

TGuide Bacteria Genomic DNA Kit

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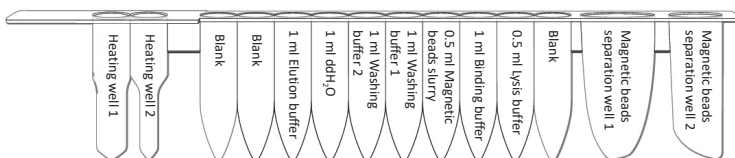
TGuide Bacteria Genomic DNA Kit

Cat. no. OSR-M502

Kit Contents

| Contents | OSR-M502 (48 rxn) |
|-----------------------------------|----------------------|
| Prepacked Reagent Cartridge (502) | 48 |
| Pipette Tips/Tip Caps | 48 |
| 1.5 ml Sample Tubes (luer lock) | 50 |
| 1.5 ml Centrifuge tubes | 50 |
| Proteinase K | 1 ml |
| Buffer GA | 15 ml |
| Handbook | 1 |

Reagent Cartridge:



Storage Conditions:

It can be stored dry at room temperature (15-25°C) for 12 months.

Other Related Reagents

RNaseA (100 mg/ml), lysozyme

Product Description:

TGuide Bacterial Genomic DNA Kit is specially designed to purify genomic DNA from Gram-negative bacteria and Gram-positive bacteria using TGuide M16 Automated Nucleic Acid Extractor. It can be used for genomic DNA extraction of food pathogenic bacteria (microorganisms), such as *staphylococcus aureus*, *Vibrio cholerae* and *hemorrhagic Escherichia coli O157:H7*, *listeria monocytogenes*, *salmonella*, *enterobacter sakazakii*, etc. The kit contains reagents and consumables required for automatic DNA extraction by magnetic bead method, and the reagents are prepacked in sealed reagent cartridges. Unique embedded magnetic beads, and fully automatic extraction process are applied to separate DNA quickly and conveniently.

Genomic DNA isolated by this kit can be directly used in various conventional operations without purification, including enzyme digestion, PCR, library construction, Southern hybridization and other experiments.

Extraction Yield:

| Materials | Sample volume | DNA yield |
|------------------|-----------------------|--------------|
| Bacteria culture | 10^6 - 10^8 cells | 5-10 μ g |

Product Features:

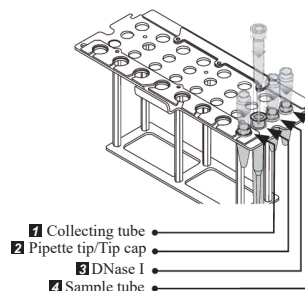
Simple and fast: Ultrapure bacterial genomic DNA can be obtained in 44 min.

Wide application: Genomic DNA can be extracted from Gram-negative and Gram-positive bacteria, as well as food pathogenic bacteria (microorganisms).

Reliable results: The obtained genomic DNA is free from RNA and protein contamination and able to be used for PCR or fluorescence quantitative PCR.

Safe and harmless: The kit and the operation process do not need to use organic solvents harmful to human body such as phenol and chloroform.

The Setting of the T-rack:



Note: Read this note before using this kit.

1. This kit must be combined with TGuide M16 Automatic Nucleic Acid Extractor.
2. Repeated freezing and thawing of the sample should be avoided, otherwise the extraction yield will be decreased.

Operation steps:

1. Take 1 ml of bacterial culture (10^6 - 10^9 cells) and centrifuge at 8,000 rpm(\sim 5,000 \times g) for 3 min. Remove the supernatant as much as possible.
2. Add 200 μ l of Buffer GA to the bacteria pellet and vortex until the pellet is completely suspended.

Note: For Gram-positive bacteria that are difficult to break the cell wall, the second step can be skipped and be replaced by adding lysozyme to break the cell wall. The specific steps are: add 180 μ l buffer (20 mM Tris, pH8.0; 2 mM Na₂-EDTA; 1.2% Triton; lysozyme with a final concentration of 20 mg/ml (lysozyme must be prepared by dissolving lysozyme dry powder in buffer solution, otherwise the lysozyme will be inactive), and incubate at 37°C for more than 30 minutes. If RNA removal is required, add 2 μ l RNaseA (100 mg/ml) solution (not supplied), shake for 15 sec and incubate at room temperature for 5 min.

3. Add 20 μ l Proteinase K solution to the tube and mix well. Transfer the mixed solution to a sample tube.
4. Place the sample tube in the well 4 of the T-rack. Run No.502 program (bacterial genome DNA extraction program) and only select the final elution volume.

Note: When operating according to the above steps, it is recommended to select an elution volume of 150 or 200 μ l to obtain a higher elution concentration. Note: If the sample surface is exposed to air, discard the first 2-3 pieces.

Start program

Apply your specimen to TGuide after installing all necessary accessories.

TGuide M16

Press START

After the Start button is pressed, the machine executes the calibration procedure, initializes, and moves all axes to the original position.

Enter the cartridge code and execute the program. The cartridge code is displayed on the prepacked reagent cartridge and the cover of the manual.

! The above code is for demonstration purposes, please refer to the reagent cartridge you will actually purchase.

Confirm the cartridge code you entered again and press Enter to select the sample volume on the next page.

Select the sample volume

Confirm the sample volume. Press Enter to enter the next page; Press ESC to return to the Stand-By page.

In this step, check whether the cartridge rack and T-rack are in the work area. Then press Enter to select the elution volume on the next page.

Select elution volume

In this process, the green LCD indicator lights up and the heater starts to heat up to 65°C for the lysis step. The TGuide LCD light is on at all times during the TGuide M16 program. Don't open the door at this time, it will cause an emergency stop. You may lose your sample due to machine interruption.

When the program is completed, an alarm sound can be heard and the green LCD indicator goes out.