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Quick-Start Protocol

MagAttract® PowerSoil® Pro DNA Kit with KingFisher®

This protocol describes the use of the MagAttract PowerSoil Pro DNA Kit (cat. no. 47109) with the KingFisher Flex instrument. For use with the epMotion® instrument, please refer to the *MagAttract PowerSoil Pro DNA Handbook*.

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 Solution 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 tube.
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). (For other homogenization methods, please 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 2 adapter plates (cat. no. 11990). Shake for 5 min at 25 Hz.
     Reorient 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. Reorient 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 KingFisher deep-well 96 plate.
9. Resuspend MagAttract Suspension G Beads by vortexing. For each 96-well plate to be processed, add 3 ml of the resuspended MagAttract Suspension G Beads to 44 ml Buffer QSB1 and mix well. Immediately transfer to a multichannel pipette reservoir.

   Note: Maintain the MagAttract Suspension G Beads in suspension to ensure uniform distribution.
10. Add 470 µl of the MagAttract Suspension G beads/Buffer QSB1 mix to each well containing lysate in a KingFisher 96 deep-well plate.
11. Place the plate on the robotic deck at the specified location indicated in the program.
12. Add 500 µl Buffer MW1 to each well of one clean KingFisher 96 deep-well plate. Add 80% ethanol (provided by the user) to each well of 2 clean KingFisher 96 deep-well plates. Place the plates on the robotic deck at the specified locations indicated in the program.
13. Add 100 µl Solution C6 to each well of a clean KingFisher 96 microplate and place on the robotic deck at the specified location. Initiate the robotic program.
14. Upon completion of the robotic program, cover the wells of the KingFisher 96 microplate with an appropriate storage seal. DNA is now ready for downstream applications.

Document Revision History

Date	Changes
10/2020	Initial release

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