

DNA extraction

Needed equipment:



Mini-Centrifuge (ideally reaching 16.000 g)

A detailed protocol for Qiagen's Power Soil kit can be found in:

<https://www.qiagen.com/us/Resources/ResourceDetail?id=3d576814-4f1e-4e26-9c94-57d5dc2bb60a&lang=en>

A brief summary follows:

1. Spin the PowerBead Pro Tube briefly to ensure that the beads have settled at the bottom.
Add up to 250 mg of sample and 800 μ l of Solution CD1. Vortex briefly to mix.
2. Secure the PowerBead Pro Tube horizontally on a Vortex Adapter for 1.5–2 ml tubes
Vortex at maximum speed for 10 min.
3. Centrifuge the PowerBead Pro Tube at 15,000 x g for 1 min.
4. Transfer the supernatant to a clean 2 ml Microcentrifuge Tube
5. Add 200 μ l of Solution CD2 and vortex for 5 s.

6. Centrifuge at 15,000 x g for 1 min at room temperature. Avoiding the pellet, transfer up to 700 µl of supernatant to a clean 2 ml Microcentrifuge Tube

7. Add 600 µl of Solution CD3 and vortex for 5 s

8. Load 650 µl of the lysate onto an MB Spin Column and centrifuge at 15,000 x g for 1 min.

9. Discard the flow-through and repeat step 8 to ensure that all of the lysate has passed through the MB Spin Column.

10. Carefully place the MB Spin Column into a clean 2 ml Collection Tube

11. Add 500 µl of Solution EA to the MB Spin Column. Centrifuge at 15,000 x g for 1 min.

12. Discard the flow-through and place the MB Spin Column back into the same 2 ml Collection Tube.

13. Add 500 µl of Solution C5 to the MB Spin Column. Centrifuge at 15,000 x g for 1 min.

14. Discard the flow-through and place the MB Spin Column into a new 2 ml Collection Tube

15. Centrifuge at up to 16,000 x g for 2 min. Carefully place the MB Spin Column into a new 1.5 ml Elution Tube

16. Add 50–100 µl of Solution C6 to the center of the white filter membrane.

17. Centrifuge at 15,000 x g for 1 min. Discard the MB Spin Column.

If the portable centrifuge cannot provide the requested g, try increasing centrifugate time.