Quick-Start Protocol February 2017

MagAttract® Blood DNA/RNA Kit (384)

All reagents and kit components of the MagAttract Blood DNA/RNA Kit (384) should be stored at room temperature (15–30°C).

Further information

- Safety Data Sheets: **www.qiagen.com/safety**
- Technical assistance: **support.qiagen.com**

Notes before starting

- For each 96 well plate, add 500 µl fresh β-mercaptoethanol (β-ME) to 49.5 ml WBC Lysis Solution (1% v/v; 1:100 dilution). Each individual sample requires 5 µl of β-ME and 495 µl of WBC Lysis Solution.
  Note: Prepare WBC Lysis Solution with fresh β-ME according to the number of samples being processed instead of adding β-ME to the whole bottle.

1. Dispense 200 µl of well-mixed, fresh blood into each well of a 2 ml Collection Plate (for preserved blood, please see Troubleshooting guide.)
2. Add 600 µl of RBC Lysis Solution to each well and mix the sample by repeated pipetting (3–5 times). Apply a piece of Sealing Tape (provided) to the top of the 96 well plate. Place on an orbital plate shaker and shake at 450 rpm for 10 min at room temperature.
3. Centrifuge the 2 ml Collection Plate at 2000 x *g* for 5 min to pellet intact white blood cells (WBCs). Remove Sealing Tape and discard.
   Note: Remember to use a balance plate for the centrifuge; use 800 µl of water per well.
4. Remove and discard 750 µl of RBC lysate from each well. We recommend inserting your pipette tip along the wall of the well to avoid disturbing the WBC pellet at the center of the well floor.
   Note: If using a digital pipettor to remove the RBC lysate, we recommend setting the aspiration speed to the lowest setting.

5. Add 500 µl of WBC Lysis Solution/β-ME to each well and re-suspend the WBC pellet by repeated pipetting (3–5 times). Apply a new piece of Sealing Tape (provided).
6. Place on an orbital plate shaker and shake at 450 rpm for 10 min at room temperature.

KingFisher® Flex Protocol

7. Transfer the entire WBC lysate (from the previous step) to the appropriate wells on a KingFisher Microtiter Deep Well 96 Plate (user supplied).
8. Resuspend ClearMag® Beads (Zorb Reagent) by vortexing the bottle. For each plate to be processed, add 2 ml of the resuspended ClearMag Beads to 41 ml of ClearMag Binding Solution in an appropriate vessel (user provided) and immediately transfer to a multi-channel reservoir.
9. Mix the bead dispersion thoroughly and add 430 µl of the ClearMag Beads/ClearMag Binding Solution mixture to each well containing lysate.
   Note: Work quickly as the ClearMag Beads will slowly settle. It is important to maintain the beads in suspension to ensure uniform distribution into each well.
10. Place the KingFisher Microtiter Deep Well 96 Plate containing WBC lysate and ClearMag mixture on the deck as indicated in the display on the instrument.
11. You will need three KingFisher Microtiter Deep Well 96 Plates for this step. Place 900 µl of ClearMag Wash Solution into each well of one plate. Place 900 µl of 100% ethanol into each well of the other two plates. Place each plate on the deck as indicated in the display, with the ClearMag wash plate placed before the two ethanol wash plates.
12. Place 50–100 µl of ClearMag RNase-Free Water into each corresponding well of a KingFisher 96 KF plate and place on the deck as indicated.
13. Initiate the KingFisher PowerMag Blood DNA/RNA Isolation protocol program.
14. Upon completion, cover the wells of the KingFisher 96 KF plate with an appropriate storage seal (user provided). The DNA and RNA are now ready for downstream applications. We recommend storing eluents between –65°C and –90°C to maintain RNA integrity.