



**PowerMax™ Soil  
DNA Isolation Kit**  
**Catalog No. Quantity**  
12988-10 10 Mega Preps  
(Up to 10 grams of soil per prep)

## **Experienced User Protocol**

### **Please wear gloves at all times**

1. Add 15 ml of PowerBead Solution to a PowerBead Tube. **These tubes will now be referred to as PowerMax™ Bead Solution Tubes.**

2. Add up to 10 g of soil sample to PowerMax™ Bead Solution Tube. Vortex vigorously for 1 minute.

**Note:** Please refer to Additional Information Section before deciding on the amount of soil to process.

3. **Check Solution C1.** If Solution C1 is precipitated, heat the solution at 60°C until the precipitate has dissolved. Add 1.2 ml of Solution C1 to the PowerMax™ Bead Solution Tube and vortex vigorously for 30 seconds.

4. Place PowerMax™ Bead Solution Tubes on the MO BIO Laboratories, Inc. Vortex Adapter and vortex for 10 minutes at the highest speed. *Alternatively, you can place the tubes in a shaking water bath set at 65°C and shake at maximum speed for 30 minutes. **We placed our tubes in the stationary water bath for 20 minutes and vortexed them every 10 minutes for two minutes.***

5. Centrifuge tubes at 2500 x *g* for 3 minutes at room temperature.

6. Transfer supernatant to a clean Collection Tube (provided). The supernatant may still contain some soil particles and color.

7. Add 5 ml of Solution C2 and invert twice to mix. Incubate at 4°C for 10 minutes.

8. Centrifuge tubes at 2500 x *g* for 4 minutes at room temperature.

9. Avoiding pellet, transfer supernatant to a clean Collection Tube (provided).

10. Add 4 ml of Solution C3 and invert twice to mix. Incubate at 4°C for 10 minutes.

11. Centrifuge tubes at 2500 x *g* for 4 minutes at room temperature.

12. Avoiding pellet, transfer supernatant to a clean Collection Tube (provided).

13. Add 30 ml of Solution C4 to supernatant and invert twice.

14. This step requires three centrifugations. First, fill Spin Filter with solution from Step 13. Centrifuge at 2500 x *g* for 2 minutes at room temperature. Discard flow through and add second volume of supernatant to same Spin Filter and centrifuge at 2500 x *g* for 2 minutes at room temperature. Discard flow through. Repeat until entire volume has been processed.

15. Add 10 ml of Solution C5 to Spin Filter and centrifuge at 2500 x *g* for 3 minutes at room temperature. Discard flow through.

16. Centrifuge Spin Filter at 2500 x *g* for 5 minutes at room temperature.

17. Carefully place Spin Filter in a new Collection Tube (provided). Avoid splashing Solution C5 onto Spin Filter.

18. Add 5 ml of sterile Solution C6 to the center of Spin Filter membrane and centrifuge at 2500 x *g* for 3 minutes at room temperature.

19. Discard Spin Filter. The DNA in the tube is now ready for any downstream application. No further steps are required.

We recommend storing DNA frozen (-20°C). Solution C6 does not contain EDTA. To concentrate DNA see the Additional Information Section.

**Thank you for choosing the PowerMax™ Soil DNA Isolation Kit.**