MagicPure® Blood Genomic DNA Kit

Please read the manual carefully before use.

Cat. No. EC101

Storage: Magnetic Blood Beads at 2-8°C for one year (protect from freezing); others at room temperature (15°C-25°C) for one year.

Description

This kit uses enzymatic hydrolysis to lyse blood. The released DNA is effectively purified by specifically binding to silica magnetic beads. The silicon-based magnetic beads in the buffer system have a strong magnetic adsorption force on the target DNA. When the ionic strength changes, the magnetic beads release adsorbed DNA to achieve the purpose of rapid separation and purification of DNA. This kit is suitable for efficient extraction of genomic DNA from 50-250 µl of fresh, frozen, or anticoagulant blood. The obtained product has high purity and is suitable for digestion, PCR, qPCR and Southern Blot experiments. This kit is suitable for magnetic high throughput nucleic acid extraction instrument.

Features

• Simple and fast, no centrifugation required.
• High yield and quality.

Kit Contents

Component	EC101-01/11 (50 rxns)
Binding Buffer 17 (BB17)	18 ml
Clean Buffer 17 (CB17)	50 ml
Wash Buffer 17 (WB17)	12 ml
Elution Buffer (EB)	10 ml
Proteinase K (20 mg/ml)	1 ml
Magnetic Blood Beads	800 µl
Magnetic Stand (16 hole)	1 each/-

Starting material

• Whole blood, short term storage: 2-8°C for up to 1 week; long term storage: -80°C.
• Avoid repeated freezing and thawing of the whole blood (no more than three times) .

Procedures

Before starting, add the below indicated volume of 100% ethanol into the concentrated CB17 and WB17.

Component	EC101
Clean Buffer 17 (CB 17)	50 ml
Wash Buffer 17 (WB 17)	48 ml

All steps are carried out at room temperature. Mix the magnetic beads well by vortexing before use.

1. Add 50-250 µl of whole blood sample to a 1.5 ml microcentrifuge tube.
2. Add 300 µl of BB17 and 20 µl of Proteinase K into the microcentrifuge tube. Mix well by vortexing.
3. Incubate at room temperature for 10 minutes, and vortex 1-2 times during incubation.
4. Add 450 µl of 100% isopropanol to the microcentrifuge tube. Mix by vortexing for 10 seconds. Add 15 µl of well-mixed Magnetic Beads into the microcentrifuge tube.
5. Vortex the microcentrifuge tube for 1 minute, and then incubate at room temperature for 3 minutes.
6. Repeat Step 5 three times.

7. Place the microcentrifuge tubes onto the magnetic stand until the beads are pelleted against the magnet. Remove as much supernatant as possible, be careful not to remove any beads.
   (Suggestions for beads separation: after placing the microcentrifuge tubes onto the magnetic stand, gently turn the tubes left and right to attach the beads to the magnet, then invert the magnetic stand 2-3 times to 'rinse' the tube cap with the supernatant. Incubate at room temperature for 30 seconds.)
8. Remove the microcentrifuge tubes from the magnetic stand, add 800 µl of CB17 (make sure ethanol has been added) to the microcentrifuge tubes, then vortex the microcentrifuge tubes for 2 minutes. Place the microcentrifuge tubes onto the magnetic stand, and then discard the supernatant as in Step 7.
9. Repeat Step 8 one time.
10. Remove the microcentrifuge tubes from the magnetic stand, add 500 µl of WB17 (make sure ethanol has been added) to the microcentrifuge tubes, then vortex the microcentrifuge tubes for 2 minutes. Place the microcentrifuge tubes onto the magnetic stand, and then discard the supernatant as in Step 7.
11. Repeat Step 10 one time.
12. Air-dry the uncapped beads on the magnetic stand for 10-15 minutes.
13. Remove the microcentrifuge tubes from the magnetic stand, add 100-200 µl of EB to the microcentrifuge tubes. Mix gently by pipetting up and down several times to resuspend the beads and incubate at 56°C for 10 minutes. Mix gently by pipetting up and down once or twice during incubation.
14. Place the microcentrifuge tubes onto the magnetic stand, separate beads as in Step 7. Carefully transfer the supernatant into a clean 1.5 ml tube. Avoid collecting beads during the transfer, and store the purified DNA at -20°C.

Notes

- To ensure high quality of DNA,Use fresh whole blood sample and avoid repeated thawing and freezing.
- Beads must be mixed well before using.
- Use sterile tubes and pipette tips to avoid the DNase contamination.

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