Tribioscience

DNA Cleanup Kit (Catalog: TBS6040, 200 samples)

Introduction

Tribioscience's DNA Cleanup Kit provides a fast, simple, and easy method for DNA purification from enzymatic reaction mixtures in just 6 minutes. This kit can purify 40 bp to 10 kb DNA fragments. Purified DNA is free of nucleotides, enzymes, and salts in yields reaching 95%, and is ready for sequencing, cloning, in vitro transcription, microarray, and other enzymatic reactions without further manipulation.

This kit is suitable for spin or vacuum methods for DNA Clean-up. No organic extraction and alcohol precipitation are required, and multiple samples can be easily processed simultaneously.

Main Features

- **Flexible:** Centrifuge and vacuum.
- **Accurate:** High yield DNA recover rate.
- **Simple:** Just binding, washing and elute.
- **Timesaving:** just 6 minutes.

Kit Components

Kit components	TBS6040-200
Number of Preparation	200
Nucleotide Removal Buffer NR	120 mL
Wash Buffer NW	250 mL
Elution Buffer	30 mL
MiniSpin Columns with Collection Tubes	200

Preparation

1. All centrifugations Should be carried out at 10,000x g above (>12,000 rpm) at room temperature in a microcentrifuge.
2. All solutions Should be equilibrated at room temperature before use.
3. For large fragments (>5 kb), pre-warm Elution Buffer to 70˚C.

A: Spin Centrifugation Protocol

1. Add 10 volumes of **NR Buffer** to 1 volume of the sample and mix. Transfer the mixture to a spin column.
   Notes: For 50 µL reaction, add 500 µL of **Buffer NR**. If the length of DNA is longer than 100bp, add 5 volumes of **Buffer NR**.
2. Centrifuge for 30 Sec. Discard the pass-through and reinsert the spin column back into the same tube.
3. Apply 700 µL of **Buffer NW**. Centrifuge for 30 sec. Discard the passthrough and reinsert the column back into the collection tube.
4. Centrifuge for an additional 1 min to remove residual **Buffer NW**. Transfer the column to **a new 1.5 ml tube**.
   Note: If the column has residual washing buffer, the residual washing buffer may inhibit subsequent enzymatic reaction.
5. Apply 50 µL of **Elution Buffer** or ddH2O to the center of the membrane in the column, let stand for 1 min, and centrifuge for 1 min.
   Note: To obtain a more concentrated DNA solution, apply 30 µL of Elution Buffer, but the volume less than 30 µL will decrease the yield significantly. Up to 200 µL of elution buffer can be applied to MiniSpin column, and it will reduce the concentration of DNA.
   For larger fragments (>5 kb), use pre-warmed (70℃) elution buffer for the best efficiency.

B: Vacuum Protocol

The vacuum pressure should be in the range of the list below. Lower vacuum pressure may reduce DNA yield and purity.

Most commercial vacuum manifold with luer connectors can be used with this protocol.

15- 18 in Hg	380-460 mbar
285 – 345 mmHg	5.5 – 6.5 Psi

1. Attach the column to a port of the vacuum manifold tightly.
2. Add 10 volumes of **Buffer NR** to 1 volume of the sample, and mix. Transfer the mixture to a spin column by pipetting.
   Note: For 50 µL reaction, add 500 µL of **Buffer NR**. If the length of DNA is longer than 100bp, add 5 volumes of **Buffer NR**.
3. Switch on vacuum source to draw the solution through the column. When all liquid has been Pulled through the column, release the vacuum.

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4. Add 700 µL of **Buffer NW** and switch on vacuum source. When all liquid has been Pulled through the spin column, release the vacuum. Transfer the column to a collection tube (provided).
5. Centrifuge the column for an additional 1 min to remove residual wash buffer. Transfer the column to a new 1.5 ml tube.
   Note: If the column has residual washing buffer, the residual washing buffer may inhibit subsequent enzymatic reaction. is very important to remove any residual washing buffer in this step.
6. Apply 50 µL of **Elution Buffer** or ddH2O to the center of the membrane in the column, let stand for 1 min, and centrifuge for 1 min.
   Note: To obtain a more concentrated DNA solution, apply 30 µL of **Elution Buffer**, but the volume less than 30 µL will decrease the yield significantly. Up to 200 µL of **elution buffer** can be applied to MiniSpin column, and it will reduce the concentration of DNA.
7. For larger fragments (>5 kb), use pre-warmed (70°C) elution buffer for the best efficiency.

Storage

Storage conditions: Room temperature.

Relative Products

Plasmid Mini Prep DNA (TBS6011)
Plasmid DNA Midi Prep (TBS6014)
Low Endotoxin Plasmid DNA Mini Prep (TBS6016)
Plasmid DNA Maxi Prep (TBS6017)
PCR DNA Magnetic Clean up (TBS6029)
Gel DNA Magnetic Purification (TBS6030)
PCR DNA Purification (TBS6031)
Gel DNA Purification (TBS6033)
Endotoxin free Plasmid DNA Maxi Prep (TBS6037)
Fast DNA Extraction kit (TBS6008)
2x Fast Sybr Green Probe qPCR Master Mix (TBS4001)
2x Fast Taqman Probe qPCR Master Mix (TBS4002)
2x Genotyping PCR kit (TBS4003)
2x Regular PCR Kit (TBS4004)