MauriceFlex
cIEF Fractionation Cartridge

Part# PS-MC02-F

Introduction

The cIEF Fractionation Cartridge is used for cIEF Fractionation on MauriceFlex systems.

Components

Includes	Qty/Kit
cIEF Fractionation Cartridge	2

Storage Conditions

- Store cartridges at 18–28 ˚C

Other Things You'll Need

If This Is Your First Time Developing a cIEF Fractionation Method:

- MauriceFlex cIEF Fractionation Method Development Kit, PN PS-MDK01-F
- Deionized (DI) or LC-MS grade water
- 15 mL centrifuge tube
- Pipettes and tips
- Microcentrifuge and tubes
- Vortex
- Ice and ice bucket
- Centrifuge with plate adapter
- Maurice sample vials with integrated inserts, 0.2 mL, PN 046-083 (optional)

If You've Already Developed Your cIEF Fractionation Method:

- MauriceFlex cIEF Fractionation Reagent Kit, PN PS-MRK01-F
- 1% Methyl Cellulose Solution, PN 101876
- 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) or LC-MS grade water
- Maurice 96-well plates, PN 046-021
- MauriceFlex crimp top glass reagent vials, 2mL, PN 110-0019
- MauriceFlex glass vials with insert, 0.3 mL, PN 110-0018
- 15 mL centrifuge tube
- Pipettes and tips
- Microcentrifuge and tubes
- Vortex
- Ice and ice bucket
- Centrifuge with plate adapter
- Maurice sample vials with integrated inserts, 0.2 mL, PN 046-083 (optional)

A Few Things You Should Know

- Read the MauriceFlex Fractionation Quick Reference Guide and MauriceFlex cIEF Fractionation Method Development Guide before getting started.
- Use LC-MS grade water if fractions will be used for mass spectrometry analysis.
- Use fresh Anolyte, Catholyte, Fluorescence Calibration Standard, 0.5% MC, and prepared Mobilizer Solution for each batch.
- Don't reuse reagents or vials.
- Whenever you handle the cartridge or remove it from its packaging, make sure the cartridge inlet doesn't come in contact with any surfaces. Avoid touching the capillary while holding the cartridge.
- Always perform the cartridge post-run cleanup before storing, and always store the cartridge in its original packaging at room temperature.
- Each cartridge supports up to 15 injections. Its RFID will keep track of how many injections and batches have been performed.

1 Let's Get Started!

A. Prepare Your Mobilizer Solution and Samples

Please see instructions in the Maurice User Guide or MauriceFlex cIEF Fractionation Application Kit product insert for Mobilizer Solution and sample prep details. Mobilizer Solution is only required for MauriceFlex Fractionation batches.

B. Place Your Reagents and Sample in MauriceFlex

1. Place the fractionation adapter in the instrument.
2. Prepare your batch reagents as described in the tables and place in MauriceFlex as shown for a MauriceFlex Fractionation batch (FIGURE 1) or MauriceFlex cIEF batch (FIGURE 2).
3. Place the 96-well plate with your sample on the sample platform.

Note: Be sure to use the MauriceFlex glass vial with insert, 0.3 mL (PN 110-0018) for the Fluorescence Calibration Standard and MauriceFlex crimp top glass reagent vials, 2 mL (PN 110-0019) to prepare your remaining batch reagents.

PN 110-0019

PN 110-0018
(for Fluoresence Calibration Standard only)

Note: We recommend using reverse pipetting technique to pipet the 0.5% Methyl Cellulose and Fluorescence Calibration Standard in to the vial. Ensure no bubbles are present at the bottom of the vials.

MauriceFlex Fractionation

Reagent	Volume	Vial Type	Position
0.5% Methyl Cellulose	2.0 mL	Crimp top vial	R1
Fluorescence Calibration Standard	350 µL	Glass vial with insert, 0.3 mL	R2
Water	2.0 mL	Crimp top vial	R3
Water	2.0 mL	Crimp top vial	R4
Water	2.0 mL	Crimp top vial	R5
Empty vial (air)	N/A	Crimp top vial	R6
Catholyte	2.0 mL	Crimp top vial	K2
Mobilizer Solution (5 mM ammonium acetate)	2.0 mL	Crimp top vial	K3
Mobilizer Solution (5 mM ammonium acetate)	2.0 mL	Crimp top vial	K4
Water	2.0 mL	Crimp top vial	K5

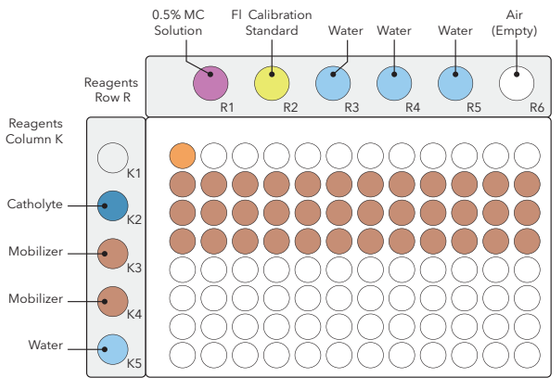


FIGURE 1. Sample and reagent vial placement for MauriceFlex Fractionation.

MauriceFlex cIEF

Reagent	Volume	Vial Type	Position
0.5% Methyl Cellulose	2.0 mL	Crimp top vial	R1
Fluorescence Calibration Standard	350 µL	Glass vial with insert, 0.3 mL	R2
Water	2.0 mL	Crimp top vial	R3
Water	2.0 mL	Crimp top vial	R4
Water	2.0 mL	Crimp top vial	R5
Empty vial (air)	N/A	Crimp top vial	R6
Catholyte	2.0 mL	Crimp top vial	K2
Water	2.0 mL	Crimp top vial	K5

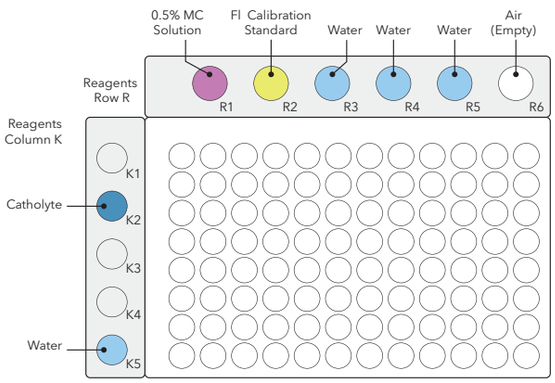


FIGURE 2. Sample and reagent vial placement for MauriceFlex cIEF.

1 Let's Get Started! *continued*

C. 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 the electrolyte tank facing up.
3. Remove the red rubber stopper from the electrolyte tank.
4. Add 2 mL of the Anolyte solution to the tank.

   Note: Make sure you don't overfill the tank.

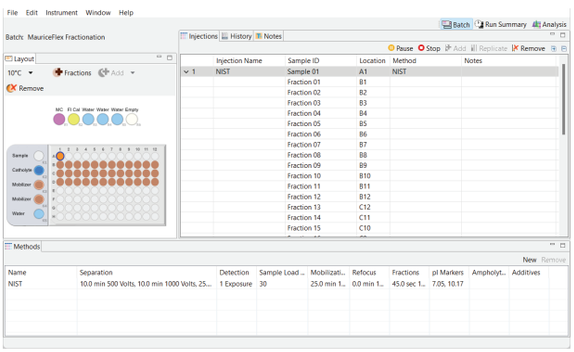
5. Seal the tank with the rubber stopper. If excess liquid comes out of the tank, make sure to wipe it with a lint-free laboratory wipe.

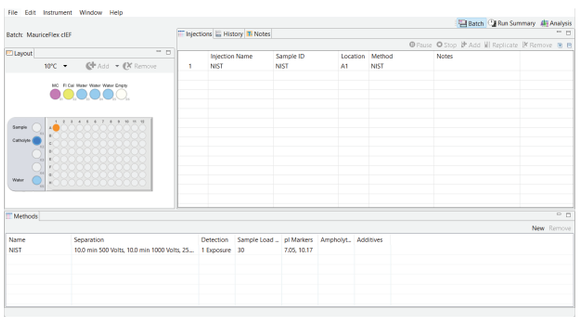
D. Insert the Cartridge in MauriceFlex

1. Open MauriceFlex'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 the Anolyte is loaded and the tank is properly sealed with the stopper.
3. Lift the cartridge and hold it vertically using the finger holds on either side, capillary inlet down, with the cIEF Fractionation 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.

2 Start MauriceFlex

1. Launch Compass for iCE.
2. Open a MauriceFlex Fractionation batch or MauriceFlex cIEF batch or create a new one and define your parameters. Only use the MauriceFlex Fractionation or MauriceFlex cIEF batch with a cIEF Fractionation Cartridge.
3. Click **Start**.





3 At the End of the Batch

1. Open MauriceFlex's door.
2. Remove your samples. Leave the Water (R3) and Air (R6) vials in place if your cartridge still has injections left since they will be needed for the cartridge post-run cleanup step. Discard the remaining reagent vials.
3. Remove the cartridge.

If you're at 15 injections, you've reached the limit of supported injections for the cartridge. To dispose of the finished cartridge put it back in its original packaging and discard it per your institution's safety and waste disposal guidelines.

That's it, you're done!

If you've still got injections left and the cartridge will be used again. Clean up and store the cartridge.

1. Place the cartridge on a flat surface with its electrolyte tank facing up.
2. Remove the red stopper on the electrolyte tank.
3. Using a pipette or low vacuum, aspirate the solution from the tank.
4. Fill the tank with 3 mL of DI water, then aspirate it out. Repeat two more times.

   Note: Make sure not to get any liquid on the capillary.
5. Aspirate all the remaining liquid and make sure that the tank is dry.
6. Place the stopper on the electrolyte tank. It should be firmly closed.
7. Verify the reagent vials are placed as shown in FIGURE 3.
8. Check that the vial in R3 has at least 2 mL of water..
9. Insert the cartridge in MauriceFlex.
10. In the Compass main menu, select **Instrument** and click **Cartridge Post-Run Cleanup**. It'll only take 5 minutes.
11. Once the cleanup procedure is done, remove the cartridge and reagent vials.
12. Leave the stopper off to allow the tank to air dry.
13. Put the cartridge and stopper in the protective packaging and store at room temperature.

That's it, you're done!

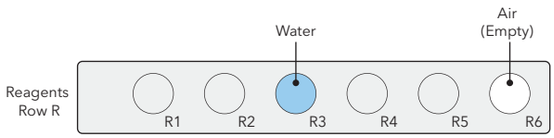


FIGURE 3. cIEF Fractionation Cartridge Post-Run Cleanup reagent vial placement.

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