RNA extraction from N. furzeri embryos

Materials

RNeasy Mini Kit (Qiagen)

Disruption beads (0.5mm, 3.7g/cc): Research Products International Corp. #9834.

- 1. Remove chorion and yolk from embryos. Also, remove YSL/membrane as much as possible. Collect processed embryos in Eppendorf with PBS, on ice.
- 2. After all embryos are processed, wash x 2 with PBS
- 3. Replace PBS with 300 ul Buffer RLT
- 4. Break embryos and cells with disruption beads, centrifuge the lysate for 3 min at full speed and transfer supernatant to gDNA elimination spin column. Centrifuge for 15 s at >8000 g. **Save/Transfer** the flow-through to a new Eppendorf tube.
- 5. Add 1 volume of 70% EtOH to the cleared lysate, and mix immediately by pipetting. DO NOT centrifuge. Proceed immediately to the next step.
- 6. Transfer up to 700 ul of the sample, including any precipitate that may have formed, to an RNeasy spin column placed in a 2ml collection tube. Centrifuge for 15 s at >8000 g. Discard the flow-through.
- 7. Add 700 ul Buffer RW1 to the RNeasy spin column. Centrifuge for 15 s at >8000 g. Discard the flow-through.
- 8. Add 500 ul Buffer RPE to the RNeasy spin column. Centrifuge for 15 s at >8000 g. Discard the flow-through
- 9. Add another 500 ul Buffer RPE to the RNeasy spin column. Centrifuge for 2 min at 8000 g.
- 10. Pace RNeasy spin column in a new low-bind tube (or supplied 1.5 ml collection tube). Add 30-50 ul RNase-free water directly to the spin column membrane. Centrifuge for 1 min at >8000g to elute the RNA
- 11. If the expected RNA yield is >30 ug, repeat step 10 with the same eluate and tube
- 12. Qubit RNA concentration and run Bioanalyzer.

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