Gel/PCR DNA Purification Kit

Cat#: 8027011

[Product Name]

Gel/PCR DNA Purification Kit

[Model & Size]

Product Name	Cat No.	Size	Component No.	Component Name	Component Size	Quantity
Gel/PCR DNA Purification Kit	8027011	100 T/Kit	8027011-1	Binding Buffer	80 mL	1 bottle
			8027011-2	Wash Buffer*	25 mL	1 bottle
			8027011-3	Elution Buffer	6 mL	1 bottle
			8027011-4	Spin Columns	100 pcs	1 pack
			8027011-5	Collection Tubes	100 pcs	1 pack

***Add 100 mL ethanol (96%~100%) to the Wash Buffer before first use.**

[Product Description]

Gel/PCR DNA Purification Kit uses a unique adsorption column to both recover DNA fragments from agarose gels and directly purify PCR products. The Binding Buffer of the kit contains a pH indicator, which can judge the binding efficiency of DNA to the membrane by the color of the solution and improve the recovery rate of DNA.

The kit has the characteristics of high efficiency and fast, which can recover 65 bp~10 kb DNA fragments, the gel recovery rate can reach 70%~85%, and the purification efficiency of PCR products can reach 90%~95%. A single adsorption column can adsorb 20 μg DNA per time, and the operation can be completed in 10~20 minutes.

The DNA recovered from this kit can be used for a variety of routine operations, including enzyme digestion, PCR, sequencing, library screening, ligation and transformation experiments.

[Storage And Transportation]

Store at 2℃~30℃ for 24 months.

Transportation at room temperature.

[Operating Instruction]

Gel extraction scheme: used to recover DNA fragments from agarose gel.

1. Use a clean scalpel to cut the target DNA strip from the agarose gel and put it into a 1.5 mL centrifuge tube.

Note: Try to remove the excess gel to improve the DNA recovery rate; If the gel block is more than 300 mg, it can be separately packed in multiple centrifuge tubes.

2. Add 500 μL Binding Buffer of up and down to mix well.

Note: For>2% agarose gel, add 1000 μL Binding Buffer.

3. Incubate at 55℃ for 5~10 minutes, turn up and down every 2~3 minutes until the gel is completely dissolved, and then conduct the next operation after cooling to room temperature.

Note: After the gel is completely dissolved, ensure that the color of the sample mixture is yellow. If the color is purple, add 10 μL 3M sodium acetate solution (pH 5.0). Mix thoroughly to turn the color of the sample mixture yellow.

4. Place the Spin Column into the Collection Tube. Mix the sample solution (≤ 800 μL) Transfer to Spin Column, centrifuge 11000×g for 30 seconds, and discard the filtrate.

Note: The filtrate can be poured back into Spin Column and repeated once to improve DNA recovery rate;

If the solution exceeds 800 µL. Repeat step 4 for the remaining solution.

5. Add 750 µL Wash Buffer to Spin Column, centrifuge 11000×g for 30 seconds, and discard the filtrate.

Note: Ensure that 100 mL of ethanol (96%~100%) has been added to the Wash Buffer.

6. Put Spin Column back into the Collection Tube, centrifuge 18000×g for 3 minutes, and thoroughly remove residual Wash Buffer.

Note: Residual ethanol can affect subsequent enzymatic reactions, such as enzyme digestion, PCR, etc.

7. Place Spin Column in a new 1.5 mL centrifuge tube, add 20 µL~40 µL of Elution Buffer or ddH_2O to the center of Spin Column membrane, and stand for 1 minute. Centrifuge at 18,000×g for 1 minute to elution DNA, and store at -20°C.

Note: The eluted solution can be sucked back into Spin Column, left to stand for 1 minute and centrifuged at 18000×g for 1 minute to increase DNA concentration; Elution Buffer or ddH2O preheated to 60 ℃ for better effect.

PCR Purification Protocol: For Purification of PCR Products or Reaction Mixtures.

1. Transfer the PCR product (≤100 µL, without mineral oil) into a new 1.5 mL centrifuge tube, add 5 times the volume of Binding Buffer, and vortex to mix.

Note: If the PCR product is more than 100µL, divide it into multiple tubes.

2. Put the Spin Column into the Collection Tube. Transfer the sample mixture into the Spin Column, centrifuge at 11,000×g for 30 seconds, and discard the filtrate.

Note: The filtrate can be sucked back into the Spin Column and repeated once to improve the DNA recovery rate.

3. Add 750 µL Wash Buffer into the Spin Column, centrifuge at 11,000×g for 30 seconds, and discard the filtrate.

Note: Make sure that 100 mL ethanol (96%~100%) has been added to the Wash Buffer.

4. Put the Spin Column back into the Collection Tube, and centrifuge at 18,000×g for 3 minutes to completely remove the residual Wash Buffer.

Note: The residual ethanol will affect the subsequent enzymatic reactions, such as enzymatic digestion, PCR, etc.

5. Place the Spin Column into a new 1.5 mL centrifuge tube, add 20 µL~40 µL Elution Buffer or ddH_2O to the center of the Spin Column membrane, and let stand for 1 minute. Centrifuge at 18,000×g for 1 minute to elution DNA, and store at -20°C.

Note: The eluted solution can be sucked back into Spin Column, left to stand for 1 minute and centrifuged at 18000×g for 1 minute to increase DNA concentration; Elution Buffer or ddH2O preheated to 60 ℃ for better effect.

[Precaution]

1. Add 100 mL ethanol (96%~100%) to Wash Buffer before the first use.
2. The gel should be cut quickly under UV to avoid DNA damage caused by long time UV irradiation.
3. The centrifuge operation can be carried out at room temperature of 11,000×g~18,000×g.
4. If DNA is used for sequencing, it is recommended to use ddH_2O elution. Elution Buffer was recommended if DNA was stored for a long time.
5. This product is limited to the scientific research of professionals. For your safety and health, please wear a laboratory coat and wear disposable gloves to operate.

[Description Of Product Symbol]

Product Symbol	Description	Product Symbol	Description
REF	Catalog Number	LOT	Batch Code
	Date of Manufacture		Manufacturer
	Keep away from light		Temperature limit

	Consult instructions for use		Use-by date

[Company Information]
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