

Fluidigm® FR48.48 Dynamic Array IFC Cleaning Workflow

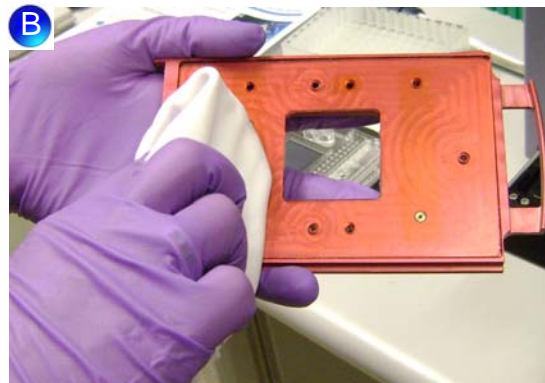
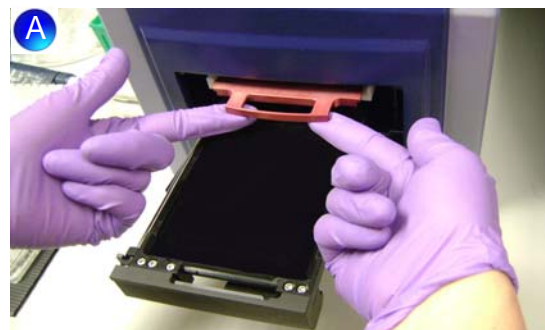
PN 100-2228, Rev. B1

For more information see the *Fluidigm SNP Genotyping User Guide*, PN 68000098

IMPORTANT! CLEAN THE FR48.48 DYNAMIC ARRAY IFCs WITHIN 2.5 HOURS OF USE. IF YOU ARE UNABLE TO CLEAN THEM WITHIN 2.5 HOURS, REMOVE REMAINING LIQUID FROM ASSAY AND SAMPLE INLETS, PLACE THEM IN AN AIR-TIGHT PLASTIC BAG AND STORE THEM IN THE REFRIGERATOR UNTIL YOU ARE ABLE TO CLEAN THEM

1 Clean System and Interface Plate

- 1 Perform system clean on each IFC Controller WX the day before you start your chip run. Also, repeat cleaning steps at the end of the day.
 - a Log in as **User** or **Administrator**.
 - b Press the **Tools** button.
 - c Select **Clean System**.
 - d Place cleaning plate on the tray and press **Start System Cleaning**.
 - e When the system purge is complete, eject the tray. Rinse and let tray dry for next use.
- 2 Lift up on the red tab of the interface plate (See picture A) and pull out.
- 3 Clean the interface plate with DNAZap™ and a clean wipe at the end of the day. (See picture B)
- 4 Clean the interface plate with isopropanol alcohol. Let interface plate dry.
- 5 Clean the interface plate with Scotch tape at the end of the day or as needed to remove any dust particles. (See picture C)
- 6 Check gaskets on opposite side of the interface plate to make sure they are in place. (See picture D)
- 7 Return interface plate to IFC Controller.



2 Initial Wash of the FR48.48 Dynamic Array™ IFC

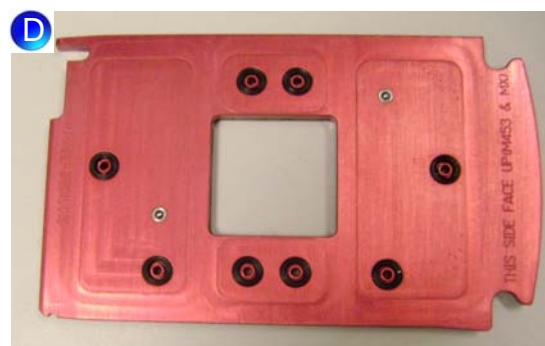
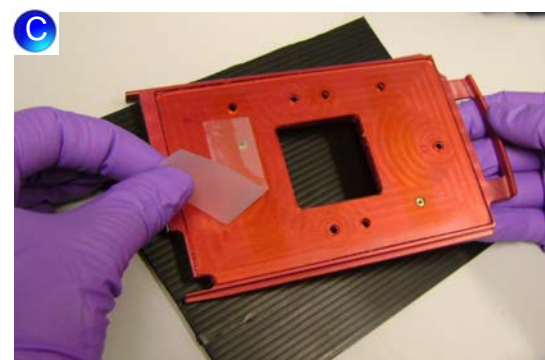
CAUTION! DO NOT INJECT ANY LIQUID INTO THE WASTE INLET. IT MUST REMAIN EMPTY.

- 1 Remove remaining liquid from P1, P2, and P3 wells. (See picture E)
- 2 Pipette 200 µL of Pressure Fluid into P1, P2, and P3 wells.
- 3 Pipette 20 µL of Wash Solution #1 into the assay wells.
- 4 Pipette 20 µL of Wash Solution #1 into the sample wells.

NOTE MAKE SURE THERE ARE NO BUBBLES IN THE WELLS.

- 5 Place the FR48.48 Dynamic Array IFC into the *Clean* IFC Controller WX and run the **Wash1 (168x)** script. The wash will take approximately 50 minutes.
- 6 After the *Wash1 (168x)* script has finished running, remove liquid from the Waste reservoir and any leftover liquid from sample and assay wells with a pipette.

CAUTION! DO NOT USE A VACUUM TO REMOVE LIQUIDS AS IT CAN DAMAGE THE CHIP.



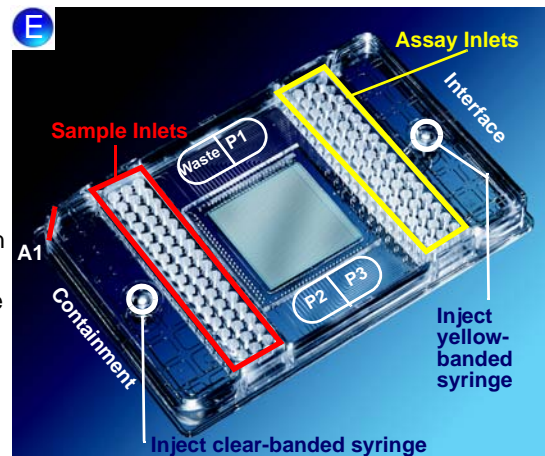
3 Second Wash of the FR48.48 Dynamic Array IFC

CAUTION! DO NOT INJECT ANY LIQUID INTO THE WASTE INLET. IT MUST REMAIN EMPTY.

- 1 Check that wells P1, P2 and P3 have enough reagent in them (~200 µL).
- 2 Pipette 30 µL of Wash Solution #2 into the assay wells.
- 3 Pipette 30 µL of Wash Solution #2 into the sample wells.
- 4 Place the FR48.48 Dynamic Array IFC into the *Clean* IFC Controller WX and run the **Wash2 (168x)** script. The wash will take approximately 30 minutes.
- 5 After the *Wash2 (168x)* script has finished running, remove liquid from the Waste reservoir and any leftover liquid from sample and assay wells with a pipette.

4 Remove Leftover Liquid from the FR48.48 IFC

- 1 Place the FR48.48 Dynamic Array IFC into the *Clean* IFC Controller WX and run the **Purge (168x)** script. The blowout will take approximately 30 minutes.
- 2 After the *Purge (168x)* script has finished running, remove liquid from the Waste reservoir and any leftover liquid from P1, P2 and P3 wells with a pipette.



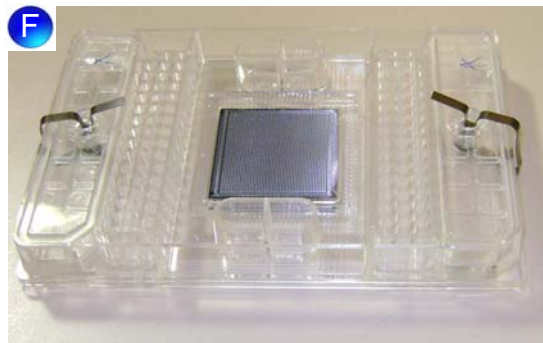
5 Dry the FR48.48 Dynamic Array IFC



NOTE MAKE SURE THE OVEN IS CLEAN BEFORE INSERTING THE IFCs FOR BAKING.

- 1 Insert spring clips into the check valves to keep them open for the baking process. (See picture F)
- 2 Cover the IFCs with lint-free cloth wipes during baking. (See Picture G)
- 3 Place chip with spring clips into the oven and bake at 80°C for 16 or more hours. (Bake for no more than 24 hours.)
- 4 Check to ensure there is no remaining liquid in the interface accumulator.

F



6 Allow FR48.48 IFC to cool to Room Temperature

- 1 Remove spring clips from the check valves.
- 2 Allow IFCs to cool to room temperature before using again.

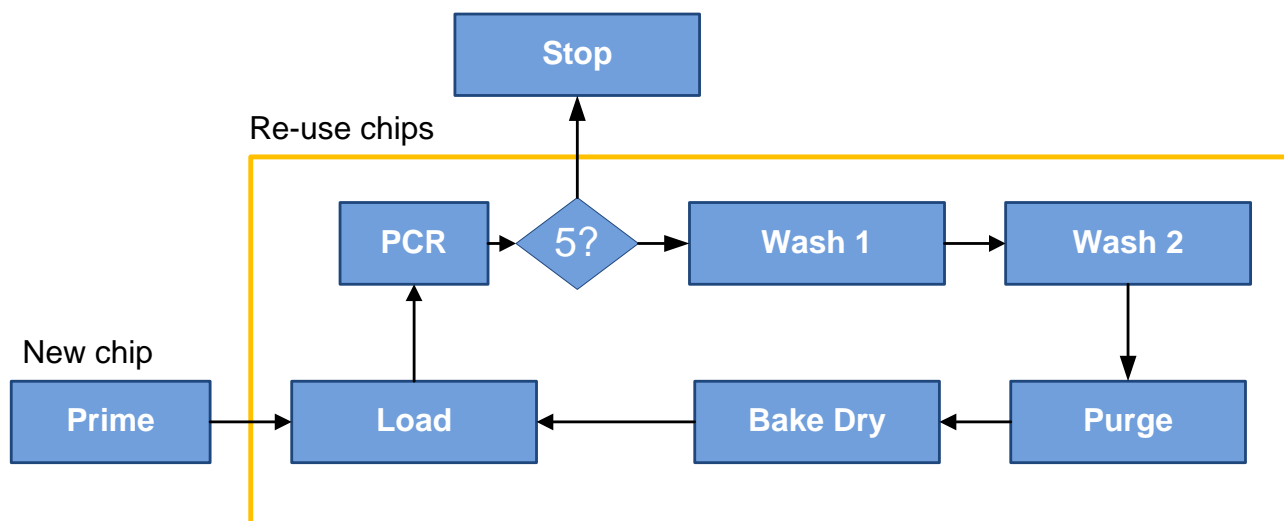


NOTE CONTROL LINE FLUID WILL BE LEFT INSIDE THE CONTAINMENT ACCUMULATOR. YOU CAN STORE A CLEANED CHIP AT ROOM TEMPERATURE BETWEEN USES. **YOU MUST RUN ALL FIVE USES WITHIN TWO MONTHS.**

G



Re-use Workflow



Technical Support

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