November 2021

Quick-Start Protocol

EZ1&2[™] RNA Tissue Mini Kit

For use with EZ1 instrument

For usage of EZ1&2 RNA Tissue Mini Kit with EZ2 instruments, please refer to the handbook (www.qiagen.com/HB-2976) and quick-start protocol (www.qiagen.com/HB-2975).

The box of the EZ1&2 RNA Tissue Mini Kit (cat. no. 959034) containing RNase-free DNase I and RNase-free water should be stored immediately upon receipt at 2–8°C. The remaining kit components should be stored dry at room temperature (15–25°C).

Further information

- EZ1&2 RNA Tissue Mini Handbook: www.qiagen.com/HB-0115
- Safety Data Sheets: www.qiagen.com/safety
- Technical assistance: support.qiagen.com

Notes before starting

- The EZ1&2 RNA Tissue Mini Kit requires use of the EZ1[®] Advanced XL RNA Card with the EZ1 Advanced XL, or use of the EZ1 Advanced RNA Card with the EZ1 Advanced, or use of the EZ1 RNA Card with the BioRobot[®] EZ1.
- If purifying RNA from cell lines rich in RNases or from tissue, we recommend adding either β-mercaptoethanol (β-ME) or 2 M dithiothreitol (DTT) to Buffer RLT before use (10 µl β-ME or 20 µl DTT per 1 ml Buffer RLT). Buffer RLT containing DTT or β-ME can be stored at room temperature for up to 1 month.
- EZ1[®] instruments should only be switched on after an EZ1 Card is completely inserted; otherwise, essential instrument data could be lost. EZ1 Cards should not be exchanged while the instrument is switched on.
- Symbols: RNA purification from cells/▲ tissue samples.



Sample to Insight

 Harvest cells as a cell pellet or, for cells grown in a monolayer, aspirate the cell-culture medium from the cell-culture vessel (up to 10 cm diameter). Add 300 µl Buffer RLT to the pellet or the cell-culture vessel, vortex, or pipet to homogenize. ▲ Add 300 µl Buffer RLT to tissue sample, then disrupt and homogenize.

Note: See Table 1 for the amount of starting material and disruption and homogenization methods. Using more than the maximum recommended amount may result in reduced RNA yields and purity.

- 2. ▲ Centrifuge the lysate for 3 min at maximum speed. Carefully remove the supernatant by pipetting and transfer to a 2 ml sample tube (supplied).
- 3. Carry out RNA purification using an EZ1 instrument with the appropriate EZ1 Card, according to the *EZ1&2 RNA Tissue Mini Handbook*.

Sample	Amount of starting material	Disruption and homogenization
Cells		
Cultured animal or human cells Human white blood cells	10 – 1 x 10 ⁶ cells 10 – 2 x 10 ⁶ cells	Vortex; QIAshredder, TissueRuptor® II, TissueLyser LT, TissueLyser II, or needle and syringe
Tissue, flash frozen*		
Easy-to-lyse	≤10 mg	
High-cell density (e.g., spleen)	≤5 mg	TissueLyser LT, TissueLyser II, TissueRuptor II, or mortar and pestle
Tissue, RNAprotect® stabilization reagent or Allprotect stabilized [†]		followed by QIAshredder or needle and syringe
Easy-to-lyse High-cell density (e.g., spleen)	≤4–6 mg ≤2–3 mg	

Table 1. Amount of starting material and disruption and homogenization method

* Using fresh tissue is not recommended unless it is homogenized in Buffer RLT immediately, since RNA in unstabilized fresh tissue is not protected from degradation.

[†] Since RNAprotect stabilization reagent or Allprotect stabilized tissues are partially dehydrated, a lower amount is used as starting material.



Scan QR code for handbook.

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