【Product Name】MagPure FFPE DNA/RNA Kit

【Product specifications】48 Preps/Kit, 96 Preps/Kit, 5 x 96 Preps/Kit

【Intended Use】

The Kit is specially designed for simultaneous purification of genomic DNA and total RNA from formalin-fixed, paraffin-embedded (FFPE) tissue sections. Purified DNA/RNA are suitable for use in applications such as real-time PCR and Pyrosequencing.

【Principle】

The sample is lysed and digested under the action of lysate and Protease. DNA/RNA is released into the lysate. After adding magnetic particles and binding solution, DNA will be adsorbed on the surface of magnetic particles, the supernatant contain RNA was collected and bind to MagBind Particles. The adsorbed particles were washed with washing solution to remove proteins and impurities, washed with ethanol to remove salts, and finally DNA/RNA was eluted by Elution Buffer.

【Main Composition】

Cat.No.	R632701	R632702	R632703	R632704
Preps	48 Preps	96 Preps	5 x 96 Preps	1000 Preps
MagBind Particles	1.1 ml	2.5 ml	11 ml	22 ml
MagPure Particles N	1.1 ml	2.5 ml	11 ml	22 ml
Proteinase K	24 mg	48 mg	220 mg	440 mg
Protease Dissolve Buffer	3 ml	10 ml	15 ml	30 ml
Buffer DPS	50 ml	100 ml	2 x 250 ml	2 x 400 ml
Buffer ATL	20 ml	30 ml	120 ml	180 ml
Buffer BST1	20 ml	40 ml	200 ml	350 ml
Buffer BXW1*	44 ml	110 ml	3 x 110 ml	3 x 220 ml
RNase Free Water	15 ml	30 ml	120 ml	150 ml

【Storage conditions and Validity】

Proteinase K, MagPure Particles N and MagBind Particles should be stored at 2–8°C upon arrival. However, short-term storage (up to 12 weeks) at room temperature (15–25°C) does not affect their performance. The remaining kit components can be stored at room temperature (15–25°C) and are stable for at least 18 months under these conditions.

【Preparation before Use】

- Add 1.2ml (48Preps), 2.4ml (96 Preps), 11ml (5x96 Preps) or 22ml (1000 Preps) Protease Dissolve Buffer to the bottle of Proteinase K, and store at -20~8℃ after dissolve.
- Add 56ml (48Preps), 140ml (96 Preps), 3x140ml (5x96 Preps) or 3x280ml (1000 Preps) absolute ethanol to the bottle of buffer BXW1 and store at room temperature.

Protocol

1. Using a scalpel, trim excess paraffin off the sample block. Cut up to 8 sections 5~10μm thick and immediately place the sections in a 1.5 or 2 ml microcentrifuge tube.

   If the sample surface has been exposed to air, discard the first 2–3 sections.

2. **Add 0.6ml Buffer DPS into sample and vortex for 5 seconds to mix thoroughly**. Centrifuge briefly to bring the sample to the bottom of the tube.

3. Incubate at 56°C for 3~5 min and vortex for 5 seconds to dissolve paraffin.

   If too little Buffer DPS is used or if too much paraffin is carried over with the sample, the Buffer DPS may become waxy or solid after cooling. If this occurs, add additional Buffer DPS and repeat the 56°C incubation.

4. Centrifuge at 14,000 x g for 2 minutes. Aspirate and discard the supernatant carefully, do not disturb the pellet.

5. **Add 150μl Buffer ATL and 20μl Proteinase K into samples and vortex.** Incubate at 56℃ for 1 hours or until samples melt completely. Incubation can process overnight.

6. **Incubate at 90℃ for ~60 minutes.**

   The incubation at 90°C in Buffer ATL partially reverses formaldehyde modification of nucleic acids. Longer incubation times or higher incubation temperatures may result in more fragmented DNA. If using only one heating block, leave the sample at room temperature after the 56°C incubation until the heating block has reached 90°C.

7. Briefly centrifuge the 1.5 ml tube to remove drops from the inside of the lid.

8. **Add 300μl Buffer BST1 and 20μl MagPure Particles N to the sample. Mix thoroughly by inverting for 15~30 times**. Incubate for 3 minutes and mix occasionally. Place the tube to the magnetic stand for 2

minutes until the beads have formed a tight pellet.

9. **Transfer the supernatant into a new microcentrifuge tube for RNA purification in steps 10–16. Keep MagPure Particle N for DNA purification in steps 11–28.**

RNA Isolation

10. **Add 300µl Isoproanol and 20µl MagBind Particles to the sample.** Mix thoroughly by inverting for 15~30 times. Incubate for 6 minutes and mix occasionally. Place the tube to the magnetic stand for 5 minutes until the beads have formed a tight pellet. Then remove the supernatant.

11. **Add 500µl Buffer BXW1** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 2 minute until the beads have form a tight pellet. Then remove the supernatant.

12. **Add 500µl 75% ethaonl,** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.

13. **Add 500µl 75% ethaonl,** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.

14. Centrifuge shortly to collect liquid on the tube and remove all the liquid. Air dry for 3 minutes.

15. **Add 30~50µl RNase Free Water to the sample,** re-suspend the beads by vortex. Incubate at room temperatuere for 5 minutes with shaking. If there is no shaking device, vortex 2~3 times to mix . Place the tube to the magnetic rack for 3 minutes.

16. Transfer the supernatant containing the purified RNA to a clean 1.5ml centrifuge tube

DNA Isolation

17. **Add 500µl Buffer BXW1** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for1 minute until the beads have form a tight pellet. Then remove the supernatant.

18. **Add 500µl 75% ethaonl,** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.

19. **Add 500µl 75% ethaonl,** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.

20. Centrifuge shortly to collect liquid on the tube and remove all the liquid. Air dry for 10 minutes.

21. **Add 30~50µl RNase Free Water to the sample,** re-suspend the beads by vortex. Incubate for 55oC for 6 minutes with shaking. If there is no shaking device, vortex 2~3 times to mix . Place the tube to the magnetic rack for 1 minutes. Transfer the supernatant containing the purified DNA to a clean 1.5ml centrifuge tube

Auto Purify by KingFisher Flex

1. Add the Reagents/sample to the wells of the deep well plate according to the table below.

Name of the Plate	RNA Isolation
Sample plate	300 µl Buffer BST1 20 µl MagPure Particles N 150 µl Lysate from step 7.
Wash Plate 1	500µl Buffer BXW1, Put in 96 magnetic Tip
Wash Plate 2	500µl 75% ethanol
Wash Plate 3	500µl 75% ethanol
DNA Elute plate	50-80µl RNase Free Water
RNA Elute plate	50µl RNase Free Water

2. Turn on the machine, start the corresponding program.
3. Place the 96-well plate into the instrument as prompted.
4. **Add 300 µl Isopropanol and 20 µl MagBind Particles to the Sample plate during the dispense step.**
5. Place the sample plate back into the instrument and press Start.
6. After the run is completed, remove the plates and store the purified total DNA.