Agarose Gel DNA Recovery Kit

Cat: D1200
Size: 50T/100T
Storage: dry storage at room temperature, reinspection period is one year.

Kit Components:

Kit Components	50T	100T
Sol Solution	50mL	100mL
Washing Buffer	15mL	15mL×2
Elution buffer	15mL	30mL
Adsorption Column	50 units	100 units
Collecting Tubes	50 units	100 units
Specification	1	1

Introduction:

This kit uses an efficient and specific binding DNA silicon matrix material and a unique buffer system to recover DNA fragments from TAE or TBE agarose gel, while removing impurities such as proteins, other organic compounds, inorganic salt ions and oligonucleotide primers. Fragments of 100bp-10kb can be recovered with a recovery rate greater than 80%(30-50% for DNA fragments smaller than 100bp and larger than 10kb). The DNA recovered using this kit can be adapted for a variety of routine operations, including enzyme digestion, PCR, sequencing, library screening, ligation and transformation tests.

Notes: Please read this note before using this kit.

1. It is best to replace it with a new electrophoresis buffer before electrophoresis, so as not to affect the electrophoresis and recovery effect.
2. In the following step, if the experimental requirements are high, TAE electrophoresis buffer should be used as far as possible.
3. When cutting the gel, the UV exposure time should be as short as possible to avoid damage to DNA.
4. When recovering DNA fragments less than 100bp and greater than 10kb, the volume of the sol solution should be increased and the time of adsorption and elution should be extended.
5. The recovery rate is related to the initial DNA amount and elution volume, and the smaller the initial amount and elution volume, the lower the recovery rate.
6. If not specified, all centrifugation steps are performed using a table centrifuge at room temperature.

Protocols(only for reference):

*** Please add anhydrous ethanol to the washing buffer before use. Please refer to the label on the bottle to add the volume.**

1. After agar-gel electrophoresis, cut a single DNA strip of destination from agar-gel(remove excess as much as possible), put it into a clean centrifuge tube, and weigh it.
2. Add 3 times the volume of sol solution to the gel block(if the gel weight is 0.1g and its volume can be regarded as 100μL, then add 300μL sol solution) and place in a water bath at 50-55℃

for 10min. During this time, gently turn the centrifuge tube up and down continuously to ensure that the gel block is fully dissolved.

Note: When sol, if the sol solution turns red(under normal circumstances, it is light yellow), 10-30μL 3M sodium acetate(pH5.2) can be added to the glue solution containing DNA to adjust the glue solution to light yellow, otherwise it will affect the combination of DNA and adsorption column, affecting recovery efficiency.

3. The solution obtained in the previous step is added to an adsorption column(adsorption column into the collection tube), centrifuge at 12000rpm for 30-60s, dump the waste liquid in the collection tube, and put the adsorption column back into the collection tube.

Note: After the glue block is completely dissolved, it is best to lower the temperature of the glue solution to room temperature before loading the column, because the adsorption column has a weak ability to bind DNA at higher temperatures.

4. Add 600μL washing buffer to the adsorption column**(please check whether anhydrous ethanol has been added before use)**, centrifuge at 12000rpm for 1min, discard the waste liquid, and put the adsorption column into the collection tube.
5. Add 600μL washing buffer to the adsorption column, centrifuge at 12000rpm for 1min, discard the waste liquid, and put the adsorption column into the collection tube.
6. Centrifuge at 12000rpm for 2min to remove the bleaching solution as far as possible. The adsorption column was placed open at room temperature or 50℃ in a temperature box for several minutes, in order to remove the residual bleach solution in the adsorption column and prevent the ethanol in the bleach solution from affecting the subsequent experiment.
7. Put the adsorption column into a clean centrifuge tube, drop an appropriate amount of elution buffer preheated by 65℃ water bath into the center of the adsorption membrane, place it at room temperature for 2 min, and centrifuge at 12000rpm for 1min.

Notes:

1) In order to increase the recovery efficiency, the eluent obtained can be re-added to the adsorption column and centrifuged again for 1 min at 12000rpm.

2) elution buffer liquid volume should not be less than 30μL, the volume is too small affect the recovery efficiency.

3) the pH value of the eluent has a great impact on the elution efficiency, if the water is used to make the eluent should ensure that the pH value is between 7.0-8.5.

8. DNA products are stored at -20℃.

Related Products:

M1070	*D2000 plus DNA Ladder*
D1010	*6×DNA Loading Buffer*
T1060	*50×TAE buffer*
T1050	*5×TBE buffer*
G8142	*GoldView Type II Nucleic Acid stain(5000×)*