MQ PCR Product Purification Kit

Cat. No. PPK-M-001-100
Size: 100 Preparations

MOLEQULE-ON®

Kit Components	Quantity
Buffer B3 (A)(B)	2 x 24ml
Wash Solution (C)	2 x 20ml
Elution Buffer (D)	10ml
MQ Column & Collection Tubes	100

Preparations

(A) For each 24 ml bottle of **Buffer B3**, add 6 ml of 96 - 100% of Isopropanol to 24 ml of Buffer before use.
(B) If precipitation occurs, dissolve the precipitate by warming the solution at 37°C. Cool down the solution to room temperature prior to use.
(C) For the **Wash Solution**, add 96 ml of 96 - 100% ethanol (not provided) to 20 ml of Solution before use.
(D) **Elution Buffer** is 2 mM Tris-HCl pH 8.0.

Storage

MQ PCR Product Purification Kit should be stored dry at 15°C - 25°C. It can be stored for up to 24 months without showing any reduction in performance and quality.

Description

The MQ-100 Spin Column PCR Product Purification Kit provides a simple and efficient approach for the purification of DNA obtained from polymerase chain reaction or restriction enzyme digestions. The DNA is selectively adsorbed in silica gel-based column and other components are washed away. The DNA is then eluted off the column and can be used for any downstream applications. The purification method used in these protocols does not require use of phenol, chloroform, or CsCl. The DNA is purified without an additional step of ethanol precipitation.

Features

- MQ-100 Kit procedure is simple, fast and efficient.
- It prepared high quality DNA that can be used in any downstream applications such as sequencing, PCR, transformation or restriction digestions.
- The protocol is reproducible.
- It gives high yield of DNA, Up to 10µg of DNA per column.

Principle

MQ-100 spin column PCR product purification kit utilizes a silica- gel membrane that selectively absorbs up to 10 µg of DNA fragments in the presence of specialized binding buffers. Nucleotides, oligos (less than 40 bases), enzymes, mineral oil and other impurities do not bind to the membrane and are washed away. The DNA fragments can then be eluted off the column in small volume and used in downstream applications without further processing.

Procedure

1. Transfer PCR reaction mixture to a 1.5 ml microfuge tube and add 5 volumes of Buffer B3.
Note: please ensure Isopropanol has been added to Buffer B3 prior to use.

2. Transfer the above mixture solution to the MQ-100 column and let it stand at room temperature for 2 minutes.

3. Centrifuge at 10,000 rpm for 2 minutes.

4. Remove the flow-through in the tube. Add 750 µl of Wash Solution to the column.

5. Centrifuge at 10,000 rpm for 2 minutes.

6. Repeat washing procedure in step 4 to 5.

7. Spin at 10,000 rpm for an additional 1 minute to remove any residual Wash Solution.

8. Transfer the column into a clean 1.5 ml microfuge tube and add 30-50 µl of Elution Buffer. Incubate at room temperature for 2 minutes.

9. Centrifuge at 10,000 rpm for 2 minutes to elute the DNA.

Note: It is extremely important to add the Elution Buffer into the center part of the column. Incubating the column with the Elution Buffer at higher temperature (37°C to 50°C) may slightly increase the yield especially of large (>10,000 bp) DNA plasmids. Pre-warming the Elution Buffer at 55°C may also slightly increase elution efficiency.

10. Store purified DNA at -20°C.

Note

- If PCR reaction mixture contains seriously non- specific amplified DNA fragments, use of the DNA Gel Extraction Kit is recommended.
- This kit cannot remove the template and primers with chain length longer than 40 base pairs.