TGuide Cell/ Tissue Genomic DNA Kit

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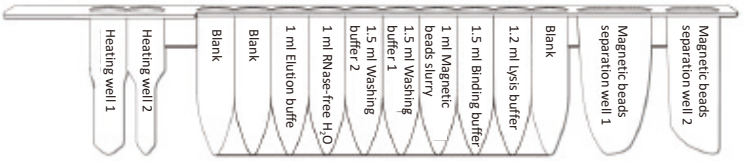
TGuide Cell/Tissue Genomic DNA Kit

Cat. No. OSR-M401

Kit Contents

Contents	OSR-M401 (48 rxn)
Prepacked Reagent Cartridge (401)	48
Pipette Tips/Tip Caps	48
1.5 ml Sample Tubes (luer lock)	50
1.5 ml Centrifuge tubes	50
Protease K	500 µl
Buffer GHA	30 ml
Handbook	1

Reagent Cartridge:



Storage Conditions:

It can be stored dry at room temperature (15-30°C) for 12 months.

Other Related Reagents

RNaseA (100 mg/ml)

Product Description:

TGuide Cells/Tissue Genomic DNA Kit is specially designed to extract high-purity genomic DNA from different animal cells, tissues, paraffin-embedded tissues, oral swabs and dried blood spots using TGuide M16 Automated Nucleic Acid Extractor. 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 easy to separate DNA quickly and conveniently.

Genomic DNA recovered by magnetic bead separation technology is suitable for various conventional operations, including enzyme digestion, PCR, library construction, Southern hybridization and other experiments.

Extraction Yield:

Materials	Sample volume	DNA yield
Animal culture cell	10^6-10^7	5-30 μg
Animal tissue	30 mg	10-30 μg
Oral swab	1	0.5-3.5 μg
Dried blood spots	3×3 mm	>80 ng

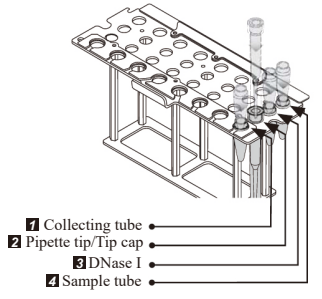
Product Features:

Reliable results: Ultrapure cell/tissue genomic DNA can be obtained in 44/33 min, with no contamination of RNA and protein. The purified DNA can be applied to various molecular biology downstream experiments.

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.

Wide applications: This kit is suitable for various animal cells, various animal tissues, paraffin-embedded tissues, oral swabs, dried blood spots and other trace samples.

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. Sample treatment:

a. Cells in monolayer culture:

Treated to cell suspension first, then centrifuge at 10,000 rpm (~11,200×g) for 1 min, pour out the supernatant, add 200 µl Buffer GHA, and vortex to complete suspension.

b. Animal tissue (spleen tissue amount should be less than 10 mg)

Break the tissue into cell suspension, then centrifuge at 10,000 rpm (~11,200×g) for 1 min, pour out the supernatant, add 400 µl Buffer GHA, and vortex to complete suspension.

Note: If the sample amount is relatively large, grind the tissue in liquid nitrogen, and then add 400 µl Buffer GHA. Vortex until it is completely suspended.

c. Paraffin-embedded tissues:

Cut the paraffin sample into 5-10 µm thick sheets.

1) Quickly place 2-8 slices in a 1.5 ml centrifuge tube.
2) Add 1 ml xylene and vortex vigorously for 10 seconds. Incubate at 60°C for 10 min.
3) Centrifuge at 12,000 rpm (13,400×g) at room temperature (20-25°C) for 5 min, and pipette out the supernatant.
4) Add 1 ml ethanol and mix well by vortex. Centrifuge at 12,000 rpm at room temperature (20-25°C) for 5 min.
5) Pipette out the supernatant, be careful not to disturb the precipitate.
6) Repeat step 4) and 5).
7) Open the tube lid and incubate at 55°C for 5 min until the residual ethanol volatilizes completely. Add 400 µl of Buffer GHA and vortex to complete suspension.

Note: If the sample surface is exposed to air, discard the first 2-3 pieces.

d. Oral swabs:

Put the swab wiped in the mouth into a 2 ml centrifuge tube, cut off the swab part from its rod with scissors, and add 400 µl Buffer GHA.

e. Dried blood spots:

Take 3 pieces of 3×3 mm samples into a 1.5 ml centrifuge tube, add 400 µl Buffer GHA, and grind them into homogenate with a grinder.

Note: If RNA removal is required, add 4 µl RNaseA (100 mg/ml) solution (not supplied), vortex for 15 sec, and incubate at room temperature for 5 min.

2. Add 10 µl of Proteinase K and mix well by vortex.
3. Digest at 60°C for 60 min.

Note: For cultured cells, skip this step. For dry blood spots, shorten the digestion time to 15 min.

4. Add the above mixture to a 1.5 ml sample tube. Place the sample tube at the position of well 4 of the T-rack, run the program No. 401 (tissue genomic DNA extraction program), and only select the final elution volume.

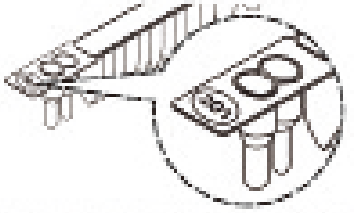
Note: For cultured cells, run program No. 110 (cell genomic DNA extraction program).

Start program

Apply your specimen to TGuide after installing all necessary accessories.

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.