z-Movi® Cell Avidity Analyzer

Chip Cleaning Protocol (Version 6)

After finishing an experiment, ensure that chips are thoroughly cleaned according to protocol. **Improper chip cleaning can impact monolayer adherence and the ability to run acoustic force ramps**. To achieve best cleaning results, start to clean a chip immediately after its final run.

1. Pull through 400 µL dH_2O. Repeat.
2. Pull through 400 µL 10% bleach. Scrub back and forth several times. Repeat scrubbing with 400 µL more bleach.
3. Pull in 400 µL bleach and let incubate for 30 minutes at room temperature. Pull completely through once incubation time is finished.
4. Repeat step 3.

   Note: If there is cell debris after completely pulling through bleach, repeat step 4 until all debris is clear. You can also actively pull through new bleach and scrub in between incubations for more thorough cleaning.
5. Pull through 400 µL H_2O five times.
6. Pull through 400 µL 1M NaOH. Scrub back and forth several times. Repeat scrubbing with 400 µL more NaOH.
7. Incubate with **1M NaOH for one hour at RT**. Screw the cap on the chip to prevent evaporation.

   ****Note: longer NaOH incubations can be detrimental to the chip, do not extend the NaOH incubation time***
8. Pull NaOH completely through once incubation time is finished. The fluid should run evenly and smoothly (low glass surface hydrophobicity). This is a good indication of glass surface cleanliness and uniformity.
9. Pull through 400 µL dH_2O three times.
10. Pull through air multiple times until dry.

    Note: Make sure that the chip is completely dry before long-term storage. Use a larger (20 mL) syringe for faster drying. The chip is dry once you leave it in the dry incubator at 37C for 5 min, then pull air and do not see any solution flowing through.

11. Chips are ready for the next avidity experiment. For long-term storage, place the clean, dry chip in a dry incubator at 37C.

Note: Improper chip cleaning (debris/ clogging) is not covered under warranty. Please take care to clean the chips after each experiment.

For help, please email your LUMICKS field application scientist for support.