

Quick-Start Protocol

QIASprint® DNA Tissue/Cells Application

For use with QIASprint Connect in combination with the QIASprint DNA Tissue/Cells PrepSet and Essential Kit C

The QIASprint DNA Tissue/Cells PrepSet (384) (cat. no. 587449) and Essential Kit C (cat. no. 587009) are shipped at room temperature (15–25°C). All kit components should be stored dry at room temperature unless stated otherwise.

Further information

- QIASprint DNA Tissue/Cells Application Guide: www.qiagen.com/HB-3714
- Safety Data Sheets: www.qiagen.com/safety
- Technical assistance: support.qiagen.com

Notes before starting

- Buffer VXL, Buffer ACB, and Buffer MW1 contain guanidine salt and are therefore not compatible with disinfecting reagents containing bleach.
- If necessary, dissolve any precipitate that may have formed in Buffer ATL, Buffer VXL, or Buffer ACB concentrate by incubation at 37°C with occasional mixing.
- Prepare Buffer ACB and Buffer MW1 as indicated on the respective bottles.
- Prepare 80% (v/v) ethanol.
- If desired, add 100 µL Reagent DX to 15 mL Buffer ATL. Mix well after the addition of Reagent DX. You may upscale or downscale the volume accordingly. After preparation, the mixture is stable for 6 months at room temperature (15–25°C).
- Equilibrate buffers to room temperature.
- Unless stated otherwise, all steps should be performed at room temperature. Work quickly.
- In the following procedure, text marked with ● denotes homogenization and lysis of cells and text marked with ▲ denotes homogenization and lysis of tissue samples.

Procedure

Homogenization and lysis of tissue or cell samples

1.
 - Harvest up to 2×10^6 cells as a cell pellet. Resuspend the pellet in 180 μ L Buffer ATL.

Optional: For RNA-free DNA, add 4 μ L RNase A and incubate for 2 min.

Add 20 μ L Proteinase K and mix by vortexing or pipetting. Incubate at 56°C for 15 min. Transfer into a prep plate (lysate plate) and proceed with step 2.

▲ Add 180 μ L Buffer ATL to up to 50 mg frozen or 25 mg stabilized tissue sample. Choose one of the lysis options listed in Table 1. For details, refer to the *QIAsprint DNA Tissue/Cells Application Guide* (www.qiagen.com/HB-3714).

Table 1. Overview of recommended tissue lysis methods

Lysis method	Procedure
TissueLyser III	Samples can be lysed with TissueLyser III and the respective adapter sets. When using 5 mm stainless steel beads in a 2 mL safe-lock tube or 96-well plate, place samples into the TissueLyser III and run at 15 Hz for 20 s. Reorient the adapter so the side closest to the machine body becomes furthest from it, and then run the TissueLyser III again at 15 Hz for 20 s.
TissueRuptor® II	Use TissueRuptor II according to instructions until tissue is lysed.
Vortex Adaptor	Secure 2 mL tube or plate containing a 5 mm stainless steel bead to a Vortex Adapter (cat. no. 13000-V1-24) and vortex at maximum speed for 10 min.
Proteinase K	Add 20 μ L Proteinase K and incubate overnight at 56°C.

When choosing mechanical disruption method, add 20 μ L of Proteinase K and mix by vortexing or pipetting. Incubate at 56°C until cleared or up to 60 min.

Optional: For RNA-free DNA, add 4 μ L RNase A and incubate for 2 min at room temperature.

Transfer into a prep plate (lysate plate) and proceed with step 2.

2. Prepare a binding master mix ($\times$ + 10% samples) containing 100 μ L Buffer VXL, 350 μ L Buffer ACB, and 30 μ L MagG Bead Suspension per sample.
- Note:** Ensure sufficient resuspension of the MagG Bead Suspension before distribution by thorough vortexing.

Plates preparation

- 3. Transfer 480 µL of this binding master mix to approximately 200 µL lysate.
- 4. Prepare the plates as described in the table below:

Plate	Content	Volume (µL)
Lysate Plate	Lysate Binding master mix	200 480
Wash Plate 1	Buffer MW1	650
Wash Plate 2	80% Ethanol	650
Wash Plate 3	80% Ethanol	700
Elution Plate	RNase-free Water	200*

* Or as indicted in the selected protocol.

Procedure on QIAasprint Connect

- 5. Turn on the QIAasprint Connect instrument and log in.
- 6. Navigate to the Protocols screen with the tab in the upper part of the home screen.
- 7. Locate the desired protocol for the DNA tissue and cells application, and press  and  Run protocol

For additional information on protocol selection, please refer to the handbook.

Optional: Enter the run information in the Run details screen. This information will be displayed in the run report.

- 8. Close the hood and press **Confirm** to get to the loading screen.
- 9. With the plate hotels located on the lab bench, insert the plates according to the screen instructions into the hotels.
 - The prep cover must be located in the metal prep cover frame.
 - All prep plates need to sit firmly in their metal frames.
 - The QR codes need to face the user.
- 10. Open the hood and place the hotels on their platforms, taking care not to mix up the left and right hotels.
- 11. **Optional:** If you have heating or cooling steps during your protocol run and the thermal adapter is not already located on the heater-cooler, place the thermal adapter in one of the slots of the thermal adapter platform with the QR code facing the user. The instrument will install it automatically during the run.

- 12. Press **Start run** to start the run.
- 13. After the end of the run, remove the plate hotels from the instrument. Store the elution plate safely or use it directly in your downstream applications.

Document Revision History

Date	Description
03/2026	Initial release
	Scan the QR code for handbook. For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual.

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