Yeastern Biotech Co., Ltd

Genomic DNA Extraction kit (Cultured Cell) 2.0

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Ver. Q0307

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Cat. No.
SYG117-001
FYG117-100
FYG117-300

Genomic DNA Extraction kit (Cultured Cell) 2.0

SYG117-001/FYG117-100/FYG117-300

Store at RT/4 ℃ Ver. Q0307

Sample：10^7 Cultured Cell Yield: Up to 50 μg

Contents

	SYG117-001	FYG117-100	FYG117-300
N1 Buffer	4 ml	100 ml	100 ml x3
N2 Buffer	1.5 ml	35 ml	95 ml
N3 Buffer	2 ml	45 ml	125 ml
W1 Buffer	2 ml	45 ml	125 ml
W2 Buffer	300 ul x2	15 ml	25 ml x2
Elution Buffer	1 ml	10 ml	30 ml
GZ Column	4 pcs	100 pcs	300 pcs
Collection Tube	4 pcs	100 pcs	300 pcs
User Manual	1	1	1

Buffer Preparation

- Add ethanol (96-100%) to the W2 Buffer prior to first use

	SYG117-001	FYG117-100	FYG117-300
W2 Buffer	300 ul x2	15 ml	25 ml x2
Ethanol (96 ~ 100%)	1.2 ml x2	60 ml	100 ml x2

Additional Requirements

1. Ethanol (96-100%)
2. RNase A(Optional)
3. Microcentrifuge tubes

Important Notes

1. Buffers provided in this system contain irritants. Wear gloves and lab coat when handling these buffers.
2. Add ethanol (96- 100 %) to W2 Buffer when first open.
3. Prepare dry bath or water bath before the operation.
4. Resolve any precipitate by warming at 37°C.

Purification Protocol：

Step 1. Sample Preparation

a. Transfer up to 10^7 cultured cells to a microcentrifuge tube (not provided).
b. Centrifuge 1 minute at 6,000 x g. Remove the supernatant completely.
c. Resuspend the cell with 50 µl N1 Buffer by pipetting.

Step 2. Cell Lysis

a. Add 300 µl N2 Buffer to the sample and mix thoroughly by vortexing.
b. Incubate at 60 °C for 10 mins until the sample lysate is clear.
c. Invert the tube every 3 minutes during incubation.

Optional Step.

If RNA-free genomic DNA is required, perform this optional step.
Add 5 µl of RNase A (10 mg/ ml, not provided) to sample lysate and mix by vortexing. Incubate at room temperature for 5 mins.

Step 3. Protein Removal

a. Add 400 µl N3 Buffer to the sample and shake vigorously.
b. Centrifuge 1 minute at 12,000 x g.

Step 4. DNA Binding

a. Place a GZ column in Collection Tube.
b. Transfer the supernatant to GZ column and centrifuge 30 seconds at 14,000 x g.
c. Discard the flow-through and place GZ Column back in the Collection Tube.

Step 5. Washing

a. Add **400 μl of W1 Buffer** into the **GZ Column**.
b. Centrifuge at full speed (14,000 x g) for 1 minute.
c. Discard the flow-through and place the **GZ Column** back in the **Collection Tube**.
d. Add **600 μl W2 Buffer** (Ethanol added) in the **GZ Column**.
e. Centrifuge at full speed (14,000 x g) for 1 minute.
f. Discard the flow-through and place the **GZ Column** back in the **Collection Tube**.

Step 6. Dry column

a. Centrifuge at full speed (14,000 x g) for 3 minutes to dry the column.

Step 7. Elution

a. Place **GZ Column** to a clean 1.5 ml microcentrifuge tube.
b. Add **50-90 μl of preheated Elution Buffer** (70℃) into the center of the column matrix.
c. Stand at room temperature for 3 minutes.
d. Centrifuge at full speed (14,000 x g) for 2 minutes to elute purified DNA.

Step 8. Store DNA

a. Store the DNA fragment at 4°C or -20°C.

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