MagPure DNA Nano Kit

Introduction

This product is specifically designed for the extraction of total DNA from contact test materials and dry blood spot. The Superparamagnetic magnetic particle purification technology of this kit does not require toxic phenol chloroform extraction and time-consuming alcohol precipitation during the extraction. The kit can process 1-10^4 cultured cells, <10μl trace anticoagulant blood, <1mg animal tissue, blood stains, and various forensic samples to extract total DNA, including genomic DNA, mitochondrial DNA, and viral DNA. The obtained DNA can be directly used for experiments such as PCR and virus detection.

Kit Contents

Product	D6359-01	D6359-02	D6359-03
Preps per Kit	48 Preps	96 Preps	480 Preps
MagPure Particles N	1.1 ml	2.2 ml	12 ml
Buffer FFL	20 ml	40 ml	200 ml
Buffer BST1	50 ml	100 ml	2 x 250 ml
Buffer GW2*	20 ml	2 x 20 ml	2 x 50 ml
Bind Enhancer	110 μg	110 μg	10 x 110 μg
Elution Buffer	5 ml	10 ml	20 ml

Storage and stability

Except Bind Enhancer，other components can be stored at room temperature (15-25°C) for 18 months, while MagPure Particles N needs to be stored at 2-8°C for long-term storage. Bind Enhancer transports at room temperature and stores at -20~8°C upon receipt.

Preparation

- Absolute ethanol (96-100%)
- Oscillating metal bath
- Add 110μl Elution Buffer to Bind Enhancer tube, mix by vortex, set aside or store at -20°C.
- Buffer GW2 should be diluted with absolute ethanol as indicated on the bottle label.

Protocol

1. 10 minutes before the experiment, prepare the digestive solution according to the table below. The mixture can be stored at room temperature for 1 week

Sample amount	1	48	96
Buffer FFL	320 μl	16 ml	32 ml
Bind Enhancer	3 μl	100 μl	200 μl

2. Place the test material into a centrifuge tube.

3. Slowly drop 250-330μl of digestion solution onto the test material, cover the tube cover, mix by vortex, and lysis at 90°C for 10-20 minutes.

4. Centrifuge at 13000 x g for 2 minutes to collect digestion solution, remove centrifuge tubes.

5. Transfer 250μl filtrate to a new centrifuge tube, **add 20μl MagPure Particles N and 400μl Buffer BST1, mix by turning upside down for 10-15 times, place at room temperature for 5 minutes, during which mix by turning upside down for several times.**

6. Transfer to a magnetic rack for adsorption for 3 minutes and discard the solution.

7. **Add 400μl Buffer BST1 and vortex for 10-15 seconds.** Transfer to a magnetic rack for adsorption for 2 minutes. Absorb and discard the solution.

8. **Add 600μl Buffer GW2 and vortex for 10 seconds.** Transfer to a magnetic rack for adsorption for 2 minutes. Absorb and discard the solution.

9. Repeat step 8 once.

10. Brief centrifugation to collect droplets on the wall, absorb and discard all solutions. Open the cover and dry in air for 10 minutes.

11. Add 30-50μl Elution Buffer and vortex to disperse the magnetic beads. Incubate by shaking at 37~55°C for 6 minutes.

12. Transfer to a magnetic rack for adsorption for 3 minutes and transfer the DNA to a new centrifuge tube.