



PRODUCT INFORMATION

Ultra Fast EZ-10 Spin Column Plasmid DNA Mini-Preps Kit

Kit Content

Components	BS82014 50 Preps
Lysis Buffer-UF	50 ml
Buffer DW1 ^(a)	24 ml
Universal Wash Solution ^(b)	12 ml
Elution Buffer	5 ml
EZ-10 Spin Column	50
Collection Tube	50
Protocol	1

- a) Before use, add 6ml isopropanol to Buffer DW1 in BS82014. For other volumes of Buffer DW1, simply add enough isopropanol to make a **1:4** ratio (volume of added isopropanol: volume of Buffer DW1 = 1:4).
- b) Before use, add 48ml of 100% of ethanol to Universal Wash Solution in BS82014. For other volumes of wash solution, simply add enough ethanol to make a **4:1** ratio (volume of added ethanol: volume of Wash Solution = 4:1).



Introduction

The kit is designed for one step plasmid DNA purification from bacteria culture. Instead of the traditional three-buffer system, it uses one buffer solution which combines suspension, lysis and neutralization buffers. Plasmid DNA is selectively bound onto the EZ-10 Spin Column and other impurities such as salt, protein will be washed away. The bound plasmid can be eluted in ddH₂O, TE or Elution Buffer and is ready to be used for downstream applications. The kit is used for preparation of up to 6-8 µg of pure plasmid DNA.

Features

1. Fast: whole procedure takes 5-10 minutes
2. Convenient and environmentally friendly.
3. No phenol/chloroform extraction or ethanol precipitation required

Procedures

1. Add about 1.5-3.0 ml bacterial culture to a 5 ml centrifuge tube and centrifuge at 10,000 x g for 30 seconds. Drain liquid completely and keep the pellet.
2. Add 0.6-1 ml of Lysis Buffer-UF(Lysis Buffer-UF should be mixed by shaking prior to use) to the tube, vortex thoroughly for 30 seconds, incubate at room temperature for 3 minutes.
3. Transfer the lysate to an EZ-10 Spin Column. Keep the column at room temperature for 2 minutes, following by centrifugation at 10,000 x g for 2 minutes. Discard the flow-through in the Collection Tube.
4. Add 500 µl Buffer DW1 to EZ spin column and centrifuge at 10,000 x g for 2 minutes. Discard the flow-through in the Deep Well Collection Plate.
5. Add 500 µl Universal Wash Solution to EZ spin column and centrifuge at 10,000 x g for 2 minutes. Discard the flow-through in the Deep Well Collection Plate.



6. Repeat Step 5 once.
7. Centrifuge at 10,000 x g for an additional 2 minutes to remove any residual Wash Solution.
8. Transfer the EZ spin column into a new Collection Tube, add 30-50 µl Elution Buffer. Keep it at RT for 2 minutes.
Note: In order to increase yield, warm the Elution Buffer or ddH₂O to 60 °C before use.
9. Centrifuge at 10,000 x g for 2 minutes. Store purified DNA at -20 °C.

Storage

Transport at room temperature. Store Lysis Buffer- UF at 4 °C.

Troubleshoot

Issue	Possibilities	Suggestions
Low yield	Low antibiotic activity	Use new antibiotic storage solution or increase the quantity of antibiotics
	Partial lysis	After adding Lysis Buffer-UF, vortex until the precipitate is fully suspended
	Long Cultivation time or bacteria aging	Cultivating time do not exceed 16 hours at 37 °C
White precipitation after elution	Fungal contamination	Select single colony and spread
OD260/280 <1.8	Too much bacteria culture	Use less than 3 ml bacteria culture
	Protein contamination	Wash with Wash Solution 2x
Buffer DW1 precipitation		Before use, warm the Buffer DW1 to 60 °C



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