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Maurice®
Turbo CE-SDS™ Cartridge

Part# PS-MC01-TS, PS-MC02-TS

Introduction

The Maurice Turbo CE-SDS cartridge is used for IgG purity and heterogeneity analysis on Maurice, Maurice S. or MauriceFlex systems.

Components

Includes	Qty/Kit
Maurice Turbo CE-SDS Cartridge*	1
Maurice Turbo CE-SDS Cartridge†	2

*Included in PS-MC01-TS, †Included in PS-MC02-TS

Storage Conditions

- Store cartridges at 18–28 °C

Other Things You'll Need

- Maurice clear screw caps for sample and reagent vials, PN 046-138
- Maurice glass reagent vials, 2 mL, PN 046-017
- Maurice CE-SDS orange pressure caps 12, PN 046-020
- Maurice 96-well plates, PN 046-021
- Maurice CE-SDS Separation Matrix, PN 046-386‡
- Maurice Turbo CE-SDS Running Buffer – Bottom, PN 046-579
- Maurice CE-SDS 1X Sample Buffer, PN 046-012‡ - or -
- Maurice CE-SDS PLUS 1X Sample Buffer, PN 046-567‡
- Maurice CE-SDS Wash Solution, PN 046-569‡
- Maurice CE-SDS Conditioning Solution 1, PN 046-014‡
- Maurice CE-SDS Conditioning Solution 2, PN 046-015‡
- Maurice CE-SDS 25X Internal Standard, PN 046-144‡

Note: Items listed above are supplied in the Maurice Turbo CE-SDS Size Application Kit (PN PS-MAK01-TS). Items marked with a ‡ are also supplied in the Maurice Turbo CE-SDS Reagent Kit (PN PS-MRK01-TS).

- Maurice sample vials with integrated vial inserts, 0.2 mL, PN 046-083 (optional)
- Maurice CE-SDS Molecular Weight Markers, PN 046-432 (optional)
- Maurice CE-SDS IgG Standard, PN 046-039 (optional)
- β-mercaptoethanol (>98% = 14.2 M) for reducing conditions
- Sodium hypochlorite solution (10–15%) for neutralizing β-mercaptoethanol (optional)
- Iodoacetamide (250 mM) for alkylation at non-reducing conditions
- Deionized (DI) water
- Pipettes and tips

A Few Things You Should Know

- Whenever you handle the cartridge or remove it from its packaging, make sure the cartridge inlet doesn't come in contact with any surfaces.
- Always perform the cartridge post-run cleanup before storing, and always store the cartridge in its original packaging at room temperature.
- If you see separation matrix sticking to the cartridge inlet, soak the inlet in DI water for five minutes. Then wipe it using a lint-free laboratory wipe that's been moistened with DI water.
- Performance for each cartridge is guaranteed for up to 100 injections. Its RFID will keep track of how many injections have been performed.

1 Let's Get Started!

A. Prepare Your Samples

Please see the instructions in the Turbo CE-SDS Size Application Kit product insert for sample prep details.

B. Prepare Your Cartridge

Note: Prepare your samples and reagents before preparing the cartridge. Allowing the Separation Matrix to sit in the cartridge for longer than 15 minutes may result in cartridge clogs.

1. Take the cartridge out of its packaging. Save the packaging, you'll need it later.
2. Place the cartridge on a flat surface and remove the stopper from the Top Chamber (see FIGURE 1). Add 750 µL of Separation Matrix to the chamber (FIGURE 2). Pop any visible bubbles with a clean pipet tip. Firmly close the chamber with the stopper.
3. Ensure the Waste Tank is firmly closed with the stopper (see FIGURE 1).

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. Lift the cartridge and hold it vertically using the finger holds on either side, cartridge inlet down, with the Turbo CE-SDS label facing you.
3. Gently insert it into the slot.
4. 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.

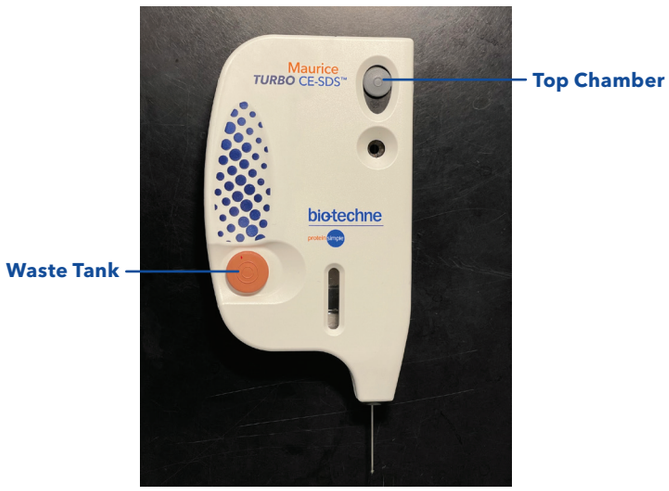


FIGURE 1. Turbo CE-SDS cartridge Top Chamber and Waste Tank with stoppers

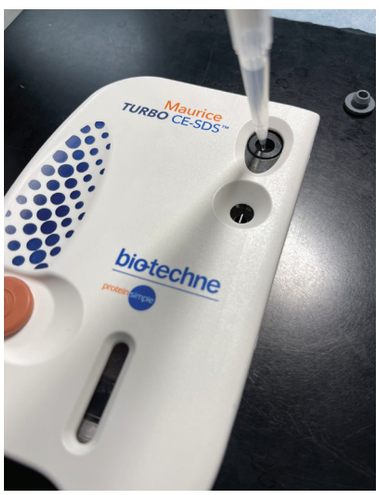


FIGURE 2. Filling the Top Chamber with Separation Matrix.

1 Let's Get Started! *continued*

D. Place Your Samples and Reagents in Maurice

Prepare your batch reagents as shown in the table and place the reagent vials in Maurice as shown in FIGURE 3. Depending on how you prepared your samples, place the sample vials insert or the 96-well plate insert into Maurice.

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
Conditioning Solution 1	1.5 mL	**Orange** pressure cap	P1
Conditioning Solution 2	1.5 mL	**Orange** pressure cap	P2
DI Water	1.5 mL	**Orange** pressure cap	P3
Separation Matrix	1.0 mL	**Orange** pressure cap	P4
Wash Solution	1.5 mL	**Orange** pressure cap	P5
Empty vial (air)	N/A	**Orange** pressure cap	P6
Wash Solution	1.5 mL	**Clear** screw cap	N1
Turbo Running Buffer - Bottom	1.5 mL	**Clear** screw cap	N4
Turbo Running Buffer - Bottom	1.5 mL	**Clear** screw cap	N5
Turbo Running Buffer - Bottom	1.5 mL	**Clear** screw cap	N6

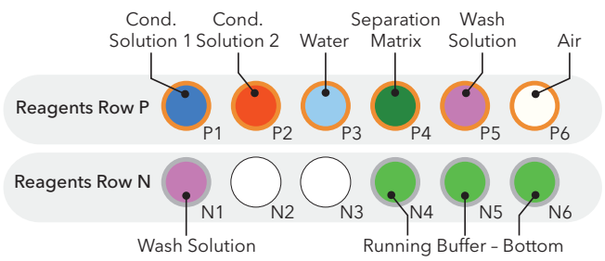
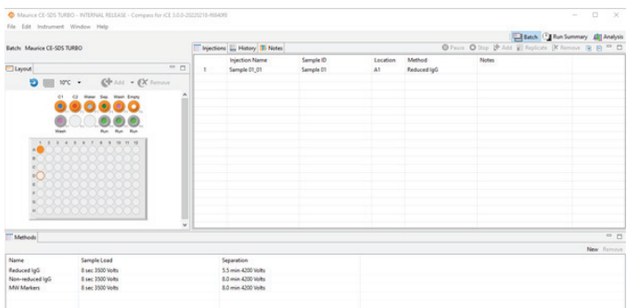


FIGURE 3. Reagent vial placement.

2 Start Maurice

1. Launch Compass for iCE v3.0 or higher.
2. Open a Turbo CE-SDS batch or create a new one and define your parameters. Only use the Maurice Turbo CE-SDS cartridge for a Maurice Turbo CE-SDS batch.
3. Click **Start**.



3 At the End of the Batch

1. Open Maurice's door.
2. Remove your samples. Leave the Water (P3), Wash Solution (P5) and Air (P6) vials in place if your cartridge still has injections left since they will be needed for the cleanup step. has and discard the remaining reagent vials.
3. Remove the cartridge.

If you're at 100 injections, you've reached the limit of guaranteed performance for the cartridge (note: this is not the maximum injection limit). The cartridge will not be usable after 25 batches. To dispose of a finished cartridge put it back in its original packing and discard it per your institution's safety and waste disposal guidelines.

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

1. Place the cartridge on a flat surface and remove the stopper from the Waste Tank (see FIGURE 1). Tilt the cartridge so that all the liquid flows toward the Waste Tank opening, and aspirate out. **Optional:** Before aspirating out the liquid, add 200 µL of sodium hypochlorite solution (10–15%) to neutralize β-mercaptoethanol, then aspirate out all the liquid.
2. Remove the stopper from the Top Chamber and aspirate out all the liquid.
3. Dispense 2.7 mL of DI water into the Top Chamber to fill it. Aspirate out all the liquid. Repeat 2 more times.

   Note: Tilt the cartridge so that all the liquid flows toward the Top Chamber opening while aspirating.
4. Use the transparent back of the Top Chamber (FIGURE 4) to check if any liquid remains visible. Residual liquid can be removed at this point by tilting the cartridge.
5. Verify that the reagent vials are placed as shown in FIGURE 5. Check the volumes in each vial and fill according to the table in Step F, if necessary.
6. Place the stoppers on the empty Waste Tank and Top Buffer chamber. They should be firmly closed.
7. Insert the cartridge in Maurice.
8. In the Compass main menu, select **Instrument** and click **Cartridge Post-Run Cleanup**. It'll only take 7 minutes.
9. Once the cleanup procedure is done, remove the cartridge.

   Note: Keep cartridge upright while transporting.
10. Place the cartridge on a flat surface and remove the stopper from the Waste Tank. Tilt the cartridge so that all the liquid flows toward the Waste Tank opening, and aspirate out. Leave the stopper off to allow to air dry.

    Note: Do not tilt the cartridge towards the capillary side when there is liquid in the Waste Tank.
11. Place the cartridge on a flat surface, remove the stopper from the Top Chamber and aspirate out all visible liquid. Leave the stopper off to allow to air dry.
12. Put the cartridge and stoppers (leave the stoppers off) in its protective packaging and store at room temperature.

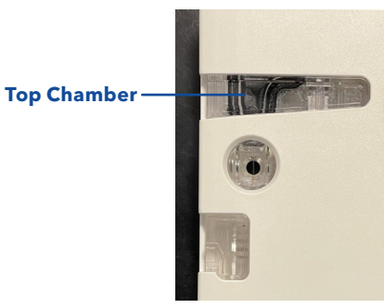


FIGURE 4. Back of Top Chamber

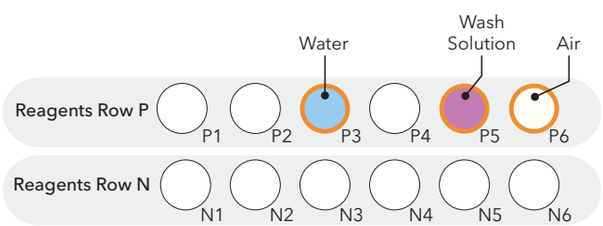


FIGURE 5. Post-Run Cleanup reagent vial placement.