

Agarose Gel Extraction Kit

DNA Extraction by silica-gel membrane adsorption

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

For *in vitro* use only
Quality guaranteed for 12 months
Store at room temperature

Extraction Buffer

Washing Buffer (before use add 96-99% Ethanol)

Elution Buffer

Spin Columns

2 ml Collection Tubes

To be provided by you

96-99% Ethanol

Isopropanol (optional)

1.5 ml microtubes

Description

Agarose Gel Extraction Kit is designed for high-yield recovery of DNA from agarose gel with simultaneous removal of primers, nucleotides, proteins, salts, 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.

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 (not included in the kit) to the Washing Buffer. The additional use of Isopropanol (not included in the kit) is recommended for fragments smaller than 500 bp or larger than 5 kbp. The optional primary washing step minimizes the salt content of the purification product.

1. Excision of the Gel

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

2. Sample Preparation

- Add 3 gel volumes of Extraction Buffer to 1 volume of the sliced gel. For example, add 300 μ l Extraction Buffer to each 100 mg (approx. 100 μ l) gel. For gels containing > 2.5% agarose 6 volumes of Extraction Buffer per gel volume are recommended.
- Incubate at 60°C for 10 min with occasional mixing to ensure gel dissolution
- For DNA fragment sizes smaller than 500 bp add 1 volume Isopropanol per gel volume to the dissolved gel and mix well

3. Column Loading

- Place a spin column into a 2 ml collection tube
- Apply the sample mixture from step 2 into the spin column
- Centrifuge at 10,000 g for 30-60 sec in a micro-centrifuge
- Discard the flow-through

4. Primary Washing

- Apply 600 μ l of Washing Buffer to the spin column
- Centrifuge at 10,000 g for 30 sec and discard the flow-through

5. Column Washing

- Add 400 μ l of Washing Buffer to the spin column
- Centrifuge at 10,000 g for 2 min and discard collection tube

6. Elution

- Place the spin column into a clean 1.5 ml microtube (not provided in the kit)
- Add 50 μ l Elution Buffer or distilled water to the center of the column membrane and incubate for 1 min at room temperature
- Centrifuge at 10,000 g for 30 sec to elute DNA