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CAUTION! Professional use only.
Follow instruction manual before use.
Reading and carefully following these warnings will minimize usage errors, other possible risks and hazards.
Wear safety glasses, clothes, and gloves.

Magic Whole Blood Genomic DNAExtraction Kit

User Guide

Catalog Number	Pack Size
ZT-MBD-01-100	100 Tests
ZT-MBD-01-250	250 Tests

Content and Storage Condition

Content	Volume		Storage Condition	Shipping Condition
	100 Tests	250 Tests		
Softec Magic Beads, 50 mg/mL	2 mL	5 mL	2~8°C	RT
Lysis Buffer	25 mL	60 mL	2~8°C	RT
Washing Buffer MBD	60 mL (Add 60 mL ethyl alcohol before the first use)	3 X 50 mL (Add 50 mL ethyl alcohol before the first use)	2~8°C	RT
Elution Buffer	30 mL	60 mL	2~8°C	RT
Proteinase K	20 mg (Solve it in 1 mL Proteinase K Solution before the first use)	50 mg (Solve it in 2,5 mL Proteinase K Solution before the first use)	2~8°C	RT
Proteinase K Solution	1 mL	2,5 mL	2~8°C	RT

Notes

If precipitates have formed in the tampons, heat them at 37 ° C and stir gently to dissolve the precipitates. Avoid forming bubbles.

Before starting to work with this kit;

100-96% ethanol (EtOH) should be added to Washing Buffer MBD in a 1:1 ratio
Proteinase K should be diluted to 20 mg/ml.

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Necessary Materials and Devices (Not provided in the kit content)

• Isopropanol (analytical purity)
• 96%-100% Ethanol
• 80% Ethanol
• 1.5mL microcentrifuge tube (DNase/Rnase Free): 2 X sample
* Micropipettes: 20 µL, 200 µL, 1000 µL
* Sterile pipette tips
* Vortex shaker
* Heater block - Incubator: 55 ˚C
* Magnetic rack

Features

- The kit can be transported at room temperature.
- The contents of the kit should be stored at a temperature of 2-8°C. It can be stored until the expiration date.

Product Description

SOFTEC MAGIC WHOLE BLOOD GENOMIC DNA EXTRACTION KIT is used to isolate genomic DNA quickly and efficiently from anticoagulant whole blood samples. This product can be used manually for a small number of samples, it is also suitable for highly efficient automated isolation devices. Isolated genomic DNA can be used for diagnosis, PCR amplification, detection, and other follow-up experiments.
SOFTEC MAGIC WHOLE BLOOD GENOMIC DNA EXTRACTION KIT uses superparamagnetic property beads to specifically isolate DNA and removes other impurities through washing. The DNA adsorbed on magnetic microspheres is separated by elution buffer. At the end, high-quality nucleic acid is obtained.

SOFTEC MAGIC WHOLE BLOOD GENOMIC DNA EXTRACTION KIT PROTOCOL

Clean the area to be studied first with 0.5-1% (w/v) sodium hypochlorite, then with 70% Ethyl alcohol.

Lyzis

Take a new 1.5 mL microcentrifuge tube, add a 200 µL anticoagulant blood sample (if the sample volume is less than 200 ML, complete the volume to 200 ML with PBS or Elution Buffer). Add 10 µL of Proteinase K (be sure to dissolve it in Proteinase K solution) and 230 µL of Lysis Buffer. Then vortex the mixture at maximum speed for at least 10 s. Incubate the samples at a temperature of 55 °C for 5 minutes.

Binding

Take the samples from the incubation and make sure that the mixture is homogeneous before adding 320 µL of isopropanol and 20 µL of Softec Magic Beads (if necessary, gently mix them upside down 5 times), then vortex the mixture at maximum speed for 10 minutes. Then place the sample in the magnetic rack for 2 minutes, then gently pull out the supernatant with a pipette and remove the sample tube from the rack. Note: The magnetic rack time at this stage should not be less than 2 minutes. Be careful not to touch the edges of the tube while taking the supernatant.

Washing

a. Add 600 µL Washing Buffer BMD (Make sure Ethanol is added) to the sample tube, vortex the magic beads for at least 1 minute to completely re-suspend. Then hold the sample tube in the magnetic rack until the mixture becomes clear, pull out the supernatant and take the sample tube from the magnetic rack. Repeat this step one more time.

b. Add 600 µL of 80% ethanol to the sample tube, vortex the magic beads for at least 1 minute to completely resuspend. Then hold the sample tube in the magnetic rack until the mixture becomes clear, pull out the supernatant and take the sample tube from the magnetic rack. Repeat this step one more time.

Note: At the last washing stage, be sure to completely remove the washing buffer.

Drying:

Leave the sample tube on the magnetic rack and leave it at room temperature for 10 minutes. The absence of a shiny appearance of magic beads is a sign that they are drying out. Take the tube from the magnetic rack. Note: If there are liquids remaining in the sample tube during the drying process, remove the liquid delicately using a pipette.

Elution:

Add 100~200 µL Elution Buffer to the sample tube and pipetting or vortex ~50 times to completely resuspend the magic beads. Then incubate at 55°C for 5 minutes. Place the sample tube in the magnetic rack until the solution becomes clear. The supernatant contains purified genomic DNA. Transfer the supernatant to a new centrifuge tube. Be careful not to pick up the magic beads. Keep the isolated genomic DNA at -20˚C for a long time to use in your subsequent studies.

Important Notes:

1. Please read this manual carefully before starting the insulation.
2. The quality of the blood sample has a great influence on the amount of purified DNA, and repeated freezing and thawing of the blood sample should be avoided.
3. Lyophilized Proteinase K should be stored at -20°C after reconstitution. Repeated freezing and thawing operations should be avoided.
4. Freezing, centrifugation and other processes of magnetic beads should be avoided.
5. Magnetic beads must be made homogeneous before use.