Quick-Start Protocol

July 2022

DNeasy® PowerWater® Kit

The DNeasy PowerWater Kit (cat. nos. 14900-50-NF and 14900-100-NF) can be stored at room temperature (15–25°C) until the expiry date printed on the box label.

Further information

- *DNeasy PowerWater Kit Handbook*: **www.qiagen.com/HB-2267**
- Safety Data Sheets: **www.qiagen.com/safety**
- Technical assistance: **support.qiagen.com**

Notes before starting

- Solution PW1 must be warmed to 55°C for 5–10 min to dissolve precipitates prior to use. Solution PW1 should be used while still warm.
- If Solution PW3 has precipitated, heat to 55°C for 5–10 min to dissolve precipitate.
- Shake to mix Solution PW4 before use.

1. Filter water samples using a filter funnel attached to a vacuum source. The volume of water filtered will depend on the microbial load and turbidity of the water sample.

   Note: Please see Types of Water Samples in the Appendix and Troubleshooting Guide.
2. If using a reusable filter funnel, remove the upper portion of the apparatus.
3. Using two sets of sterile forceps, pick up the white filter membrane at opposite edges and roll the filter into a cylinder with the top side facing inward.

   Note: Do not tightly roll or fold the filter membrane.
4. Insert the filter into a 5 ml PowerWater Bead Pro Tube.
5. Add 1 ml of Solution PW1 to the PowerWater Bead Pro Tube.

   Note: For samples containing organisms that are difficult to lyse (e.g., fungi and algae) an additional heating step can be included. See Alternate Lysis Method in the Appendix and Troubleshooting Guide.
6. Secure the tube horizontally to a vortex adapter.
7. Vortex at maximum speed for 5 min. Centrifuge the tubes ≤4000 x *g* for 1 min at room temperature. (This centrifugation step is optional if a centrifuge with a 15 ml tube rotor is not available but will result in minor loss of supernatant.).

8. Transfer the supernatant to a clean 2 ml collection tube (provided). Draw up the supernatant using a 1 ml pipette tip by placing it down into the beads.

   Note: Placing the pipette tip down into the beads is required. Pipette until you have removed all the supernatant. Expect to recover 600–650 µl of supernatant.
9. Centrifuge at 13,000 x *g* for 1 min at room temperature.
10. Avoiding the pellet, transfer the supernatant to a clean 2 ml collection tube (provided).
11. Add 200 µl of Solution IRS and vortex briefly to mix. Incubate at 2–8°C for 5 min.
12. Centrifuge the tubes at 13,000 x *g* for 1 min.
13. Avoiding the pellet, transfer the supernatant to a clean 2 ml collection tube (provided).
14. Add 650 µl of Solution PW3 and vortex briefly to mix.
15. Load 650 µl of supernatant onto a MB Spin Column. Centrifuge at 13,000 x *g* for 1 min. Discard the flow-through. Repeat until all the supernatant has been processed.
16. Place the MB Spin Column Filter into a clean 2 ml collection tube (provided).
17. Add 650 µl of Solution PW4 (shake before use). Centrifuge at 13,000 x *g* for 1 min.
18. Discard the flow-through and add 650 µl of ethanol (provided) and centrifuge at 13,000 x *g* for 1 min.
19. Discard the flow-through and centrifuge again at 13,000 x *g* for 2 min.
20. Place the MB Spin Column into a clean 2 ml collection tube (provided).
21. Add 100 µl of Solution EB to the center of the white filter membrane.
22. Centrifuge at 13,000 x *g* for 1 min.
23. Discard the MB Spin Column. The DNA is now ready for downstream applications.

Document Revision History

Date	Changes
07/2022	Replaced “PowerWater DNA Bead Tubes” with “PowerWater Bead Pro Tubes”. Deleted reference to a video.

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