【The automation purification】Take Bioer NPA-32P as an example：

1. Reagents Preparation

a. For BSC78S1 and BSC78M1.

Add 570μL Binding Buffer to the 2.2mL 96-deep well plate column 1 and 7. Add 500μL G Binding Buffer to column 2 and 8. Add 600μL Wash Buffer to column 3, 4, 9, and 10. Add 60μL Elution Buffer to column 5 and 11. Add 185μL Pure Water and 15μL MagaBio Reagent to column 6 and 12.

b. For BSC78S1E

Turn the 96-well plate upside down three times after placed at room temperature, then rip off plastic film, centrifuge in 96-well centrifuge for seconds (or swing by hand) to avoid adhered liquid. Rip off aluminum foil film of 96-well plate; make sure the direction of the plate (magnetic beads in column 6th&12th).

2. Sample Preparation: See in < Manual Protocol -- 1. Sample preparation >
3. Add 350μL supernatant to the 96-deep well plate column 1 and 7.
4. Place 96-deep-well plate into the NPA-32P, and then plug in 8-strip Tip.
5. Run the program as follows.

Step	Well	Name	Waiting Time (min: ss)	Mixing Time (min: ss)	Magnet Time (min: ss)	Adsorption	Speed	Volume (μL)
1	1	Lysis	0 : 0	1 : 0	0 : 0	Normal	Fast	920
2	6	Beads	0 : 0	0 : 20	0 : 30	Strong	Slow	200
3	1	Binding	0 : 0	10 : 0	0 : 35	Strong	Fast	920
4	2	Wash 1	0 : 0	3 : 0	0 : 35	Strong	Fast	500
5	3	Wash 2	0 : 0	2 : 0	0 : 35	Strong	Fast	600
6	4	Wash 3	0 : 0	2 : 0	0 : 35	Strong	Fast	600
7	5	Elution	1 : 0	5 : 0	0 : 35	Normal	Slow	60
8	6	Discard	0 : 0	0 : 30	0 : 0	Normal	Slow	200

Heating setting：

Elution temperature: 65 ℃, Elution start heating step: 7.

6. When the program finished, transfer the Elution Buffer of column 5, 11 into nuclease-free tubes. If not used immediately, please store DNA at -20℃, RNA at -80℃.

MagaBio Fecal pathogens DNA/RNA Purification Kit

【Product Name】MagaBio Fecal pathogens DNA/RNA Purification Kit

【Packing Size】 32Tests；50Tests；100Tests

【Usage】Purify high-quality nucleic acids from pathogens in fecal samples.

【Principle】

The nucleic acid in the sample is released under the action of Lysis Buffer and PK, and the released nucleic acid specifically binds to the magnetic beads. The magnetic bead particles that bind the nucleic acid are captured by the magnetic material, and the contaminants are removed through multiple washing processes. Finally, the DNA is eluted and collected from the magnetic beads under the action of the eluent.

【Main Components】

Cat	**BSC78S1E**	**BSC78S1**	**BSC78M1**
Component	**32T**	**50T**	**100T**
Proteinase K (PK)	320 μL	0.5 mL	1 mL
Lysis Buffer	6.4mL	10 mL	20 mL
DA Buffer	2.24 mL	3.5 mL	7 mL
Binding Buffer	96-well pre-packed plate 2 pieces	28.5 mL	57 mL
G Binding Buffer		25 mL	50 mL
Wash Buffer		※13 mL	※13 mL×2
Elution Buffer		10 mL	20 mL
MagaBio Reagent		1 mL	2 mL
Grind Tube	32	50	100
Manual	1	1	1

Note：If you purchased BSC78S1/BSC78M1, please add 52mL of absolute ethanol to ※13mL Wash Buffer before the first use.

【Apparatus and materials to be prepared by the user】

1. Bioer NPA-32P purification instrument
2. Water bath or Dry bath
3. Vortex mixer
4. Absolute ethanol (For BSC78S1 and BSC78M1)

【Storage and Shelf life】

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

【Sample requirements】

The kit can extract pathogen nucleic acid in fecal samples.

【Protocol】

1. Sample Preparation:

- Take 200ul liquid fecal sample/100-200mg solid fecal sample into the grinding tube.
- Add 10μL PK and 200μL Lysis Buffer to the grinding tube.
- The maximum speed of shaking and mixing is 5-10mins, or placed in a grinder 6.0 Hz shaking for 60sec.

  Note: This step must be vigorously shaken until there are no particles to ensure sufficient lysis.
- After 10 minutes of incubation in a 65℃ bath, remove the centrifuge tube from the 65℃ water bath.
- Add 70μL DA Buffer, mix and place on ice for 5 minutes to help precipitate formation.

  Note: If ice bath conditions are not available, it can also be placed at room temperature for 5 minutes.
- Centrifuge at 12000 g for 5 min. Pipette the supernatant (not more than 350μL) into a new 1.5mL centrifuge tube.

2. Nucleic acid purification:

- Add 570μL Binding Buffer and 15μL mixing MagaBio Reagent. Gently mix the centrifuge tube and placed at room temperature for 10 minutes. Note: Use a rotary shaker or mix manually every 2-3 minutes.
- Use the magnetic rack to precipitate the DNA-bound magnetic beads, discard the supernatant. and remove the centrifuge tube from the magnetic rack.
- Add 500μL G Binding Buffer to the centrifuge tube and invert the centrifuge tube several times to ensure that the magnetic beads are completely dispersed. Use a magnetic rack to precipitate the DNA-bound magnetic beads and discard the supernatant.
- Add 600μL Wash Buffer to the centrifuge tube and invert the centrifuge tube several times to ensure that the magnetic beads are completely dispersed. Use a magnetic rack to precipitate the DNA-bound magnetic beads and discard the supernatant.
- Remove the centrifuge tube from the magnetic rack and wash it again according to the above steps.
- Add 50～100μL Elution Buffer and gently mix centrifuge tube, and placed at room temperature for 10 minutes. Note: Mix gently every 2-3 minutes.
- Use the magnetic rack to precipitate the magnetic beads, carefully transfer the supernatant containing the separated DNA/RNA to a new centrifuge tube, and store DAN at -20 ℃, RNA at -80 ℃

【Interpretation of test results】

When using this kit to extract a fecal sample, if the lysis product is found to be sticky after completing the sample lysis procedure, the amount of fecal sample can be appropriately reduced.

【Limitations of the test method】

The volume of liquid samples should not exceed 200μL, and the volume of tissue samples should be up to 200mg.

【Product performance index】

Extraction product detection (OD260-OD320)/(OD280-OD320) ratio: 1.7-2.1

【Notes】

1. The following procedures are suitable for use with the Bioer NPA-32P nucleic acid purification instrument. If other nucleic acid purification instruments are used, the operating procedures need to be adjusted according to the performance of different instruments.
2. Store at 2℃-8℃ after receiving the kit.

【Company Information】

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