YTA-Gel purification mini kit

Cat No : YT9030 **Size: 50 preps** <<for research use only>>

Kit contents	50 preps
Buffer QG	60 ml
Buffer PE*	12 ml
Buffer EB	5 ml
Gel Spin Column and collection tube	50 PCS
Elution tube	50 PCS

Notes :Add 48 ml ethanol 96-100 to each bottle.

Protocol

1. Excise the desired DNA band from agarose gel using a clean scalpel.
2. Transfer the gel slice to a microcentrifuge tube and weigh it.
3. Add 3 volumes of Buffer QG to 1 volume of gel.
4. For agarose concentrations above 2%, add 6 volumes of Buffer QG.
5. Incubate at 50°C for approximately 10 minutes until fully dissolved.
6. Mix every 2–3 minutes during incubation.
7. Ensure the solution color is yellow. If orange or violet, add 10 µL 3 M sodium acetate pH 5.0.
8. For DNA fragments >4 kb, add 1 gel volume isopropanol.
9. Place spin column into collection tube.
10. Apply sample to the column.
11. Centrifuge 1 minute at ~13,000 rpm.
12. Discard flow-through.
13. Add 750 µL Buffer PE to wash the membrane.
14. Centrifuge 1 minute.
15. Discard flow-through and centrifuge again for 1 minute to dry membrane.
16. Transfer column to clean microcentrifuge tube.
17. Add 30–50 µL Buffer EB or nuclease-free water to membrane center.
18. Incubate 1 minute at room temperature.
19. Centrifuge 1 minute to elute purified DNA.

Important Notes:

- Optimal elution pH: 7.0–8.5
- Prewarming Buffer EB improves recovery of large fragments
- Residual ethanol inhibits downstream enzymatic reactions
- Typical recovery is approximately 70–90%
- Optional isopropanol step improves difficult fragment recovery.