Chip Maintenance

Proper daily instrument maintenance and chip cleaning technique have been identified as key factors in maximizing the lifetime of chips. This guide reviews proper procedures for cleaning and handling the chips. Use with the Best Practices Daily Procedure in the LabChip Quick Reference Card (CLS143579) to prevent the introduction of debris into the chip channels.

Best Practices for Handling Chips

Notes: *Use an aspirator fitted with a pipet tip when cleaning and preparing chips.*
Step 13 does not apply to Protein Chips.

1. Warm the chip and reagents to room temperature for at least 30 minutes. Ensure the dye is completely thawed. Protect the dye from light.

2. Attach a clean pipet tip to the aspirator.

3. Ensure that fresh, nuclease free, sterile water (MilliQ® or equivalent) is available.

4. Rinse and completely aspirate each active chip well twice with water (Milli-Q® or equivalent). For all active wells except the waste well (well 1), aspirate the liquid in the small circular indent at the bottom of each well. NOTE: It will not harm the chip to insert the aspirator tip directly into the circular indent. Do not aspirate the liquid from the small circular indent in well 1.

5. Inspect the inside walls of each well and ensure that no water droplets remain.

6. Add the prepared reagents to the wells as specified in the protocol for the assay. Use a reverse pipetting technique to avoid bubbles and place the tip on the bottom of the well while dispensing.

7. Ensure that the tops of the wells are clean and dry. If necessary, clean the tops of the wells with water and the provided lint-free swab, and then dry using the aspirator.

8. Clean the chip detection window with the provided lint-free cloth moistened with 70% Isopropanol or water.

9. Promptly install the chip, ladder vial, and buffer vial on the instrument.

10. When the final run is completed, promptly remove the chip from the instrument.

11. Repeat step 4 above to wash the chip wells.

12. Add 120 µL of water or storage buffer (see the assay user guide for the appropriate liquid) to each active well.

13. For Nucleic Acid LabChips, place the chip on the instrument and run the wash cycle. Do not repeat the wash cycle without refreshing the contents of the wells. Add an additional 50 µL of water or storage buffer to well 1.

14. Promptly remove the chip and place in the chip storage container.

15. Store the chip as recommended in the assay protocol.

See reverse for chip and reagent ordering information.

Chip and Reagent Ordering Information

Protein Chips and Kits

Protein Chips	P/N
High Resolution Protein LabChip	760524
High Resolution Protein 24 LabChip	CLS138951
HT Protein Clear HR LabChip	CLS148695
24 Protein Clear HR LabChip	CLS148696
Protein Express LabChip	760499
Protein Express 24 LabChip	CLS138950
HT ProteinEXact HR LabChip	CLS150337
24 ProteinEXact HR LabChip	CLS150338

Protein Kits	P/N
Charge Variant Reagent Kit	CLS760670
Glycan Release and Labeling Kit	760523
Glycan Screening Reagent Kit	760525
Low Molecular Weight Reagent Kit	760573
Pico Protein Reagent Kit	760498
Protein Clear HR Reagent Kit	CLS960014
Protein Express Reagent Kit	CLS960008
ProteinEXact HR Reagent Kit	CLS150466

Nucleic Acid Chips and Kits

Nucleic Acid Chips	P/N
DNA 5K/RNA/CZE LabChip	760435
DNA 5K/RNA/CZE 24 LabChip	CLS138949
Extended Range LabChip	760517
Extended Range 24 LabChip	CLS138948
X-Mark LabChip	CLS144006
X-Mark 24 LabChip	CLS145331

Nucleic Acid Kits	P/N
DNA 1K Reagent Kit	CLS760673
DNA 5K Reagent Kit	CLS760675
DNA 12K Reagent Kit	760569
DNA NGS 3K Reagent Kit	CLS960013
gDNA QC Reagent Kit	CLS760685
HiSens DNA Reagent Kit	CLS760672
Pico RNA Reagent Kit	CLS960012
RNA Reagent Kit	CLS960010
Small RNA Reagent Kit	CLS153530

The tables above may not include new chips and reagent kits.

To view available chips, go to http://www.perkinelmer.com/category/microfluidic-chips.

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To download the latest version of this guide or assay guides, go to http://www.perkinelmer.com/Product/ht-labchip-gx-ii-touch-cls138160 and click the Resources, Events & More tab.