DATA SHEET

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Agarose Gel Extraction Kit

Spin-column based DNA cleanup from agarose gels

Cat. Nº.	Amount
☐ DPK-105XS	10 preparations
☐ DPK-105S	50 preparations
■ DPK-105L	250 preparations
☐ DPK-105XL	4 x 250 preparations

Shipping:
Shipped at ambient temperature

Storage Conditions:
Store at ambient temperature

Shelf life:
12 months

For *in vitro* use only!

Description:
Agarose Gel Extraction Kit is designed for high-yield recovery of DNA from agarose gel with simultaneous removal of primer-dimers, primers, nucleotides, proteins, salt, agarose, ethidium bromide, and other impurities. The preparation is based on a silica-membrane technology for binding DNA in high-salt and elution in low-salt buffer. The kit provides a simple and efficient way to purify DNA in a size range between 100 bp and 10 kbp. It requires no organic extractions or precipitation and guarantees high and stable recovery rates.

Kit Contents:
- Extraction 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 (optional)
- 1.5 ml microtubes

Preparation Procedure:
The agarose gel is dissolved in the chaotropic Extraction Buffer followed by 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 fragments smaller than 200 bp or larger than 5 kbp. 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-105XS 10 preps	DPK-105S 50 preps	DPK-105L 250 preps
Extraction Buffer	15 ml	75 ml	2 x 185 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 ml	5 ml	25 ml

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1. Excision of the Gel:

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

2. Sample Preparation:

- Add 3 volumes of Extraction Buffer to 1 volume of the sliced gel. For example, add 300 µl Extraction Buffer to each 100 mg (approx.100 µl) gel. For gels containing >2.5 % agarose, add 6 volumes of Extraction Buffer per gel volume.
- Incubate at 60 °C for 10 min with occasional mixing to ensure gel dissolution.
- For DNA fragment sizes smaller than 200 bp or larger than 5 kbp and to enhance yield add 1 volume Isopropanol per gel volume to the dissolved gel and mix well.

3. 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.

4. Column Loading:

- Apply the sample mixture from step 2 into activated Spin Column.
- Centrifuge at 10,000 g for 30 sec.
- Discard the flow-through.

4. 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.

6. 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.