MagaBio Tissue Genomic DNA Purification Kit

Kit Components

Cat#	BSC37S1E	BSC37S1	BSC37M1
Components	**32Tests**	**50Tests**	**100Tests**
Proteinase K (PK)	320 μL	0.5 mL	1 mL
RNase A	64 μL	100 μL	200 μL
Lysis Buffer	20.8 mL	32.5 mL	32.5 mL×2
Binding Buffer	96 well pre-packed plate 2 pieces	20 mL	40 mL
Wash Buffer I		20 mL（add 30mL ethanol before use）	20 mL×2（add 30mL ethanol before use）
Wash Buffer II		15 mL×2（add 35mL ethanol before use）	15 mL×4（add 35mL ethanol before use）
Elution Buffer		20 mL	40 mL
MagaBio Reagent		1 mL	2 mL
Handbook	1	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

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 animal tissues. 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 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.

MagaBio Magnetic technic has great advantages:

1. Mini sample, high purification;
2. Simple and streamLine separation procedure, used for auto-platform;
3. First elution can acquire 85% or more;
4. No high salt solution. no inhibitor;
5. No spin column.

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.

Protocol

With semi-automation machine, the kit is deeply suitable for several samples, which supply a really platform of automation or streamLine protocol and achieve high-throughput and high-speed but effective purification. An example for applying the kit on our product NPA-32P:

1. Reagent prepare

Rewarm all reagents and samples to room temperature. Shake 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. Sample Lysis processing

1) Grind the tissue into powder with liquid nitrogen or cut the tissue to pieces with scissor.
2) Add no more than 50mg sample to a microcentrifuge tube.
3) Add 650μL Lysis Buffer and 10μL PK Solution to the microcentrifuge tube and mix by pulse-vortexing for 15 seconds.
4) Incubate at 56℃for 1hours（The incubating time can be more longer for 1-4 hours or 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.

3. Join the supernatant to the 96 Deep Well column 1、7.

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	Mixing	0 : 0	5 : 00	0 : 0		F	900
2	6	Beads	0 : 0	0 : 15	0 : 30	**Strong**	M	200
3	1	Binding	0 : 0	10 : 0	0 : 35	**Strong**	F	900
4	2	Wash 1	0 : 0	3 : 0	0 : 30	**Strong**	F	800
5	3	Wash 2	0 : 0	2 : 0	0 : 30	**Strong**	F	800
6	4	Wash 3	0 : 0	2 : 0	0 : 30	**Strong**	F	800
7	5	Elution	2 : 0	10 : 0	1 : 30	**Strong**	M	100
8	6	Discard	0 : 0	0 : 30	0 : 0		M	200

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

Analysis Nucleic Acid

Get some DNA, diluted in an advisable factor with Elution Buffer.
Survey the OD260, OD280 and OD320.
Concentration（μg/mL）＝50×OD260×dilution fact
2.1≥OD260-320/ OD280-320≥1.7
Notice: 1.0≥OD260≥0.1, the result of ratio is much reliable.

Important Notes

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

Company Information

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