DATA SHEET

Jena Bioscience

Agarose Gel Extraction Kit

Spin-column based DNA cleanup from agarose gels

Cat. No.	Amount
PP-202XS	10 preparations
PP-202S	50 preparations
PP-202L	250 preparations

For *in vitro* use only!

Shipping: shipped at ambient temperature

Storage Conditions: store at ambient temperature

Shelf Life: 12 months

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 kb. It requires no organic extractions or precipitation and guarantees high and stable recovery rates.

Content:
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

To be provided by you:
96-99 % Ethanol
Isopropanol
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.

Buffer	**PP-202XS** 10 preps	**PP-202S** 50 preps	**PP-202L** 250 preps
Extraction Buffer	15 ml	75 ml	2x 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 each)
Elution Buffer	1 ml	5 ml	25 ml

The additional use of Isopropanol enhances yield and 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.

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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.
- Add 1 volume Isopropanol per gel volume to the dissolved gel and mix well.
- For purification of DNA fragment sizes smaller than 200 bp or larger than 5 kbp increase the amount of Isopropanol to 2 volumes.

3 Column Activation:

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

4 Column Loading:

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

5 Column Washing:

- Place the DNA loaded Spin Colum into the used 2 ml tube.
- Apply 700 µl of Washing Buffer 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 and 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.

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