Quick-Start Protocol March 2016

MagAttract® DNA Mini M48 Kit

The MagAttract DNA Mini M48 Kit (cat. no. 953336) can be stored at room temperature (15–25°C) for up to 1 year if not otherwise stated on label.

Further information

- *MagAttract DNA Mini M48 Handbook*: **www.qiagen.com/HB-0346**
- Safety Data Sheets: **www.qiagen.com/safety**
- Technical assistance: **support.qiagen.com**

Notes before starting

- Ensure that you are familiar with operating the BioRobot® M48 workstation. Refer to the *BioRobot M48 User Manual* for operating instructions.
- This protocol is for purification of total DNA from soft tissues and mouse tail.
- Supplementary protocols for automated purification of DNA from other sample types using the MagAttract DNA M48 System are available online at **www.qiagen.com/resources**.
- Prepare Buffer MW1 as described on the bottle and store at room temperature (15–25°C).
- Before use, check that Buffer ML does not contain a white precipitate by shaking the bottle. Check again when pipetting Buffer ML into the Reagent Container. If necessary, incubate for 30 minutes at 37°C with occasional shaking to dissolve precipitate.
- For most tissue types, a sample size of 10 mg is recommended; however, up to 20 mg heart and up to 40 mg muscle may be used.
- Preheat a heating block or water bath to 56°C.

1. Transfer tissue (e.g., 2 mm section of mouse tail) into a 1.5 ml sample tube.
2. Add 190 µl Buffer G2. Ensure tissue pieces are fully submerged in the buffer.
3. Add 10 µl proteinase K solution, and mix by tapping the tube gently.

4. Incubate at 56°C until the tissue is completely lysed. Vortex 2–3 times per hour during the incubation to disperse the sample, or place in a thermomixer, shaking water bath or on a rocking platform (required for mouse tail).

   Note: Lysis time (3–16 h) varies depending on the type of tissue. Overnight lysis is often required for mouse tails and does not influence the preparation.

5. For mouse tail, centrifuge the tubes briefly to remove drops from inside the lid. Homogenize the sample by pipetting up and down several times. Large pieces of insoluble material should be removed by centrifugation at 300 x *g* for 1 min. Transfer the supernatant to a new 1.5 ml sample tube.
6. Switch on the BioRobot M48, before switching on computer and monitor.
7. Launch the QIAsoft M Operating System if necessary.
8. Select the **Genotyping** (for mouse tail) or the **Genomic Research** protocol group from the drop-down menu by clicking on the dark green arrow, and then select **gDNA**.
9. Select the **Tissue** protocol and click the **Select** button to choose the elution tube type. Enter the number of samples and the sample and elution volumes.
10. Place the sample tubes, reagent containers, and plasticware on the worktable, according to software instructions.
11. Close the workstation door and start the purification protocol. All steps are fully automated, and a software message indicates when the protocol is finished.
12. Retrieve the elution tubes containing the purified DNA from the cooling block. The DNA is ready to use or can be stored at 2–8°C for 24 h or longer at –20°C.

    Note: If the purified DNA is to be analyzed by fluorescent capillary sequencing or real-time PCR, tubes containing eluate should first be applied to a suitable magnetic separator and the eluate transferred to a clean tube to minimize the risk of magnetic-particle carryover.

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