**RNA Electrophoresis with Nondenaturing Agarose Gel**

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1. Determine the volume needed to run 300 ng of RNA on the gel. Pipet RNA aliquots into tubes and add nuclease-free water so the total volume is 8 µl.
2. In a flask or bottle, melt 0.75 g agarose in 75 mL of 1X SBE or 1X TBE.
3. Loosely plug the top with a KimWipe. Microwave in 30 second intervals, swirling to mix.
4. Wait until the solution comes to a rolling boil and the solution is clear (no white froth around the side), then remove to cool.
5. Cool to 55°C, then add 7.5 µL of SYBR Safe and swirl to mix.
6. Pour mixture into the gel cast and allow it to harden until the gel is milky white. If there are bubbles when the gel is still liquid, use a pipette tip to pop them or move them toward the sides.
7. Carefully remove the comb(s) when gel has hardened. Orient the gel so the samples migrate towards the red electrode (Run towards red).
8. Add 1X SBE or 1X TBE buffer on top of the gel so there is approx. 2-3 mm of buffer covering the gel.
9. Add equal volumes of RiboRuler High Range RNA Ladder and 2X RNA loading dye to make 2.5 µL per ladder lane (10 µL for an entire gel).
10. Add equal volumes of 2X RNA loading dye to each sample.
11. Denature the RNA samples and ladder at 70°C for 10 min. Incubate on ice for 3 min.
12. Load ladder and RNA samples on gel.
13. Turn on the power supply to ~90 V. Check to make sure the current is running through the buffer by looking for bubbles forming on each electrode.
14. Let the gel run until the dye fronts have moved about halfway across the gell.
15. Image gel on imager under UV set to ~380 nm.