed and permeabilized, transforming each into its own self-contained reaction vessel, eliminating the need to isolate individual cells physically. Through the split-pool barcoding process, cells are tagged with a vast array of barcode combinations, enabling effortless scaling. Pipetting along Evercode's workflow, from fixation to library preparation, can be automated using Integra's Assist Plus.

Fixation

Barcoding

Library Prep

Sequencing

Data Analysis

✔ **Automated with Integra Assist Plus**

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Maximize Efficiency
with Less Hands-on Time

From Active Pipetting to Passive Efficiency

With Evercode™ and the Integra Assist Plus, scaling single-cell experiments becomes more efficient and easier than ever. Automating this workflow reduces your hands-on time by up to 80% and cuts pipetting steps by 93%. Whether you're profiling hundreds or up to a million cells, Evercode's combinatorial barcoding ensures high data quality with low doublet rates. By improving throughput and traceability, this solution helps you streamline your studies, scale experiments more easily, and regain valuable lab time for other critical tasks.

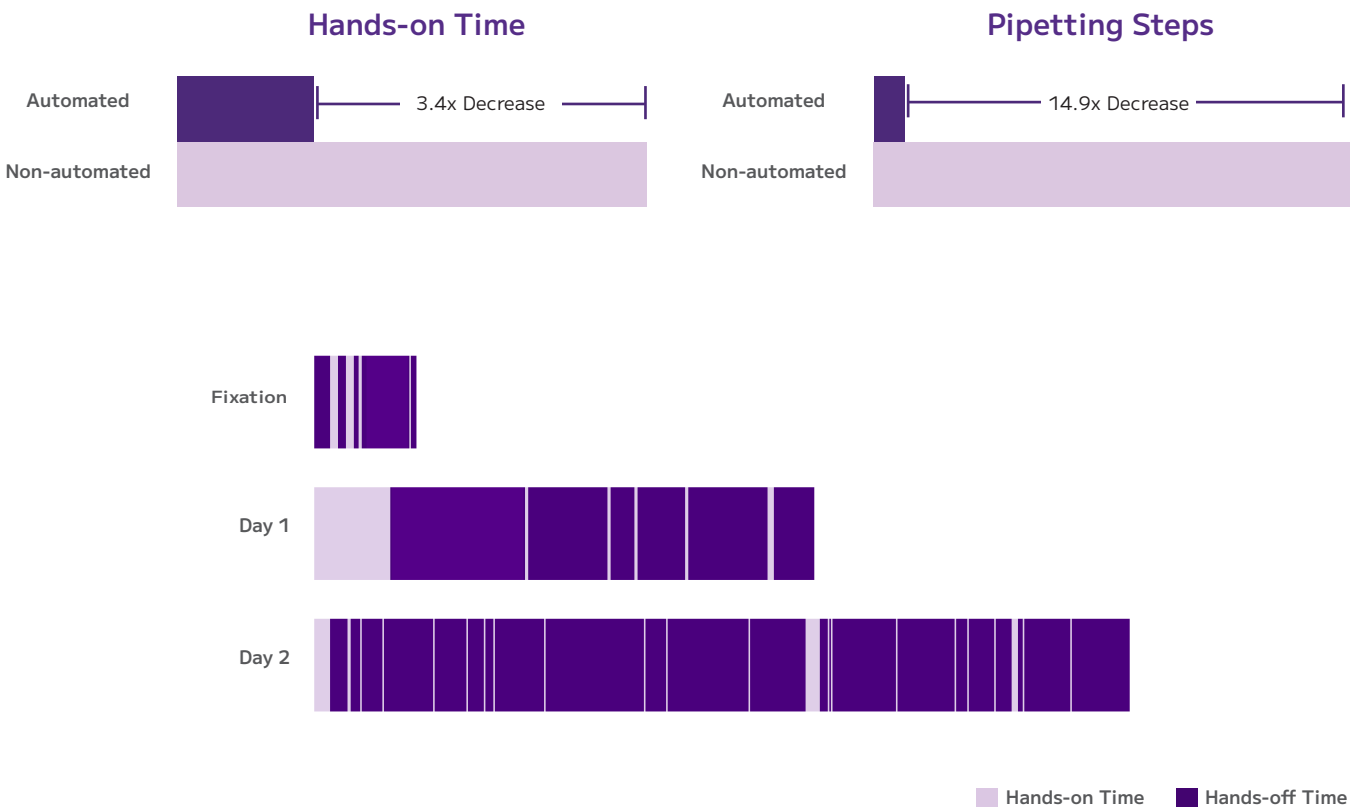**Hands-on Time** ▼ **80%**

Pipetting Steps ▼ **93%**

Hands-on Time

Automated
Non-automated

3.4x Decrease

Pipetting Steps

Automated
Non-automated

14.9x Decrease

Fixation

Day 1

Day 2

■ Hands-on Time ■ Hands-off Time

Figure 1. Breakdown of total hands-on time (light purple) vs hands-off time (purple) spent across the total workflow.

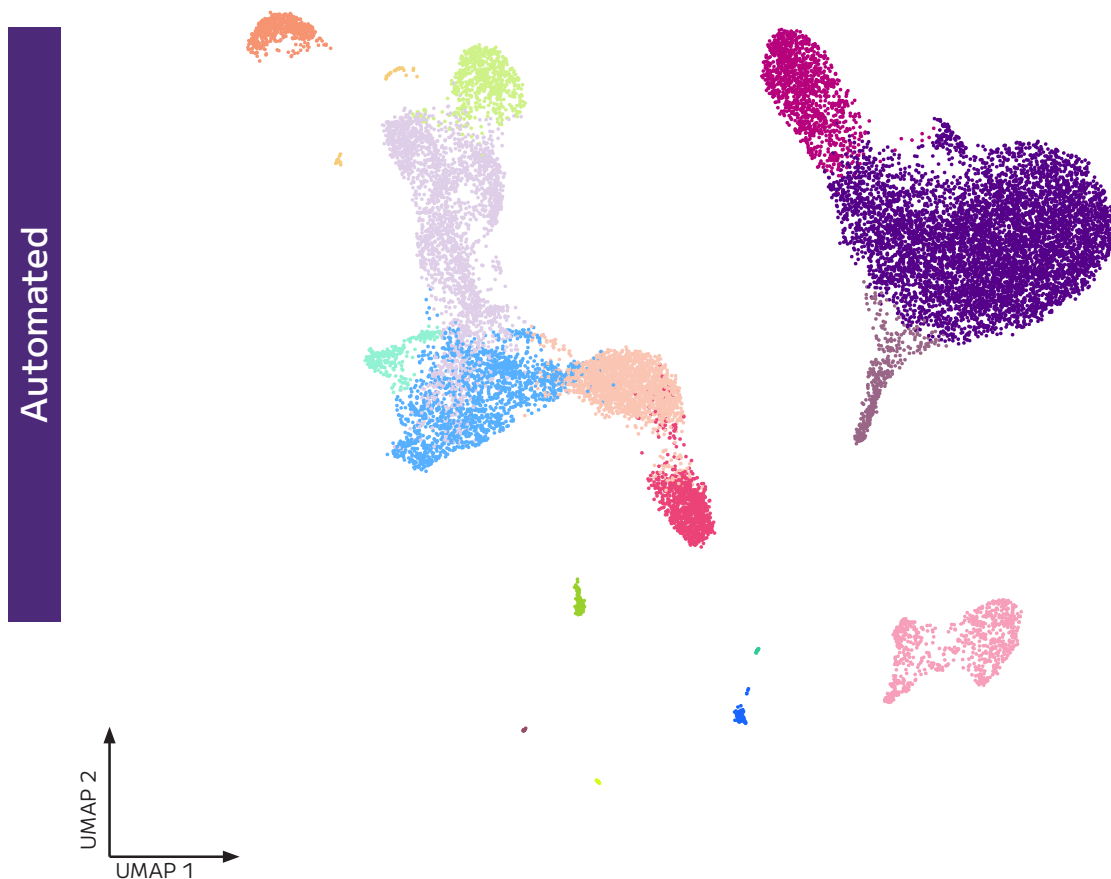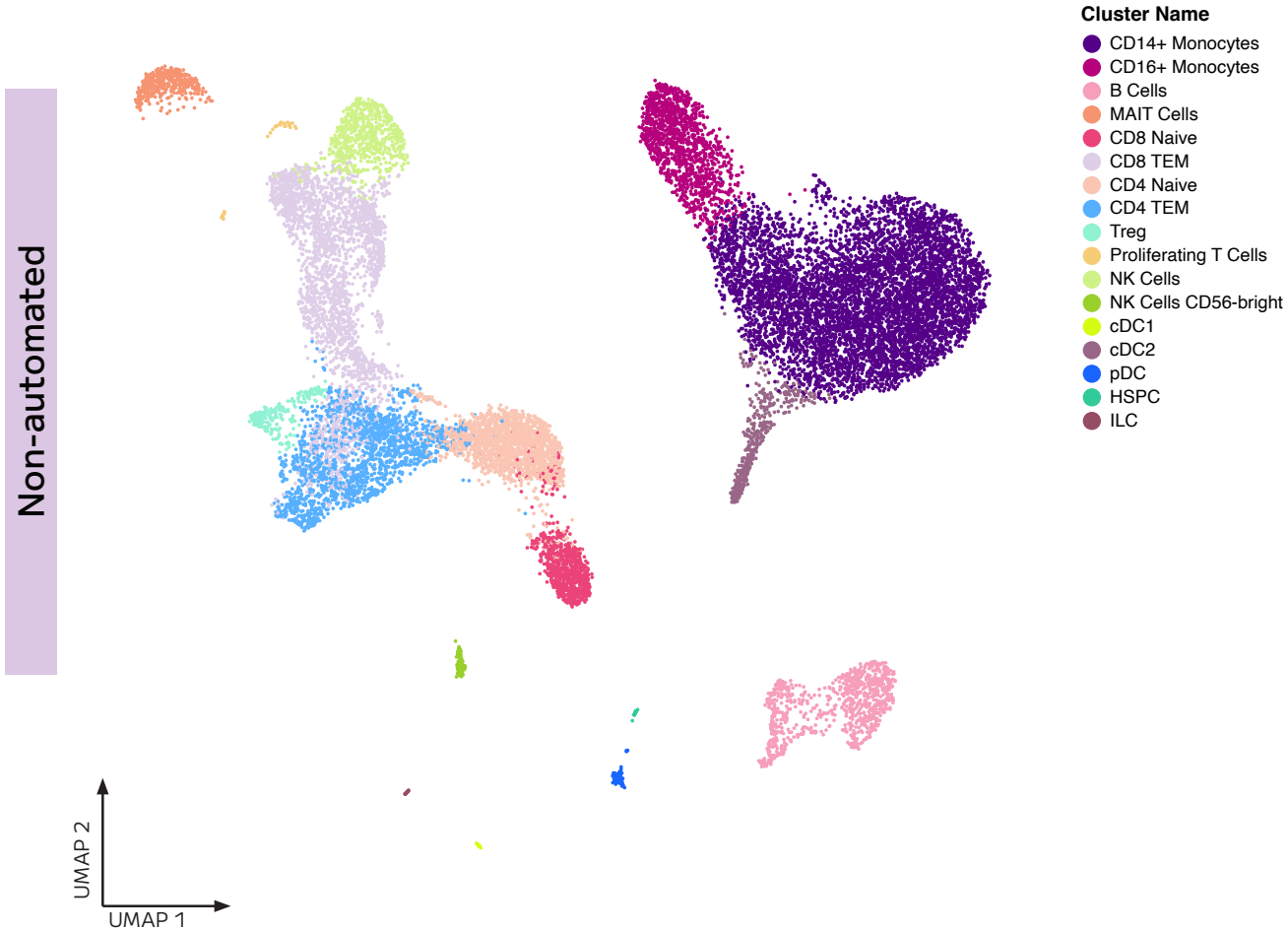PARSE BIOSCIENCES

Effortless Automation, Consistent Data

Figure 2. Consistent cell type profiling of human PBMC data generated using the automatedand and the non-automated Evercode WT v3 full workflows. Data were filtered, integrated and annotated in Trailmaker. The default data processing parameters in Trailmaker were used including the Harmony integration method. A mitochondrial content cutoff of 8% was applied. UMAPs showing cell types were exported from Trailmaker as SVG files.

Parse's Evercode™ technology, paired with Integra's Assist Plus, ensures that automation does not compromise the high-quality data you rely on. This integrated workflow maintains the consistency of gene expression results, matching those from non-automated methods. By streamlining the process, it minimizes variability and upholds the reliability of your single cell RNA sequencing results. With seamless integration and dedicated support from both teams, you achieve robust data integrity while benefiting from enhanced efficiency.

Cluster Name
- CD14+ Monocytes
- CD16+ Monocytes
- B Cells
- MAIT Cells
- CD8 Naive
- CD8 TEM
- CD4 Naive
- CD4 TEM
- Treg
- Proliferating T Cells
- NK Cells
- NK Cells CD56-bright
- cDC1
- cDC2
- pDC
- HSPC
- ILC

Non-automated

UMAP 2

UMAP 1

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Correlated Cell Type and Gene Detection

| Sequencing Metrics	Cell Lines		Human PBMCs					
			Donor 1		Donor 2		Donor 3	
	Non-automated	Automated	Non-automated	Automated	Non-automated	Automated	Non-automated	Automated
Esimated number of cells	22,193	24,992	6,745	4,991	6,025	7,878	6,381	5,967
Mean reads per cells	36,000	36,000	60,000	60,000	60,000	60,000	60,000	60,000
Median Transcripts/cell	11,066	9,271	8,138	7,983	8,342	8,562	8,712	8,169
Median Genes/cell	4,619	4,185	3,003	2,947	3,042	3,069	3,065	2,948

$R = 0.98$, $p < 2.2e\text{-}16$
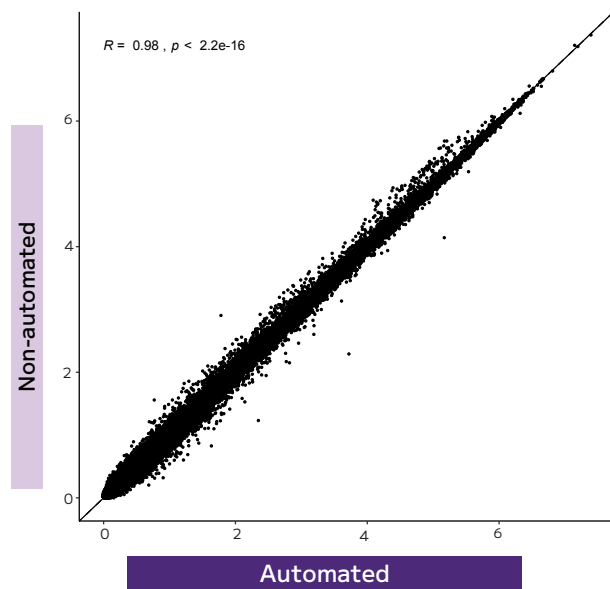
Figure 3. Correlation of normalized human PBMC gene expression profiles generated using the automated and the non-automated Evercode WT v3 barcoding workflows.
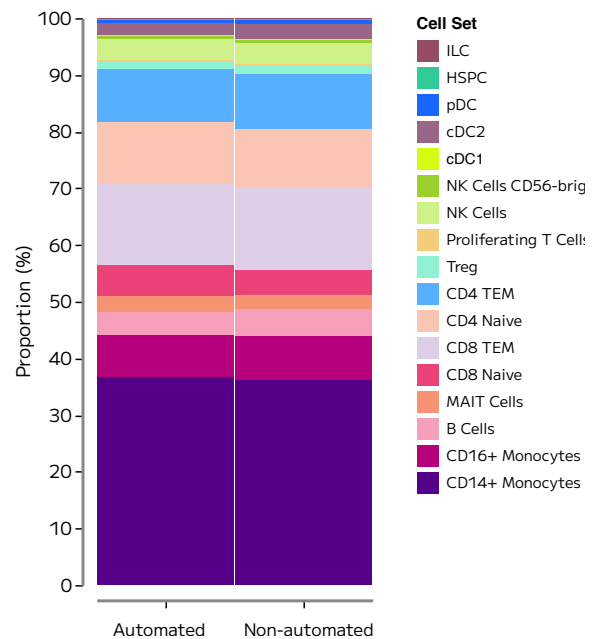

Figure 4. A comparison of relative abundance of the major cell types (presented as % of total cells) was performed to confirm concordance of expression between non-automated and automated methods. Cell type proportions were plotted in Trailmaker. The frequency plot was exported as an SVG file.

Easy to Get Started

Get up and running quickly with no coding or automation experience required, thanks to an intuitive interface and pre-written scripts that are ready to load and use. Automation is applied to key parts of the workflow—from automating pipetting during the run to streamlining data analysis with Trailmaker—while we support the entire workflow to ensure seamless integration. This approach enables you to focus on your experiments, knowing you can rely on automation to reduce manual effort.

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PRODUCT	PART NUMBER
Evercode Automation Package with INTEGRA ASSIST PLUS One Integra Assist Plus instrument with all accessories needed to run Parse workflows. Two Evercode WT v3 kits and one UDI plate.	NTWT3300
Evercode Automation Mega Package with INTEGRA ASSIST PLUS One Integra Assist Plus instrument with all accessories needed to run Parse workflows. One Evercode WT v3 with UDI plate and one Evercode WT Mega v3 kit.	NTWT3500
Evercode Automation Starter Kit for INTEGRA ASSIST PLUS All Parse-provided components required to perform Parse Evercode workflows on the Integra Assist Plus.	NTAC1100

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