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MinElute DNA Purification Kit Instructions

Composition

MinElute DNA Purification Kit Cat. No.	5 Preps 2102005	50 Preps 2102050	250 Preps 2102250
Spin Columns	5	50	250
2 ml Collection Tubes	5	50	250
1.5 ml Collection Tubes	5	50	250
Buffer P	3 ml	30 ml	75 ml×2
Buffer WB (concentrate)	1.5 ml	12 ml	60 ml
Buffer TE	0.5 ml	5 ml	25 ml
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Storage

1. All the reagents and components can be stored for up to 2 years at room temperature (0~30℃). For longer storage, it is recommended to keep at 2~8℃.
2. The product stored at 2~8℃ should be restored to room temperature before use.

Technical Support

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Introduction

The specially designed Spin Column ensures efficient elution of concentrated DNA in small volumes as low as 10 µl, suitable for clean recovery of up to 10 µg of high-purity DNA (70 bp-10 kb) from PCR, enzymatic reactions, and sequencing reactions Recovery efficiencies range from 80-90%, and the cleaned DNA contains no primers, enzyme proteins, single nucleotides, fluorescent dyes, or radioisotope-labeled single nucleotides. It is suitable for molecular biology experiments with a wide range of requirements.

Equipment and Reagents to Be Supplied by User

1. Absolute ethanol.
2. Pipettes and tips.
3. Disposable gloves, tissues and protective equipment.
4. Microcentrifuge(s) (with rotor for 1.5 ml and 2 ml centrifuge tubes).

Preparation Before Use

1. If the centrifuge has refrigeration function, set the temperature to 25℃.
2. Add absolute ethanol to Buffer WB according to the instructions on the label of the reagent bottle and tick the box on the label to mark "Ethanol Added".

3. 3 M sodium acetate (pH 5.0) may be required.

Protocol

1. **Add 5 volumes of Buffer P to the PCR product or DNA solution to be cleaned, do not discard the tip, pipette a few times to mix well, and transfer the mixture to a Spin Column (the Spin Column is placed in a 2 ml Collection Tube) and close the cap.**

* For example, add 500 µl Buffer P for every 100 µl sample.

* If the PCR product contains paraffin oil, it does not need to be removed or included in the sample volume.

* DNA solutions suitable for cleaning include enzymatic reaction (e.g., digestion reactions, ligation reactions, etc.), RNase-treated DNA solutions (which can remove degraded RNA) and DNA containing impurities obtained by phenol/chloroform extraction.

* The dye added in Buffer P can indicate the pH. If the mixture turns to violet after adding Buffer P to the sample, add 10 µl 3 M sodium acetate (pH 5.0) and mix, the color of the mixture will turn yellow, otherwise the adsorption efficiency of DNA will decrease.

2. **Centrifuge at 12000 rpm for 30 sec, discard the filtrate and place the Spin Column back into the 2 ml Collection Tube.**

* The filtrate does not need to be completely discarded, if you want to avoid contamination of the centrifuge by the filtrate adhered to the mouth of the collection tube, you can slap the 2 ml Collection Tube upside down on a paper towel once.

3. **Add 700 µl Buffer WB to the Spin Column, closed the lid, centrifuge at 12000 rpm for 30 sec. Discard the filtrate and place the Spin Column back into the 2 ml Collection Tube.**

* Ensure that absolute ethanol has been added into Buffer WB.

4. **Centrifuge at 14000 rpm for 1 min.**

* If the centrifuge does not reach 14000 rpm, centrifuge at full speed for 2 min.

* Do not omit this step, or the residual ethanol in the eluted DNA will affects the subsequent applications.

5. **Discard the 2 ml Collection Tube, place the Spin Column into a cleaning 1.5 ml Collection Tube, add 10~20 µl Buffer TE to the center of the column membrane, close the lid, incubate for 1 min at room temperature, and centrifuge at 12000 rpm for 30 sec.**

* The deionized water can also be used to elute DNA, but the pH should be within 7.0~8.5, otherwise it may affect the elution efficiency.

6. **Discard the Spin Column, the eluted DNA can be used for various molecular biology experiments immediately or stored at -20℃ for later use.**