【Product Name】 MagPure Fast Blood DNA Kit

【Product specifications】 48 Preps, 96 Preps, 480 Preps

【Intended Use】

This product provide fast and easy methods for purification of total DNA for reliable PCR and Southern blotting. Total DNA(e.g., genomic, viral, mitochondrial) can be purified from whole blood, plasma, serum, buffy coat, bone marrow, other body fluids, lymphocytes, cultured cells.

【Principle】

This product is based on the purification method of high binding magnetic particles. The sample is lysed and digested under the action of lysate and Protease. DNA is released into the lysate. After adding magnetic particles and binding solution, DNA will be adsorbed on the surface of magnetic particles, and impurities such as proteins will be removed without adsorption. The adsorbed particles were washed with washing buffer to remove proteins and impurities, washed with ethanol to remove salts, and finally DNA was eluted by Elution Buffer.

【Kit Contents】

Cat.No.	D631001	D631002	D631003	Main Composition
Purification Times	48	96	480	-
MagPure Particles	1.7 ml	3.5 ml	17 ml	Magnetic Beads
Proteinase K	24 mg	50 mg	220 mg	Proteinase K
Protease Dissolve Buffer	1.8 ml	3 ml	15 ml	Glycorel/Tris/$CaCl_2$
Buffer MLA	30 ml	60 ml	270 ml	Guanidine Salt
Buffer DW1	60 ml	120 ml	550 ml	Guanidine Salt
Buffer CW	30 ml	60 ml	270 ml	Tris/NaCl
Buffer BW3	30 ml	60 ml	270 ml	Water
Elution Buffer	15 ml	30 ml	100 ml	Tris

【Storage conditions and Validity】

Proteinase K, MagPure Particles should be stored at 2–8°C upon arrival. However, short-term storage (up to 24 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】

- Ethanol (96 – 100%)
- Phosphate-buffered saline (PBS) may be required for some samples
- Add 1.2 ml (48 Preps) or 2.5 ml (96 Preps) or 11 ml (480 Preps) Protease Dissolve Buffer to the bottle of Proteinase K, and store at -20~8°C after dissolve.

【Tube Protocol 】

1. Pipet 20µl Proteinase K and 30µl MagPure Particles into the bottom of a 1.5 ml microcentrifuge tube.
2. **Add 200µl sample to the microcentrifuge tube. Use up to 200 µl whole blood, plasma, serum, buffy coat, or body fluids, or up to 5 x 10^6 lymphocytes or Culture Cells in 200µl PBS.**
3. **Add 500µl Buffer MLA to the sample. Mix by pulse-vortexing for 15 s.** Incubate at room temperature for 10 min with with occasional mixing.
   Vortex occasionally during incubation to disperse the sample, or place on a shaker.
4. **Place the tube into an Magnet strand and allow beads to separate for 1 minutes.** With the tube on the Magnet stand, perform the aspiration, and then discard the supernatant from the tube.
5. **Add 500µl Buffer DW1 and resuspend the beads by vortex for 15s.**
6. **Place the tube into an Magnet strand and allow beads to separate for 1 minutes.** With the tube on the Magnet stand, perform the aspiration, and then discard the supernatant from the tube.
7. Repeat step 5-6 once.
8. **Add 500µl Buffer CW and resuspend the beads by vortex for 20s.**
9. **Place the tube into an Magnet strand and allow beads to separate for 1 minutes.** With the tube on the Magnet stand, perform the aspiration, and then discard the supernatant from the tube.
10. **Leave the tube on the magnetic separation device. Slowly add 500µL Buffer BW3 and leave on magnet for 20-30 seconds, and then aspirate.**
11. **Add 100µl Elution Buffer to the sample and shaking at maximal speed for 10 minteus to elute DNA.** If constant vortexing for 5 minutes is not possible, vortex for 20 seconds every 1-2 minutes for 10 minutes.
12. Place the plate on the magnetic separation device to magnetize the Particles. Let sit at room temperature until the Particles are completely cleared from solution.

13. Transfer the cleared supernatant containing purified DNA to a 96-well microplate (not provided). Store DNA at -20°C.

【Plate Protocol 】

1. Pipet 20µl Proteinase K and 30µl MagPure Particles into the bottom of a 96 well Plate (2.2ml)
2. Add 200µl sample to the microcentrifuge tube. Use up to 200 µl whole blood, plasma, serum, buffy coat, or body fluids, or up to 5 x 10^6 lymphocytes or Culture Cells in 200 µl PBS.
3. Add 500µl Buffer MLA to the sample. Vortex to mix at shaker (such as IKA MS3) for 10 min at 1000~1200rpm.
4. Place the tube into an Magnet strand and allow beads to separate for 2 minutes. With the plate on the Magnet stand, perform the aspiration, and then discard the supernatant from the tube.
5. Add 500µl Buffer DW1 and Vortex to mix at shaker (such as IKA MS3) for 1 min at 1200rpm.
6. Place the tube into an Magnet strand and allow beads to separate for 1 minutes. With the plate on the Magnet stand, perform the aspiration, and then discard the supernatant from the tube.
7. Repeat step 5-6 once.
8. Add 500µl Buffer CW and Vortex to mix at shaker (such as IKA MS3) for 1 min at 1200rpm.
9. Place the tube into an Magnet strand and allow beads to separate for 1 minutes. With the tube on the Magnet stand, perform the aspiration, and then discard the supernatant from the tube.
10. Leave the tube on the magnetic separation device. Slowly add 500µL Buffer BW3 and leave on magnet for 30 seconds, and then aspirate.
11. Add 100µl Elution Buffer to the sample and Vortex to mix at shaker (such as IKA MS3) for 10 min at 1300rpm.
12. Place the plate on the magnetic separation device to magnetize the Particles. Let sit at room temperature until the Particles are completely cleared from solution.
13. Transfer the cleared supernatant containing purified DNA to a 96-well microplate (not provided).
14. Store DNA at -20°C.