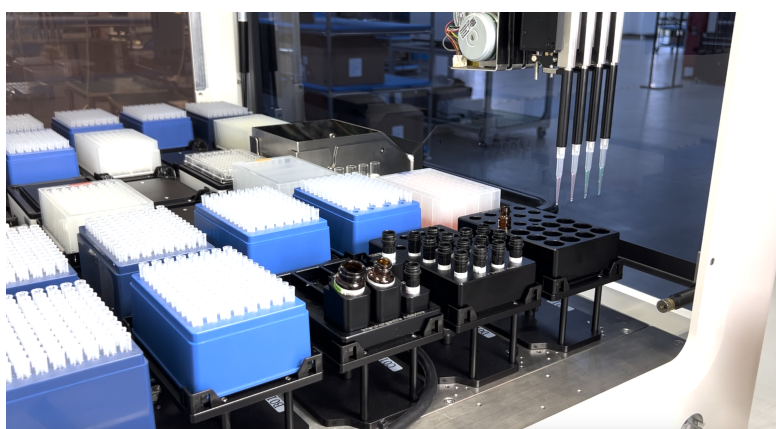




Curiox Antibody Master Mix Preparation

Transforming Flow Cytometry Workflows with Precision and Efficiency



Curiox's antibody master mix preparation automates one of the most critical, yet error-prone, steps in immunophenotyping workflows. By pairing CSV-driven automation with advanced pipetting technology, our solution empowers labs to achieve

exceptional reproducibility, flexibility, and traceability—while saving time and expensive reagents.

Why Automate Antibody Master Mix Preparation?

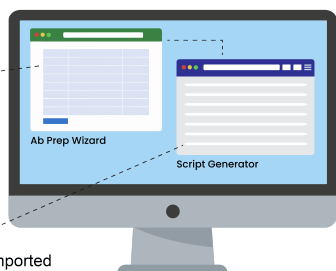
Challenge	Curiox Solution
Manual, error prone	Fully automated liquid handling, powered by Curiox C-FREE™ technology
Variability and low reproducibility	Precision pipetting with low dead volume
Expensive reagent waste	Optimized dispensing minimizes waste
Need for scalability	Throughput options for every lab size (LT, MT, HT)
Compliance requirements	Audit trail & database management built-in

Key Features at a Glance

Feature	Description
CSV-Enabled Automation	Upload antibody panels via CSV for fast, flexible setup from a master antibody database using a user-friendly Ab Prep Wizard
Script Options	Choose a custom script from Curiox or generate one using the Automated Script Generator module
Precision Pipetting	5 μ L CV<4%; 200 μ L CV<1% for consistent, reproducible results
Low Dead Volume	Save costly reagents with optimized small-volume handling
Audit Trail & QC	Full traceability with logs, audit trails, and database tracking
Workflow Compatibility	Flow cytometry, spectral cytometry, multiplex assays, custom panel prep
High Capacity	Supports up to 40+ antibody reagents in a single prep, ideal for large panels and multiple controls
Source Vial Compatibility	Works with virtually all antibody vials from major suppliers – no proprietary consumables required

1. **Ab Prep Wizard** manages and extracts reagent data from a master antibody database. It generates a structured CSV file containing the required antibody prep details.

2. The CSV file is then imported into the **Script Generator** that creates a liquid handling script tailored for antibody master mix preparation.



3. Both the CSV file and the generated script are uploaded to a Pluto workstation, accessed via an integrated tablet interface.

4. The **Pluto workstation** then executes the script to produce precise and standardized antibody master mixes, — minimizing error and ensuring reproducibility.



How the CSV Method Works

	Vial Type	Source	Output	Current Volume (μL)	Required Volume (μL)
1	BD Glass 5mL	Source Rack 1_A1	Output Rack 1_A1	450	15.75
2	Cytek Tube 5mL	Source Rack 1_A2	Output Rack 1_A1	460	15.75
3	Biolegend Tube	Source Rack 1_A3	Output Rack 1_A1	500	4.75
4	BD Tube	Source Rack 1_B1	Output Rack 1_A1	490	15.75

This CSV tells the system to pipette a specific volume for each antibody as indicated in the table into the same destination well, creating a ready-to-use master mix in minutes.

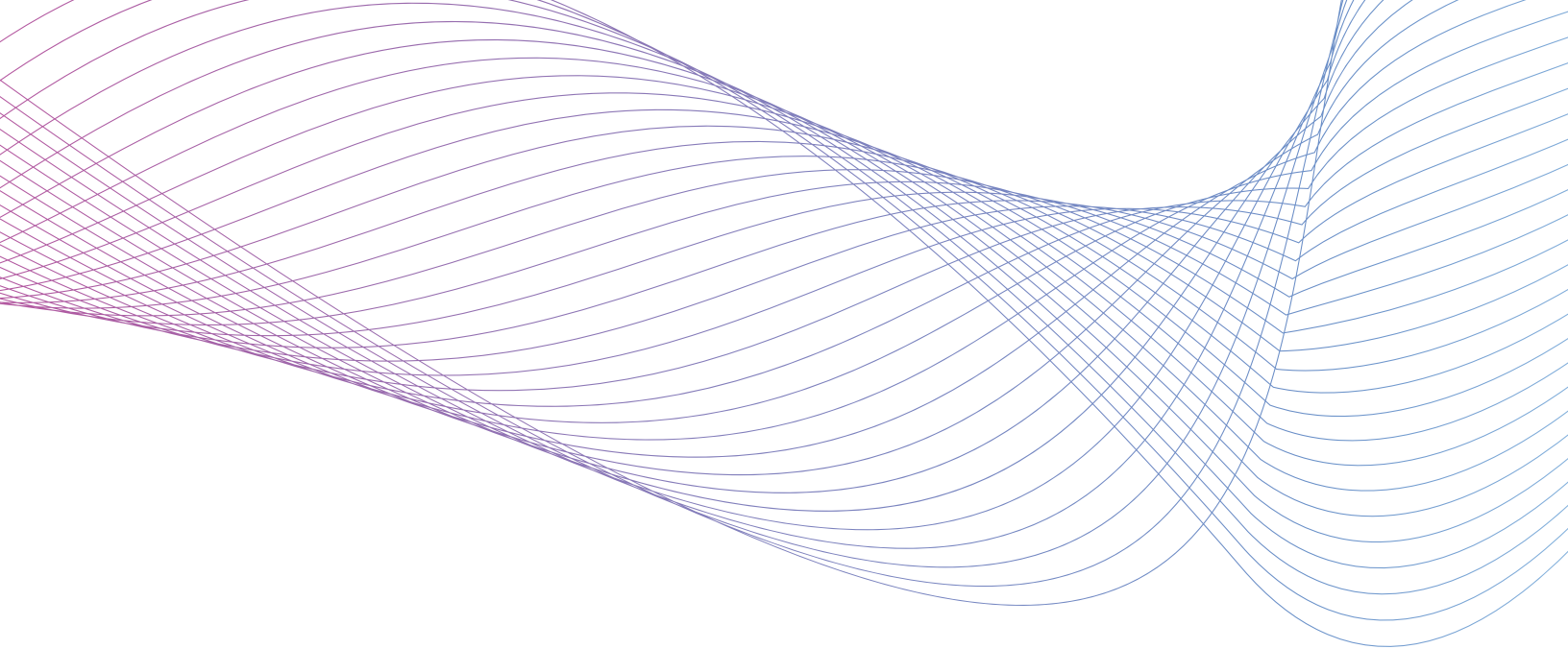
Compatible Systems

The automated antibody master mix preparation workflow is supported by any Pluto workstation:

- Pluto HT: High-throughput solution with 96-well capability for maximum panel prep scalability
- Pluto MT: Mid-throughput solution with up to 72-well capability, ideal for core labs and larger studies
- Pluto LT: Low-throughput platform with up to 32-well capability, perfect for routine assay development and small-scale projects

"The antibody master mix automation with Curiox completely changed our lab efficiency. We cut prep time by 70% and achieved unparalleled consistency"

- Dr. Holden Maecker, Stanford HIMC



Contact us today!

