**TapeStation RNA Quantification**

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1. Allow RNA Sample Buffer (stored at 4 ºC) to come to room temperature for 30 min.
2. Thaw RNA Ladder (stored at -20 ºC) and RNA samples on ice.
3. Turn on the TapeStation and launch the Controller software.
4. Open a new RNA ScreenTape (or use one with lanes remaining) and flick it gently to remove any air bubbles. ScreenTapes are stored at 4 ºC.
5. Insert the ScreenTape into the ScreenTape nest on the instrument, with the barcode facing back on the right-hand side. The software will recognize the tape and the number of available (light gray) lanes vs used lanes (dark gray).
6. Select the required number of sample positions in the software and add sample IDs. The software will display the required number of consumables (tips, tube strips, tapes).
7. Vortex and spin down reagents.
8. Prepare ladder: add 5 µL RNA Sample Buffer and 1 µL RNA Ladder at position A1 in a tube strip.
9. Add 5 µL of buffer to the remaining tubes for each sample, then add 1 µL of RNA sample to the respective tube.
10. Cap the tube strip(s), then vortex on the IKA MS3 vortexer at 2000 rpm for 1 min (just load and press start). Quick spin to bring everything to the bottom.
11. Denature samples and ladder: heat tube strips at 72 ºC for 3 min, cool them down for 3 min, followed by a quick spin. This step is done in the thermocycler under the TapeStation RNA program.
12. Load tube strips into the TapeStation, with the ladder at position A1.
13. Remove the strip caps carefully and check that the liquid is still at the bottom.
14. Select **Start**
15. Once complete, the Analysis software will open, and a project file is automatically saved.
16. Empty the tip waste bucket and remove the tape. If the tape still has remaining lanes, put it back in 4 ºC with the reagents for up to 2 weeks. Return all reagents to proper storage temperatures.

**TapeStation Consumable Prep:**

TapeStation tips (insert new rack when empty)

TapeStation strip tubes and caps (enough for samples +1 ladder)