Plasmid Extraction Mini Kit

Cat#:8084011

[Product Name]

Plasmid Extraction Mini Kit

[Model & Size]

Product Name	Cat No.	Size	Component No.	Component Name	Component Size	Quantity
Plasmid Extraction Mini Kit	8084011	100 T/Kit	8084011-1	P1 Buffer	25 mL	1 bottle
			8084011-2	P2 Buffer	25 mL	1 bottle
			8084011-3	P3 Buffer	35 mL	1 bottle
			8084011-4	W1 Buffer	45 mL	1 bottle
			8084011-5	Wash Buffer*	20 mL	1 bottle
			8084011-6	Elution Buffer	15 mL	1 bottle
			8084011-7	Spin Columns	100 pcs	1 pack
			8084011-8	Collection Tubes	100 pcs	1 pack
			8084011-9	RNase A*	2.5 mg	1 bottle

*** Add 80 mL ethanol (96%~100%) to Wash Buffer before first use;**
*** Transfer all of RNase A to a P1 Buffer bottle before first use, refer to Precaution 2.**

[Product Introduction]

Plasmid Extraction Mini Kit is a silica gel column-based plasmid extraction product. It uses a unique new material in the centrifugal adsorption column to efficiently and specifically adsorb plasmid DNA, and high-quality plasmid DNA can be obtained within 25 min. The kit can extract plasmid DNA less than 15kb from bacterial broth. Each adsorption column could bind up to 60μg of plasmid DNA. The plasmid extracted using this kit can be used for downstream experiments, such as restriction enzyme digestion, transformation, PCR and sequencing. The yield and purity of plasmid extraction are related to the species of host bacteria, culture conditions, degree of cell lysis, stability of plasmid, types of antibiotics added and other factors.

[Storage And Transportation]

RNase A is stored at -25℃~-15℃.
P1 Buffer after the addition of RNase A was stored at 2℃~8℃.
Other components were stored at room temperature (2℃~30℃) for 12 months.
Transport on blue ice.

[Operating Instructions]

1. 1~3 ml of the bacterial solution from overnight cultures was transferred to a centrifuge tube, centrifuged at 11,000×g for 1 min, and the supernatant was discarded.

Note: If the amount of bacterial fluid is large, it can be transferred several times, and the bacterial precipitate is collected into a centrifuge tube.

2. Add 200 μL P1 Buffer, and use a pipette to gently blow to completely suspend the bacterial

precipitate.
Note: Ensure that RNase A has been added to P1 Buffer. If there is a bacterial block that is not thoroughly mixed, it will affect the lysis, resulting in low plasmid concentration and purity.
3. Add 200 μL P2 Buffer, turn the centrifuge tube gently up and down for 5 to 10 times, stand at room temperature for 2 to 5 min to lye the cells until the solution is clear, and the lye time should not exceed 5 min.
Note: Do not shake or vortex violently, so as not to break the genomic DNA and cause the extracted plasmid to be mixed with genomic DNA fragments. At this time, the bacterial solution becomes clear and viscous. If it does not become clear, it may be due to too many bacteria and incomplete lysis. The amount of bacteria should be reduced or the centrifuge tube should be turned over until the bacterial solution is clear.
4. Add 300 μL P3 Buffer, and immediately turn it gently up and down for 5 to 10 times, and mix thoroughly to avoid too much white precipitate adhered to the tube wall.
Note: P3 Buffer should be mixed immediately after addition to avoid local precipitation.
5. Centrifuge at maximum speed (≤18,000×g) for 5 min.
6. Place the Spin Column on the Collection Tube and suck the supernatant obtained in step 5 into the Spin Column. After centrifugation at 11,000×g for 30 seconds, the filtrate was discarded and the Spin Column was returned to the Collection Tube.
Note: Do not inhale the white precipitate. If the volume of the supernatant was more than 800 μL, it could be transferred to the Spin Column in multiple fractions.
7. Add 400 μL W1 Buffer to the Spin Column, centrifuge at 11,000×g for 30 seconds, discard the filtrate, and put the Spin Column back into the Collection Tube.
8. Add 700 μL Wash Buffer to Spin Column, centrifuge at 11,000×g for 30 seconds, discard the filtrate, and put the Spin Column back into the Collection Tube.
Note: Ensure that 80mL ethanol (96%-100%) has been added to Wash Buffer.
9. Centrifuge at maximum speed (≤18,000×g) for 3 min to dry the Spin Column and thoroughly remove residual ethanol.
Note: Residual ethanol can affect subsequent enzymatic reactions, such as restriction enzyme digestion, PCR, etc.
10. Put the Spin Column in a new 1.5 mL centrifuge tube, add 50 μL~100 μL Elution Buffer or ddH_2O to the center of the Spin Column membrane, and let it stand for 1 minute.
11. The plasmid DNA was eluted by centrifugation at maximum speed (≤18,000×g) for 1 min. The eluted plasmid DNA was stored at -20°C.
Note: The eluted solution can be sucked back into the Spin Column, left for 1 min, and centrifuged at 18,000×g for 1 min to increase the plasmid concentration. Elution Buffer or ddH_2O was preheated to 60°C for better use.

[Precaution]
1 Read the instructions carefully before using.
2. Before the first use, 0.5 mL P1 Buffer was added to the RNase A tube, vortexed and mixed. After a short centrifugation, all the mixed solution was transferred to the P1 Buffer bottle, mixed and stored at 4°C.
3. Before the first use, 80mL ethanol (96%-100%) should be added to Wash Buffer.
4. If P2 Buffer is found to be cloudy, it can be restored to clarity by heating in a 37°C water bath.
5. The centrifuge operation of this experiment can be completed at 11,000×g~18,000×g.
6. 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
	Catalog Number		Batch Code
	Date of Manufacture		Manufacturer
	Keep away from sunlight		Temperature limit
	Consult instructions for use		Use-by Date

[Company Information]
Manufacturer and after-sales service unit Name: Shenzhen Dakewe Bio-engineering Co., Ltd.
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