Yeastern Biotech Co., Ltd

HiYield Gel/PCR DNA Fragments Extraction Kit 2.0

Product Use Limitation & Warranty

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Ver. Q0308

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Cat. No.
SYG206-001
FYG206-100
FYG206-300

HiYield Gel/PCR DNA Fragments Extraction Kit 2.0

(SYG206-001/FYG206-100/FYG206-300) Ver. Q0308

Sample：100 µl PCR Product, 300 mg of Agarose Gel

Store at RT/4℃ Yield：Up to 50 µg

Contents

	SYG206-001	FYG206-100	FYG206-300
EZ Buffer	2 ml	60 ml	80 ml x2
W1 Buffer	2 ml	45 ml	125 ml
W2 Buffer	300 µl x2	15 ml	25 ml x2
Elution Buffer	1 ml	10 ml	30 ml
EZ 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**

	SYG206-001	FYG206-100	FYG206-300
W2 Buffer Ethanol (96 ~ 100%)	300 µl x2 1.2 ml x2	15 ml 60 ml	25 ml x2 100 ml x2

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 Protocols

I. Gel Extraction：

Step 1. Gel Dissociating

a. Excise the agarose gel slice containing relevant DNA Fragments.
b. Transfer up to 300 mg (**do not over 300 mg**) of the gel slice into a microcentrifuge tube (not provided).
c. **Add 500 µl EZ Buffer** to the sample and mix by vortexing.
d. Incubate at 60 °C for 10 minutes until the gel slice has been completely dissolved. During incubation, invert the tube every 2-3 minutes.
e. Cool down the dissolved sample mixture to room temperature slowly.

Step 2. DNA Binding

a. Place a **EZ Column** in a Collection Tube.
b. Apply 800 µl of the sample mixture into the EZ Column.
c. Centrifuge at 14,000 x g for 30 seconds.
d. Discard the flow-through and place the EZ Column back in the Collection Tube.

Note: If the sample mixture is more than 800 µl, repeat this DNA Binding Step.

Step 3-1. Wash

a. **Add 400 µl W1 Buffer** to EZ Column.
b. Centrifuge at 14,000 x g for 30 seconds.
c. Discard the flow-through and place the EZ Column back into the Collection Tube.

Step 3-2. Wash

a. **Add 600 µl W2 Buffer** (ethanol added) into the EZ Column.
b. Centrifuge at 14,000 x g for 30 seconds. Discard the flow-through and place EZ Column back in the Collection Tube.

Step 4. Dry

a. Centrifuge again for 2 minutes at 14,000 x g to dry the column matrix.

Step 5. Elution

a. Transfer dried EZ Column into a new microcentrifuge tube (not provided).
b. **Add 50 - 90 µl Elution Buffer** into the center of the column matrix. (If DNA is larger than 5 kb, use preheated 60 °C Elution Buffer to improve the elution efficiency.)
c. Stand for 2 minutes until Elution Buffer is absorbed by the matrix.
d. Centrifuge for 2 minutes at full speed to elute purified DNA.

Step 6. Store DNA

a. Store DNA at 4 °C or -20 °C.

II. PCR Clean Up：

Step 1. Sample preparation

a. **Add 500 µl EZ Buffer** to 100 µl PCR product and mix by vortexing.

Step 2. DNA Binding

a. Place a **EZ Column** in a Collection Tube .
b. Apply 800 µl of the sample mixture into the EZ Column.
c. Centrifuge at 14,000 x g for 30 seconds.
d. Discard the flow-through and place the EZ Column back in the Collection Tube.

Note: If the sample mixture is more than 800 µl, repeat this DNA Binding Step.

Step 3-1. Wash

a. **Add 400 µl W1 Buffer** to EZ Column.
b. Centrifuge at 14,000 x g for 30 seconds.
c. Discard the flow-through and place the EZ Column back into the Collection Tube.

Step 3-2. Wash

a. **Add 600 µl W2 Buffer** (ethanol added) into the EZ Column.
b. Centrifuge at 14,000 x g for 30 seconds. Discard the flow-through and place EZ Column back in the Collection Tube.

Step 4. Dry

a. Centrifuge again for 2 minutes at 14,000 x g to dry the column matrix.

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c. Stand for 2 minutes until Elution Buffer is absorbed by the matrix.
d. Centrifuge for 2 minutes at full speed to elute purified DNA.

Step 6. Store DNA

a. Store DNA at 4 °C or -20 °C.

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