Sample Preparation Using 200mg of Starting Material

1. Weigh 200mg of food material and place in a 2ml tube.
2. Tilt tube on its side so the dry sample is on the sides of the tube. Add 500µl of Lysis Buffer A and 5µl of RNase A. Cap the tube and vortex vigorously.
5. Spin for 10 minutes in a microcentrifuge at maximum speed (13,000 × g).
6. Transfer the supernatant (liquid phase) to a new 2ml tube.
7. Mix the bottle of MagneSil™ PMPs for 15–30 seconds. The MagneSil™ PMPs must be thoroughly resuspended before being dispensed.
8. Add 50µl of MagneSil™ PMPs to the supernatant and vortex.
9. Add 0.8 volume of isopropanol. Invert the tube 10–15 times. Incubate for 5 minutes at room temperature with occasional mixing.
10. Place the tube onto the MagneSphere® Magnetic Separation Stand and leave for 1 minute. Discard the liquid phase.
11. Remove the tube from the stand and add 250µl of Lysis Buffer B. Invert the tube 2–3 times and place the tube back in the stand. Allow the MagneSil™ PMPs to separate for 1 minute and remove the liquid phase.
12. Add 1ml of wash solution, place the tube on the stand for 1 minute. Discard the liquid waste. Repeat twice more for a total of 3 washes. Using a pipette, remove and discard as much of the liquid as possible.
13. Dry the particles (15–30 minutes at room temperature or 10 minutes at 65°C).
14. Add 100µl of Nuclease-Free Water, vortex and incubate at 65°C for 5 minutes. Place the tube onto the magnetic stand. With the tube in place, remove the liquid to a clean tube.

See additional protocol information in Technical Bulletin #TB284, available online at: www.promega.com/tbs
Sample Preparation Using 1g of Starting Material

Sample Notes

This procedure is recommended for samples that contain low amounts of DNA (i.e., corn and tortilla chips, corn flakes, cornstarch, tofu and soy milk). The volume of material may be scaled to accommodate different needs, applications and required DNA yield. Adjust reagent volumes proportionally.

Protocol

1. Weigh 1g of food material and place in a 50ml conical tube.
2. Tilt tube on its side so the dry sample is on the sides of the tube. Add 2.5ml of Lysis Buffer A and 25µl of RNase A. Cap the tube and vortex.
3. Add 1.25ml of Lysis Buffer B and vortex for 10–15 seconds. Lay tube on its side and incubate for 10 minutes at room temperature (22–25°C).
5. Spin for 10 minutes at 3,000–5,000 × g.
6. Transfer the supernatant (liquid phase) to a fresh 50ml tube.
7. Mix the bottle of MagneSil™ PMPs for 15–30 seconds. The MagneSil™ PMPs must be thoroughly resuspended before being dispensed.
8. Add 100µl of MagneSil™ PMPs to the supernatant and vortex.
9. Add 0.8 volume of isopropanol. Invert the tube 10–15 times. Incubate for 5 minutes at room temperature with occasional mixing.
10. Place the tube onto the PolyATtract® System 1000 Magnetic Separation Stand and leave for 1 minute. Discard the liquid phase.
11. Remove the tube from the stand and add 1.25ml of Lysis Buffer B. Invert the tube 2–3 times and place the tube back on the stand. Allow the MagneSil™ PMPs to separate for 1 minute and remove the liquid phase.
12. Add 5ml of wash solution, place the tube on the stand for 1 minute. Discard the liquid waste. Repeat twice more for a total of 3 washes. Using a pipette, remove and discard as much of the liquid as possible.
13. Dry the particles (15–30 minutes at room temperature or 10 minutes at 65°C).
14. Add 100–400µl of Nuclease-Free Water, vortex and incubate at 65°C for 5 minutes. Place the tube onto the magnetic stand. With the tube in place, remove the liquid to a clean tube.

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