June 2023

Quick-Start Protocol

QIAwave DNA Blood & Tissue Kit

The QIAwave DNA Blood & Tissue Kit (cat.no. 69554 and cat. no 69556) can be stored at room temperature (15–25°C) for up to 1 year after delivery.

Further information

- QIAwave DNA Blood & Tissue Handbook: **www.qiagen.com/HB-2987**
- Safety Data Sheets: **www.qiagen.com/safety**
- Technical assistance: **support.qiagen.com**
- The QIAwave DNA Blood & Tissue Kit can be automated on the QIAcube Connect using the DNeasy Blood & Tissue Kit protocols that be downloaded at **www.qiagen.com/qiacubeprotocols.**

Notes before starting

- Perform all centrifugation steps at room temperature (15–25°C).
- Redissolve any precipitates in Buffer AL and Buffer ATL.
- Equilibrate frozen tissue or cell pellets to room temperature.
- Preheat an incubator to 56°C.
- Refer to the handbook for pretreatment of fixed tissue, insect, bacterial, or other materials.
- Preassemble DNeasy® Mini Spin Columns with Waste Tubes.
- **Preparation of final buffers from concentrates**: Transfer the entire volume of buffer concentrates from the 2 mL tube or 15 mL bottle into a glass bottle appropriate for the final volume (Table 1), either by using a pipette or by pouring. Add ultrapure water

and/or ethanol (96–100%) according to Table 1. To label the glass bottle, use the enclosed label and transfer it onto the glass bottle.

Table 1. Preparation of Buffer concentrates

Kit (cat. no.)	Final buffer	Buffer*	Ultrapure water	Ethanol (96-100%)	Final volume
69554	AW1	AW1/C	–	20 mL	35 mL
	AW2	AW2/C	15 mL	40 mL	56.5 mL
	AE	AE/C	22 mL	–	24 mL
69556	AW1	AW1/C	–	130 mL	228 mL
	AW2	AW2/C	60 mL	160 mL	226 mL
	AE	AE/C	110 mL	–	120 mL

Procedure

1. **Tissue**: Cut tissue (≤10 mg spleen or ≤25 mg other tissue) into small pieces, and place in a 1.5 ml microcentrifuge tube (not provided). For rodent tails, use 1 (rat) or 2 (mouse) 0.4–0.6 cm lengths of tail. Add 180 µl Buffer ATL. Add 20 µl proteinase K, mix by vortexing and incubate at 56°C until completely lysed. Vortex occasionally during incubation. Vortex 15 s directly before proceeding to step 2.

   Nonnucleated blood: Pipet 20 µl proteinase K into a 1.5 ml or 2 ml microcentrifuge tube (not provided). Add 50–100 µl anticoagulant-treated blood. Adjust volume to 220 µl with PBS. Proceed to step 2.

   Nucleated blood: Pipet 20 µl proteinase K into a 1.5 ml or 2 ml microcentrifuge tube (not provided). Add 5–10 µl anticoagulant-treated blood. Adjust volume to 220 µl with PBS. Proceed to step 2.

   Cultured cells: Centrifuge a maximum of 5 x 10^6 cells for 5 min at 300 x *g* (190 rpm). Resuspend in 200 µl PBS. Add 20 µl proteinase K. Proceed to step 2.

2. Add 200 µl Buffer AL. Mix thoroughly by vortexing. Incubate blood samples at 56°C for 10 min.

3. Add 200 µl ethanol (96–100%). Mix thoroughly by vortexing.
4. Pipet the mixture into a DNeasy Mini spin column placed in a 2 ml Waste Tube (supplied). Centrifuge at ≥6000 x *g* (8000 rpm) for 1 min. Discard the flow-through and reuse the Waste Tube.
5. Add 500 µl Buffer AW1, and centrifuge for 1 min at ≥6000 x *g*. Discard the flow-through and reuse the Waste Tube.
6. Add 500 µl Buffer AW2 and centrifuge for 3 min at 20,000 x *g* (14,000 rpm). Discard the flow-through and Waste Tube.
7. Transfer the spin column to a new 1.5 ml or 2 ml microcentrifuge tube (not provided).
8. Elute the DNA by adding 200 µl Buffer AE to the center of the spin column membrane. Incubate for 1 min at room temperature. Centrifuge for 1 min at ≥6000 x *g*.

   Optional: Repeat step 8 for increased DNA yield.

Document Revision History

Date	Changes
01/2022	Initial release
06/2023	Addition of cat. no. 69554 and necessary procedures Updated QSP according to new brand template

Scan QR code for handbook.

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