Synergy™ 3.0 Magnetic Nano Particles DNA Extraction Kit

Materials

- 60 ml Wash Buffer I
- 60 ml Wash Buffer II
- 4.5 ml Magnetic Nano Particles (MNPs)
- Magnetic Stand
- 100 Homogenization Tubes
- 140 ml Dilution Buffer
- Microfuge Tubes
- Isopropanol (2-propanol)
- Ethanol (Ethyl alcohol)
- 20 ml Elution Buffer
- 24 ml Resuspension Buffer
- 84 ml Homogenization Buffer

Protocol

1. UV the 96 deep well plate with the magnetic tip comb in the Isopure™ Mini for 15 minutes.
2. Add up to 150 mg of soil and 700 µl of Homogenization Buffer to the 2 mL Synergy homogenization tube.
3. Place homogenization tube in the bead beater and homogenize sample at the highest speed for 2 minutes. The tube will LACK foam if adequately processed, repeat if sample is not completely homogenized.
4. Centrifuge homogenization tubes for 5 minutes at 15,000 x g to pellet grinding matrix and debris.
5. Transfer clear supernatant to microcentrifuge tube and centrifuge at 13,000 x g for 30 seconds.
6. Pipette the supernatant into a new microfuge tube, taking care not to disrupt any debris that may have settled at the bottom of the tube.
7. Add 2 volumes of Dilution Buffer to the tube, vortex and incubate at room temperature for 10 minutes. After, centrifuge at 5,600 x g for 5 minutes.
8. Decant and discard the supernatant. Dissolve the pellet in 200 µl of Resuspension Buffer.
9. Transfer the sample to column 1 or 7 of the 96 deep well plate.
10. Vortex OPSD MNPs for 30 seconds for full resuspension and add 25 µl of OPSD MNPs to columns 2 and 8 in the 96 deep well plate.
11. Add 400 µl of EtOH to columns 1 and 7 in the 96 deep well plate.
12. Add 500 µl of Wash Buffer I to columns 3 and 9 in the 96 deep well plate.
13. Add 500 µl of Wash Buffer II to columns 4 and 10 in the 96 deep well plate.
14. Add 100 µl of the Elution Buffer to columns 6 and 12 in the 96 deep well plate.
15. Place the 96 deep well plate back into the Isopure™ Mini and start the protocol.
16. Once protocol is complete, place foil cover over the 96 deep well plate and store at -20°C.

Automated Isopure™ Mini Procedure

1. Collect beads from columns 2 and 8, place beads in columns 1 and 7.
2. Mix at speed 5 for 5 minutes in columns 1 and 7.
3. Wash beads in columns 3 and 9 for 1 minute at speed 6.
4. 3 minute dry.
5. Wash beads in columns 4 and 10 for 1 minute at speed 6.
6. 10 minute dry.
7. Elute in columns 6 and 12; Mix 5 minutes at 70°C at speed 7.
8. Release beads in columns 5 and 11.

If you have questions about this product, please contact OPS Diagnostics:

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