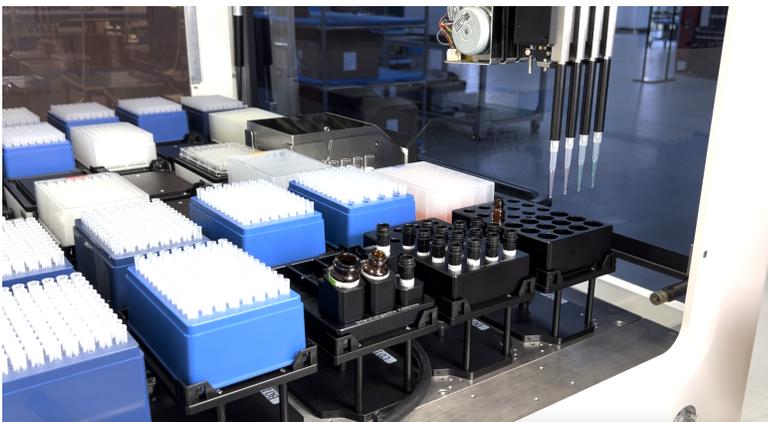




Curiox Antibody Master Mix Preparation

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.

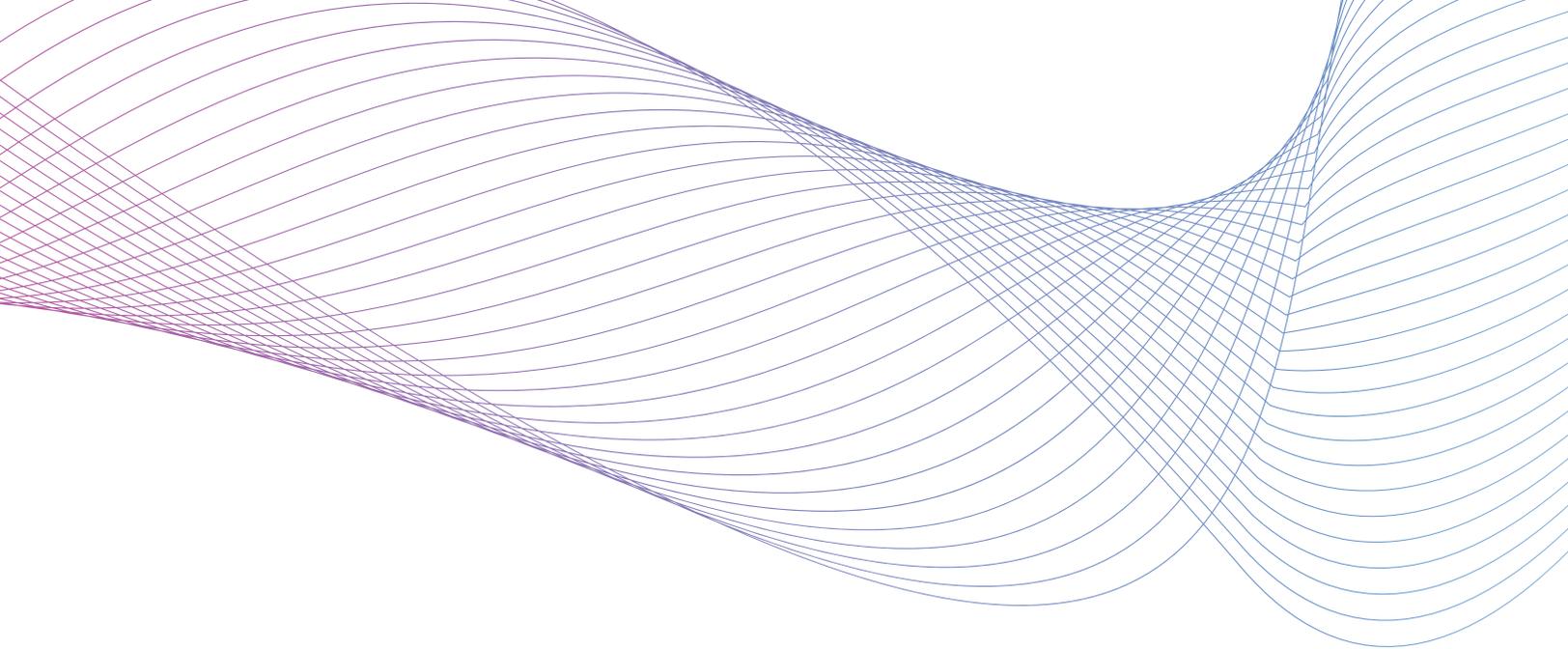
Compatible Systems

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!

