




# LabChip GX RNA Assay Quick Guide

## RNA 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.** The RNA ladder should be kept on ice. It is recommended that you aliquot the RNA ladder into five 4  $\mu\text{L}$  lots for individual use.
2. Prepare Gel-Dye by adding **425  $\mu\text{L}$**  RNA Gel Matrix  to **75  $\mu\text{L}$**  RNA Dye Concentrate  using a Reverse Pipetting Technique. Vortex and transfer to a spin filter. Centrifuge at **9200 rcf for 10 minutes at RT**. Make sure that all of the gel has passed through the filter and then discard the filter.
3. Rinse and aspirate each active well (1, 3, 4, 7, 8 and 10) twice with nuclease free water.
4. Add prepared Gel-Dye to chip wells 3, 7, 8 and 10 (as shown in Figure 1) using a Reverse Pipetting Technique.
5. Add RNA Marker  to chip well 4 (as shown in Figure 1).
6. Clean both sides of the chip window with the supplied clean room cloth dampened with 70% isopropanol.

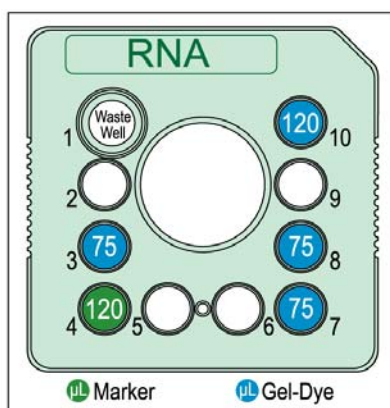




Figure 1

## RNA Sample, Ladder, and Buffer Preparation

1. Prepare sample buffer by adding **620  $\mu\text{L}$**  RNA Sample Buffer Concentrate  to **5580  $\mu\text{L}$**  DEPC treated water.
2. Pipette **2  $\mu\text{L}$**  (HT RNA Std Sens) or **6  $\mu\text{L}$**  (HT RNA High Sens) sample into individual microtiter plate wells (cover with PCR strip caps) or RNase-free microcentrifuge tubes.
3. Transfer **4  $\mu\text{L}$**  RNA Ladder  to the provided 0.2 mL Ladder Tube. Cover and heat the ladder and samples at **70°C for 2 minutes**.
4. Snap cool the samples and ladder by immediately placing the tubes and/or microtiter plate on **ice for 5 minutes**.
5. Add **46  $\mu\text{L}$**  (HT RNA Std Sens) or **19  $\mu\text{L}$**  (HT RNA High Sens) prepared sample buffer to each sample. Cover the samples with PCR strip caps and spin down the plate.
6. Add **96  $\mu\text{L}$**  prepared sample buffer to the Ladder Tube.
7. Add **750  $\mu\text{L}$**  prepared sample buffer to the provided Buffer Tube.



Ladder Tube



Buffer Tube

