4. Place 96 Deep Well to the instrument, then plug in 8-strip Tip and run the program.

Step	Well	Name	Waiting Time（min ：ss）	Mixing Time（min ：ss）	Magnet Time（min ：ss）	Adsorption	Speed	Volume（μL）
1	1	Lysis	0 : 0	10 : 0	0 : 0		F	700
2	6	Beads	0 : 0	0 : 15	0 : 30		S	200
3	1	Binding	0 : 0	10 : 0	1 : 00	√	F	700
4	2	Wash 1	0 : 0	3: 0	0 : 30	√	F	500
5	3	Wash 2	0 : 0	2: 0	0 : 30	√	F	500
6	4	Wash 3	0 : 0	2: 0	0 : 30	√	F	500
7	5	Elution	1 : 0	5 : 0	1 : 00		S	100
8	6	Discard	0 : 0	0 : 30	0 : 0		S	200

Lysis temperature : 65℃, lysis heating end step 2 ；

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

Analysis Nucleic Acid

Get some DNA,diluted in a advisable factor with elution buffer.

Survey the OD260, OD280 and OD320.

Concentration（ng/μL）＝50×OD260×dilution fact

1.7≤OD260-320/ OD280-320≤2.1

Notice: 0.1≤OD260≤1.0, the result of ratio is much reliable.

Important Notes

1. Before you begin, you should read this user's manual carefully.
2. Use nuclease-free lab ware (e.g. pipettes, pipette tips, reactions vials) as well as.
3. Wearing gloves when performing the assay.
4. To avoid cross-contamination of samples and reagents use fresh aerosol-preventive pipette tips for all pipetting steps.
5. After the experiment，please disinfect the workbench with 75% ethanol or 10% hypochlorous acid, and sterilize the workplace by UV lamp.

Company Information

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MagaBio Insect Genomic DNA Purification Kit

Kit Components

Cat#	BSC33S1E	BSC33S1	BSC33M1
Components	**32 Tests**	**50 Tests**	**100 Tests**
PK Solution	640 μL	1mL	1mL×2
RNaseA	64μL	100μL	200μL
TES Buffer	6.4mL	10mL	20mL
ddH2O	/	9.25mL	18.5mL
Lysis Buffer	96 well pre- packed plates 2 pieces	25mL	50mL
WB1 Buffer		12 mL (add 18mL absolute ethanol before use)	24mL (add 36mL absolute ethanol before use)
Wash Buffer		12mLx 2 (add 18mL absolute ethanol before use)	24mLx 2 (add 36mL absolute ethanol before use)
Elution Buffer		10 mL	20 mL
MagaBio Reagent		0.75 mL	1.5 mL
Handbook V1.0	1	1	1

Storage

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.

Introduction

The kit provides a very simple, fast and cost effective technique to isolate high quality DNA. Using one simple protocol, high yield of purified DNA can be isolated from from insect. MagaBio sample processing is based on proprietary magnetizable particles--MagaBio Reagent. The pure DNA can be applied extensively in PCR, Real-time 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 using PK Solution and TES Buffer. Released DNA is bound exclusively and specifically to the MagaBio Reagent in presence of a Binding Buffer. The DNA bound to Magnetic particles is captured by a magnetic material and contaminants are removed by washing with Wash Buffer once or more. The DNA is then eluted from the particles with an

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
4．Absolute alcohol (For BSC33S1 and BSC33M1)

Protocol

The manual purification

Please add absolute ethanol to WB1 Buffer and Wash Buffer and mix thoroughly before the first use.

1．Sample processing

1) Rewarm all reagents and samples to room temperature.
2) Take 1-5 insects into a 1.5 mL microcentrifuge tube, and then place at -20℃ for 30min. Crush the insects with tip.
   Note: If the customer needs to preserve the integrity of the insect, it is recommended that a small wound should be opened on the surface of insect.
3) Pipet 20μL PK Solution into the 1.5 mL microcentrifuge tube.
4) Add 200μL TES Buffer to the sample and mix it by using vortex intensively for 15-20 seconds. Incubate at 56℃ for 30 minutes. Mixing every 10 minutes.
   Note: If insect samples are to be extracted in complete form with small wound opening on the body surface only, we suggest that such samples should be incubated overnight.
5) Remove the tube from 56℃.Add 2μL RNaseA, mix thoroughly; incubate at room temperature for 2min.
6) Centrifuge for 5min at 12,000g. Carefully transfer 200μL supernatant into a new tube.
7) Add 500μL Lysis Buffer，mix by pulse-vortexing for 15-20 seconds. Mixing every 10 minutes.

2．MagaBio adsorption

1) Add 15μL the **well-mixed** (particles are uniformLy suspended) MagaBio Reagent.
2) Shake the tube gently and incubate for 10 minutes at room temperature, while mixing constantly.
   Note: an end-over-end rotator is recommended.
3) Aggregate MagaBio DNA bound particles by using a magnetic rack. Discard the supernatant, remove the tube from the magnetic rack and wash the particles as described below.

3．Washing

1) Add 500μL WB1 Buffer to the tube. Turn the tube upside down several times to ensure the particles are completely dispersed. Aggregate the particles on the magnetic rack and discard the supernatant.
2) Add 500μL Wash Buffer to the tube. Turn the tube upside down several times to ensure the particles are completely dispersed. Aggregate the particles on the magnetic rack and aspirate the

supernatant.

3) Remove the tube from the magnetic rack and repeat washing step 2) once more.
4) Open the cap, dry at room temperature for 5 minutes.

4．Elution

1) Add 50-100μL of Elution Buffer and mix, Incubate at 70℃ for 5 minutes.
   Note: Vortex gently every 2-3 minutes.
2) Sediment the particles on the magnetic rack and carefully transfer the supernatant containing the isolated DNA into a clean tube. The material is now ready for further analysis. If the isolated DNA sample is not going to be tested on the same day, freeze at -20℃ until next analysis.

The automation purification

With the help of automation machine, the kit is suitable for various samples. It offers an automated platform and streamLines protocol, achieving not only high-throughput and high-speed, but also effective purification.

An example for applying the kit on our product NPA-32P:

1. Reagent prepare

1) For BSC33S1 and BSC33M1

Add 500μL Lysis Buffer to the 2.2mL 96 Deep Well column 1、7; 500μL WB1 Buffer to the 96 Deep Well column 2、8; 500μL Wash Buffer to the 96 Deep Well column 3、4 and 9、10; 100μL Elution Buffer to the 96 Deep Well column 5、11; 185μL Pure Water and 15μL MagaBio Reagent to the 96 Deep Well column 6、12.

2) For BSC33S1E

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

2. lysis sample prepare

1) Take 1-5 insects into a 1.5 mL microcentrifuge tube, and then place at -20℃ for 30min. Crush the insects with tip.
   Note: If the customer needs to preserve the integrity of the insect, it is recommended that a small wound should be opened on the surface of insect.
2) Pipet 20μL PK Solution into the 1.5 mL microcentrifuge tube.
3) Add 200μL TES Buffer to the sample and mix it by using vortex intensively for 15-20 seconds.
4）Incubate at 56℃ for 30 minutes. Mixing every 10 minutes.
   （***If insect samples are to be extracted in complete form with small wound opening on the body surface only, we suggest that such samples should be incubated overnight.***）
5）Remove the tube from 56℃.Add 2μL RNaseA, mix thoroughly; incubate at room temperature for 2min.Centrifuge for 5min at 12,000g.

3. Add lysis sample to the 96 Deep Well column 1、7.