【Analysis Nucleic Acid】

Get some DNA, diluted in an 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. This kit is for research use only.
2. Before you begin, you should read this user's manual carefully.
3. The use of nuclease-free lab ware (e.g. pipettes, pipette tips, reactions vials) as well as.
4. Wearing gloves when performing the assay.
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 Bacterium DNA Fast Purification Kit

【Kit Components】

Cat#	**BSC45S1E**
Components	**32 Tests**
TET Buffer	6.4 mL
Lysozyme	128 mg
PK Solution	640 μL
Lysis Buffer	96 well pre-packed plate 2 pieces
WB1 Buffer	
Wash Buffer	
Elution Buffer	
MagaBio Reagent	
Handbook V1.0	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 effective technique to isolate high quality bacteria DNA. Using one simple protocol, high yield of purified DNA can be isolated from various sources bacteria including gram-positive bacteria and gram-negative bacteria. MagaBio sample processing is based on proprietary magnetizable particles--MagaBio Reagent. 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 TET Buffer. Released DNA is bound exclusively and specifically to the magnetic beads in Lysis Buffer, and impurities will be removed by washing with WB1 Buffer and Wash Buffer. The DNA is then eluted from the magnetic beads with Elution Buffer.

MagaBio Magnetic technical have 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 organic solvent
5. No high salt solution, no inhibitor

【Apparatus and materials to be prepared by the user】

1. Bioer NPA-32P purification instrument
2. Water bath or Dry bath
3. Vortex mixer

【Protocol】

Note：

Please prepare lysozyme (20 mg/mL), add all of the Lysozyme to TET Buffer and mix thoroughly before the first use. Store it at 2~8℃.

With 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

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 plate; identify the direction of the plate (magnetic beads in column 6th&12th).

2. Sample processing

For cultured bacterial: Pipet 1mL~3mL of bacterial solution into the bottom of a 1.5 mL microcentrifuge tube, centrifuge for 1min at 13000g and aspirate the supernatant.

3. Sample lysis

1) Add 180μL of the TET Buffer, vortexing for 2min.
2) Incubate at 37℃ for 30-60 minutes.

(***Optional:*** *add **2**μL RNase A solution, vortex for 15sec, incubate at room temperature for 5mins*)

4. Join lysis product and 20μL PK Solution to the 96 well pre-packed plate column 1、7.

5. Place 96 well pre-packed plate 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	20 : 00	0 : 0	Normal	F	700
2	6	Beads	0 : 0	0 : 15	0 : 30	Strong	S	200
3	1	Bind	0 : 0	10 : 00	1: 00	Strong	F	700
4	2	Wash 1	0 : 0	3 : 00	1: 00	Strong	F	500
5	3	Wash 2	0 : 0	2 : 00	1: 00	Strong	F	800
6	4	Wash 3	0 : 0	2 : 00	1: 00	Strong	F	800
7	5	Elution	1 : 0	10 : 00	1 : 00	Normal	S	100
8	6	Discard	0 : 0	0 : 30	0 : 0	Normal	S	200

Lysis temperature: 70 ℃, Lysis stop heating step: 2.

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

6. When the run finished, pipet the elution buffer in column 5、11 into nuclease-free tubes. If not used immediately, please store at -20 ℃.