Polyacrylamide Gel DNA Recovery Kit

Cat: D1250
Size: 20T/50T
Storage: Dry storage at room temperature(15℃-25℃), reinspection period of 12 months.

Kit Components:

Kit Components	20T	50T
Solution A	5mL	15mL
Solution B	20mL	50mL
Washing Buffer	15mL	15mL
Elution buffer	1.5mL	1.5mL
Grinding pestle	20	50
Filter Column	20	50
Adsorption Column	20	50
Collecting Tubes	20	50
Specification	1	1

Introduction:

This kit uses a silicon substrate material that can efficiently and specifically bind DNA and a unique buffer system to recover DNA fragments from polyacrylamide gel, while removing impurities such as proteins, other organic compounds, inorganic salt ions and oligonucleotide primers. The DNA recovered by using this kit can be applied to subsequent routine operations, including enzyme digestion, PCR, sequencing, library screening, ligation and transformation experiments.

Protocols(only for reference):

Please add 60mL anhydrous ethanol to washing buffer before first use. All centrifuge steps can be centrifuged at room temperature using a table centrifuge.

1. Cut a single DNA strip of purpose from the polyacrylamide gel(remove excess as much as possible), place it in a 1.5mL centrifuge tube, weigh it, and crush the glue as much as possible with a pestle. Add 2 times the volume of solution A, blow and mix well(add 200μL solution A for every 100mg of gel), and bathe in water at 75℃ for 30min.
2. Absorb the mixture into the filter column with a 1mL de-tipped suction head(inhale the gel together, and add it separately if the solution is too much), centrifuge at 13,000rpm for 1min. Transfer the filtrate from the collection tube to the new centrifuge tube.
3. Take 6 times the volume of solution B and add it to the original centrifuge tube(add 600μL for every 100mg of gel), clean the tube wall and add it to the filter column(if the solution is too much, it can be added in batches), reverse the filter column or gently blow it several times and mix it well, centrifuge at 13,000rpm for 1min. All the collected filter liquid is mixed.

4. Mix the total filtrate and add it to the adsorption column(can be added in batches if there is too much solution), centrifuge at 13,000rpm for 30-60s, dump the waste liquid in the collection tube, and put the adsorption column back into the collection tube.
5. Add 600μL washing buffer to the adsorption column**(please check whether anhydrous ethanol has been added before use)**, centrifuge at 13,000rpm for 30-60s, pour away the waste liquid, and put the adsorption column back into the collection tube.
6. Add 600μL washing buffer to the adsorption column, centrifuge at 13,000rpm for 30-60s, and dump the waste solution.
7. Put the centrifugal adsorption column back into the collection tube and centrifuge at 13,000rpm for 2min to remove the bleach solution as much as possible. Open the adsorption column and place it at room temperature for 1-2min, and dry it thoroughly to prevent residual washing buffer from affecting the next experiment.
8. Put the adsorption column into a clean centrifuge tube, drop an appropriate amount of 65-70℃ preheated elution buffer 20-30μL into the middle of the adsorption membrane, and leave it at room temperature for 2min. Centrifuge at 13,000rpm for 2min to collect DNA solution.

Note: ① In order to increase the recovery efficiency, the obtained solution can be re-added to the centrifugal adsorption column and centrifuged again at 13,000rpm for 1min. ② The volume of elution buffer should not be less than 20μL, and the volume is too small to affect the recovery efficiency. ③ The pH value of the elution buffer has a great impact on the elution efficiency. If water is used as eluent, ensure that its pH value is between 7.0-8.5.

9. The DNA recovery product should be stored at -20℃.

Notes:

1. It is best to use a new electrophoresis buffer when electrophoresis, so as not to affect the electrophoresis and recovery effect.
2. When cutting gel, the UV exposure time should be as short as possible to avoid damage to DNA.
3. The recovery efficiency of <50bp DNA fragments is low(about 30%), if you want to recover, you should increase the volume of the binding solution and extend the adsorption and elution time.
4. The recovery rate is related to the initial DNA amount and elution volume. The smaller the initial amount and elution volume, the lower the recovery rate.