June 2022

Quick-Start Protocol

MagAttract® PowerSoil® Pro DNA Kit with the epMotion®

This protocol describes the use of the MagAttract PowerSoil Pro DNA Kit (cat. no. 47109) with the epMotion instrument.

Solution CD2 should be stored at 2–8°C upon arrival. All other reagents and kit components should be stored at room temperature (15–25°C).

Further information

- *MagAttract PowerSoil Pro DNA Handbook*: **www.qiagen.com/HB-2816**
- Safety Data Sheets: **www.qiagen.com/safety**
- Technical assistance: **support.qiagen.com**

Notes before starting

- Use extra-long pipette tips (1000–1250 µl) for collection microtube racks (CMTRs).
- Add 400 µl RNase A to 80 ml Solution CD1 for each 96-well plate to be processed.
- Prepare Buffer QSB1 and Buffer MW1 according to the instructions on the bottles.
- 80% Ethanol is required in this protocol and needs to be supplied by the user.

Procedure

1. Spin the PowerBead Pro Plate (cat. no. 19311) or the PowerBead Pro Tube (cat. no. 19301) briefly to ensure that the beads have settled at the bottom of the wells or tubes.

2. Add up to 250 mg of soil or 100 mg of stool into the plate/tube and 800 µl Solution CD1/RNase A Solution. Seal the plate with sealing film or recap the tube.
3. Homogenize samples thoroughly using the TissueLyser II (cat. no. 85300).

   Note: For other homogenization methods, refer to the *MagAttract PowerSoil Pro DNA Handbook*.

   3a. If using a PowerBead Pro Plate, place a silicone compression mat on top of the sealing film, and then place the sealed plate and mat between two adapter plates (Plate Adapter Set, cat. no. 11990). Shake for 5 min at 25 Hz.
   Re-orient the plates so that the sides that were closest to the machine body are now furthest from it. Shake again for 5 min at 25 Hz.

   3b. If using PowerBead Pro Tubes, place the tubes into a TissueLyser Adapter Set 2 x 24 (cat. no. 69982), or into a 2 ml Tube Holder (cat. no. 11993) and Plate Adapter Set (cat. no. 11990). Fasten the adapter into the TissueLyser II. Shake for 5 min at 25 Hz. Re-orient the adapter so that the side that was closest to the machine body becomes furthest from it. Shake again for 5 min at 25 Hz.
4. Centrifuge the PowerBead Pro Plate at 4500 x *g* for 6 min or the PowerBead Pro Tubes at 15,000 x *g* for 1 min.
5. Transfer the supernatant to the CMTRs.

   Note: Expect 500–600 µl. The supernatant may still contain some soil/stool particles.
6. Add 300 µl Solution CD2. Seal the CMTRs with the caps provided, and then vortex.
7. Centrifuge the CMTRs at 4500 x *g* for 6 min at room temperature.
8. Taking care to avoid any residual pellet, transfer no more than 450 µl supernatant from each well to a clean Sarstedt® deep-well 96 block.

   Note: If you wish to use the remaining supernatant in each well, transfer to another Sarstedt deep-well 96 Block and store at 2–8°C until they can be processed.

9. Place the Sarstedt deep-well 96 block containing the supernatant on the epMotion robotic desk as indicated in the epMotion program worktable.
10. For each 96-well block to be processed, add 53 ml MW1 into a 100 ml Eppendorf® reservoir and add 2 x 53 ml 80% ethanol into two other 100 ml Eppendorf reservoirs. Place all three reservoirs into the Eppendorf tub holder at the appropriate location on the deck as indicated in the epMotion program worktable.
11. For each 96-well plate to be processed, add 14 ml Solution C6 into a 100 ml Eppendorf reservoir placed at the appropriate location on the deck as indicated in the epMotion program worktable.
12. Resuspend MagAttract Suspension G Beads by vortexing. For each 96-well plate to be processed, add 3.3 ml of the resuspended MagAttract Suspension G Beads to 48 ml QSB1 Binding Solution and mix well. Immediately transfer the entire volume of MagAttract Suspension G Beads/QSB1 into a 100 ml Eppendorf reservoir placed at the appropriate location on the deck as indicated on the epMotion program worktable.

    Note: Maintain the MagAttract Suspension G Beads in suspension to ensure uniform distribution.
13. Initiate the protocol.

    Note: Start the protocol immediately to avoid settling of the beads. If there is a delay of more than 3 min, re-agitate the beads.
14. Upon completion, cover the wells of the microtiter plate with an Elution Sealing Mat (provided). The DNA is now ready for downstream applications.

Document Revision History

Date	Changes
04/2022	Initial release

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual.