

Maurice® cIEF Cartridge

Part# PS-MC02-C

Introduction

The Maurice cIEF cartridge is used for charge heterogeneity analysis on Maurice, Maurice C. or MauriceFlex systems.

Components

Includes	Qty/Kit
Maurice cIEF Cartridge	2

Storage Conditions

- Store cartridges at 18 – 28 °C.

Other Things You'll Need

If This Is Your First Time Developing a cIEF Method:

- Maurice cIEF Method Development Kit, PN PS-MDK01-C
- Deionized (DI) water
- Maurice sample vials with integrated inserts, 0.2 mL, PN 046-083 or 96-well plates, PN 046-021
- Maurice glass reagent vials, 2 mL, PN 046-017
- Maurice clear screw caps for sample and reagent vials, PN 046-138
- Maurice cIEF blue pressure caps, PN 046-573
- Pipettes and tips

If You've Already Developed Your cIEF Method:

- Maurice cIEF Fluorescence Calibration Standard, PN 046-025
- 0.5% Methyl Cellulose Solution, PN 102505
- 1% Methyl Cellulose Solution, PN 101876
- iCE Electrolyte Kit, PN 102506

- Maurice cIEF pI Marker: 3.38, PN 046-028
- Maurice cIEF pI Marker: 4.05, PN 046-029
- Maurice cIEF pI Marker: 5.85, PN 046-030
- Maurice cIEF pI Marker: 6.14, PN 046-031
- Maurice cIEF pI Marker: 7.05, PN 046-032
- Maurice cIEF pI Marker: 8.40, PN 046-033
- Maurice cIEF pI Marker: 9.99, PN 046-034
- Maurice cIEF pI Marker: 10.17, PN 046-035
- Deionized (DI) water
- Maurice sample vials with integrated inserts, 0.2 mL, PN 046-083 or 96-well plates, PN 046-021
- Maurice glass reagent vials, 2 mL, PN 046-017
- Maurice clear screw caps for sample and reagent vials, PN 046-138
- Maurice cIEF blue pressure caps, PN 046-573
- Pipettes and tips

A Few Things You Should Know

- Whenever you handle the cartridge or remove it from its packaging, make sure the capillary inlet doesn't come in contact with any surfaces.
- Make sure not to get any liquid on the cartridge's optical window.
- Always clean the electrolyte tanks before storing, and always store the cartridge in its original packing at room temperature.
- Performance for each cartridge is guaranteed for up to 100 injections and supports a maximum of 20 batches. The injection limit of the cartridge is 200. Its RFID will keep track of how many injections are left for you.

1 Let's Get Started!

A. Prepare Your Samples

Please see the instructions in the Maurice User Guide or Method Development Kit product insert for sample prep details.

B. Prepare Your Cartridge

1. Take the cartridge out of its packaging. Save the packaging, you'll need it later.
 2. Place the cartridge on a flat surface with its electrolyte tanks facing up.
 3. Remove the stoppers from both electrolyte tanks.
 4. Add 2 mL of Catholyte solution to the OH⁻ electrolyte tank (white port).
 5. Add 2 mL of Anolyte solution to the H⁺ electrolyte tank (red port).
- Note:** Make sure you don't overfill the electrolyte tanks.
6. Seal each tank with the rubber stoppers. Use the grey stopper for the OH⁻ tank and the red one for the H⁺ tank. If excess liquid comes out of the tank, make sure to wipe it with a lint-free laboratory wipe.

C. Insert the Cartridge in your Maurice System

1. Open Maurice's door by touching the metal plate on top of the door. The lights on either side of the cartridge slot will be **orange**.

2. Double check to make sure you've got electrolytes loaded and the tanks are properly sealed with the stoppers.
3. Lift the cartridge and hold it vertically using the finger holds on either side, capillary inlet down, with the cIEF label facing you.
4. Gently insert it into the slot.
5. Continue to slide the cartridge into the slot until the locking mechanism engages. The lights on either side of the slot will change to **blue** once the cartridge is installed correctly.

D. Place your samples and reagents in Maurice

Prepare your batch reagents as shown in the table in FIGURE 1 and place the reagent vials in Maurice as shown in FIGURE 1. Depending on how you prepared your samples, place the sample vials insert or the 96-well plate insert into Maurice.

Note: If you need to seal the 96-well plate during your run, we recommend the 4titude Pierceable Film (PN 4ti-0566, 4titude). It can be used in both absorbance and native fluorescence modes. If you're currently using X-Pierce adhesive film (PN XP-100, Excel Scientific), we recommend using it in absorbance mode only.

Note: If you're using a MauriceFlex system, lock your batch reagents in place by sliding the locking mechanism from the left to the right before starting the batch.

Reagent	Volume	Cap	Position
0.5% Methyl Cellulose	2.0 mL	Blue pressure cap	P1
Fluorescence Calibration Standard	500 µL	Blue pressure cap	P2
DI Water	2.0 mL	Blue pressure cap	P3
Empty vial (air)	N/A	Blue pressure cap	P6
DI Water	2.0 mL	Clear screw cap	N1

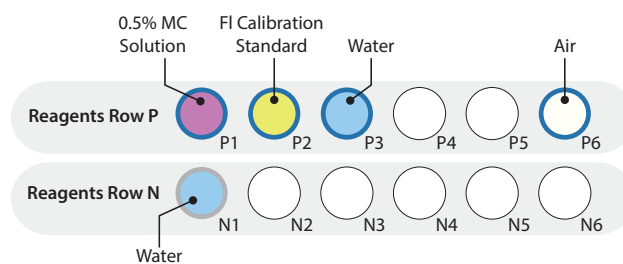
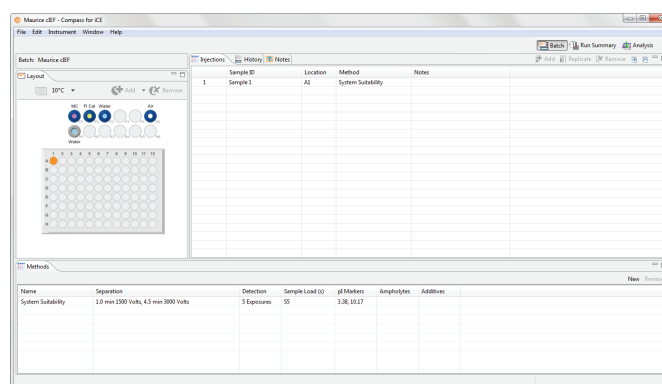


FIGURE 1. Reagent vial placement.

2 Start Maurice

1. Launch Compass for iCE.
2. Open a cIEF batch or create a new one and define your parameters.
3. Click **Start**.



3 At the End of the Batch

1. Open Maurice's door.
2. Remove your samples. Leave the Water (P3) and Air (P6) vials in place if your cartridge still has injections left since they will be needed for the cleanup step.
3. Remove the cartridge.

If you're at 100 injections, you've reached the limit of guaranteed performance for the cartridge. To dispose of the finished cartridge put it back in its original packing and discard it per your institution's safety and waste disposal guidelines.

That's it, you're done!

If the cartridge will be used again. Clean up and store the cartridge.

1. Place the cartridge on a flat surface with its electrolyte tanks facing up.
2. Remove the stoppers on both electrolyte tanks.
3. Using a pipette or low vacuum, aspirate the solution from each tank.

4. Fill each tank with 2 mL of DI water, then aspirate it out. Repeat this rinse 3 times.
Note: Make sure not to get any liquid on the cartridge's optical window.
5. Aspirate all the remaining liquid and make sure that the tanks are dry.

If you're using Compass for iCE v3.0.0 or higher, go to the next step. If you're using an earlier version of Compass for iCE, skip to step 9.

6. Insert the cartridge in Maurice.
7. In the Compass main menu, select **Instrument** and click **Cartridge Post-Run Cleanup**. It'll only take 7 minutes.
8. Remove the cartridge and reagent vials.
9. Leave the stoppers off to allow the tanks to air dry.
10. Put the cartridge and stoppers in the protective packaging and store at room temperature.

That's it, you're done!



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