

LabChip 90 DNA Assay Quick Guide

DNA Chip Preparation

1. Allow the chip and reagents to equilibrate to room temperature for about 20-30 minutes before use.
The Dye Concentrate must be completely thawed and vortexed before use.
2. Fill the Cleaning Chip with 1.2 mL of molecular biology grade water, insert into the instrument and incubate for a minimum of 2 minutes. Prior to running the DNA chip, remove the Cleaning Chip and allow the electrodes to dry for a minimum of 5 minutes.
3. Prepare Gel-Dye by adding **1.0 mL** DNA Gel Matrix to **12.5 μ L** DNA Dye Concentrate using a Reverse Pipetting Technique. Vortex and transfer mixture to two spin filters. Centrifuge at **9200 rcf for 7.5 minutes at RT**. Ensure that all of the gel has passed through the filter and then discard the filter.
4. Rinse and aspirate each active well (1, 3, 4, 7, 8 and 10) twice with molecular biology grade water
5. Add DNA Storage Buffer and Gel-Dye (as shown in Figure 1) using a Reverse Pipetting Technique.
6. Place the chip in the priming station and prime for 10 minutes for HT DNA 1K or 4 minutes for HT DNA 5K and HT DNA 12K. (For automated priming station use setting B7 for HT DNA 1K or B3 for HT DNA 5K and HT DNA 12K.)
7. Aspirate the contents of Wells 3 and 4 using vacuum.
8. Add Gel-Dye to chip well 3 and DNA Marker to chip well 4 (as shown in Figure 2) using a Reverse Pipetting Technique. Add **50 μ L** DNA Marker for 96-well plates and **140 μ L** DNA Marker for 384-well plates or multiple 96-well plate analysis.
9. Clean both sides of the chip window with the supplied clean room cloth dampened with 70% isopropanol.

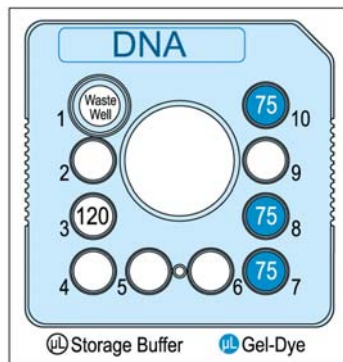


Figure 1

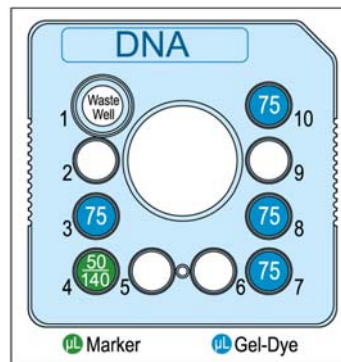


Figure 2

DNA Sample, Ladder, and Buffer Strip Preparation

1. In Well A of the ladder strip (shown in Figure 3), add **12 μ L** DNA Ladder to **96 μ L** water and **12 μ L** of your 10X DNA sample buffer concentrate. Alternatively, **12 μ L** of DNA Ladder can be added to **108 μ L** of your 1X DNA sample buffer.
2. For sizing analysis, use a minimum sample volume of **15 μ L** in each well of the microtiter plate. For both sizing and concentration analysis, use a minimum sample volume of **30 μ L**.
3. Add **200 μ L** of your 1X DNA sample buffer to each well of the buffer strip (as shown in Figure 4).

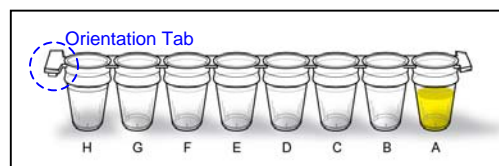


Figure 3

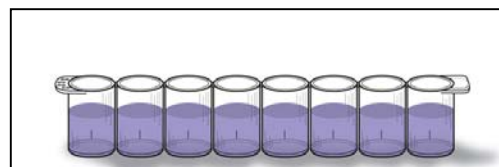


Figure 4

