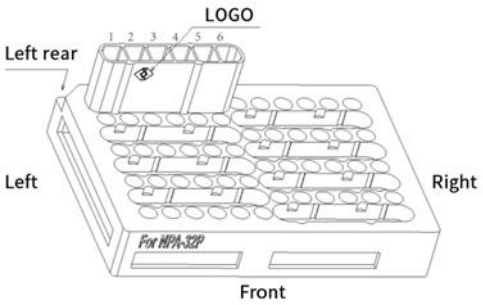
Important Notes

1. Please add absolute ethanol to Wash Buffer and mix thoroughly before the first use.
2. Typically, >85% of the DNA is recovered in the first elution. If desired, more DNA can be recovered by applying a second elution.
3. The procedure above is just suitable for the NPA-32P nucleic acid purification instrument .Adjust the running programs according to the different instrument.
4. All reagents should be stored at 2~8℃.

Installation Diagram of The Reagent Strip



Explanation of test results

This kit is suitable for paraffin-embedded tissue samples and formalin-soaked samples.

Limitations of the test method

Sample size: cut off the air-contact part of the surface, and paraffin slices less than 8 pieces.

The formalin-soaked samples need to be pre-processed according to the instructions.

Performance Indicators

OD260/OD280 ratio of extraction product detection: 1.7~2.1.

Company Information

Manufacturer: Hangzhou Bioer Technology Co.,Ltd

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MagaBio FFPE Tissue Genomic DNA Extraction Kit

Kit Components

Cat#	BSC31T1S	BSC31S1S	Components
Components	16 Tests	32 Tests	
PK Solution	320μL	640μL	Proteinase K solution
Deparaffinization Solution	16mL	32mL	Mineral oil solution
Lysis Buffer	3.2mL	6.4mL	Surfactant and Tris buffer
Binding Buffer	Pre-loaded reagents strip 1T×16	Pre-loaded reagents strip 1T×32	High-salt solution
PW Buffer			High-salt solution
Wash Buffer			Low-salt solution
Elution Buffer			Tris buffer
MagaBio Reagent			Magnetic particles coated with silicon
Handbook	1	1	/

Storage

1. The kit can be transported at room temperature.
2. All reagents are stored at 2~8℃.
3. All reagents, when stored properly, are stable for 12 months from the time of delivery.

Introduction

This kit used to extract high—purity DNA from FFPE tissue sections, with non-toxic deparaffinization solution , high-performance lysis buffer to release DNA from FFPE efficiently. MagaBio sample processing is based on proprietary magnetizable particles--MagaBio. The pure DNA can be applied extensively in PCR, sequencing, Southern hybridization, mutant analysis, SNP and the others.

According to the special interaction, use MagaBio nucleic acid separation system with a general protocol---sample processing, MagaBio adsorption, washing and elution, and can go high-throughput.

Principle and Advantage

DNA in the sample is released by PK Solution and Lysis Buffer. Released DNA is bound exclusively and specifically to the magnetic beads in presence of a Binding Buffer. The DNA

bound to magnetic particles is captured by magnetic material; contaminants will be removed by washing with Wash Buffer once or more. The DNA is then eluted from the particles with Elution Buffer or molecular grade water.

Apparatus and materials to be prepared by the user

1．Magnetic Rack or Bioer NPA-32P purification instrument;

2．Water bath or Dry bath;

3．Vortex mixer.

Protocol

1. Sample processing

a）FFPE sections with a thickness of up to 10 μm. Up to 8 sections, each with a thickness of up to 10 μm and a surface area of up to 5×5 mm, placed in a 1.5mL microcentrifuge tube.

b）Paraffin-embedded blocks: Use a sterile scalpel to cut off the paraffin surface in contact with air, scrape up to 30mg of sample, Avoid paraffin as possible, placed in a 1.5mL microcentrifuge tube.

c）Formalin fixed tissue samples: Cut the sample to small pieces, placed in a 1.5mL microcentrifuge tube. Add 1mL 10mM pH7.0~7.4 PBS or physiological saline, mix with vortex, centrifuge at full speed for 1 min, Remove the supernatant by pipetting. Repeat this step again, and then start step 5. 2. Add 1mL Deparaffinization Solution to the 1.5mL tube, close the tube and vortex 10s,place the tube in heating block or water bath at 56℃ for 3 min.

3. Centrifuge at 14,000g for 2 min, and remove the supernatant by pipetting.

4. Add 1m ethanol to the tube, and mix 10s by vortexing. Centrifuge at 14,000g for 2 min, Remove the supernatant by pipetting, Open the tube and incubate at room temperature or up to 37℃. Incubate for 10 min or until all residual ethanol has evaporated.

5. Add 200μL Lysis Buffer I,20μL PK Solution to the tube，mix 10s by vortexing, Briefly centrifuge the 1.5 mL tube. Then Incubate at 56℃ for 1 h or until the sample has been completely lysed (may overnight).

6. Incubate at 90℃ for 1 h.

7. Optional：If RNA free is required, add 2 μL RNase A (100 mg/mL) mix completely and incubate for 2 min at room temperature, then start next step.

The automation purification

1. Reagent prepare

Take out the required number of pre-packed reagent strips from the sealing plastic bag. If the magnetic beads adhered to the tube wall or sealing film of the pre-packed reagent strip, please invert the reagent strip upside down and mix several times to re-suspend the magnetic beads.

2. Identify the direction of the pre-packed reagent strip (magnetic beads in well #6). Fix the pre-packed reagent strip on the reagent strip rack, and centrifuge it briefly in a 96-deep-well plate

centrifuge to avoid adhering liquid on the tube wall and sealing film, in order to ensure the certain volume of the purified reagent.

Note: When placing the pre-packed reagent strip, please refer to the installation diagram of the reagent strip. Make sure that the reagent strip has been inserted into the bottom of the reagent strip rack.

3. Remove the reagent strip rack from the centrifuge and tear off the sealing film of the reagent strip.

4. Add the lysis product to the first well of each pre-loaded reagent strip to avoid cross contamination. The positions of the reagents in the wells of each pre-packed reagent strip are shown in the following table:

Well	1	2	3	4	5	6
Reagent	Binding Buffer	PW Buffer	Wash Buffer	Wash Buffer	Elution Buffer	MagaBio Reagent
Volume	450μL	500μL	500μL	500μL	100μL	200μL

5. Place the reagent strip rack with reagent strip to the NPA-32; install the 8-strip tips on the instrument.

Note: Make sure again that the reagent strip has been inserted into the bottom of the reagent strip rack.

6. Run the program according to the following procedures:

Step	Well	Name	Waiting Time （min ： ss）	Mixing Time （min ： ss）	Magnet Time （min ： ss）	Adsorption	Speed	Volume （μL）
1	1	Mixing	00 : 00	00 : 30	00 : 00		F	650
2	6	Beads	00 : 00	00 : 15	00 : 30		S	200
3	1	Binding	00 : 00	10 : 00	00 : 35	Strong	F	650
4	2	Wash 1	00 : 00	02 : 00	00 : 30	Strong	F	500
5	3	Wash 2	00 : 00	01 : 00	00 : 30	Strong	F	500
6	4	Wash 3	00 : 00	01: 00	00 : 30	Strong	F	500
7	5	Elution	01 : 00	05 : 00	00 : 30		S	100
8	6	Discard	00 : 00	00 : 30	00 : 00		S	200

Elution temperature: 60℃, Elution start heating step: 7th.

7. After the automatic purification is over, transfer the Elution Buffer in well 5 to a clean nuclease-free 0.5mL centrifuge tube; if not using it immediately, please store at -20 degrees