【Product Name】MagPure FFPE DNA Kit （High Pure）

【Product specifications】48 Preps/Kit, 96Preps/Kit

【Intended Use】

This product is suitable for rapid extraction of DNA from FFPE sample. This kit use two combination methods. High-salt Bind is conducive to remove pigments or polysaccharides from complex FFPE samples, so as to improve the purity of nucleic acid and avoid blocking aligent 2100. Alcohol mediated adsorption is conducive to improving the nucleic acid yield of high-yield samples.

【Principle】

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 solution to remove proteins and impurities, washed with ethanol to remove salts, and finally DNA was eluted by Elution Buffer.

【Main Composition】

Cat.No.	D632301D	D632302D	Composition
Preps	48 Preps	96 Preps	-
MagPure Particle N	1.1 ml	2.5 ml	Magnetic Particles
RNase A	10 mg	20 mg	Ribonuclease
Proteinase K	24 mg	48 mg	Protease
Protease Dissolve Buffer	3 ml	6 ml	Glycorel/Tris/$CaCl_2$
Buffer DPS	60 ml	100 ml	alkane mixture
Buffer ATL	15 ml	30 ml	Tris/EDTA/SDS
Buffer BST1	30 ml	60 ml	Guanidine Salt
Buffer BW1	13 ml	44 ml	Guanidine Salt
Elution Buffer	15 ml	30 ml	Tris/EDTA

【Storage conditions and Validity】

Proteinase K, RNase A and MagPure Particles N should be stored at 2–8°C upon arrival. However, short-term storage (up to 12 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】

- Add 1.2ml (48Preps) or 2.4ml(96 Preps) Protease Dissolve Buffer to the Proteinase K, and store at -20~8°C after dissolve
- Add 0.6ml (48Preps) or 1.3ml(96 Preps) Protease Dissolve Buffer to the RNase, and store at -20~8°C after dissolve.
- Add 17ml (48Preps) or 56 ml (96 Preps) absolute ethanol to buffer BW1 and store at room temperature

Section A: Sample Prepare

1. **Using a scalpel, trim excess paraffin off the sample block. Cut sections 10–20 μm thick. Transfer 1- 5 sections to 1.5ml microcentrifuge tube. Add 600μl Buffer DPS (Deparaffinization Solution) to the sample.** Vortex for 5s and centrifuge briefly to bring the sample to the bottom of the tube.
2. **Incubate at 56°C for 5 min and vortex vigorously for 15 s to dissolve the paraffin completely.**

   If too little Buffer DPS is used or if too much paraffin is carried over with the sample, the Buffer DPS may become waxy or solid after cooling. If this occurs, add additional Buffer DPS and repeat the 56°C incubation.
3. Centrifuge at full speed for 1 min to spin down any FFPE tissue that sticks to the tube wall or under the cap of the tube after vortexing.

   When the sample is sufficient, the dewaxing liquid can be sucked and discarded to facilitate operation.
4. Add 200μl Buffer ATL to the bottom of tube.
5. Add 20μl proteinase K to the lower phase. Mix gently by pipetting up and down.
6. Incubate at 56°C for 60 min (or until the sample has been completely lysed), then 90°C for 60 min.
7. Briefly centrifuge the tube and transfer the lower phase into a new microcentrifuge tube.

Section B: Manul Protocol (High Salt Bind)

1. Add 20μl MagPure Particles N and 400μl Buffer BST1 to the Lysate from step 7. Mix thoroughly by vortex from 10~15seconds.
2. Incubate for 3 minutes and mix occasionally. Place the tube to the magnetic stand for 2 minutes until the beads have formed a tight pellet. Then remove the supernatant.

3. **Add 500µl Buffer BW1** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 2 minute until the beads have form a tight pellet. Then remove the supernatant.
4. **Add 500µl 75% ethaonl,** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.
5. **Add 500µl 75% ethaonl,** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.
6. Centrifuge shortly to collect liquid on the tube and remove all the liquid. Air dry for 10 minutes.
7. **Add 30~100µl Elution Buffer to the sample,** re-suspend the beads by vortex. Incubate at 55℃ for 10 minutes with shaking. If there is no shaking device, vortex 2~3 times to mix .
8. Place the tube to the magnetic rack for 3 minutes. Transfer the supernatant containing the purified DNA to a clean 1.5ml centrifuge tube.

Section C: Manul Protocol (Ethanol Bind)

1. Add 20µl MagPure Particles N and 200µl Buffer BST1 to the Lysate from step 7 of sections A. Mix thoroughly by vortex from 10seconds.
2. **Add 300µl absolute ethanol to the sample, mix thoroughly by inverting for 15~30 times.** Incubate for 3 minutes and mix occasionally. Place the tube to the magnetic stand for 1 minutes until the beads have formed a tight pellet. Then remove the supernatant.
3. **Add 500µl Buffer BW1** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 2 minute until the beads have form a tight pellet. Then remove the supernatant.
4. **Add 500µl 75% ethaonl,** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.
5. **Add 500µl 75% ethaonl,** and vortex for 15 seconds to re-suspend beads. Place the tube to the magnetic stand for 1 minute until the beads have form a tight pellet. Then remove the supernatant.
6. Centrifuge shortly to collect liquid on the tube and remove all the liquid. Air dry for 10 minutes.
7. **Add 30~100µl Elution Buffer to the sample,** re-suspend the beads by vortex. Incubate at 55℃ for 10 minutes with shaking. If there is no shaking device, vortex 2~3 times to mix .
8. Place the tube to the magnetic rack for 3 minutes. Transfer the supernatant containing the purified DNA to a clean 1.5ml centrifuge tube.

Section D: Auto Purify by KingFisher Flex

1. Add the Reagents/sample to the wells of the deep well plate according to the table below.

Name of the Plate		Addition before use
Sample plate	High Salt Bind(High Pure DNA):400µl Buffer BST1	200µl Lysate from step 7 for sections A.
	Ethanol Bind(High yield DNA): 200µl Buffer BST1 and 300µl absolute ethanol	
Wash Plate 1	500µl Buffer BW1, Put in 96 magnetic Tip 20µl MagBind Particle	
Wash Plate 2	500µl 75% ethanol	
Wash Plate 3	500µl 75% ethanol	
Elution plate	50-100µl Elution Buffer	

2. Turn on the machine, start the corresponding program(D6323D).
3. Place the 96-well plate into the instrument as prompted.
4. Finish the operation after ~30 minutes.
5. Remove the 96-well plate and magnetic jacket.
6. Store the Eluted product at -20~8℃.