Genomic DNA Cleaning & Concentration

Basic principle

Several contaminants, such as ethanol and salts, may remain after DNA extraction using the Salting-out method. This Zymo cleanup kit provides an additional washing step to achieve sequencing and PCR-quality DNA from the extracted sample.

Required equipment and consumables

1) 1.5-1.7 mL tubes
2) Absolute ethanol
3) Genomic DNA Clean & Concentrator from Zymo
4) Pipettes and tips
5) Refrigerated centrifuge with proper rotors

Procedure

1) Prepare Sample:

Use your DNA sample as-is (up to 5 µg in 100 µL).

2) Add DNA Binding Buffer:

Add 500 µL of DNA Binding Buffer to each sample. Mix thoroughly by vortexing.

3) Load on Column:

Transfer the mixture to a Zymo-Spin™ Column in a Collection Tube. Centrifuge 30 s at 12,000–15,500 RPM and discard flow-through.

4) Wash:

Add 200 µl DNA Wash Buffer. Centrifuge 12,000–15,500 RPM for 30 s. Repeat wash once.

5) Elute DNA:

Add 100 µl DNA Elution Buffer to the column. Incubate 1 min at room temperature. Centrifuge 30 sec at 12,000–15,500 RPM to collect purified DNA. Yield can be increased by warming up the elution buffer (40 – 50 °C).

Precautions

Check the maximum DNA that can be loaded in the column. This is kit-dependent; do not exceed this amount; adjust the required volumes accordingly.

Applications

This purified sample can be used for additional procedures such as PCR and sequencing. It is advisable to run an agarose gel to check DNA integrity.