Direct FFPE Tissue DNA Magnetic Extraction Kit (200 test)

TribioScience's Direct FFPE Tissue DNA Extraction Kit is designed for purification of high-quality genomic DNA from formalin-fixed, paraffin-embedded (FFPE) tiny tissue sample. It does not need paraffin removal step. With simple process, optimized lysis condition and high-performance magnetic particles, this kit is capable to isolate high quality DNA at most liquid handling workstations in the market.

Lysis of tissue samples, and decrosslinking are accomplished simultaneously with the lysis step. After then, DNA is bound to NucleoMag paramagnetic beads under appropriate buffer conditions, washed with two separate wash buffers to remove contaminants and salts, and high-purity genomic DNA is eluted under low-ionic-strength conditions

KEY FEATURES

- Directly lyse FFPE-tissue without paraffin removal step.
- Simple and fast: Just lysis-binding-washing-elution.
- High-throughput and automation friendly.

APPLICATIONS

Genomic DNA isolation from FFPE tissues for:

- PCR, RT-PCR
- Cloning, genotyping
- Sequencing
- Library construction

KIT CONTENTS (For 200 samples)

Name	Volume	Store
Magnetic Binding Buffer (MBB)	20 ml	4 °C
Lysis Buffer (LB)	40 ml	4 °C
Washing Buffer (WB)	33 ml	4 °C
Elute Buffer (EB)	10 ml	4 °C

Note: Add 77 mL absolute ethanol to WB before use.

STORAGE CONDITION

The FFPE Tissue DNA extraction Kit is shipped at room temperature. All the buffers are suggested to store at 4 °C. Shelf life is 12 months after receipt.

PROTOCOL:

1. Cut/Scrape 2-4 tissue sections. And place directly into a 1.5 ml microcentrifuge tube with screw cap.
2. Add 200 µl Lysis buffer to the sample and vortex to mix thoroughly.
3. Incubate at 67°C for 30 min, and then, 85°C for10min.
4. Centrifuge at 10,000 rpm for 5 min at RT.
5. The solution has three layers: upper layer is wax one, bottom layer is precipitation. The middle layer is DNA part. Collect the middle layer into a new tube and add equal size (~200 µl) of chloroform. Vortex to mix.
6. Centrifuge under 10,000 rpm for 5 min at RT.
7. Collect the supernatant into new tube and add 100 µl Magnetic binding buffer. Vortex to mix thoroughly. Incubate at RT for 10 min.
8. Place the tube on a magnetic separation device and wait for 2-5 min or until the magnetic particles are completely cleared from the solution. Aspirate and discard the supernatant. Do not disturb the beads.
9. Wash twice with WB: Add 500 µl to the tube and vortex the tube to resuspend the beads. Then incubate for 1 min.
10. Place the tube back on the magnetic device and wait for 2-5 min or until the magnetic particles are completely cleared from the solution. Aspirate and discard the cleared supernatant.
11. Dry the beads on the magnetic separation device at RT for 10 – 15 min. **NOTE**: Dry time is optional to ensure all trace of ethanol is removed. Otherwise, it takes caution in not over drying the beads as it will decrease the elution efficiency.
12. Add 25 µl Elute Buffer or DEPC water and gently resuspend the magnetic particles.
13. Incubate the tube at 70°C for 5 min.
14. Place the tube on the magnetic device and wait for 2-5 min or until the magnetic particles are completely cleared from the Elute Buffer.
15. Transfer the cleared supernatant containing purified DNA to a new tube. **NOTE**: purified DNA is recommended to be stored at -20°C for long-term storage.

For research use only