DATA SHEET

cellco
Biotecnologia ao seu alcance

Gel & PCR Purification Kit

Spin-column based DNA cleanup from PCR samples and Agarose gels

Cat. Nº.	Amount
☐ DPK-109XS	10 preparations
☐ DPK-109S	50 preparations
☐ DPK-109L	250 preparations

Shipping:
Shipped at ambient temperature

Storage Conditions:
Store at ambient temperature

Shelf life:
12 months

For *in vitro* use only!

Kit Contents:

- Extraction and Binding Buffer
- Activation Buffer
- Washing Buffer (before use, add 96-99 % Ethanol as indicated on the bottle)
- Elution Buffer
- Spin Columns
- 2 ml Collection Tubes

Additional Materials Required:

- 96-99% Ethanol
- Isopropanol (for high yield sample preparation)
- 1.5 ml microtubes

Description:

Gel & PCR Purification Kit is designed for rapid and high-yield clean-up of PCR product and extraction of DNA from agarose gel. Gel & PCR Purification Kit contains a silica membrane assembly for binding of DNA in high-salt buffer and elution with low-salt buffer or water. The purification procedure removes primers, nucleotides, proteins, salts and other impurities from DNA samples. The procedure of gel extraction removes agarose, ethidium bromide and other impurities from DNA samples. Especially, the purification of PCR products using the Dimer Removal condition for an efficient removal of primer dimers, byproducts of PCR, ensures excellent results of the automating sequence analysis. The high purity DNA isolated using this kit is adequate for any molecular biology applications.

Applications

- Automatic fluorescent sequencing
- Restriction digestion
- Ligation and transformation

Preparation Procedure:

The DNA purification follows a simple binding, washing and eluting procedure. Before start, add 96-99 % Ethanol to the Washing Buffer as indicated on the bottle.
The additional use of Isopropanol is recommended for all fragment sizes. The optional secondary washing step minimizes the salt content of the purification product but may significantly reduce the yield of DNA fragments <200 bp.

Buffer	DPK-109XS 10 preps	DPK-109S 50 preps	DPK-109L 250 preps
Extraction and Binding Buffer	12 ml	60 ml	260 ml
Activation Buffer	1.2 ml	6 ml	30 ml
Washing Buffer	add 12 ml Ethanol (final volume 15 mL)	add 64 ml Ethanol (final volume 80 mL)	add 160 ml Ethanol to each bottle (final volume 200 mL)
Elution Buffer	1.2 ml	6 ml	30 ml

DATA SHEET

cellco
Biotecnologia ao seu alcance

Gel & PCR Purification Kit

Spin-column based DNA cleanup from PCR samples and Agarose gels

GEL EXTRACTION

1a. Excision of the gel

- Cut the area of gel containing the DNA fragment.
- Transfer the excised gel to a clean 1.5 ml microtube.

1b. Sample Preparation:

- Add 3 volumes of Extraction/Binding Buffer to 1 volume of the sliced gel.
- For example, add 300 µl Extraction/Binding Buffer to each 100 mg (approx.100 µl) gel. For gels containing >2.5 % agarose, add 6 volumes of Extraction/Binding Buffer per gel volume.
- Incubate at 60 °C for 10 min with occasional mixing to ensure gel dissolution.
- Add 1 volume of Isopropanol per gel volume to the dissolved gel and mix well

1c. Column Activation:

- Place a Spin Column into a 2 ml collection tube.
- Add 100 µl of Activation Buffer into the Binding Column.
- Centrifuge at 10,000 g for 30 sec in a micro-centrifuge.

1d. Column Loading:

- Apply the sample mixture from step 1b into activated Spin Column.
- Centrifuge at 10,000 g for 30 sec.
- Discard the flow-through.

1e. Column Washing:

- Place the DNA loaded Spin Column into the used 2 ml tube.
- Add 700 µl of Washing Buffer (containing Ethanol) to the Spin Column.
- Centrifuge at 10,000 g for 30 sec and discard the flow-through.

Optional Secondary Washing: Recommended only for DNA >200 bp, if highly purified DNA (for DNA sequencing, transfection etc.) is required.

- Add 700 µl of Washing Buffer to the Spin Column.
- Centrifuge at 10,000 g for 30 sec and discard the flow-through.
- Centrifuge again for 2 min to remove residual Washing Buffer.

1f. Elution

- Place the Spin Column into a clean 1.5 ml microtube (not provided in the kit).
- Add 30-50 µl Elution Buffer or dd-water to the center of the column membrane.
- Incubate for 1 min at room temperature.
- Centrifuge at 10,000 g for 1 min to elute DNA.

PCR PURIFICATION

2a. Standard Sample Preparation:

For DNA fragment sizes in the range of 200 bp to 5 kbp:

- Add 5 volumes of Extraction/Binding Buffer to 1 volume of DNA sample and mix well. For example, if the volume of the sample is 50 µl, add 250 µl Extraction/Binding Buffer.

2b. High Yield Sample Preparation:

For DNA fragment sizes smaller than 200 bp or larger than 5 kbp:

- Add 3 volumes Extraction/Binding Buffer and 2 volumes of Isopropanol to the PCR sample. For example, if the volume of your DNA sample is 50 µl, add 150 µl Extraction/Binding Buffer and 100 µl Isopropanol.

2c. Column Activation:

- Place a Spin Column into a 2 ml collection tube.
- Add 100 µl of Activation Buffer into the Binding Column.
- Centrifuge at 10,000 g for 30 sec in a micro-centrifuge.

2d. Column Loading:

- Apply the sample mixture from step 1 into activated Spin Column.
- Centrifuge at 10,000 g for 30 sec.
- Discard the flow-through.

2e. Column Washing:

- Place the DNA loaded Spin Column into the used 2 ml tube.
- Apply 700 µl of Washing Buffer (containing Ethanol) to the Spin Column.
- Centrifuge at 10,000 g for 30 sec and discard the flow-through.

Optional Secondary Washing: Recommended only for DNA >200 bp, if highly purified DNA (for DNA sequencing, transfection etc.) is required.

- Add 700 µl of Washing Buffer to the Spin Column.
- Centrifuge at 10,000 g for 30 sec and discard the flow-through.
- Centrifuge again for 2 min to remove residual Washing Buffer.

2f. Elution

- Place the Spin Column into a clean 1.5 ml microtube (not provided in the kit).
- Add 30-50 µl Elution Buffer or dd-water to the center of the column membrane.
- Incubate for 1 min at room temperature.
- Centrifuge at 10,000 g for 1 min to elute DNA.