SpeeDNA Gel Extraction Kit (SDGelEx)
Catalog #MB6938-100
100 Preps

Catalog #MB6938-250
250 Preps

Description

ScienCell's SpeeDNA Gel Extraction Kit provides a rapid and reliable way to isolate DNA fragment from standard or low-melting point agarose gels. The SPGelEx combines an optimized buffer system with convenient spin column-based purification. It facilitates fast and efficient gel melting and DNA extraction, with recovery rates up to 95%. The obtained concentrated DNA is suitable for downstream applications such as PCR, restriction digestion, *in situ* hybridization, and cloning.

Kit Components

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Cat #	Item	Quantity
MB6938a-1	Buffer GD	50 mL
MB6938b	Buffer DW	20 mL
MB6938c-1	Buffer DE	8 mL
MB6938d	DNA spin columns (in wash tubes)	2 x 50 pieces

Catalog #MB6938-250

Cat #	Item	Quantity
MB6938a-2	Buffer GD	120 mL
MB6938b	Buffer DW	20 mL x 2
MB6938c-2	Buffer DE	15 mL
MB6938d	DNA spin columns (in wash tubes)	5 x 50 pieces

Materials Required (Not Provided)

3 M Sodium acetate buffer, pH 5.2
Isopropanol (100%)
Ethanol (96-100%)
1.7 mL (or 1.5 mL) microcentrifuge tubes (DNase/RNase free)
Microcentrifuge with rotor for 1.7 mL (or 1.5 mL) tubes

Quality Control
The yield of purified DNA fragment from an agarose gel using SPGelEx was analyzed by spectrophotometry.

Product Use
SPGelEx is for research use only. It is not approved for human or animal use, or for application in clinical or *in vitro* diagnostic procedures.

Shipping and Storage
Ambient temperature.

Reagent Preparation
Buffer DW (20 mL, Cat #MB6908b) is provided as a concentrate. Prior to first time use, add **100 mL** ethanol (96-100%) to make complete buffer DW and mix well. Keep container tightly closed and store at room temperature.

Procedures
Note: Avoid touching the DNA spin column membranes with the tip-end of pipettes.

1. Cut gel slice containing the DNA fragment. Transfer the gel slice into a new and pre-weighted 1.7 mL microcentrifuge tube. Weigh the gel slice.

2. Add a 1:1 ratio (volume in µL : weight in mg) of Buffer GD (Cat #MB6938a) to gel slice. For example, add 100 µL of Buffer GD to 100 mg gel slice. Close the cap.
   Note: Up to 2 volumes Buffer GD can be added to facility gel dissolving. For example, up to 200 µL of Buffer GD can be added to 100 mg gel slice.

3. Incubate the gel mixture at 40-60ºC. Invert the tube every 3-4 minutes until the gel dissolves completely.

4. ***Optional:*** If the color of the mixture turns to red or violet, add 10 µL of 3 M sodium acetate buffer, pH 5.2 to the solution and mix well.

5. ***Optional:*** If the size of DNA fragment is <400 bp, add 1 volume of isopropanol to the mixture and mix well. For example, add 100 µL of isopropanol to the mixture with 100 mg gel slice.

6. Transfer the mixture (up to 750 µL each time) to the DNA spin column in a wash tube (Cat #MB6908d). Close the cap and centrifuge at ≥8,000 x *g* for 1 minute.

Discard the filtrate and put the spin column back to the same wash tube. Repeat this step until all of the mixture has been applied to the spin column.

7. ***Optional:*** If the traces of agarose could affect downstream applications, such as DNA sequencing or *in vitro* transcription, add 200 µL of Buffer GD (Cat #MB6938b) to the DNA spin column. Close the cap and centrifuge at ≥8,000 x *g* for 1 minute. Discard the filtrate and put the spin column back to the same wash tube.

8. Add 750 µL of Buffer DW (Cat #MB6938b) to the DNA spin column. Close the cap and centrifuge at ≥8,000 x *g* for 1 minute. Discard the filtrate and put the spin column back to the same wash tube.

9. Centrifuge at ≥ 15000 x *g* for 2 minutes. Discard the wash tube containing the filtrate and transfer the spin column into a new 1.7 mL microcentrifuge tube.

10. Add 50 µL Buffer DE (Cat #MB6938c) directly to the spin column membrane. Incubate at room temperature for 1 minute. Centrifuge for 1 minute at ≥8,000 x *g* to elute DNA.

11. The eluted DNA can be used immediately or stored at -20°C.