August 2026

Quick-Start Protocol

QIAmini RNA Tissue/Cells Kit

For use with the QIAmini instrument

The QIAmini RNA Tissue/Cells Kit (48) (cat. no. 591105) is shipped at room temperature (15–25°C). All reagents and kit components should be stored at room temperature upon arrival, except for the DNase, which should be stored at +2–8°C upon arrival.

Further information

- *QIAmini RNA Tissue/Cells Kit Handbook*: **www.qiagen.com/HB-3805**
- *QIAmini User Manual*: **www.qiagen.com/HB-3799**
- Safety Data Sheets: **www.qiagen.com/safety**
- Technical assistance: **support.qiagen.com**

Equipment and reagents supplied by the user

- 2 mL tubes
- Elution tubes

Notes before starting

- Buffer RLT contains guanidine salt and is therefore not compatible with disinfecting reagents containing bleach.
- If necessary, redissolve any precipitate in Buffer RLT by warming.
- Equilibrate buffers to room temperature.
- Up to eight cartridges can be processed in one run.
- Unless stated otherwise, perform all steps at room temperature. Work quickly.
- 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.

- In the following procedure, text marked with ● denotes RNA purification from cells and text marked with ▲ denotes RNA purification from tissue samples.
- **Optional**: If DNA digest is required, prepare DNase I stock enzyme by adding 550 µL RNase-free Water to the DNase I (RNase-free) lyophilized powder and mixing gently. Aliquot the DNase I stock enzyme in appropriate portions and store at –30°C to –15°C for long-term storage. Avoid freezing/thawing more than three times. DNase I is sensitive to physical denaturation; do not vortex resuspended DNase I.

Sample preparation

1. ● Harvest up to 5 × 10^6 cells as a cell pellet or, for cells grown in a monolayer, aspirate and discard the cell-culture medium from the cell-culture vessel (up to 10 cm diameter). Add 300 µL Buffer RLT to either the pellet or the cell-culture vessel and homogenize. Transfer the lysate to a 2 mL tube (not provided).

   Proceed with step 2.

   ▲ Add 300 µL Buffer RLT to up to 50 mg frozen or 25 mg stabilized tissue sample in a suitable tube (not provided) and then disrupt and homogenize.

   Proceed with step 2.

   Note: See Table 1 for disruption and homogenization methods.

Table 1. Disruption and homogenization methods

Sample	Disruption method	Homogenization method	Comments
Animal cells	Addition of lysis buffer	TissueRuptor® II or QIAshredder homogenizer or syringe and needle or vortexing (≤3 × 10^6 cells)	If processing ≤3 × 10^6 cells, lysate can be homogenized by vortexing.
Animal tissues	TissueLyser III or TissueLyser LT	TissueLyser III or TissueLyser LT	TissueLyser III and TissueLyser LT give results comparable to using a rotor–stator homogenizer.
	TissueRuptor II	TissueRuptor II	Simultaneously disrupt and homogenize.
	Mortar and pestle	QIAshredder homogenizer or syringe and needle	The TissueRuptor II usually gives higher yields than mortar and pestle.

2. Prepare a master mix (× + 10% samples) by mixing 75 µL RNase-free Water and 25 µL Proteinase K per sample and mix. Add 100 µL of Proteinase K mix to each sample, mix thoroughly, and incubate for 10 min at room temperature. In the meantime, prepare the cartridge as described in the next section.

Cartridge preparation

3. Invert pre-filled cartridge(s) to resuspend magnetic beads. Flick down to remove reagents and bead suspension from under the foil.
4. Place cartridge(s) into the Cartridge Frame. Make sure to keep the pull-tab accessible. Ensure cartridge(s) are fully inserted into the Cartridge Frame.
5. **Important**: Carefully remove the sealing foil. Avoid splashing of reagents.
6. Transfer RNase-free water into well 5 of the cartridges for elution with the respective volume according to the selected protocol.

   Optional: If doing a DNase digestion, add 10 µL DNase to well 3.
7. Add 400 µL lysate to well 1 of the cartridge.

Procedure on the QIAmini

8. Turn on the QIAmini instrument.
9. Select the desired protocol.

   Note: Find a list of all important protocols in the list view of the run menu.

   Note: For details on the protocol selection, refer to the *QIAmini RNA Tissue/Cells Kit Handbook* (**www.qiagen.com/HB-3801**).
10. Open the instrument door. Load the Cartridge Frame holding the cartridge(s) into the instrument.

    Note: Ensure that the Cartridge Frame is placed in the correct orientation. Press the cartridges down to fully engage with the heater block.
11. Slide the Rod Cover(s) into the rod cover holder of the instrument.

    Note: Press the clip down to allow full insertion of the rod cover holder.
12. Close the instrument door, press  , and confirm that consumables have been installed correctly to initiate the protocol run.
13. The display shows “End of run” when the run is completed. Select **Confirm** and press  . Open the instrument door. Remove and discard the Rod Cover(s). Then remove the Cartridge Frame holding the cartridge(s) and transfer the purified nucleic acids from well 5 of each cartridge into a new 1.5 mL tube. Discard the cartridge(s).

    Recommended: Clean the instrument and perform a UV decontamination of the instrument chamber.

Document Revision History

Date	Changes
08/2026	Initial release

Scan QR code for handbook.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual.